



Building technological innovation

Capacity of SMEs in Korea

<http://www.smba.go.kr>

Small and Medium Business Administration, Korea

In the knowledge-based economy, the competitiveness of SMEs will be determined by their knowledge and innovative capabilities. In this regard, the future of the Korean economy will be characterized by the innovation levels of SMEs, and their capabilities of utilizing IT technology and network. However, their technology capabilities remain merely 70% of the world's highest, and their R&D portion of total sales records 1.5% on average, falling far behind that of large enterprises.

To strengthen the innovation capabilities of SMEs, the government is pushing various policies with focus on the following: ●fostering innovative SMEs that will lead the technology innovation of SMEs down the road ● reinforcing the networking of industry, academia and institutes ● promoting commercialization of developed technology ● and establishing the infrastructure of digitalization.

Various policy measures are being implemented to accelerate technology development of SMEs. For example, the government seeks to bring up the proportion of SMEs equipped with capabilities of technology development and innovation to 10% of all manufacturing SMEs (in its Selection and Fostering of Inno-Biz programme). Also, the government ministries and institutions are required to allot a certain percentage of the R&D budget for the support for the technology development of SMEs (KOSBIR: Korea Small Business Innovation Research), and to provide support for the R&D expenses of SMEs capable of developing technology on their own. Besides, the National Defence and Electricity Co. and others in the public sector assure that they will purchase SME products for internal procurement.

In an effort to prevent superior technologies from remaining unused, New Technology Commercialization Funds have been mobilized to fund the cost of facility investment and raw materials required for commercialization of new technologies.

Various policy measures have been taken to reinforce networking among enterprises or among industry, academia and institutes. The measures include an 'SME R&D Institute', an 'Industry, Education and Research Consortium Project' an 'SME Technology Training Programme' and the training of SME employees in link with universities and research institutes.

The SMBA is also helping SMEs to enhance their productivity through such measures as: assessment of SMEs digitalization level, provision of consulting for innovative digitalization and the establishment of IT infrastructure at the productions sites of SMEs.

Details

- Fostering Innovative SMEs (Inno-Biz): The SMBA intends to fully support innovative SMEs equipped with superior technologies and technology-innovation systems, to ensure that they will grow into top global firms.
- Korea Small Business Innovation Research (KOSBIR): To accelerate the technology development of SMEs, government agencies are recommended to use over 5% of their R&D support budget for SMEs. With regard to the KOSBIR, the SMBA spent about 600 billion Won in 2003.
- New Technology Purchasing Assurance: In an effort to help commercialize new technologies, public institutions, including Defence Ministry, Kepco (Korea Electric Power Corporation) and Kogas (Korea Gas Corporation) commission SMEs to develop a new technology with the assurance that they will purchase the technology-applied product for a certain period of time. As of 2004, 35 technology development projects are in progress under this system. More public institutions are likely to participate in the programme in the future.
- Industry-University-Institute Consortium Program: To boost the technological capabilities of SMEs, universities or research institutes develop technology needed in the manufacturing field in collaboration with SMEs. About 218 consortia were formed across the nation in 2004, to support 2,900 SMEs with developing new technologies.
- On-the-spot support for SMEs: The SMBA offers on-the-spot support for SMEs to help them strengthen capabilities to quickly handle problems occurring at the production site.
- Evaluation of SME Digitalization Level: The government evaluates the digitalization level of SMEs every year to reflect the result in making digitalization policies, promote SMEs' investment in digitalization, and raise awareness of the need for digitalization among SMEs. According to a study of 2,100 enterprises, in 2004, SMEs' digitalization level scores 47.9, remaining 68% of that of larger enterprises. It signifies a widening of the digital gap between large enterprises and SMEs.
- Innovative IT consulting: The SMBA selects some universities or institutes and has them provide customized consulting for each group of SMEs classified in terms of digitalization level. In 2004, the administration supported 1,300 SMEs with their digitalization process.
- E-Manufacturing Support Programme: In an effort to improve the productivity of SMEs, the SMBA supports SMEs by implementing the manufacturing information system. For the set-up of the information infrastructure, the SMEs are funded with relevant software development of CIM (Computer Integrated Manufacturing), MES (Manufacturing Execution Systems), POP (Point Of Production), and data base build-up. □



Innovation for SMEs

How to manage ideas

<http://www.STUFbangkok.net>

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How SMEs can become more innovative by establishing an idea management programme.

Innovation and idea management

The how not the why

Innovation is the new buzzword for today's business. It is such a hot topic that you cannot open a newspaper or magazine without reading large headlines and long articles about the need for innovation. Unfortunately, quite a large number of corporate people are still struggling to understand the concept. How many people really do understand and can clearly explain the concepts and difference of, as an example, corporate creativity, innovation and invention or discovery.

Another problem is that most of the provided information is about *why* we should be creative and innovative. Unfortunately, there is very little information about *how* we can actually develop and implement innovation initiatives into our business. Most of what we know about innovation comes from the USA and Europe, but very little is known about how we can use the "Western" concept of innovation in Asia.

If your firm is thinking about developing or improving your innovation ability, first of all we need to understand the business terms used. Innovation management is basically still in its infancy, a lot about what we learned before 2003 may already be considered "old" or at least constantly needs to be updated. Innovation management, as such, emerged as a discipline in the 1890s with Edison's innovation factory.

To explain Innovation management in a simple way, we can say that it is a set of tools, so far used by mostly larger corporations, to make innovation predictable, profitable and available "on-demand". In Europe, for a firm to create a foundation of innovation, a set of 10 tools (IMTs) has been found the most important. New product development (NPD) is probably seen by most as the most important tool. Another important tool is Idea management (IDM) – and this is a really great tool to start your new innovation management initiative, regardless the size of your company.

Employee suggestion systems (IDM)

The basis for innovation

The new concept of idea management is developed from the old suggestion box. Idea management builds on the more than one hundred year old concept of the suggestion system or suggestion scheme. Later, in the mid 1940s the Japanese developed the Kaizen Teian proposal system and the QC Circle. Today, a modern suggestion system is a combination of the three, with further recent developments adding more collaboration and business focus and combining it with an understanding of knowledge management issues.

Idea management supports the front end of the innovation process and is very crucial to any innovation management strategy. Companies looking to replace an aging suggestion box or suggestion system should move straight to idea management to increase the likelihood of successful innovation projects.

Learning about idea management, however, until now that is, has been quite difficult though, because a national associations for teaching employee involvement or suggestion systems and schemes has not been available in Asia, except for Japan and India, and recently Dubai. For more than 60 years, the USA and European countries have had established national associations who successfully have helped companies learn and implement what we today call idea management.

Idea management in SMEs

More innovation through a creative workforce

The ever increasing internalization of the markets, shorter innovation cycles and the rise in request for better product quality means that smaller and medium-sized enterprises need to become more competitive. Innovation and idea management is today no longer only a subject and project for large companies.

More and more SMEs around the world have discovered that an idea management programme is exceptional as a modern management tool in order to mobilize the ability of the employees and to promote a creative working environment. Around one-third of member-companies of a well-known idea association are companies with up to 1,000 employees.

Smaller and medium-sized firms can even have some advantages compared to larger companies when developing an idea system. Often the formal requirements of the system are much less, as often the owner or the manager will take over the "champion" role. Because of the smaller size of the company, many suggestions for improvement and other ideas can, be discussed in personal conversations.

As a matter of fact, it is not recommended to have very formalized IDM systems in SMEs, partly because of their smaller size as compared to the development costs of the system, and partly because a very formalized IDM system will be seen as "less personal" by employees. In any case, to provide credibility in the eyes of the employees, certain procedures and guidelines must be followed.

Idea management on the intranet (software)

The suggestion box going online

In first-generation idea systems the suggestion box was the centre of the system, but today more and more suggestion system are going online. The centralized input and evaluation of employees' suggestions saves time, materials and personnel costs. Furthermore, such an intranet-based system is much more transparent, because both employee and the management, at any time, can easily follow, evaluate and implement suggestions. And once the ideas have entered the system, they won't be lost and it is much easier to provide statistic and generate other data about your idea management system.

Idea and innovation networks

None of us is as smart as all of us

As mentioned earlier, one of the ways to learn about idea management is to become member of your nearest association who provide training and conferences where companies of all sizes, including SMEs can learn about establishing or re-launching a program, and what is equally or even more important, discuss and also learn from actual experiences with other idea managers and suggestion administrators.

Another way is to employ an experienced international consultancy or a professional trainer specialized in setting up idea management processes.

If this is not possible because of distance, time or expenses involved, an SME may consider taking a look at another new development of IDM, by initiating and setting up your very own ROI Circle, "Ring of Ideas" circle – together with similar interested companies in order to develop an IDM system and for continuous knowledge exchange.

A ROI circle can be set up by 8 to 12 member companies with a location not further than 50 to 100 km away from each other (for travelling and meeting reasons). The size of the companies can be between 40 to 400 employees, members of your

circle should come from different non-competing areas, private or public sector. The important thing is that you have the common goal of individually setting up an idea management program in each organization.

When you have decided upon starting a ROI circle you'll need to find an advisor or an experienced idea administrator. But please don't use someone who will bring a "standard package" which they only want to present and implement for your circle. It is part of "the principle of suggestion systems & idea management" **that all the required knowledge is already in your company.** The role of your advisor must be only to provide you orientation about the needed processes and procedures and to provide case studies and warn you about possible problems and "blind spots".

The members of your ROI circle are not simple on-lookers but actual "actors" involved in the process. The whole idea management system can only be developed by your own employees, because they are "the experts of their own problems", they have the all necessary internal knowledge, in order to suggest and implement changes in the daily work routine. And change is what it really is all about.

Learning to implement a modern idea management program should really no longer be a problem for SMEs by using e-learning, to reduce travel time, personnel and other expenses, then use your ROI circle members as collaboration, discussions and knowledge exchange partners, and of course, if possible, later on also attend international employee involvement conferences with Idea Management professionals and other idea promoters.

Joern Nielsen is a Certified Administrator of Suggestion Systems and a corporate IDM advisor and trainer based in Bangkok. He recently launched a new website www.STUFbangkok.net focusing on educating and helping mainly Asian enterprises to learn about modern idea management and its benefits. He can be contacted by email at Joern.n@STUFbangkok.net. □

IndiaInnovates.com

IndiaInnovates.com is a one-stop portal to involve professionals in the value chain of developing an innovation from the grassroots level to a successful business venture. It aims to develop an online community of like-minded stakeholders willing to share their professional expertise on terms suitable to them. The portal brings out the innovative face of India residing in grass root communities, by providing a one-stop platform for technology incubation, IPR, and financial and marketing support. It aims at improving the quality of life of grass root innovators and the common man by successful commercialization of grass root innovations, while safeguarding their intellectual property rights.

IndiaInnovates.com envisions:

- To develop a community of stakeholders in the entire value chain of developing an innovation from grass root level to a commercially viable business, who are bound together by common human values.
- To be the leading site for marketing numerous innovative ideas and products residing in grass root communities.
- To actively scout for new opportunities throughout the world, where these grass root innovations can be applied.

Awareness about the grassroot innovations and their commercial viability has been painstakingly built up by organizations like NIF, SRISTI, HoneyBeeNetwork, GIAN etc. (partners). Institutional linkages with leading technological institutes like the IITs and design institutes like the NID have already been formed. Some innovations have already been commercialized under the GIAN, thus demonstrating this untapped latent potential. IndiaInnovates.com will be the driving force to accelerate the process by involving professionals like you in the value chain.

For more information, access:
Web: <http://www.indiainnovates.com>