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**Skills Training by Small and  
Medium-Sized Enterprises:  
Innovative Cases and  
the Consortium Approach  
in the Republic of Korea**

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**Abstract**

This paper presents targeted government policies for promoting training in small and medium-sized enterprises (SMEs) to increase their contributions to economic development. It first discusses the role of SMEs in country development and the special challenges facing SMEs in developing human resources. It then surveys some innovative, targeted policies for promoting training by SMEs in Asia and Latin America. The paper elaborates on the objectives and achievements of a successful targeted SME training policy, the SME Training Consortiums Program in the Republic of Korea, as a best practice. This paper concludes with some cautionary remarks for developing countries seeking to adopt targeted SME training policies.

**JEL Classification:** O31, O32, O38

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## **1. SMALL AND MEDIUM-SIZED ENTERPRISES AND DEVELOPMENT**

In many developing countries, small and medium-sized enterprises (SMEs) play an important role in development. They contribute to a large part of output, employment, and growth. For example, in the Republic of Korea, SMEs currently account for about 99% of all enterprises, 88% of employment, and almost half of total outputs and exports. As such, SMEs are an important source of income and employment in the Republic of Korea, and this situation is similar in many developing countries, especially in Asia (ADB 2014).

Therefore, many governments have adopted targeted policy tools to promote SMEs as part of economic development strategies. The literature review suggests that targeted SME support policies have been justified by two arguments. First, SMEs make special contributions to developing economies in terms of growth, employment, productivity, and investment, and therefore merit special support. Second, SMEs face special challenges or jeopardies that do not apply to larger firms, so addressing these challenges or jeopardies “levels the playing field,” resulting in healthy competition, growth, and welfare improvement.

The literature and document reviews found inconclusive evidence for the first claim, but a wealth of support for the second (World Bank 2014). For example, small and young firms have higher job creation rates than large and mature firms. However, large and young firms have higher productivity growth than small firms. This finding suggests that while small firms employ a large share of workers and create the most jobs in developing economies, their contribution to productivity growth is not as high as that of large firms (Ayyagari et al. 2011).

## **2. TRAINING AS A DEVELOPMENT POLICY**

Ever since human capital theory was advanced in the early 1960s (Schultz 1961; Becker 1964) and the multilateral development banks launched their lending for human resources development, the governments of developing countries have increasingly emphasized human capital investment.

### **2.1 Financing of Training Programs**

General skills development has been promoted through education sector programs (such as vocational secondary schools and technical colleges), and firm-specific skills development has evolved into nonformal education or training programs. The training sector programs offer preemployment training for youths entering the labor market for the first time, retraining for unemployed adults or workers who intend to change occupations, and in-service training for employed workers. The preemployment and retraining programs have been undertaken by public sector agencies and often depend on ordinary budgets based on general revenues, which always have been constrained. In-service training programs have been the responsibility of enterprises, which aim to maximize short-term profits and are loath to invest in human resources on a long-term basis. Thus, financing has been recognized as a major impediment to skills development.

## 2.2 Training Levy System

To mobilize more resources for various training programs, some developing countries launched innovative extra-budgetary programs, such as training levies, which imposed semi-taxes (0.5%–2.0%) on the wage bills of enterprises, as in France in 1925 (Table 1). In the 1940s, Latin American countries, with the technical assistance of the International Labour Organization (ILO), established semiautonomous national training institutions, such as SENAI and SENAC in Brazil and SENA in Colombia. Training levies were collected by the social security authority and transferred to the national training institutions. With this independent source of finance, training programs prospered. Other developing countries in Latin America and other regions soon followed the model, and the training levy has become a popular method of financing national training programs in many developing countries.

The training levy system was successful in mobilizing independent and extra-budgetary resources for training. The extra resources have been channeled mostly to the national training institutions and the expanded public training programs, covering even the training needs of disadvantaged groups, the unemployed, and small employers.

**Table 1: Financing of In-Service Training**

Country	Levy System	Levy System with Exemptions/ Deductions	Levy Grant System	Levy Rate (%)
Argentina		v		1.0
Bahrain	v			1.0–3.0
Brazil	v			1.5
Cote d'Ivoire		v		0.4–1.6
France		v		1.5
Hungary			v	1.5
Kenya			v	1.0
Korea, Rep. of			v	0.1–0.7 <sup>a</sup>
Malaysia			v	1.0
Mauritius			v	n.a.
Morocco	v			1.6
Nigeria			v	1.25
Singapore			v	0.25 <sup>b</sup>
South Africa			v	0.5–2.0
Tanzania			v	2.0
Turkey	v			n.a.
United Kingdom			v	1.5–2.5 <sup>c</sup>

<sup>a</sup> 0.25%–0.85% since 2006.

<sup>b</sup> Minimum \$2.00, maximum \$11.25 monthly.

<sup>c</sup> Discontinued in the 1990s.

However, the training levy system often failed to stimulate employers' interest in worker training. Moreover, the expanded public training programs tended to crowd out nongovernment training entities and programs, as in Kenya and Tanzania (Adams and Fretwell 1997), and become more supplier-oriented and less relevant to the needs of employers, as in Brazil. As the independent resources accumulated, the national training entities tended to become complacent and authoritative in offering their training

programs, and even spent the funds on non-training programs or training programs not related to the sectors (mostly industries) from which the revenues were levied, such as agriculture, construction, and the self-employed, as in Colombia (Glasskov 1994). The training levy system became bureaucratic and costly in collecting levies and operating training programs. It even became a source of corruption for public officials when the system allowed exemptions or deductions of the levies for those enterprises carrying out training programs for their workers.

### **2.3 Training Levy Grant System**

To overcome the disadvantages of the training levy system and adjust to the changing needs of the macroeconomic environment, some developing countries transformed the levy system into a levy grant system (e.g., the Republic of Korea, Malaysia, and Singapore). Instead of channeling the payroll levy revenues into public training programs, the levy fund reimburses or rebates the training costs incurred by enterprises. The advantage of this system is that it encourages employers to voluntarily offer in-service training for their workers, either through in-house training programs or external training programs purchased from recognized training institutes, by rebating the enterprise's training expenses as a grant. In this way, the training levy fund can be used to benefit enterprises that pay training levies, and training programs can be more demand-driven to meet the needs of those enterprises.

Indeed, a greater number of enterprises have benefited from this levy grant system than from the levy system, and more workers have been trained on account of the levy grant system. For example, in Singapore, where the Skills Development Fund was established in 1979 to provide incentives for development of higher-level skills needed for economic restructuring, the number of trained workers tripled and the number of enterprises benefiting from the fund more than doubled by 1991 (Dar et al. 2003).

Also, mobilization of training levies has become more efficient under the levy grant system. Corruption and irregularities can be avoided since all enterprises are obligated to pay the training levy first, irrespective of the existence of their plan for training workers and training expenses incurred are reimbursed from the training levy fund. No special exemptions or discounts of training levies are needed.

Moreover, training programs have become more relevant since they are organized or purchased by the enterprises themselves in accordance with their needs. Both public and private training institutes and programs become more efficient since they compete in the training market for the selection by enterprises.

However, the levy grant system was not free from drawbacks. First of all, the system generated a regressive situation between large and small enterprises. The larger enterprises, which had already been carrying out in-plant training before the establishment of the system, received a windfall effect and produced no additional training, i.e., the training grants became a deadweight loss. The smaller enterprises did not regard the training grant as sufficient incentive to compensate for all implicit costs incurred by SMEs in training their workers. For example, SMEs usually do not have in-house staff members who specialize in identifying training needs, organizing or exploring training programs inside or outside the enterprise, evaluating training effects, and reimbursing training expenses. The training levy grant is usually not sufficient to hire an additional staff member responsible for the SME's training management. Therefore, SMEs do not train their workers as actively as large enterprises, and consequently, SMEs do not benefit from training levy rebates (or grants) as much as large enterprises, resulting in an inequitable situation between large and small enterprises. In Singapore, for example, while all enterprises with more

than 200 workers applied for the training rebate, only 25% of the small enterprises with fewer than 50 workers claimed the training grants (Dar et al. 2003).

Moreover, the procedures for claiming training rebates or reimbursements were usually cumbersome and time-consuming, and therefore smaller enterprises often did not bother to carry out training or file claims, and regarded the training levy as a new tax (Dar et al. 2003; Edwards 1997).

Also, assurances for the quality of training are weak, especially for the smaller enterprises. Under the training levy grant system, enterprises tend to implement training programs that fulfill the minimum requirement, if there is one, and produce no additional training. To alleviate the bureaucracy and delays in reimbursement, some countries (e.g., the Republic of Korea) streamlined the procedures for rebate claims and advanced the rebate at the time of approving training programs. This required monitoring and supervision of the programs' implementation and quality, which could prove problematic and costly (ILO 1998).

Furthermore, in some countries, enterprises never fully recover their training expenses since the national authority channels the training levy fund toward public training institutions for preemployment training or training of the unemployed, as in Mauritius, where 50% of the recurrent expenses of public training institutions were funded with resources collected through the levy grant scheme (Dar et al. 2003). The government had to search for a new solution to the training problems in enterprises, especially SMEs.

### **3. SPECIAL CHALLENGES FOR SMES IN TRAINING**

Compared with large enterprises, SMEs face special challenges or jeopardies in developing their human resources. SME jeopardies in training can be highlighted in terms of their scale and institutional capacity, and the economic nature of training (Lee 2006).

First is the scale jeopardy. SMEs do not participate in training programs as much as large enterprises do because of their small number of employees. SMEs find it difficult to organize in-plant training programs or arrange suitable institutional training programs outside the enterprise. Therefore, SMEs in general incur a higher training cost per worker compared with large enterprises, and merit compensation for their extra training costs in order to secure level playing field for fair competition.

Moreover, due to SMEs' small staff size and the nature of the technology adopted in SMEs, an SME worker generally has to carry out multiple roles and possess a broader range of skills. This makes it difficult for an SME to organize a suitable training course or to find one suitable for its capacity and resources provided by an external training institute, which generally offer standardized training courses, suitable for their capacity and resources, i.e., supplier-oriented training courses (Lee 2009).

Second, SMEs have institutional limitations. They generally do not have anyone working exclusively on the planning, organization, and management of worker training. Even though SMEs could identify some priority training needs, they lack economies of scale and specialized staff members who could find suitable outside training institutions, negotiate with them, enter into a contract, monitor their training processes, evaluate training effectiveness, and/or handle the cumbersome administrative processes for reimbursement of their training expenses. These factors contributed to the low level of SME participation in job skills development programs (Lee 2006).

SMEs are in general constrained by their capacity to adjust to changing market conditions (demand, technology, prices, etc.) due to their financial, human, and knowledge constraints, and therefore are disadvantaged in launching training programs for their workers in time (Booth and Snower 1996; Lepenies 2004). Even when subsidies were provided for SMEs (for example, training vouchers), information asymmetries inherent in training markets prevented SMEs from using the training vouchers effectively. Moreover, since competition among training providers was limited, they controlled the market demand for training. Therefore, there is a strong need for introducing institutionalized ex ante and ex post “voice” in a voucher project (Lepenies 2004).

Third, like general education, skills training is a public or semipublic good, specifically a merit good (Musgrave 1959; Freedman 1962), and has both positive and negative externalities. As such, entrepreneurs are reluctant to provide or finance training with their own funds. Therefore, the socially optimal quantity of skills training is larger than the market-determined equilibrium quantity of training, and the government is justified in increasing the quantity of skills training by subsidizing SMEs.

Moreover, such training is an investment in human capital over a relatively long gestation period, and the returns to the investment accrue over a long period. Therefore, SMEs’ limited financial and credit situation does not allow them to invest in their workers as much as larger enterprises and merits government assistance.

#### **4. SME TRAINING AND GOVERNMENT POLICIES**

The literature review offers surprisingly little guidance on the actual efficacy of the most common forms of targeted SME support, either for direct beneficiaries or, more broadly, for markets and economies, much less on the appropriate sequencing and complementarities of interventions (World Bank 2014). Therefore, it is necessary to review the trajectory of government policies for training by enterprises, especially by SMEs.

The government policies to promote SMEs’ development role evolved over time. In the last few decades, they appeared in the form of providing financial services for SMEs. These SME finance projects were often launched as a reaction to the highly inefficient “integrated” enterprise promotion measures of the 1960s and 1970s, which usually combined the provision of subsidized credit with obligatory training courses. The integrated projects often lacked acceptance, as they failed to take into account the real preferences of the target group (Lepenies 2004).

However, recent evidence suggests that “finance alone does not automatically lead to the desired developmental effect of promoting entrepreneurs” (Gulli and Berger 1999; Mosely and Hulume 1998). “A clear obstacle to enterprise growth is not only lack of capital, but also lack of entrepreneurial and occupational skills. Therefore, projects that provide training courses for SMEs are experiencing a recent renaissance under the heading of ‘business development services’ (BDS) (Gibson 1997; Goldmark 1999) that explicitly try to compensate for the developmental shortcomings of SME-finance projects” (Dowson 1997). “This new approach to enterprise training projects differs from the earlier ‘integrated’ projects. Instead of distorting competitive markets, BDS projects attempt to lay the foundations that will make markets work by themselves” (Tanburn 2002). These projects are influenced by the new institutional economics and attempt to overcome the shortage of entrepreneurial and occupational skills through the design of favorable institutional arrangements (Table 2).

**Table 2: Innovative Training Programs to Support Training in Small and Medium-Sized Enterprises**

Country/Region	SME Training Program	Government Support Measures
Latin America	Voucher	Financial support
Turkey	SME special support	Financial support for human development projects as part of BDS
Singapore	SPRING Singapore: Human Capability Improvement	Financial support for human capability improvement as part of BDS
Malaysia	SME training projects	Financial support for management and training projects as part of BDS
People's Republic of China	Start and Improve Your Business Program	Financial support for management and occupational training projects as part of BDS
Chile	Fiscal incentive	Financial support for training costs
Mexico	CIMO	Financial support for information and advisory services
Republic of Korea	Training Consortiums Program	Organization/management/financial support

BDS = business development services, SME = small and medium-sized enterprise.

In Asia, we can observe that occupational skills training in SMEs is emphasized as part of government's support for SME business creation and expansion. For example, SPRING, an agency in Singapore, is promoting SME human capability development as a way to help enterprises grow and to build trust in Singaporean products and services. SME Corporation Malaysia also operates skills upgrading and expert advisory programs for SMEs as part of the SME development programs ([www.smecorp.gov.my](http://www.smecorp.gov.my)). Also, the People's Republic of China introduced ILO's Start and Improve Your Business (SIYB) Programme in 2003, and as part of the program, SMEs have benefited not only for entrepreneurial advice and support services, but also for occupational skills training services.

"As part of this BDS approach, the use of vouchers is frequently advocated (Brook and Smith 2001) and practiced in a few developing countries, especially in Latin America as in Argentina, Bolivia, Ecuador, and Paraguay" (Lepenies 2004).

Other innovative projects to support skills training by SMEs in harmony with the operation of the market systems include the Integrated Human Resources Quality Improvement and Modernization (CIMO: Calidad Integral y Modernizacion) Program in Mexico, which was supported by the World Bank in 1987 and 1993 (World Bank 1998); the fiscal incentive program in Chile, which was also initiated with World Bank financial support in 2002 (World Bank 2002); and the SME support program of Turkey ([www.kosgeb.gov.tr](http://www.kosgeb.gov.tr)).

The CIMO Program in Mexico tries to overcome information and knowledge asymmetry and organizational weaknesses of SMEs by visiting interested SMEs periodically to provide information on training and advisory services available from public organizations and private enterprises. The information and counseling services are provided by specialists contracted by enterprise associations with government subsidies from the Ministry of Labor and Social Provision.

The fiscal incentive program in Chile offers an income tax exemption for training expenses incurred by SMEs. The SME Support Program of Turkey provides financial support to SMEs for projects developed to solve human resource development

problems specific to the enterprise, as part of business development efforts, just like other BDS models in Asia.

One unique government program is the SME Training Consortiums Program initiated by the Republic of Korea in 2001. The government encourages an industry- and geographically determined group of SMEs to organize a training consortium and provides it with financial support to hire training managers. These training managers provide consortium member SMEs with technical and institutional assistance to undertake voluntary occupational skills training. The results have been so encouraging that many entities, such as employers' associations, large enterprises, and training institutions—including higher education institutions—also have participated in the program. The system has become the main government-supported training program, and in 2012 was renamed as the National Human Resources Development Consortiums Program.

All those innovative SME training programs are common in taking special measures to help SMEs overcome their special training challenges. However, the support measures taken by the government are somewhat different. While the voucher, fiscal incentive, and special support programs focus on providing financial support for training or human resource development projects, as part of the “integrated” SME support policy, the CIMO and Training Consortium programs emphasize provision of information and advisory and managerial services, rather than financial support for training activities. In this sense, all these training programs try to build SMEs' business capacity and belong to the BDS typology. However, their emphasis is different.

The voucher, fiscal incentive, and special support programs are narrower than the other two policies in the scope of intervention. The government only intervenes through financial support. Also, the incentive mechanism is weaker since the programs do not provide support for strengthening or supplementing the capacity of SMEs. Despite the financial support, SMEs have not actively availed themselves of the training vouchers since they have limited information about training needs and markets (Lepeniec 2004). The success of the fiscal incentive and special support programs also depends on SMEs' taking initiative for their human resources development, an area in which SMEs inherently face greater challenges, as shown already. In this sense, the CIMO and Training Consortiums programs try to help SMEs overcome their challenges and seem superior as a development policy tool.

The results of empirical studies on the education and training effects of such government-financed enterprise training are mixed. Studies by Holzer et al. (1993), Van Horn and Fichtner (2003), Gorg and Strobl (2006), and Lee and Yoo (2011) show positive educational and training effects. However, Leuven and Oosterbeek (2000), Muhlemann et al. (2005), and Abramovsky et al. (2011) demonstrate negative or no increasing training effects of government's financial incentives, especially the tax deduction incentive.

Still, there are some differences between the CIMO and Training Consortiums programs. While the CIMO program focuses on filling information gaps and strengthening the capability to identify human resource development needs and sources for external technical assistance, the Training Consortiums program emphasizes the provision of both financial support and building up the organizational and managerial capability of SMEs for enterprise training. Moreover, the Training Consortiums program helps SMEs voluntarily organize a consortium and operate it autonomously with ownership. It is no wonder that the CIMO program ceased to function in 2012, while the SME Training Consortiums program has become the major government-supported training program in the Republic of Korea.

Therefore, it is worth reviewing the Republic of Korea's SME Training Consortium Program in detail. In the following section, the SME Training Consortiums Program is reviewed in terms of its objective, background, rationale, content, implementation, main results, and impacts.

## **5. SME TRAINING CONSORTIUMS IN THE REPUBLIC OF KOREA**

### **5.1 Objectives and Content**

The SME Training Consortiums program aimed to combat unemployment and improve the productivity of SME workers by helping groups of SMEs organize themselves to launch and manage in-service training of their workers.

Each consortium formed an operating committee to manage its training tasks. The operating committee was composed of representatives of training consortium member enterprises, the local chamber of commerce, the Ministry of Labor field office, and training experts, and met periodically for the planning and management of the consortium member enterprises' training affairs. The project provided each consortium with two training specialists financed by a levy grant fund (one of three employment insurance funds) to relieve the organizational, informational, and financial constraints that SMEs face in developing their human resources. Individually, each SME could not afford to recruit its own training specialist (Lee 2006).

### **5.2 Background**

The pilot training consortium project was conceived in the wake of the Asian financial crisis of 1997/1998. The financial crisis quickly spread to the real sectors of the economy, which in turn devastated the labor market in 1998. The stable unemployment rate of 2.0% through 1996 rose to 2.6% in 1997, and then shot up to 6.8% in 1998 and 8.6% in 1999. The Government of the Republic of Korea was desperate to lower the high unemployment rate in the short run and encouraged enterprises to raise their international competitiveness in the long run. "It was against this background that the Korea Chamber of Commerce and Industry (KCCI) prepared a pilot project for SME training consortiums in 1999 and applied, through the government, to the World Bank/Asia and Europe Economic Meeting (ASEM), for a grant to launch it. The project was initially planned to be implemented only in Busan City, which was hit hardest by the economic crisis, from June 2001 through December 2002. With promising prospects, however, the Ministry of Labor provided additional funds to the KCCI for implementation of the project in two other cities (Incheon and Kwangjoo) in September 2001" (Lee et al. 2014).

### **5.3 Rationales**

The main justification for launching the pilot training consortium project was the role of SMEs in Korean economic development, the regressive situation generated by the training levy grant system, and the government's realization that SMEs have special challenges or jeopardizes in human resources development due to their size and special characteristics.

The pilot project focused on SMEs (enterprises employing fewer than 300 workers) because they were more adversely affected by the Asian financial crisis of 1997/1998, held greater capacity for employment, and had lower productivity than larger enterprises. As in many other developing countries, small and medium-sized enterprises (SMEs) in the Republic of Korea accounted for about half the national income and exports, and 86% of total employment at that time. However, their labor productivity was much lower than that of large enterprises (about 41%) (Kim 2012). Therefore, in the aftermath of the financial crisis, the government wanted to develop the skilled workers of SMEs and improve their productivity and welfare.

Since 1995, all firms, large and small, have been obligated by law to pay training levies and are entitled to get rebates of the training levies to recover the costs of training their workers. Although the levy grant system did serve as an effective incentive for enterprises to carry out job-related skills training, it has worked regressively against SMEs. SMEs did not avail themselves of the training levy grant system as actively as large enterprises did.

The regressive result occurred even though the system paid special attention to the SMEs' jeopardies in training their workers and offered SMEs greater financial incentives. For example, the rate of training levies as a percentage of workers' wages (which ranges from 0.1% to 0.7%) was lower for SMEs than for large enterprises. Moreover, the level of rebates for large firms was 80% of training costs, up to a total of 100% of training levies paid, while for SMEs it was at 100% of the training costs and up to a total of 200% of training levies paid. As a result, for each worker trained, the financial benefit (i.e., the difference between training levies paid by enterprises and the rebates received by enterprises) was greater for SMEs than for large enterprises. The financial benefit or net training grant was 0.08%–0.14% of the average wage of workers for large enterprises; however, it was 0.10%–0.24% for SMEs (Lee and Yoo 2011).

Despite these special financial incentives, SMEs did not avail themselves of the financial incentive system as much as large enterprises did. Consequently, an inequitable situation developed in the training levy rebates. Both large firms and SMEs pay training levies, yet a disproportionate share of the total reimbursements went to large firms (Table 3).

**Table 3: Results of the Training Levy Rebate Policy, by Enterprise Size, 2002**

Assessment Criteria	Large Enterprises	Small and Medium-Sized Enterprises
Enterprises participating in training levy rebates	78%	21%
Workers participating in training levy rebates	38%	4%
Training levy amount recovered by enterprises	30%	15%

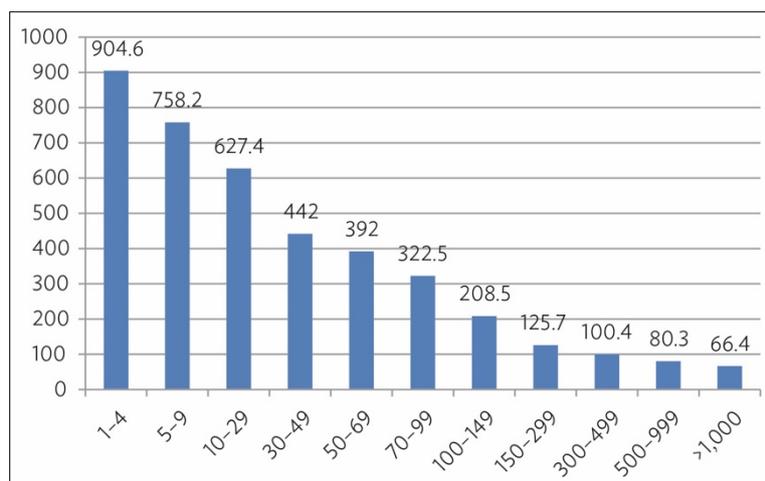
Source: K. W. Lee. 2004. A Pilot Project for the Training Consortiums in Korea: An Ex-Post Evaluation. Presented at the APEC Symposium on the Human Resources Development, 10–11 May, Jeju, Republic of Korea.

Of the total 6.9 million employees who paid the training levy (actually paid by employers as part of employment insurance fees), SME workers accounted for 65% (or 4.5 million workers). However, only 4.2% (192,000) of them participated in training programs and got the training levy rebated, and this number accounted for only 18% of the total workers who paid training levies and received training levies rebated (reimbursed) in 2002. In contrast, while workers of large enterprises accounted for only 35% (or 2.4 million) of total workers who paid the training levy, about 38% (904,000) of them participated in training programs and got their training levy rebated, and this number accounted for as many as many as 82% of total workers who paid training

levies and got training levies rebated (reimbursed) in 2002 (Lee and Kim 2004). Thus, large enterprises were able to recover their training levies at a much higher rate than SMEs. While large enterprises as a whole got about 30% of their training levies reimbursed in 2002, SMEs recovered only 15% of their training levies.

The recovery rate between rebates received per trained worker and the training levy paid per worker—the financial return—was higher among SMEs than large enterprises. While the recovery rate was between 66% and 100% for large enterprises in 2002, it was between 126% and 905% for different groups of SMEs by staff size (Figure 1). In other words, for each worker participating in training, the recovery rate was greater for SMEs than for large enterprises due to the more favorable financial incentive given to SMEs. Despite such a favorable system arranged for SMEs, it is striking that a regressive situation developed against SMEs compared with large enterprises.

**Figure 1: Average Training Levy Recovery Rate per Worker Trained (%)**



Note: The average recovery rate is a ratio between the average training levy paid and the average levy rebated per trained worker for each enterprise size.

Source: B. H. Lee, and D. B. Kim. 2004. *A Study of the Characteristics and Effects of the Support System for Enterprise Training*. Seoul: Korea Labor Institute (in Korean).

This situation implies that financial incentives (financial rates of return) were insufficient for SMEs to train their workers, and/or SMEs needed more than financial incentives alone. For SMEs, the costs or disincentives (e.g., training costs, poaching risks, asymmetry of available information on training markets, and administrative burdens to arrange training and recover levies) must have been greater than the financial incentives. Besides the rebate incentive, additional factors should have been considered, and the government should have taken greater action to redress the inequitable situation of the training levy rebate incentive system. Also, SMEs have historically had institutional and informational difficulties in making training arrangements with public training institutes, which focus mainly on preservice training and do not offer in-service training programs for enterprises, especially for SMEs. Asymmetries of information between large enterprises (which have personnel and human resources development officers and the ability to organize and often offer training programs for their own workers in the workplace) and the SMEs (without such capacities and amenities) compounded the imbalance between large enterprises and SMEs in providing in-service training of their workers (Lee et al. 2014).

In sum, SMEs participated in training less enthusiastically than larger enterprises, and it was proven that a training levy rebate incentive system alone was inadequate to promote skills training by SMEs. Additional or different types of incentives should have been devised to compensate SMEs for their jeopardies in the training of their workers.

## **5.4 System and Strategy for Implementation**

The Ministry of Labor opted to launch the pilot SME in-service training consortium project. However, the project implementation was entrusted to the Korea Chamber of Commerce and Industry (KCCI). The pilot project was launched in June 2001 and completed in December 2002. The Ministry of Labor and the KCCI selected three industrial cities for the project—Busan, Incheon, and Kwangjoo—and the ministry's field office and the local chamber of the KCCI in these cities were instrumental in the implementation of the project.

Each local KCCI chamber helped a group of 30–50 SMEs in the same area and industry to organize themselves into a training consortium, and also financed two training managers for each consortium. The two training managers played a key role: they were to act as the training specialists for the member SMEs. “They were to establish an information network among consortium members (e.g., home page, email systems, and periodic meetings); conduct a training-needs survey of each member SME through interviews with managers and workers, and through job analysis; plan and program training activities of member SMEs; contract outside training institutions to train workers collectively as much as possible; collaborate with training institutions to develop training programs and materials; monitor their training activities; and conduct an evaluation study upon completion of major training courses on behalf of the member SMEs” (Lee 2006).

In 1999, the Government of the Republic of Korea applied, through the Ministry of Labor, for a World Bank grant to launch the project. The World Bank was administering a technical assistance trust fund entrusted by the Asia and Europe Economic Meeting (ASEM) for Asian countries affected by the Asian financial crisis in 1997/1998. The grant amount sought by the Republic of Korea was \$730,000; however, the final approved amount was \$250,000, so this was allocated for the implementation of the pilot project in the Busan City area alone. In September 2001, the Ministry of Labor allocated its own fund of \$2.5 million for refurbishing the KCCI's training equipment and facilities, and the KCCI decided to allocate \$103,000 for the recurrent expenditures of the training consortiums in the cities of Incheon and Kwangjoo. Therefore, altogether about \$353,000 was spent for the training consortium project during the 1.5-year pilot project period.

## **5.5 Achievements and Impacts**

### **5.5.1 Overview**

This evaluation of the achievements and impacts of the pilot project focuses on (i) the organization and operation of the training consortium; (ii) participation in in-service training; (iii) training levy rebates to SMEs; and (iv) other outcomes (such as promotion of SME productivity, prevention of unemployment, shift to a demand-driven training system, enhanced competition and cooperation in training markets, and strengthened partnership between public and private entities in training affairs) (Lee et al. 2014) (Table 4).

**Table 4: Overview of Achievements and Impacts**

<b>Assessment Criteria</b>	<b>SMEs without Pilot TCs in 3 Cities</b> (pre-project: June 2001)	<b>SMEs with Pilot TCs in 3 Cities</b> (post-project: June 2002)	<b>For All SMEs in the Republic of Korea</b> (change from June 2001 to June 2002)
No. of TCs	0	3	—
No. of SMEs in TCs in 3 cities	0	732	—
No. of training managers in a TC	0	2	—
% of enterprises participating in training	11%	50%	21% → 57%
Workers participating in training (persons)	3,087 (planned)	6,573 (actual)	12% → 4%
% of training levies rebated	24%	48%	25% → 15%

— = not applicable, SME = small and medium enterprise, TC = training consortium.

Source: K. W. Lee. 2004. A Pilot Project for the Training Consortia in Korea: An Ex-Post Evaluation. Presented at the APEC Symposium on the Human Resources Development, 10–11 May 2004, Jeju, Republic of Korea.

### 5.5.2 Assessment Methodology and Data

Before discussing the achievements and impacts, methodology and data of our evaluation study are discussed.

The objective of our evaluation of the pilot training consortiums project is not to compare the costs and benefits of the training programs themselves. Many studies in the literature have already vouched for the efficiency and economic viability of enterprise-provided training programs in different parts of the world, including the Republic of Korea (Bartel 2000; Barret and O'Connell 2001; Groot 1995; Kim et al. 2003; Lee and Kim 2004). On the basis of this accumulated knowledge of the high returns to investment in employer-provided training programs, this study rather attempts to assess whether the government SME training consortium policy through the pilot project has been effective. In other words, did the government policy stimulate and encourage SMEs to undertake training of their workers voluntarily, and redress inequities caused by the training levy rebate system? The reason for this focus is that even though the training levy rebates provided higher financial and economic returns for individual workers trained in SMEs than in large enterprises, few SMEs used it actively. The main objective of the SME training consortiums project was to encourage SMEs to train their workers, and we need to verify whether this objective was attained.

To evaluate the achievement and impact of this pilot project, a quasi-experimental method had to be adopted by selecting control groups after the pilot project was launched and adjusting for differences in observable and unobservable attributes of the control and experimental groups. As experimental groups, this study takes the SMEs that were members of the training consortiums in Busan, Incheon, and Kwangjoo, depending on the data available. As control groups, this study has adopted "all SMEs nationwide" and "all enterprises nationwide." Ideally, the differences in the observable and nonobservable attributes of the experimental and control groups have to be adjusted or corrected. However, this was not possible and it was assumed that the experimental groups were randomly selected from the control groups.

For the experimental groups, the data were collected from surveys of the SME training consortium member, which were conducted through questionnaires with the help of the KCCI at the beginning (June 2001) and at the end of the pilot project (June 2002). These survey data were complemented by intensive interviews with managers and

workers of selected SMEs in each of the three cities at the same time as the surveys (Lee 2004 and 2006).

Data for the control groups were obtained from the *Quarterly Employment Trends* of the Employment Information Center of the Human Resources Development Service of Korea, the *Current Situation of the Occupational Skills Development Program*, and the Ministry of Labor's annual report.

### 5.5.3 Organization and Operation of Training Consortia

“Originally, the project aimed to organize 90-member SMEs into three training consortia. However, the project actually started with 163-member SMEs in three TCs [training consortia], one in each of the three chamber areas. By the end of 2002, TC members increased to 732 SMEs—an increase of four and a half times the original number of SMEs. The 557 member SMEs in June 2002 had a total of 14,043 workers, with 65% of them being production workers. About 70% of the member SMEs were those with fewer than 50 workers and were located in the industrial zones developed by the government” (Lee et al. 2014).

“Despite the sharp increases in the number of member SMEs, only one TC was maintained in each of three areas throughout the project implementation period. This enabled each TC to enjoy economies of scale. However, each TC's operational effectiveness was gradually lowered to less than optimum, having too many and diverse member SMEs belonging to different industrial associations. As a result, the [training managers] could not provide tailor-made advice and attention to each member SME. Also, the TC lost homogeneity and solidarity among member SMEs” (Lee et al. 2014). It became difficult to organize training courses to accommodate the diverse but small number of workers of each member SME belonging to different industrial sectors. Each course had too small a number of trainees to offer courses economically. This prodded training managers to increase the number of member SMEs irrespective of their industrial sector. This in turn aggravated the problem of organizing economical courses. “In retrospect, it would have been better to organize each TC by SMEs belonging to the same trade association, as originally planned, and the ratio between two [training managers] and about 30 SMEs of each TC should have been maintained” (Lee et al. 2014).

Upon mainstreaming of the program in 2003, the number of SME training consortia multiplied every year. Today, together with training programs for unemployed workers, the Training Consortium Program for workers employed by SMEs is the bellwether program of the Ministry of Labor in the Republic of Korea. In 2011, the Training Consortium Program trained 229,000 workers from 112,750 SMEs with the training levy rebates of 98.7 billion won (Table 5).

**Table 5: Mainstreaming of the Small and Medium-Sized Enterprise Training Consortia**

	2001	2002	2003	2004	2005	2006	2007	2011
Number of training consortia assisted (cumulative)	6	8	19	30	47	57	69	134
Workers trained ('000) <sup>a</sup>	4	10	20	38	71	143	295	229
Number of SMEs ('000) <sup>a</sup>	1	3	8	15	33	63	134	113
Levies rebated (billion won)	3.2	6.1	14.1	16.8	39.9	45.0	74.4	98.7

<sup>a</sup> Multiple counted whenever training plan is approved.

Source: Government of the Republic of Korea, Ministry of Labor (2008 and 2013).

### 5.5.4 Participation in In-Service Training

“The output of the project was impressive. In the in-service training courses for workers already employed in SMEs, a total of 6,573 persons were trained. This number far exceeds the number of workers identified initially by employers in the training needs survey as requiring in-service training (3,087) (Table 6) and accounts for almost half the total number of workers in all member SMEs of the three pilot TCs” (Lee 2009). (The fact that the number of workers trained was higher than the number identified in the survey may be due to the fact that the initial training needs survey was conservative, taking into account the implementation capacity.) Another notable fact is that about 50% of all trainees had more than 10 years of service with the member SMEs (Lee 2009). As a result, the share of enterprises training their workers increased from 11% of total SMEs before the Training Consortium Program to 50% of total SMEs after the program (Table 4).

**Table 6: Output of In-Service Training for Employees (2002)**  
(persons)

Plan v. Actual	Total	Busan	Incheon	Kwangjoo
Actual trainees <sup>a</sup>	6,573	2,353	1,837	2,383
Planned trainees	3,087	871	1,573	643
Actual/Target	213%	270%	117%	371%

<sup>a</sup> Multiple counted each time a worker was trained.

Source: Korea Chamber of Commerce and Industry.

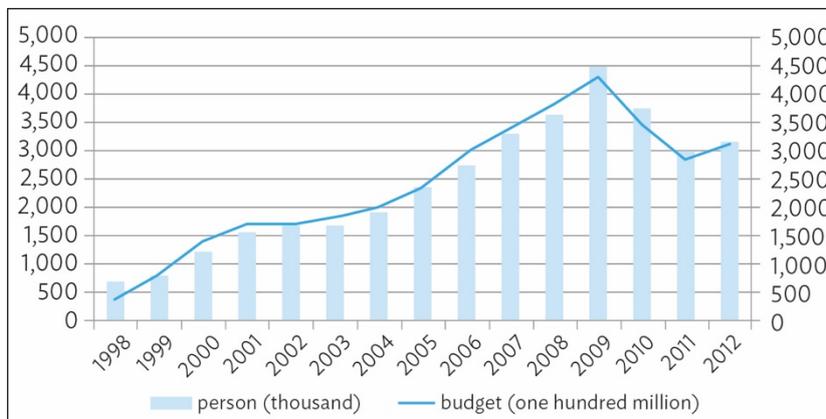
“Most courses lasted from 1 to 30 days, and about 60% of the total workers who participated in the training programs went through only one training course per worker; the balance of the workers took two or three training courses each. The training course subjects were not confined to technical skills, but also included management, accounting, tax administration, and motivation skills of middle and high-level managers” (Lee 2004). In the past, such courses were not offered by public training institutes, and therefore it was a welcome change. Studies abroad indicate that economic and administrative training yields much higher wage gains than technical training (Groot 1995).

“Training programs and materials were developed by contracted training institutions and the training managers. Altogether, 65 training programs were developed on the basis of the analyses of 140 job categories, and 147 modular training syllabi and texts were developed for 14 job categories. Also, 13 programmed learning materials were prepared for trainees to study using computers” (Lee 2004).

The initial success of this pilot project helped the government to mainstream it in 2003, and the number of workers trained has increased steadily (Figure 2). Accordingly, the project instigated academic debate on the effectiveness of the incentive mechanism of the training levy rebate system in general and the SME training consortium system in particular. In other words, the question was asked: Is the increase in in-service training caused by the training levy rebates? Successive empirical studies show positive answers. Lee (2006) shows that the historical number of workers receiving training from employers increased sharply after the pilot training consortium project. Using data taken from the Korean Labor and Income Panel, and after controlling for the difference in training expenses among enterprises of different sizes, Lee and Yoo (2011) econometrically showed that workers employed in enterprises with a higher rate of net government support (difference between the levy rebated and the levy paid as a percentage of the wage per worker) had a greater chance of receiving training, and as

a result a greater chance of wage increases. Using data from the 2010 Survey on Vocational Training in Enterprises by the Ministry of Employment and Labor, Ban (2013) found that government support for SMEs resulted in a statistically significant increase in their spending on education and training. This was not the case with large companies, probably because of a deadweight loss.

**Figure 2: Training by Enterprises: Number of Trainees and Expenditures**



Source: Republic of Korea, Ministry of Employment and Labor. *The Current Status of the Vocational Skills Development Project*. Yearly.

### 5.5.5 Training Levy Rebates to SMEs

“The project accorded substantial financial benefits to member SMEs by helping them organize worker training and get reimbursed from the training levy funds (a part of the unemployment insurance). With the advent of the pilot project, training managers facilitated training opportunities for SMEs’ workers, which resulted in SMEs’ active participation in the reimbursement process. Consequently, the proportion of TC-member enterprises offering training to their workers increased from 11% to 50%, an increase of 345.5%. This compares favorably with an increase from 21% to 57% or an increase of 171.4% for all sizes of enterprises nationwide. The number of TC member SMEs participating in training levy rebates increased at a rate between 56% and 310% among TCs” (Lee 2004) (Table 7).

**Table 7: Number of Training Consortium Member SMEs Participating in Training Levy Rebates**

Area	Pre-Project (January–May 2001)	Post-Project (January–June 2002)	Percentage Increase (%)
Busan TC	31	127	309.6
Incheon TC	56	118	110.7
Kwangjoo TC	110	172	56

TC = training consortium.

Source: Korea Chamber of Commerce and Industry and Employment Information Center.

The training levy recovery rate (the ratio between the training levy paid by member SMEs and the reimbursement amount received for training workers) of the Busan Training Consortium members increased from 24% of total paid training levies to 48%, which contrasts with the decrease from 25.5% to 14.6% for all SMEs nationwide. The inequitable outcome of the training levy rebate system was being effectively redressed. The rate of increase in the recovery rate for training consortium member SMEs

was much higher (100%) than that of SMEs nationwide (–43%) and all enterprises nationwide (–25%). The fall in the recovery rate among all SMEs and enterprises nationwide may be because (i) the percentage of workers being trained declined although the percentage of enterprises participating in workers' training increased (Table 8); and (ii) the standard procedures for recovering the training levies are cumbersome and costly, while the procedures were made drastically easier for training consortium member enterprises.

**Table 8: Training Levy Recovery in Training Consortium Members vs. Nonmembers**  
(won)

	2001 (Jan–Dec)	2002 (Jan–Dec)	Increase/ Decrease
• Busan Training Consortium Members			
– Total training levy paid	116,138,630	95,990,480	–20,148,150
– Total rebates	28,129,250	46,489,050	18,359,800
– Recovery rate	24.2%	48.4%	100.0%
• All Enterprises Nationwide			
– Recovery rate	33.0%	24.8%	–25%
• All SMEs Nationwide			
– Recovery rate	25.5%	14.6%	–43%

SME = small and medium-sized enterprise.

Source: Korea Chamber of Commerce and Industry (Busan Chamber) and Employment Information Center.

### 5.5.6 Other Impacts of the Training Consortium Project

Although this study does not attempt to make a cost-benefit analysis of the project, it is appropriate to mention some positive outcomes. The project promoted SME worker productivity, solving the most critical SME problem of skilled worker shortage and helping prevent unemployment. “In addition, the project also motivated the government and training institutions to shift their training policy toward a demand-driven system; developed new working relationships between SMEs and training institutions; and promoted a partnership between private sector associations and public/non-governmental organizations” (Lee 2006).

#### Promotion of SME Productivity

This project enhanced the capability of SME workers and as a result most likely led to an increase in SME productivity. “For example, in the welding course, trainees scored only an average of 65 points on a skills test before the course; however, they scored 93 points on average after the course (Busan Chamber area)” (Lee 2004).

“At an ex-post evaluation through interviews with member SMEs, employers revealed that workers' job performance and productivity improved sharply after training (81% of total responses); savings in maintenance and repair expenses resulted (67% of responses); factory machinery utilization factor increased (88% of responses); and waste or defective products declined (72% of responses) (Incheon Chamber area). Also, many employers indicated that workers' attitudes towards their jobs changed most noticeably (88% of responses) (Kwangjoo Chamber area)” (Lee 2004).

Ban (2013) also econometrically shows that government support for training in SMEs had positive effects on the growth of productivity, but this was not the case with large enterprises.

“Interestingly, the practice of poaching or scouting workers by other SMEs declined substantially since all SMEs of the same trade and area joined the training consortium. Industry-wide collective action reduced the risks of training and poaching. Thus, workers stayed longer with the same SME and consequently, SME productivity was enhanced” (Lee 2004).

### Prevention of Unemployment

This pilot project helped prevent SME workers from becoming unemployed. This effect of the project was important in the aftermath of the Asian financial crisis, when the level of unemployment was unusually high (from the usual 2% to more than 8%). According to the training consortium survey conducted in June 2001, those member SMEs that participated actively in consortium training programs were reluctant to lay off their workers and, in fact, slightly increased the overall employment level by 1.7% (81 persons). In contrast, those member SMEs that did not participate in consortium training programs suffered a reduction in the total employment level by 8.8% (436 persons), aggravating the unemployment level of their workers (Lee 2005) (Table 9). Although these statistics may be criticized on the basis of possible selection bias, there is no strong reason to suspect that training consortium members had sharply different business prospects since they all joined the same consortium voluntarily at the same time for a similar purpose.

**Table 9: Employment Level of Training versus Non-Training Small and Medium-Sized Enterprises**  
(persons)

		Pre-Project (June 2001) Employment	Post-Project (June 2002) Employment	Change in Employment	Number of Enterprises Sampled
Training SMEs	Total	4,850	4,931	81 (1.7%)	63
	Busan	1,069	1,057	-12 (-1.1%)	17
	Incheon	1,691	1,637	-54 (-3.2%)	17
	Kwangjoo	2,090	2,237	147 (7.0%)	29
Non-Training SMEs	Total	4,960	4,524	-436 (-8.8%)	97
	Busan	786	755	-31 (-3.9%)	19
	Incheon	2,888	2,870	-18 (-0.6%)	47
	Kwangjoo	1,286	899	-387 (-30.1%)	31

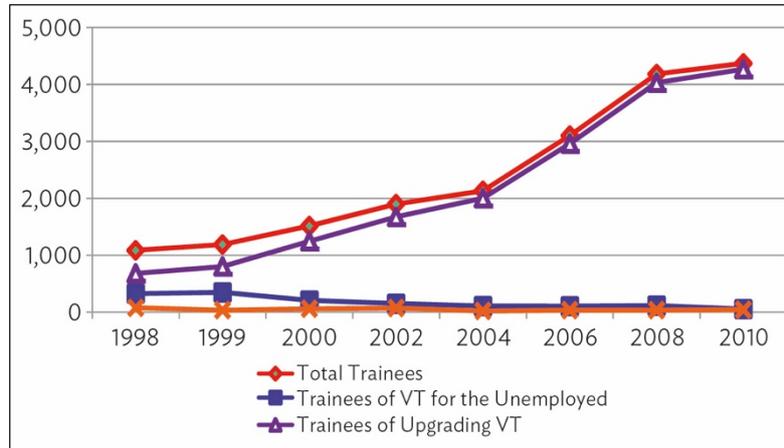
Source: Korea Chamber of Commerce and Industry.

### Demand-Driven Training Systems

“The pilot training consortiums project enabled TC-member SMEs to meet their training needs, especially in-service training needs. The project demonstrated the need for, and feasibility of, shifting the emphasis of training from almost exclusively pre-service training toward in-service training of SME workers on the job. As the demographic and economic growth rates have stabilized, reducing the supply of and demand for young trainees, the need for training has increased for already-employed workers to adapt their job skills to restructured industry, changing technology, and shortening product life-cycles” (Lee 2004). Since 1974, large enterprises in key industries had been obligated to undertake a minimum level of training for their workers, and this training requirement had also been applied to an increasing number of SMEs by the changes in law in 1986 and 1991. Most enterprises, large and small, met this obligation mainly with the preservice training programs until around 1997. Since this project initiation,

however, in-service training overwhelmed other types such as preservice training, initial training, or retraining (Figure 3).

**Figure 3: Historical Trend of Trainees by Type of Training**  
(‘000 persons)



VT = vocational training.

Source: Government of the Republic of Korea, Ministry of Labor. *The Current Status of the Vocational Training Project*. Yearly.

“Before this project, large enterprises could conduct in-service training in their own training facilities, while SMEs lacked the financial or managerial capacity and staff to establish and operate their own or joint-training facilities. Until the training consortium was organized in 2001, training in SMEs had depended entirely on public training institutions that concentrated on pre-service training of youth for possible hiring by SMEs and did not offer in-service training much” (Lee 2004).

“With the advent of the TC project, training by enterprises took place mostly under contracts with outside training institutes; yet, a substantial number of training courses were conducted in-plant at member SMEs, using their own machines, tools, equipment, and materials. In these cases, the SMEs often closed down their production lines for several days to involve all workers in the training courses. The contracted training institutions brought their training instructors and equipment to the plant in a vehicle. This means that micro-enterprises or SMEs often prefer to train all their workers at the same time and in-plant, rather than sending their workers one by one to outside training institutions at different times. This mode of training met the special needs of SMEs, since they prefer to protect their unique technical know-how and promote teamwork and solidarity among their small number of workers” (Lee 2009).

“This project also motivated the Ministry of Labor to change its training policy toward a demand-oriented training system and aided its decision to provide financial support to replicate the project scheme with two more local chambers in September 2001, then later with three more employers’ associations in January 2002” (Lee 2009).

In addition, the ministry replicated the training consortium concept into two more modalities. One involved a large enterprise that helped its cooperative SMEs organize a training consortium and train their workers in its own in-plant training institute or outside training institutes. The other was a training consortium organized by a training institute. Training institutes organized local SMEs and provided in-service training to their workers. Upon mainstreaming of the pilot SME training consortium project, the government approved another mode in which training institutes collaborate with large enterprises to organize their cooperative SMEs into a training consortium and provide

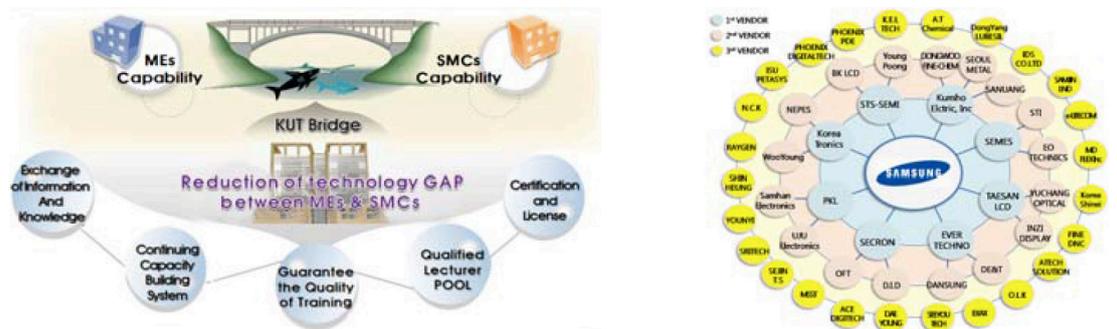
training services for SME workers. The most successful case (the Bridge Project) has been developed by the Korea University of Technology and Education; the model is currently practiced by some 27 higher education institutions (Box 1).

**Box 1: The Bridge Model for SME Training Consortiums**

Korea University of Technology and Education (KUT) pioneered a new mode of SME training consortiums and has spread it throughout the country. The SME training consortiums used to be organized by one of three models: (i) an employers’ association organized its member SMEs belonging to the same industry and area into a training consortium; (ii) a large enterprise organized those SMEs supplying goods and services to it into a consortium; and (iii) a training institute organized SMEs in its vicinity into a consortium. However, when a training institute organized SMEs, it lacked intimate knowledge of business and production processes and practical skills used by enterprises. When a large enterprise organized SMEs, it had also weaknesses in such areas as finding instructors who can teach theoretical aspects of skills training and facilities to accommodate a large number of SME workers. The KUT tried to overcome the weaknesses of both training consortium models by acting as a bridge between large enterprises and SMEs in carrying out worker training. This Bridge Model means that KUT partners with some large enterprises in training workers of their collaborating SMEs, whose productivity improvement would critically influence their own productivity. Since 2005 KUT has entered into partnership agreements with leading large enterprises like Samsung Electronics, Samsung SDI, and Hyundai Mobis Corporations to carry out in-service training programs for their own and their collaborating SMEs workers.

To carry out the partnership agreement, KUT established the Advanced Technology Education Center. While KUT offered mainly training facilities, theory instructors, training materials, and administration, the large enterprises provided practice instructors, training equipment and technology, and interested SME workers. The training programs have been developed on the basis of field investigations into training demands, carried out jointly by KUT and partnering large enterprises (Lee et al. 2011).

This Bridge Model proved a success and has been replicated by 27 higher education institutions involving as many as 6,900 SMEs and 41,440 trained workers in 2011.



W. Y. Lee, J. S. Seol, and J. W. Kim. 2011. A Bridge Model of University-Industry Cooperation to Develop Skills of Practical Engineers for Small-Medium Size Companies. *Innovations: World Innovations in Engineering Education and Research*. Chapter 3. pp. 27–34.

**Enhanced Competition and Cooperation in Training Markets**

“The project promoted market-oriented selection of training institutions. In theory, TCs had the freedom to choose the most suitable training institution available in the competitive training market. In practice, TCs hired vocational training institutes (VTIs) of the KCCI for most training courses; TCs preferred KCCI-sponsored VTIs on account of their merits and the training managers who were seconded from the VTIs/KCCI through government grants. Likewise, other training institutes were also contracted

on the basis of their merits (e.g., auto repair and maintenance training institutes, accounting, and motivation training institutes). Since the selection of training institutions was based on their merits, more training institutions were expected to join training markets, and competition in training markets was expected to be keener in the future, resulting in improved quality of training” (Lee 2009). However, no evaluation has been made to determine whether this has actually occurred. In fact, from 2006, colleges and universities had been allowed to offer training courses for training consortium member SMEs organized by large enterprises, employers’ associations, or other training institutes. Since in-service training was recognized by the government as satisfying individual enterprises’ legal training obligations in 1986, the number of training institutes had been on the rise (Lee 2006). This trend has continued even after the legal training obligation was dropped in 1998.

“The training managers (TMs) of each TC recommended to each member SME the training priorities to be addressed and the training institutions to be contracted, administered the training-levy rebate processes, monitored and supervised training services, and evaluated the training results on behalf of member SMEs. TMs filled the organizational, managerial, as well as informational gaps prevalent in an average SME” (Lee 2004).

The training manager system not only promoted competition in training markets, but also induced cooperation between SMEs and training institutions. “While most SME members of the Busan TC were located in the newly established industrial zone on the outskirts of the city, most training institutions were located on the opposite side of the city. This long distance discouraged both employers and workers from participating in the training programs offered at the training institutes. With the progress of this project, an industrial association of the member SMEs (the machinery manufacturers association) offered a building and other spaces for the establishment of a new training facility in the center of the industrial zone. This geographical proximity enabled the member SMEs to participate in the training programs actively and enthusiastically. This also encouraged training institutions to consult with their client SMEs closely and more often for the development of training programs, thus making them more relevant and demand-responsive” (Lee 2004).

### **Strengthened Partnerships between Public and Private Entities**

“This project strengthened the partnership among central and local government agencies, local and national Chambers of Commerce and Industry, training institutions, training experts, academics, and SMEs for training and human resources development. Representatives of the government (Ministries of Labor and Industry, Small Business Administration, provincial and municipal governments) developed a new relationship with the private sector by becoming members of the TC Operating Committee and advising the TC regarding training and human resources development” (Lee 2006). The training consortiums also periodically held consultative meetings and seminars to monitor and evaluate the progress in the project, and sought improved and/or simplified government procedures and processes related to SME training courses and levy rebates. “Such close consultations and collaborations between the private and public sectors concerning training and human development had no precedent in Korea. As a result of such practices, for example, the training rebate ceilings for SMEs were lifted from 200% to 270% of the training levy paid, or 1.5 million won to 2.5 million won per year; training expenses were reimbursed at the time of the government’s approval of training courses, in contrast to the past practice of ex-post reimbursement upon completion of the training courses; and the lead time required for submission of a training plan for a government’s approval was shortened substantially” (Lee 2006).

## 6. CONCLUSION

It has been clear that SMEs have a potentially important role in expanding employment and output and promoting equity and welfare. However, from empirical records, it has also become clear that SMEs are in general less active than large enterprises in training their workers and more broadly developing their human resources. The market system by itself cannot correct this imbalance between SMEs and large enterprises in developing human resources. To realize SMEs' potentially important contributions to the economy and society as a whole and to redress the imbalance between large and small enterprises, the government will have to intervene in the skills training market in favor of SMEs.

We have discussed some innovative government policies and interventions in favor of SMEs: vouchers, fiscal incentives, special project financing, information dissemination, and training consortiums. Financial assistance alone or redressing information asymmetry alone did not adequately achieve the objectives of redressing imbalance between large and small enterprises or taking advantage of SMEs' potential contributions to the economy. On the basis of the comparative review of the experiences with the innovative government interventions in favor of SMEs, it has become clear that a government should combine financial support with organizational, institutional, and technical support for SMEs. In this sense, the experience with the SME Training Consortium in the Republic of Korea can serve as a role model.

However, in the international context, one size does not fit all. A good experience in one country does not guarantee success in others with different social, historical, economic, and political environments. The success model in one country will have to be adjusted to suit different contexts. For an SME training system to be successful, a government must establish a sound institutional framework for training by enterprises in general. The framework would include competent public and private training institutions competing in the training market with sound and flexible training programs to meet the demands of enterprises, especially SMEs. The quality of training should be verified and certified by competency or qualification tests. The trainees should be supported by guidance, counseling, and employment services for career development before and after the training programs. Since training is a public good, like basic education, a government should operate a sound training financing system, either with a sufficient government budget or a levy, a levy rebate system, or an unemployment insurance system to support training by enterprises in a sustained manner.

In addition, more conditions favorable for the application of SME training consortiums are desired (Lee et al. 2014), such as the following:

- The government should ensure that a training consortium is organized and operated by SMEs themselves through their associations or large enterprises to which they provide goods and supplies. When it is organized by an outside organization, especially by a training institute, the government should pay special attention to ensure the ownership of the training consortium by SMEs and autonomy of the consortium.
- It is advisable to start not on a national scale, but with a small-scale pilot project in a selected suitable area to accumulate experience and knowledge through independent outsiders' evaluations. In mainstreaming the program, it is advisable to begin with relatively larger-scale SMEs, rather than focusing on micro or small-scale enterprises. These micro and small-scale enterprises have the hard-core problems of organizing a consortium and undertaking in-service training, and therefore are more difficult to address. It is advisable to start with

relatively easy clients to deal with and build up good track records, rather than starting with tackling the hard-core problem clients, running a high risk.

- Government financial support for the SME training consortium may focus not on the capital expenditures to expand or improve training equipment and facilities, but on the recurrent expenditures for the operation of the training consortium and training management specialists. It is important to ensure that an adequate number of training management specialists are assigned to each consortium and that adequate budgets are allocated for the operations of the training management specialists, so that they can function as staff responsible for personnel and training management in each member SME.
- Governments should not discriminate against in-plant training by SMEs vis-à-vis outside institutional training in rebating training levies. For most SMEs, in-plant training is more effective and preferred to the formal institutional training offered by an outsider (ILO 2008; KOSBI 2009).
- The government should minimize the bureaucratic red tape for the operation of the SME training consortium. The approval of training plans and the reimbursement of training levies should be carried out in a simple manner and in a short period of time. The training consortium project is not meant to regulate SME activities, but to support SMEs' training activities. Therefore, SMEs should find the processes and procedures involved in the training consortium's operation simple and helpful.

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