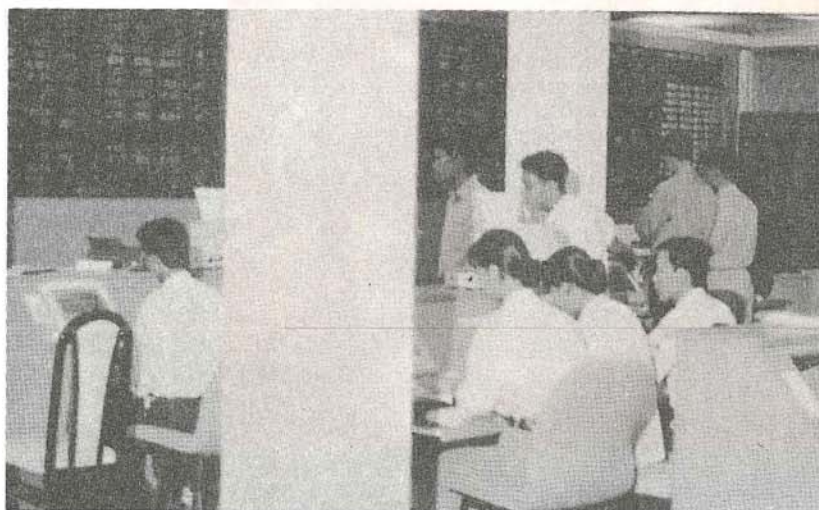


KNOWLEDGE-BASED ECONOMY CHARACTERISTICS AND DEVELOPMENT STRATEGY IN VIETNAM

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I. CHARACTERISTICS OF KNOWLEDGE-BASED ECONOMY

1. Increasing returns

The diminishing returns are an important assumption of the traditional economics. It implies that top products or leading companies on a market will eventually hit limits and reach predicted prices and market shares. In a market using knowledge intensively, the above law has changed into the increasing returns one. Increasing returns are a trend of those who are going ahead and they are still pioneers. Those who have lost advantages will continue to lag behind. Increasing returns do not result to equilibrium, but cause instabilities. If a product, a company, or a technology is leading in the market, then increasing returns will help the company expand its advantages and dominance. As a result, the increas-

ing returns law will be effective as well as the diminishing returns law in many industries: the diminishing returns law covers traditional production and the increasing returns law affects knowledge-based industries.

2. The invisibility of knowledge

The major characteristic of a knowledge economy is that knowledge is considered as capital goods. It is created, exchanged, kept, depreciated, obsolete, and used for producing other goods. However, we should give attention to some following features:

- Knowledge production faces high uncertainties and risks. Knowledge is indicated by human capital and organization. Many methods of knowledge production use knowledge of other persons and firms as production input. Most of activities generat-

ing knowledge are difficult to measure or are measured wrongly.

- Knowledge is distributed to a lot of persons, but reducing nobody's interests. The pure exchange never occurs. When exchanging knowledge, the seller's costs do not include the loss of right to use that knowledge. Once knowledge is discovered and publicized, the marginal cost of increasing users is equivalent to zero.

- The use of knowledge will result to the effect of increasing returns to scale, this is not suitable to the general equilibrium in the perfect competition. The use of some knowledge will make other knowledge outdated, knowledge-based products and services have a short life cycle, and the amortization of knowledge is hard to be figured out. The application of knowledge turns out not only many products with lower costs but also fresh ones. Those persons who use knowledge-based goods will have more understanding.

II. THE STRATEGY DEVELOPING KNOWLEDGE ECONOMY IN VIETNAM

The development making no technological innovation is not significant. The current short-term advantages will lead to the future stagnation. The diffusion of technology includes the transfer of hardware and software. The hardware comprises equipment and machinery; software implies human knowledge and skill. The diffusion of software is not simple and needs a large amount of money and efforts.

We can not imitate industrialization models of other countries. Industrialization should not be understood as to build industrial plants, but to restructure the economy from inefficient state, low productivity and quality, agricultural method, and

manual labor to high productivity, quality, and efficiency, and industrial method based on state-of-the-art technologies.

We can change the traditional industry into knowledge-based one because we have an army of well-qualified scientists and some overseas Vietnamese are top specialists in developed countries. As such, knowledge economy is an opportunity to boost the national industrialization and modernization and fill the gap between our country and others in the world. To do this, we have to make the best use of advantages of "latecomers," select and set up policies based on the characteristics of Vietnam's economy. We should apply the two-side economic pattern: one is to develop the agriculture, increase the competence of basic industries and satisfy the people's essential needs; on the other hand to speed up knowledge-based industries. The following tasks should be done:

1. Investment in human capital and promotion of talent

To foster the human resources, raise the people's intellectual level, and train new talent are an urgent task. Just from now, we must intensify investments in the educational sector, reform the educational system including goals, contents and methods with a view to training the high-skilled working population. In this process, the teaching method should be renovated. Teachers are required to provide students with capacity of discovering and creating new knowledge. The trainees' thinking independence and creativity must be improved. In addition, schools should be equipped with modern facilities such as laboratories, computers and new software.

We need to enhance the nine-year schooling nationwide, universalize the twelve-year schooling for urban residents, and workers in industrial parks, and train skilled workers, managers and entrepreneurs. The Government should boost cooperative relations in education and technology with foreign countries, and send its staff abroad to study in strategic fields.

In the knowledge economy, the ever-changing state of technologies forces us to be retrained in our working life. As a result, the educational system has to make favorable conditions for the people to adapt themselves to new scientific and technological achievements.

Moreover, the Government should map out policies to encourage



enterprises to provide on-the-job training for their workers. The close cooperative link between enterprises and colleges as well as vocational schools have to be strengthened.

2. More reforms in the Government policies

At present, the Government's policies have given incentives to economic sectors so that they can fully utilize their resources. However, these motivations are not enough to make preconditions for developing a knowledge-based economy. To build a new legal framework and make administrative reformation are urgent tasks. The State should create favorable environment for healthy competition; improve social welfare and should not intervene in private production and business.

The decentralization and deregulation will enable trials and studies and the competition will encourage new inventions and innovations.

Furthermore, the Government should have appropriate policies to motivate scientific research and attract foreign experts to work in Vietnam as well as overseas Vietnamese, especially leading specialists in knowledge-based industries who wish to serve their fatherland.

3. Protection of intellectual property

The intellectual property right shall be protected by law. The authorities must take effective measures to curb piracy on time and heavily penalize violations of intellectual property right. The problems concerning patent use, novelty criteria, and patent validity should be solved.

4. Focusing resources on research and development programs

The Government should use foreign loans to invest in research and development. In addition, it encourages all economic sectors to take part in research and development programs.

5. Building an open economic system

In a knowledge-based economy, open information is diffused through networks and financial flows and sales are implemented at lightning speed. Therefore, our country should have liberal financial policies to finance new inventions. At the same time, incentives should be given to ventures in creating new knowledge and technologies due to high risk and uncertainty.

6. Improving scientific competence and national technologies

High-tech industries, especially information technology, should be prioritized. They should be considered as major instruments to develop the economy.

In short, we should not hesitate to transform the traditional industries into knowledge-based ones with our advantages. The Government should work out strategies to develop the knowledge economy with the aim to fill the gap between the economy with others in the world. When formulating and implementing these strategies, we should make the best use of advantages of latecomers and take into account our economy's characteristics. ■