

# Survey Report – IT barometer 2010

*A survey on the importance of IT in Finnish companies from the perspective of IT and business management*



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## 1. Abstract

The annual IT barometer of the Finnish Information Processing Association has now been conducted for the third time. The barometer charts the importance of information technology (IT) for Finnish companies. Participating in the IT barometer this time were 176 persons in business or IT management in Finnish organisations of over 500 persons.

During the economic downturn, criticism levelled against the immediate utilisation of IT and, in particular, the operations of IT management has clearly increased, especially in business management. This increased criticism of IT and IT management likely reflects the high expectations placed on IT which have been difficult to fulfil in the poor financial situation.

The IT index value measuring IT utilisation in companies took a sharp downturn to 95 from 123. The main cause for this drop was that the companies did not consider IT to have increased turnover through new forms of business or methodologies. The responses are also affected by the Finnish GNP decreasing by some seven per cent over the last year. This reduction may have been caused by the expectation of IT being used to create new business and cut costs during the recession while, in reality, only costs were cut.

From the responses, IT's connection with the productivity and growth of the Finnish national economy seems indisputable. When the replies concerning IT utilisation are considered in relation to the over-seven-per-cent downturn in GNP, the relative estimates of the positive effects of IT are even higher than at the beginning of the recession. For example, while the innovations from IT were considered to increase turnover by around eight per cent in the 2009 barometer (the difference from the increase in GNP was around 5.5%), the growth effect was now estimated to be around 3.5% (a difference of almost 11% from the change in GNP).

The incongruity between the goals and actions of the companies are evident in the replies for the barometer. For instance, IT or online business is seen as an important factor for success in the companies, but these are not developed systematically enough.

Following the recession, the IT costs of the companies are expected to increase in the next few years.

The customer has become the focus of IT development in several companies. When the respondents were asked to specify the most important competence areas with regard to business operations in the future, user-orientation, ease of use, and e-business were clearly among the most important areas of development.

## 2. Introduction

The annual IT barometer of the Finnish Information Processing Association, now conducted for the third time, charts the importance of IT for Finnish companies. The barometer gathers the views of executive personnel about the utilisation of information technology, the kinds of changes to be expected within the next few years, and the kind of IT know-how needed in the company in the future. The IT barometer survey also measures differences of opinion between business and IT management personnel with regard to these matters.

For Finnish companies, 2009 was a time of surviving the economic recession and beginning the recovery. In the course of the year, the GNP fell as much as 7.8%, and companies kept to a tight financial regimen – including in the area of IT. However, a positive upswing was also seen during 2009, in the form of a strong rise in stock exchange rates. The increase in company profits lagged behind. The slower recovery of the real economy was evident, for instance, in further cuts and postponements of IT investments.

Because of the recession, the 2010 IT barometer had as a special theme the recession's effect on attitudes concerning IT and its utilisation. We are delving more deeply into this theme in the 2010 survey, continuing work already begun last year. The timing is opportune, as the survey data set was collected between January 2010 and February 2010. Most industries had just moved from the economic downturn to expectations of emergent growth in real-economy indicators as well as stock exchange rates. The respondents for the 2009 barometer had many expectations for both lower IT costs and the role of IT as conqueror of the recession through new business. This year's barometer thus provides an excellent opportunity to evaluate how well those expectations were fulfilled and emphasised.

The special themes of the 2009 IT barometer were the management of IT risks, IT governance, and management of social media. These themes were included in this year's barometer as well, and the report will therefore enable year-on-year comparison of the results. With regard to IT governance, the barometer survey emphasises questions on the measurement of IT's business and other effects. Discussion of social media was lively in 2009. The IT barometer is one of the first longitudinal studies of the matter. Examination of the outsourcing theme began in 2008 has been continued in this year's barometer.

The barometer, repeated annually, serves as a general indicator of activity in the IT field. An IT index consisting of seven key figures has been compiled from the replies to the survey. Its purpose is measurement and monitoring of the yearly changes in utilisation of information technology and the investment environment.

### 2.1. Research Data

The IT barometer was conducted as an online survey, with a link to the survey and a request to take part sent to the participants via e-mail. The respondents were picked from Fonecta's address register. The survey was targeted at employees involved in the operational, IT, and information management of Finnish companies with over 500 employees. The survey consisted of 26 structured and open questions.

The Finnish Information Processing Association and the Information Systems Science section of the Department of Business Technology of Aalto University's School of Economics jointly planned the survey and compiled the survey form. FIPA was responsible for the technical implementation, and Conexio analysed the results and prepared the research report. The School of Economics of Aalto University provided methodology assistance for the research and took part in analysing the results and compiling the research report in collaboration with Conexio and FIPA.

In total, 176 respondents participated in the survey. The pie chart on the following page illustrates the division of the respondents between business and IT management personnel.

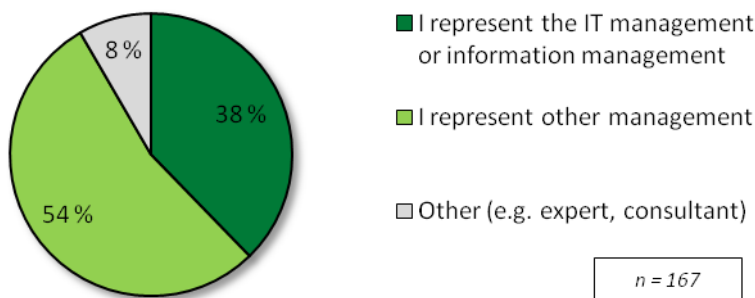
## 2.2. Observations Concerning the Response Data

It should be noted that the sample frame of the survey differs from that of the 2008 survey (now and in 2009 Fonecta but in 2008 the FIPA register). This somewhat reduces the comparability of the results between subsequent surveys. In order to increase the reliability of the survey results, we normalised the responses of personnel in the employ of the same company into a single response so that there was at most one response from the IT management and one response from the business management of any single company. There are, in total, six normalised responses in the material. There are some minor differences between normalised and non-normalised responses. Because of this and the small number of normalised observations, we have not analysed the statistical significance of the differences between non-normalised and normalised responses. For questions comparing the views of the business management and IT management, non-normalised replies were used. There were 10 repeat respondents from the 2009 barometer.

To increase the results' reliability, as well as for research purposes, we also examined whether the results were affected by whether or not a respondent worked in the ICT field. There are only three responses from persons working in the ICT field, so their effect on the body of survey data was determined to be minor.

We processed the material as follows prior to analysis: We discarded responses containing an amount in euros in response to questions where the respondents were asked to evaluate IT's percentage effect on business operations. We also discarded an individual exceptionally large value (1,000,000%). The material contained one combination response applying to several companies. As we considered it to provide a good image of the situation of these companies, that response was included in the analysis. The material also included some 'cannot say' or 'will not say' responses, which were discarded from the analysis; i.e., they were processed as missing observations. The following answers were discarded for the question asking for an evaluation of IT's effects on business operations: 'Start-up organisation, difficult to say', 'Not measured', and 'EUR 100,000'. Because of the difficulty of interpretation and a contradictory answer, we also discarded the answer to an individual question where all sections of the question were answered with a large negative value, no matter whether the respondent was evaluating savings or new business possibilities (-50, -30, -20).

### Position of the Respondents



*In total, 167 respondents from organisations with over 500 employees: 63 respondents from IT and information management, 90 from general management, and 14 from other positions (e.g., consultant/expert).*

The IT barometer measures the views of the respondents at the moment of response. In evaluation of the results of the survey and their reliability, it must be noted that they are based on the individual views of the respondents and therefore do not represent the official positions of the companies or their actual situations. Considering the above-mentioned, we judge the results of the survey to be reliable.

## 2.3. Summary

### **Effects of the recession: The tight connection of IT and growth in both productivity and criticality with the utilisation of IT**

- The downturn of the IT index and the almost-across-the-board decrease of the absolute values in the responses were the first things to stand out in examination of the responses for the IT barometer 2010 survey. When the responses related to utilisation of IT are assessed in relation with the downturn of more than seven per cent in the GNP, the responses do, however, reflect strong belief in the significance of IT and information as a source of increased productivity and economic growth.
- Despite the decrease in absolute values, the relative estimates of the positive effects of IT were even higher than during the initial stages of the recession. For example, while the innovations from IT were expected to increase turnover by around eight per cent in the 2009 barometer (difference from the increase in GNP: around 5.5%), the growth effect was now estimated to be around 3.5% (a difference of almost 11% from the change in GNP). From the responses, IT's connection with the productivity and growth of the Finnish national economy thus seems indisputable. The responses also indicate that, on the average, increasing productivity has been successful through IT also during the recession.
- A second core feature in the decrease of the absolute values in the responses is that during the recession, criticism of the immediate utilisation of IT and, in particular, information management operations has increased clearly, especially in business management. The utilisation of IT in companies received a clearly lower school-style mark than in last year's IT barometer. Differences in views between the business and IT management have also increased. For example, in the 2009 IT barometer, 52% of IT managers and 46% of business managers estimated that IT projects will remain in the agreed budgets, with the difference being six per cent. In this year's barometer, the corresponding values are 57% (for IT managers) and 37% (for business managers). What is most significant is the growth of the difference to 20% and the movement of the estimates in the opposite direction.
- The increased criticism levelled against IT and IT management likely reflects the high expectations for IT, which have been difficult to realise in the poor financial situation. According to the previous IT barometer, in the beginning of the recession, expectations for both cutting IT costs and the generation of new business through innovation, e-commerce, and e-business almost as strongly. However, according to the IT barometer 2010, attention was paid during the recession almost entirely to cutting IT costs and the postponement of (IT) investments generating new business. The recession has hit different companies in different ways. Turnover among export companies may have dropped as much as dozens of per cent. This has forced some of them to employ extreme cost-cutting and other such actions in order to survive the recession. According to the estimates in the responses, IT costs have been cut by, on average, as much as the GNP fell – as a proportion of turnover, the share of IT costs has remained unchanged (at around 4.5%).
- In the operations of the companies, IT is omnipresent, contributing to a complex whole. The increase in criticism of IT and information management likely also reflects the extreme challenge of cutting IT costs extensively and quickly without serious harm to business. This is especially difficult if IT as

a whole consists of poorly compatible and overlapping components based on different technologies and business logics. A change like a recession will reveal such rigidities generated over the years.

### Summary of the other results

- The IT index value fell from 123 to 95 (-23%). This decrease reflects the effect of the difficult economic situation on the utilisation values of IT. The index also reflects slight disappointment with the reality of IT utilisation and/or looking for a cause for the companies' poor success in the unrealised promises of IT.
- The importance of IT for the future success of the companies is still deemed to be very high. Compared to last year's, the numbers fell only slightly. As many as 89% of the respondents expected the role of IT to increase further as a competitive factor in the future.
- Where system projects are concerned, ERP, CRM, integration, and document management projects in particular are topical in Finnish companies, according to the respondents. The results were interesting with regard to the high-profile social media utilisation. It does not come up as system projects.
- The customer has become the focus of IT development in several companies. When the respondents were asked to specify the most important competence areas with regard to business operations, user-orientation and e-business were clearly among the most important areas for development.
- The respondents expect IT costs as a proportion of turnover to increase clearly in the near future. Last year, just on the threshold of the recession, the respondents estimated that the costs would decrease or remain unchanged, but now, upon entry to slow economic growth and recovery from the recession, the respondents estimated that the share of IT costs in the turnover will increase from the current 4.5% to almost five per cent over the next three years. If this estimate becomes reality, it will mean significant IT investments.
- Measuring the effects of IT is an important issue in Finnish companies. The respondents estimate the situation to be poorer than last year. The result likely reflects the increase in awareness of the phenomenon. The business effects of IT are not measured to any great extent with reliable business indicators, which means that the benefits of IT for business activities are largely judged by beliefs. Under half of the respondents answered that Finnish companies do measure the reaching of the goals of IT acquisitions or the effects of IT innovations on business operations.
- Finnish companies are also becoming aware of the importance of improving project management. Likely because of failure of IT projects, several respondents noted that the management of projects and programmes had been raised as the most important development target in their companies.
- The companies' willingness to outsource is continuing to decrease, falling now for the third time in a row. The share of outsourcing of IT costs has remained roughly the same, but, in comparison to last year, fewer respondents reported that their companies had the goal of outsourcing as much of their IT operations as possible. This result is interesting in view of the fact that most IT (outsourcing) service providers have proposed outsourcing as a core method of fighting the recession.
- As a result of the recession, the view of IT's role has changed. More often than in previous years, the respondents expect support from IT for developing new methodology and increasing the efficiency of the current ones; correspondingly, they expect it more seldom for the creation of new business methods.

- Management of the utilisation of social media still remains low. According to the responses, very few companies have built a clear strategy for the utilisation of social media. Only 15% of the respondents reported that their company utilises social media widely in their business operations. We shall repeat the interpretation we presented in the previous IT barometer: This result is clearly at odds with the attempts to increase e-commerce and e-business.
- Communication between business and IT management seems to have deteriorated since the previous IT barometer. According to the responses, the IT management participate in strategy work even more seldom than before – in fewer than half of the companies, IT management personnel are involved in strategy work. The figure appears alarmingly low in view of the fact that the respondents nearly uniformly estimate IT to be a very important factor for the company's future success.
- While IT management personnel are assessed as participating in strategy work more seldom than before, the development of teamwork between IT and business was raised when respondents were asked about the most important development targets for IT management. The respondents' estimate of the importance of getting IT to serve core business better through the development of teamwork is clearly at odds with overlooking the IT management in strategy work.
- More than half of the respondents saw the slow economic growth as strongly increasing the need to cut IT costs. In addition, some 40% expected that the slow economic growth would add to the pressure to decrease the development of IT in organisations. To sum up, we note that the pressure to cut IT costs is lower than in the previous barometer but, on the other hand, confidence in IT as the overthrower of the recession is lower than before.

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### 3. Key Figures and the IT Index of the IT Barometer

The results of the IT barometer have been reduced into key figures, then used to calculate an IT index, which is a numeric representation of how Finnish companies utilise IT. The key figures and the IT index facilitate comparison between the studies from various years. The basic value of the index was set to 100 in 2008.

<b>IT index 2010</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Current IT costs as a percentage of turnover	4.47%	4.46%	4.45%
IT costs as a percentage of turnover in three years	4.94%	4.49%	4.84%
The impact of IT-based innovations on turnover last year	3.66%	8.19%	4.27%
Costs saved by improving performance through IT as a percentage of turnover	4.28%	7.57%	4.54%
Organisations that consider it difficult to find IT experts for their needs	44%	47%	52%
Organisations in which IT creates added value by enabling the development of new innovations and business operations	81%	81%	78%
Organisations that develop IT as a strategic resource	63%	77%	68%
<b>IT index for 2010 (N=168)</b>	<b>95</b>	<b>123</b>	<b>100</b>

Comparison of the 2010 and 2009 key figures shows that the IT index value has fallen significantly since 2009. Such a significant drop in the index value is one indicator of how the high expectations for IT could not be redeemed amid the difficult financial situation. Respondents to this year's survey were commonly clearly more pessimistic about the benefits brought by IT, in particular to the growth of turnover or saving of costs. Factors affecting the more negative outlook of the respondents may include, in addition to the significant expectations, disappointments in project successes, cumbersome communications between business and IT, and the budget cuts of last year. The tight financial situation has also forced many companies to postpone or under-resource IT projects, which becomes evident in dissatisfaction to IT as a whole. Fewer and fewer respondents also see IT being developed as a strategic resource in their companies.

On the other hand, the key figures show that the respondents expect the share of IT costs in the turnover to clearly increase over the next few years. This roughly corresponds with the findings in the first IT barometer survey, conducted at the end of 2007, and as we move from the recession to the period of slow economic growth, the postponed IT investments can be expected to be restarted. Last year, when the financial crisis was at its worst, the respondents expected IT costs to remain unchanged, but as the economic situation normalises, their share of costs should rise somewhat in the future. The effects of the recession are also evident in the demand for IT personnel, and the respondents expect to find IT experts even more easily than during the worst part of the financial crisis. Should the economy continue its growth, this key figure could be expected to rise quickly in the future.

<b>IT costs as a percentage of turnover</b>	<b>Average</b>	<b>Dispersion</b>	<b>Median</b>
<i>2010, current</i>	4.47%	5.16	3
<i>2010, in 3 years' time</i>	4.94%	6.05	3
<i>2009, current</i>	4.46%	4.47	3
<i>2009, in 3 years' time</i>	4.49%	4.65	3
<i>2008, current</i>	4.45%	4.75	3
<i>2008, in 3 years' time</i>	4.84%	5.54	3
<b>The effect of IT on the company's business</b>	<b>Average</b>	<b>Dispersion</b>	<b>Median</b>
<i>2010 increase in turnover from innovations and forms of business enabled by IT</i>	3.66%	7.4	0
<i>2010 savings in total costs from rationalised activities enabled by IT</i>	4.28%	5.1	3
<i>2009 increase in turnover from innovations and forms of business enabled by IT</i>	8.19%	11.38	5
<i>2009 savings in total costs from rationalised activities enabled by IT</i>	7.57%	7.66	5
<i>2008 increase in turnover from innovations and forms of business enabled by IT</i>	4.27%	7.07	2
<i>2008 savings in total costs from rationalised activities enabled by IT</i>	4.54%	5.64	3

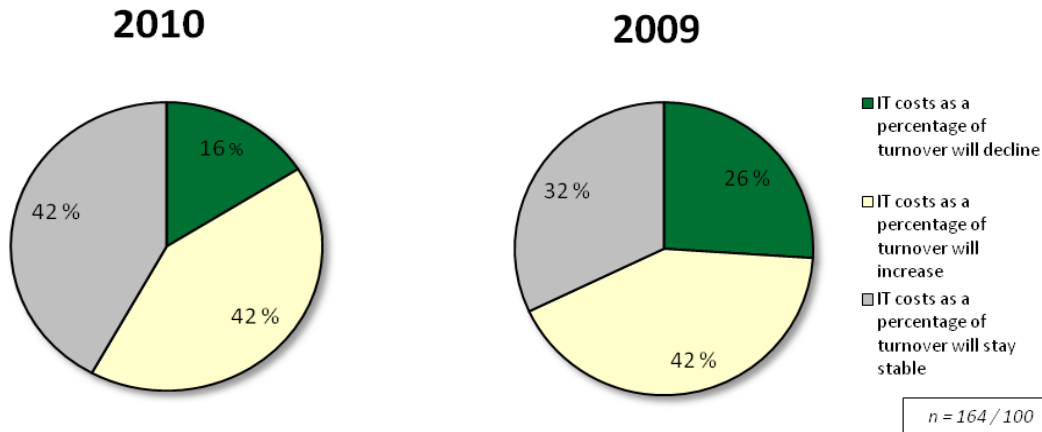
The tables above depict the IT costs as a proportion of turnover and the effect of IT on business operations. The numbers in the table indicate that, according to surveys such as the IT barometer, the business effects of IT are expected to be rapidly evident. Other research indicates, however, that the financial benefits of IT investments are known to be rather slowly realised. The barometer result therefore depicts the connection between the emphasis of IT business effects, expectations of IT business effects, their changes, and general economic development. The respondents expected, for instance, IT costs as a proportion of turnover to stay as they were, while IT was expected to improve turnover, enable cost savings, enable new innovations and business operations, and develop as a strategic resource. Without investments, these business effects are not expected to be reached, as shown by the 2010 results.

When we analysed the correlation between the index values and the school-type mark given to IT utilisation, we could not find any strong correlations. IT management as a strategic resource and new business operations enabled by IT have a slight positive correlation with the level of satisfaction with IT utilisation.

In order to give the analysis more depth and reliability, we have also examined how the exclusion of replies from people working within companies in the ICT field affects the key figures. The key figures remained almost unchanged in comparison with the full data set. There were only a few responses from companies in the ICT field, so their effect was small. For this reason, we have handled these responses similarly to the other responses.

## 4. The Impact of IT on Costs and Turnover

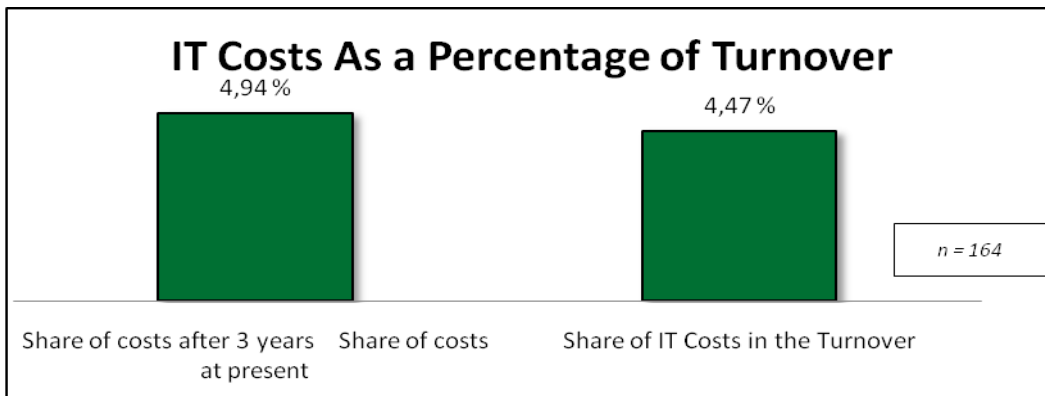
### 4.1. IT Costs As a Percentage of Turnover



The respondents' views of how the percentage of IT costs will change in the following three years.

We studied the share of IT costs in the turnover of the companies, and the direction in which the respondents predicted IT costs to develop. The results of the barometer show that the respondents expect the proportion of turnover accounted for by IT costs to rise significantly over the following three years. If the companies' turnover grows according to the financial forecasts in 2010–2012, IT costs should rise clearly more rapidly than the turnover. There is a clear change in the responses as compared with the previous year's barometer, and the results appear to be the same as in the first IT barometer preceding the financial crisis.

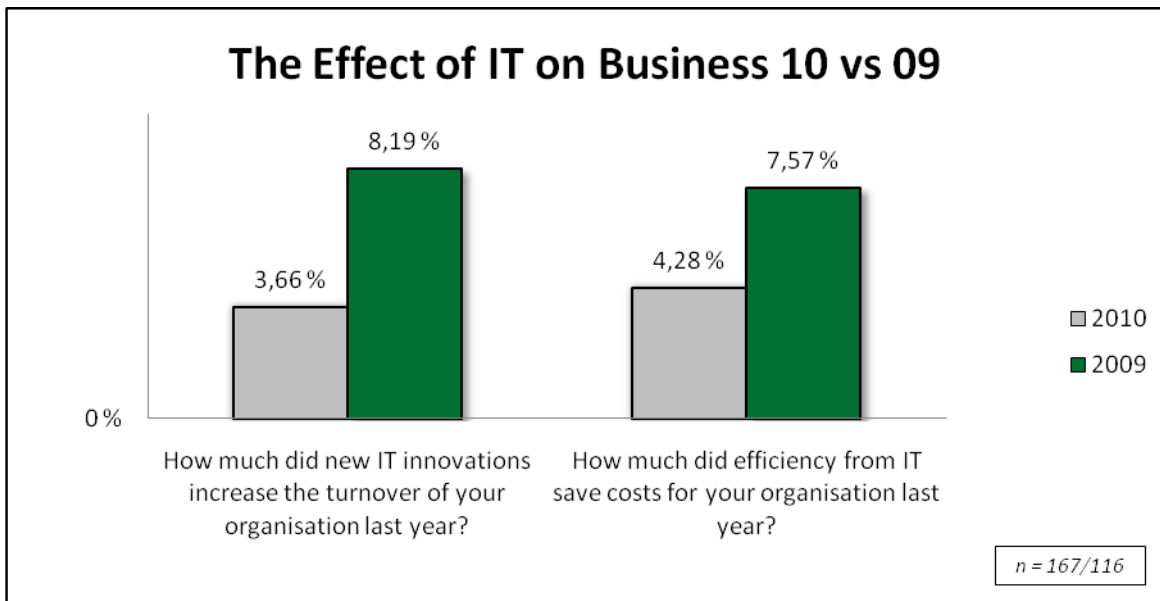
Almost half of the respondents expect the share of IT costs to increase over the next three years, while only a sixth expect it to decrease. In the previous year, a quarter of respondents expected the share to decrease and nearly one third expected it to increase. The results reflect the difference between expectations during a recession and a period of slow economic growth. The estimates of the actual share of IT costs in turnover have remain unchanged from one year to the next.



The percentage of turnover spent for IT at present and after three years.

	Share of costs in 3 years	Standard deviation	Current share of costs	Standard deviation
2010	4.94%	6.05	4.47%	5.16
2009	4.49%	4.65	4.46%	4.47
2008	4.84%	4.75	4.45%	5.54

## 4.2. The Effect of IT on the Company's Turnover and Productivity



### *The effect of IT on a company's turnover.*

In addition to the IT costs, we examined the views of the respondents on how much IT has improved their company's turnover with new innovations, how much costs have been saved by improving the company's performance through IT, and how much IT as a whole has improved the profitability of operations. The bar chart above illustrates the results and the differences between the responses from business and IT management.

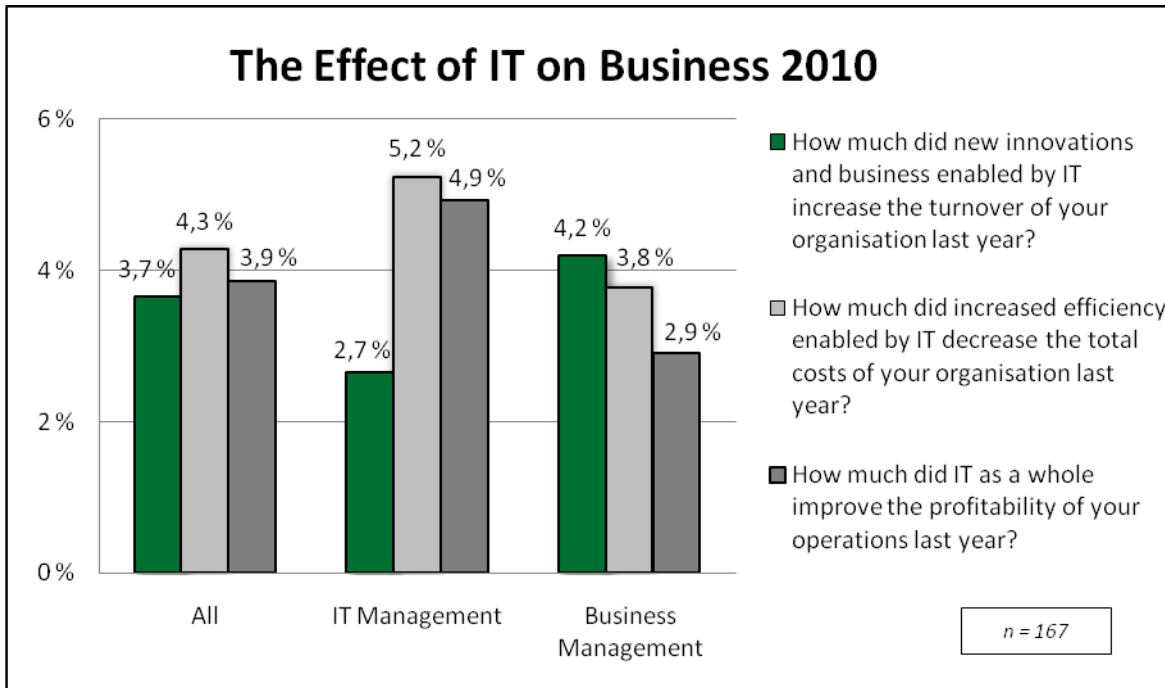
The difference from last year's barometer is dramatic. The turnovers of several companies fell significantly, and, overall, Finland's GNP decreased by 7.8%. The responses on IT's effect on business operations reflect this development. Over half of the respondents estimated that IT did not increase the turnover of their company at all in the course of the year. On the other hand, it should be noted that even in a year with a financial downturn, companies on the average were expected to increase their turnover with the help of IT.

When the dramatic decreases in the estimated business effects are viewed in relation to the decrease in GNP, the interpretation of the results changes. In the 2009 barometer, innovations from IT were expected to increase turnover by 8.2% on average, exceeding the growth in GNP by around 5.5%. With the growth effect now estimated to be 3.7% on the average, the difference from the growth in GNP grew to nearly 11.5%. Similarly, the drops in the average values for IT cost savings and overall efficiency are clearly lower than the corresponding key figures of the national economy.

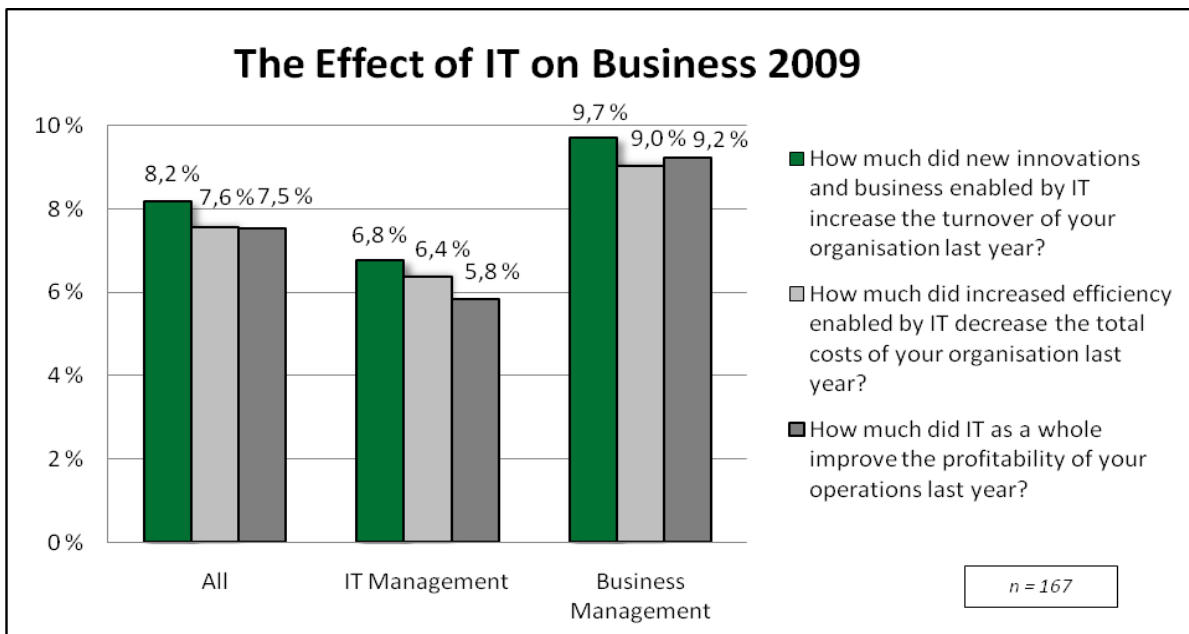
According to the estimates of the respondents, innovations from IT increased the turnover of the companies by an average of under four per cent last year, which is almost half of the previous year's estimate. Improving performance through IT was seen to have enabled organisational cost savings of a little more than four per cent and IT as a whole to have improved the profitability of the activities by around four per cent. Those working in business management have a clearly more positive view of IT's effect on the increase in turnover than those working in IT management. Correspondingly, those in business management had a more reserved outlook on the realisation of cost savings than did IT management.

Despite the above, clear disappointment in the results achieved with the help of IT during the recession was evident in the responses. In last year's barometer, companies indicated high expectations for the business

effects of IT. When creating new business proved to be difficult during the recession, fault was also assigned to IT and the actions of information management, as the results described above show.

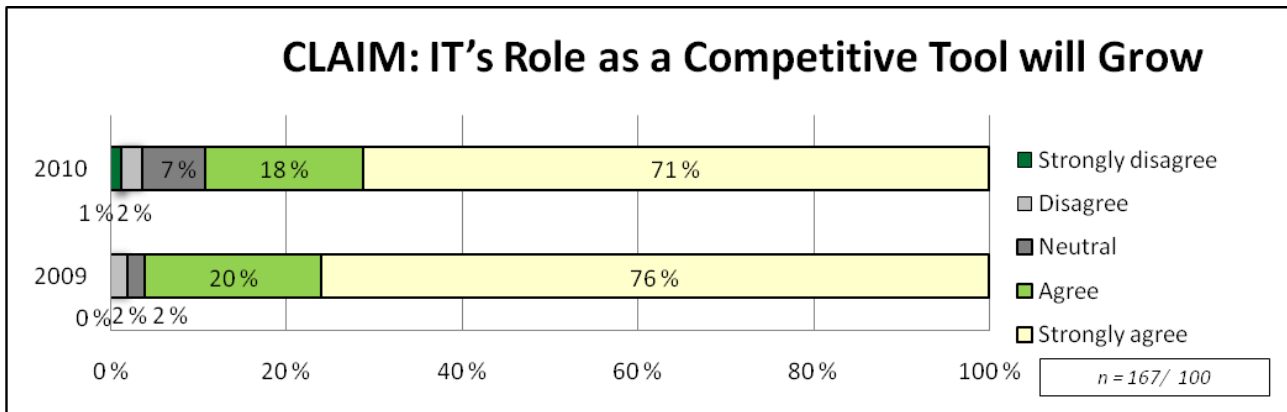


A significant change can be seen in the results between 2010 and 2009. As seen in the bar charts above and below, the respondents estimated that IT will improve turnover less and produce less savings than the previous year.



## 5. The Impact of IT on the Company's Competitiveness

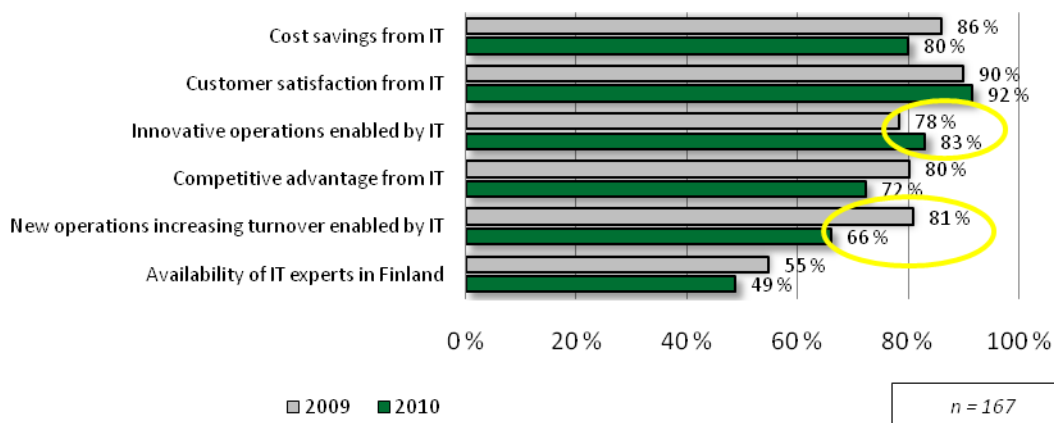
Since the first survey, one of the central goals of the IT barometer has been to find out the respondents' opinions on the impact of information technology on the competitiveness and business activities of the companies. The diagram below illustrates the views of the respondents on the role of IT as a future competitive tool.



*The respondents' views on the claim that the importance of IT as a competitive tool will grow.*

In comparison to last year, the role of IT as a competitive factor has reduced slightly. This result reflects the more critical view of the benefits of IT common to all results of the barometer. Still, almost all respondents see the role of IT to be further emphasised as a competitive factor of the future. Only 10% of the respondents disagreed with the statement. The 2010 results are largely similar to the results at the end of 2007, before the recession.

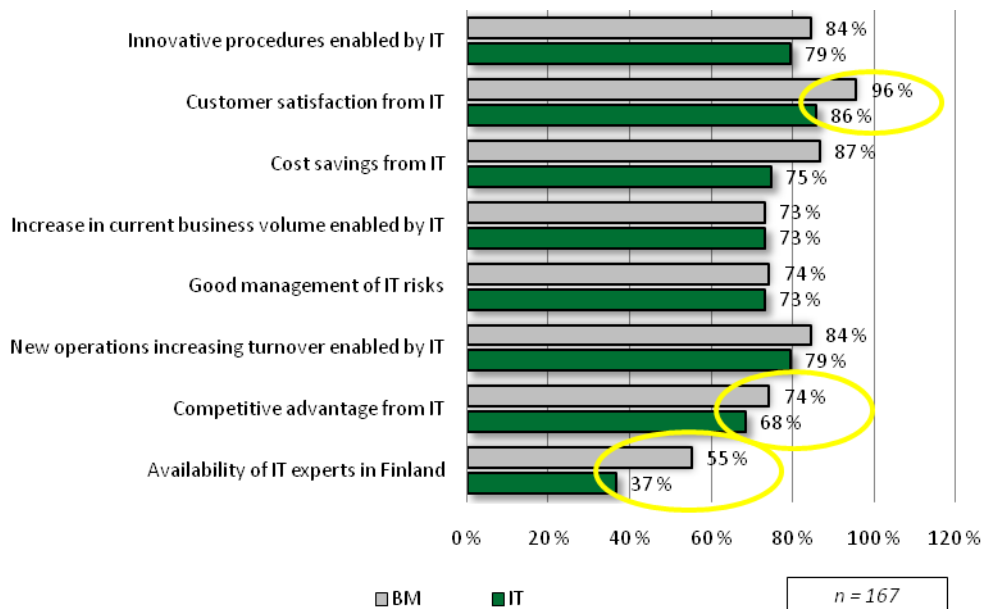
### 5.1. The Effect of IT on the Company's Success Factors



*The importance of different factors for the success of the company (in terms of the percentage of respondents who regard the factor as important for the success of the company).*

The survey also studied the factors through which IT affects the competitiveness of companies. The results show once more that the respondents see IT as a significant competitive advantage through several factors. At the same time, views have become slightly more pessimistic in comparison with the previous barometer. The most significant difference from last year's results is the change brought by the recession to the emphasis on development of current operations instead of new business operations. Our interpretation is that this change reflects an effect of the financial crisis wherein no thought is given to new operations and the only focus is on making current operations more efficient. The situation is likely to change as the economy begins to grow again. The increased emphasis on the significance of customer satisfaction may, however, be a more permanent change.

The gulf between the views of the IT management and business management has increased. Members of business management, having gone through the recession, emphasise cost savings and customer satisfaction from IT clearly more than IT management do. A surprising result here is that those in business management consider it more difficult to find IT experts from Finland than the IT management do. Our interpretation of this lies with the business management's increasing dissatisfaction with the know-how of IT professionals and the professionals working in the information management of the companies. According to this interpretation, those running business operations feel they have received too little support from IT staff. Additionally, there is room for improvement in IT units' co-operation and communications with others.



*Differences in the views of the IT and business management. The importance of various factors for the company's success (the percentage of respondents who regard the factor as important for the success of the company).*

## 5.2. Areas of Competence That Affect the Company's Success – Open Answers

We asked IT and business managers to describe in their own words the competence areas whose development will in the future be important for their company's business operations. The respondents were asked to list up to three areas. We received answers to this question from 109 companies. The most important competence areas were the teamwork of IT and business operations, user-orientation, e-business,

project and programme management, architecture development, integration, and ERP/CRM application know-how. An eye-catching feature of the responses was the scarcity and connection to business development of technical skills, along with the multitude of development needs.

### **Increasing the efficiency of the connection between IT and business operations**

Teamwork between IT and business operations arose as one of the most important areas of competence promoting development. This area of competence was brought up as one of the most important factors affecting the success of business operations in responses from 14 of the companies. The respondents see it as being of the utmost importance to get IT to serve the core business. As individual subjects, the respondents brought up, for example, strategic IT management, connecting IT to the product strategy, interaction of business and IT management, and the utilisation of new innovations in the business operations.

### **ERP**

ERP projects continue to be the primary development programmes for the business and IT management of several companies. ERP project expertise was mentioned as one of the most important competence areas promoting development in responses from 15 separate companies. Individual subjects brought up included generation changes, integrating business operations and ERP, and supply chain management (SCM).

### **CRM**

Seven respondents brought up customer relationship management as one of the most important areas for development. In addition to CRM systems know-how, utilisation of system data and better understanding of CRM were considered to be necessary.

### **E-business**

E-business was raised as an important area for competence development in this year's barometer – in particular, in public-administration companies. In total, 17 respondents brought up the need to develop this competence. There has been lively discussion of e-business in public; identification in particular has been a hot topic. The respondents also emphasised competence producing ease of use and customer-orientation, both of which are most often the goal of e-business. Cost-effectiveness and reduction in manual labour were also sought from e-business.

### **User-orientation**

In their open answers, 15 respondents brought up the need to develop competence related to user- or customer-orientation. Methods used to increase user-friendliness include single sign-on and placing the entire service process on the Internet.

### **Integration**

Integration remains one of the most important areas of competence development in companies. Twelve respondents mentioned integration and making systems compatible as one of the most important factors for business operations. Integration aims to, for example, reduce the number of systems and the amount of manual labour, and to make customer contacts easier.

### **Training and competence development**

An encouraging element related to IT utilisation is that in 12 responses, training and competence development were brought up as the most important factors for business operations. In particular, increasing



IT competence in all parts of the organisation was strongly evident. As an individual area, the development of e-learning environments was deemed to be important.

### **Acquisition competence**

Improving competence in the acquisition of IT services and solutions was brought up as one of the most important competencies needing development in 11 responses. In addition to acquisition competence, the respondents called for an increase in IT law expertise.

### **Project and programme management**

Several respondents emphasised project and programme management in this year's barometer. This result is understandable in view of the poor success rate of IT projects and, should it become reality, gives hope of a better future. Without proper leadership and project management, there are no guarantees of the success of IT projects. In total, 14 respondents listed improvement of project and programme management competence as one of the most important factors affecting business operations. The respondents called for both competence and the mastering of tools.

### **Architecture**

The recession has brought the problems of weak architectures to light, and the open answers also reflect this. Fourteen respondents brought up the improvement of competence in IT architecture as among the most important factors for future success. The responses emphasised competence in a company-wide overall architecture and competence in creating system and information/data architectures.

### **The Web**

Nine respondents brought up development of competence in Web services. The Web is seen as a customer contact tool in particular (for self-service, e-commerce, and customer service), but the utilisation of company intranets and the development of Internet services received mention too.

### **Outsourcing**

The development of outsourcing competence was listed among the most important factors with regard to business operations in six responses. The steering and management of outsourcing, in particular, were considered to be important areas for competence development. One respondent brought up off-shoring competence as one of the primary themes.

### **Mobile solutions**

Seven respondents included the development of competence related to the utilisation of mobile solutions among the most important success factors. Mobile solutions are aimed at flexible working and the possibility of working anywhere. However, some of the respondents are waiting for further development in the terminal devices.

### **Processes**

Amid the aftershocks of the economic downturn, competence in process automation and efficiency increases were emphasised in seven responses. Individual subjects brought up were making processes electronic, process-based information system development, and the co-ordination of business processes and IT.

### **Document management**

The development of document management competence also played an important role in some of the Finnish organisations. Document management was mentioned seven times.

### **IT governance**

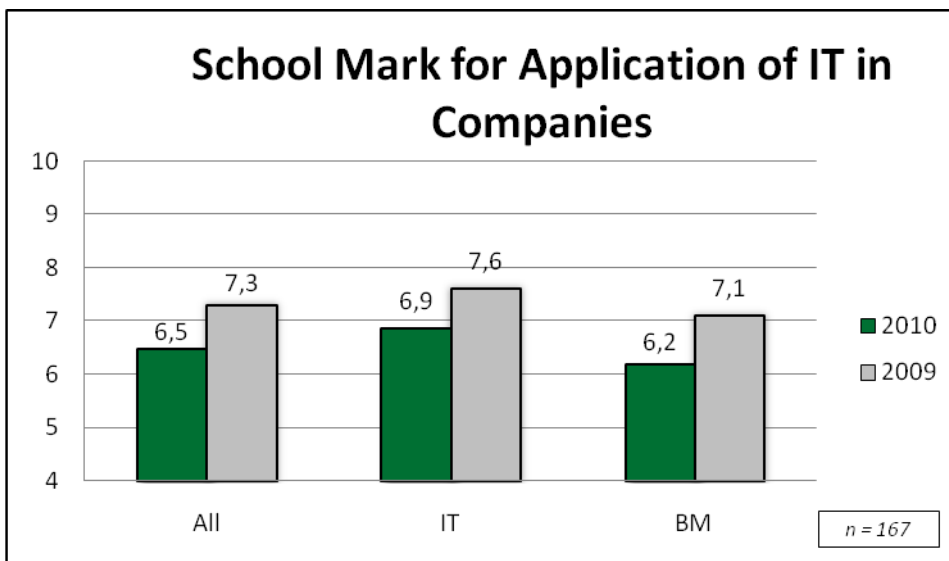
The development of IT governance competence was cited as among the most important success factors in five responses. ITIL in particular received attention (with three mentions). The development of IT risk management competence was brought up in one response.

Other competence development needs mentioned:

- Data security was included among the most important factors with regard to business operations in six responses.
- Cost-effectiveness and savings were brought up in several responses.
- Business intelligence was included among the most important factors with regard to success three times.
- The effective management of infrastructure was listed among the most important issues in four responses.
- Virtualisation was mentioned five times.
- The development of management systems was deemed to be among the most important elements in four responses.
- Development of reporting too received four mentions.
- Electronic archiving was brought up several times, especially in the context of public administration.
- Financial management systems received four mentions.
- Evaluation of cloud computing solutions received one mention.

## 6. Organisations’ Ability to Utilise IT and the Demand for Competence

The respondents were asked to rate the application of IT in their company on a scale of 4 to 10. The average scores fell significantly from those of the previous year. The responses clearly illustrate the increased disappointment in IT in general and information management in particular. The deterioration in the marks given by business managers explains most of the decline in the overall average, as shown in the bar chart below. The results reflect the discrepancy between the high expectations for IT and the postponement of investments during the recession. It should be considered rather alarming that almost a fourth of the respondents gave the lowest school mark, 4. In our interpretation, the attitudes of these respondents could be described as follows: ‘IT is important for the future of business but not as currently utilised in our company.’



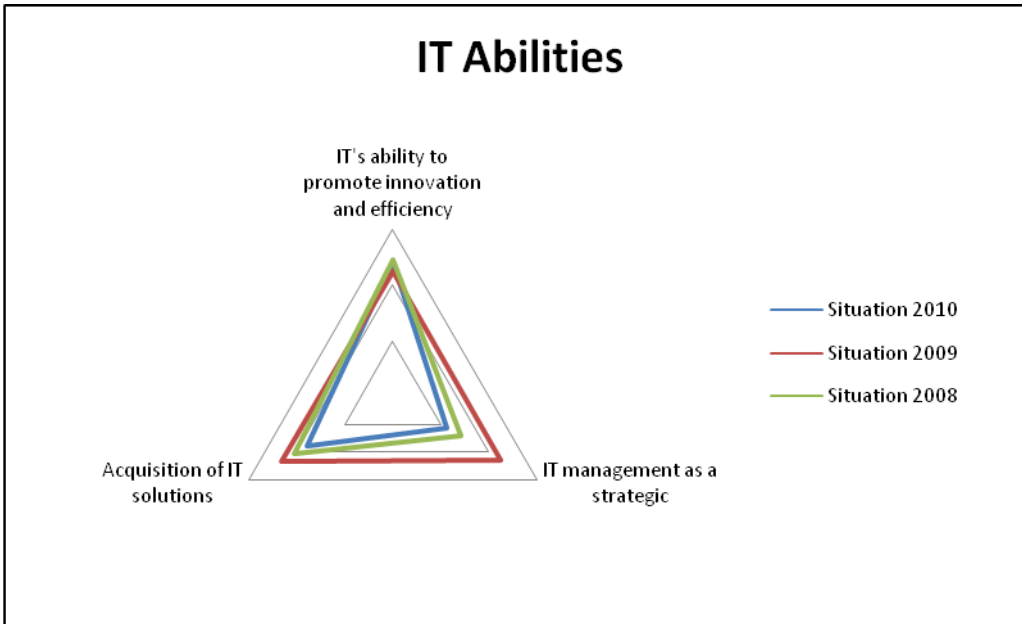
The school mark given to IT correlates with the success of IT projects. The strongest correlation is found between the score and how well the projects remain within budget. According to our interpretation, the importance of IT projects remaining on budget has been emphasised during the recession, as the goal has been to cut costs and increase the efficiency of operations.

The correlation between IT projects’ success and scores for the application of IT in companies	
The end result of IT projects usually matches what was planned	0.296
IT projects remain on schedule	0.219
IT projects remain within the agreed budgets	0.360
IT projects reach the business goals set	0.316

### 6.1. IT Abilities

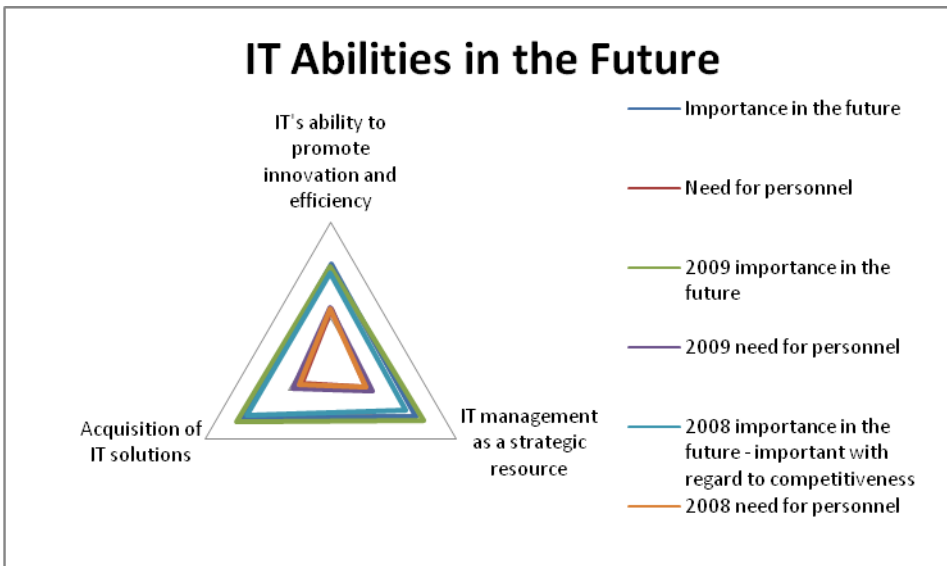
The survey also studied the respondents' views on the IT abilities of the companies in innovating and improving their operations, acquisitions of IT solutions, and management of IT as a strategic whole. For each category of ability, the respondents were asked to estimate the current situation in their company, the future importance of that ability, and the need for expertise in that area. The results are shown in the diamond chart.

The agreeing replies are in the outer part of the chart, the disagreeing ones in the inner portion. The chart helps one to perceive the ability situation, needs for expertise, and problem areas.



Current IT abilities in the companies.

According to the responses, the companies have, on average, at least a fair level of expertise in all three areas considered. The largest failing was clearly considered to be in IT management as a strategic whole. The competence in the acquisition of IT solutions was also considered to have decreased in comparison to 2009.



The company's IT abilities and their importance for success, as well as the need for personnel, in 2008, 2009, and 2010.

Estimates of the importance of these abilities in the future and the future need for personnel are very similar to those in both 2008 and 2009. As noted earlier, the respondents considered the acquisition of IT solutions and management of IT as a strategic resource more important than during the previous year.

## 6.2. The Ability of IT to Innovate and Create Added Value for Business Activities

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
IT creates added value by enabling the development of new innovations and improving business processes in our organisation.	4% (8%)	6% (7%)	8% (4%)	32% (39%)	49% (42%)
It is very important for our organisation's success that we are able to efficiently utilise IT for innovation and improving business processes.	1% (0%)	1% (2%)	3% (2%)	15% (19%)	80% (76%)
In the future, we will need more personnel with experience particularly in utilising IT for innovation and for improving business processes.	1% (1%)	7% (9%)	19% (17%)	28% (30%)	44% (44%)
We are well aware of the added value created by IT and its impact on our business processes as shown by reliable measurements.	16% (15%)	18% (22%)	22% (11%)	27% (32%)	16% (20%)

We examined the respondents' opinions of the ability of IT to innovate and create added value for the business, using the statements above. The responses from the previous barometer are shown below, within brackets. The results are very similar. Almost all respondents consider IT utilisation in innovation and operations' improvement important or very important for the success of the company. In addition, 75% of the respondents estimated that their company will in the future need more personnel who are able to use IT for creating new innovations and processes. However, measuring the effects of IT is considered to be difficult, the same as last year, and just under half of the respondents estimated that their company has reliable metrics for determining the added value and business effects generated by IT innovations and increased efficiency of processes.

## 6.3. Strategic IT Management

The survey examined the opinions of the respondents about strategic IT management, using the statements below. Again, the figures from last year are underneath, in brackets. Almost all of the respondents assessed development of IT as a strategic resource to be important for the success of the company. According to the responses, the situation in companies has deteriorated somewhat, but still almost two thirds of the respondents see their company developing IT as a strategic resource. Measurement is also problematic here.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>Our organisation manages and develops IT as a strategic resource.</b>	<b>14%</b> <b>(3%)</b>	<b>17%</b> <b>(12%)</b>	<b>7%</b> <b>(8%)</b>	<b>30%</b> <b>(37%)</b>	<b>33%</b> <b>(40%)</b>
<b>It is very important for our organisation's success that we manage and develop IT as a strategic resource.</b>	<b>1%</b> <b>(0%)</b>	<b>3%</b> <b>(0%)</b>	<b>4%</b> <b>(2%)</b>	<b>13%</b> <b>(11%)</b>	<b>80%</b> <b>(86%)</b>
In the future, we will need more personnel with experience particularly in strategic IT management.	4%	13%	19%	33%	32%
The business strategy and IT strategy of our organisation affect each other through a well-functioning dialogue.	11%	20%	10%	33%	25%
Top management, unit management, and IT management in our organisation participate in IT management based on a clearly agreed division of work.	17%	19%	11%	28%	25%
The IT management of our organisation are integrally involved in our organisation's business strategy work just as the other management are.	17%	19%	13%	25%	27%
<b>We connect the goals of the IT strategy to the business strategy goals and are able to estimate the effects of IT on our business operations on the basis of reliable measurements.</b>	<b>20%</b> <b>(15%)</b>	<b>20%</b> <b>(17%)</b>	<b>19%</b> <b>(14%)</b>	<b>25%</b> <b>(34%)</b>	<b>14%</b> <b>(20%)</b>

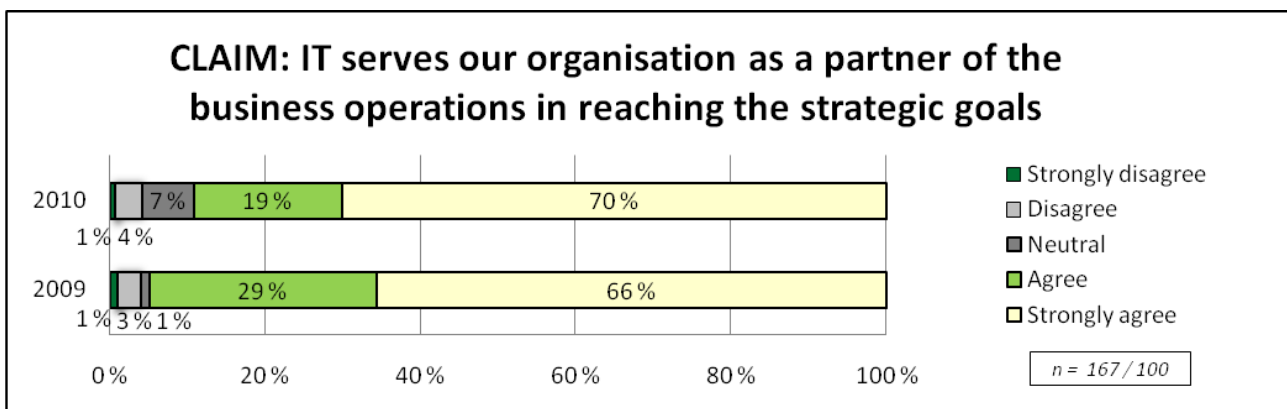
## 6.4. Selection of the IT Solutions

We examined the opinions of the respondents about the selection of IT solutions, using the statements below. Here too, the figures from last year are underneath, in brackets. The results concerning selection of IT solutions are in accordance with the previously reported results. Almost all respondents considered fluent IT management acquisitions to be important for successful business operations. The situation has slightly deteriorated since last year, but over 70% still considered the acquisition of IT solutions to function smoothly and the acquisition process to take the needs of the business operations into account. Measuring the acquisitions is considered to be even more problematic than last year. Fewer than half of the respondents estimated reaching the goals of IT acquisitions to be monitored via somewhat reliable measurements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
In our organisation, the solution selection process functions smoothly and IT acquisitions are performed in a manner that takes the needs of the company into consideration.	8% (3%)	9% (9%)	10% (9%)	36% (38%)	37% (42%)
<b>It is central to the organisation's success that in the future the solution selection process function smoothly and that IT acquisitions be made in a manner that takes the needs of the company into consideration.</b>	<b>0% (0%)</b>	<b>1% (0%)</b>	<b>3% (5%)</b>	<b>17% (11%)</b>	<b>80% (84%)</b>
In the future, we will need more personnel with experience particularly in acquiring IT solutions and who can take the needs of the company into consideration.	5% (4%)	13% (9%)	20% (26%)	34% (30%)	27% (31%)
<b>We are setting measurable targets for IT acquisitions in order to consider the business needs.</b>	<b>10% (3%)</b>	<b>14% (15%)</b>	<b>19% (16%)</b>	<b>31% (32%)</b>	<b>27% (34%)</b>
<b>After IT acquisitions, we monitor the reaching of targets with reliable measurements.</b>	<b>19% (14%)</b>	<b>21% (20%)</b>	<b>15% (13%)</b>	<b>30% (33%)</b>	<b>15% (19%)</b>

## 6.5. Does IT Serve Reaching of Strategic IT Goals?

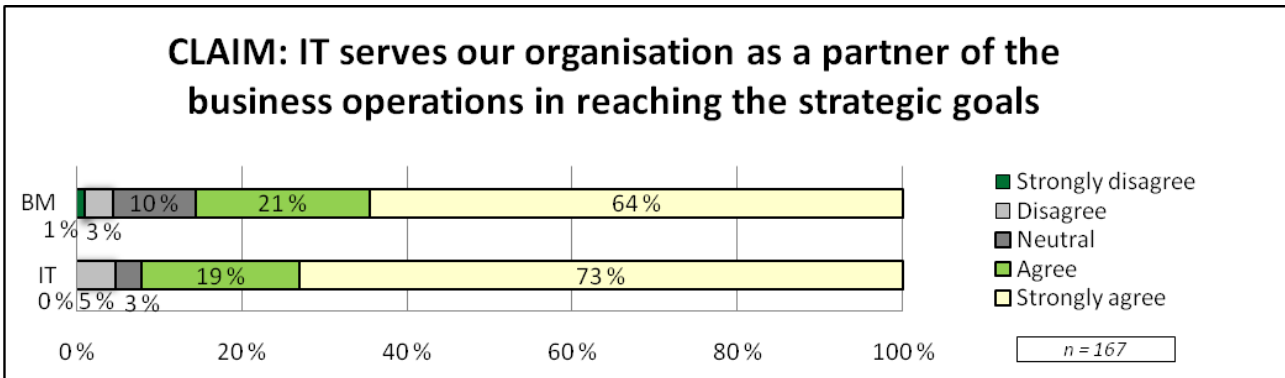
The respondents were also asked how well IT serves the organisation in reaching the strategic goals.



The respondents' views of the claim, change from 2009 to 2010.

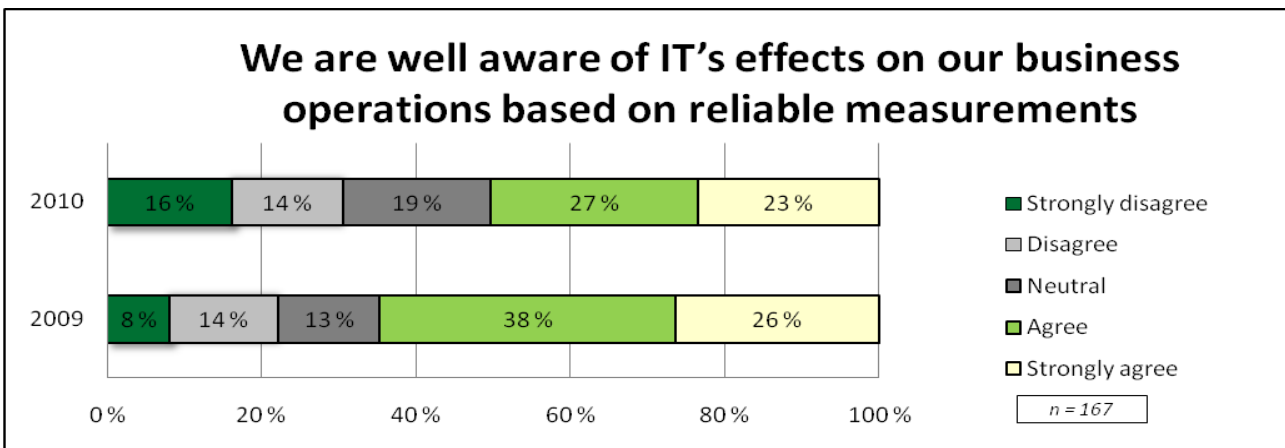
Managers working in Finnish companies consider IT to serve the reaching of strategic goals well. Although the percentage of respondents with a critical attitude toward IT has grown to around 10%, the proportion who are extremely satisfied has also grown. Around 90% of respondents now consider IT to support the reaching of the company's strategic goals as a partner of the business operations. The results are well in line with last year's barometer, at least somewhat contradicting the sharply decreased school mark given to IT utilisation. According to our interpretation, this contradiction reflects the difference between the goals set for IT and their realisation. IT managers view IT as serving reaching of the strategic goals of business operations

better than the business management estimate, as shown by the diagram below. The estimates of the business management have become somewhat more negative than they were last year.

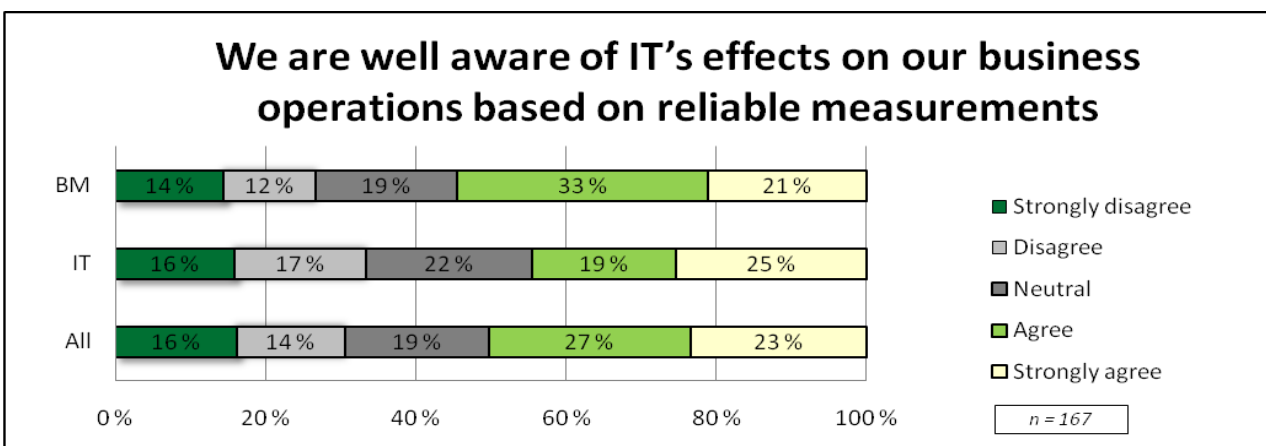


The views of the respondents on the claim, differences in the views of the IT and business management.

## 6.6. Measurement of IT

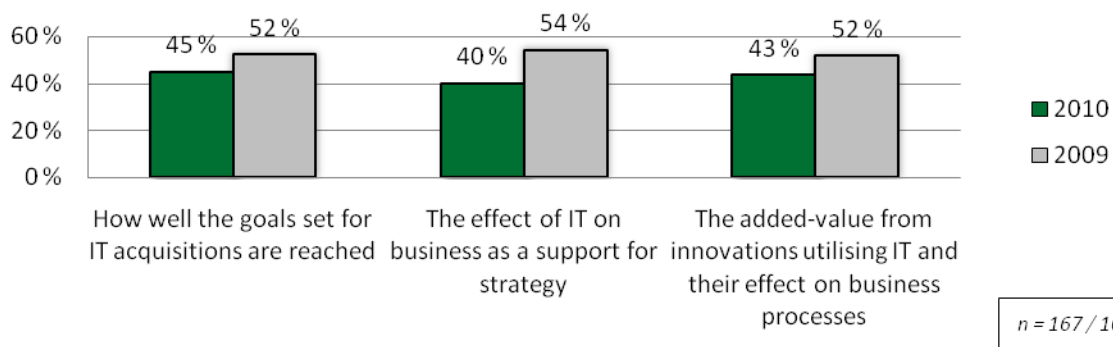


When the respondents were asked to estimate how well IT's business effects are known on the basis of reliable measurements, the estimates were clearly more critical than in the previous survey. Around 50% of the respondents estimated that in their companies, the effects of IT on business operations are evaluated by means of reliable metrics. The corresponding value last year was 64%.

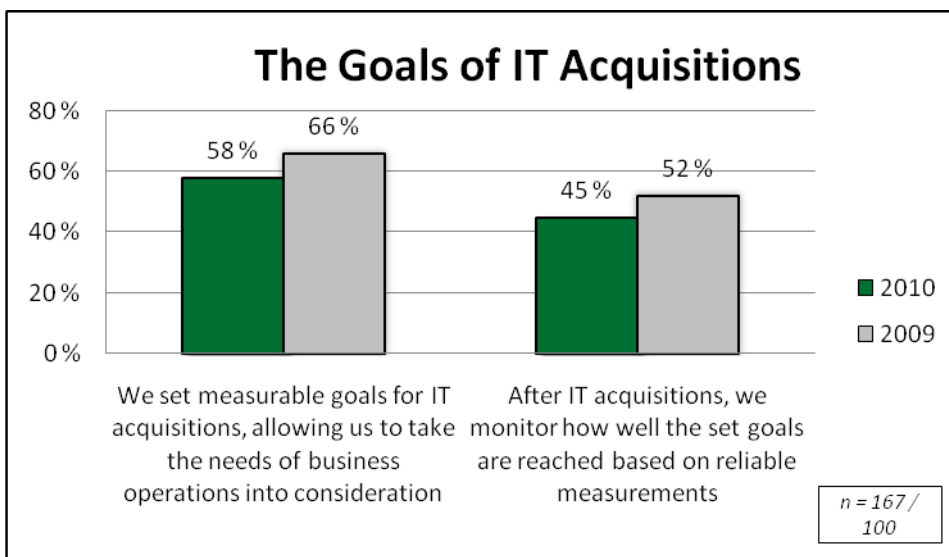


Surprisingly, IT managers are somewhat more critical than business managers. According to our interpretation, this result reflects the slightly increased distance in the relations between business operations and IT, as IT managers doubt the ability of the business management to evaluate the concrete business effects of IT. In our interpretation, the result also illustrates the different methods these different groups of respondents use to observe IT. Members of business management observe IT at the top level as investments for which they find general business justifications. The IT management, respectively, see the situation at the grassroots level and experiences the difficulty of measuring the effects of individual investments.

### CLAIM: We are able to use reliable measurements to monitor...



When studying measurement of the effects of IT, we noticed that, according to the responses, well under half of the companies are able to monitor, with reliable measurements, the goals set for IT acquisitions, the impact of IT on business as strategic support, or the added value and impact on business processes of innovations that utilise IT. The views of the situation have become clearly more negative across the board in comparison to the previous barometer. According to our interpretation, these results reflect a more critical attitude toward IT as a result of the recession.

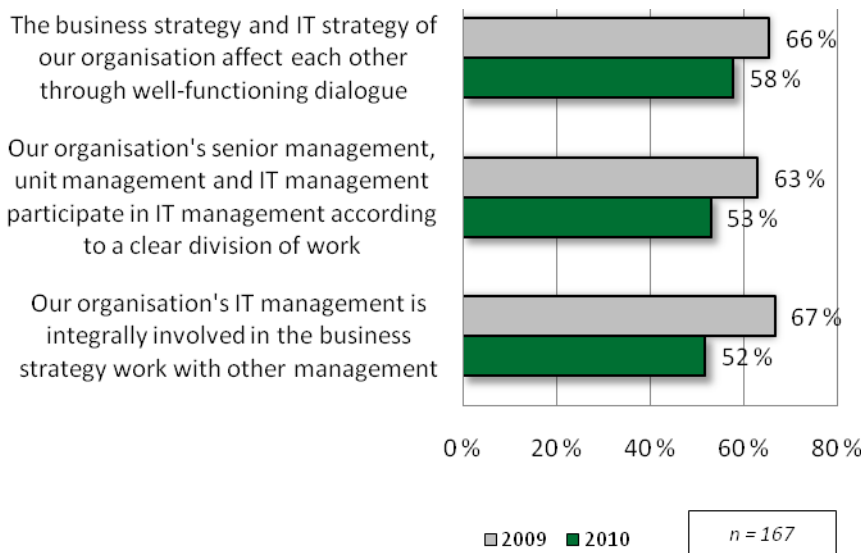


We find it very surprising that fewer measurable goals have been set for IT acquisitions during recession than before it, and that monitoring of the goals is also reduced, according to the estimates. Only slightly



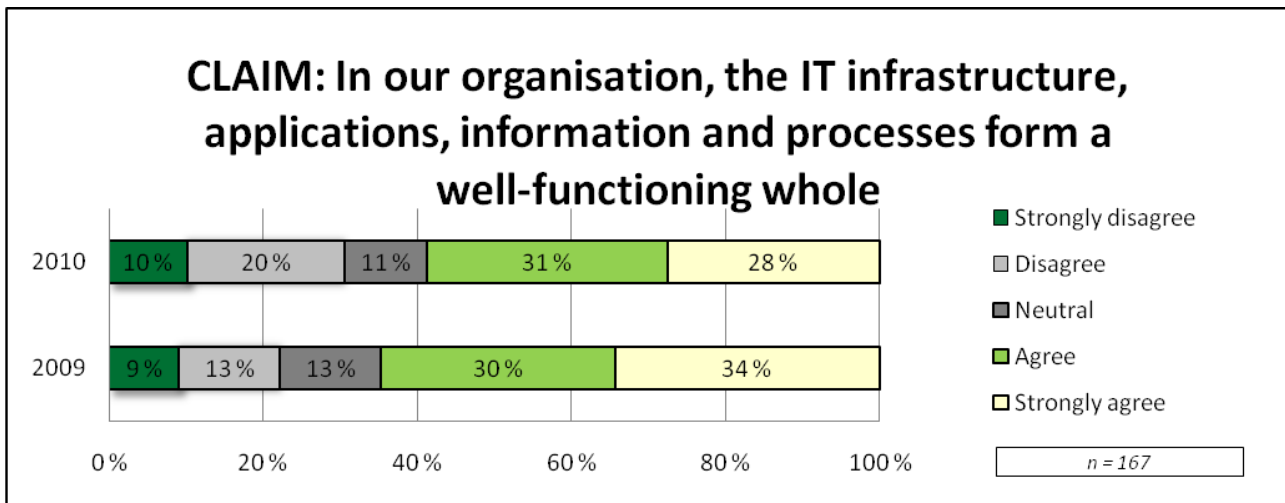
fewer than half of the respondents reported that they set measurable goals for IT acquisitions, enabling them to take the needs of the business operations into consideration, and under half of the respondents monitor through the aid of reliable measurements how well the goals are reached. Our interpretation is that this result reflects the effect of the completion of pre-recession IT investments and the postponement of new investments, the pressure for general cost cuts, and poor awareness of IT's business effects.

## 6.7. Co-operation Between Business and IT



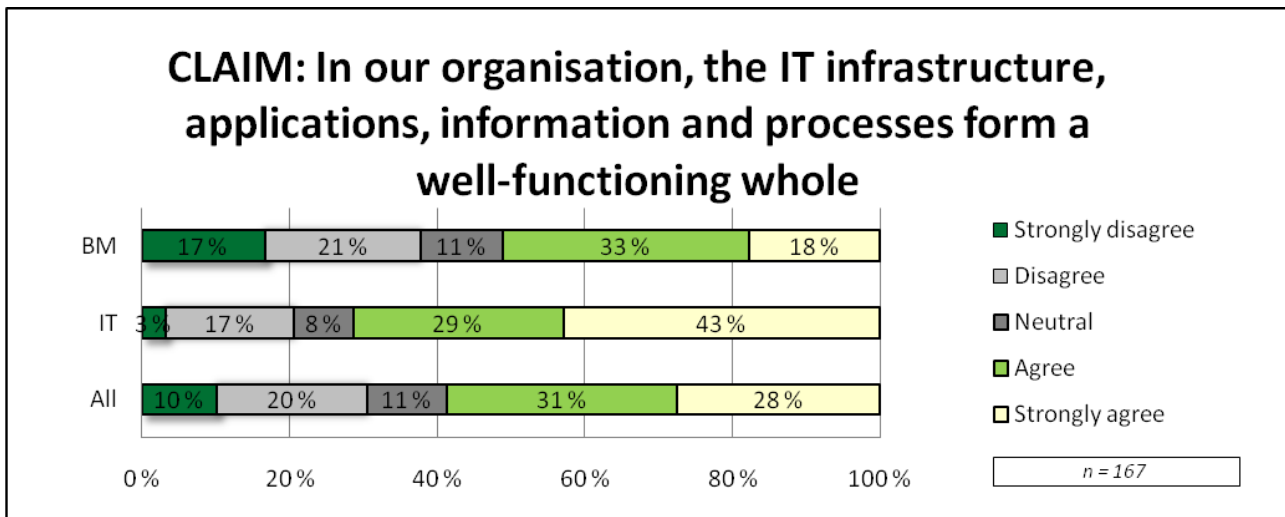
We examined the opinions of the respondents about the co-operation between business and IT, using the statements above. Communication between those in business and IT management seems to have deteriorated in comparison to the previous IT barometer. According to the answers, in somewhat more than half of the companies, the business strategy and IT strategy affect each other through well-functioning dialogue; the senior management, business management, and IT management have agreed on clear responsibilities related to management of IT operations; and the IT management are constantly involved in the work on business strategies. The figures have fallen significantly when compared to last year's results. When these results are considered in relation to the results from most respondents according to whom IT is an important or very important future success factor, the co-operation between IT and business management seems rather poor.

We find it of concern that the IT management are seen as participating in the strategy work of organisations less than before. According to our interpretation, this reveals that companies more and more often divide IT utilisation into two categories: basic IT and so-called business IT, which is designed to support business operations. The IT manager will then be responsible for the basic IT, while ownership and responsibilities for the systems supporting business operations can most often be found as part of the business operations. Because our view is that this is a case of utilising the same technologies and methods to meet the differing needs of business operations and architecture management, the lack of overall responsibility and the lack of participation of the IT management in strategy work reduce the ability to gain business benefits from IT and implement efficient overarching IT architectures.

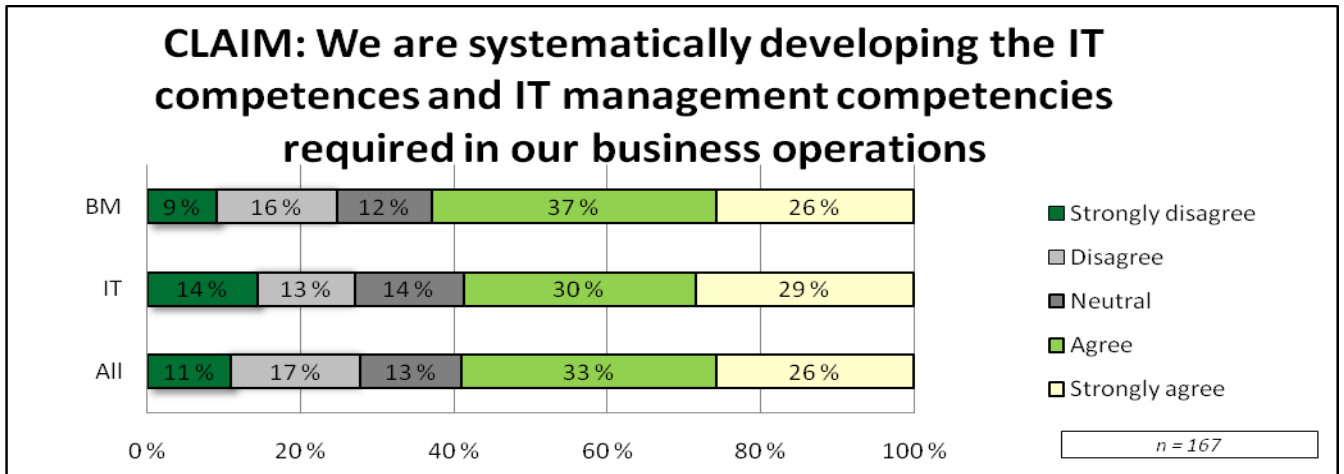


*Co-operation between business and IT – the views of the companies on the claim.*

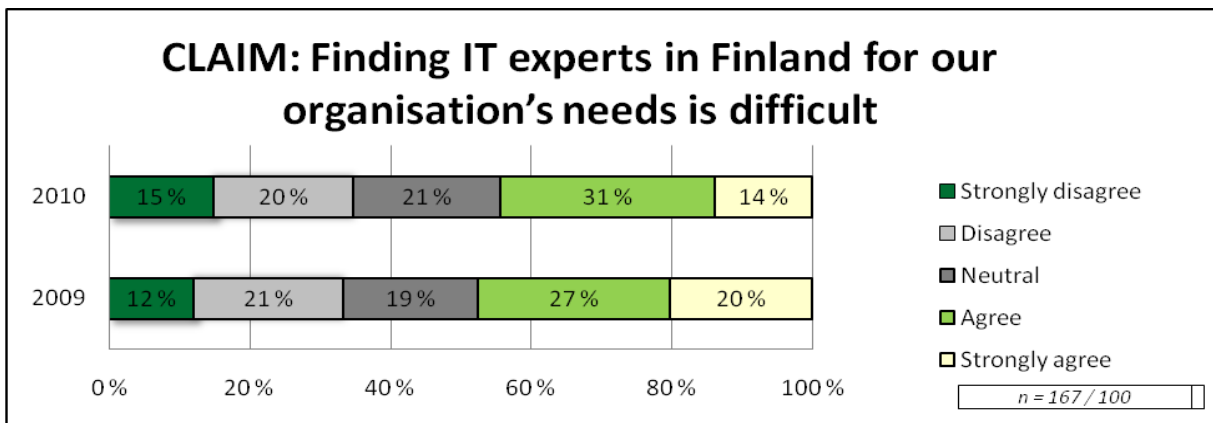
We examined the opinions of the respondents on how they see IT forming a uniform and functional whole (architecture) in their organisations. These views too show a negative trend from last year, as illustrated by the diagram above. On the other hand, the diagram below indicates that those in IT management, usually responsible for the IT architecture, have a clearly higher estimate of the management of the overall architecture than the business management do. According to our interpretation, in many companies during the recession, the business management encountered IT architecture that changes more slowly than the rest of the organisation without getting a clear picture of the causes for this slowness.



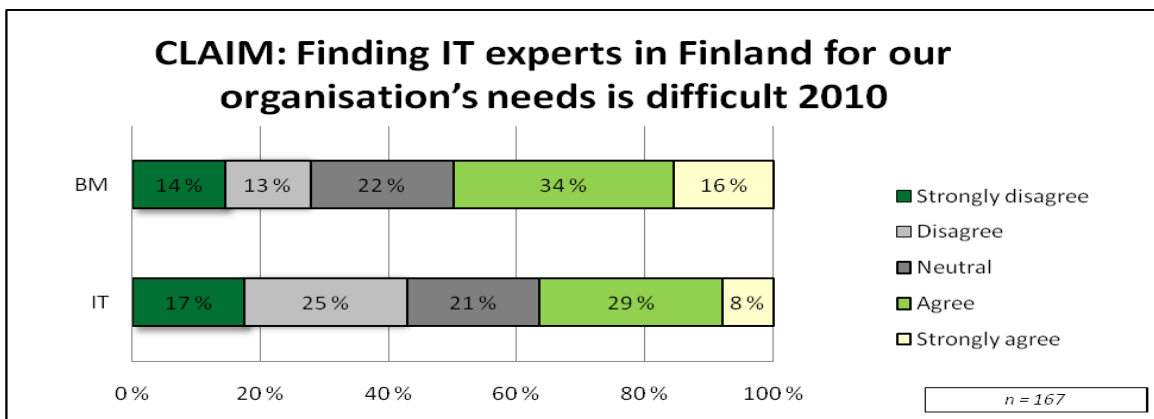
In this year's barometer, we also asked how the IT competencies required in business operations are developed. According to the responses, the situation appears rather good, with 60% of the respondents estimating that the IT competencies and IT management competencies required in business operations are systematically developed. Additionally, the views of the business and IT management are close to each other. Despite the general positive trend, according to the responses almost two thirds of the companies lack systematic development of IT competencies.



### 6.8. Finding IT Experts in Finland

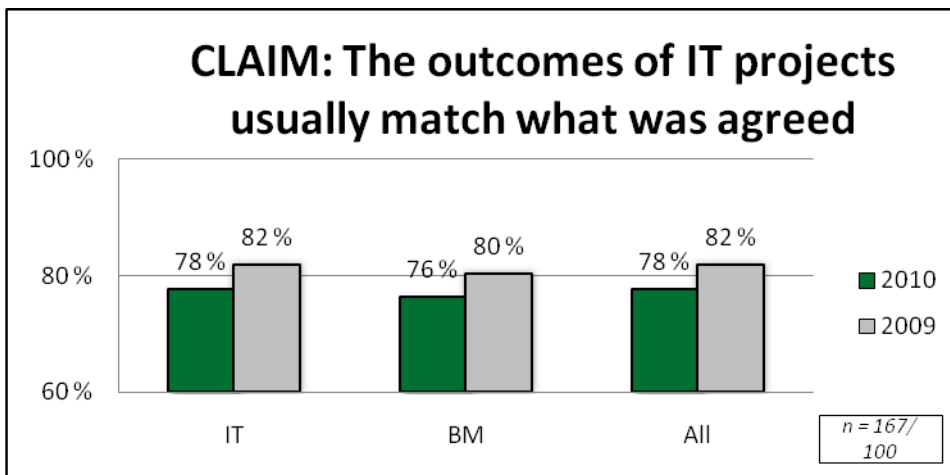


Even after the recession, finding IT experts matching the competence requirements is still considered to be rather difficult, although the situation has improved somewhat. Now, 45% of the respondents estimate that finding IT experts in Finland is difficult or very difficult. The corresponding value last year was 48%. The most significant change involved the difference in the views of the IT and business management. The IT management consider finding experts easier than the business management do. In our interpretation, this result reflects the differences in the competencies expected of applicants by the IT and business management. For example, in Section 4.2, we reported that competence development is targeted at numerous skills required in business development and the integration of business and IT, less at pure technical know-how.



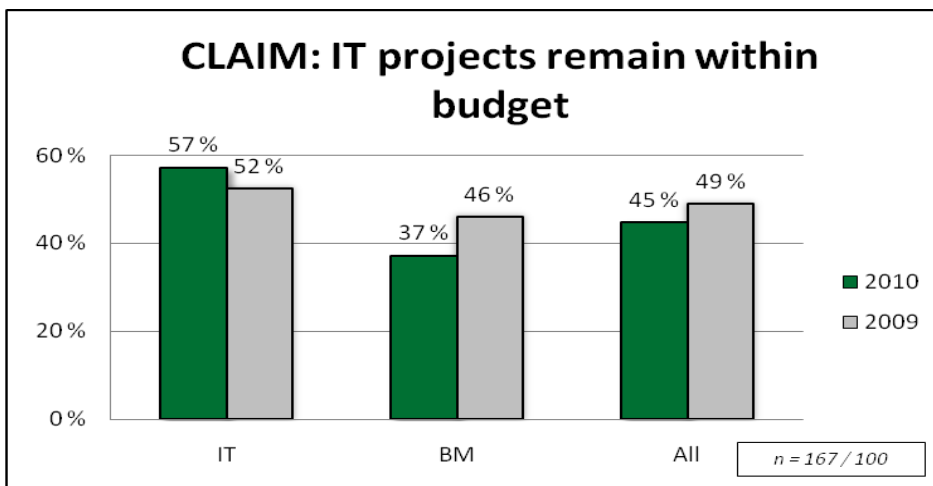
## 7. Success of IT Projects

We studied how well IT projects succeed in Finnish companies, and whether business and IT managers' views about the success of the projects differ from each other. The respondents were asked to estimate whether, in their opinion, the outcomes of IT projects match what was planned; whether the business goals set for the projects were reached; and whether the projects remained on schedule and within budget.

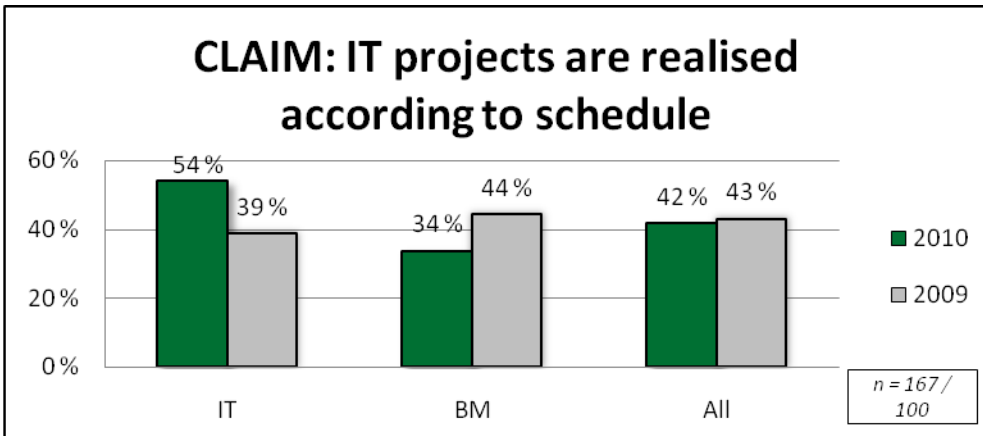


*The respondents' view on whether the outcomes of projects match the agreed plans.*

The results illustrated in the diagram above show that respondents' views on the success of IT projects have become more negative than in the previous barometer. The estimates of both business and IT managers of the general success of projects are slightly lower. Additionally, the views of business and IT managers differ only a little. The estimates of business and IT managers on remaining in budget and on schedule, however, are clearly further apart. As shown by the diagram below, business managers consider budgets to be blown clearly more often than IT managers do. Only a little over a third of business managers consider IT projects to remain within the agreed budget. Overall, IT projects are viewed as staying in budget less than they were before.



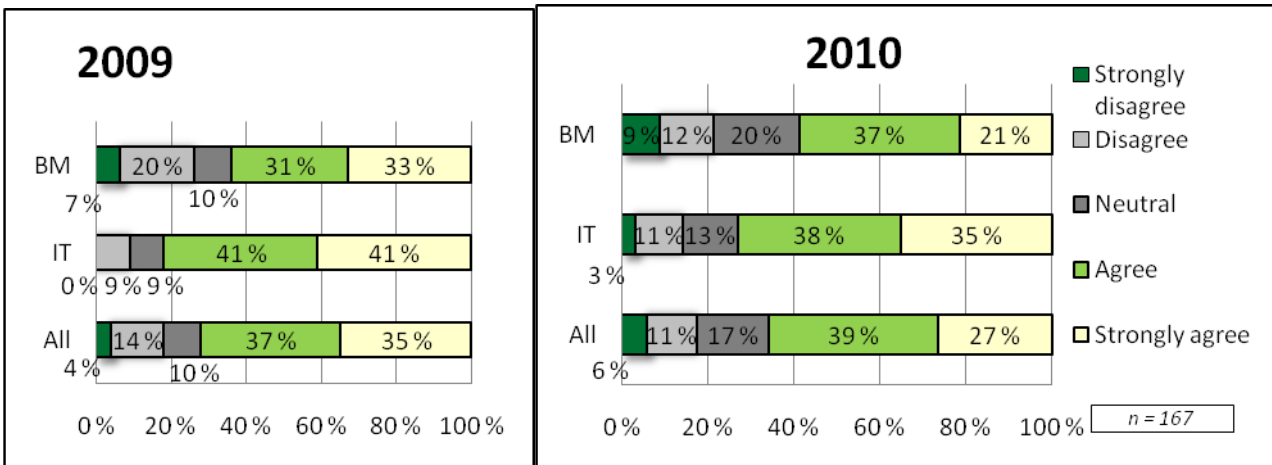
*Perceptions among respondents as to whether IT projects are realised within budget.*



*The respondents' perceptions as to whether IT projects are realised according to schedule.*

Under 50% of the respondents think that IT projects are realised on schedule. The IT management's view on keeping to schedule is clearly more positive than it was last year. However, the views of the business management have taken a clearly negative turn. Only a third of the representatives among the business management estimate that IT projects are realised on schedule, while over half of the IT management agree.

### CLAIM: IT projects reach the business goals set



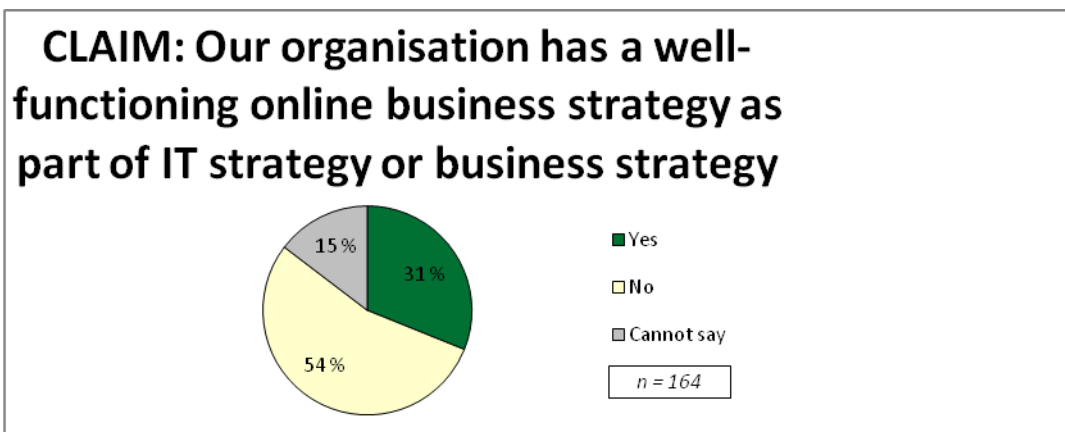
*Perceptions among the respondents as to whether IT projects reach the business goals set for them.*

The diagrams above illustrate that IT projects are estimated to reach the set business goals less often than before. According to the IT management, the goals are reached as a rule, although this view is also somewhat more guarded in comparison to last year. Those in business management are more sceptical of the goals being reached than IT managers are. According to our interpretation, the results related to the success of IT projects and the reduced profits following the recession are a grim indication of the problems in IT projects.

## 8. Utilisation of Social Media and the Internet

In almost all industries, online business has become an integral part of business operations. Utilising the Internet makes managing logistics easier, brings the customers and other stakeholders close to the company, and enables management of complicated value chains. Almost all organisations do online business in one form or another.

Social media have received a lot of attention in the corporate world lately. They make interaction between people easier on the Internet, and, for example, recommending services and products or getting answers in problematic situations is much easier when the consumers can efficiently interact with each other regardless of their location. Social media also have a significant impact in innovation operations and communal utilisation of information and know-how. The IT barometer has now examined for the second time how Finnish companies are prepared for this change and how they utilise social media and the Internet.

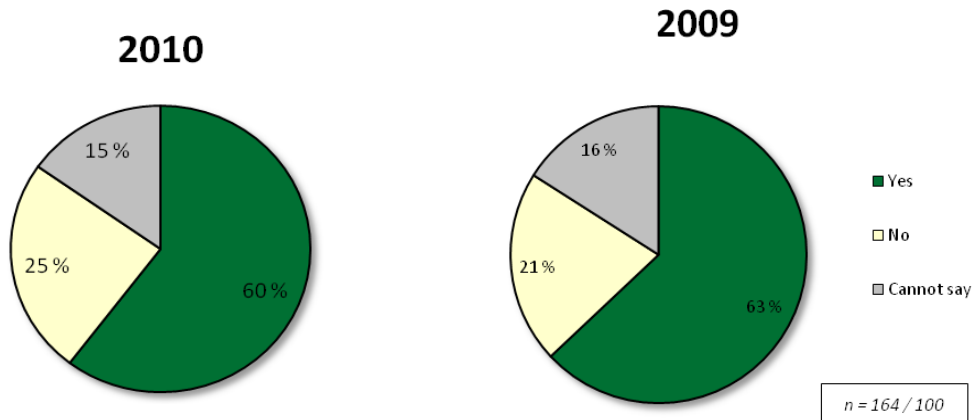


*The distribution of respondents according to the functionality of their online business strategy.*

We asked the respondents to estimate whether their organisation has a well-functioning online business strategy. The result is a good illustration of the respondents' dissatisfaction with the current situation. More than half of the respondents feel that their company does not have a functioning online business strategy. Only a little under a third of the respondents were satisfied with their company's online business strategy. It should be noted that one sixth of the respondents did not know how to answer the question. This shows that the matter is still rather new and unknown to some of the respondents.

## 8.1. Increasing Online Business

**CLAIM: Our goal is to significantly increase the share of online business**



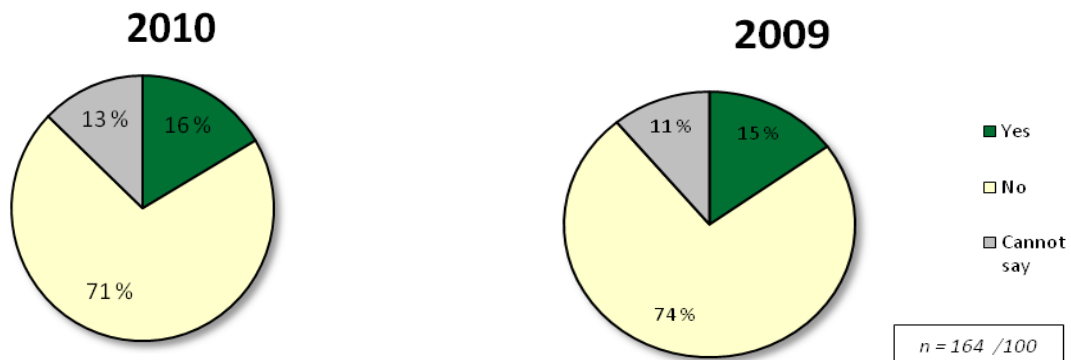
*The distribution of respondents according to the goal of increasing online business.*

When we asked the respondents to evaluate the importance of the Internet as a business channel, 60% of them indicated that their company aims to increase the amount of online business significantly. The enthusiasm to invest in online business has slightly waned from last year, although expectations of the future importance of online business remain high. A quarter of the respondents said that their company is not aiming at a significant increase in the proportion of online business.

When the results reported above are considered in combination, it becomes evident that companies have their work cut out for them in the management of online business. According to the estimates of the respondents, roughly a third of Finnish companies have a well-functioning online business strategy, while 60% aim to significantly increase the share of online business.

## 8.2. Social Media

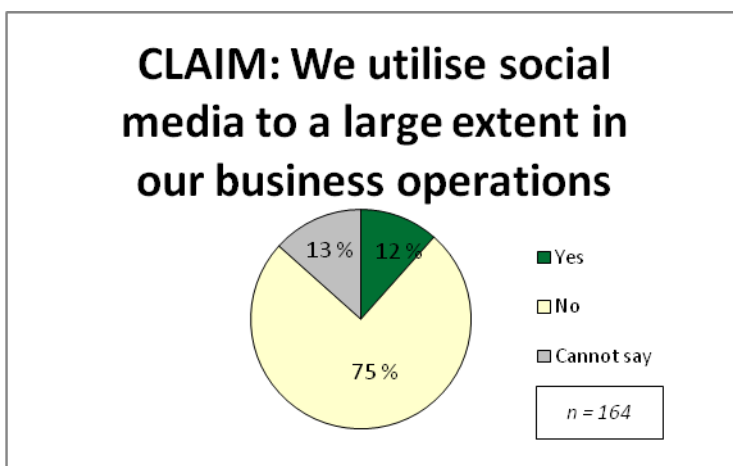
**CLAIM: Our organisation has a clear strategy for utilising social media**



*The distribution of the respondents in terms of the social media strategy and its clarity.*

We also studied whether the respondents think that the companies have a clear strategy for utilising social media. According to the results, only one sixth of Finnish companies have such a strategy. The proportion has remained unchanged from last year. The importance of social media in business has not been considered for a long time. Expectations for its strategic utilisation are still high, at least on the level of rhetoric. For the above reasons, we find it surprising that social media strategies do not appear to have become any more prevalent during the recession. Care should be taken in the interpretation of the results. Some of the respondents may have thought that the question referred to a separate social media strategy, although a separate strategy or a sub-strategy of some other strategy are the same thing in the context of this survey.

According to the responses, very few Finnish companies utilise social media in business. Only one in 10 respondents thought that their company utilises the possibilities of social media to a sufficient extent.



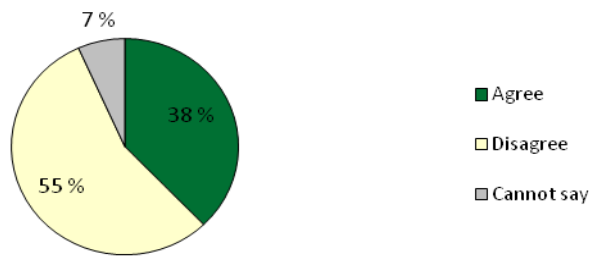
*The distribution of respondents according to utilisation of social media.*

Social media are significantly different from traditional online technologies, although social media do have an effect supporting the expansion of online business. The utilisation of social media often requires new models of behaviour and operation from the organisation, and knowledge about the possibilities and challenges of social media. According to the responses, Finnish companies are still quite conservative in the use of social media in their business.

Over half of the respondents report that their company has ground rules and practices that limit the utilisation of social media in the workplace. It also becomes evident from the responses that social media ground rules are today more often limiting than enabling. This result also meshes poorly with the aim of increasing online business.



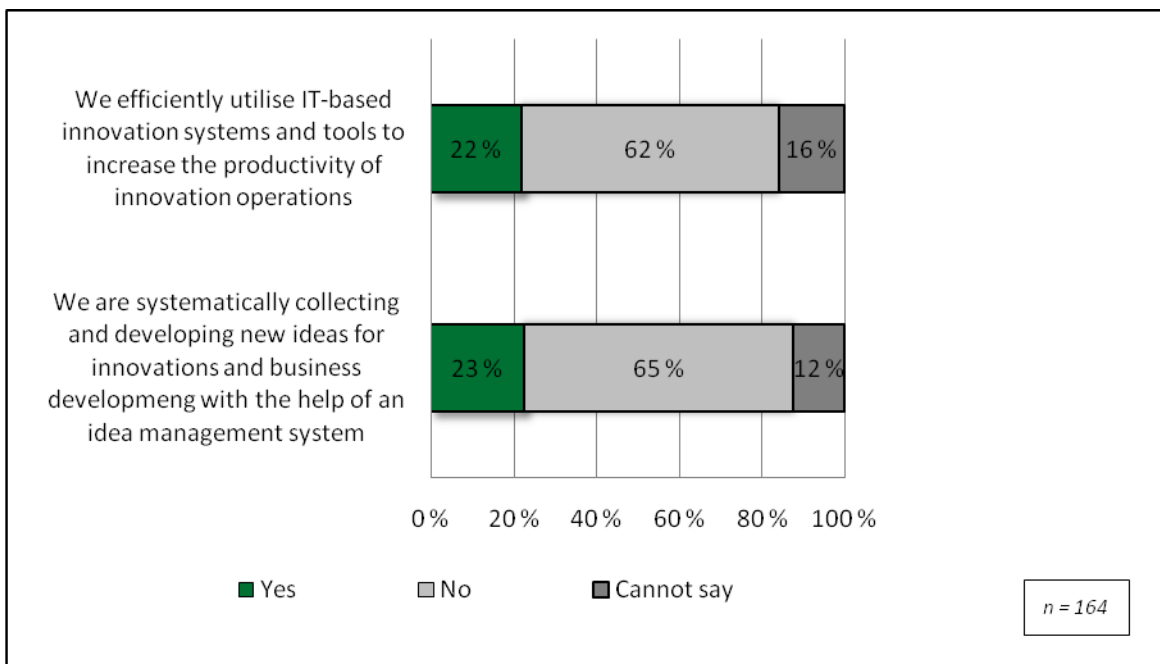
**CLAIM: We do not have ground rules or practices such as limits on the use of mobile phones or the Internet that would limit the use of social media in our business operations**



*The distribution of respondents according to limitation of social media.*

### 8.3. Idea Management Systems

The respondents were asked to evaluate whether their organisations utilise IT-based innovation systems and whether they are used to collect new ideas to support business development. As illustrated by the diagram below, the utilisation of IT systems in gathering ideas and in innovation operations in Finnish companies is still taking its baby steps. According to the responses, clearly under a fifth of the companies utilise IT-based innovation systems.

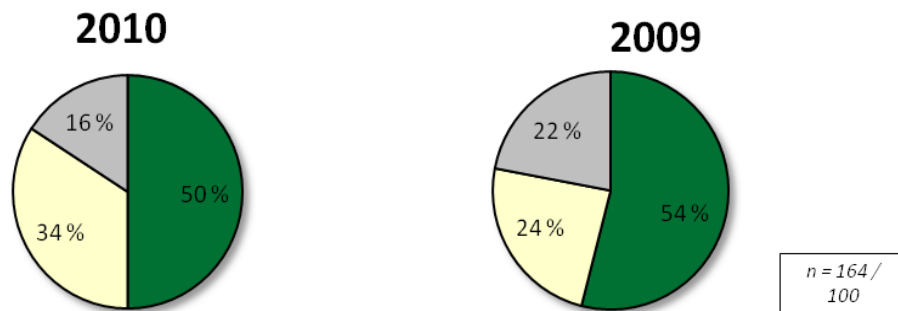


*Perceptions among the respondents as to whether the organisations utilise IT-based innovation and idea management systems*

## 9. IT Risk Management and IT Governance

Organisations’ business is more often than before dependent on the continuous operation of data communication connections, local networks, data warehouses, information systems, and other IT – in other words, on smooth production of IT services that match the agreed service level. The omnipresence of IT and its important role in the operation of companies point up the importance of management of IT risks and service continuity, and the handling of other IT risks (e.g., data security risks) as part of corporate risk management. Risk management refers to identifying the risks, estimating their probability and business impact, and planning corrective actions for the most probable and critical. Risk management has been in the foreground in discussions concerning IT. Varying opinions about Finnish companies’ risk management ability have been expressed.

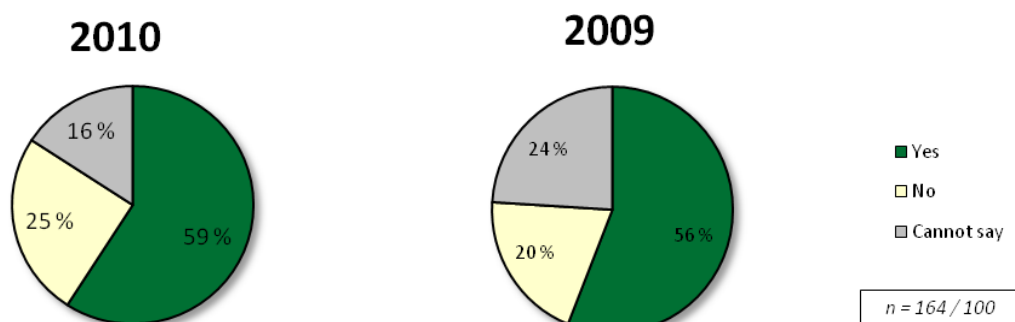
### Have limit values or other IT risk management goals been defined for core IT risks?



*Distribution of respondents according to the goals set for IT risk management.*

For IT risk management, one of the central methods is to define limit values or other goals related to identified risks, deviation from which leads to action. According to the results, only half of Finnish companies have done this. This figure is alarmingly low, as IT almost always has a critical role for business, especially in production management, logistics, financial administration, and office work. According to the responses, the percentage of companies with no defined risk management goals has even increased since the previous barometer. According to the estimates of the respondents, around a fourth of company personnel are unfamiliar with the goals of IT risk management and do not follow them.

### Are the personnel familiar with the goals of IT risk management, and do they apply them?



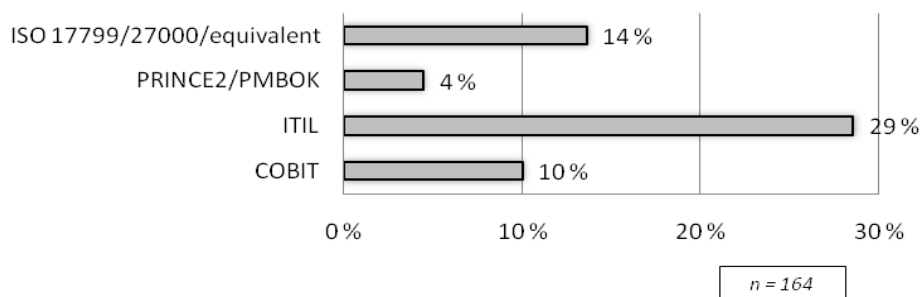
*Distribution of respondents according to familiarity with the IT risk management goals.*

## 9.1. IT Governance

IT governance, or best information management practice, refers to the distribution of IT management work among the senior management, business management, and IT management, and application of IT-related operation methods that ensure that IT can produce measurable value for the business. The task of IT governance is to evaluate the direction in which to lead IT, direct the division of work required, and monitor to ensure that the direction is held – through reporting. Most IT barometer results reported above are related to these views. In this section, we will examine the use of operative IT governance methods.

Several methods, which constitute best practice, have been developed to assist in the development and production of IT services and IT risk management. The IT barometer survey also examined how widely these operative-level IT governance methods are used.

### Are the IT governance methods listed below used in your organisation?

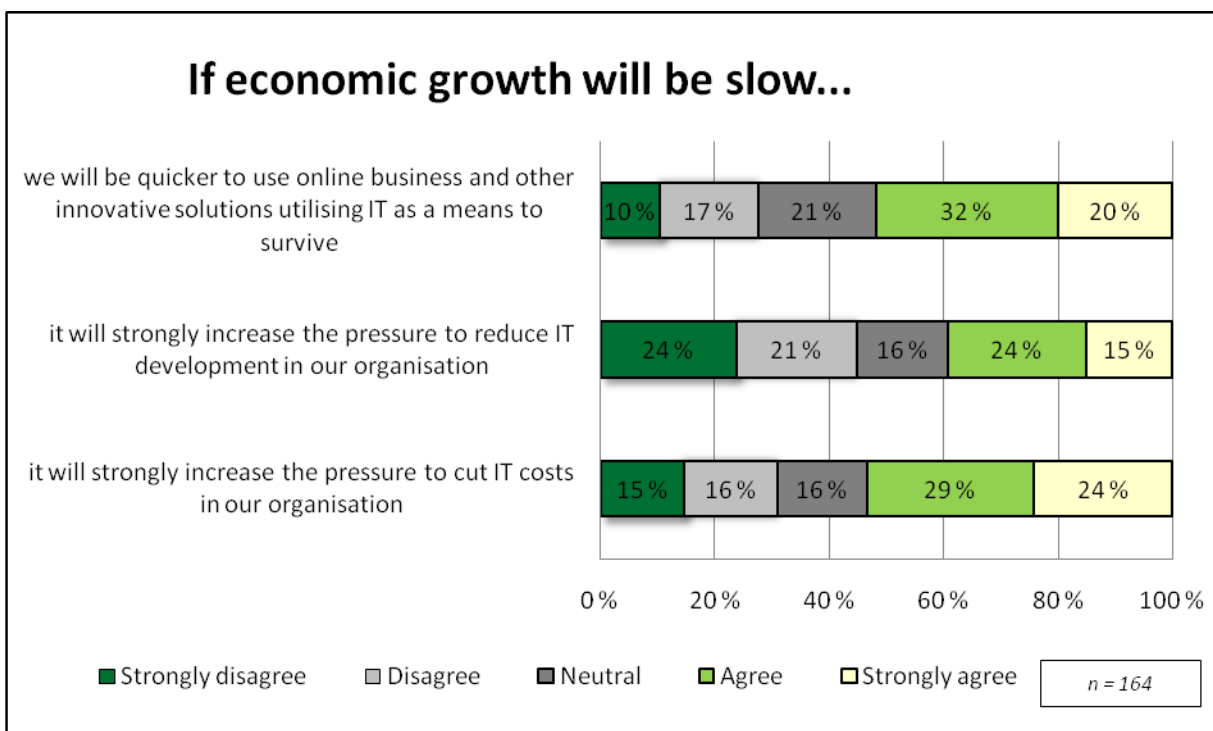


The results show that by far the most often used IT service management method is ITIL. According to the responses, under a third of the companies utilise ITIL in some way. Correspondingly, methods based on ISO 17799 / 27000, or equivalent IT data security risk management methods such as VAHTI, are used by a little under one sixth of the companies. All in all, the use of IT governance methods was fairly rare. For example, according to the responses, best practice (PRINCE2/PMBOK) for the management of IT projects, found to be problematic above, is used by only four per cent of the companies. According to the responses, the use of IT governance methods fell rather a lot from last year's level as a result of the recession. According to our interpretation, this illustrates the lack of in-depth expertise in these methods in Finnish companies. The rarity of use of the methods and the proportion who understand the problems that could be solved with these methods are also indicated by the large percentage of 'cannot say' answers.

## 10. Effects of Slow Economic Growth

Guesswork concerning the time and speed of recovery from the recession and new growth has been at the forefront of economic discussions over the last year. We wanted to use the IT barometer to study how the predicted slow post-recession economic growth will affect attitudes toward the utilisation of information technology in companies.

### How do you expect the slow economic growth predicted for 2010 to affect your organisation's IT?



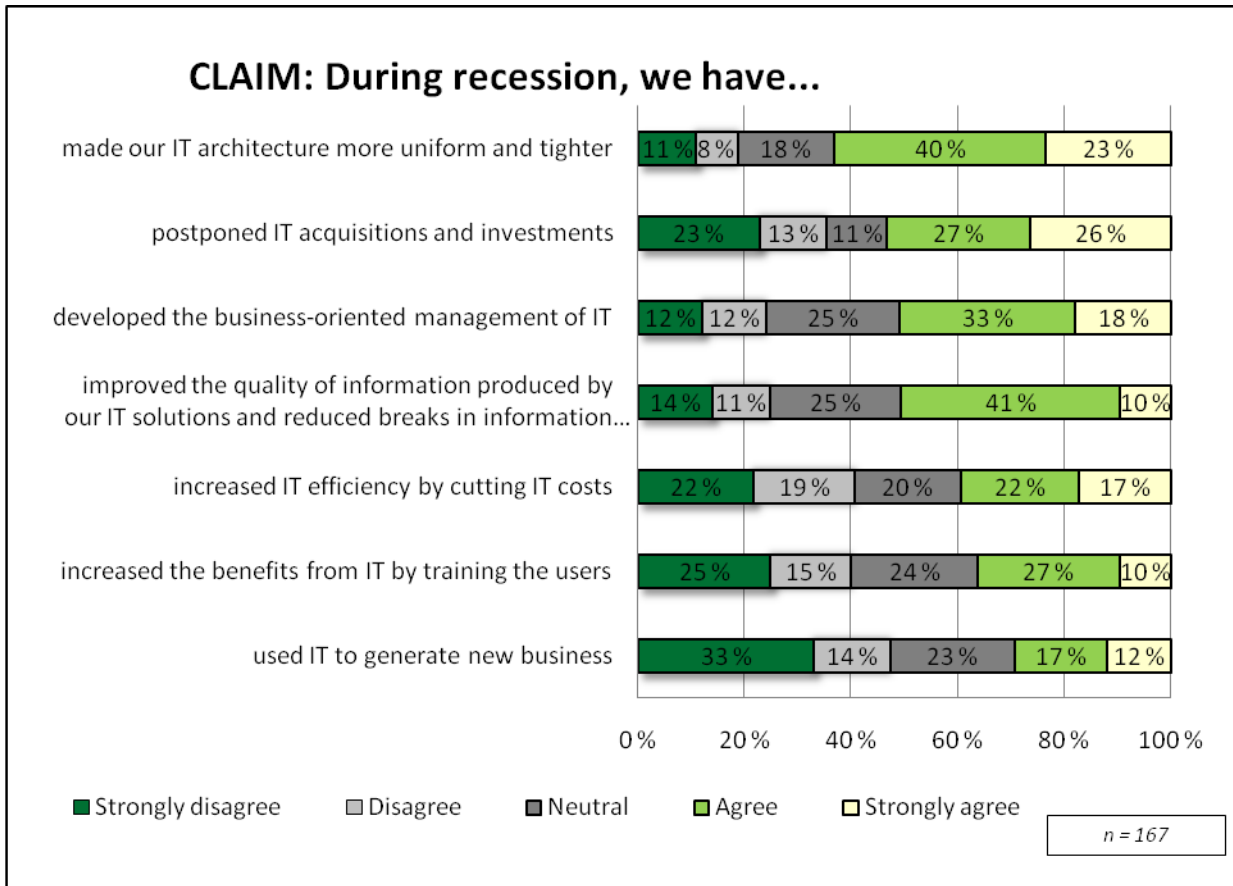
*Perceptions among the respondents as to how the slow economic growth will affect their company's IT.*

Over half of the respondents said that the slow economic growth predicted for 2010 will strongly increase the pressure to cut IT costs. In addition, some 40% of the respondents estimated that the predicted slow economic growth would add to the pressure to decrease the development of IT in organisations.

Still, more than half of the respondents also feel that the utilisation of IT is one remedy applicable to recover from the recession and the slow economic growth. Utilisation of online business and other innovative solutions that use IT is seen as a practical means of surviving amid the slow economic growth. It will be interesting to find out from the 2011 barometer whether these views of the respondents will be actualised. Regarding the expectations from the 2009 barometer, cost cuts and postponement of IT investments came to pass, while the expectations of increasing business efficiency and business development did not.

When these results are compared to last year's expectations concerning the oncoming recession, it is evident that the results are slightly more neutral than those from the previous barometer. The pressure to cut IT costs is now lower. On the other hand, in these post-recession times, IT is not considered to be as important as a

survival method as it was in the early stages of the recession. It should be restated, illustrated by the diagram below, that IT has hardly been utilised at all as a method for preventing recession through development of new methods and innovations – in contrast to the views reported in the 2009 IT barometer.

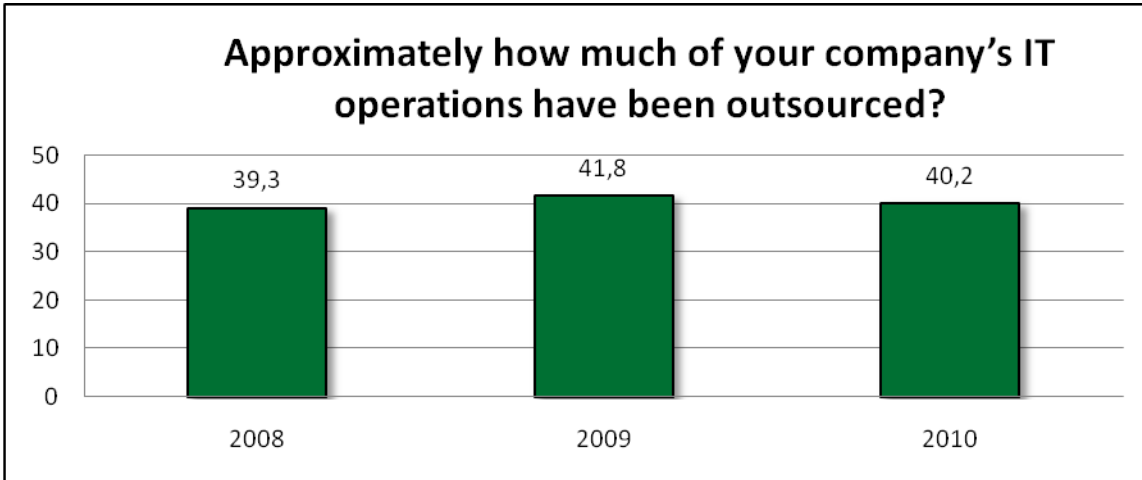


*Respondents' perceptions concerning the kind of actions their companies took during the recession.*

The responses show that the recession affected the utilisation and management of IT in many ways in Finnish companies. The majority of the companies had unified and tightened their IT architecture during the recession. According to the responses, over half of the companies had also postponed their IT acquisitions and investments. Many organisations have also cut IT costs in order to increase efficiency. The only method of increasing the efficiency of IT use that was utilised less was user training. This is significant insofar as one of the largest inefficiency factors of IT use is the users' poor ability to use IT solutions and services.

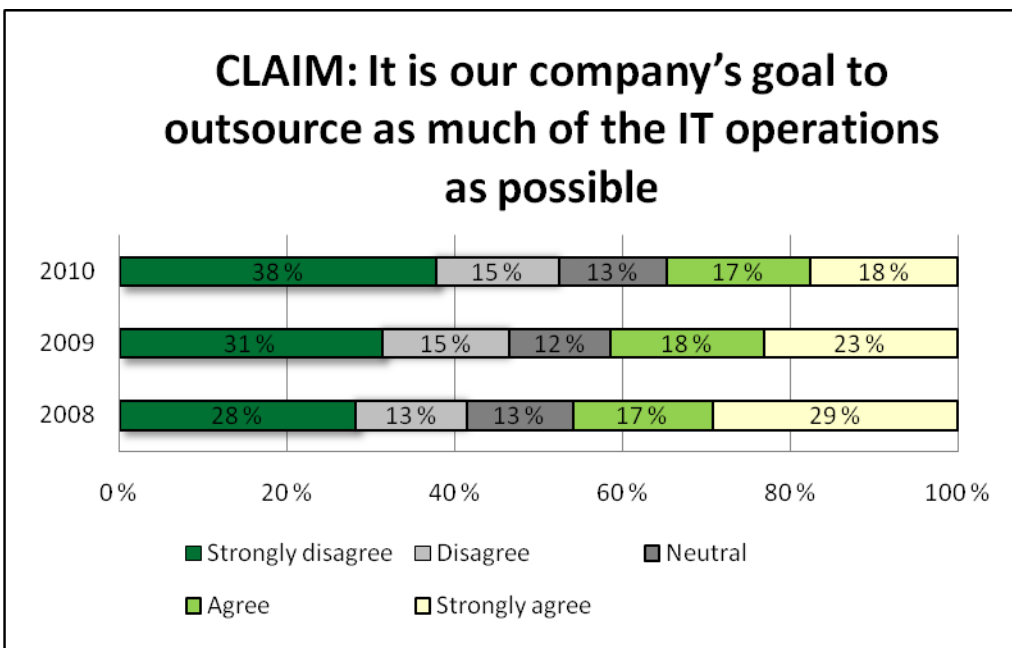
According to the responses, under 30% of companies have utilised IT to generate new business during the recession. The above results can be read to mean that the implementation of innovative IT solutions is seen as a good survival method during times of slow economic growth. The near future will therefore show whether IT will also be utilised more actively as a method of increasing business.

## 11. Outsourcing



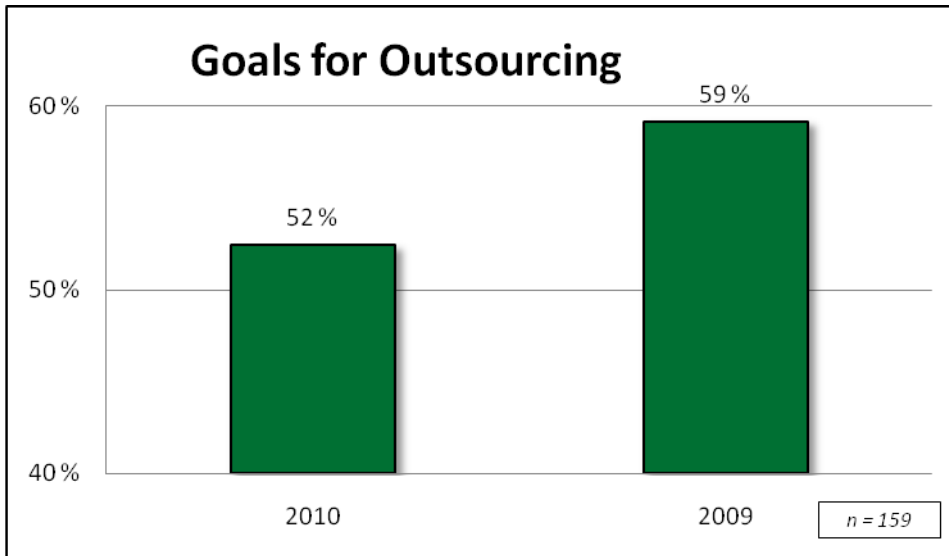
*The share of outsourcing of IT operations in companies.*

We examined the attitudes toward IT outsourcing in Finnish companies and the perceived effects of outsourcing on the operations of the companies. The results show that approximately 40% of IT operations in Finnish companies have been outsourced. According to the results, the share of outsourcing is somewhat lower than it was last year. Estimates of the share of outsourcing of IT operations have remained steady at a level of around 40%. Among the respondents, outsourcing is more common in private companies than in public-administration companies.



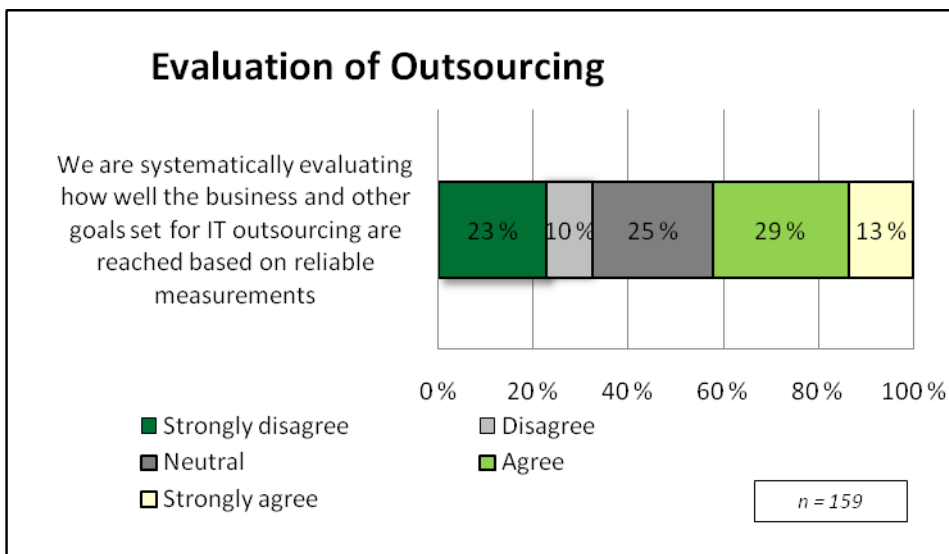
*The distribution of respondents according to the company's outsourcing goal.*

In the estimates of the respondents, the amount of outsourcing does not seem to be radically increasing, as the willingness to outsource IT operations has decreased year by year. Fewer and fewer respondents stated that their companies are trying to outsource as much of the IT operations as possible. All in all, the proportion of companies trying to outsource as much as possible is now smaller than that of companies that do not aim at such outsourcing.



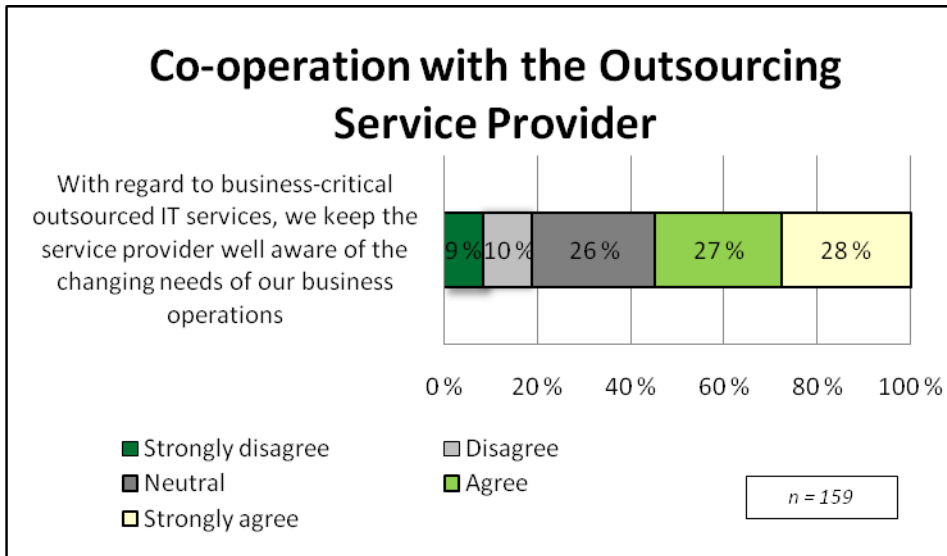
*Companies that have set clear goals for IT outsourcing.*

IT outsourcing was discussed extensively in the 2008 barometer. One of the most important findings was the connection between the management of outsourcing and its success. Only half of the respondents in this year's barometer were of the opinion that their company has set clear goals for IT outsourcing. The share is clearly smaller than in the previous IT barometer, of 2009.



*Perceptions among the respondents concerning how systematically the goals set for IT outsourcing are measured.*

We also asked the respondents to estimate how systematically their company measures the reaching of goals set for IT outsourcing. According to the results, only 40% of Finnish companies systematically evaluate the reaching of goals set for IT outsourcing. When we consider that only half of the companies set clear goals for outsourcing at all, it is easy to see that there is much room for development in systemising IT outsourcing and monitoring its effects.



*The respondents' perceptions of how good the co-operation is with the provider of outsourced IT services.*

We also studied the co-operation between the companies and their providers of outsourced IT services. According to the responses, slightly over 50% of the companies take care of keeping the provider of outsourcing services up to date on the company's changing needs. However, a fifth of the respondents considered the service provider to be insufficiently informed.