

Example Company

Analysis of your responses to Software Industry Survey 2010

Company code DEMO12345678

1 Introduction

This report contains an analysis of your responses to Software Industry Survey 2010. The data were collected during late spring and summer 2010 and analyzed during the summer. The tables and figures in this report are based on comparing your responses to all other companies that responded to the survey. The tables and figures are correct only to the extent that your responses to the survey are accurate. If you notice errors in the report or have other feedback on the content, we would appreciate to hear your comments (contact information provided at the end of this report). If the company name on the cover is incorrect or figures and tables that are calculated based on trade register data do not seem right, this can mean that we have linked your response to incorrect trade register data. This has happened for a couple of companies and can be easily corrected if you let us know about the problem. We are sending these reports to only the email given by you in the survey to eliminate the risk of sending your response to wrong email address in case that we linked your response to a wrong company.

The Software Industry Survey has followed the state of the Finnish software industry since 1997. The survey project is non-profit, and it is financed by Tekes and The Federation of Finnish Technology Industries and a few smaller sponsors including for example the Finnish Software Entrepreneurs Association.

If you want to check the questionnaires that we used in data collection, you can find these at the following links:

- Finnish: <http://www.softwareindustrysurvey.fi/QuestionnaireFinnish.pdf>
- Swedish: <http://www.softwareindustrysurvey.fi/QuestionnaireSwedish.pdf>
- English: <http://www.softwareindustrysurvey.fi/QuestionnaireEnglish.pdf>

2 Summary of the Survey Results

The final report of the survey is available online at

<http://www.softwareindustrysurvey.fi/ReportFinland2010.pdf>

The results of the survey are covered in seven independent chapters. We have included the highlights of each chapter below for your convenience. Altogether 650 companies provided a complete response to the survey.

2.1 Recent Developments in the Software Industry

- Depending on the source, the estimates for software industry growth in 2009 varied between little contraction and little growth.
- Year 2010 is predicted generally as a year of growth for the industry.
- There are several changes in the software industry that are challenging the current industry structures.
 - The software industry is maturing and consolidating, strengthening the American dominance of the industry.
 - Large software companies are moving towards services from product based business models.
 - Cloud computing and Software as a Service are gaining foothold in the markets.
 - Outsourcing and offshoring trend continues.
 - Mobile computing platform competition is increasing and table computing emerging.
 - Embedded software is ever more important and currently employs probably more software developers than the software product industry.
- The Finnish software industry has been ranked high in international benchmarks, but still has not realized the growth expectations that some forecast have laid out.

2.2 Industry Level Trends and Statistics

- Finnish software industry size contracted by 1% in 2009 being approximately 3.06 B€.
- Growth expectations of firms are considerably higher for 2010 than they were for 2009.
- Profitability in 2009 was on average 6.8%.
- Productivity in 2009 remained approximately at 2008 level.
- Although we would have expected the recession to reduce R&D investments, there does not seem to be any significant decline.

2.3 Internationalization

- It seems that there are very little changes in internationalization between 2008 and 2009, but before that there was an increasing trend.
- If judging by the number of international entries, the second half of 2000's experienced an internationalization boom.
 - More than 40% of the responding firms reported generating at least part of their revenue from abroad.
 - The number of internationalized companies has not changed, but the number of companies considering internationalization is slightly down from the previous year.
- A bit less than half of the companies that have international revenue consider this to be significant.
 - Half of the companies that reported international revenue had less than 20% of their total revenue from abroad.
- Young age and product based business model are the most significant predictors for firms entering foreign markets.
 - If a company does not internationalize from the beginning or during the early years, the likelihood for internationalization decreases.
 - Device manufacturers, although a minority in the sample, are most international.
- Western Europe and Scandinavia are the most important target markets followed by North America.

2.4 Business Models and Revenue Sources

- The industry is slowly moving towards more services.
- ASP/SaaS is increasing slowly, but there are no signs of a major disruption in the industry structure.
 - Services continue to increase also this year.
- Business to business market is clearly more significant than consumer markets for the Finnish software companies.
 - Over 80% of the companies serve business customers or businesses and public sector.
 - 56% of Finnish software firms obtain some revenue from the public sector, whereas about 16% are highly dependent on it.
- We identified 10 different business models. Although this classification seems robust, business model does not seem to have an effect on how the firms have fared during the recession year 2009.

2.5 The Use and Impact of Cloud Services in Finnish Software Industry

- Finnish software firms use cloud services to a significant degree.
- Firms that use cloud services tend to be young and growth-oriented.
- Cloud services are also used by development and consulting service firms.
- Cloud services are used in both consumer and B2B business.
- Cloud services are associated with business-centric solutions.
- Cloud services have no clear impact on firm performance.

2.6 Recession and Recovery on the Firm Level

- Few changes to recession reactions and responses.
- Revenue forecasts recovered, but clearly below pre-recession years.
 - Final verdict: A third (34%) report that they have adapted operations due to the recession and only 15% report that they were poorly prepared for the recession.
 - Emphases on marketing and cost control continue, though with slightly reduced intensity. Use of external services is increasing faster.
- Firms in the 1-3 M€ range and higher value-added product were often able to grow during the recession.
- Despite large variations, software development service firms more often surpassed their growth expectations and software product firms failed them.
- Software product firms and ASP/SaaS firms expect the strongest growth for the remainder of 2010.

2.7 The Impact of Service Provision and Service Capability on Finnish Software Firms

- There is a weak trend towards services.
- Product firms' offering changes over life cycle, while service firms' offering remains the same.
- Both product and service firms favor a customer intimacy strategies.
- Professional services have a positive impact on product firm growth.
- Service capability has a positive impact on the growth of both product and service firms.
- Offering complexity appear to have had a positive impact on firm profitability in 2009.
- Service capability has a positive impact on profitability of both product and service firms.

3 Summary of Key Statistics for Your Company

Table 1 and Table 2 list your responses to open questions (Question 2) and compare these to the other companies responding to the survey. The first table compares your responses to all companies who responded to the survey and the second table does the same comparison within the same age class (5-<10) and revenue class (0-<0.3 M€) as your firm. The tables contain comparisons on items where your company provided a response, and contain empty values otherwise.

Revenue and total personnel correspond to your responses, and productivity is the ratio of revenue and personnel. Profitability is the ratio of profits to revenue as percents. Growth is calculated by comparing responses over two consecutive years and is available only if you have responded both in 2010 and 2009. Expected growth is the ratio of revenue in 2009 and budgeted revenue for 2010.

The mean values are calculated for all data, which means that in some cases they can be biased due to few cases with extreme values. Most notably, this is the case for revenue growth among very small companies. The median values are more robust to these kinds of statistical distortions. Percent of median tells how many percent the statistic is of the middle value of the particular year. For example if this statistic is 150% for revenue, this would mean that your revenue is 50% more than the median company in this set of companies.

Table 1: Comparison of selected statistics in 2009

| | Your firm | All firms | |
|-----------------------|-----------|-----------|---------|
| | | Rank | Median |
| Revenue | 240,000 | 275/552 | 240,000 |
| Total personnel | 3 | 286/604 | 3 |
| Productivity | 69,240 | 265/529 | 69,240 |
| Profit | 8,500 | 280/560 | 8,500 |
| Profitability (%) | 7.1 | 257/514 | 7.1 |
| R&D / revenue (%) | 8.0 | 241/481 | 8.0 |
| Growth of revenue (%) | 0.0 | 90/202 | 0.0 |
| Expected growth (%) | 15.0 | 268/536 | 15.0 |

Table 2: Comparison of selected statistics by revenue and age class in 2009

| | Your firm | Age 5-<10 | | Revenue 0-<0.3 M€ | |
|-----------------------|-----------|-----------|---------|-------------------|--------|
| | | Rank | Median | Rank | Median |
| Revenue | 240,000 | 83/126 | 554,500 | 14/291 | 60,000 |
| Total personnel | 3 | 85/127 | 8 | 37/282 | 1 |
| Productivity | 69,240 | 66/121 | 70,000 | 73/271 | 40,000 |
| Profit | 8,500 | 71/117 | 30,000 | 101/266 | 3,700 |
| Profitability (%) | 7.1 | 54/113 | 6.6 | 140/266 | 8.6 |
| R&D / revenue (%) | 8.0 | 53/108 | 7.7 | 115/248 | 6.0 |
| Growth of revenue (%) | 0.0 | 31/56 | 3.9 | 24/78 | -8.5 |
| Expected growth (%) | 15.0 | 60/126 | 14.1 | 152/283 | 19.7 |

Table 3 and Table4 show statistics over the last five years. The first table is based on our

responses to this survey and our previous runs and the second table is calculated from trade register data. The reason for including two tables is to enable comparing figures over years for also those companies that have not previously responded to this survey.

Table 3: Comparison of selected statistics over years

| | Year | | | | |
|------------------------------|---------|---------|---------|---------|---------|
| | 2005 | 2006 | 2007 | 2008 | 2009 |
| Revenue | | | | | |
| Value | 950,000 | 600,000 | 450,000 | 325,000 | 240,000 |
| Rank | 91/181 | 154/318 | 272/550 | 320/639 | 275/552 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Total personnel | | | | | |
| Value | 12 | 7 | 5 | 4 | 3 |
| Rank | 91/181 | 162/335 | 288/607 | 329/668 | 286/604 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Productivity | | | | | |
| Value | 75,000 | 75,857 | 75,000 | 76,667 | 69,240 |
| Rank | 85/178 | 158/315 | 266/538 | 302/604 | 265/529 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Profit | | | | | |
| Value | 30,000 | 20,000 | 11,000 | 14,439 | 8,500 |
| Rank | 82/170 | 144/308 | 264/529 | 300/599 | 280/560 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Profitability (%) | | | | | |
| Value | 5.2 | 5.2 | 5.7 | 6.8 | 7.1 |
| Rank | 84/167 | 152/304 | 246/492 | 281/561 | 257/514 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| R&D / revenue (%) | | | | | |
| Value | 20.0 | 14.6 | 13.0 | 10.0 | 8.0 |
| Rank | 67/148 | 135/270 | 105/209 | 264/537 | 241/481 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Growth of revenue (%) | | | | | |
| Value | 10.0 | 10.0 | 10.4 | 15.9 | 0.0 |
| Rank | 44/88 | 55/110 | 100/199 | 108/216 | 90/202 |
| Percent of median | 100 | 100 | 100 | 100 | . |
| Expected growth (%) | | | | | |
| Value | 22.2 | 20.0 | 23.1 | 10.0 | 15.0 |
| Rank | 74/148 | 139/282 | 243/486 | 299/600 | 268/536 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |

Table 4: Comparison of selected statistics over years (Trade register data)

| | Year | | | | |
|--|----------|----------|----------|----------|---------|
| | 2005 | 2006 | 2007 | 2008 | 2009 |
| Revenue | | | | | |
| Value | 443,000 | 500,000 | 537,000 | 546,000 | 684,000 |
| Rank | 579/1159 | 610/1220 | 690/1379 | 701/1402 | 53/106 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Personnel | | | | | |
| Value | 7 | 7 | 9 | 10 | 16 |
| Rank | 450/984 | 515/1051 | 469/1000 | 359/720 | 29/59 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Productivity | | | | | |
| Value | 81,419 | 86,100 | 95,000 | 98,833 | 111,292 |
| Rank | 485/969 | 520/1040 | 497/994 | 359/719 | 30/59 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Profit | | | | | |
| Value | 15,000 | 19,000 | 26,000 | 22,500 | 44,000 |
| Rank | 582/1179 | 609/1231 | 686/1387 | 702/1403 | 53/106 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Profitability (%) | | | | | |
| Value | 3.8 | 4.7 | 5.2 | 4.3 | 7.9 |
| Rank | 580/1159 | 610/1220 | 690/1379 | 701/1402 | 53/106 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Change in Revenue (%) | | | | | |
| Value | 10.2 | 13.6 | 14.1 | 11.8 | 3.5 |
| Rank | 521/1041 | 544/1087 | 585/1169 | 645/1292 | 50/99 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Revenue growth, 3 year CAGR (%) | | | | | |
| Value | 3.2 | 8.3 | 12.2 | 11.8 | 12.6 |
| Rank | 45/90 | 220/439 | 522/1043 | 526/1051 | 43/86 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |
| Revenue growth, 3 year min (%) | | | | | |
| Value | -19.3 | -10.7 | -6.4 | -7.0 | -5.2 |
| Rank | 33/66 | 197/393 | 474/948 | 490/982 | 41/81 |
| Percent of median | 100 | 100 | 100 | 100 | 100 |

4 Revenue and Profitability

Figure 1 shows the firm size distribution over age. The lines in the figure are percentiles, which means that each line shows how large share of firms have a revenue below a particular level. For example, the 25% percentile means that a quarter of the firms have revenue below this line. If we have data for your company for multiple years, older observations are marked with a grey font. If you see the markers for your company climbing over the lines, this means that you have been growing faster than other companies at that age.

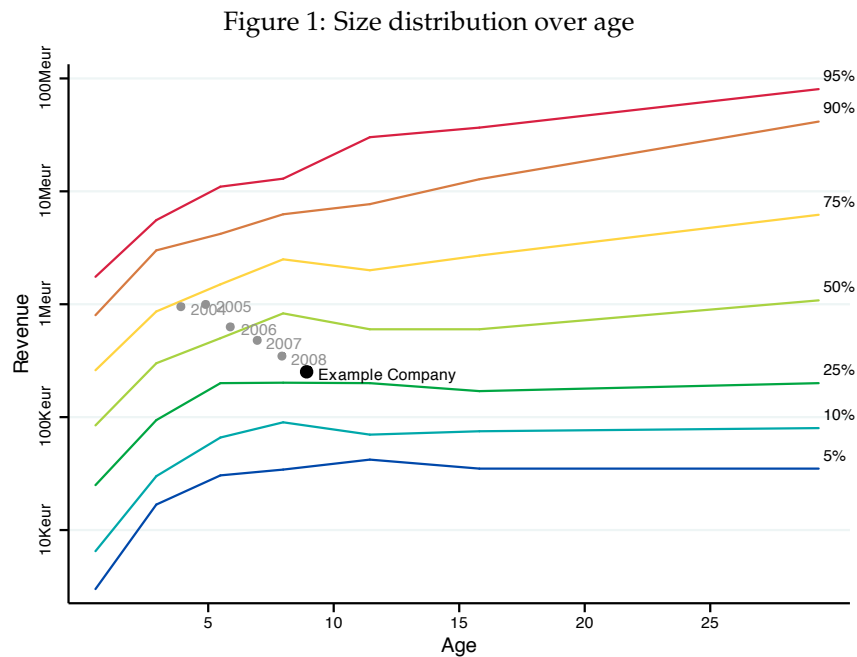
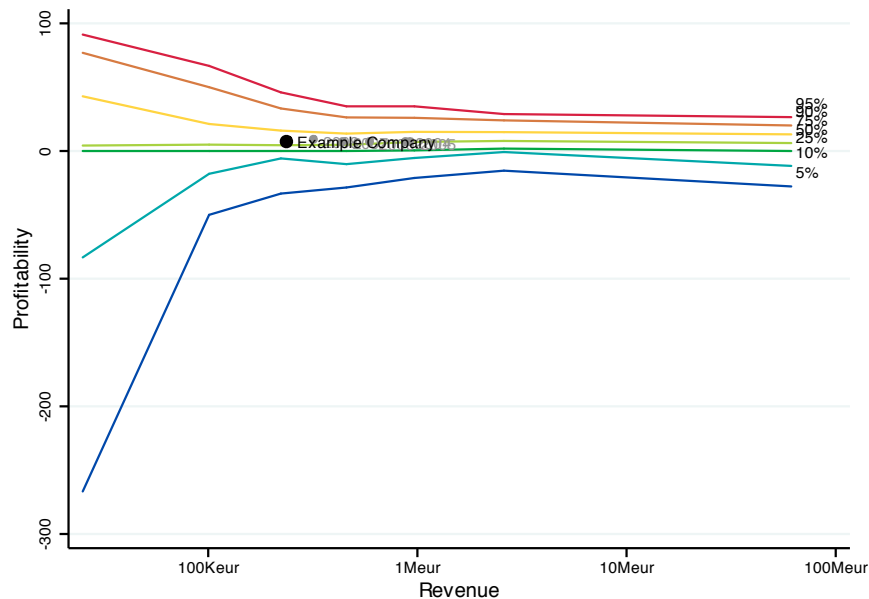


Figure 2 shows profitability differences between firms with different amounts of revenue. The variance in profitability is considerably larger for smaller firms. This is due to several factors. For instance, many of the smallest firms focus on product development and have yet to gain significant sales to offset the costs. For the larger firms, the differences are likely to decrease due to increasing competition and imitation as the firm becomes a notable player in its market. The second observation is that when we examine the trend lines and their relationship to the horizontal zero line, we can estimate how large a share of the firms were profitable in each revenue class.

Figure 2: Profitability distribution over firm size



5 Growth

Figures 3-6 describe your performance in long term growth as a function of firm age and revenue using two different measures: the compound average growth rate and the minimum growth rate.

The minimum growth rate criterion is often mixed with the compound average growth rate. The notion of “achieve 50% growth for three consecutive years” is often misinterpreted as having average growth rate of 50%. However, as seen in figures, these two criteria are considerably different. Average growth rate is most often calculated by comparing the first and last year of the period of interest. This approach has the problem of being sensitive to small firm size in the initial observation. Two facts related to nature of software product firms cause this effect to often appear and lift these firms high in growth lists using this figure. First, software product firms often start as product development organizations that have only little consulting or project revenues. This causes the initial observation for a firm to be small. In more traditional product development intensive industries the feasible starting size of a company is larger due to need for a manufacturing function that is not present in software product firms. Second, different from most other smaller firms, young software product firms are able to scale up their revenue once the product is ready for sales. In other words, the fact that software firms are over-represented in growth rankings can be equally caused by smaller starting size than faster growth rate.

Firms that have consistently grown more than 50% per year for three consecutive years are relatively rare and are called Gazelle firm. In the three year period ending at 2008, these super-growers were approximately three percent of the sample. With the more common average growth criterion, approximately 15 percent of firms grow faster than 50% per year

Figure 3: 3 year average growth by firm age

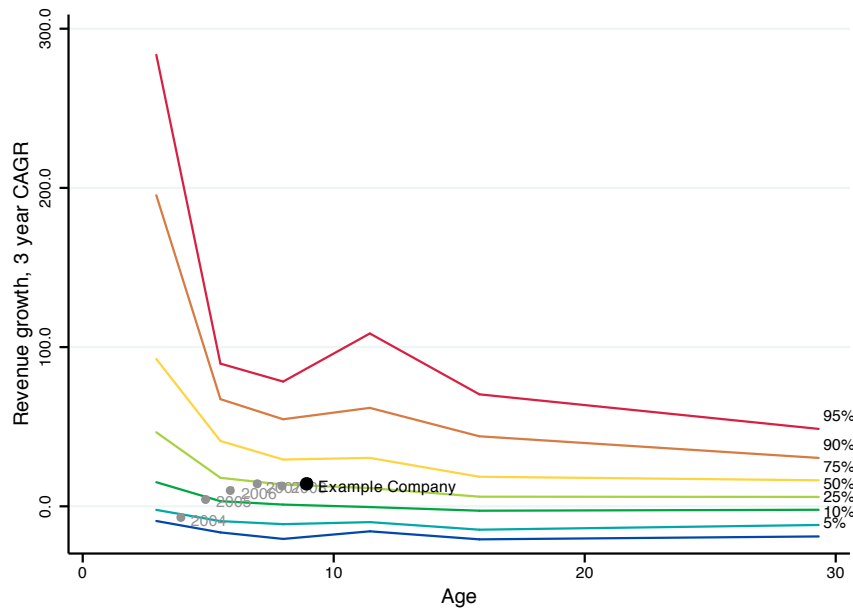


Figure 4: 3 year average growth by revenue

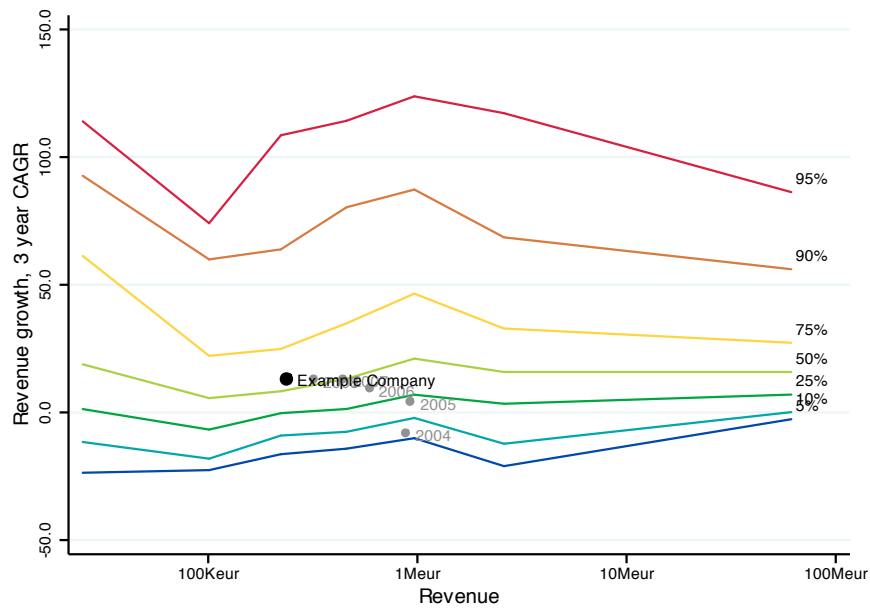


Figure 5: 3 year minimum growth by firm age

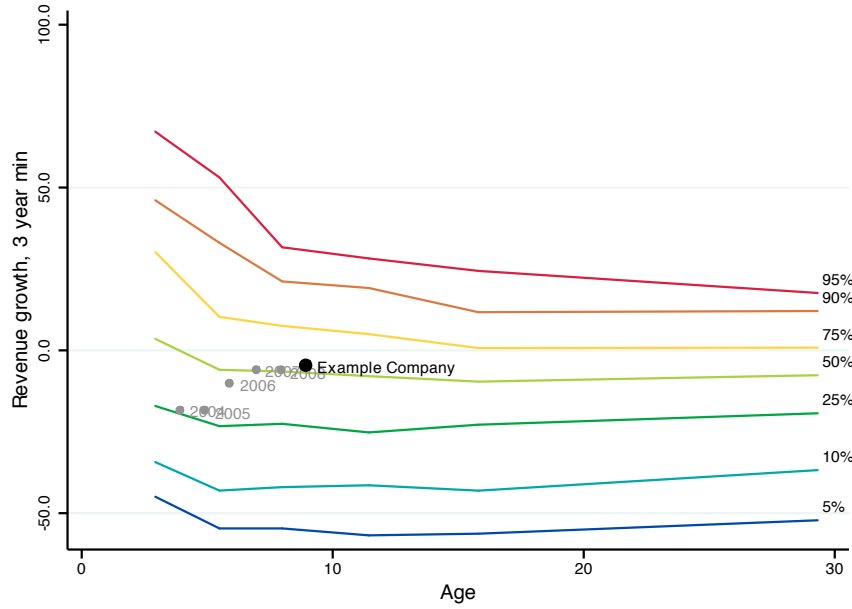
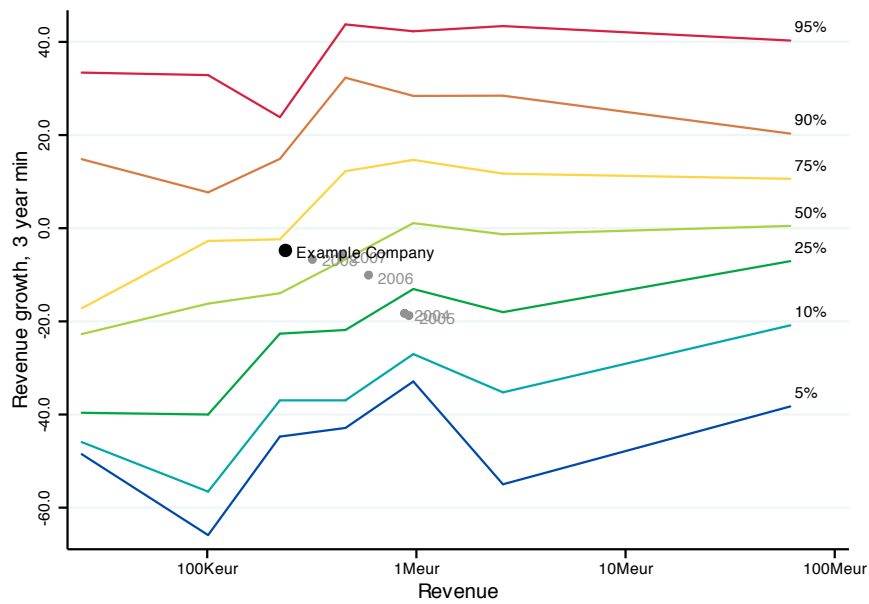


Figure 6: 3 year minimum growth by firm revenue



6 Growth Target and Motivation

Growth and particularly growth motivation has been in the focus of the Software Industry survey for the last couple of years. During this year, we measured growth motivation from two perspectives. First, we asked what would be the ideal size of the company in five years in terms of revenue and personnel. These figures are shown in Figure 8 and Figure 9. Both graphs show percentile diagrams. Each line tells how many companies are below a particular level in their growth target. The figures have two interesting features. First, the revenue target for the very smallest firms seem to be really high. We assume that this is a trait partially caused by some startup companies that have very ambitious expectations. Second, the graph is calculated by first dividing the companies into seven size classes and then calculating the percentiles for these classes. Due to this, it looks like some of the larger companies would actually want to be smaller. The 5% fractile in 100 M€ is at approximately 3 M€ because this size class includes all firms over 3 M€ and some of these want to stay the same size. Below 3 M€, the figure is fairly accurate. The same applies to the largest size class in Figure 9.

Another way that we measured the growth motivation was a scale of eight statements describing the firm's willingness to grow. We aggregated these into three variables into Figure 7: The willingness to grow indicates how high the firm and its management prioritize growth among other possible targets, and tolerance of risk measures how much the firm is willing to take risks in order to grow. The willingness to go international measures how much emphasis the firm places on expanding and operating abroad. The responses are scaled so that the black marker in the middle means that you have responded like a median firm does. Extreme values on left and right are not absolute values: I.e. a value in the left does not mean that your firm would not want to grow at all, but that you responded to these questions more negatively than most other firms.

Figure 7: Comparison of willingness to grow

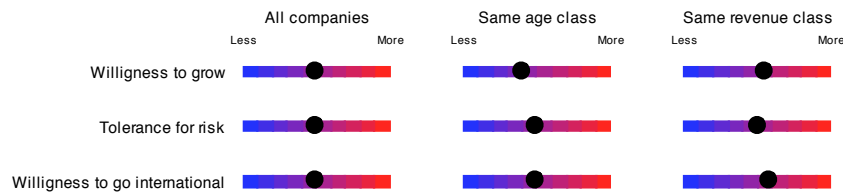


Figure 8: Targeted revenue over current revenue

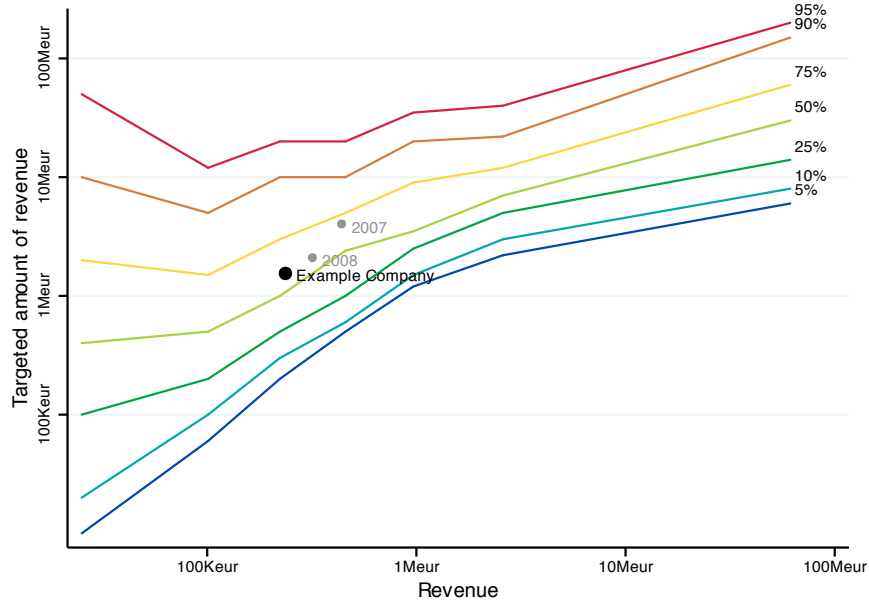
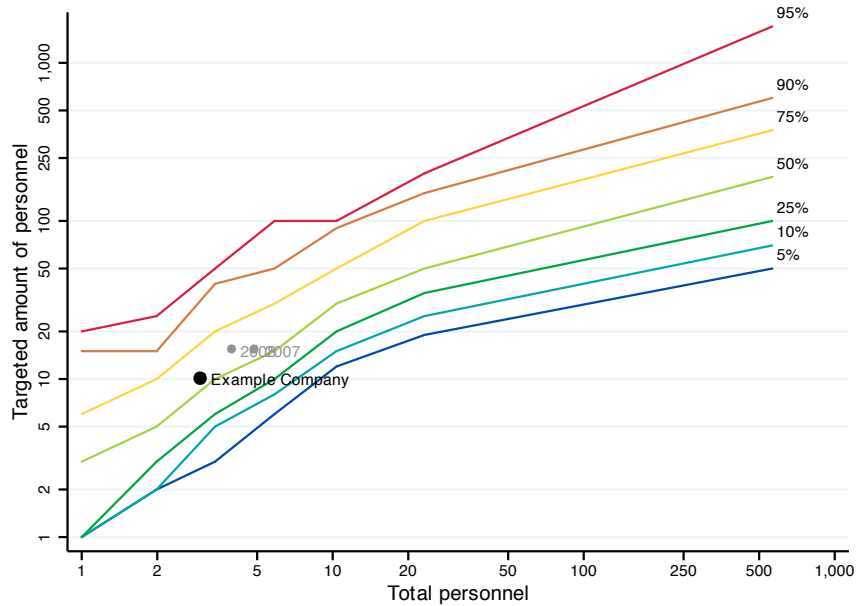


Figure 9: Targeted personnel over current personnel



7 Revenue Sources

Figure 10 shows how you responded to question about revenue sources. For comparison, we have included three pie charts that show how typical firms in your age class and revenue class and firm type responded to this question. Among all responding firms, the provision of software development services is clearly the most significant source of revenue, amounting to nearly a third of all revenue (32%). Clearly smaller shares of revenue are generated by license sales (15%), followed by maintenance services (11%) and ASP/SaaS sales (11%). Together these intellectual property related sources of revenue account for 37% of revenue. On average, a Finnish software firms generates 13% of their revenue from non-software sources, such as hardware sales and other not software related sources. The rest is generated by various kinds of software related services.

In all, the revenue distributions tell us that a typical firm responding to the survey generated a third of its revenue from various development projects, which is in line with statements that software business is increasingly a service business and does not differ from any other typical European software markets in this respect. Another observation is that the revenue from SaaS and ASP contracts and traditional license sales are roughly at the same level.

Figures 11-14 show how you position among the companies on the following four variables: revenue from resellers (channel sales), revenue from public sector, revenue from new customers, and revenue from three largest customers. The category to which your company belongs to is highlighted and marked with the name of your company.

Figure 10: Revenue sources

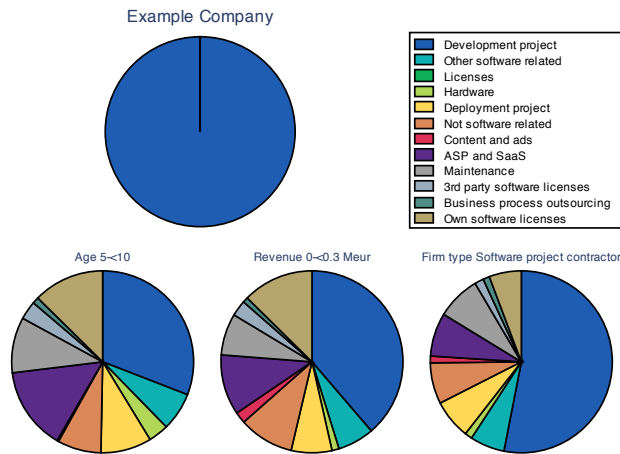


Figure 11: Revenue from resellers

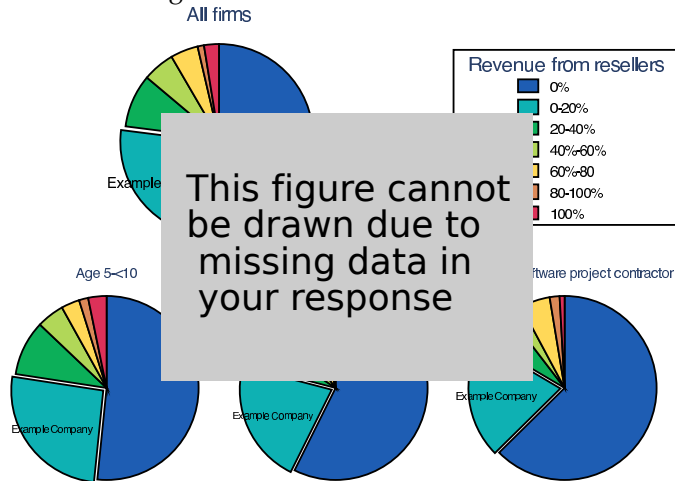


Figure 12: Revenue from public sector

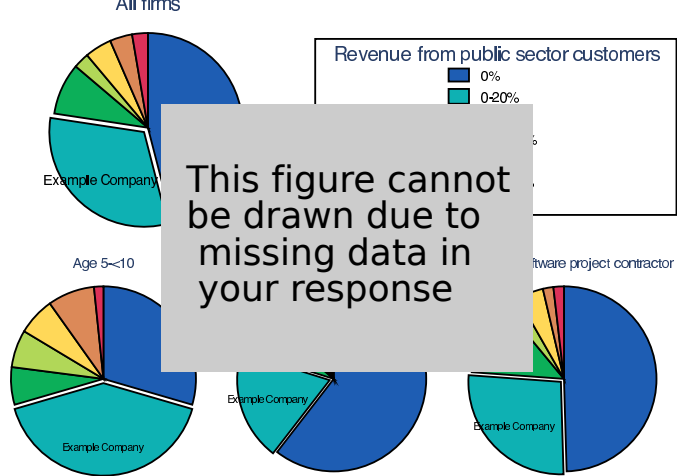


Figure 13: Revenue from new customers

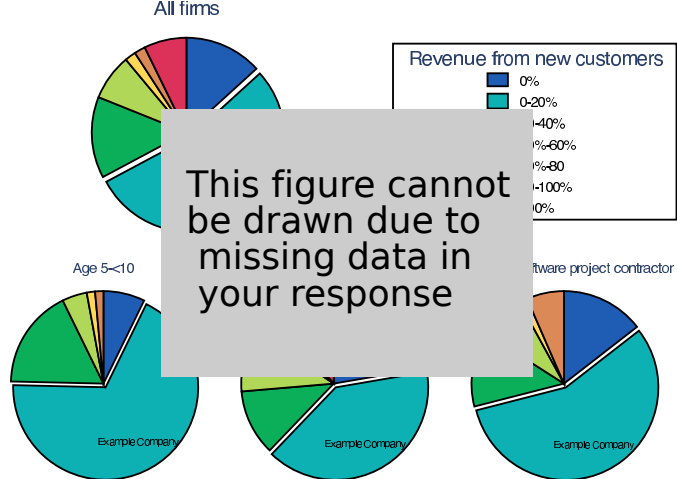
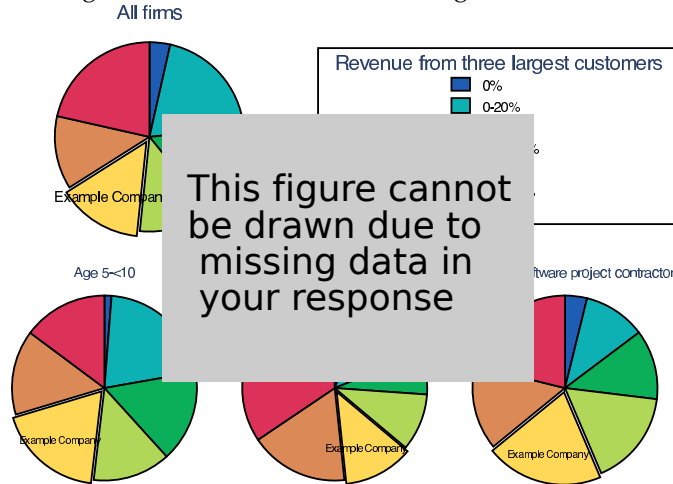


Figure 14: Revenue from three largest customers



8 Internationalization

For a country with small home markets for software, internationalization is often considered a natural step in the life course of a software firm. Software industry is in many ways atypical industry considering international expansion. First, companies using the internet as the main distribution channel can have an instant access to global markets. A similar channel cannot be easily found in most other industries. Second, many software companies get their first international sales before domestic sales. This is particularly the case with providers of specialized systems and applications to other companies.

Approximately 45% of the responding firms had some sort of international revenue. This was measured with a question that had five different response options as shown in Figure 15. The pie charts show frequencies of each response option for all firms and for firms that are similar to your firm in terms of age, revenue, or firm type. The option that you chose is highlighted and marked with your company name.

Figure 16 shows the relationship between international revenue and firm size and Figure 17 shows international revenue by firm Age. There are a few very international companies in each size class, but generally the number of internationalized companies increases by firm size and age.

Pie charts in Figure 18 show how you responded to the question about revenue from different geographical markets and compares these to companies of same age, size, and firm type.

Figure 15: International operations

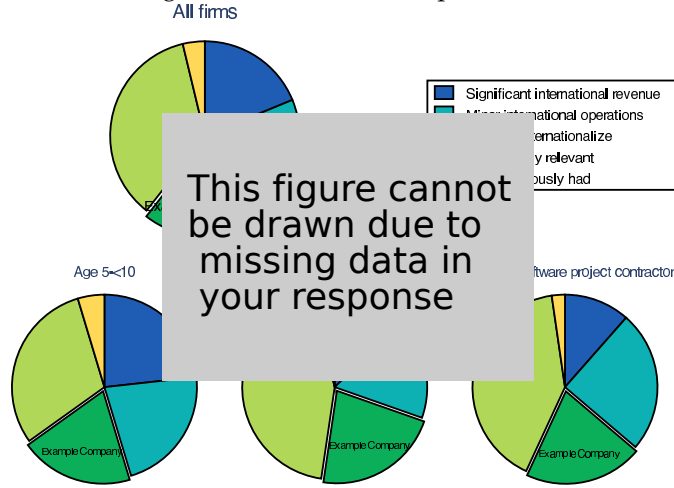


Figure 16: International revenue by firm revenue

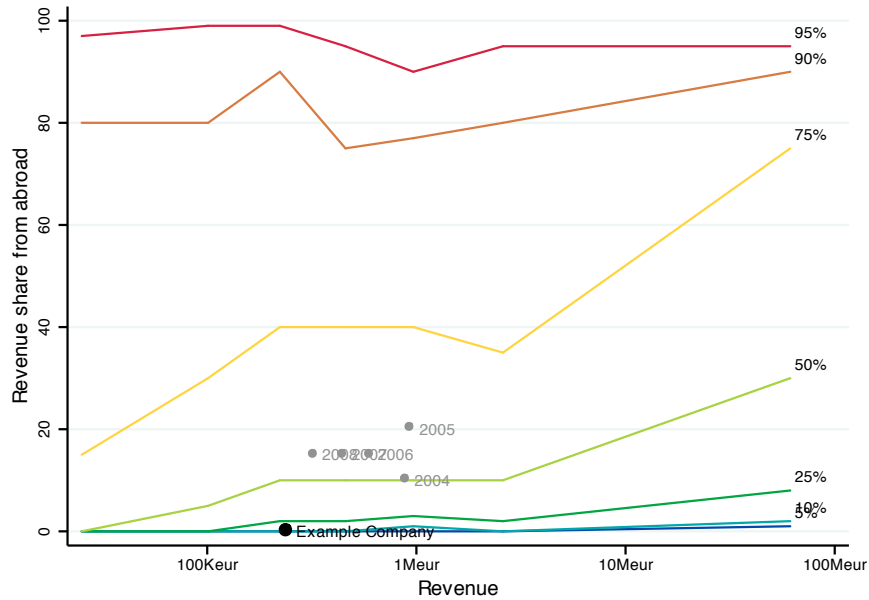


Figure 17: International revenue by age

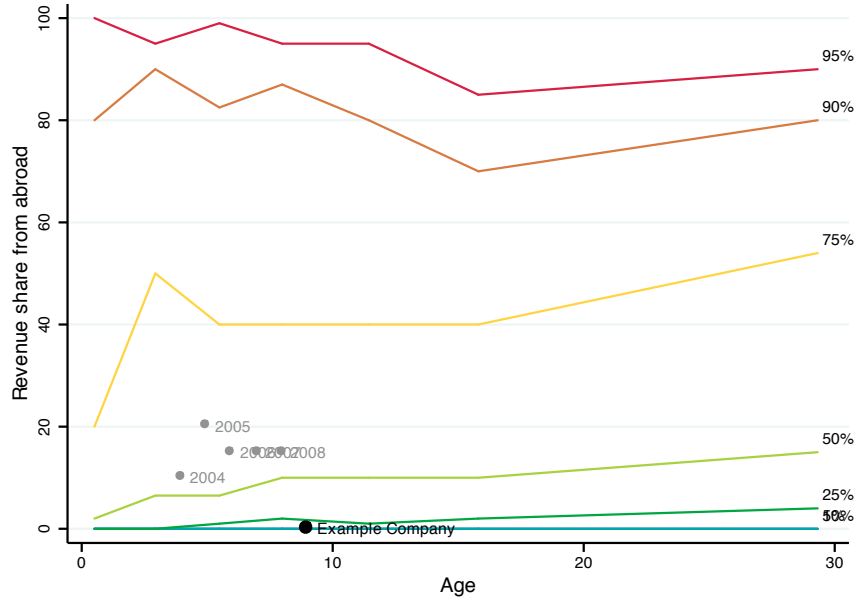
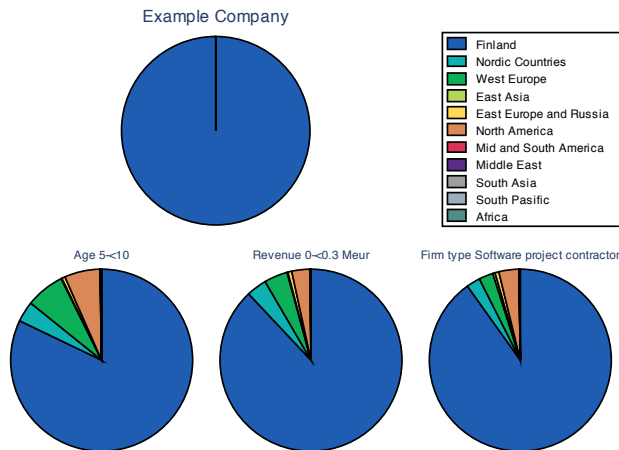


Figure 18: International revenue by size class



9 Services

Figure 19 shows how your responses to the services questions in the questionnaire compare to all companies and companies in the same revenue class. (Question 10)

Figure 19: Services



10 Cloud Computing

Cloud technologies are potentially changing the software business models more than any other aspect in the software business in the near future. Significant factors of competitiveness are operational efficiency, user experience, web software, open systems, and security. Cloud technologies tie these factors together as software increasingly moves to the web.

Cloud business models often use open networks to offer software-based services on demand to the internal and/or external value network. Open interfaces, web technology, distributed processing and storage over the Internet, and open source software are used. Cloud technology impacts business models and business environment on both supplier and customer side. It is obvious that most software companies need to follow the cloud technology trends closely.

In the Oskari survey 2010 it is seen that the adoption of cloud technologies is relatively common among all size and age of companies, more than 70% of companies use or plan to use some cloud technologies. The use of different cloud technologies is quite evenly spread over all size and age of companies. However, the young companies under 2 years old are more frequent users of cloud platforms (e.g. Microsoft Azure or Force.com) than older companies (Figure 20).

Figure 21 shows how you and other companies responded to questions about use of cloud computing on and planned use in 2013. (Question 12.)

Figure 20: Use of cloud computing services

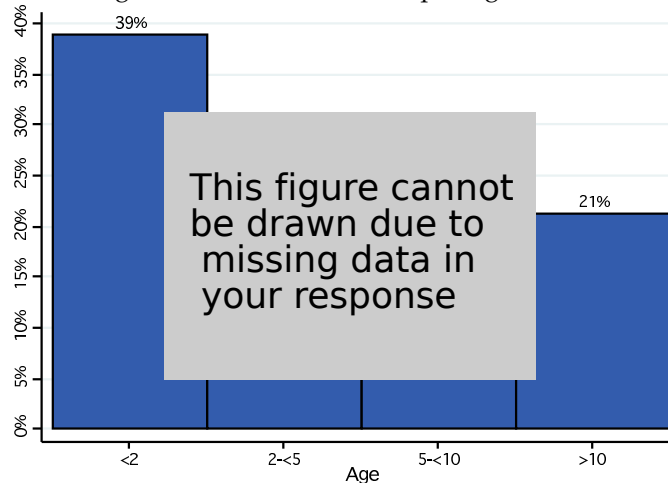
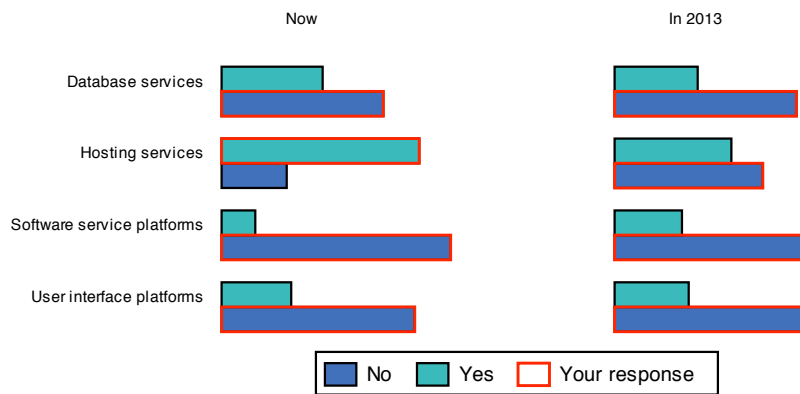


Figure 21: Cloud computing questions



11 Impacts and Response to Recession

Last year’s survey revealed that the Finnish software industry in general suffered from the recession much less than many of its traditional industries. The questionnaire included several questions on how companies perceived and had reacted to the recession between summer 2009 to summer 2010.

The following two figures represent your company’s responses compared to all responding companies and companies in the same revenue class. The closer the black dot is to the left hand side, the smaller your company’s response was compared to the median of other respondents. Similarly, the more right the dot is placed, the greater your response was compared to the median of other responses. Figure 11 summarizes your responses to four subjective questions on the impact of the recession. Figure 11 summarizes more detailed questions on your operational responses and changes in the business environment. (Questions 19, 20, and 22)

Figure 23: Impacts and actions due to recession

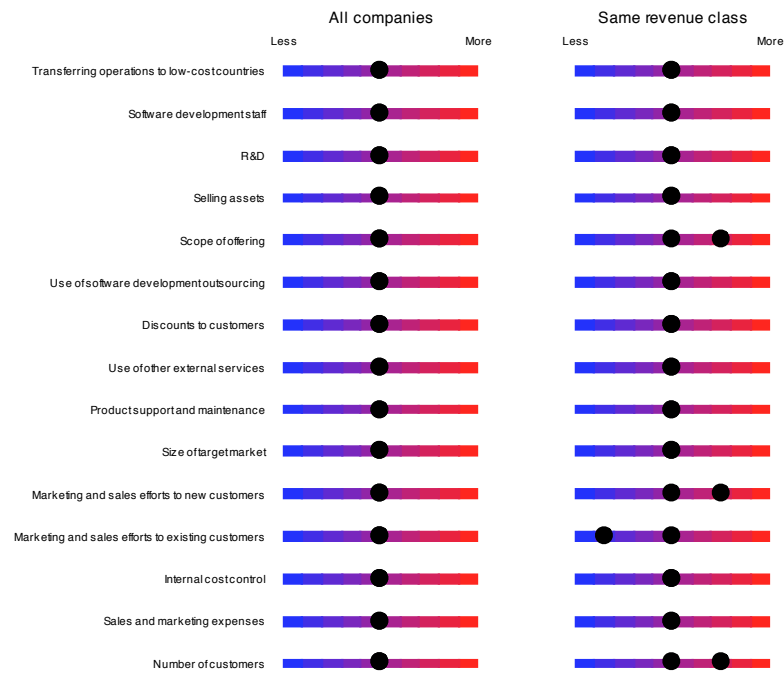
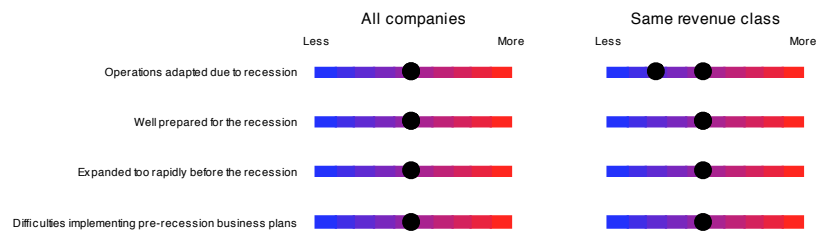


Figure 22: Preparedness for recession



12 Security Incidents

The information assets of High-Tech companies are increasingly at risk from a growing number of security threats, such as internet worms, bot nets and automated hacker attacks. Where such attacks succeed, they create a security incident that can disrupt the victim’s ability to do business.

This year we asked companies for the first time whether they had experienced a security incident in their company and if they had perceived a negative effect on their business.

Similar questions are asked annually by the US CSI/FBI Computer Crime and Security Sur-

vey¹. In 2009, two thirds of the 443 CSI/FBI survey respondents reported incidents of Malware infection, one third reported denial of service attacks and 20% experienced cases of financial fraud.

The responses to our survey seem to indicate that the situation is far less severe in Finland. The reality however could substantially differ from the respondent's perception, since a large number of security incidents occur unnoticed or are not willingly disclosed to the public.

Thus, we argue that the existing responses give a clear indication that financial harm due to security incidents are indeed a real threat in Finland, however the true size of the risk is not yet know.

Figure 24: Security questions



13 More Information

We thank you for your participation in Software Industry Survey 2010. If you have any questions about this project, company report, or want to give general feedback, please do not hesitate to email mikko.ronkko@tkk.fi.

¹CSI Computer Crime and Security Survey 2009, available online at <http://gocsi.com/survey>