

SKILLED MANPOWER TO PROPEL THE K-ECONOMY

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Malaysia has embarked on an ambitious plan to establish a knowledge-based economy (K-economy). This programme marks a shift from a production-based economy (P-economy). This necessarily means that the economy is going to develop 'new' industries. The new industries, in turn, will have different human resource requirements than what a P-economy requires.

The P-economy is characterised by labour-intensive production and low technology content industries. Consequently, the value that is added in the course of production is low. P-economies are quickly losing out on their competitiveness, even in agriculture.

The main features of the K-economy are a highly educated labour force, knowledge workers who are skilled in the application of knowledge, and the use of information and communications technology (ICT). A K-economy promises more value-added production and greater international competitiveness.

The K-economy is expected influence and invigorate the P-economy. In other words, the development of the K-economy need not necessarily be at the expense of the P-economy.

Initially, the use of ICT, the presence of knowledge workers, and the application of knowledge may be more dense in some areas. But it is expected to spread to all sectors, even those that were traditionally labour-intensive and with low knowledge and technology content. For instance, agriculture, which once exemplified the P-economy, would be revolutionised by the K-economy.

The transformation that must take place hits at the core of the Malaysian economy. It implies that we must have a system of education that can support the movement to a K-economy. We need to have the right kind of labour in place. Workers have to be equipped with the right skills and training. Ways of thinking have to change.

The challenge that labour poses, is, perhaps, the greatest challenge of the transformation to a K-economy. Physical capital is no more than a part of the story. One could argue that the infrastructure, the machines and the equipment are the easier parts of this story. After all, if one has the money and someone to do the planning, one could implement the right projects.

Once the physical aspects of a vision as grand as the K-economy are in place, the economy needs the right kind of people with the right skills and training to execute the projects. If this is not done, the vision of a K-economy will not be achieved, and all we shall have will be an assortment of projects with varying degrees of failure.

The plan to launch the K-economy is a plan to improve Malaysia's international competitiveness. Acquiring physical resources must be accompanied by a corresponding acquisition of human capital if the vision of an internationally competitive K-economy is to be realized.

The enormity of the task of transforming the economy, and the huge government expenditure involved, has attracted criticism. The critics loudly remind us that there are alternative uses for this money. They suggest other and more basic ways of improving the well-being of so many Malaysians who are at the fringes of the economy. There are thousands, they say, who still have no access to clean water, good primary schools, or adequate health care.

This seems to be a misdirected criticism simply because the country has little choice but to initiate the transformation. The global economy is passing through a phase in

capitalism that features deregulated capital markets and the pervasive use of ICT. Global boundaries are dissolving in many respects.

Malaysia, as an integral element within the global economy, is thus compelled to participate in these developments. As an export-oriented economy, it hardly has any choice. Besides, Malaysia's neighbours have embarked on similar projects. Otherwise, the price that will have to be paid will be lower competitiveness, lower exports, lower value-added production, and lower growth rates for the economy.

The government has instituted various measures to improve the type and quality of labour that is necessary for an oncoming K-economy. At the lower end of the spectrum of measures, this has included increasing the National Higher Education Fund from RM1.3 billion to RM2.3 billion in order to provide financial assistance to students at private institutions of higher learning. This was done during the Seven Malaysia Plan period.

The Human Resource Development Fund (HRDF), established in 1993, is designed to encourage workers already in employment to benefit from training and skills development. The apprenticeship scheme, introduced by Human Resource Development Council (HRDC) in 1996, represents an arrangement between the HRDC, employers and training providers to increase the supply of skilled and trained manpower. By 2000, about 3,000 apprentices were trained, and the HRDC had contributed about RM16 million.

Attempts have also been made to increase the output of graduates from tertiary institutions. As part of this effort, new public universities were founded to increase the supply of labour. More aggressive attempts have been made to achieve the target of attaining the 60:40 ratio of science to arts enrolment in public institutions of higher learning. In addition, polytechnics have been established with an emphasis in technical disciplines such as engineering.

With the implementation of the Private Higher Educational Institutions Act in 1996, six private universities (viz. Universiti Multimedia, Universiti Tenaga Nasional, Universiti Teknologi Petronas, Universiti Tun Abdul Razak, International Medical University and Universiti Industri Selangor) were established. Clearly, the emphasis has been on technology and ICT.

The government has invited the private sector to participate in human resource development. The government has permitted private colleges to offer twinning programmes with varying degrees of flexibility. Foreign universities have been allowed to open branch campuses in Malaysia.

Education and training are long-term policies to solve the country's problem of skilled manpower shortage in ICT and related areas. At a more short-term level, the government is progressing towards a more liberal policy with regard to skilled foreign workers. Previously, the emphasis was on relaxing the shortage of unskilled labour.

Malaysians who have settled abroad and who possess the required expertise have been offered incentives to return. These incentives include the granting of permanent status to spouses and children, tax exemptions on personal effects and income remitted into the country.

The government has done much in its attempt to increase the supply of ICT-skilled labour. One wonders if more can be done, since the backbone of the K-economy will depend on the quantity and quality of skilled workers that are available.

One area that needs more attention is research and development (R&D). Presently, R&D expenditure in Malaysia is about 0.4 per cent of its gross domestic product (GDP). Developed countries spend up to 3 per cent of their GDP on R&D. Perhaps we need to increase our R&D expenditure.

Malaysia's gross expenditure in R&D (GERD) as a percentage of GDP was about 0.22 in 1996. The same ratio for Singapore was 1.13 per cent in 1995; it was 1.8 per cent for Taiwan, and 2.68 per cent for Korea.

The private sector takes the lead in R&D expenditure in Malaysia. Close to 60 per cent of R&D expenditure is from the private sector. The rest are from government research institutions and institutions of higher learning.

In the early 1970s, the public sector share of R&D spending in the US and France was more than 50 per cent of total R&D spending. It is noteworthy that public sector participation in these countries declined to about 40 per cent by the early 1990s.

Malaysia could benefit by allocating a larger share of its GDP on R&D expenditure, with the government playing a more dominant role in this venture. The government needs to support the development of a workforce that is technologically creative and innovative, if the country is, indeed, to be the international hub of the K-economy. R&D is a crucial element in the mosaic of policy measures that needs to be put in place.

Knowledge, which is so central, to the K-economy is a curious thing. Creativity is another. We can think of creative knowledge as the ability to select a specific procedure that is superior from an array of possible procedures. Knowledge grows once it has been internalised. Only then can there be creativity.

Good ideas, like good tunes and good genes, spread rapidly. The government can play a role by providing the pre-conditions for the diffusion of knowledge and innovation. It is necessary to start with an adequate supply of graduates who are knowledge-rich.

But that is not the end. We need to have world-class knowledge-workers if we want to move up the ladder of competitiveness and produce higher value-added goods.

The K-economy gives us an opportunity to leapfrog. If we can create the right environment and provide the right incentives for our labour force, we should be able to seize this opportunity.