

The Essential Content of the Technical Renovation

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The great leader Comrade **Kim Jong Il** said as follows.

“Now is the age of science and technology, and unprecedentedly fast speed is the major characteristic of the development of modern science and technology.”

“KIM JONG IL SELECTED WORKS” Vol. 12 P. 199)

Nowadays, many countries in the world regard the technical renovation as the fatal matter for the development of their countries and the prosperity of their nation, so they are taking active part in the technical renovation in order to reach the top in the world economic development.

Clear understanding of the technical renovation (TR), the key to the economic development, is very important issue in improving the quality of the goods, the working conditions of the workers and renewing the material and technical basis of our national economy in accordance with the requirements of the IT industry era.

The technical renovation is a process of the economic activity of industrialization of the science and technology. The scientific and technical achievements that were developed are the ones that were completed in the experimental conditions, so they are mere potential productive forces. If the potential productive forces can be changed into the realistic productive forces, we may have the process of introducing the newly-developed science and technology into the production, which may be called technical renovation. Only through the technical renovation, the medium process for the practical application, can we change the science and technology into new equipment, new production process and also new product, which can be the direct force for promoting the economic development.

We have had many views on the content of the technical renovation; one of introducing the new production technology through technical innovation or development, producing the new product and cultivating the market; another one that the technical renovation may involve science and technology, management and its organization, finance and commerce and so on as the technical renovation may be closely linked with all branches such as the scientific research, production and consume; the other one that may be called overall process of making up economically more effective production process or developing and producing the new product by introducing the new material, equipment and technology, and finally selling in the market to make a profit.

So, we may have many definitions about the technical renovation, but we have something in common with its content.

The first one is that the technical renovation may be made through exchanges and cooperation between different economic units.

In general, technical innovation or technical renovation has been understood as the revolution in the branches of production technology such as the renovation of outdated old technology with modern one, the development of the new product and the establishment of technical process for mass-production.

But, today, with the high role of the science and technology in socio-economic life and unification of science and technology with production, the technical renovation doesn't narrow its

subject down to the branches of production and technology, but involves the whole process of the economic activity from scientific research to goods selling.

In the past days when science and technology were separated individually the scientific discoveries were not widely applied. Nor were the technical innovations waged on the basis of the scientific and technical achievements. The practical experience of English inventors made it possible to manufacture the steam engine and spinning and weaving machine, which were the important turning point to promote the world economic development.

Today science and technology have been developed on a high level and the great importance is attached to the scientific research, the more advanced technology it may be, the more it may rely on the scientific and technical achievements.

It is not easy in the least that we make the scientific and technical discovery or innovation and then make the technical renovation successful. With the high requirement for making use of the science and technology in economic life and the process of its application, people found it hard for an individual person or company to make the technical renovation by himself.

If the achievements of research and development are industrialized to be changed into mass-production, a number of stages such as renovation of equipment and the process of production technology, midterm examination, mass-production and selling should be undergone, through which the cutting-edge science and technology, vast amount of money and human and material resources may be required. During the days of technical renovation, there may arise a lot of scientific, technical and economic problems, which can be fully solved only by exchanges, cooperation and joint management of many different organs concerned.

The organs in charge of technical renovation involve the enterprises employed in making and distribution, introduction and application of the new knowledge and technology, the institutions of science and technology, education and training organs and government organs and so on.

The enterprise is the basic unit of the making technical renovation. The enterprise is in charge of investment and execution of technical renovation and the owner of economic profit made from it, thus plays a vanguard role. So it can be said that the purpose of the technical renovation is realized by the enterprise.

The institutions of science and technology, and education and training organs create and impart new knowledge and technology, and train many talented men in charge of making of technical renovation. The scientific research of recognizing and investigating nature is waged, and also the modern technical equipments are developed by the talented men, thus the scientific and technical basis is laid to make the technical renovation fully successful in accordance with the requirements of the development of modern industry.

Government organs hold the special position in the technical renovation. In the stage of making the technical renovation people realized the important role of the government organs as well as the inventors and users of the new technology and products. Tapping and utilization of vast amount of money, human and material resources required in the stage of technical renovation can never be realized apart from the government policy and its systematic and legal measures. The government makes the plan for technical renovation, builds up and distributes the renovation resources and

promotes its process by making the political and systematic measures. As said, many problems arising in the technical renovation can be solved successfully only when many different organs should be closely linked and co-operated each other.

The second one is that the technical renovation not only requires the organic cooperation between different units but also is subjected to the effect the national, social and systematic factors concerned.

Main factors acting in the technical renovation include reasonable mode of management of the organs in charge, close combination between them and the technical renovation policy and its legal system.

Reasonable mode of management and close link between the organs concerned enable us to tap and use human and material resources, information and technical renovation resources in a reasonable way to reduce the cost of it and gain a higher actual profit.

And also, the execution of economic policy and adjustment of systematic conditions affect much the technical renovation activity on a nationwide scale. National policy for technical renovation is closely linked with many policies including science and technology, economy, industry, finance, tax, education and so on. Proper conditions for technical renovation include; establishment and execution of policy and law concerned, protection of intellectual property rights, the establishment of social guarantee system and its insurance system and the establishment of acts for organs in charge of technical renovation. The social and legal basis concerned with the technical renovation includes the national system of knowledge renovation and technical renovation, talent training, distribution and application of knowledge and technology and the establishment of scientific and technical zone, and so on.

The third one is that it is the economic process for economic profit.

The introduction of the new technology and the development of the new product ultimately aim at making economic profit. A mere technical development or unprofitable technology and product do not make profit. Thus, making the economic profit through the introduction of new technology and the development of new product is the main reason for technical renovation. In the past days, for example, in China, they made many researches and technical achievements, but did not materialize them as products because they did not pay much attention to the economic effect from the first stage of scientific research.

From this, the technical renovation may mean economic activity of making research and developing science and technology, materializing its product, making up and distributing the technical renovation resources and making economic profit through the establishment of policy and law for technical renovation.

The technical renovation can be divided into different things according to its content.

First, it is the renovation of product.

Product renovation means developing the new product or producing the qualitatively higher product compared to the previous one. The purpose of the technical renovation is realized ultimately as the product. That we should realize the technical renovation on the basis of science and technology lies in the fact that we produce more and better kinds of goods meeting the demand. So the technical

renovation should be made as developing new product suitable for the sentiment and demand of the people or producing better product qualitatively compared to the previous one. In DPRK, we produce vinalon, which is the new product, and the CNC technology is further developed one compared to the past one comprehensively combined with different technology such as computer, electronics, mechanic technology and so on.

The qualitative renovation of product and the development of new product can be successfully materialized only when we rely on modern and information-oriented production equipments and technical process.

The renovation of production technology process may mean research, development and use of new mode of production, or renovation of previous mode of production. This includes the renovation of production equipment, development of production process, equipment renovation, the organic combination with new production process and so on.

We cannot tell it technical renovation that we increase the production capacity by increasing the number of machines or replacing the old machines with new ones of same type.

The technical renovation is innovative and creative work to improve the working conditions and raise the quality and the productivity by improving the previous mode of production or introducing the new mode of production. The old and outdated equipment and production process make it impossible for the working people to enjoy the independent and creative working conditions at no time. Nor can the qualitative standard of product be guaranteed. Only by the renewal of production equipment and process with cutting-edge technology such as introducing the flexible system of production, can we do away with the essential distinction of working, free the working people from their hard work and raise the productivity to increase their material well-being continuously.

Second, it is that the technical renovation includes the organization renewal such as the improvement of the mode of production organization or the mode of production management.

Organization renewal may be called the renewal of technical economic system. It is of significance to improve the mode of production organization or production management in improving the working conditions and increasing the production of material wealth. As showed in the past days of economic development, many countries produced much material wealth and improved the working conditions much by changing the organization of business management or introducing the conveyer-system of production. The renovation of technical economic system is closely linked with many studies including politico-economics, business management and law, and also its influence is getting more on the economy development of society.

The technical renovation can also be classified into many sectors according to the improvement of service mode, the effect on the economic growth, the technical renovation resources and production elements.

The essence of technical renovation can be defined differently according to given social systems.

In capitalist society, the purpose of economic activity is to make more profit. For it more profit, the capitalists make improper use of the achievements of modern science and technology to exploit the working people much more. The surplus value exploited can be changed into profit only through market to fall into their hands. That the capitalists choose the items of production, develop the

technology and expand the production connects with the very profit. If utilities or necessary technology or product do not make profit for the capitalists, they are of no use nor interest for them.

Market is the economic area for making profit, so it is the basic background of capitalist technical renovation. In capitalist society, technical renovation is closely linked with market, making profit in the market is the important criteria for investigating its success or failure. Mere science and technology or technical development with no market demand is not recognized as technical renovation. Only the technical renovation that makes profit through market is of great significance.

In capitalist countries, many companies failed in the activity of technical renovation in introducing the new science and technology, which was because their technology level was not low, but they did little consideration to market demand. The main characteristic of capitalist technical renovation lies in the fact that it is market-oriented and makes profit through market.

In a word, the technical renovation in capitalist countries can be defined as the activity of exploiting more from the workers and making profit through market by introducing knowledge, technology and technical process into production or introducing the new mode of production and management.

In socialist society, its essence can be defined in a different way. In socialist society, the popular masses are the master of economy, and it is the society centred on popular masses where everything is served for the popular masses themselves. Why we should develop science and technology and raise the material and technical foundation of the country lies in the fact that we should renew the outdated technology with modern one for the working people to be given easier, more secure and healthier working conditions, increase the production and lead their sufficient and cultured life.

Therefore, in socialist society, the technical renovation, by researching and developing new technology and production process, widely introducing them into production and establishing the reasonable mode of production management under the unified guidance of the state, can be defined as the comprehensive economic activity to improve the working conditions of the workers, produce many different products with high quality and make actual profit to the state and people.

All the economic officials should know well the significance of the technical renovation in economic development of the country and push ahead with the work of renovating whole branches of economy with cutting-edge technology in accordance with the requirements of IT era to build a socialist thriving nation.