

ICT and eCommerce in enterprises 2006

Summary The vast majority of Icelandic enterprises use computers and the Internet or 97–100%. Nine out of every ten enterprises with access to the Internet use xDSL connection and 44% have a connection with a download speed of 2 Mb/sec or more. Around 95% of connected enterprises use virus checking or protection software, 81% use firewalls and 75% use off-site data backup. Eight out of every ten enterprises have partly substituted traditional postal mail by electronic means of communication in the last five years.

The percentage of enterprises selling goods and services over the internet has increased. In 2005 around 32% of the enterprises sold goods or services over the Internet, whereas 21% of the enterprises were selling via Internet in 2002. The same applies to purchases made via Internet. Almost six out of every ten enterprises had ordered goods or services for their own use via Internet in 2005, compared to 37% of the enterprises in 2002. The volume of Internet sales in 2005 was around 5% of enterprises' total turnover.

This article describes the use of ICT among Icelandic enterprises in 2006 as well as enterprises' eCommerce in 2005. Results are presented by economic activity and by number of employees.

Introduction

*Third survey conducted by
Statistics Iceland*

In cooperation with Eurostat, Statistics Iceland conducted a survey on enterprises' use of IC technology and eCommerce in the first half of 2006. The main deviation from previous surveys was that the questionnaire presented to enterprises within the financial sector and insurance companies was partly different from the questionnaire presented to enterprises within other activities.

Use of IC technology

*The vast majority uses
computers and the Internet*

The vast majority of Icelandic enterprises use computers and have access to the Internet or 97–100% (table 2). In 2006, 35% of the enterprises used intranet, 28% extranet and 88% were using LAN. Three out of every four enterprises had their own web site on the Internet and a little over half of the enterprises used IT systems for managing orders and purchases (figure 1).

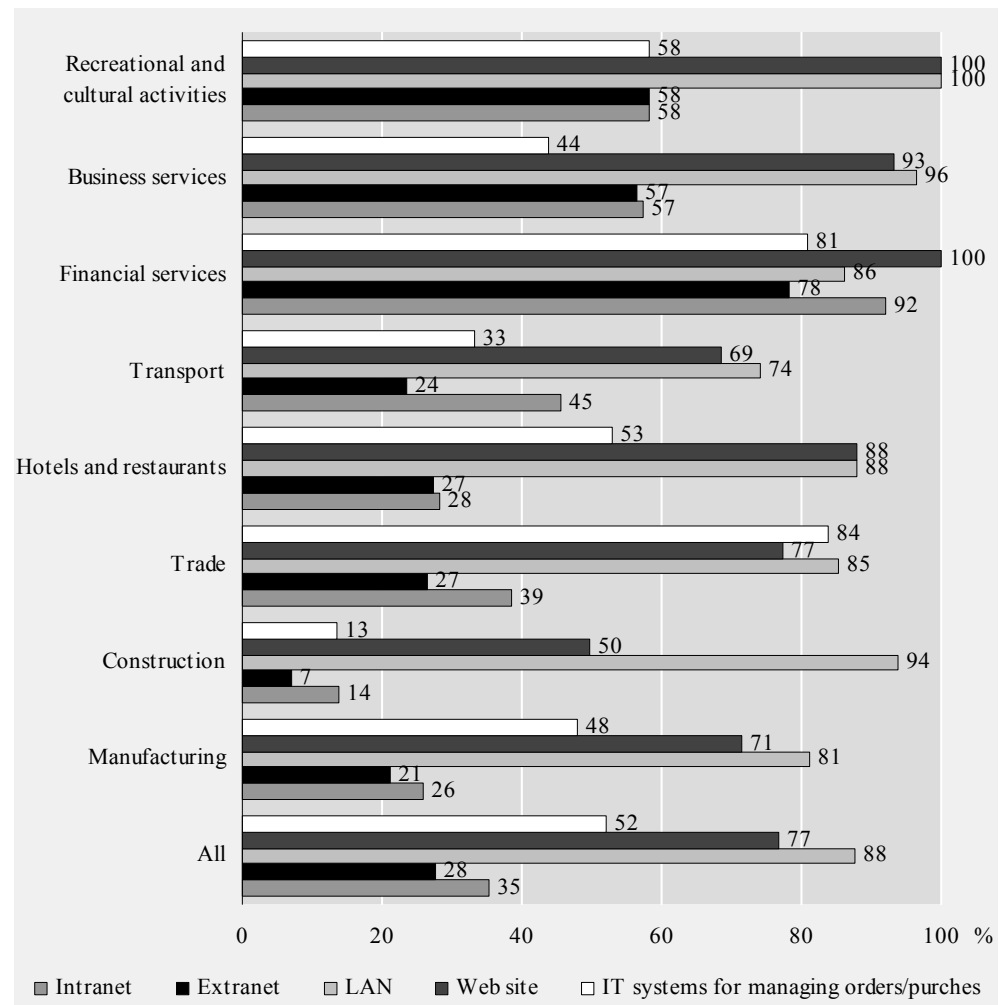
*More common for
enterprises to use LAN and
IT systems for managing
orders and purchases in
2006 than in 2003*

The use of intranet and extranet is least common among enterprises within construction but most common among enterprises within the financial sector. In 2006 around 14% of the constructional enterprises used intranet and only 7% used extranet. Meanwhile a little over nine out of every ten enterprises within the financial sector were using intranet and three out of every four were using extranet.



In 2006 around 74% of all enterprises used LAN, which is a bit higher percentage than in 2003, when around half of all enterprises were using this type of technology. Use of web sites is most common among enterprises within the financial sector and recreational and cultural activities (100%). Web sites are also very common among enterprises within business services (93%) and among hotels and restaurants (88%). In 2006, it was least common for enterprises within construction to have a web site (50%). The prevalence of enterprises using IT systems for managing orders and purchases has grown from 34% in 2003 to 52% in 2006 (figure 1).

Figure 1. Enterprises' use of ICT by economic activity 2006

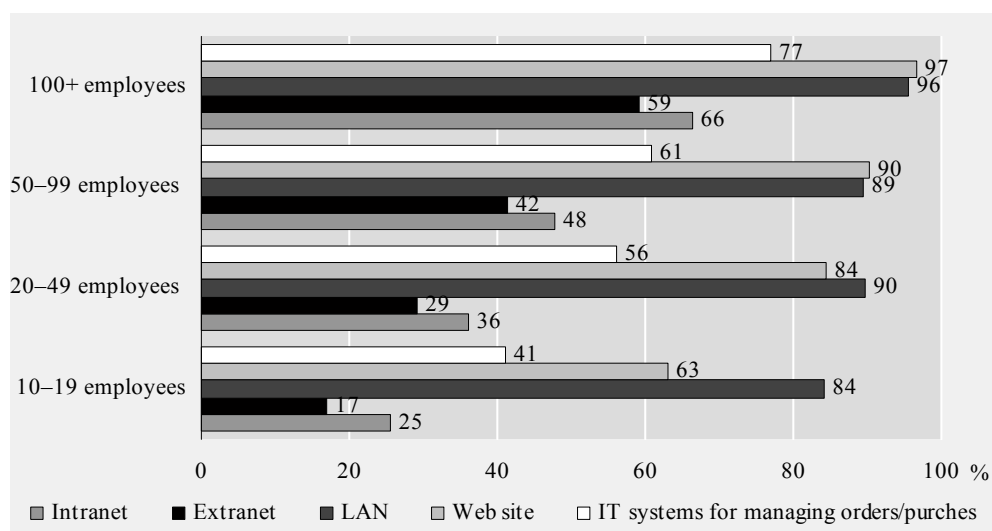


Percent of enterprise population.

The larger enterprises use more technology

Large enterprises are more likely to use various technologies than the smaller ones. In 2006 around 66% of enterprises with 100 employees or more used intranet, 59% used extranet and 96% used LAN. Almost every enterprise of this size had a web site on the Internet and 77% used IT systems for managing orders and purchases. That same year one out of every four enterprises with less than 20 employees used intranet, 17% used extranet and 84% used LAN. Around 63% of enterprises with less than 20 employees had a web site and 41% used IT systems for managing orders and purchases (figure 2).

Figure 2. Enterprises' use of ICT by size 2006

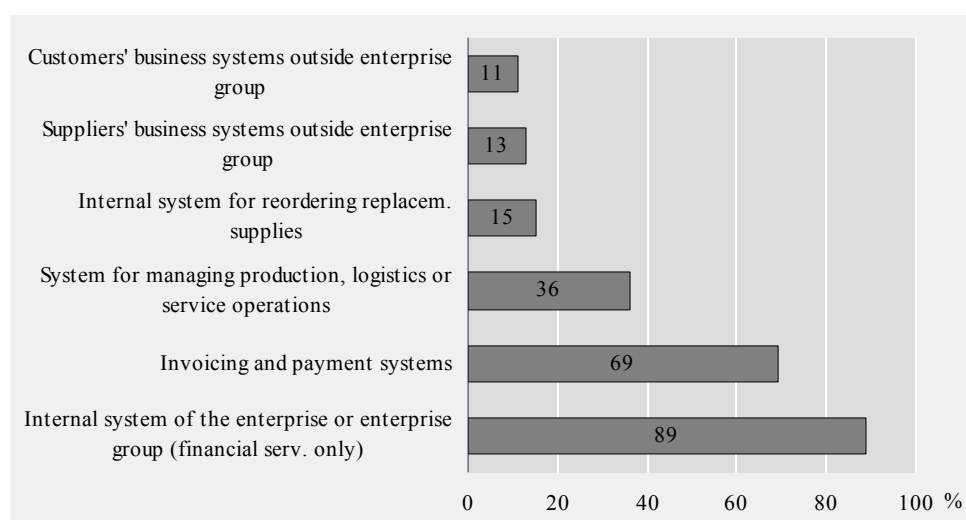


Percent of enterprise population.

IT systems for managing orders and purchases

Of those enterprises having special IT systems for managing orders or purchases 69% had automatic links to the enterprise's invoicing and payment system, 36% had automatic links to a system for managing production, logistics or service operations and 15% linked this IT system with an internal system for reordering replacement supplies. A little more than one out of every ten enterprises with special IT systems for managing orders or purchases had links to suppliers' or customers' business systems outside the enterprise group. Nine out of every ten enterprises within the financial sector linked an IT system for managing orders or purchases with the internal system of the enterprise or the enterprise group (figure 3).

Figure 3. Automatic links of IT systems for managing orders or purchases 2006



Percent of enterprises with IT systems for managing orders or purchases.

Employees and the technology

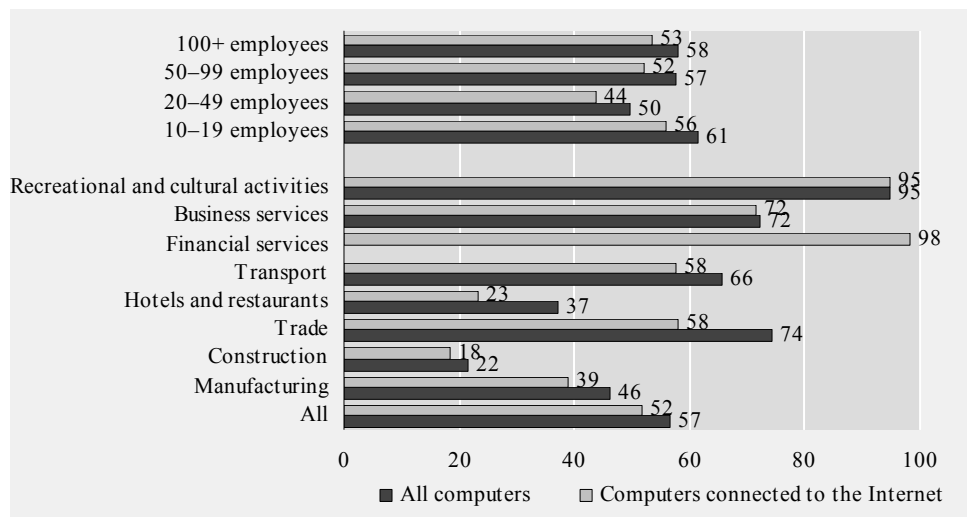
Same share of employees uses computers in 2006 as in 2002

Almost 60% of all employees were using computers at least once a week in 2006 and around half of all employees were connected to the Internet that same year¹. Thus, employees' use of a computer has not changed since 2003 when 58% of all employees used computers in general and 50% used computers connected to the Internet. Use of computers is most common among employees in the financial sector and cultural activities but least common among employees within construction (figure 4).

The employees' use of computers not affected by the size of the enterprises

There is evidence that enterprise size does not play a deciding role in the prevalence of employees' computer use. Thus, in enterprises with 10–19 employees the use of computers connected to the Internet amounted to 56% of employees, while enterprises with 20–49 employees scored 44%, enterprises with 50–99 employees 52% and the largest enterprises 53% (figure 4).

Figure 4. Share of total number of employees using computers in their normal work routine by economic activity and enterprise size 2006



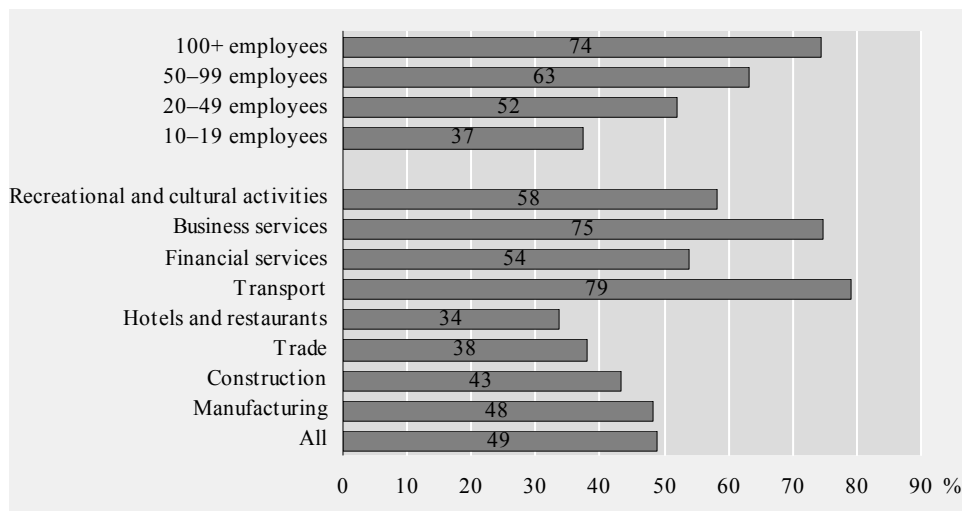
Percent of employees.

Half of the enterprises have teleworking employees

Around half of all enterprises have employees who work part of their time away from the enterprise's regular work site while having access to the enterprise's computer system. Teleworking employees are most common within the transport/telecommunication sector (79%) and within the financial sector (75%). The prevalence of enterprises having teleworking employees grows alongside with the growing size of the company. Thus around three out of every four of the largest enterprises had teleworking employees in 2006 while the prevalence was 63% among enterprises with 50–99 employees, 52% among enterprises with 20–49 employees and 37% among enterprises with less than 20 employees (figure 5).

¹ Employees within the financial sector are not included in the numbers over computer use in general. They are included in numbers over employees' use of computers connected to the Internet.

Figure 5. Enterprises with teleworking employees by economic activity and enterprise size 2006

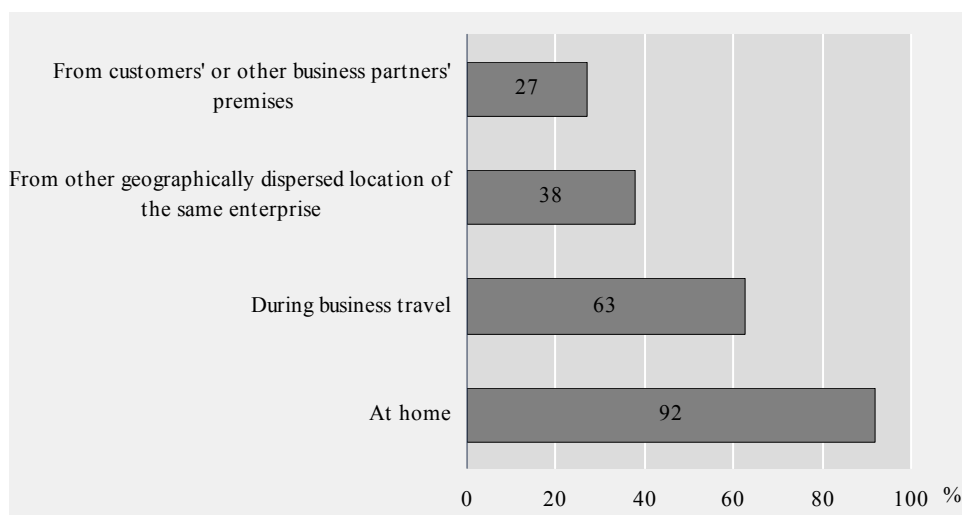


Percent of enterprise population.

Most common for teleworking employees to access the enterprise's computer system from home

When asked about the placement of teleworking employees most enterprises answered that the employees accessing the enterprise's computer system did so from home or 92% of enterprises with teleworking employees. 63% of those enterprises claimed, that the teleworking employees had accessed the enterprise's computer system during business travel, for 38% of the enterprises the employees had accessed the computer system from other geographically dispersed location of the same enterprise or enterprise group. 27% claimed, the teleworking employees had accessed the computer system from customers or other external business partners' premises (figure 6).

Figure 6. Location of teleworking employees 2006



Percent of enterprises with teleworking employees.

Large enterprises experience more difficulties when recruiting personnel with ICT skills

Around 7% of the enterprises had difficulties in recruiting personnel with ICT skills in 2005. It is most common for enterprises within trade (14%) and least common for hotels and restaurants (1%) to have experienced this kind of difficulties. It is more common for large enterprises to have difficulties in

recruiting personnel with ICT skills. Thus 13% of the largest enterprises experienced such difficulties in 2005 compared to 5% of the smallest enterprises (table 6).

For one out of every four the high remuneration costs of ICT specialists caused difficulties

Of those enterprises, which experienced difficulties when recruiting personnel with ICT skills around 42% claimed it was due to lack of personnel with required skills in the use of ICT applications, 33% that ICT specialists with the required skills had not been available or not entirely suitable for the company and 25% that high remuneration costs of ICT specialists had caused them problems when trying to recruit personnel during 2005 (table 7).

Use of the Internet

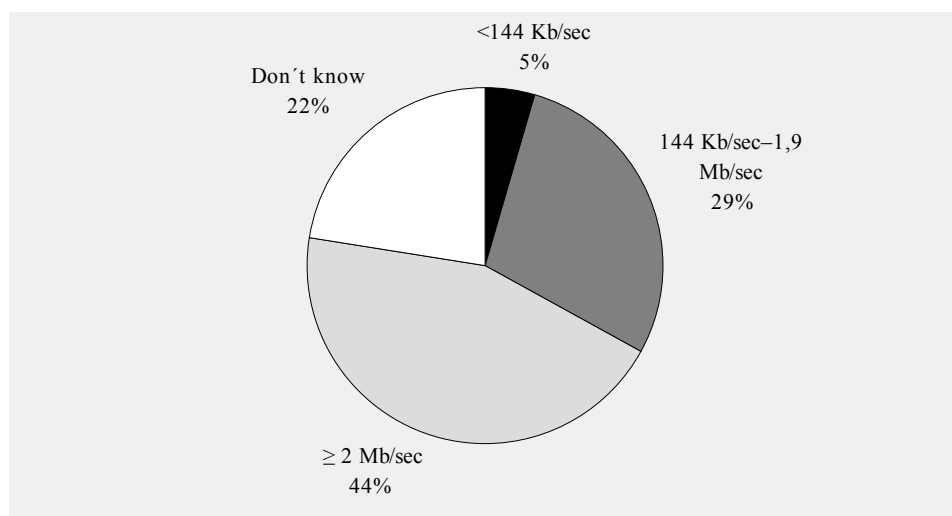
The vast majority use xDSL

Almost every enterprise in Iceland has access to the Internet or 99%. The vast majority or 89% use xDSL connection, 12% use other fixed Internet connection, 6% use wireless connection and the same percentage uses ISDN. Only 4% of enterprises with access to the Internet use dial-up access over normal telephone line. The use of fixed Internet connection, other than xDSL, is most widespread in the financial sector (33%) and business services (28%). This type of Internet connection is also more widespread in the largest enterprises. Thus 39% of enterprises with 100 employees or more used fixed Internet connection other than xDSL in 2006 while only 6% of enterprises with less than 20 employees used this kind of an Internet connection (table 8).

Most common to use connections with a download speed of 2 Mb/sec or more

Internet connections with the maximum download speed ≥ 2 Mb/sec is the most common Internet connection in Icelandic enterprises (44%). A little less than three out of every ten enterprises with access to the Internet use Internet connections with a download speed between 144 Kb/sec and 1,9 Mb/sec. Only 5% of connected enterprises have an Internet connection where the maximum download speed is less than 144 Kb/sec. The maximum download speed was not known for 22% of the enterprises (figure 7).

Figure7. Maximum download speed of the fastest Internet connection 2006



Percent of enterprises with Internet access.

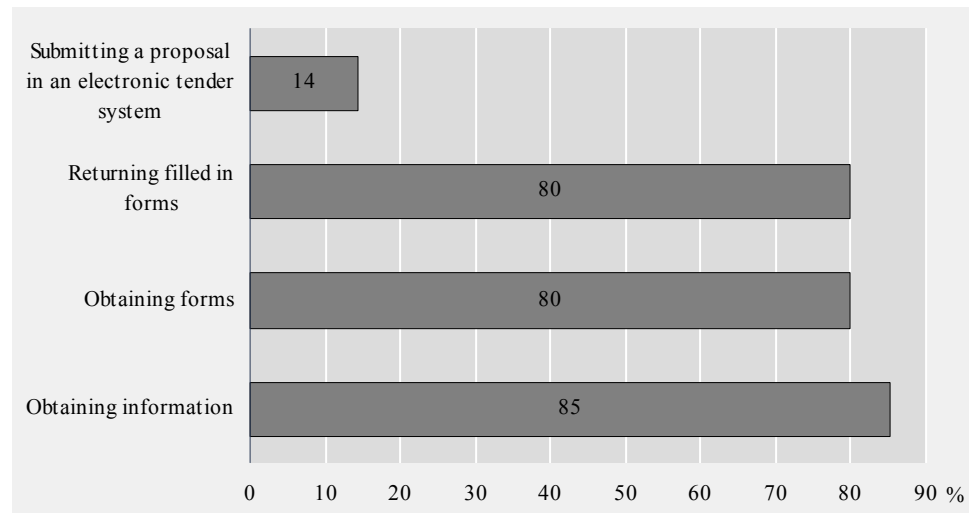
Purpose of Internet use

Nine out of every ten enterprises use the Internet for banking and financial services, 61% obtain after sales services via the Internet, 57% monitor the market by using the Internet and half of the connected enterprises use the Internet for receiving digital products¹. Around 17% of all enterprises use the Internet for training and education. This kind of use was most common among enterprises within the financial sector (74%) and among enterprises with 100 employees or more (39%) (table 10).

Eight out of every ten enterprises download official forms

Around 85% of connected enterprises use the Internet to obtain information from public authorities' web sites, 80% download official forms from the Internet and the same percentage uses the Internet to return filled in forms to public authorities. In 2006 around 14% of enterprises with access to the Internet submitted a proposal in an electronic tender system (e-procurement) via Internet (figure 8).

¹ These figures do not include enterprises within the financial sector.

Figure 8. Enterprises' interaction with public authorities via Internet 2006

Percent of enterprises with Internet access.

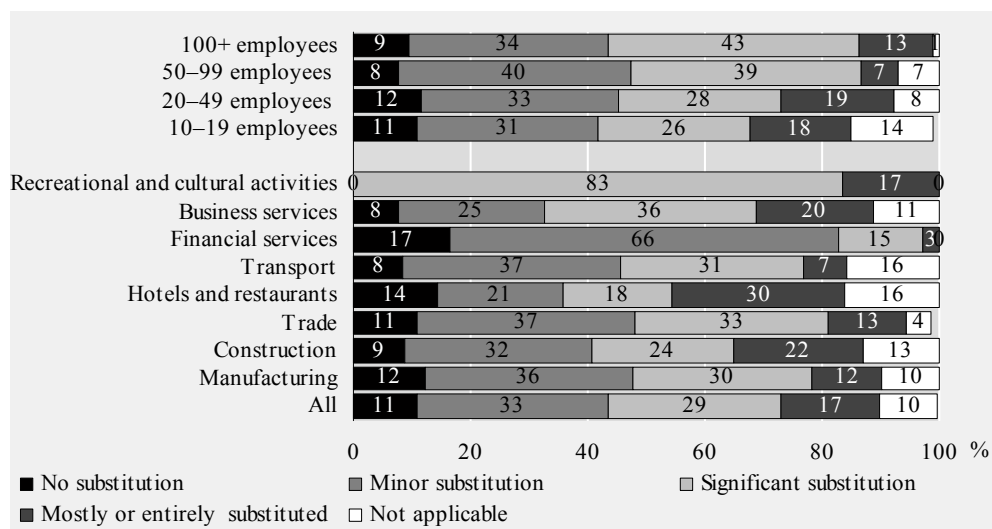
88% are marketing their products on-line

Almost eight out of every ten Icelandic enterprises have their own web site or home page on the Internet. 88% of those use the web site for marketing the enterprise's products, half of the enterprises facilitate access to product catalogues and price lists through the web site and 44% provide after sales support on-line (table 11).

Enterprises are substituting traditional postal mail by electronic means of communication

The enterprises were asked, to which extent they had substituted traditional postal mail by electronic means of communication, when communicating with customers and other enterprises. Reference time was five years prior to the survey. Around 80% of the enterprises claimed that the use of electronic means of communication had decreased the extent of traditional postal mail. Of those, 17% claimed that they had substituted most or all of their traditional postal mail by electronic means of communication. For 11% of the enterprises there had not been any reduction of postal mail due to the use of electronic means of communication. The question was not applicable for 10% because postal mail had never been a relevant mean of communication (figure 9).

Figure 9. Substitution of traditional postal mail by electronic means of communication by economic activity and enterprise size 2006



Percent of enterprise population.

IT security

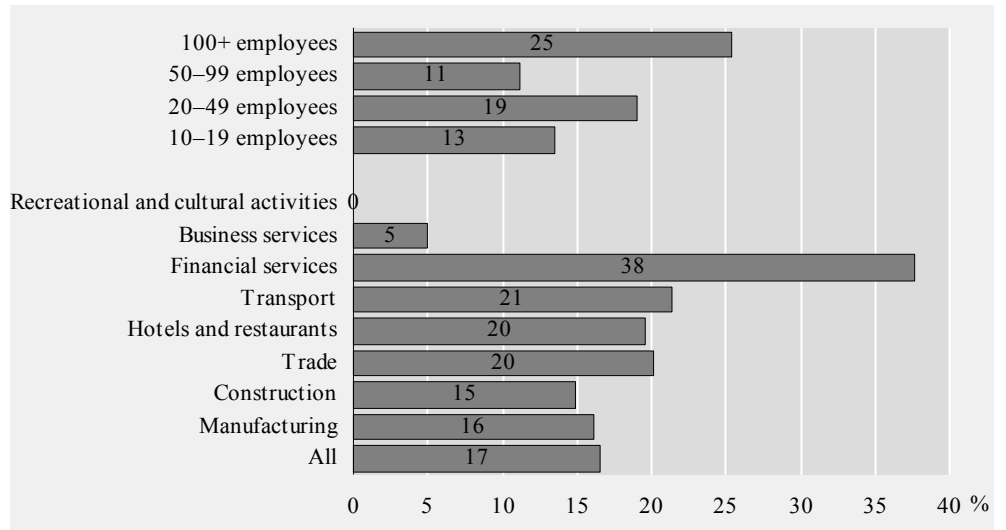
95% of enterprises with access to the Internet use virus protection software

Almost every enterprise with access to the Internet use virus checking or protection software, eight out of every ten use firewalls and three out of every four use off-site data backup. Around 40% of the enterprises use secure servers, 12% use PIN code or other authentication mechanism, 10% encrypt files for confidentiality and 9% use electronic digital signature as a receiver of data. It is more common for enterprises with 50 employees or more to use firewalls, secure servers or off-site data backup than for enterprises with less than 50 employees. Secure servers and off-site data backup are most common among enterprises within financial services but least common among enterprises within construction (table 14).

ICT related security problems

Around 17% of enterprises with access to the Internet had experienced ICT related security problems in 2005. It was most common for enterprises within the financial sector (38%) to have experienced such problems. The prevalence of enterprises, which had experienced ICT related security problems, was also higher among enterprises with 100 employees or more than for enterprises with less than 100 employees (figure 10).

Figure 10. ICT related security problems by economic activity and enterprise size 2005



Percent of enterprises with Internet access.

eCommerce

More enterprises are doing eCommerce

One out of every three enterprises sold goods or services over the Internet in 2005, which is an increase from year 2002, when 21% of all enterprises were doing so. The biggest increase in the prevalence of Internet sales was among enterprises in recreational and cultural activities. Two out of every three enterprises in that sector were selling products over the Internet in 2005 whereas 14% of cultural enterprises were doing so in 2002 (figure 11).

Figure 11. Sales via Internet in 2002 and in 2005 by economic activity

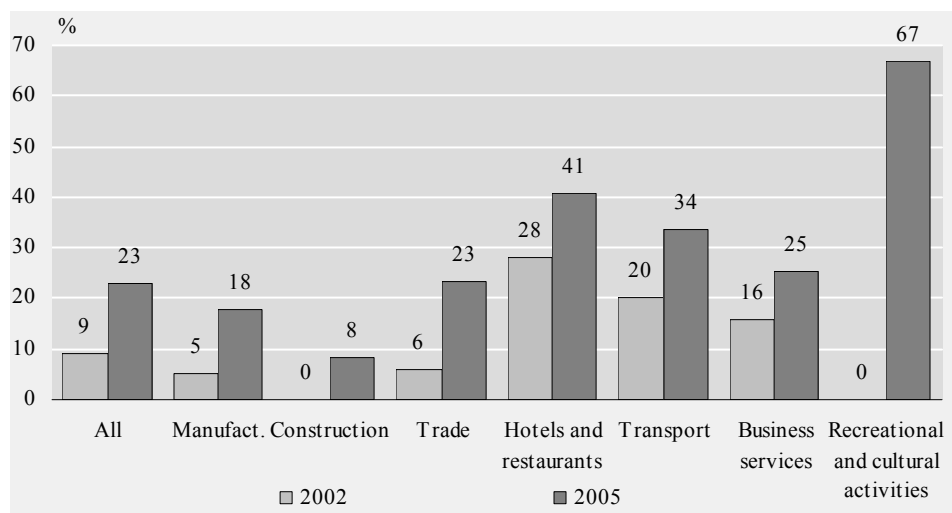


Percent of enterprise population excl. the financial sector.

Greater value of Internet sales in 2005 than in 2002

The value of Internet sales has increased from 2002 when 9% of the enterprises stated that the value of the Internet sales was minimum 1% of enterprise's turnover. Three years later 23% of the enterprises state that the value of the Internet sales reaches minimum 1% of enterprise's turnover (figure 12).

Figure 12. Sales via Internet $\geq 1\%$ of turnover 2002 and 2005 by economic activity

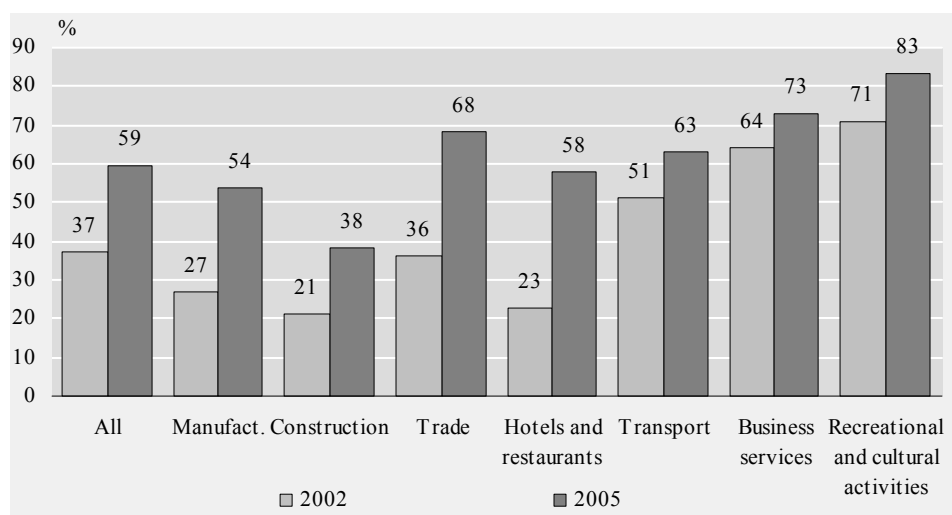


Percent of enterprise population excl. the financial sector.

Increase in Internet purchases

A little less than 60% of the enterprises purchased goods or services over the Internet in 2005. In 2002, around 37% of the enterprises ordered goods or services over the Internet. Increase in Internet purchases can be seen within all sectors (figure 13)

Figure 13. Purchases via Internet in 2002 and in 2005 by economic activity

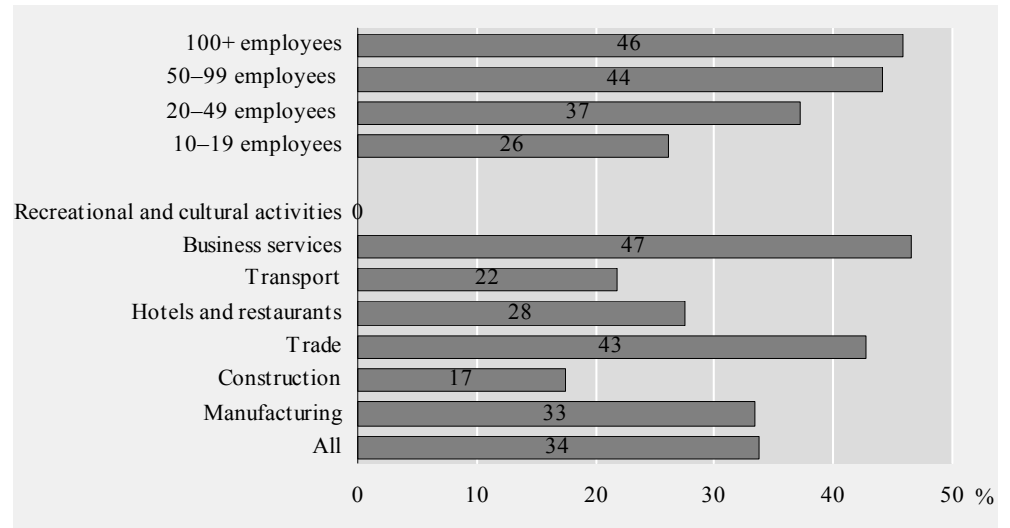


Percent of enterprise population excl. the financial sector.

For one out of every three enterprises Internet purchases represent at least 1% of total purchases

Around 34% of the enterprises stated, that at least 1% of the enterprise's total purchases resulted from orders placed via Internet. The highest prevalence was among enterprises within trade (43%), business services (47%) and manufacturing (33%). The internet purchases were also more common for the larger enterprises. Thus 44–46% of enterprises with 50 employees or more had placed orders over the Internet that represented $\geq 1\%$ of enterprise's total purchases in 2005, while 37% of enterprises with 20–49 employees and 26% of enterprises with 10–19 employees had done so (figure 14).

Figure 14. Purchases via Internet $\geq 1\%$ of total purchases 2005 by economic activity and enterprise size

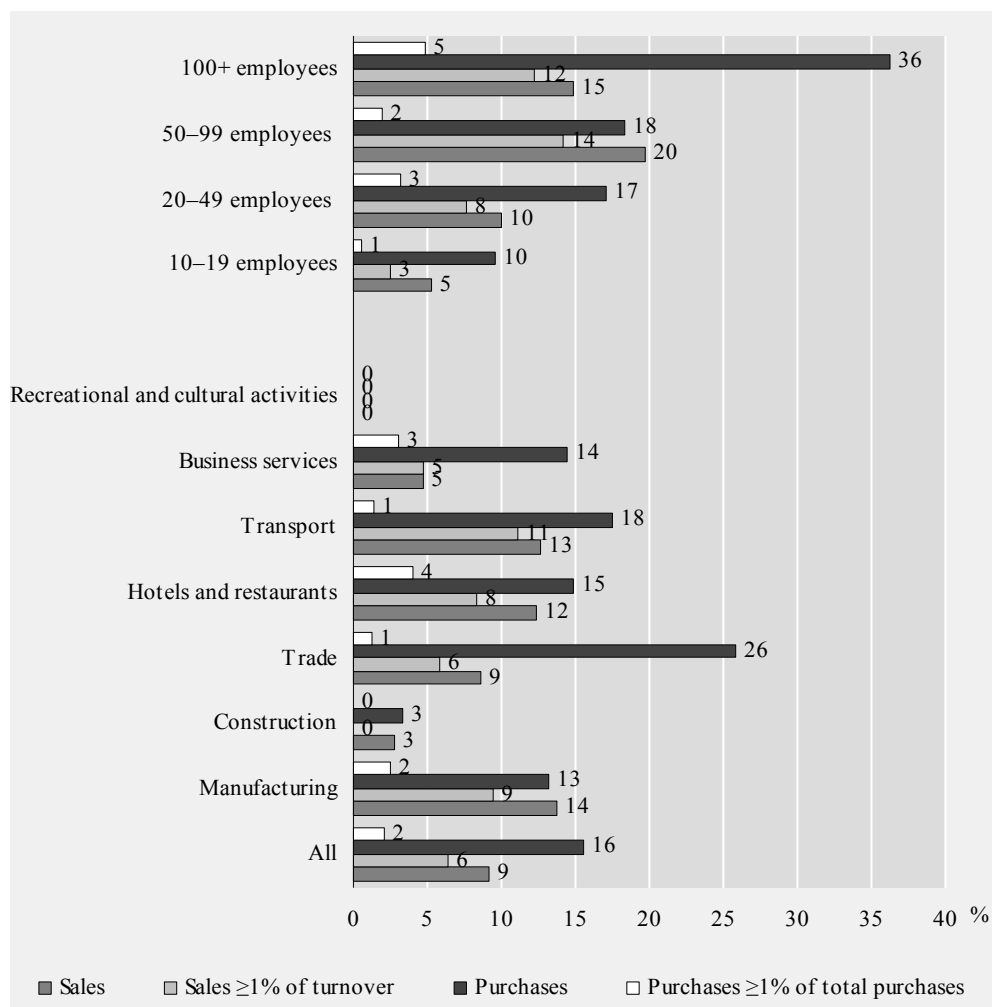


Percent of enterprise population excl. the financial sector.

9% sell products and 17% buy products over EDI or other networks than the Internet

In 2005 around 9% of the enterprises used EDI or other networks than the Internet to sell goods or services and for 6% of the enterprises, these transactions delivered at least 1% of enterprise's turnover that year. 17% of the enterprises ordered goods or services for their own use via EDI or other networks than the Internet in 2005. For only 2% of the enterprises these purchases exceeded 1% of the enterprise's total purchases that year (figure 15).

Figure 15. eCommerce via other networks than Internet 2005 by economic activity and enterprise size

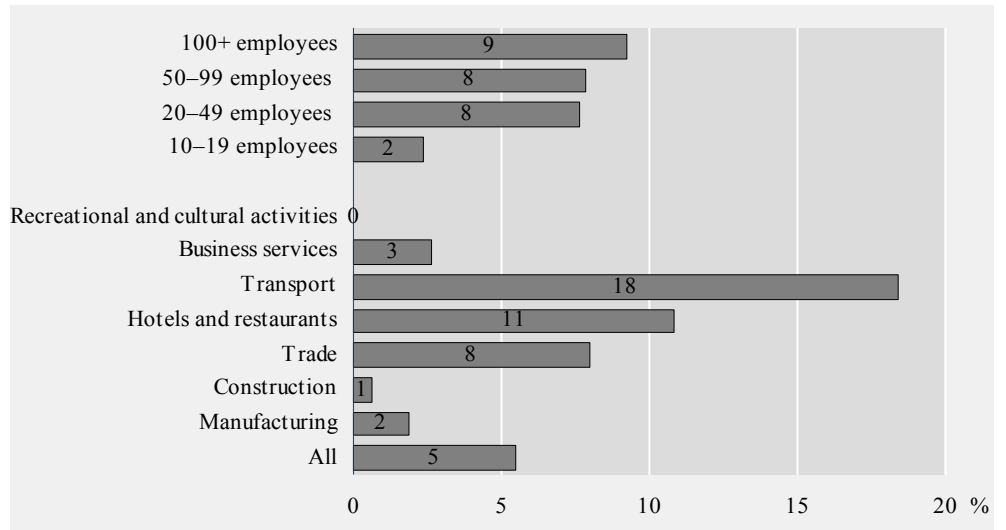


Percent of enterprise population excl. the financial sector.

5% sell via presence on specialised Internet market place

Around 5% of the enterprises sold goods or services via presence on a specialised Internet market place in 2005. The use of this option was most common for enterprises within transport and telecommunication (18%) and for hotels and restaurants (11%). The prevalence of enterprises selling via presence on specialised Internet market place was also higher among enterprises with 20 employees or more than among the smallest companies (figure 16).

Figure 16. Sales via presence on specialised Internet market place 2005 by economic activity and enterprise size

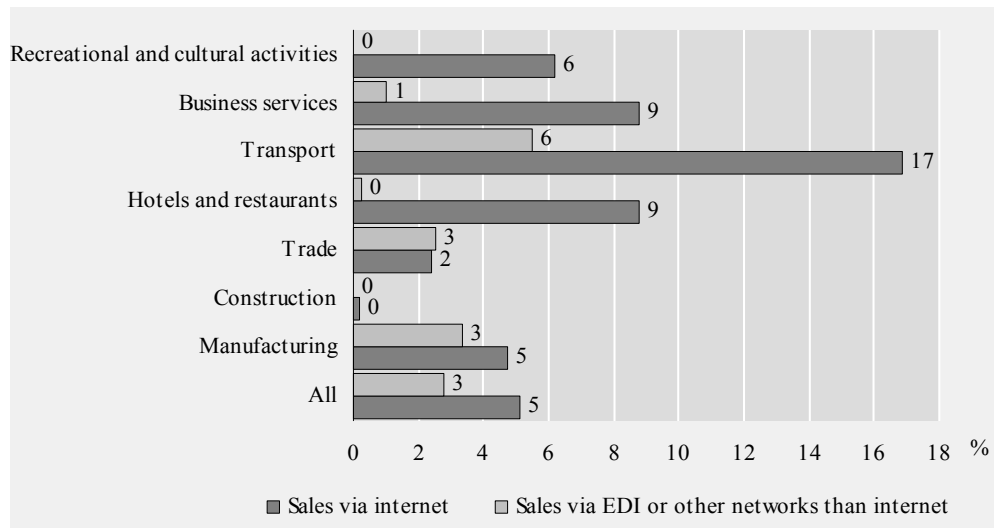


Percent of enterprise population excl. the financial sector.

Value of eCommerce

The value of Internet sales reached 5% of enterprises' total turnover in 2005. The percentage of turnover resulting from orders received via Internet was highest among enterprises within transport and telecommunication (17%). Value of sales via other networks than the Internet was 3% of enterprises' total turnover in 2005, whereas the highest value as percentage of turnover was among enterprises within transport and telecommunication (figure 17).

Figure 17. Volume of eSales 2005 by economic activity

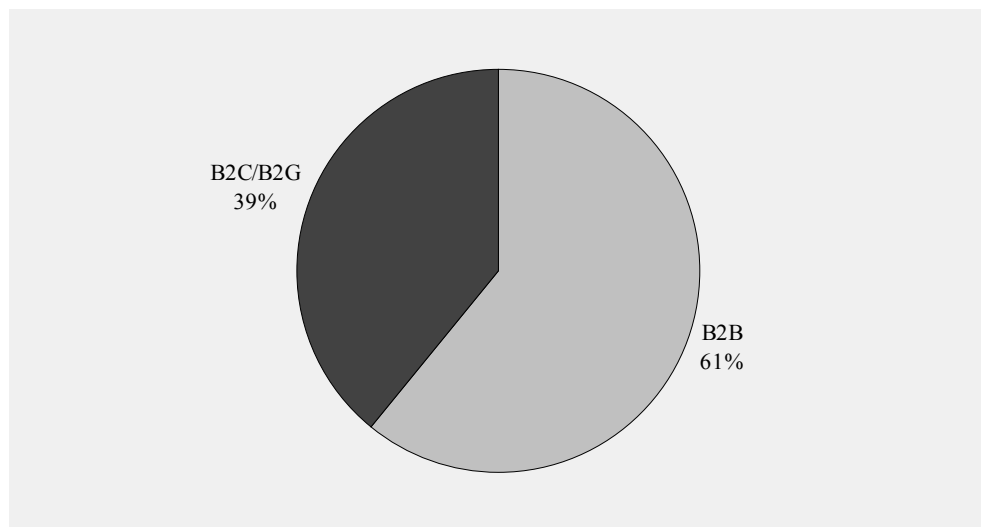


Percent of total turnover excl. the financial sector.

The larger share of the value comes from B2B or B2G sales

The majority of Internet sales in 2005 were a result of enterprises' business with other enterprises (B2B), public authorities or governmental enterprises (B2G). Thus around 60% of the value of Internet sales resulted in orders from such entities (figure 18).

Figure 18. Breakdown of Internet sales by customer type 2005

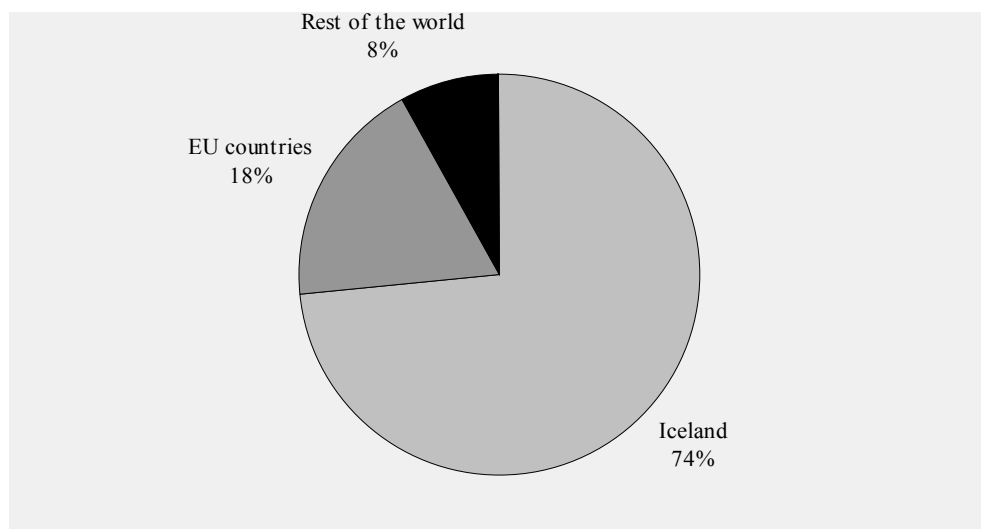


Percent of weighted value of Internet sales excl. the financial sector.

73% of the Internet sales based on orders made by Icelanders

Three quarters of the value of Internet sales in 2005 were based on orders made by individuals or enterprises in Iceland, 18% of the value was based on orders from entities within the European Union and the rest or 8% were based on orders from the rest of the world (figure 19).

Figure 19. Breakdown of Internet sales by destination 2005

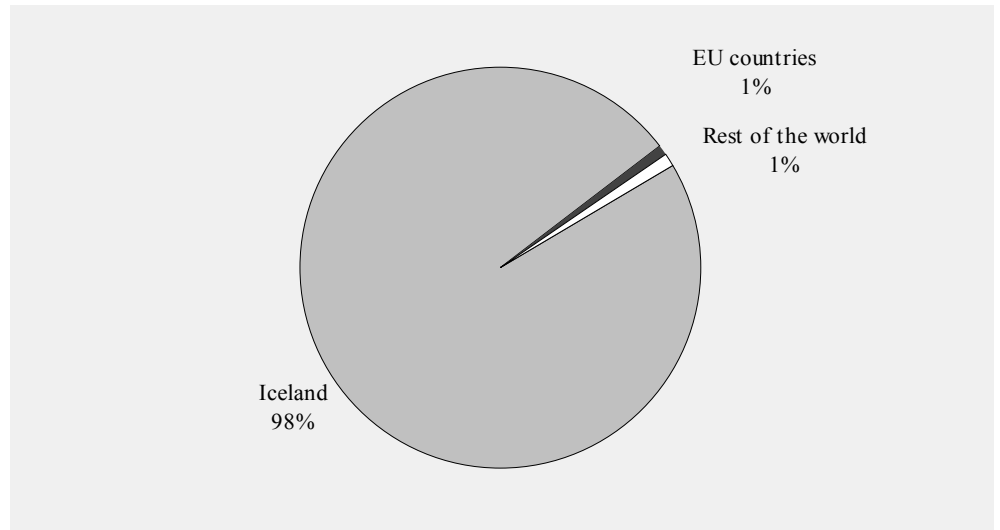


Percent of weighted value of Internet sales excl. the financial sector.

On-line financial services

Around 86% of enterprises within financial intermediation and insurances provided on-line financial services to customers in 2005. The vast majority of their customers are Icelandic or 98% (figure 20).

Figure 20. Breakdown of Internet sales within the financial sector by destination 2005



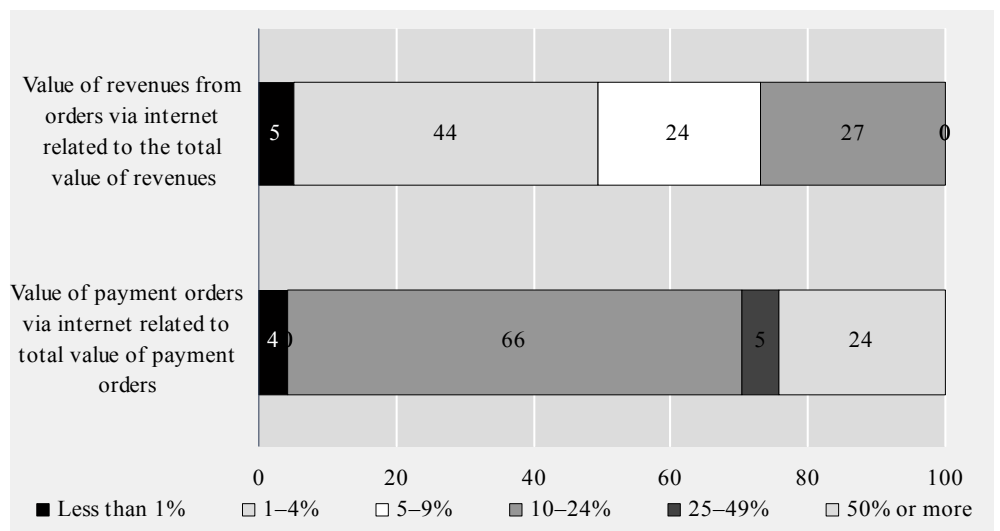
Percent of total retail customer.

Value of revenues from orders made via Internet are less than 25% of total value of revenues

For 4% of the enterprises providing on-line financial services to customers the value of revenues from orders made via Internet was less than 1% of total value of revenues. Three out of every four stated that the value of on-line orders had reached 1–4% of total value of revenues, for 18% the value of on-line orders was 5–9% of total value of revenues and 21% of the enterprises estimated the value of on-line orders to be in the vicinity of 10–24% of total value of revenues.

Value of payment orders via Internet related to total value of payment orders was less than 1% for 3% of the enterprises providing financial services on-line, for half of those enterprises the value was 10–24% of total value of payment orders, for 4% of the enterprises the value was 25–49% of total value of payment orders and for 18% of the enterprises the value of payment orders via Internet related to total value of payment orders was 50% or more (figure 21).

Figure 21. Volume of financial transactions 2005



Percent of enterprises offering on-line financial services.

Collection and processing of data

The questionnaire Statistics Iceland used a model questionnaire prepared by Eurostat. That makes the results presented in this article comparable with the results of similar surveys of other national statistical institutes within the EU as well as the Nordic countries.

Method of data collection In April 2006, the managing director of the selected enterprises received a letter from Statistics Iceland explaining the purpose of the survey and requesting their cooperation. The survey was conducted as an on-line survey, PDF files with a full version of the questionnaires were also accessible on-line. On enterprises' request, a paper version of the questionnaire was sent to them by mail. Participation was voluntary.

Sample size and response rate The statistical unit used was the *enterprise* and the gross sample size was 800 enterprises with 10 or more employees in 2005. Enterprises were selected according to the Icelandic Standard Industrial Classification (*ISAT 95*). The *ISAT 95* has 17 main groups with five hierarchical levels of classification. The first four levels are identical with *NACE 1 rev.*, the statistical classification of economic activities in the European Union. The selected activity sectors are:

- 15–37 (manufacturing)
- 45 (construction)
- 50–52 (trade)
- 55 (hotels and restaurants)
- 60–64 (transport and telecommunication)
- 65–67 (financial intermediation and insurance)
- 70–74 (business services)
- 92 (recreational and cultural activities)

Sample was drawn from the PAYE register of the Tax authorities. Due to the smallness of the sample frame, a combination of census and random sampling was used. Overall the response rate was around 60% of the net sample (table 1).

Table 1. Sample size and response rate 2006

	Number	%
Sample	800	100.0
No activity	21	2.6
Out of scope	40	5.0
Net sample size	739	92.4
Net sample size	739	100.0
Respondents	446	60.4
Refusals	94	12.7
Away or no contact	199	26.9

Presentation of results and accuracy of data Results are presented by enterprises' economic activity and number of employees. Reference time for the use of IC technology is 1st of January 2006. Reference time for turnover, number of employees, security problems and eCommerce is year 2005. Totals and percentages were calculated by applying weights to each answer with reference to activity sector and number of employees. Accuracy of results is based on the respondent's knowledge of the technology used by the enterprise. Data on eCommerce is usually based on estimations made by the enterprise.

Table 2. Enterprise's use of ICT by field of activity and enterprise size 2006

Percent of enterprise population	IT systems for							
	Use of computers	Internet connection	Intranet	Extranet	LAN	Own web page/web site	manag. orders/purchases	With teleworking employees ¹
All	100	99	35	28	88	77	52	49
Manufacturing	100	99	26	21	81	71	48	48
Construction	100	100	14	7	94	50	13	43
Trade	100	98	40	25	89	82	84	38
Motor trade	100	100	38	27	100	72	76	30
Wholesale trade	100	100	43	23	89	90	89	48
Retail trade	100	97	39	27	85	77	81	30
Hotels and restaurants	100	100	28	27	88	88	53	34
Transport/telecommunication	100	100	45	24	74	69	33	79
Financial intermediation and insurance	•	100	92	78	86	100	81	54
Business services	100	100	57	57	96	93	44	75
Recreational and cultural activities	100	100	58	58	100	100	58	58
Number of employees								
10–19 employees	100	99	25	17	84	63	41	37
20–49 employees	100	99	36	29	90	84	56	52
50–99 employees	100	100	48	42	89	90	61	63
100+ employees	100	100	66	59	96	97	77	74

Notes: "Teleworking employees" means employed persons who work part of their time (half a day per week or more) away from the enterprise's regular work site while having access to the enterprise's computer system.

Symbols used within tables

- nil, i.e. nothing.
- 0 less than half of the unit used.
- category not applicable.

Table 3. Automatical links of IT systems for managing orders or purchases by field of activity and enterprise size 2006

Percent of enterprises with IT systems for managing orders or purchases	Internal system			System for managing production, logistics or service operations	Suppliers' business systems outside enterprise group	Customers' business systems outside enterprise group
	Internal system for reordering replacem. supplies	of the enterprise or enterprise group	Invoicing and payment systems			
All	15	•	69	36	13	11
Manufacturing	16	•	72	40	6	8
Construction	–	•	70	20	–	–
Trade	22	•	76	42	19	8
Motor trade	31	•	63	55	40	18
Wholesale trade	20	•	78	42	22	11
Retail trade	21	•	77	38	9	2
Hotels and restaurants	7	•	56	6	13	9
Transport/telecommunication	22	•	84	44	17	34
Financial intermediation and insurance	•	89	•	•	•	45
Business services	6	•	53	43	15	17
Recreational and cultural activities	–	•	71	71	–	–
Number of employees						
10–19 employees	14	•	65	28	8	4
20–49 employees	12	•	66	33	11	7
50–99 employees	12	•	76	45	25	29
100+ employees	33	•	68	46	23	28

Table 4. Share of total number of employees using computers in their normal work routine¹ by field of activity and enterprise size 2006

Percent of employees	All computers	Computers connected to the Internet
All	57	52
Manufacturing	46	39
Construction	22	18
Trade	74	58
Motor trade	82	78
Wholesale trade	74	68
Retail trade	74	49
Hotels and restaurants	37	23
Transport/telecommunication	66	58
Financial intermediation and insurance	•	98
Business services	72	72
Recreational and cultural activities	95	95
Number of employees		
10–19 employees	61	56
20–49 employees	50	44
50–99 employees	57	52
100+ employees	58	53

¹At least once a week

Table 5. Location of teleworking employees by field of activity and enterprise size 2006

Percent of enterprises with teleworking employees	From other			
	At home	From customers' or other business partners' premises	geographically dispersed location of the same enterprise	During business travel
All	92	27	38	63
Manufacturing	93	11	30	62
Construction	84	25	18	34
Trade	96	25	23	82
Motor trade	100	10	33	67
Wholesale trade	100	38	14	76
Retail trade	89	9	34	94
Hotels and restaurants	93	23	35	51
Transport/telecommunication	100	20	63	55
Financial intermediation and insurance	95	6	57	87
Business services	88	55	58	66
Recreational and cultural activities	71	43	43	100
Number of employees				
10–19 employees	89	28	25	57
20–49 employees	92	26	35	58
50–99 employees	95	24	47	67
100+ employees	95	32	68	87

Table 6. Enterprises having difficulties in recruiting personnel with ICT skills by field of activity and enterprise size 2005

	Percent of enterprise population
All	7
Manufacturing	2
Construction	3
Trade	14
Motor trade	17
Wholesale trade	15
Retail trade	11
Hotels and restaurants	1
Transport/telecommunication	3
Financial intermediation and insurance	11
Business services	11
Recreational and cultural activities	–
Number of employees	
10–19 employees	5
20–49 employees	6
50–99 employees	8
100+ employees	13

Table 7. Types of difficulties, when recruiting personnel with ICT skills by field of activity and enterprise size 2005

Percent of enterprises having difficulties in recruiting personnel with ICT skills	Personnel with needed ICT skills not available or not entirely suitable	ICT specialists with needed skills not available or not entirely suitable	High remuneration costs of ICT specialists
All	42	33	25
Manufacturing	41	59	59
Construction	100	–	–
Trade	45	17	11
Motor trade	59	0	–
Wholesale trade	57	0	–
Retail trade	23	47	30
Hotels and restaurants	100	100	100
Transport/telecommunication	–	100	100
Financial intermediation and insurance	–	47	23
Business services	24	55	38
Recreational and cultural activities	–	–	–
Number of employees			
10–19 employees	40	21	13
20–49 employees	31	39	31
50–99 employees	77	32	19
100+ employees	45	46	40

Table 8. Type of Internet connection by field of activity and enterprise size 2006

Percent of enterprises with Internet access	Analogue modem	ISDN	ADSL, SDSL or xDSL	Other fixed Internet connection	Wireless connection (satellite, mobile phone)
All	4	6	89	12	6
Manufacturing	6	6	89	8	3
Construction	5	7	91	1	7
Trade	1	5	92	11	6
Motor trade	–	10	87	13	–
Wholesale trade	3	4	95	9	9
Retail trade	–	4	91	12	5
Hotels and restaurants	5	5	89	6	7
Transport/telecommunication	2	2	86	19	7
Financial intermediation and insurance	13	–	60	33	11
Business services	5	8	87	28	7
Recreational and cultural activities	–	–	75	25	17
Number of employees					
10–19 employees	5	4	90	6	2
20–49 employees	4	7	90	10	7
50–99 employees	2	3	86	18	13
100+ employees	5	8	78	39	11

Table 9. Maximum speed for download of the fastest Internet connection by field of activity and enterprise size 2006

Percent of enterprises with Internet access	Between			Don't know
	Less than 144 Kb/sec.	144 Kb/sec and 1,9 Mb/sec	2 Mb/sec or more	
All	5	29	44	22
Manufacturing	6	33	37	25
Construction	16	37	25	22
Trade	1	26	54	19
Motor trade	7	7	44	42
Wholesale trade	–	36	55	9
Retail trade	–	23	55	22
Hotels and restaurants	4	39	23	34
Transport/telecommunication	–	16	68	15
Financial intermediation and insurance	–	34	49	17
Business services	–	11	70	19
Recreational and cultural activities	–	17	83	–
Number of employees				
10–19 employees	8	30	36	25
20–49 employees	3	32	44	21
50–99 employees	–	21	55	25
100+ employees	–	13	75	12

Table 10. Purpose of Internet use by field of activity and enterprise size 2006

Percent of enterprises with Internet access	Market monitoring (e.g. prices)	Banking and financial services	Receiving digital products	Obtaining after sales services	Training and education
All	57	91	52	61	17
Manufacturing	64	94	52	64	13
Construction	41	95	38	61	5
Trade	63	92	58	62	19
Motor trade	69	86	62	79	34
Wholesale trade	77	87	65	72	22
Retail trade	47	99	51	46	11
Hotels and restaurants	53	92	47	67	7
Transport/telecommunication	80	96	44	36	13
Financial intermediation and insurance	74
Business services	55	92	74	70	35
Recreational and cultural activities	67	100	58	42	25
Number of employees					
10–19 employees	46	90	47	56	9
20–49 employees	64	92	54	62	19
50–99 employees	71	96	61	67	25
100+ employees	70	87	61	70	39

Table 11. Enterprise's interaction with public authorities via Internet by field of activity and enterprise size 2006

Percent of enterprises with Internet access	For submitting a proposal in an electronic tender system			
	For obtaining information	For obtaining forms	For returning filled in forms	
All	85	80	80	14
Manufacturing	85	77	77	11
Construction	88	74	82	18
Trade	86	82	79	19
Motor trade	86	73	72	10
Wholesale trade	93	92	78	22
Retail trade	78	74	81	18
Hotels and restaurants	77	81	77	7
Transport/telecommunication	78	71	82	2
Financial intermediation and insurance	100	70	79	3
Business services	91	92	90	23
Recreational and cultural activities	67	42	67	–
Number of employees				
10–19 employees	81	75	75	9
20–49 employees	87	83	85	19
50–99 employees	89	84	83	19
100+ employees	92	84	80	17

Table 12. Facilities of the website by field of activity and enterprise size 2006

Percent of enterprises with their own website	Facilitate access to		
	Marketing the products	product catalogues and price lists	Providing after sales support
All	88	51	44
Manufacturing	91	48	33
Construction	77	31	35
Trade	90	57	47
Motor trade	96	38	34
Wholesale trade	92	60	53
Retail trade	87	58	44
Hotels and restaurants	85	66	37
Transport/telecommunication	98	67	53
Financial intermediation and insurance	.	.	89
Business services	84	39	52
Recreational and cultural activities	100	42	17
Number of employees			
10–19 employees	87	41	34
20–49 employees	85	55	45
50–99 employees	83	49	44
100+ employees	78	51	43

Table 13. Substitution of traditional postal mail by electronic means of communication by field of activity and enterprise size 2006

Percent of enterprise population					Not applicable,
	No substitution	Minor substitution	Significant substitution	Mostly or entirely substituted	postal mail was never irrelevant mean
All	11	33	29	17	10
Manufacturing	12	36	30	12	10
Construction	9	32	24	22	13
Trade	11	37	33	13	4
Motor trade	14	38	34	7	7
Wholesale trade	9	34	47	10	–
Retail trade	12	40	20	18	7
Hotels and restaurants	14	21	18	30	16
Transport/telecommunication	8	37	31	7	16
Financial intermediation and insurance	17	66	15	3	–
Business services	8	25	36	20	11
Recreational and cultural activities	–	–	83	17	–
Number of employees					
10–19 employees	11	31	26	18	14
20–49 employees	12	33	28	19	8
50–99 employees	8	40	39	7	7
100+ employees	9	34	43	13	1

Table 14. Security precautions by field of activity and enterprise size 2006

Percent of enterprises with Internet access	Other						
	Virus checking or protection software	Firewalls (software)	Secure servers	Off-site data backup	Electronic authentication digital signature (as receiver)	mechanism (e.g. PIN code)	Encryption for confidentiality
All	95	81	40	75	9	12	10
Manufacturing	94	78	27	82	6	12	3
Construction	94	69	19	66	5	1	6
Trade	97	84	48	78	14	4	11
Motor trade	86	93	34	58	10	–	20
Wholesale trade	100	84	50	80	3	6	9
Retail trade	96	81	50	81	26	4	10
Hotels and restaurants	92	79	34	43	4	7	1
Transport/telecommunication	95	79	52	84	12	16	11
Financial intermediation and insurance	92	100	89	100	22	62	31
Business services	98	91	64	85	12	27	26
Recreational and cultural activities	83	100	58	83	25	17	–
Number of employees							
10–19 employees	92	75	27	73	8	6	8
20–49 employees	98	81	43	68	10	12	7
50–99 employees	97	94	65	87	8	15	12
100+ employees	95	95	68	97	16	32	27

Table 15. Percent of enterprises, which encountered ICT related security problems by field of activity and enterprise size 2005

	Percent of enterprises with access to the Internet
All	17
Manufacturing	16
Construction	15
Trade	20
Motor trade	20
Wholesale trade	20
Retail trade	21
Hotels and restaurants	20
Transport/telecommunication	21
Financial intermediation and insurance	38
Business services	5
Recreational and cultural activities	–
Number of employees	
10–19 employees	13
20–49 employees	19
50–99 employees	11
100+ employees	25

Table 16. Breakdown of Internet sales by field of activity and enterprise size 2005

Percent of weighted value of Internet sales	By customer type		By destination		
	B2B/B2G	B2C	Own country	EU countries	Rest of the world
All	61	39	73	18	8
Manufacturing	93	7	41	41	18
Construction	71	29	100	–	–
Trade	87	13	99	0	–
Motor trade	24	76	95	5	–
Wholesale trade	94	6	100	0	0
Retail trade	55	45	99	1	–
Hotels and restaurants	50	50	43	38	18
Transport/telecommunication	27	73	95	5	0
Financial intermediation and insurance	•	•	•	•	•
Business services	63	37	38	38	24
Recreational and cultural activities	80	20	97	2	1
Number of employees					
10–19 employees	64	35	71	25	1
20–49 employees	25	75	85	10	5
50–99 employees	74	26	71	17	12
100+ employees	67	33	70	22	8

Table 17. eSales as a percentage of turnover by field of activity and enterprise size 2005

Percent of total turnover	Sales via EDI or other networks than Internet	
	Internet sales	
All	5	3
Manufacturing	5	3
Construction	0	–
Trade	2	3
Motor trade	1	0
Wholesale trade	4	6
Retail trade	1	0
Hotels and restaurants	9	0
Transport/telecommunication	17	6
Financial intermediation and insurance	•	•
Business services	9	1
Recreational and cultural activities	6	–
Number of employees		
10–19 employees	2	0
20–49 employees	4	1
50–99 employees	9	2
100+ employees	5	4

Table 18. eCommerce by field of activity and enterprise size 2005

Percent of enterprise population	eCommerce via Internet			
	Sales	Sales ≥1% of turnover	Purchases	Purchases ≥1% of total purchases
All	32	23	59	34
Manufacturing	32	18	54	33
Construction	16	8	38	17
Trade	30	23	68	43
Motor trade	24	21	58	45
Wholesale trade	33	26	67	41
Retail trade	29	21	73	44
Hotels and restaurants	55	41	58	28
Transport/telecommunication	34	34	63	22
Financial intermediation and insurance	•	•	•	•
Business services	29	25	73	47
Recreational and cultural activities	67	67	83	–
Number of employees				
10–19 employees	27	17	46	26
20–49 employees	33	25	68	37
50–99 employees	41	33	72	44
100+ employees	42	35	79	46

Table 19. Breakdown of Internet sales within the financial sector by destination 2005

	Percent of the total retail customer
Own country	98
EU countries	1
Rest of the world	1

Table 20. Value of financial transactions via Internet 2005

Percent of enterprises offering on-line financial services	Value of payment orders via Internet related to total value of payment orders	Value of revenues from orders via Internet related to the total value of revenues
Less than 1%	4	5
1–4%	–	44
5–9%	–	24
10–24%	66	27
25–49%	5	–
50% or more	24	–

eCommerce via EDI or other networks than Internet				Sales via presence on specialised Internet market place	On-line financial services to customers
Sales	Sales \geq 1% of turnover	Purchases	Purchases \geq 1% of total purchases		
9	6	16	2	5	•
14	9	13	2	2	•
3	–	3	–	1	•
9	6	26	1	8	•
7	7	44	7	7	•
15	11	24	–	11	•
3	1	22	1	5	•
12	8	15	4	11	•
13	11	18	1	18	•
•	•	•	•	•	86
5	5	14	3	3	•
–	–	–	–	–	•
5	3	10	1	2	•
10	8	17	3	8	•
20	14	18	2	8	•
15	12	36	5	9	•

Hag tíðindi **Upplýsingatækni**
Statistical Series **Information technology**

91. árgangur nr. 61

2006:6

ISSN 0019-1078

ISSN 1670-4592 (pappír *paper*) • ISSN 1670-4606 (pdf)

Verð ISK 800 *Price EUR 11*

Umsjón *Supervised by* Guðfinna Harðardóttir • gudfinna.hardardottir@hagstofa.is

Sími *Telephone* +(354) 528 1000

© Hagstofa Íslands *Statistics Iceland* • Borgartúni 21a 150 Reykjavík Iceland

Bréfasími *Fax* +(354) 528 1099

Öllum eru heimil afnot af ritinu. Vinsamlega getið heimildar. *Please quote the source.*

afgreidsla@hagstofa.is

www.hagstofa.is/hagtidindi www.statice.is/series