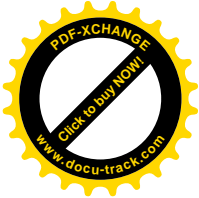
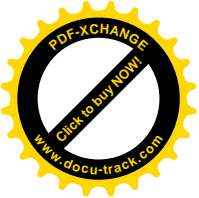


Brief introduction to methods and I/O model and results

Interim Report



Survey status by June 2005

The overall aim of the project is to be able to help SMEs further their knowledge and ability to create value through proper use of Information Technology. To understand the effect of different tools and actions, such as training programs etc., the survey was conducted in all eighth regions. By the end of May 2005 we have data from a total of more than 500 companies have been collected and evaluated.

The survey builds on a model for **Information Orientation**, developed by Donald A. Marchand, William J. Kettinger, and John D. Rollins. Their work which is published in several books and articles.

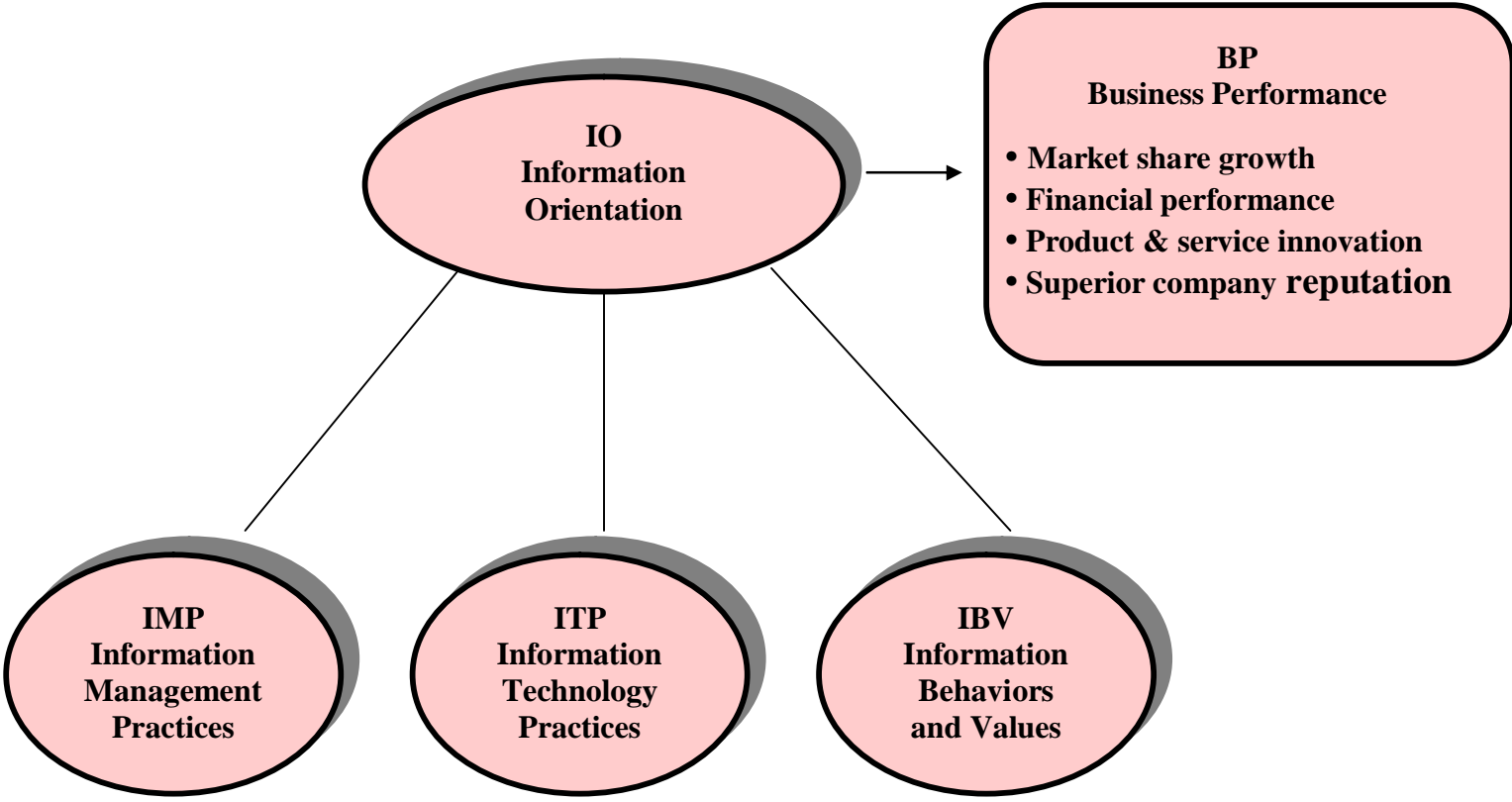
IT is a general-purpose technology, and it is only through planned and organized use in business processes that a firm can produce results.

However, these results will often take considerable time to evolve. Research has shown that it normally takes 3-5 years of implementation and conversion. Thus we have a model like this:

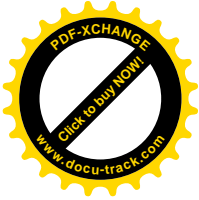
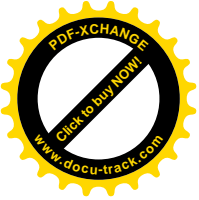


A company invest in IT and the implementation converts the general-purpose technology into a business critical asset in a complex process. The challenge is to identify this intermediary conversion process.

If we can help companies understand how to use and manage their IT investments within such processes, then we can also contribute to better value creation in those companies. That is the basic premise and ‘hope’ for the project.



The IO Model used in the questionnaire



The IO model

The Survey measure how each company scores on a set of indicators that tap three categories:

Information Technology Practices:

This measures the companies' ability to use IT to support business operations, innovation and management of the business. It taps four dimensions.

Information Management Practices:

This measures how information and IT is managed within the company. The five dimensions tap the companies' practices in sensing new information, collecting proper information, organizing, processing and maintaining information.

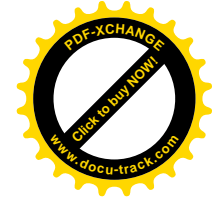
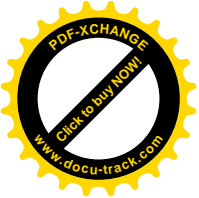
Information behaviors and values:

This measures the behaviors and values for how to handle information within the companies. The six dimensions tap to what extent the companies are proactive in their use of information, how transparent information is, whether the information sources are trustworthy and with high integrity, how good they are to share and control information, and whether they use formal or informal information sources.

All three categories are necessary but not sufficiently, they only add value when combined into an Information Orientation at a proper level.

The survey will be used as a benchmark where regions and individual companies are compared with the complete database.

When viewing the results, one has to be aware that the numbers shown are on a 1-7 scale and that all are an opinion stated by a manger in the company. These Opinions view how these persons with extensive knowledge of information technology and its use may view a company quite different than a person with limited knowledge of the topics.

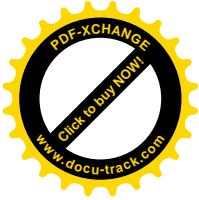
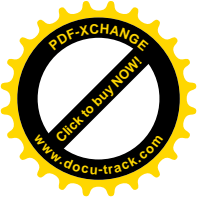


Present Status

As the project has been underway since January 2004, we have some results. There are active groups of partners in all 8 regions and we have developed a questionnaire for checking status in companies. This was done by University Stavanger in interaction with all partners in the 8 regions. The questionnaires focus on company strategy, company practice, and company results. After agreeing upon the questionnaire the process of gathering data ran and finished early 2005. All 8 regions have collected data on present status and ICT usage from a total more than 550 companies. Then in April 2005 we selected 30 companies in each region for support activities.

As most company data are available, we already have some indications on what kind of support activities that will be needed.

At the end of the project in 2007, the same questionnaire will be used at the set of companies (provided they are available at that date), and we will analyze how the status looks like compared with the baseline of 2004. We have a special interest in comparing the development of competitiveness in the 30 supported companies in each region with the remaining companies. This concludes if special activities like forming virtual enterprises can be seen as more or less rewarding than the more simple actions like providing broadband access or providing customized e-learning.



Are there differences or common patterns?

The current analysis is based on data from all eight regions, and the overall trend is:

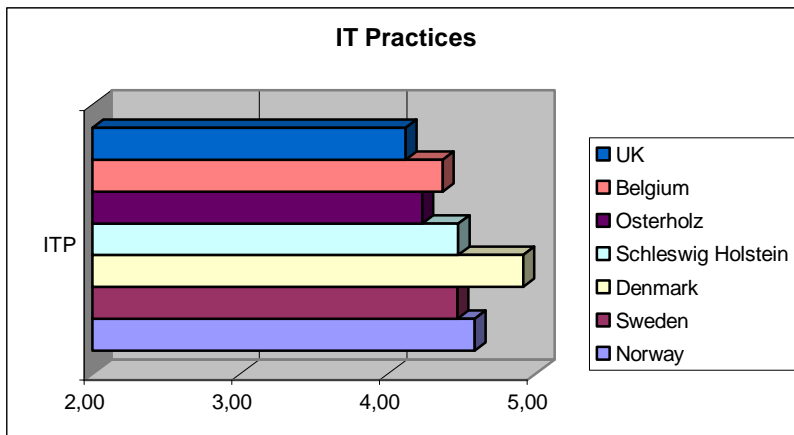
- Ø One region receive better evaluation on all indicators (Denmark)
- Ø Seven regions receive lowest evaluation on IT Practices, Belgium is an exception
- Ø All regions receive highest evaluation on Information Values and Behaviors
- Ø However, there are substantial differences between individual companies

If this pattern is correct, then the basic premise for interventions is ok on average. Without proper behavior and values, any activities to raise the ability and awareness of IT use will fall apart.

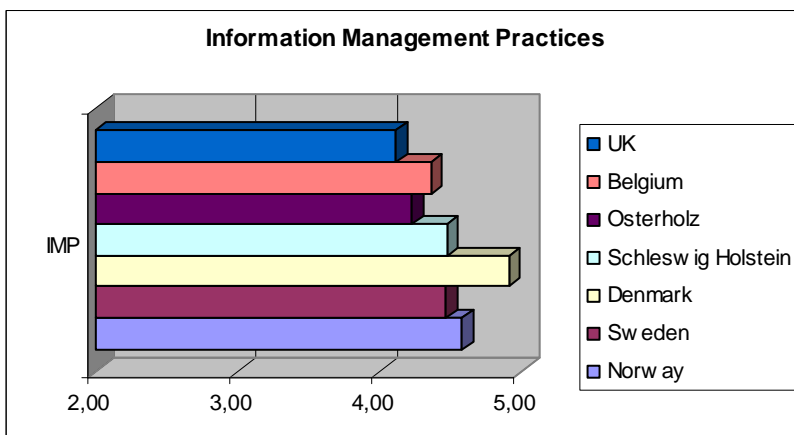
Further, as many of the project partners are training institutions and regional developers, it should be possible to identify actions that are intended to raise the IT and IM practices.

More analysis will show whether this picture is correct, and the project will work closer with some 30 companies in each region. All those companies will be analyzed individually both to check the overall picture from the first questionnaire and to make a specific action plan for each company.

International Graphs

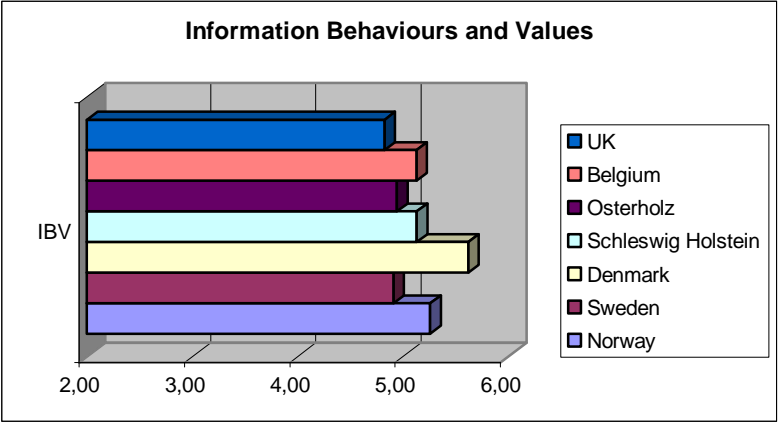


“IT Practice” has significant differences in the average values from each region. As example the Danish companies in average view themselves as more knowledgeable in IT equipment and its use than in other regions. In addition we know that the numbers vary a lot on each question in each region. But, as patterns emerge on most of the regions, we think the results are usable.

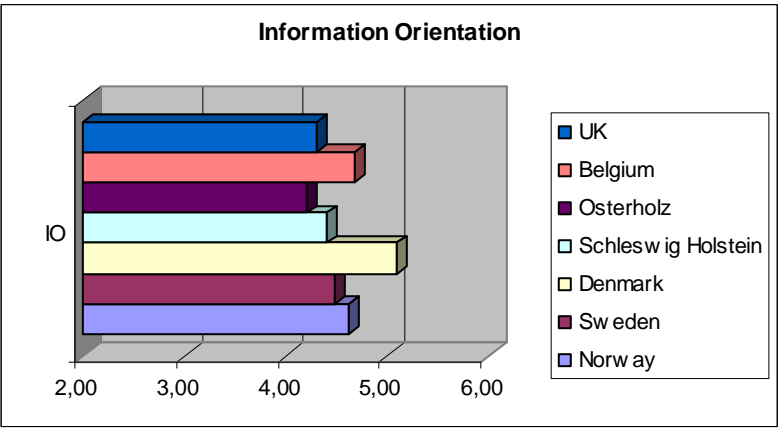


We remember from the IO model used on the questionnaire on page 12, that the model is build by 3 groups of issues:

- Information Technology Practice (ITP) which takes the status on what hardware and software are available and how the knowledge and users levels are.
- Information Management Practice (IMP) that deals with the usage areas and types of information, and
- Information Behaviors and Values (IBV) asks about how the information is treated in the company.



A typical result in a company is that ITP numbers are low compared with the international total. That may indicate a need for more knowledge about the ICT systems. Another typical result may be low numbers in the IMP and IBV that may indicate a more basic need for IT strategy or information coordination.



This figure shows the three topics combined in the IO Model. This figure makes more sense when used in benchmarking an individual company than here on the regional level.