

Korea on Historic Shift

By Alvin Toffler

Korea was successful in making its last great transition – the one from agriculture to industry. The hard work, drive, and intelligence of the Korean people are recognized around the world, and a generation coming out of the era of colonization and war threw itself wholeheartedly into the Second Wave transformation.

But there was another factor as well. The path Korea took toward development had already been pioneered by others – Europe, America and nearby Japan. The basic principles of industrialization were well established, and many Second Wave business models had already been tested.

Korea's goal was to take advantage of mass production, mass consumption, and mass markets, as well as Japan's experience with export-led development. The basic rules of industrial economies were known: standardization, synchronization, maximization of scale, concentration of production in a few places, centralization of management, and close links with government. Korea applied these principles brilliantly.

Today, by contrast, with the newest wealth creation system still in an early stage, there are no proven models for Korea to follow. While Korea can learn some things from the experience of other countries, there is no one to imitate. Each country making the transition is now compelled to invent and reinvent, to customize its strategy rather than applying some one else's. In a word, Korea needs to invent its future.

The same is true at the level of industries and individual companies. The old economy permitted firms to imitate a rival and compete by lowering price, capturing market share, and holding on to it for years, even decades. In the new economy, that is not enough. In a Third Wave globalized economy, innovations can now be copied overnight, whether legally or not.

Things change so rapidly and multi-dimensionally, competition arises from so many strange directions, and product lives are so short, that only continual innovation permits a firm to stay ahead. In short, innovation in the economy must go from intermittent to continuous flow.

This does not mean that everything old is worthless and newness must be pursued for its own sake. It does mean, however, that countries that develop a culture of innovation, an openness to innovation, cherishing innovators and raising the rewards for new and better ideas will have a distinct edge.

The good news is that Korea has already made a bold start in paving the way to a more advanced economy.

_ We Are Still Only At The Beginning

The Third Wave economy is not just a matter of stock prices or digitization or on-line commerce. All these, of course, affect it. But there is much more to it. It is part of an historic shift from wealth creation based on human muscle-power, which is limited, to one based on mind-power, which is essentially unlimited. This transition, as it unfolds, transforms economies and societies.

In pre-industrial peasant economies, the key factor of production is land _ the source of both wealth and power. In industrialized economies the main factors of production are land, labor and capital. In the new, Third Wave economy knowledge becomes the most important factor of production because, under appropriate circumstances, it can radically reduce the need for land, labor, capital or, for that matter time, energy and other inputs.

In the new economy a new law is at work: As information is monetized, money is informationalized.

Industrialization, often called ``modernization'', promoted social and economic uniformity or homogeneity. The new economy reverses this and permits and promotes greater diversity. Increasing numbers of goods and services are customized. Markets are progressively segmented into smaller, more specialized groupings, and in some fields personalized ``markets of one'' become possible.

The media, which connect production and consumption through advertising, also de-massify as the number of channels reaching into the home multiply, with the Internet, ultimately, bringing an infinite number of ``channels'' into the home.

The result is a de-massification of imagery, culture and consumer tastes and preferences.

In almost every field, companies that fall behind the drive toward de-massification or customization will face sharp competition from companies that do.

The new economy also brings changes in size, reducing economies of scale in many (though clearly not all) industries, and changing the entire relationship of producer and consumer.

It allows some companies to cut jobs and externalize costs by shifting part of the burden of work to the consumer as in the case of ATMs, package tracking, on-line airline ticketing, etc. But it also enables consumers to band together overnight to protest defects in products from tires to toys.

The new economy drastically changes the nature of work, and the hours and location of work, shifting many jobs into the home and other locations outside the factory and office. As we'll see, it also changes the role of government in the economy. Above all, it speeds up all economic interactions demanding that firms move toward real time operations.

As Alvin and Heidi Toffler have written, ``in a Second Wave economy, we learned that time is money. In a Third Wave economy, that law changes.

Every interval of time is worth more money than the last because more can be done in it.''

The Third Wave economy actually reverses many of the Second Wave principles, practices and priorities that made companies and countries successful in the industrial age.

Under the new conditions facing us, we need to revise old assumptions _ that economic development is separate from or more important than social and environmental development; that exports are more important than domestic goods; that big business is more important than small business; that quantity of products is more important than quality; that producers are more important than consumers; that homogeneity is better than heterogeneity.

The new economy, far from being ``over" is poised to enter its next stage _ the complete fusion of information technology with biology. It is in genetics and biotechnology that the most powerful effects are about to be unleashed.

In the U.S., the Food and Drug Administration has already approved some 80 drugs and vaccines developed by the biotech industry and another 350 or more are already being tested on humans. The changes brought by this technology, however, will extend far beyond health and medicine. Until now the biological revolution has depended on computers and digital technology, as well as on the Internet. By contrast, information and communications technology may soon come to depend on biology in the form of biochips, DNA- based computing, or self-assembling systems modeled after bio- evolutionary processes.

It is now clear that the entire digital revolution is only the first phase of an even larger, longer process.

In the first phase, information technology revolutionizes biology. In the next phase, biology will revolutionize information technology. And that will totally, once again revolutionize economies. Together these represent a turning point not just in economics, but also in human history.

Movement in all these directions will continue, driven by competition, whether or not financial analysts, economists or others think we've seen the end of the new economy. The fact is, we are still only at its beginning, and Korea must prepare even better for it.

This is the third in a series of articles based on excerpts from a paper published by well-known futurist Alvin Toffler and an independent advisory group, Toffler Associates, at the request of the Korean Information Society Development Institute (KISDI) about the emergent global economy of the 21st century and Korea's place in it. _ED.