

Annual Survey on e-Business Status 2006

Abstract

1. Overview

KIEC (Korea Institute for Electronic Commerce) has conducted an annual survey on e-business status in Korea since 2000 in order to promote use of ICT by enterprise and support the government to implement e-business policies, for example, to support e-business activities of companies and to raise awareness on e-business among the general public as well as among corporate entities. In 2003, KIEC expanded its survey coverage to estimate e-business investment and e-commerce volume of top-earning companies along with the analysis on e-business status of the entire domestic companies.

In 2003 and in 2004, more weight was given to companies with 300 employees or more in the sampling process on the assumption that e-commerce takes place more generally in large companies. However, as ample data prove that e-commerce has been generally adopted by SMEs (small and mid sized enterprises), sampling was done in proportionate to the total population (enterprises with 10 or more employees) in order to fully reflect the entire business population in Korea as of 2005 survey. Having observed that corporations tend to be more active in promoting e-business activities and e-commerce compared to individual offices, 2006 survey was conducted to corporate headquarters.

- o **Survey Basis:** National Statistics Office, general statistics & government approved statistics (approval number: 38501)
- o **Sample Description & Sample Size:**
In this survey on e-business status of Korean companies, the population was defined as 'all enterprises with 10 or more employees' and a proportionate quota sampling by industry type and company size (with weight applied to industry types) was conducted based on the number of corporations identified in 2004 Basic Statistics on Business. A total of 5,253 samples were collected as a result. The survey covered all industry types except for public administration, national defense and social security sector, housekeeping service, and international & foreign organizations.
- o **Survey Period:** 2006.9.6 ~ 2006.11.17
- o **Survey Method:** one-to-one company visit interview along with telephone/fax/web and e-mail survey
- o **Surveyed Items:** general business status, deployment of e-business systems, investment in e-business & investment volume, e-business system in place, utilization of e-commerce & transaction volume, awareness on e-business, perceived obstacles in introducing and promoting e-business, etc.

2. Summary of the Results

A. E-Business Status in Korea

- Among the surveyed companies, 21.1% were found to have a CIO in place; By industry, more number of companies in 'educational service', 'finance & insurance', 'electricity, gas & water supply', and 'telecommunications' sector have a CIO.

<Table 1> Ratio of Companies Having CIOs

	Total	1000+	250-999	50-249	10-49
2006	21.1	75.6	53.5	34.0	17.2

- 14.8% of the surveyed companies were found to have a dedicated team of e-business staff (with higher than 70% involvement), and average number of e-business staff per company is 3.1 persons.
- Among e-business related systems, ERP was introduced most by 24.8% of companies, followed by electronic bidding system (11.4%), SCM (3.6%), and CRM (3.5%).
- The proportion of companies with major e-business systems - ERP, Electronic Bidding, SCM, B2BI, MES in particular - in place increased from 2005, with the use of ERP, in particular, soaring from 23.0% in 2005 to 24.8% in 2006.

<Table 1> Deployment of e-Business Related Systems

	ERP	Electronic Bidding	SCM	CRM	B2BI	HRMS	MES	KMS
2005	23.0	10.0	2.9	4.4	1.8	3.0	1.3	3.1
2006	24.8	11.4	3.6	3.5	3.0	2.9	2.3	2.2

B. Ratio of Companies Conducting e-Commerce

- 31.3% of the surveyed companies, up 5.2%p from 2005's 26.1%, were found to conduct e-commerce ('e-commerce' in its narrow definition), which means those companies utilize computer networks for their 'pricing and offer negotiation', 'bidding (making/receiving orders)', and 'contract-making', 'invoicing & billing'.
- E-commerce was carried out more on the sales side (19.6%) than on the purchase side (17.9%), implying that more companies are using e-commerce

for sales transactions.

<Table 1> Ratio of Companies Conducting e-Commerce

(%)

	2004	2005	2006
Total	17.7	26.1	31.3
Sales	6.3	10.3	19.6
Purchase	13.0	17.7	17.9

<Table 1> Ratio of Companies Conducting e-Commerce Classified by Company Size

(%)

Total	1000+	250-999	50-249	10-49
31.3	64.0	39.7	32.3	30.7

<Table 1> Ratio of Companies Conducting e-Commerce Classified by Industry

(%)

	2003	2004	2005	2006
Total	16.4	17.7	26.1	31.3
Agriculture and Fishing	0.0	0.1	21.3	28.7
Mining	0.0	0.6	10.3	20.3
Manufacturing	2.0	11.5	15.1	21.1
Electricity, Gas and Water Supply	61.9	17.5	43.6	44.5
Construction	31.4	23.7	57.0	59.4
Wholesale and Retail Trade	9.5	11.4	19.2	22.4
Accommodation and Restaurant	0.2	6.0	6.6	34.8
Transportation	6.5	8.5	10.5	26.4
Communication	50.6	30.4	44.1	52.8
Finance and Insurance	-	-	-	40.6
Realtor and Rent	2.7	6.9	13.0	23.0
Business Activities	10.0	15.5	31.5	39.2
Education Service	65.8	55.5	64.4	67.5
Health and Social Welfare	36.3	4.4	22.5	53.3
Entertainment and Sports Services	13.9	8.1	19.8	17.1
Other Personal Services	0.8	8.7	17.3	21.3

- In the total e-commerce transactions, 26.9% were made over open networks (such as Internet) while 6.0% of transactions were based on closed networks (such as Extranet of a particular company).
- As for the traded items, the companies conducting e-commerce sold 3.8% of digital products, 71.5% of physical products and 24.7% of online services.

<Table 1> Type of products sold online

Type of Products	Digital Products	Online Services	Physical Products
Ratios	3.8	24.7	71.5

C. E-Commerce Transaction Volume

- The ratio of sales through e-commerce in total sales volume was estimated to be 3.0% and 4.2% respectively, in the first and the second half of 2006. On the other hand, the ratio of purchase through e-commerce in total purchase volume amounted to 7.0% and 18.0% in the first and the second half of 2006, recording a considerable increase in purchase volume.

<Table 2> Ratio of e-Commerce Transaction in Total Transaction Volume (top-earning companies)¹

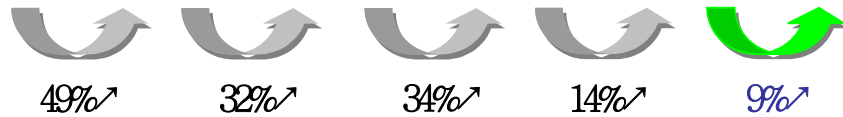
	2005	1H 2006	2H 2006
E-Commerce Sales/Total Sales	3.3	3.0	4.2
E-Commerce Purchase/Total Purchase	12.4	7.0	18.0

- The total e-commerce market was estimated to reach 390 trillion and 109 billion won in 2006, up 9% from 358 trillion and 450 billion won in 2005.

<Table 3> Estimated Volume of the e-Commerce Market

¹ The figure in the table represents the ratio of e-commerce transaction volume in total sales/purchase volume of all surveyed companies combined. Sales/purchase volume of the companies volume.

	2001	2002	2003	2004	2005	2006(estimate)
Volume of the e-Commerce Market	118 trillion and 980 billion won	177 trillion and 810 billion won	235 trillion and 25 billion won	314 trillion and 79 billion won	338 trillion and 450 billion won	390 trillion and 109 billion won



which do not conduct e-commerce is included in total sales/purchase

- E-commerce ratio (the percentage of e-commerce transaction in the total transaction volume) was estimated to run at 20.5% in 2006, up 0.7%p from 2005's 19.8%.

<Table 4> Estimated e-Commerce Ratio

	2001	2002	2003	2004	2005	2006(estimate)
Total Transaction Volume	1,308 trillion won	1,386 trillion won	1,555 trillion won	1,744 trillion won	1,809 trillion won	1,899 trillion won
e-Commerce Ratio	9.1%	12.8%	15.1%	18.0%	19.8%	20.5%



D. ICT Investment

- 54.8% invested on Information and Communication Technology (ICT) sector, up 11.0%p from 43.8% in 2005.
- Among the surveyed companies, 29.1% had a plan to invest in ICT sector, suggesting that level of investment in 2007 expect to be low due to economic stagnation and aggravating corporate financial status.

<Table5> Companies Investing in ICT

	2005	2006	2007(planned)
Companies with Decent Return on ICT Investment	43.8	54.8 (△11.0%)	29.1 (▽25.7%)

<Table5> Companies Investing in ICT Classified by Industry

(%)

	2005	2006
Total	43.8	54.8
Agriculture and Fishing	28.1	40.4
Mining	20.5	13.8
Manufacturing	43.5	53.1
Electricity, Gas and Water Supply	72.9	75.7
Construction	50.0	55.7
Wholesale and Retail Trade	41.9	55.2
Accommodation and Restaurant	45.8	54.4
Transportation	39.6	48.4
Communication	51.2	58.5
Finance and Insurance	70.1	77.8
Realtor and Rent	39.6	52.8
Business Activities	42.2	64.0
Education Service	81.9	88.7
Health and Social Welfare	69.6	91.3
Entertainment and Sports Services	35.8	51.3
Other Personal Services	22.9	39.7
10-49	39.9	50.6
50-249	58.1	70.0
250-999	74.0	87.2
1000+	86.1	97.4

- Companies with investment in ICT mostly made an investment amounting to 'less than 50 million won', which was cited by 87.4% of companies in 2005 and by 87.6% of companies in 2006.

<Table 6> Volume of ICT Investment
(companies with investment in ICT)

	(%)				
	Less than 50 million won	50-99 million won	100-199 million won	200-499 million won	500 million won and more
2005	87.4	3.4	4.2	3.0	2.1
2006	87.6	4.2	3.1	2.7	2.5

- Total volume of ICT investment went up 12.1% from the previous year. Companies spending on system maintenance, and telecommunications equipment and related system have increased relatively more compared to other categories.

<Table 7> Volume of ICT Investment per Company
(companies with ICT investment)

(100 million won, %)

	2005	2006	Year-on-Year Variation(%)
Total	61,461	68,870	12.1
IT Equipment and related System	15,631	17,241	10.3
Telecommunications Equipment and related System	7,923	9,092	14.7
Operating Softwares	12,940	14,349	10.9
ICT Service	12,583	13,783	9.5
Maintenance Cost of ICT Service	12,383	14,406	16.3

E. Obstacles in Introduction & Full Migration to e-Business

- 'Excessive system deployment cost' was cited as the biggest obstacle in introducing and promoting e-business by 36.8% of companies, implying that system deployment cost is a great burden for companies in Korea and it can serve as the major barrier to full migration to e-business.
- 'Lack of confidence in return on investment' (32.0%) and 'lack of specialized personnel' (21.8%) were cited next to 'excessive system deployment cost' as a major obstacle in the introduction of e-business.
- When it comes to desired governmental supports for e-business, 64.4% of the surveyed companies preferred 'governmental support in system deployment', suggesting that companies feel burdensome about the cost induced by e-business system deployment just as shown above as 'excessive system deployment cost' was mentioned as the biggest obstacle.
- Companies also wanted governmental support in 'training and education on e-business' (33.9%) and 'tax incentives' (22.8%).