

# HOW DIGITALIZED IS THE KOREAN ECONOMY?

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The Korean economy is transforming to fit the new economic paradigm, the digital economy. In the digital economy, information technology (IT) such as computers and communication play a great role in vitalizing the economy. IT can be applied at the corporate, industrial and national level and enhance productivity and competitiveness. The rapid growth of electronic commerce (e-commerce), the struggling introduction of e-business and the fad of changing corporate names to include "dot-com" are typical signs of digitalization's spread.

## Transforming into Digital Economy

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Judging from the data on computers, Internet and electronic commerce, the Korean economy is not as digitalized as those of major developed countries such as the United States, Canada, United Kingdom, Japan and Singapore. In particular, Korea's digital infrastructure, in the number of PC's per person or the number of Internet hosts, is relatively weak. On the other hand, Korea has an unusually high ratio of Internet users to the total population, which shows that average Koreans have a strong interest in the Internet.

Table 1. International Comparison of Digitalization Index

	Infrastructure Index			Utilization Index		Digitalization Index
	Computers per 1,000 People	Internet Hosts per 1,000 People		Percentage of Internet Users	Percentage of EC in GDP	
United States	499	87.15	100.0	37.4	0.831	100.0
Canada	400	53.53	70.8	25.4	0.102	40.1
United Kingdom	323	22.63	45.3	18.0	0.132	32.0
Japan	272	11.03	33.6	11.1	0.149	23.8
Singapore	344	13.45	42.2	14.7	0.297	37.5
Korea	150	4.22	17.5	24.1	0.092	37.8
Taiwan	178	16.71	27.4	14.3	0.121	26.4
Malaysia	78	1.93	8.9	3.0	0.218	17.1

Source : WEFA(1999), World Economic Outlook; WEFA(1999.2), Electronic Commerce Forecast; [http://www.nua.ie/surveys/how\\_many-online](http://www.nua.ie/surveys/how_many-online); [http://stat.nic.or.kr/public\\_html/iuser.html](http://stat.nic.or.kr/public_html/iuser.html); IMD(1999), The World Competitiveness Yearbook

Note 1. Computers per 1,000 persons, Internet Hosts per 1,000 persons and percentage of electronic commerce are measured as of 1998, and percentage of Internet users as of 1999.

2. Each index are calculated on the assumption that the index of United States is 100 and digitalization index are the simple average of infrastructure and utilization index.

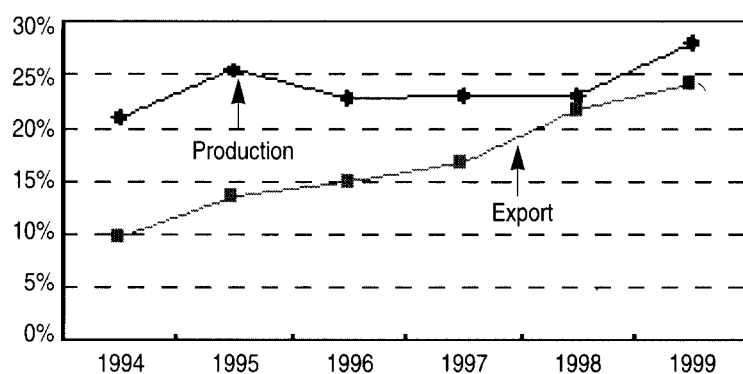
A large pool of Internet users is very important because Internet users are potential customers and business persons in the digital economy. From 1994 to 1999, the number of Internet users in Korea grew at an annual rate of 140%. As of February 2000, 12.9 million people, 28.8% of the population, use the Internet. Although not yet great in absolute size, electronic commerce is rowing at an annual rate of over 100%.

In addition, the computer has been speedily popularized thanks to the appearance of the low-priced PC and the “one person-one PC” movement initiated in 1999. As a result, the digital infrastructure is gradually improving.

Along with digitalization, the importance of industries related to digital technology has also increased. In late 1999, the IT industry accounted for 24% of GDP, and 28% of exports. Just as the IT industry is supporting the new economy in the US, the role of the IT industry is becoming more significant in Korea’s economic growth.

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**Figure 1. Share of IT in Production and Export**



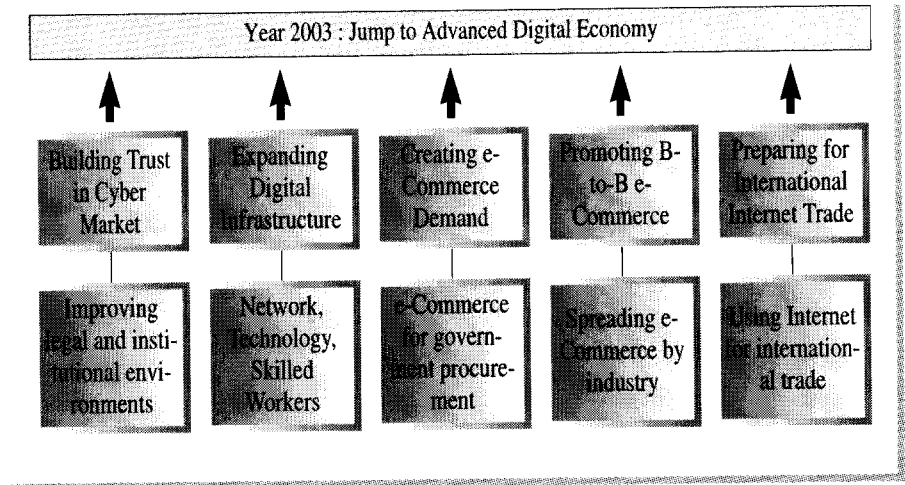
### Government's Actions for Digital Economy

Even though the Korean economy is not currently as digitalized as some developed countries, the future is promising. The government's policy and the soaring interest in electronic commerce are expected to promote digitalization. The government already realized the importance of the transformation into a digital economy and issued a specific plan, named “Comprehensive Measures for the Promotion of Electronic Commerce”. The plan aims at an advanced digital economy.

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The major measures are as follows. First, the government will improve the legal and institutional environment to build trust in the cyber market. Without trust between on-line buyers and sellers, no transactions can occur. Second, it will expand the digital infrastructure such as networks, skilled workers and technology. Third, it

Figure 2. Government's Plan for Digital Economy



will play a leading role as a large demand to promote the electronic commerce. Forth, it will encourage the domestic industries to apply business-to-business electronic commerce and to enhance their competitiveness. Finally, it will prepare for and activate international trade by way of the Internet. To do this, the government will actively participate in e-commerce negotiations, and will push for e-commerce cooperation with developed countries such as the US, Japan, and the EU.

*Qualitatively, digitalization will improve efficiency and transparency in the whole economy.*

If the plan is accomplished by schedule, the Korean economy will have different features by 2003. The size of electronic commerce will be 9.61 billion dollars and the share of Internet transactions in international trade will reach 30.4%. Qualitatively, digitalization will improve efficiency and transparency in the whole economy, and will make firms and industries more competitive by moving from a hierarchial structure to a network-type structure.

### Korea's Future as A Digital Economy

Sensing that the digital economy is one of the key trends of the 21st century, Korea is quickly improving its digital capacity. Firms have started to realize that e-commerce is not just an option, but a necessity in remaining competitive. Because of this awareness, Korean firms have recently shown heightened interest in business-to-business as well as business-to-consumer e-commerce. In addition, the government is actively supporting digitalization and creating a regulatory framework so that the Korean economy's can adjust at an even faster pace.

One possible concern in Korea's digitalization process is the possible imbalance among firms, regions, and social classes. In particular, there is a serious gap between Seoul and other regions in the extent of digitalization, and such an issue should be resolved for greater benefits from the digital economy. **VIP**