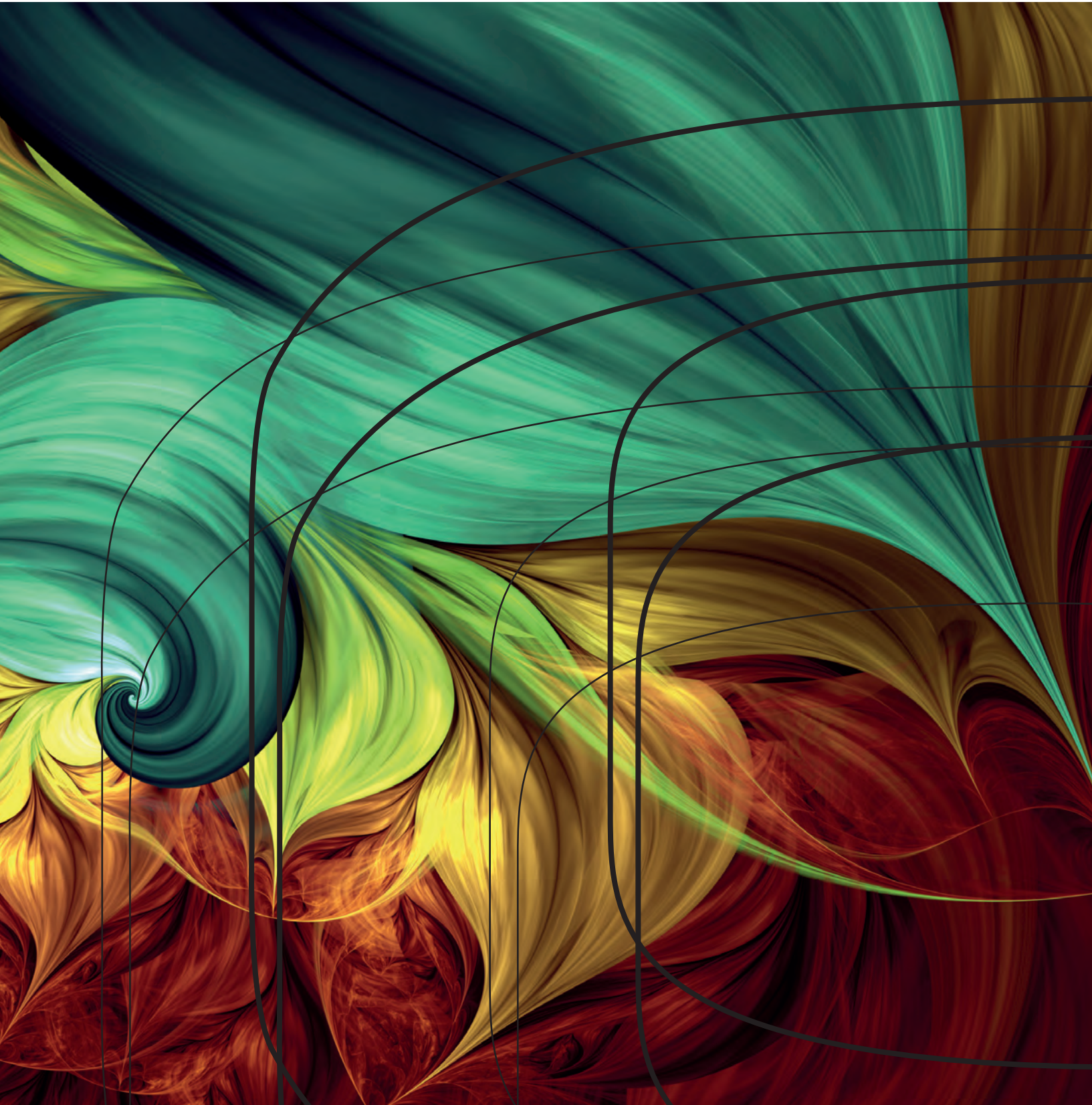


# Good Nordic management practices

State of the art









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*Hans Yngvar Torvatn, Ole H. Sørensen, Heli Talja and  
Birgitta Eriksen*

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# 1. Introduction

*Hans Torvatn*

## 1.1 The task from the Nordic Council of Ministries

This report summarizes the results of the project “God Nordisk Ledelsespraksis” carried out by the Aalborg University (Denmark), VTT (Finland), SINTEF (Norway) and Karlskrona University (Sweden) on Nordic research in the area of management, productivity and working conditions. The project was initiated by the Nordic Council of Ministries in 2012 who stated that: 1) “God ledelse og medarbeiderinnflytelse kjennetegner ofte produktive og innovative virksomheter” (good management practices and workers’ participation are often hallmarks of productive and innovative enterprises) and also 2) “Systematisk utvikling av god ledelse for å styrke omstillings- og konkurranseevnen antas samtidig å føre til bedre arbeidsmiljø og trivsel i arbeidet” (Systematic development of good managerial practices to improve the change capacity and competitiveness are also assumed to improve working conditions and well being at work). Further, as pointed out by the Nordic Council of Ministries, there is a lack of knowledge on the causal relationships between management, work environment and productivity. Therefore it was asked for a critical review of the scientific literature on relationships between management, work environment and productivity, aiming to identify how Nordic enterprises could work to establish good management practices and develop work participation and at the same time improve working conditions and productivity. This report sets out to answer these questions.

## 1.2 Earlier overviews

We are not the first to investigate the special (or lack thereof) Nordic qualities of leadership. Almost two decades ago Lars Engwall wrote a paper: The Vikings versus the world: an examination of Nordic business research in Scandinavian journal of Management (Engwall, 1996). He

did a bibliographic analysis of Nordic publications in 15 important journals. His work was not the only one, later Smith and a group of Nordic colleagues wrote “In search of Nordic management styles” (Smith, Andersen, Ekelund, Graversen, & Ropo, 2003); Schramm Nielsen and colleagues (2004) wrote about Management in Scandinavia: culture, context and change (Schramm Nielsen, Sivesind, & Lawrence, 2004), Lindøe and Engan (2007) wrote about Behaviour based safety and the Nordic Model (Lindøe & Engen, 2007), and Kvande and Eggen (2012) did a case study on The Nordic Model in a Global Company situated in Norway (Kvande & Børve, 2012).

Much of this and other research focus on leadership styles and Nordic values, not so much on productivity or working conditions. However, in the book “Nordic Lights: Work, Management and Welfare in Scandinavia” edited by Åke Sandberg, a collection of authors write about how management trends like Lean, NPM, BPR, and Toyotism are adapted in the Scandinavian countries (Sandberg, 2013). Their research discuss relations between management, productivity and working conditions and their conclusion is that “the Nordic experience shows that there is no trade-off between equality and economic development.”

Thus, some research has been carried out. Apart from Sandberg’s book they are management oriented. The researchers are mostly interested in management style and culture, not working conditions and economic performance and the interplay between these three. However, they all describe a Nordic work life and management style that differs from the rest of the world by being more democratic, dialogue oriented and concerned about wellbeing for the workers relative to the rest of the world. Further, if they claim anything about the economic development of work life they subscribe to the Sandbergs’ thesis that there is no trade-off between equality and economic development. On the contrary the Nordic researchers are more likely to argue that increased democracy is a driving force behind economic development (Levin, Nilssen, Ravn, & Øyum, 2012).

### 1.3 A quick note on Iceland and Greenland

The Nordic countries include more than Denmark, Finland, Norway and Sweden. Therefore the project did some searches to identify possible contributions outside of these four countries. We carried out two searches for Iceland and Greenland, employing the search string in Scopus and Web of Science as agreed to, and described in section 2.2.2. No

results were found for Greenland. The Scopus search found three papers for Iceland, but none of this could be considered to be part of the core. Six additional were found in Web of Science, again not part of the core. The conclusion was that Iceland and Greenland did not contribute to the Nordic research in this area.

## 1.4 References

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doi: [http://dx.doi.org/10.1016/S0956-5221\(03\)00036-8](http://dx.doi.org/10.1016/S0956-5221(03)00036-8)



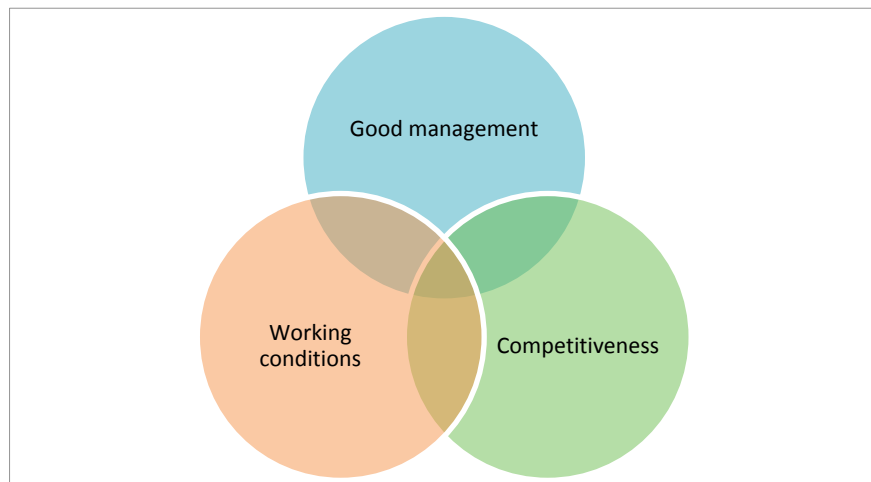
## 2. Methods

*Hans Torvatn, Ole H. Sørensen, Christian Uhrenholdt Madsen, Peter Hasle, Heli Talja, Anssi Neuvonnen, Birgitta Eriksen, Pia Renman, Tove Håpnes, Lisbeth Øyum*

### 2.1 Overview

The focus in this project is to identify and summarize Nordic research that empirically investigates the relationships between three research traditions as follows:

**Figure 1. Focus on the intersections of three research traditions**



The project focused on the intersection of three research traditions:

- Management AND Working conditions AND Competitiveness at the same time.
- The research should empirically discuss BOTH relationships at the same time, not only assume one.
- No restrictions on methods or data.

- Wide interpretation of the concepts “management”, “working conditions” and “competitiveness”.
- The core knowledge was limited to reviewed journal papers.

The first criterion is necessary to ensure that we find research in the intersection between these three traditions. Management, working conditions (well being, participation) and competitiveness (or productivity, innovation) are rather large topics each of them. A research paper in one tradition does not necessarily concern itself with the others, there are many papers on working conditions that pays no respect to the other two, and this is the case for the others as well. We wanted to focus on the papers in the intersections between these three topics.

The second criterion is the need to establish empirical evidence on the relationships. A lot of research simply claims that there is a relationship, typically they support the model outlined in Figure 1. If we were to establish any relationships we needed to identify actual research that answered the question. In the end, this was the absolutely hardest criterion to pass. We went through several stages of selection here, first searching on key words in title and abstracts, establishing a gross set of publications. Publications identified here were registered and we carried out a meta-analysis on this data at Nordic level. However in order to generate new knowledge about the content of the publications we needed to reduce the sample and focus it more.

Then we created a refined set of criteria for evaluating this and employed it on the abstract. This resulted in a further reduction of eligible publication (net set of publications), before we finally employed the same set on full text for a last check. The papers passing this test were included in the core knowledge set of papers.

In our investigation we did not limit ourselves to particular methods or data. Since we searched in national and international databases all research identified had been through some sort of quality control, be it internal quality systems in the case of reports, external quality control through reviewers in journals, PhDs and proceedings, or whatever quality control system a published used when publishing a book. We accepted that the quality was sufficient to these processes and whatever research had passed this was initially accepted by us.

However, we also developed a stricter criterion on which papers to include in the final analysis. The fifth criterion, journal papers only, was added at the end. From outset we wanted to identify and map also the “grey” literature of reports, books, theses and so on. Hence we included such works in our original searches. However we saw rather quickly that

the meta-analysis of publication on Nordic level would have to be limited to journals, simply because this was the only way of getting comparable data.

Further, as the work progressed and we strove to establish a set of core works including grey literature we ran into some other problems, summarized as quality control, repetition and problems with condensation. The problem of *quality control* is fundamental to research. Research findings should be subject to some sort of quality control before publications. For reviewed journal papers<sup>1</sup> this is always done. For thesis at PhD level this is done, but master thesis not so and the latter were excluded early. For reports, books and the like this is done in varying degree. All research institutions we know of have some internal quality control mechanisms in place, which makes us accept them as research, and books may have been thoroughly assessed. But also they might not, and how do we handle reports from non-research intuitions? White papers from government? And there are also national differences in publication, registration and identification of reports and books.

Then there was the question of *repetition*. Results from reports are reused in papers, as they should be. PhDs can be written as a set of papers, or as a monograph from which papers are written and published. The actual empirical data and the insights relevant to this synthesis may be the same however. How should that be handled? Repeating the same findings several times?

*Condensation* also caused some problem. Books, reports and PhDs are almost per definition large amounts of text and while they illuminate some problems they often illuminate a lot. They often have all sort of contextual caveats and additional hedges to their conclusions. It is often difficult to interpret what the author really does say about our topics between all other important information? Usually a journal paper is more focused and the information is more condensed on whatever topic is being debated then a book, report or a PhD.

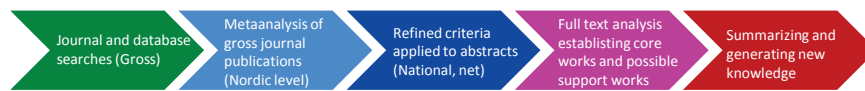
In the end we decided to limit our core works to reviewed journal papers. This type of work represents the most condensed, available, comparable, and quality controlled research in the four countries. And focusing on papers fits with the metaanalysis at Nordic level. Further we do not believe we have lost important insights. However, the national

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<sup>1</sup> Note that not all papers in a journal are peer reviewed, when searching one can find comments, letters to editors or similar in a peer reviewed paper. It is not enough to say that the journal is peer reviewed - the paper needs to be. Thus it is necessary to check this for each work, and all core papers here have been reviewed.

reports will include sections on lessons from this literature if the various authors find it relevant to his/her national report.

**Figure 2. The overall progress towards new knowledge**

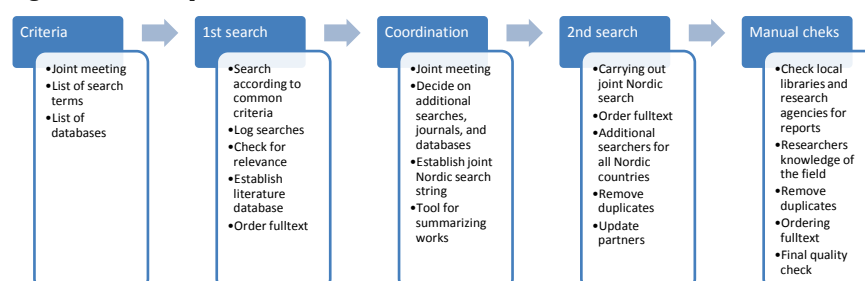


The overall progress towards establishing new knowledge is shown in Figure 2. We started with a broad literature search, establishing the gross set of publications for each country. Based on this we conducted a meta-analysis of Nordic research publication, See section 0. We then created a detailed set of criteria, a template for analysis of texts, as described in section 2.3. First we used it on the abstracts to reduce their number, then on the full text to establish a set of core works. It turned out that in many cases we had to read the full text to clearly decide whether or not the work was relevant. Having established a set of core works and analyzed them employing the template, each country did its own national report based on this with whatever additional insights we could glean from other works identified in the process. We will now in the following section present in details the various steps in searching for relevant literature. This search process is illustrated in Figure 3 below.

## 2.2 Carrying out the searches

The project includes broad literature searches in Denmark, Finland, Norway and Sweden, and analyses of the findings across the countries. Researchers and research assistants under guidance from experienced researchers from the four countries carried out standardized search activities from July 2013 to April 2014. The search process is outlined in Figure 3.

**Figure 3. Search process overview**





The search includes peer reviewed research publications in both national and international databases. Initially, a broad search string was developed which included a broad range of synonyms for management, productivity, performance, working conditions and worker outcomes (see Table 1).

Subsequently, it was refined by adding references to the individual country (ex. Danes, Danish, Denmark). These search strings were, with minor alterations, used in the international research databases Web of Science and Scopus for peer-reviewed journal articles from the period 2000–2014. In addition a set of journals deemed relevant were searched in the same period.

After the preliminary search activity, a cluster of gross-results were identified. It included all publications that could possibly be relevant. The gross results were found by examining titles, abstracts and short descriptions in the databases and subsequently excluding all non-relevant publications. If there were any doubts about relevancy, the sources were included. Finally, citations in relevant publications were scanned and additional publications identified which were similarly examined for relevance.

### **2.2.1 Search criteria**

The consortium started with a joint meeting establishing a list of search criteria. This included search terms, databases and journals to search in. Both national language and English search terms were used, the English shown below.

**Table 1. Overview of search terms in English for database searches**

"Productivity"	"Work environment"	"Leader"	Geography <sup>2</sup>
Business development	Participation	Administration	Denmark, Danish
Change	Employee	Administrator	Finland, Finnish
Competitiveness	Collaboration	Leader*	Norway, Norwegian
Downsizing	Democracy	Manage*	Sweden, Swedish
Examination	Democratic		Scandinavia, Scandinavian
Effectiveness	Work behavior		Nordic
Enterprise	Change employee		
Fission	Participation		
HR	Autonomy		
High performance adaptability	Job redesign		
Intervention	Empowerment		
Merger	Direct participation		
Organizational intervention	Work environment		
Organizational development	Working environment		
Organizing	Working conditions		
Outsourcing			
Reorganization			

Searches were carried out nationally, in national and international databases, including several journals. The most important international database was initially ISI-web of Science, but also national databases and specific journals were investigated. Abstracts, titles and key words were searched. A first check of relevance was done after each search, if some hits that were clearly out of the scope were rejected immediately. Those who were not rejected were entered in databases at national level, beginning to establish a gross set of entries. Relevant hits entered into Reference Manager, and for all publications summary or abstracts (if they existed) were logged in Ref. Man. The following national databases and journals were investigated:

<sup>2</sup> Each country focused on national, Scandinavian and Nordic cases, not searching for all.

**Table 1. Databases and journal searched in the various countries**

Denmark	Danbib Proquest Arbejdsmiljøforskningsfonden – udredning Arbejdsmiljøforskningsfonden – Forskning/Udvikling Forskningsdatabasen (ph.d, doktorafh, rapporter) CBS research Web of Sciences Scopus Scandinavian Journal of Management D Beta-Scandinavian Journal of Business Research D
Finland	Web of Sciences Scopus ARTO Acta Sociologica (Journal) Nordic Journal of Working Life studies (Journal)
Norway	Bibsys (Norwegian libraries) Cristin (System for registering Norwegian scientific publication) Diva (Norwegian universities) Google Scholar Web of Sciences Nora (Norwegian universities) Psych Info Scopus Human Resource Management (Journal) Magma (Journal) Psykologisk tidsskrift (Journal) Tidsskrift for samfunnsforskning (Journal) Scandinavian Journal of organizational psychology (Journal) Sosiologisk tidsskrift (Journal) Søkelys på arbeidslivet (Journal) Work and stress (Journal) Nordiske organisasjonsstudier (Journal) Scandinavian Journal of Organizational Psychology (Journal)
Sweden	One Search Scopus Swepub Libris Economic and Industrial Democracy (Journal) Scandinavian Journal of Public administration (Journal)

Details on the searches are provided in the various national reports. Some more general comments about the search experiences could be made here. The most important one is that number of searches do NOT equal number of hits. The Norwegian team carried out a lot of searches, but in many instances found little. For instance, Google Search yielded almost nothing. Either we got too many searches to use, or we found the hits elsewhere, though with better support systems. Further, the various national databases are good for finding reports, books and master theses, but are of less use in searching for journal papers. The number of such databases depends on the structure of research reporting in each country. Given the number of such databases in Norway one might wish

for some kind of restructuring. However, it turned out that in Norway BIBSYS was by far the best.

Checking journals was an idea that Norway tried first, and then the research team decided to add a set of specific journals and distribute to each country for check. The idea was then that the project should identify papers that we otherwise had missed. Of course the journals had some papers on our topics, but since the papers are registered in various databases we also found the papers that way. In the end it seemed that the most fruitful search strategy was to focus on databases with many journals and follow search criteria.

### 2.2.2 The Scopus search – the joint Nordic search

After the first searches another coordination meeting was held, and efforts were compared. It was agreed on some additional searches in specific journals and it was agreed to create a joint search string for the Scopus database. This search string was the same for all partners, but all searched for their own countries.

**Table 2. Joint Scopus search string**

Management	AND	Working conditions	OR	Productivity / Innovation
management OR managing OR managerial OR leadership OR manager) OR (firm OR compa- ny OR corpora- tion OR enter- prise OR "public sector") AND (strategy OR administration OR governance)) OR "operations management"		"working condition*" OR "work condi- tion*" OR "work place" OR workplace OR "working place" OR "place of work" OR "place of employment" OR "work envi- ronment" OR "working environment" OR "work behavior" OR "work behavior" OR "work process*" OR "work adaptation*" OR "work change*" OR "work practice*" OR "working practice*" OR "work participation" OR workforce OR "work force" OR HRM OR "human resources") OR (work* AND organisation*) OR (work* AND organization*) OR (work* AND collaboration) OR (work AND development) OR democracy OR demo- cratic OR democratization OR empow- erment OR intervention* OR intervening OR ("occupational health" AND safety) OR ("occupational safety" AND health) OR "works council*" OR ((employee* OR worker*) AND representative*		productivi* OR innovation* OR efficiency OR output OR competitive* OR perfor- mance OR outsourcing OR privatization OR (business AND (development OR opportunit* OR opera- tion*)) OR (effectiveness OR (employee* AND (empow- er* OR creativ*)) OR (production AND (increase* OR incentive*))

This resulted in additional hits for each country, as well as a joint database for the Nordic countries. The last is analyzed in Section 3. Duplicates were removed and partners were informed when a hit was found that was relevant in another country. Based on this we had established a gross list of works for all countries.

## 2.3 From gross to net to core

Subsequently, the gross results clusters were reduced to a net result cluster, where only relevant articles were included. The criteria for inclusion were that the publications should include research perspectives and research results related to relations between management, productivity, working environment and worker outcomes. The net result publications were identified by reading abstracts and key passages (ex. introduction, findings and conclusion).

In this process the following template was agreed upon through two joint meetings, as a template to extract the contribution of each paper:

- Empirical setting.
- Method and materials.
- Production/management system.
- Employees/working conditions.
- Performance results.
- Results/main message.
- Theoretical tradition.
- Other.
- Aims/contribution.

Based on this a decision to include/not include was made. The idea was that a paper should include all of the above to be included. The critical tests were whether the paper was empirical, included information on management and production, something on employees and working conditions and performance results. Further we required that the papers should show, not only assume relationships between the elements.

The first step was to use this template on the abstract of the actual work. At this point we could often exclude a lot of works quickly and without completing the whole template. If the work was not excluded then the next step was to look at the full text and see if the work met the criteria. Full text analysis reduced the number further, and finally the decision to remove all non-journals reduced the number of core publications further.



# **3. Pan-Nordic view on leadership and management research: Meta-analysis**

*Anssi Neuvonen, Heli Talja*

## **3.1 Goals**

Nordic research on leadership and management can be studied in a variety of ways. Customary approach is to make a review of research publications' full contents and results. Due to amount of work involved full review is recommendable, though, only when the number of publications is relatively limited. Robust exclusion criteria and other limiting factors are critical in this approach. The exclusion-focused approach has been used elsewhere in this project to analyse national leadership and management tradition in Nordic countries.

In addition to national leadership publication studies it was decided to perform an overall Nordic management and leadership literature analysis, which would investigate the research field from a pan-Nordic point of view. Because of large numbers of potentially relevant publications it became imperative to look for other methods in analysing the contents of publications.

Pan-Nordic analysis was accordingly made on a meta-level as well by focusing extensively on visualisation of the analysis results. Using text-mining tools and providing quick overviews and illuminating snapshots were key aims of the approach.

Doing a meta-analysis meant that pan-Nordic analysis focused solely on publications' metadata e.g. titles, keywords and abstracts. The extensive reviewing of full-texts was outside the scope of the study. This methodological exclusion made it possible to cover a much larger publication set and include larger subject area than would have been possible in a more traditional literature study. It also made possible a more statistically based analytical approach.

The analysis had three separate but interrelated goals:

- to give in a succinct and visual way an overview of emphases and topic relationships in management and leadership research at a pan-Nordic level
- to compare Nordic countries between themselves and find out at a general level potential differences in national emphasis and foci
- to compare Nordic countries en bloc with both the rest of EU and USA. EU and USA were chosen because of their relative socio-economic and research environment similarity with Nordic countries.

### 3.2 Description and methods

Publication metadata analyses can serve their function in two ways. They can either give further support to existing viewpoints and conceptions, or they can offer a new or even unexpected view on the subject. Even though both results are possible the first alternative is in many cases the more likely result.

The emphasis in the pan-Nordic analysis was on scientific (peer-reviewed) publications due to their good availability, uniformity of their metadata and transparent quality process included. The publication set was accordingly selected solely from international peer-reviewed journal articles and conference proceedings.

To be included in the dataset a publication had to have at least one author from one of the Nordic countries. In addition at least one Nordic country name (in noun or adjective form) or Scandinavia or Nordic country had to appear in publication's metadata. (See Appendix for the exact search criteria and logic). Also, either management or leadership had to appear in publication information. The timeframe of publications was selected as 2000–2012 (or 2013 depending on the goals of a particular analysis).

Elsevier Scopus was chosen as the database due to its good coverage of the subject field and its wide usage in research community. The accessibility of the database within research community meant that different searches could be tested and repeated by all project partners.

The key methodological approach in the pan-Nordic analysis was the inclusiveness of the content selection criteria. Accordingly leadership-management publications included could either deal with working conditions or be production/productivity oriented. In this way the number of analysed publications became statistically relevant.



**Table 3. Subject focus defined by the used search terms and logic**

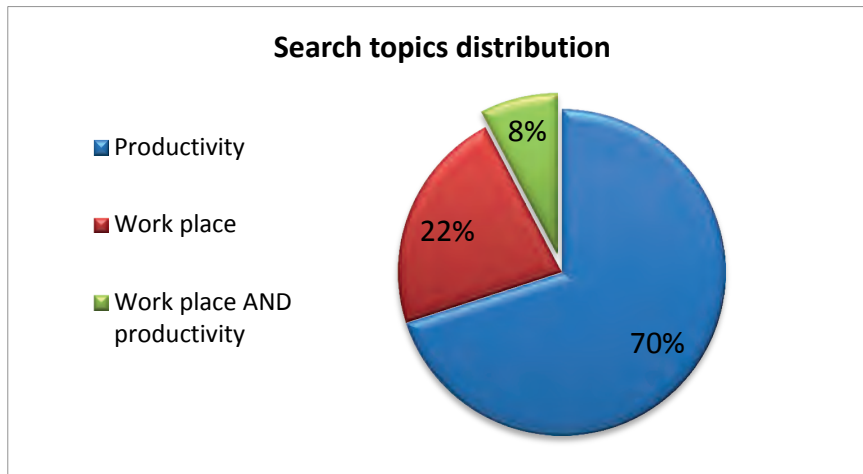
Management	AND	Working conditions	OR	Productivity / Innovation
management OR managing OR manage- rial OR leadership OR manager) OR ((firm OR company OR corpora- tion OR enterprise OR “public sector”) AND (strategy OR admin- istration OR govern- ance)) OR “operations management”		“working condition*” OR “work condi- tion*” OR “work place” OR workplace OR “working place” OR “place of work” OR “place of employment” OR “work envi- ronment” OR “working environment” OR “work behavior” OR “work behavior” OR “work process*” OR “work adaptation*” OR “work change*” OR “work practice*” OR “working practice*” OR “work partic- ipation” OR workforce OR “work force*” OR HRM OR “human resources”) OR (work* AND organisation*) OR (work* AND organization*) OR (work* AND collaboration) OR (work AND develop- ment) OR democracy OR democratic OR democratization OR empowerment OR intervention* OR intervening OR (“occu- pational health” AND safety) OR (“occu- pational safety” AND health) OR “works council*” OR ((employee* OR worker*) AND representative*		productivi* OR innovation* OR efficiency OR output OR competitive* OR performance OR outsourc- ing OR privatization OR (business AND (develop- ment OR opportunit* OR operation*)) OR (effective- ness OR (employee* AND (empower* OR creativ*)) OR (production AND (increase* OR incentive*))

The other option would have been to concentrate only those publica-  
tions which covered both working conditions and productivity, but their  
small number in the analysed set (8% of total) meant that no meaningful  
statistics or topic views could have been produced from them for the  
timeframe 2000–2013.

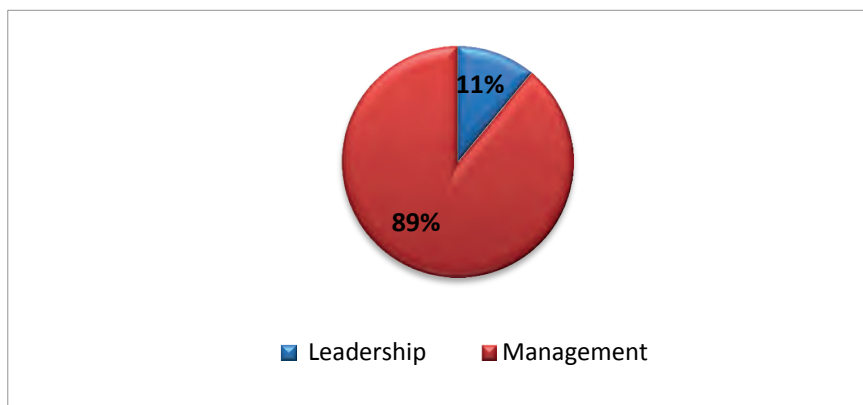
Productivity related publications dominated the publications set:  
70% of all publications concentrated on productivity related topics. The  
distribution of publications is shown in Figure 4.

Both leadership and management were included as topics of interest.  
The inclusion of management was critical for the analysis. Management  
is a fuzzy and broad term and it can be used in different contexts and in  
various ways. On the other hand it proved to be very difficult to define  
the context where “management” is used in a semantically similar way  
to “leadership”. Leaving management out of the analysis would have  
meant leaving nearly 90% of the publications out (see Figure 5). Leader-  
ship-only analysis would not then have produced worthwhile statistics  
or visualisations due to limited number of publications.

**Figure 4. Distribution of main themes in the publication set**



**Figure 5. Management and leadership themes' distribution**



For text-mining and meta-analysis VantagePoint by Search Technology was used. Both authors' keywords and abstracts were used as the basis for text analyses. NLP (natural language processing) was used to extract words and phrases from a content field (mainly abstracts but also to some extent keyword field).

Because databases are rarely consistent when it comes to the items in their fields, the fields (i.e. abstracts, keywords) had to be cleaned. The cleaning was done in two phases.

Automated process used fuzzy matching algorithms to match varieties of the same term. This was limited to matching terms that differ in case, punctuation, stem (plurals) or spelling.

Manual process was then used in clustering terms and phrases, including linking abbreviations to full names. Regular expressions were used to find and replace text strings

After grouping abstract and keyword terms to larger groups of similar contents the most relevant and common research terms were selected for clustering. The clustering was done by either counting the co-occurrences of terms or building an auto- or cross-correlation map. In order to create a correlation table a possibility of shared records between items had to exist. Unless topics have shared publications between themselves no correlations can be detected.

The last phase of the analyses was the selection of suitable visualisation method for the results. The relevant visualisation method depended on the general goals of the analysis. Different kinds of maps and charts were selected for presenting the results. Tools used were VantagePoint by Search Technology Inc., VosViewer by Leiden University and Microsoft Excel.

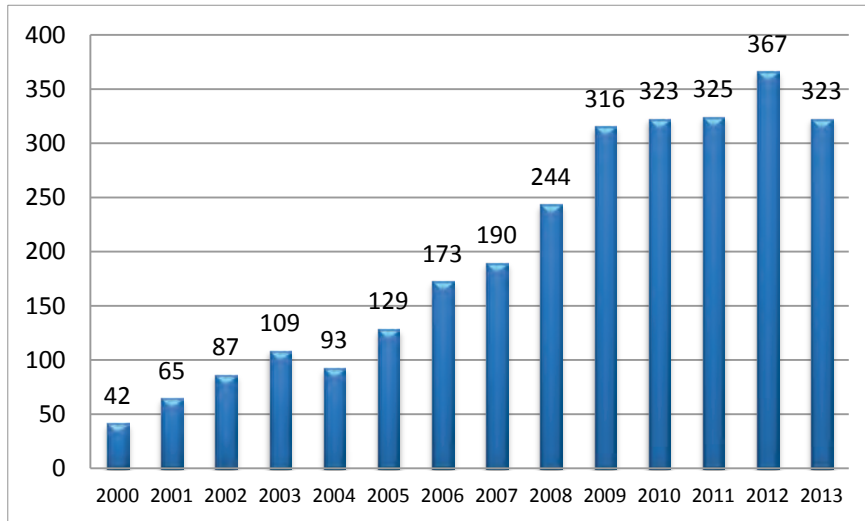
### 3.3 Results

#### ***3.3.1 General publication statistics***

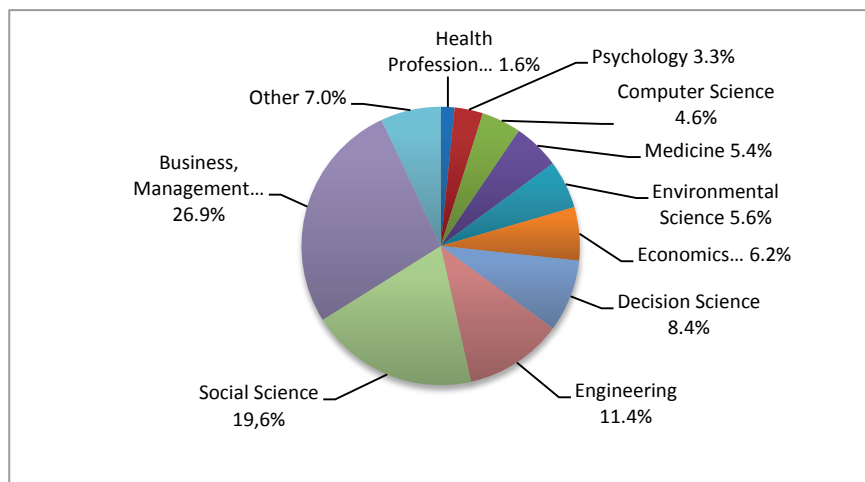
2,760 publications from authors in Denmark, Finland, Norway and Sweden by the years 2000–2013 were found. 2,374 publications (86%) had keywords. 6,776 different keywords were identified. From these the most relevant terms and term combinations were created and selected for analyses covering 71–78% of the publications depending on the focus of analysis.

2,709 publications (98%) included abstracts. 55,254 individual terms and term combinations (phrases) were detected in the abstracts with NLP methods. From these 58 most common and characteristic topic-terms were included for further analysis after clean-up and groupings covering 97% of the publication set (i.e. 2,677 publications). The following figure shows the basic statistics of the publication set:

**Figure 6. Publications by year (Year 2013 situation taken 9.12.2013)**



**Figure 7. Publications by subject area 2000–2013 (Elsevier subject areas and classification)**



### **3.3.2 Overview of emphasis and subject area relationships at a pan-Nordic level**

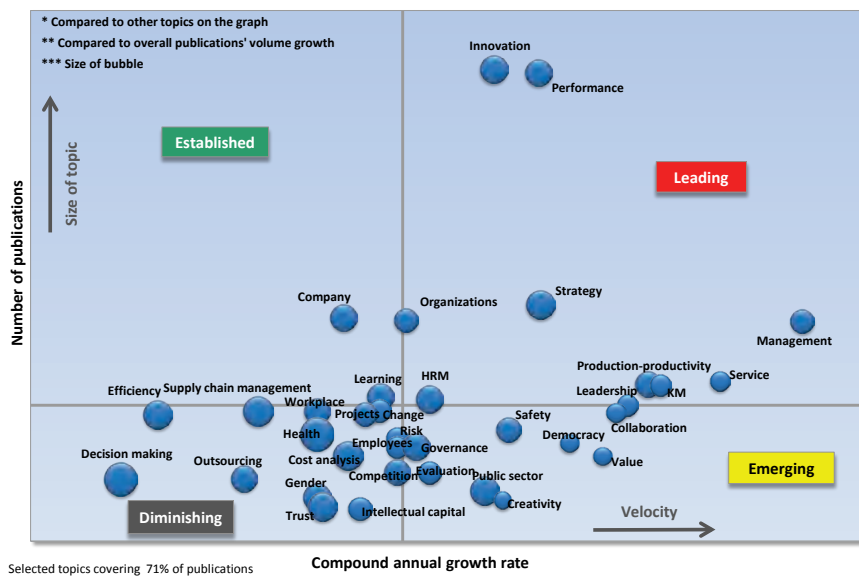
The overall emphases of the Nordic leadership and management research can be seen in Figure 8. The heat map shows the relative emphases of topics and their connections. The warmer the colour is and the bigger the font is, the more there are publications for that topic. The closer the topics appear on the map, the more they appear together also in publications.



**Table 4** The most common topics (extracted, cleaned and grouped from terms appearing in abstracts). Only topics with more than 200 publications mentioned

Topic	Number of publications
Company	814
Management	806
Performance	635
Strategy	575
Production-productivity	565
Innovation	530
Theory	465
Empirical study	415
Projects	371
Organization	359
Change	314
Value	281
Decision	276
Process	269
Risk	245
Efficiency	234
Leadership	233
Health	222
Environment	204
Impact	200

**Figure 9.** Selected Nordic leadership and management research topics 2005–2012: volume, compound annual growth rate and impact



Number of citations = size of bubble.

Finally, the most prominent research topics for the period of interest can also be visualised with a world cloud, where the size of the term implies the number of publications mentioning the term in their abstracts.

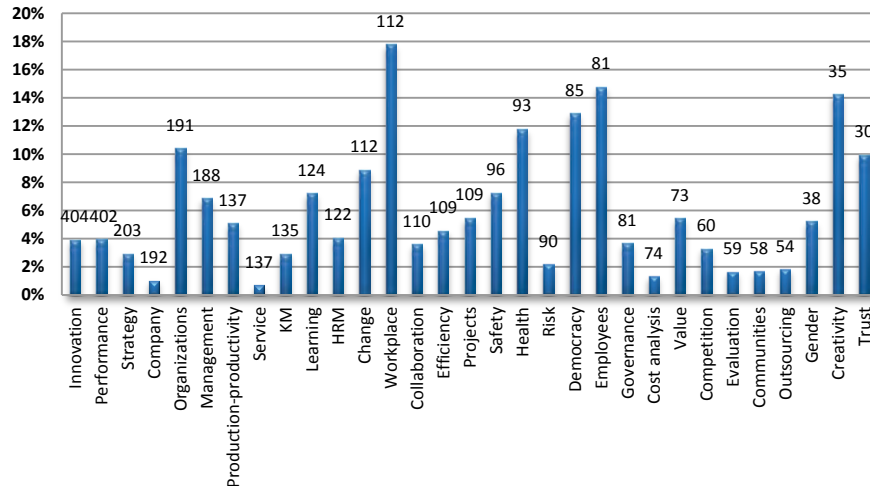
**Figure 10. Word cloud of topics extracted from publication abstracts 2000–2013. Made with Wordle**



### **3.3.3 Topic cross-linkages**

Leadership, working conditions (and workplace) and productivity (including “production”) were analysed in relation to other major topics. Leadership was found to be most prominent (proportionally) in publications concentrating on work environment: workplace (including “working conditions”), employees (including “workers”), creativity, democracy (including “empowerment”), and safety. The outsourcing, risk, strategy- and maybe somewhat surprisingly- efficiency and production-productivity rated relatively low with 4%.

**Figure 11. Proportion of leadership appearing in connection with other major research topics. Total number of publications on topic mentioned next to column**



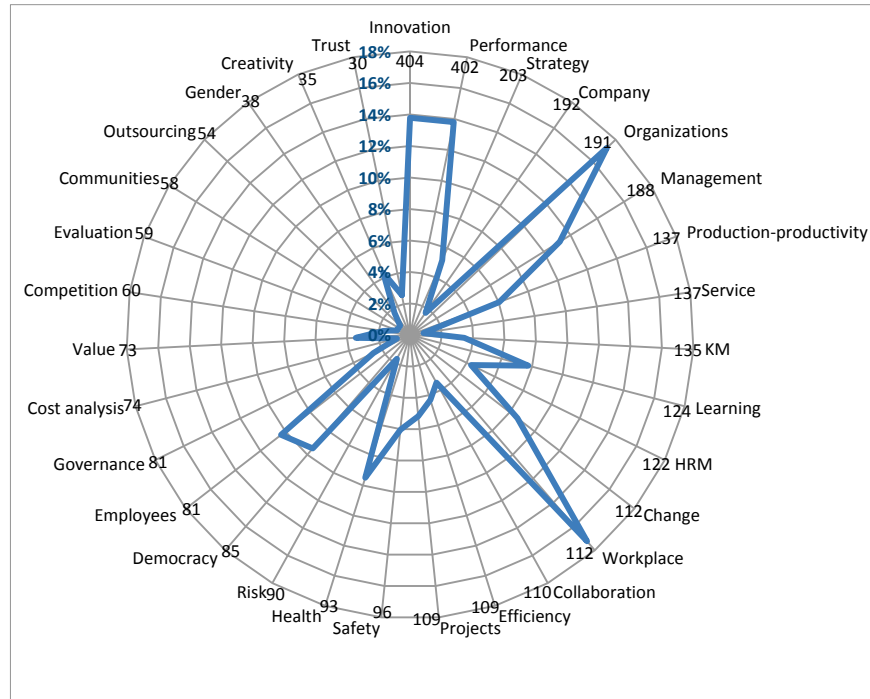
If we change the point of view and concentrate only publications with clear leadership-content and examine what other topics appear in them, the picture becomes somewhat different. Organisations, workplace (including working conditions), innovation and performance are the most commonly appearing topics in leadership-publications. The leadership publications therefore exhibit the same sharp division to productivity and workplace oriented research as has been noted before (see Figure 12).

Productivity (and “production”) was found appearing (proportionally) most often in publications concentrating on service, efficiency, decision making, democracy (including “empowerment”), intellectual capital and workplace (including “working conditions”).

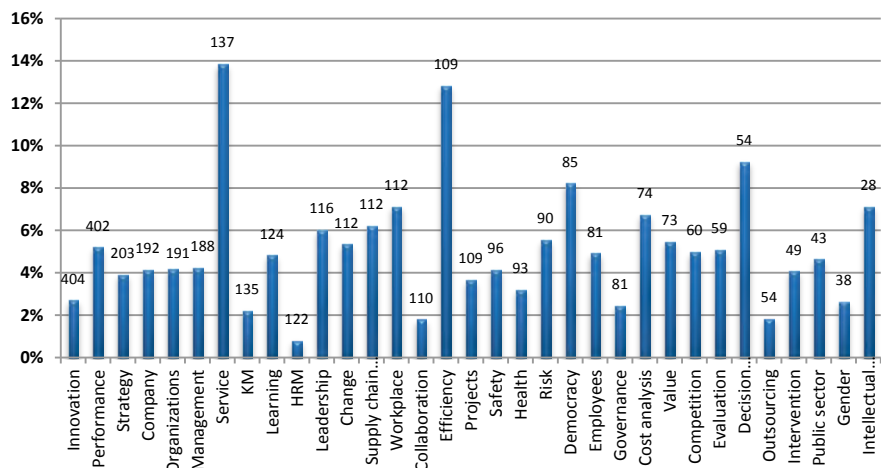
Working conditions (and “workplace”) was found appearing (proportionally) most often in publications concentrating on employees (including “workers”), leadership, safety, gender (including “female” and “male”), and intervention.



**Figure 12. Leadership: proportions of selected other topics in leadership focused publications. Total number of publications on topic is mentioned next to it**

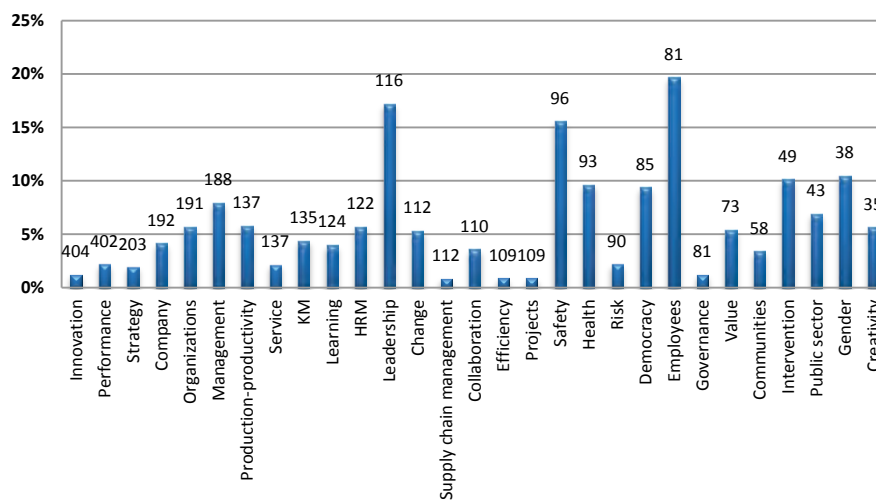


**Figure 13. Proportion of productivity / production appearing in connection with other major research topics. Total number of publications on topic mentioned next to column**

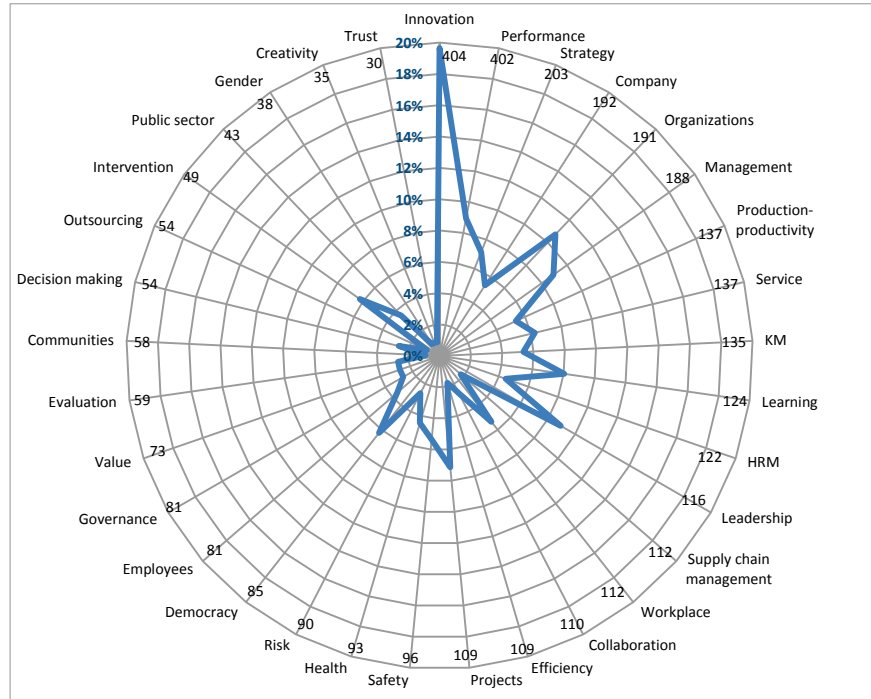


In addition to the three most salient subject topics (leadership, productivity and working conditions) also the connections of change was analysed. A proportion of other major research topics appearing in change-related publications were studied. Change-treating publications included most often as another theme innovation, leadership, organisation, management and learning.

**Figure 14. Proportion of workplace / working conditions appearing in connection with other major research topics. Total number of publications on topic is mentioned next to column**

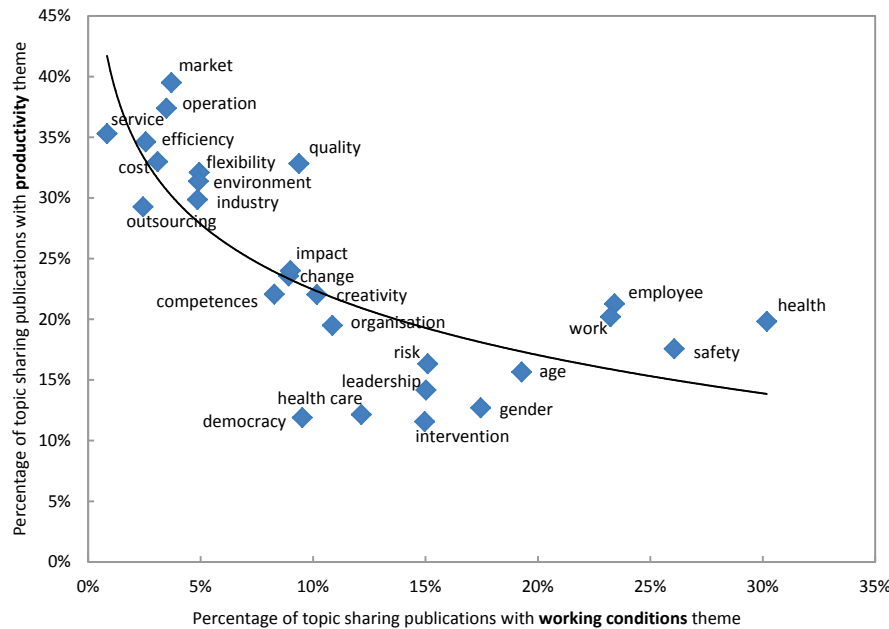


**Figure 15. Proportions of other topics in change-focused publications. Total number of publications on topic is mentioned next to it**



One potentially important viewpoint is to look for topics which have a significant presence both in productivity and working conditions related publications. These topics can be seen as forming a link between the usually quite unrelated major research themes of production and working conditions. What is obvious and also perhaps important, however, is that production and productivity themes appear more commonly in working conditions and workplace-related publications than vice-versa. This feature is emphasized by the logarithmic trend line. The results are presented in Figure 16.

**Figure 16. Connectedness of selected topics with working conditions and productivity themes, percentage of shared publications**



The area where there is a marked overlap and relatively equal emphasis on production and working conditions is shown on the graph.

### 3.3.4 Summary of findings

Productivity and working conditions themes are fairly unconnected in Nordic research publications. In pan-Nordic level the leadership research seems to correlate most with issues of working conditions and workplace: employees / workers, creativity, democracy / empowerment and safety. Leadership topic appears also in a lesser degree with issues of trust, organization and change, which also are quite closely connected with workplace related themes. Other topics which appear quite prominently both in working conditions and production / productivity related publications are creativity, risk, health care and democracy / empowerment. Consequently, the overall result is though, that – taken narrowly – leadership research is more connected with working conditions and workplace research than with production / productivity related themes.

### 3.4 Nordic country comparisons

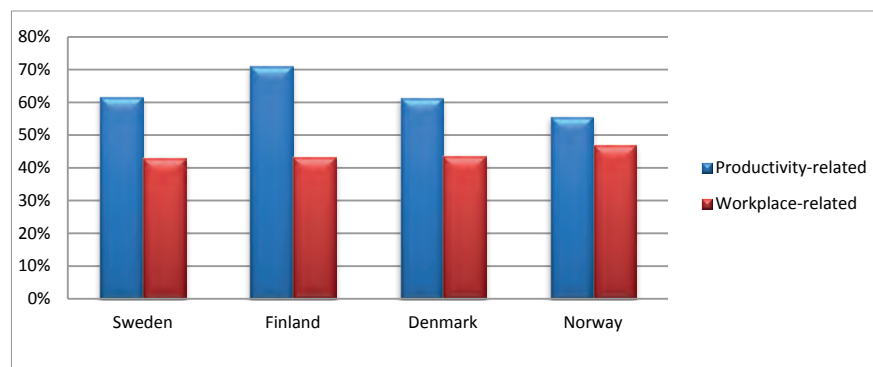
While there are noticeable similarities in their research profiles and topic selections, the Nordic countries have done relatively little actual publication collaboration on leadership and management research since the year 2000. (See Table 5)

**Table 5. Percentages of collaborated publications 2000–2013 between Nordic countries**

Country	Sweden	Finland	Denmark	Norway
Sweden		3.22%	1.93%	4.19%
Finland	3.50%		1.05%	1.28%
Denmark	3.28%	1.64%		3.83%
Norway	7.17%	2.02%	3.86%	

Although having in many cases quite similar research profiles, the Nordic countries still have some distinct features when it comes to details in their research publication output. There are several ways to identify the different emphases within the countries. One way is to look for the emphasis put on either productivity or working conditions related topics on the country-level.

**Figure 17. Percentage of productivity- and workplace-related publications in different Nordic countries. The total is > 100% due overlapping of topics**



Productivity theme incl. in this analysis innovation; performance; production; productivity; service; supply chain management; efficiency; projects; cost analysis; value; competition; decision making; outsourcing; intellectual capital. Workplace topic incl. in this context KM; learning; HRM; workplace; collaboration; safety; health; risk; democracy; employees; intervention; gender; creativity; trust.

As can be seen from Figure 17, Finland is most biased towards production-related research. Norway has the most evenly distributed re-

search publications with Denmark and Sweden in between. All countries are more biased towards productivity-related research.

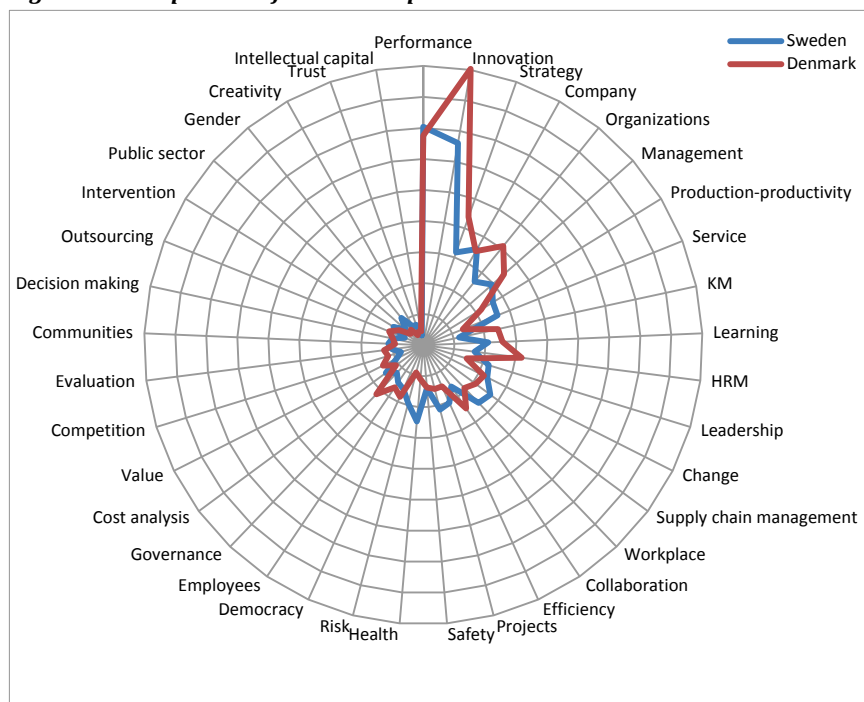
Another way of looking at the differences between the countries is to look for correlations between publication outputs of the countries.

**Table 6. Cross-correlations between Nordic countries based on authors' keywords. Cross-correlations done with Pearson product-moment correlation coefficient**

Country	Sweden	Finland	Denmark	Norway
Sweden	1	0.918	0.89	0.862
Finland	0.918	1	0.914	0.817
Denmark	0.89	0.914	1	0.762
Norway	0.862	0.817	0.762	1

The most prominent feature of this comparison is the overall similarity of national research profiles. This is no surprise due to combined topics and the narrowness of the subject area in the publication set. However, in this analysis Sweden has the highest overall correlation with other countries and Norway the lowest. On the other hand Sweden has the largest publication output which influences the correlations.

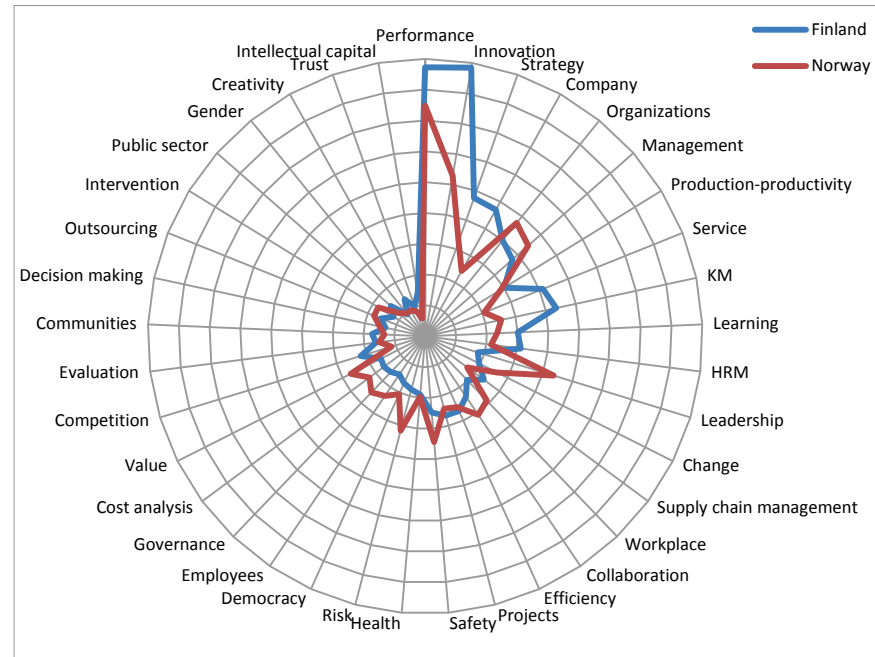
**Figure 18. Comparison of research topic bias: Sweden – Denmark**



The most dissimilar publication outputs are between Norway and Denmark.

One way of finding differences between Nordic countries is to compare the publication outputs from one country against another. Below are two examples.

**Figure 19. Comparison of research topic bias: Finland – Norway**



Finally, lists of topics typical for each country were made. The following tables show those topics which appear in abstracts more often (>10%) than the Nordic average (average = 1) during the years 2000–2013.

**Table 7. Topics which appear in abstracts more often (>10%) than the Nordic average**

Norway	Dev* Denmark	Dev* Finland	Dev* Sweden	Dev*
Safety	1.91 Innovation	1.33 Networks	1.53 Interviews	1.55
Democracy, empowerment	1.53 HRM	1.23 Knowledge management	1.50 Quality	1.48
Culture	1.49 Supply chain	1.18 HRM	1.47 Health care	1.48
Leadership	1.45 Theory	1.17 Empirical study	1.39 Work	1.37
Risk	1.37 Strategy	1.17 Business	1.34 Case study	1.29
Health	1.34 Impact	1.16 Service	1.32 Stakeholder	1.29
Cost	1.31 Change	1.15 Competition	1.27 Supply chain	1.28
Intervention	1.31 Flexibility	1.15 Co-operation	1.24 Trust	1.26
Operation	1.26 Integration	1.14 Operation	1.24 Gender	1.22
Age	1.15 Collaboration	1.12 Outsourcing	1.23 Market	1.18
Outsourcing	1.15 Market	1.10 Value	1.20 Efficiency	1.18
Decision	1.14 Company	1.10 Trust	1.18 Motivation	1.18
Gender	1.13 Learning	1.10 Learning	1.17 Creativity	1.17
Workplace	1.12 Public sector	1.10 Impact	1.16 Integration	1.16
Environment	1.11 Organization	1.10 Company	1.15 Workplace	1.16
		Collaboration	1.15 Intervention	1.15
		Motivation	1.14 Process	1.15
		Age	1.12 Health	1.14

\*Deviation measured as abstracts that appear more often in abstracts than the Nordic average (average = 1).

### 3.5 Comparison of Nordic countries with EU and USA

Although there exist major differences in research focus and emphasis between different Nordic countries they still form a recognizable group in the global research landscape. This is evident also in leadership and management related research.

In order to elucidate the Nordic tradition in leadership and management research an analysis was made where Nordic countries were compared en bloc with both the rest of the European Union and the United States. Comparisons were carried out both by topic sizes and themes. The time-frame

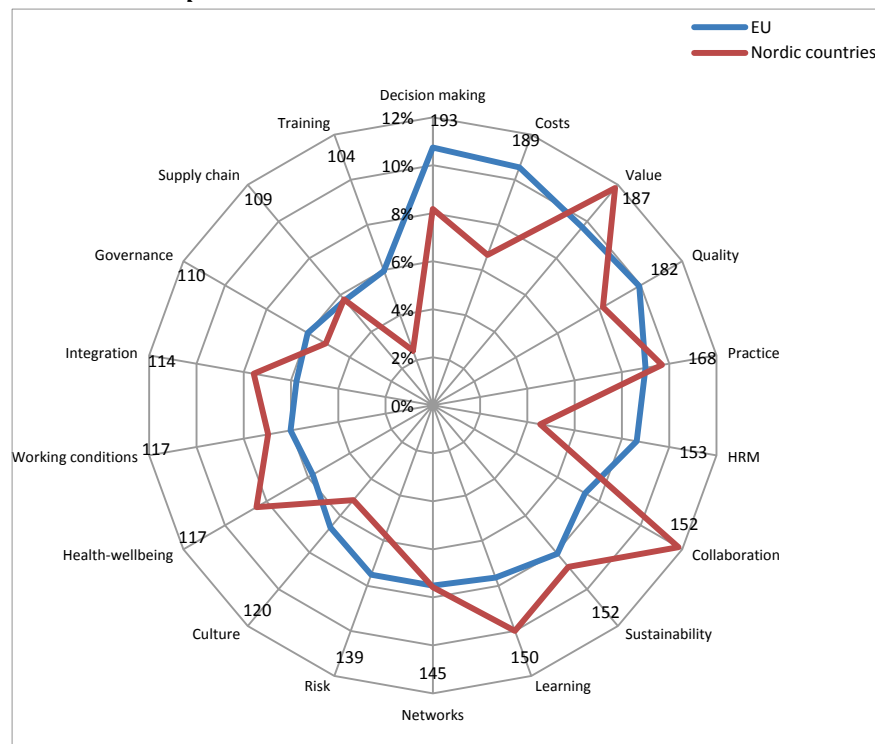


was limited to year 2013 so that the resulting publication set would be of manageable size. The publications were identified with the same search logic and terms as in other analyses (see Table 1). Topics were extracted from publication abstracts and processed with VantagePoint.

### 3.5.1 Nordic countries – EU

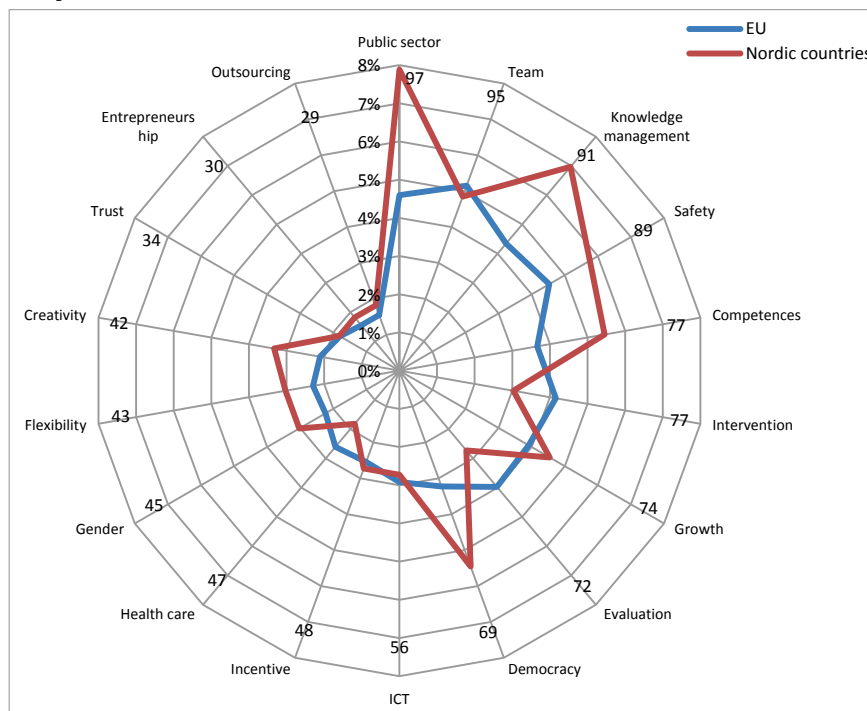
1,877 publications were identified and included in the analysis, of which 17% had an author from one of the Nordic countries. In large topics (measured by publication volume) Nordic countries are prominent on management, company, organisation, innovation, theory, knowledge, productivity and strategy. Rest of the EU has relatively more publications concentrating especially on performance, impact and relationship. In medium sized topics value, collaboration, sustainability, learning, health-wellbeing, working conditions and integration were prominent on Nordic countries side. In contrast publications with authors from EU had relatively more content of (especially) decision making, costs, HRM, quality, risk, culture and training.

**Figure 20. Percentages of publications on selected medium-sized topics: Nordic countries – rest of EU, year 2013. Total number of publications on topic is mentioned next to topic**



In small topics public sector, knowledge management, safety, competences, democracy, gender, flexibility and creativity had a pronounced status in Nordic countries. On the EU side intervention, evaluation and health care were relatively more pronounced.

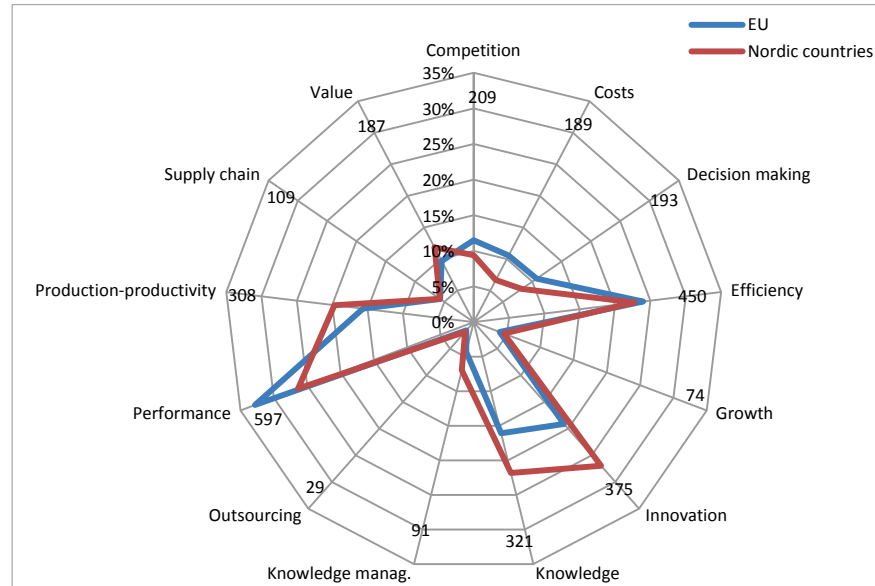
**Figure 21. Percentages of publications on selected small topics: Nordic countries – rest of EU, year 2013. Total number of publications on topic is mentioned next to topic**



In general topics the differences between Nordic countries were minor. On the EU side impact, relationship and evaluation had a more pronounced position than in Nordic countries. By contrast company, management, public sector, strategy and theory appeared more prominently in publications with authors from Nordic country.

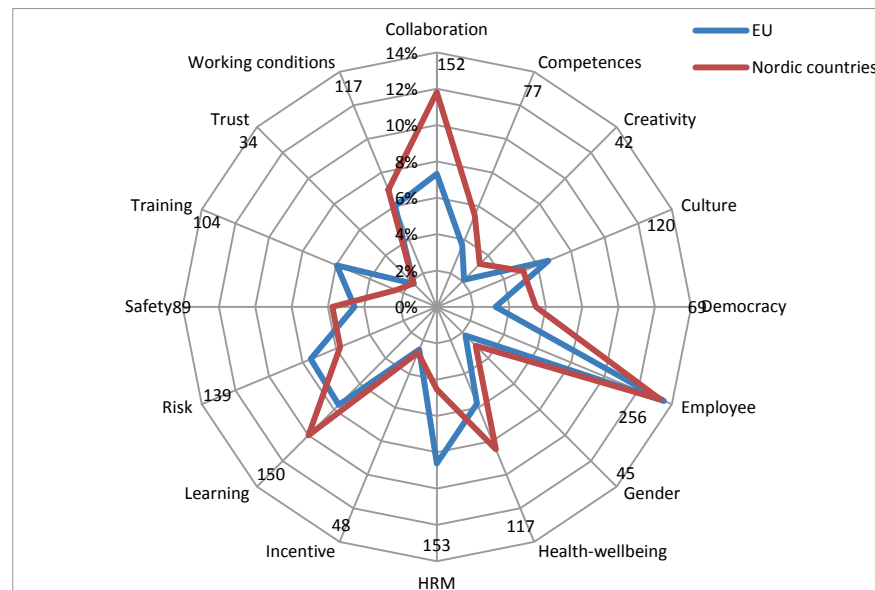
In productivity related topics innovation and knowledge were most prominent in Nordic publications when compared to rest of EU. Smaller differences were found in knowledge management, production-productivity and value. Publications with EU affiliations concentrated relatively more on competition, costs, decision-making and performance.

**Figure 22. Percentages of publications on production-related topics: Nordic countries – rest of EU, year 2013. Total number of publications on topic is mentioned next to topic**



In work-related topics collaboration, competences, creativity, democracy, gender, health / well-being, learning and safety were most prominent in Nordic publications when compared to rest of EU. In EU publications culture, HRM, risk and training were more prominent.

**Figure 23. Percentages of publications on work-related topics: Nordic countries – rest of EU, year 2013. Total number of publications on topic is mentioned next to topic**



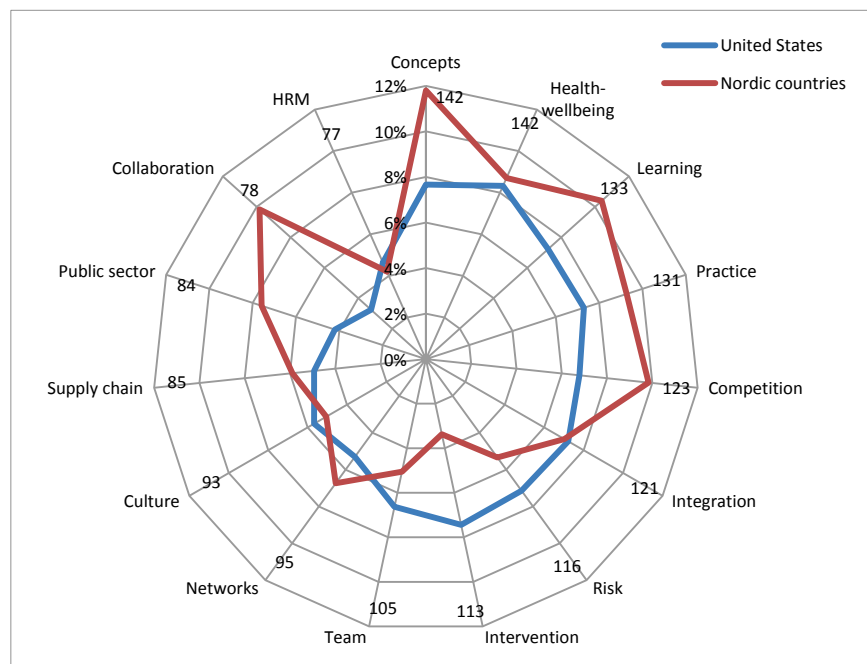
### 3.5.2 Nordic countries – USA

1,690 publications were identified and included in the analysis, of which 21% had an author from one of the Nordic countries.

In large topics (measured by publication volume) the greatest differences were found in *management*, *company*, *innovation* and *knowledge* topics, where Nordic countries had a strong presence. By contrast *performance*, *efficiency*, *leadership*, *employee*, *relationship*, *costs*, *decision making*, *impact* and *quality* had an accentuated status in publications by authors from USA.

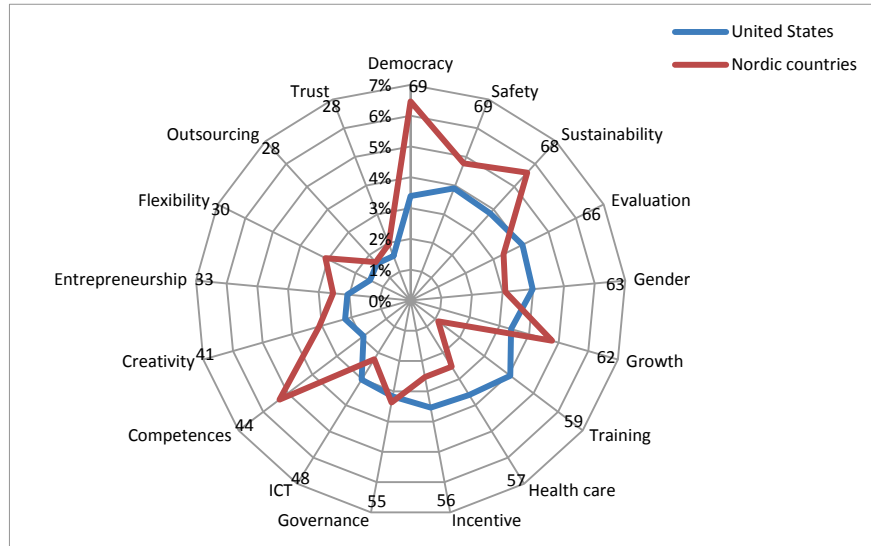
In medium-sized topics the prominent ones were *concepts*, *learning*, *practice*, *public sector* and *collaboration* on the Nordic countries side. In publications where one of the authors was from USA *intervention*, *team*, *risk* and *culture* were relatively more prominent than in publications authored by writers with affiliations in Nordic countries.

**Figure 24. Percentages of publications on selected medium-sized topics: Nordic countries – USA, year 2013. Total number of publications on topic is mentioned next to topic**



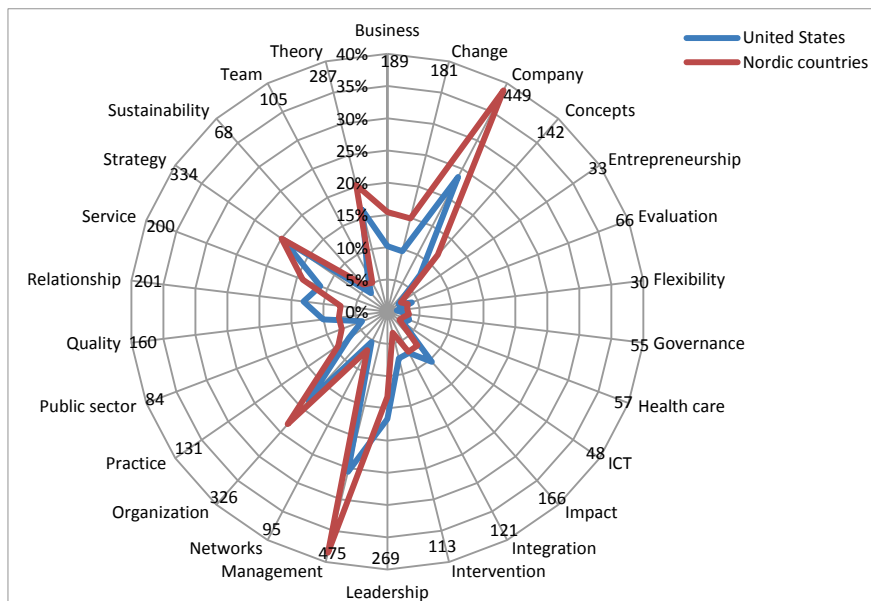
In small topics *democracy*, *safety*, *sustainability*, *growth*, *competences*, *creativity*, and *flexibility* had the most pronounced status vis-à-vis USA-based publications. *Training*, *health care*, *incentive*, *gender*, *evaluation* and *ICT* were more prominent in publications with authors from USA.

**Figure 25. Percentages of publications on selected small topics: Nordic countries – USA, year 2013. Total number of publications on topic is mentioned next to topic**



In general topics *theory, business, change, company, concepts* and *management* were most prominent in Nordic publications when compared to USA publications. In USA-based publications *impact, intervention, leadership, quality* and *relationship* had a more prominent relative status compared to Nordic publications.

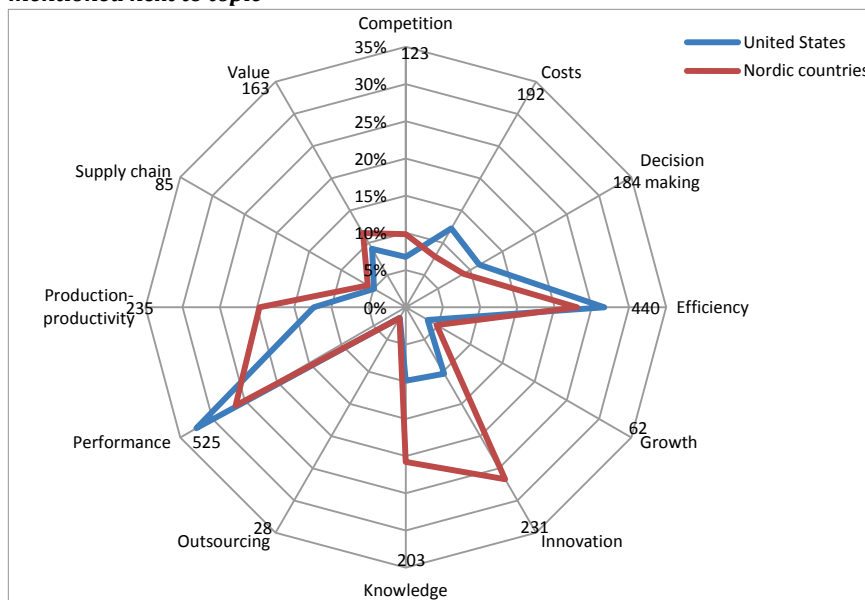
**Figure 26. Percentages of publications on general topics: Nordic countries – USA, year 2013. Total number of publications on topic is mentioned next to topic**



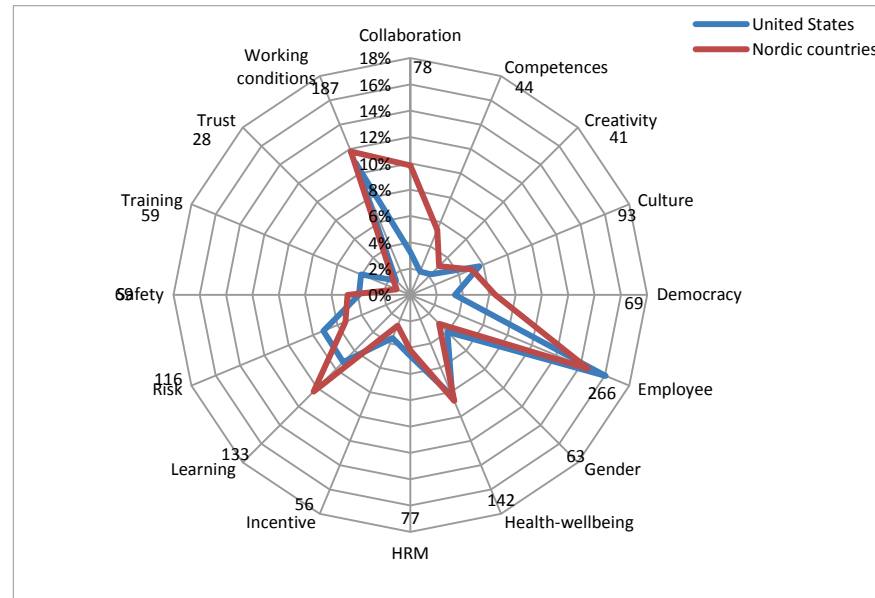
In production/productivity related publications *innovation* and *knowledge* were relatively most pronounced in Nordic publications. In USA publications *costs*, *decision making*, *efficiency* and *performance* were relatively in a bigger role than in Nordic publications.

In work- related publications *collaboration*, *competences* and *learning* were most pronounced in Nordic publications when compared to USA publications. In USA publications especially on *training*, *risk*, *incentive*, *gender*, *employee* and *culture* were relatively in a bigger role than in Nordic publications.

**Figure 27. Percentages of publications on production/productivity-related topics: Nordic countries – USA, year 2013. Total number of publications on topic is mentioned next to topic**



**Figure 28. Percentages of publications on work-related topics: Nordic countries – USA, year 2013. Total number of publications on topic is mentioned next to topic**



### 3.5.3 Summary of findings

The following topics appeared more commonly in Nordic publications than in publications where at least one author was working in rest of EU or USA: *innovation, knowledge, collaboration, learning, public sector, safety, competences, democracy, flexibility, creativity, theory*. Consequently, these topics could then be characterized as forming the core research that differentiates Nordic leadership and management research from research tradition in other developed Western countries.

The characterization can also be done by negation. The following topics appeared more commonly in publications authored by researchers working either in EU or in USA than in a Nordic country: *performance, impact, costs, relationship, quality, risk, culture, training, intervention, evaluation, health care, decision making*. From publications perspective these topics are then not part of the core management and leadership research in Nordic countries.

As a summary it may be said that Nordic tradition leans more heavily towards “soft” productivity and working life issues. The Nordic research tradition is also in line with the prevailing view of “knowledge economy” where intangible assets like innovation, knowledge, competence and creativity play more important part in value-creation than traditional “hard” management topics e.g. performance, efficiency, intervention, costs, quality and risks.

*Relationship* and *culture* are topics which appear prominently on EU and USA research but not in Nordic. These can also be seen as “soft issues” in work-related research, but they are perhaps more traditional soft / social issues than the topics of Nordic publications mentioned above.

Management and leadership research in Nordic countries could then be said to demonstrate the overall focus of Nordic economies on knowledge / innovation creation and also – to some extent – on agile / flexible production methods.

### 3.6 Conclusions

The aim of this analysis was to offer an alternative point of view (pan-Nordic) on the subject of this project and also provide a complementary approach to methodology (text-mining –based publication analysis). The key question – which for the most part is beyond this analysis – is the following: What conclusions can be drawn from publication meta-analysis about actual Nordic leadership and management research tradition?

Publication metadata analysis can only complement a full-scale literature review and then either give support or contradict its basic findings. Unless the meta-analysis is supplemented with a full-texts analysis the conclusions can only have a limited value. In addition one should always be careful in drawing implications from relatively small set of publications: much depend on how the data has been selected and what kind of search terms and query strategies that have been used. Keeping these reservations in mind a few preliminary conclusions can be made though.

Nordic leadership and management research has in 2000–2013 emphasized production and productivity related themes much more strongly than working conditions and workplace related topics. Also, the fastest growing topics in the Nordic data are largely productivity-oriented: supply chain, flexibility and competition. Relatively fast growing topics, i.e. risk and decision (incl. decision making), are also above average if measured by publication volumes and can perhaps be considered to be more productivity-oriented, too. Strategy, innovation, production and performance are not only well-established topics with extensive presences in research publications but also quite strongly linked with productivity issues. An exception of this trend is the leadership-theme which is somewhat more visible in working conditions –research than in productivity-related publications.

There are observable variations in research emphases between the Nordic countries. Norway and Finland represent the two extremes:



Norway offers the most balanced publication output between productivity and working conditions themes, Finland leaning most heavily towards productivity-related issues. On the other hand Denmark and Norway are farthest apart when all research topics are taken into account. Sweden, having also the biggest publication output, is closest to the middle. However, publication abstracts and keywords still present quite homogeneous view on Nordic management research: the differences are relatively minor, similarities more pronounced.

When Nordic countries are compared *en bloc* with EU and USA the Nordic emphasis on “soft” productivity and working life issues becomes apparent with topics like innovation, knowledge, collaboration, learning, safety, competences, democracy, flexibility, creativity having a more pronounced role in Nordic countries than either in EU or USA. The Nordic research tradition supports quite well the current economic paradigm where intangibles like innovation, knowledge, competences and creativity have pronounced status as drivers for growth of GDP and improvement of citizens’ wellbeing than traditional “hard” management topics more prominent in USA and EU originated research e.g. performance, impact, costs, quality, training, decision making and efficiency. The prominence of “soft” issues in Nordic research tradition does also give some preliminary support for the conclusion that working life and productivity are not as detached areas within Nordic organisations than might at a first glance seem.

The themes, which actually do have a noticeable and equal presence both in production and working conditions research in Nordic countries, are especially creativity, risk, leadership, organisation, impact, health care and change. Topics, that have a much more significant presence in Nordic countries than either in USA or EU, and appear also relatively high both in productivity and working conditions research are safety, democracy / empowerment and competences. These issues which connect production and working conditions themes – albeit in a quite limited way – can be considered as forming a special tradition in Nordic leadership and management research. This tradition – although not as prominent as the above mentioned innovation-related tradition – can be interpreted as regarding leadership / management as a tool by which these commonly quite separated areas of working and business life can be brought fruitfully together.



## 4. Denmark – National findings

*Christian U. Madsen, Ole H. Sørensen, Peter Hasle*

### 4.1 Industrial Relations and Business Demography

The Danish labour market regulation model is based on a voluntary self-regulatory system of collective bargaining where the social partners determine wages and working time, but also working conditions and occupational health and safety, with limited involvement from the state (Due, Madsen 2008). There is no Danish law determining minimum wages or regulating over-time payments. However, some areas are regulated, such as basic rights for salaried workers, labour law, working hours, and occupational health and safety laws. If negotiations of collective agreements fail, the government sometimes adopt a compromise by law. There is, however, no tradition for extending collective agreements to entire sectors. Furthermore, the social partners are consulted and are closely involved in revisions of regulation concerning the workers, such as health and safety laws, working hours, vacation, and protection of rights. According to the precedence principle, European law is superior to the national laws and especially in the area of health and safety some EU laws have precedence over negotiated agreements, limiting and sometimes in direct conflict with the voluntary element in the Danish system (e.g. working time, subcontracting rules, contract extensions, risk assessment).

There are five cornerstones of the Danish model of industrial relations (Due, Madsen 2008):

- High organization densities and high collective bargaining coverage.
- Nationally coordinated collective bargaining.
- A relatively coherent multi-level system.
- Disputes resolved through institutionalized bargaining rounds on a company level.
- Voluntarism and self-regulation.

These cornerstones are especially applicable for the private sector. In the public sector, the employer and regulator is essentially the same, which makes the dynamics more intricate (Borchorst, Caraker & Jørgensen 2012). Recently bargaining conflicts have been solved by reverting to legislation, which allegedly did not reflect a compromise but the employer interest.

Since 1947, Danish companies have, as a result of compromise between the social parties, established the so-called cooperative committees, which consist of shop stewards, management representatives (Westenholz 2006). Organisations covered by collective agreements have to establish a cooperative committee if they employ more than 50 employees. The institutionalized cooperation in the labour market regulation system is mirrored in the occupational health and safety organisation (Sørensen, Hasle & Navrbjerg 2009). From 1972 and until 2010, regulation stipulated that companies should organize mandatory safety committees and local safety groups with management representatives and elected employee representatives (Hasle 2001). The health and safety organization oversees that the companies abide to Danish health and safety laws and that management implements regulatory requirement laws in the company. From 1977, all private and public companies with more than 10 employees should elect safety representatives and companies with more than 20, should establish a safety committee in addition to the cooperative committee (if the company has such a committee). The regulation concerning the safety organisation were first reformed in 1997, lowering the threshold so companies with five employees should elect representatives, but also establishing a possibility that the social partners could tailor the structure of the safety organisation to the needs of the organisation if the social partners could agree on alternative solutions such as combining the cooperative and safety committee (Sørensen, Hasle & Navrbjerg 2009). In 2010, the requirement for the safety organization was relaxed, making it possible to establish a new and more flexible “working environment organizations” (Seim, Jensen & Møller 2013). The primary intention of the reform in 2010 was to bring working environment issues into the line organisation of the companies, and not just in the so-called safety organization “sidecar” that was an unintended consequence of the relative strict rules in the previous regulation (Seim, Jensen & Møller 2013, Frick 1990).

As indicated, the requirements in the voluntary agreements and in the regulation differ between large and small organisations. To understand the extent of the industrial relations system it is therefore necessary to know the typical organizational sizes. The business demography in Den-

mark mainly consists of small and medium-sized companies with less than 500 employees (European Commission 2014)). They make up 99,7% of all companies in Denmark, employs around 66% of the workforce and creates around 61% of the overall value added (European Commission 2014). In 2014, the workforce in Denmark consists of roughly 2.1 mio. Two thirds of the workforce (1,298,951) is employed in the private sector, while the last third (732,690) is employed in the public sector. In the private sector, the largest industries in terms of employees are commerce and transportation (472,853), manufacturing and extraction (280,901) and business-services (220,494). In the public sector, the majority of the workforce is employed in municipalities (approximately 490,000), while the regional governments and the state employ the rest.<sup>3</sup>

## 4.2 Themes and industries

In the literature study we identified a number of different publications dealing with productivity, management and working conditions in Danish companies. The publications cover research in different industries and sectors in Denmark.

Four of the core papers are cross-sectorial (Hvid, Hasle 2003, Fausing *et al.* 2013, Cottini, Kato & Westergaard-Nielsen 2011). They describe key variables of working condition and productivity in a broad variety of industries and companies. The two remaining core papers both include case studies that describe the relationship between productivity, management and working conditions in manufacturing companies (Foss *et al.* 2009a, Hasle, Moeller 2007).

The so-called “support papers” include three cross-sectorial studies (Edwards, Bojesen & Paarup Nielsen 2010, Eskildsen, Nussler 2000, Jönsson, Jeppesen 2012), three studies of manufacturing companies (Henrik Lambrecht Lund 2004, Hansen 2007, Sørensen, Hasle & Petersen 2011), three studies in the public sector (Esben Rahbek Gjerdrum Pedersen, Huniche 2011, Suadican *et al.* 2013, Nielsen *et al.* 2008). One study was set in a financial company (Bysted 2013) and one paper focus on multinational companies (Minbaeva, Mäkelä & Rabbiosi 2012). Finally, two “support papers” included thematised literature reviews (Hasle *et al.* 2012, Hvid 2013).

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<sup>3</sup> From Denmark Statistics ([www.dst.dk/en](http://www.dst.dk/en)).

We have identified the following three major themes based on the analysis of the core paper:

- Management and HRM practices that focus on worker involvement, autonomy and cooperation will have positive productivity outcomes related to one of the following: better quality, more innovation, higher knowledge sharing, lower turn-over, and lower absenteeism.
- Occupational health and safety practices that focus on creating management involvement, a positive internal climate and less repetitive jobs results in higher financial performance.
- Higher levels of organizational social capital in terms of trust and cooperation affect productivity positively by creating less turnover and absenteeism and fewer strikes.

In addition to the themes in the core publications, the support papers mentions that transformational leadership impacts on engagement and motivation, lean practices can be positive for employee outcomes in sociotechnical approaches, trust positively affects productivity measures, meaningful work leads to lower turnover, and HRM systems and involvement has positive impacts on employee outcomes.

### 4.3 Productivity and working conditions

As mentioned in the introductory chapter, we have operated with a broad definition of both productivity and working conditions. Our definition of productivity is broader than pure financial performance. It also includes studies that use variables typically considered to have a major effect on the financial performance such as industrial action, sickness absence, innovation, etc. Our definition of working conditions includes physical hazards such as repetitive work, ergonomics and accidents and psychosocial hazards such as lack of control, unclear roles, lack of meaning etc. We only included publications in the core selection of publications that also included empirical data and reflections related to working conditions and managerial practices. However, in this section we also refer to some of the publications in the “support” category.

A few of the identified publications explicitly describe working conditions and their connection with companies overall financial performances. The support article “The impact of workplace conditions on firm performance” is a good example (Buhai 2008). The quantitative study investigates the causal impact of workplaces’ health and safety environment

for total factor productivity (Buhai 2008). In the paper, the authors use Danish register-data on employee-employer relationship, working conditions and firm performance to determine whether there are links between working conditions and firm overall performance. The authors state that there have not been any previous studies of “the impact of such practice [working conditions] on firm productivity and /or wages in either country or industry-wide representative datasets” (Buhai 2008:3). A fact that we can confirm based on the present study.

The three national datasets are cross-sectorial and therefore not related to any specific industry or occupation. First, the “Company Surveillance Data” (referred to as VOV – a Danish acronym) – a representative yearly sample of efforts and initiatives in Danish companies regarding the working environment, second, the “Integrated Database for Labor Market Research” (IDA) – a database constructed by Denmark Statistics. IDA traces employment in Danish companies, wages etc. on personal level. Third, the study uses figures compiled by Denmark Statistics about Danish companies’ business performance based on financial statements.

The study does not describe one type of working condition in particular, but rather describes a variety of working conditions, and their effects on productivity, or new productivity improvements effect on the working conditions. This suggests, as the authors also acknowledge themselves, that financial performance is directly and measurably affected by improved physical environment because it makes employees immediately more productive. More “abstract” improvements in well-being, satisfaction and task-identity are difficult to measure directly in the financial performance, but can still be important mechanisms for other productivity improving measures to succeed, as other sources will also show.

The study shows that improving some aspects of the physical working environment have a positive effect on the economic performance. These aspects are: internal climate at the workplace and repetitious and strenuous work. Other important factors such as psycho-social working environment or stress do not have a significant effect on the economic performance measures included in the study. The productivity measurements in the study are however rather limited, as they only recognize financial performance and not better cooperation, lower turn-over-rates, innovative capabilities that can result in long-sighted improvements of the financial performances, but has not manifested itself on the bottom-line yet.

#### **4.3.1 Lower Turnover-rates**

Four studies identify productivity effects in terms of lower turnover rates or higher absenteeism rates (Cottini, Kato & Westergaard-Nielsen 2011, Hasle, Moeller 2007, Suadicani *et al.* 2013). First, a cross-sectional quantitative study is analyzed in: “Adverse workplace conditions, high-involvement work practices and labor turnover: Evidence from Danish linked employer–employee data” (Cottini, Kato & Westergaard-Nielsen 2011). These authors also use data from the IDA database, and in this paper it is matched with data from the “The Danish Work Environment Cohort Study” (DWECS). The article identifies a relation between physical hazards on a workplace and higher turnover-rates. The authors argue that there is a causal link between hazards and turnover-rates, which by implication leads to lower economic performance. In addition to providing data on the relation between physical hazards and turnover-rates, the study also analyzes how high-involvement work practices affect the turnover-rates. According to the authors, other studies have shown that bad working conditions affect turnover-rates negatively. This study shows that employee involvement through human resource management mitigates higher turnover-rate caused by physical hazards. Furthermore, the authors conclude that high level of management-labor dialogue also decreases the turnover-rate.

Of all the hazards, physical hazards turned out to have a significant effect on turnover-rates, while chemical and thermal hazards respectively didn’t show a significant increase in turnover-rates. In regards to temporal and planning-hazards especially night shifts turned out to have an effect on turnover rates. Finally, for psycho-social hazards, which the authors call “human hazards” (Cottini, Kato & Westergaard-Nielsen 2011), especially feedback and support from management had a significant effect on turnover rates, while relationships to co-workers didn’t show any significant effects. The crucial point in the study is that “high-involvement work-practices” can mitigate the negative effects of the hazards mentioned above, which we describe in further detail in “managerial advice”.

Second, another cross-sectional study also identifies a connection between turnover-rate and working conditions (Suadicani *et al.* 2013). This study measures a set of independent psychosocial working condition variables and identifies those as determinants for employees’ intentions to leave the workplace. A survey-based study was conducted among permanent staff from a large Danish hospital. The analysis showed that three independent variables could be related to increased intentions to quit: “meaningfulness of job, quality of collaboration among colleagues (...) trustworthiness of closest superior(s) and expo-



sure to bullying.” (Suadicani *et al.* 2013). The employees at the Danish hospital in the study mentioned psycho-social working environment as a significant reason for increased intentions to quit, and thus to higher turnover-rates. Among the sub-questions regarding the psycho-social working environment three variables affect turn-over positively: influence on planning of the concrete work tasks, support and collaboration from and with co-workers, and support and feedback from management.

Lower turnover-rates are also identified as a productivity effect in the article: “From Conflict to Shared Development: Social Capital in a Tayloristic Environment” (Hasle, Moeller 2007). Other productivity enhancing factors are better cooperative planning and less wildcat strikes. In this study, the authors analyse four different longitudinal casestudies, all Danish slaughterhouses. The industry has historically been characterized by low level of trust between management and employees, a high degree of absenteeism, and high turnover-rates. The study shows how a number of different events created cultural and organizational changes that improved relations between management and employees substantially in three out of four cases, and the analysis further shows that these events created productivity-advantages for these three companies. The three cases followed a similar sequence of an initial improvement of the relations between employee representatives and central management. Then relations and trust improved in the rest of the organization, thus creating a higher organisational social capital. The three slaughterhouses had a remarkable lower rate of industrial conflicts such as wildcat strikes, lower absenteeism-rates and lower labour turnover-rates. As described above, three of the companies had relative high levels of trust between management and employees. In these companies, the employees had same low levels of control in work as in most other slaughterhouses (direct control related to working activities), but they had higher levels of influence on rotation schedules, planning of working hours, vacation planning, job-design and new technology. The researchers also identified relatively high levels of social support and individual recognition. In other words, the psychosocial working environment was better and the employees mainly attribute this to the higher level of trust from management because it permits the workers to have higher levels of control in terms of organizing the work (indirect control related to planning and job design).

In conclusion, the three studies mentioned above all describe and find relations between economic performance in terms of lower turnover-rates and better working conditions. Furthermore, the studies show that both improved physical working environment (Cottini, Kato &

Westergaard-Nielsen 2011), as well as an improved psychosocial working environment (Hasle, Moeller 2007, Suadicani *et al.* 2013) have a positive effect on the employees intentions to quit their job.

#### **4.3.2 Absenteeism**

In a cross-sectional study conducted in large Danish financial company among more than 7,000 employees (Kristensen *et al.* 2006), absenteeism is related to the level of cooperation in the department and to management behavior. The researchers map reasons for absenteeism among the employees, and works from a number of theoretically generated hypotheses. Some of the variables influencing absenteeism stems from non-work-related social factors such as geographical location, gender and age, and thus are not relevant for our purposes. However, one variable is the individual employee's evaluation of the level of cooperation in the department. This turns out to have a significant effect on absenteeism, thus the more cooperation the less absenteeism. Likewise are adequate compensation in terms of salary and bonuses, and managers own levels of absenteeism significant variables in reducing absenteeism among employees. Like turnover-rates, above average levels of absenteeism can be expected to affect the economic performance of the company negatively.

#### **4.3.3 Innovation and knowledge sharing**

Innovation and knowledge sharing are two organizational processes that have productivity effects and effects on employees' working life, in particular when they are involved. All these productivity and working environment effects are based on process improvements that hinges on employee initiative, motivation, involvement, and/or cooperation.

Improved innovative capabilities in various shapes and forms are considered to be a significant productivity advantage and therefore an improvement of economic performance. In a literature study from 2013 about employee-driven innovation, Hvid (Hvid 2013) distinguishes between four different modes of innovation based productivity enhancement:

- Existing production can be made more efficient.
- Production can be optimized through new technology.
- Output from employees can be increased.
- Increased value from each unit produced (Hvid 2013).

The productivity advantages we found in the study can roughly be categorised into one or more of these categories.

Bysted (Bysted 2013) has studied the importance of innovative work behaviour (IWB) in a Danish financial company. He argues that innovative work behaviour is crucial for companies' performance because "... organizational innovativeness is a key to competitive advantages and strategic renewal" (Bysted 2013). However, innovation can also result in declining job satisfaction due to rapid organizational change, but analysis of panel data suggests that IWB can be implemented successfully while maintaining job satisfaction, if the "inner environment" is right. The notion of inner environment encompasses job autonomy and what Bysted calls "innovative trust" which he describes as:

"innovation trust will allow employees to introduce new ideas knowing that co-workers will respond positively. The logic of focusing on innovation trust is that it will facilitate an open-minded atmosphere in which employees are confident when bringing suggestions and input into discussion."

(Bysted 2013).

So, the study finds that given that a company has high levels of employee autonomy and an open, trustful environment, innovative work behaviour will thrive and lead to increased innovation and thereby to increased economic performance. In turn this can also be said to mean that improved innovation trust is positively related to autonomy and higher job satisfaction – i.e. a positive working environment.

The abovementioned point is further supported by findings in a recent research project (Nielsen *et al.* 2012). This particular paper includes a cross-sectional overview of dynamic and innovative capabilities in Danish companies. The results show that management-employee cooperation and trust in Danish companies is related to innovation and enhance productivity. The paper points to two different parallel groups of drivers for innovative capabilities. One stems from national and international competition, and the other one stems from the inherent cooperative possibilities "build" into the Danish system of industrial relations. The empirical results includes two perspectives that are relevant for this analysis: (a) A great majority of the participating companies use employee participation and cooperative strategies and relate these to the development of innovative and dynamic capabilities, and (b) the successful use of these strategies hinges on the development of good and trusting relationship internally in the company. The authors points to the Danish tradition of cooperation between the social parties on a

workplace-level, as a precondition for the development of innovative capabilities. They write:

“Another, and perhaps the most interesting, result is that co-determination only has significant effect in interaction with inter-subjective competence development. Logically, this makes sense as the inter-subjective approach to competence development as precondition needs cooperation, trust, and commitment, which the decentralized aspects of the Nordic model may deliver.”

(Nielsen *et al.* 2012).

Put in another way firms that wish to improve their innovative capabilities, have to improve cooperation, trust and commitment in the staff and at the management-level.

These points are further underlined by Helge Hvid (2013) in a review for a group of Danish trade unions, in light of recent recommendations from the so-called “productivity-commission” appointed by the Danish government. In the report, Hvid describes how “Social Capital” is a key relational variable in an innovative organization, combined with individual autonomy, and an organization capable of learning.

The paper: “Encouraging knowledge sharing among employees: How job design matters” (Foss *et al.* 2009b) researches if there is a relation between improved working conditions as independent variables and improved knowledge sharing between employees. It has been established that knowledge sharing between employees is an important feature in building knowledge based competitive advantages (Foss *et al.* 2009b). This particular cross-sectional survey-based study uses a sample population from one manufacturing work-site of a Danish MNC subsidiary.

The result shows that three job design dimensions (Hackman, Oldham 1976) have a significant impact on employees’ knowledge sharing behaviours: *Autonomy* i.e. substantial freedom to choose how to do a job and when to do it, *task identity* i.e. how meaningful the employees perceive the work task, and whether they have the possibility to complete a whole identifiable piece of work, and finally *feedback* i.e. the degree to which the employee receives feedback, instructions, and constructive criticism from management (Foss *et al.* 2009b). Each of the three significant working conditions in turn influence their own type of motivation, which again influence the employee’s to either send or receive knowledge to and from colleagues i.e. share the knowledge. First, *autonomy* leads to what the authors call “intrinsic motivation” (Foss *et al.* 2009b), which implies that the employees themselves find the job interesting and are solely motivated by the work itself. Intrinsic motivation significantly motivates the employees to receive knowledge, and only to

a lesser degree to actually send knowledge to co-workers. Second, *task identity* leads to “introjected motivation” (Foss *et al.* 2009b). Introjected motivation comes with being part of an organization, i.e. from social norms, collegial pressure and informal rules etc. This type leads to both receiving and sending knowledge. Finally, “external motivation” (Foss *et al.* 2009b) is caused by a reciprocal understanding from the employee, such as an outspoken reciprocal agreement between the employee and management/colleagues about the consequences negative and/or positive effect of sharing knowledge. Foss *et al.* (2009) describes how *autonomy*, *task identity* and *feedback* each leads to improving knowledge sharing and innovation between co-workers, and between managers and employees. This in turn means that a company can improve their innovative capabilities by improving the employees’ sense of autonomy, task identity and feedback, thereby improving productivity and the working environment at the same time.

Another Danish research paper from 2000 (Eskildsen, Nussler 2000) also finds that feedback is a working condition that should be improved, in order to maintain loyalty and happiness among the employees, because it leads to a better firm performance. In the study, the authors research how different subsystems (technical, cultural and social) of human resource management influence employee satisfaction, loyalty and firm performance. However, the cross-sectional survey is only carried out among HRM-managers. Among the areas the HR-managers deems important for satisfaction and loyalty feedback is relevant for the analysis in this report.

#### **4.3.4 Process optimization**

Three publications concerned with process optimization through the implementation of LEAN-production principles (Hasle *et al.* 2012, Edwards, Bojesen & Paarup Nielsen 2010, Esben Rahbek Gjerdrum Pedersen, Huniche 2011). Neither of the publications are among the core works (see method in chapter 2.3), but they all point to two important particularities about implementation of Lean in Danish companies: 1) LEAN is not universal and complete, but a collection of abstract principles that are always tailored to the specific context, and more to the point of this report: 2) successful implementation of LEAN hinges on the accept and participation from employees. So, LEAN may lead to improved economic performance by optimizing processes especially in environments where employees participate in the implementation of changes.

The points from the abovementioned source are further supported by two contributions on change management (Nielsen *et al.* 2008, Sørensen, Hasle & Pejtersen 2011). One contribution shows that if levels of trust are low or if the organizational actors actively distrust each other change initiatives from management will be met by scepticism and resistance (Sørensen, Hasle & Pejtersen 2011). Likewise, critical comments from employees to change initiatives will most likely be perceived as illegitimate and destructive by management if trust is low, possibly leading to a negative trust spiral. Mutual negative perceptions and reaction may cause conflicts such as strikes and work to rule, which may lead to lower productivity. The paper presents two cases as examples of how organisational change processes can affect and deepen distrust between employees and management, and they present a model for trust repair. Thus, the paper contributes to develop a model of how trust affects successful change management and how negative trust spirals can be broken, and thereby it contributes to how companies may achieve positive economic development and a better working environment.

#### **4.3.5 Leadership styles and employee involvement**

Two publications deal with leadership styles and employee involvement. A longitudinal study of elderly care homes indicate that transformational leadership (such as engaging employees in complex decision making and problem solving, providing a clear vision, coaching and mentoring, etc.) may increase employee well-being but only in the way followers perceive work characteristics (role clarity, meaningfulness, and opportunities for development) (Nielsen *et al.* 2008). Transformational leadership will, according to the authors, inspire the employees to broaden their interest in their work and to be innovative and creative. This productivity related outcome is, however, not measured in the study.

Fausing *et al.* (2013) provides a nuanced description of how effective autonomous teams are for productivity. The study provides cross-sectional survey data from a large Danish manufacturing company, and researches how teamwork is related to performance, with regard to job-function and level of autonomy. The study shows that work function is the main moderator, to whether teamwork is a productivity improvement in the company. The study concludes:

“Team work function moderates the relationship between shared leadership and team performance such that shared leadership and team performance are positively related for knowledge teams, whereas shared leadership and

team performance are negatively related for manufacturing teams (...) Team autonomy and team performance are positively related.”

(Fausing *et al.* 2013: 244).

The study found that there is a positive relationship between autonomy and team performance, and that autonomy is a moderating variable between shared leadership and performance. It found a significant positive relationship between team performance and the shared leadership and work function in combination. Thus, the study shows that team performance is enhanced with shared leadership and influence in knowledge jobs, but decreases in manufacturing jobs. In other words there may be boundaries to the positive effects of autonomy and shared leadership.

#### 4.4 Managerial advice

As the last part of this contribution, we extract and sum up concrete managerial advices identified in the Danish publications. Proposals for managerial action can be inferred from all the empirical results identified in the previous section, even if the authors did not make it explicit. However, we focus on specific and implementable advices that the authors propose and sometimes test in the research publications. Furthermore, we sum up more general asserted managerial advices from the findings.

Buhai *et al.* (2008) identify a positive correlation between the proportion of managers in a company and employees evaluation of several dimensions of the working environment conditions (i.e. mental stress, repetitive work and heavy lifting). The more managers, the better working conditions in a company. More than anything this shows that management in itself is important for healthy and safe workplaces. A less but nonetheless still important managerial action is to offer employees courses on occupational health and safety (OHS) related issues. The possibility for employees to attend OHS-related courses correlates significantly with better working environment conditions in regards to repetitive work and noise-environment, whereas repetitive work and heavy lifting furthermore contribute to the firm's financial performance. Furthermore Kristensen (2006) conclude that the absenteeism of the employees partly depend on the presence of the immediate manager on the work-site. The advises for managerial practices, therefore, is to limit the span of control, that the immediate manager is present on the work-site

and that companies offer OHS-courses that teaches employees to handle salient issues in the working environment.

Four of the identified sources describe feedback from management to employees as an important concept, in terms of both productivity and working conditions. Foss *et al.* (2009) (Foss *et al.* 2009b) shows that feedback from management is significantly related to external motivation and employees' ability to receive knowledge and instruction. More concrete, the research focuses on two types of feedback: standardized feedback, such as evaluation forms, and informal feedback from managers. Both types of feedback are related to increased motivation. The point is further elaborated in another research publication by some of the same authors (Minbaeva, Mäkelä & Rabbiosi 2012). In this paper the authors further inquire into how extrinsic and organizational motivation is nurtured by HRM-policies in three Danish multinational companies. This paper deduce that management can increase incentives to knowledge sharing more by creating a culture of sharing among the employees, than by giving direct feedback. The former will affect both the receiving and sharing of information, while the latter only affects the ability to receive information. Feedback from management in one form or another is also advised in two other sources (Suadicaní *et al.* 2013, Eskildsen, Nussler 2000). The advice for managerial practices is, therefore, to improve feedback to employees and to nurture a culture of information sharing.

Managers should furthermore strive to create an involving working environment, where employees can contribute to, and are adequately informed about decisions regarding their work. This advice is recommended by seven of the identified sources. First, Cottini *et al.* (2011) shows how so-called "high-involvement work practices" (HIWP) mitigates risks and hazards that would otherwise cause higher turnover-rates. In the study, HIWP is defined by three variables: "Voice" (the ability to take part in decisions regarding ones work situation), "information sharing" (employees feels they are adequately informed about new decisions regarding their work situation) and "training" (the possibility to receive training and courses improving one's skills). This is further backed by other publications (Henrik Lambrecht Lund 2004, Hasle *et al.* 2012, Hvid 2013, Edwards, Bojesen & Paarup Nielsen 2010, Nielsen *et al.* 2012, Jønsson, Jeppesen 2012). The advice for managerial practices is, therefore, to create and nurture high-involvement practices where employees are informed about changes at work, trained to handle work tasks and allowed to take part in decisions about work, and to create an involving working environment, companies and management must focus



on creating trusting relationships between employees and management. The publication by Hasle & Møller (Hasle, Moeller 2007) "From Conflict to Shared Development: Social Capital in a Tayloristic Environment" describes how management handles the process of trust-building. The change processes in the slaughterhouses that led to high trust levels were only partly conscious; random events played a large part in each case. The authors use a concept of "organisational redesign as improvisations" to understand the change processes, e.g. that various mundane events made it necessary for the involved actors to act differently. In all cases there was an agreement that "cooperation was the way to move forward" (Hasle & Møller 2007: 414). The three cases followed a similar sequence of an initial improvement of the relations between employee representatives and central management. Later, relations and trust improved in the rest of the organization, thus creating social capital. (Sørensen, Hasle & Pejtersen 2011) further make the point that if levels of trust is very low, management has to go through great length to break negative trust spirals, e.g. by clear symbolic acts that communicates benevolence, integrity and competence. The advice for managerial practices is, therefore, to create trust through cooperation between management and workers and by acting with competence and integrity and by demonstrating benevolence – also in times of change.

In the identified publications, involvement and cooperation are unanimously recommended as a management practice that increases productivity and/or improve working conditions. However, it is different for autonomy. The study by Fausing *et al.* (2013) (Fausing *et al.* 2013) indicates that managers should consider the work functions before implementing autonomous teams, because the study indicates that autonomous teams only enhance productivity in knowledge-based work, while it decrease productivity in manufacturing work. However, Fausing only describes consequences for team performance and not whether autonomy and self-determination causes higher employee satisfaction and wellbeing, because increased autonomy by definition improves the psychosocial working environment, which in turn, as described elsewhere, may lead to better performance. The study by Nielsen *et al.* (2008) also indicates that work characteristics mediates the effects of leadership styles and that good transformational leadership is not a substitute for poor work design.

To conclude, from the identified publications, core and support publications, we deduce the following advice for good managerial practices leading to improvements in productivity and working environment conditions:

- Ensure that the span of control is manageable and that management is accessible.
- Provide employees with OHS competences e.g. through training.
- Improve feedback and nurture a culture for knowledge sharing.
- Create and nurture high-involvement practices.
- Use autonomous teams – when the work function is appropriate.
- Nurture trust and cooperation between management and employees.

These pieces of advice should be seen in the context of the Danish industrial relations system and business demography, where levels of trust, cooperation, influence and involvement are high. Even in this context, the identified research publications recommend to increase and nurture such managerial practices, indicating that they can be improved further. But it may also indicate that these practices are considered valuable in the Danish culture, and therefore research concentrate on proving their merits (Doellgast, Batt & Sørensen 2009). OHS-levels are generally also considered to be relatively high in Denmark, but the findings also recommend training employees in OHS-issues. Finally, relative low power distance and flat hierarchies, especially in the SMEs that dominate the business demography, characterize Denmark. It is noteworthy that the identified research recommends limiting the span of control because that essentially introduces a steeper management hierarchy. This recommendation may be related to the identified need for improved feedback and visible management, which employees may yearn for in very flat hierarchies with high levels of autonomy.

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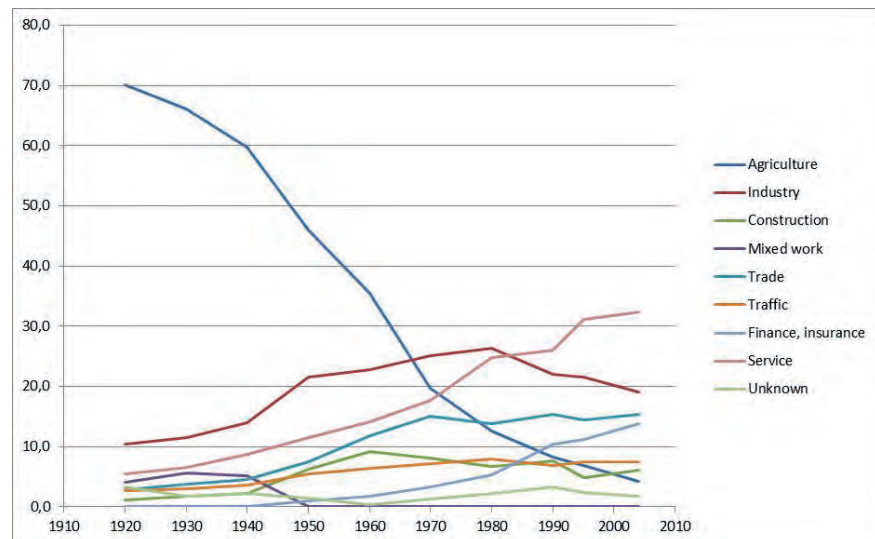
## 5. Finland – National findings

*Heli Talja, Annsi Neuvonen, Marika Makkonen*

### 5.1 Features of Finnish working life

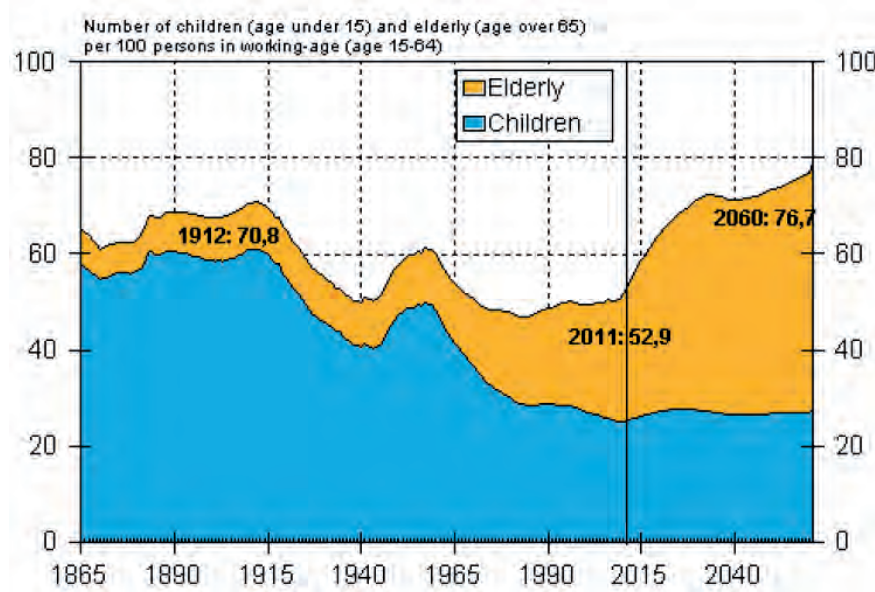
After the Second World War the change of Finnish industrial structure was fierce and one of the fastest in Europe (Myyryläinen 1998). While Finland was still an agricultural country right after the war, by 1970 it had changed to an industrialized and urbanized society where an essential part of the population earned their living from services (See Figure 29). Since 1980 the also the share of people working in industry has been decreasing while the share of services still has kept growing. One interesting recent development trend is that according to Statistics Finland the amount of persons working as managers and highest state officials has decreased by 37% from 2008 to 2013 while the number of experts has increased by 13%. During the same period the total amount of employed persons decreased in Finland by 74,000 and was 2,457,000 in 2013.

**Figure 29. Shares of the Finnish industrial structure (in %) during the time period 1920–2004. Sources: Myyryläinen 1998, Statistics Finland**



In Finland, the number of elderly people will grow at an especially high pace in the coming decades, due to aging of the so called large age groups born in late 40s. This is illustrated in development of the demographic dependency ratio in Figure 30. Thus prolongation of personal work careers is one of the central working life related topics of the public debate in Finland today.

**Figure 30. Shares of the Finnish industrial structure (in %) during the time period 1920–2004**



Source: Population Statistics 2012, Statistics Finland

Source: Myrskyläinen 1998, Statistics Finland

The unemployment rate was 9.0% in April 2014. Compared with April 2013, the number of employed persons decreased in the private sector and grew in the public sector. The employment rate (the proportion of the employed among persons aged 15 to 64) stood at 68.3%, having been 68.7% one year earlier. Men's employment rate was 67.6% and women's 69.0%. Finland differs from other European countries in that although there are countries where women's employment-share is higher than in Finland, the share of women working fulltime is the highest: less than 20% of them are employed part-time.

## 5.2 Identification of the core articles – Finland

We used three general databases as our information sources: Elsevier's Scopus, Web of Science by Thomson Reuters and the Finnish national ARTO database. Scientific publications form only part of ARTO's contents. Among the bulk of 451 scientific articles we found in ARTO, only eight were found relevant, but in further analyses none of them ended up in the core set.

In our Scopus searches on titles and keywords we found 692 articles dealing with management and productivity, 221 articles dealing with management and working conditions and 110 articles dealing with all the three issues. As already seen in the Pan-Nordic analysis productivity related topics dominate the Finnish management research while the research dealing with all three issues is still quite scarce. In our further work we focused, however, on that part, i.e. on papers dealing with both workplace and productivity issues in connection to good management.

In the Web of Science (WoS) database it isn't possible to make a search in publications' titles and keywords only. Thus we made a search on titles, keywords and abstracts, which resulted in a set of 295 articles dealing with all three search themes. This amount exceeds clearly that of our first Scopus search. To end up with a consistent dataset we decided to redo our Scopus search by looking at the abstracts as well. This way we found 521 articles; 126 of them were common with the WoS search. Thus we had a gross dataset of  $295+521-126 = 690$  articles to be elaborated further. The WoS search did not produce a sub set of the Scopus search as we had anticipated. On the contrary, most of the 295 articles found in WoS were not caught by the identical Scopus search. Interestingly, in some cases also different articles were found in the two searches in the same journals. Although this causes some worries concerning the unambiguity and completeness of our dataset, the 690 articles were utilized as the basis for our further work.

To end up at the net sample of articles, dealing with the three central issues in Finnish work organizations, we then processed the dataset in three successive exclusion rounds, first looking at the titles only and at the latter rounds also at the abstracts. So we ended up with a net dataset consisting of 64 journal articles. 21 of them were common for both WoS and Scopus searches; 17 were found in WoS only but not in the Scopus search.

Extracting the core articles from the net result followed then with three further successive exclusion rounds. One of our aims was that the chosen papers would cover the essential aspects of the selected set of papers. For that reason we created an initial classification of the papers

according to emerging topics, which were identified as: Aging, Ergonomics, Health, Safety, Human resource management (HRM), Innovation, Knowledge management (KM), Leadership skills, Organizing, Development programmes and Teams. Each paper was classified in one topic only, although many of them dealt with two or more topics, e.g. effectiveness of various KM tools and practices for enhancing innovation.

The papers dealing with a programme level – either national or regional – instead of the organizational one, were not included in the core but were used as background references. In the net dataset there were several papers from the same authors or the research groups, presenting an accumulatively evolving research topic. In those cases we chose only one of them, which we considered as the most characteristic. This way we ended up with a core dataset of 16 papers and 4 conceptual/ theoretical supporting papers. Even half of them have been published in 2010 or later and none of them before 2005. Figures 3 and 4 illustrate the net and core sets as word clouds. There are some notable differences between the figures, e.g. the more prominent inclusion of “knowledge” and “social” the core set word cloud while the word “innovation” is not present there.

**Figure 31.** Word cloud representing the 50 most common words in the abstracts-net set of papers







2007). There is also another group of papers, typically dealing with public organizations, looking at performance as reducing costs which are caused by employees' health problems, sickness absences or plans for early retirement (Böckerman *et al.* 2012, Tenhiälä *et al.* 2013, Tiuraniemi 2008 and von Bonsdorff 2009).

**Table 8. Working condition and performance related themes of the core and supporting articles**

Working condition → Performance output ↓	HRM/ KM/ ICT practices	Understanding the demands of core task	Working principles in teams	Participation, relation with superior	Managerial skills
Financial	C1				
General productivity/ efficiency	C2, C5, C8	C8	C4, S1	C5, C9, C10, C16, S2, S3	C5, C11, C14
Innovation	C6				
Health, sickness absences, early retirement	C12, C15			C2	C13
Safety		S4			

The main conclusions of the papers on the relation of management practices, working environment and productivity are briefly summarized in the following chapter. After that extracted advice for management practices is presented.

## 5.4 Central themes

### 5.4.1 *Understanding organizations' core activities.*

The conceptual paper by Reiman and Oedewald (2007) considers organizational culture as the basis of predictive and proactive promotion of organizational safety and system efficiency in industrial organizations. For the assessment of complex sociotechnical systems they present theoretical issues concerning the use of organizational culture and organizational core task concepts. They maintain that efficient models of safety management are based on a contextual image of an organization as complex sociotechnical system that is a socially constructed and dynamic culture. To assess such systems an understanding of the organizational core task is required. Effectiveness and safety depend on the cultural conceptions of the organizational core task and thus safety and effectiveness of an organization can be analysed by assessing the organizational culture.

Based on the same research tradition as that by Reiman & Oedewald (2007), Nuutinen (2005) presented a contextual assessment of working practices in changing work in socio-technical systems, for which she introduced a method called CAWP (Contextual Assessment of Working Practices) and applied it in three cases: a conventional power plant, expert services and vessel traffic service. She collected data from by interviews, observation, workshops etc. As a conclusion she pointed out that it is important to continuously develop technology and practices in a coupled way. Further, in order to maintain productivity and wellbeing at work this development should be based on a contextual analysis of the real content of the work, employees' competences and current practices, as well as the sources of their professional identities. Management of the change at work is one of the most important ways to support human performance in the socio-technical system and thus to promote system efficiency.

#### **5.4.2 Working in teams**

Reflecting the changing nature of work, which is becoming increasingly knowledge intensive, Bosch-Sijtsema *et al.* (2009) identified in their conceptual paper several elements affecting the productivity of knowledge work in distributed teams. They conducted a review of research on productivity of knowledge work in global technology companies and integrated different disciplines. The paper reminds of the various dimensions to be considered in connection to distributed teams and summarizes them as physical, virtual, social and mental workspaces. According to the analysis by Bosch-Sijtsema *et al.* (2009), crucial elements affecting knowledge workers' productivity are related to team tasks, team structure and processes, the physical, virtual and social workspaces as well as organizational context.

Henttonen *et al.* (2013) studied how the social network structure in the team affects team performance, in terms of knowledge transfer. They conducted a survey among 499 employees in 76 work teams in 48 organizations, representing various industrial sectors: social sector, health care, public administration, education, retail trade and finance. The teams performed fairly knowledge-intensive but only moderately complex tasks. The authors present their results using firstly a distinction between expressive and instrumental networks, i.e. characterizing social relationships either as ends in themselves or as goal-oriented relationships, and secondly according to the density of the networks. Both dense and fragmented instrumental network structures were seen to affect the team performance. However, fragmentation in expressive networks had

a negative impact. Only instrumental, especially dense, networks were observed to transfer knowledge. Neither knowledge sharing nor team performance was facilitated through expressive social-supportive networks. Thus dense instrumental relationships should be stimulated while overly fragmented expressive relationships should be avoided (Henttonen *et al.* 2013).

### **5.4.3 Identification of efficient HRM practices**

Pyöriä's (2005) supporting paper presents a general review on organization research concerning teams since Mayo. The paper looks for pre-conditions for productive collaborative work in teams and practices supporting collaborative problem solving. Pyöriä (2005) explored the roles of information technology (IT) and human relations in knowledge work teams. He identified informal organizational culture as the foundation of healthy and productive work environments enhancing organizational productivity and creativity. Thus Pyöriä (2005) encourages managers to pay less attention to the latest technology and more to human relations. IT can, however, be useful in reducing routine communication costs. In knowledge intensive organizations the reduction of communication overhead should not refer to interpersonal communication.

The phenomena presented by Pyöriä (2005) are reflected by the empirically grounded paper by Andreeva & Kianto (2012), who have studied the relation between different knowledge management (KM) practices and firm's economic performance. For that they conducted a survey among top and middle managers and experts in firms operating in service and manufacturing sectors in Finland, Russia and China. Human resource management (HRM) and ICT practices for KM were found to be quite strongly correlated and influence both financial performance and competitiveness of the firm. ICT practices, however, were seen to improve financial performance only when they were coupled with HRM practices. No marked national differences were identified; the national datasets are, however, quite limited in size.

Fey *et al.* (2009) explored the relationship between HRM practices and firm performance comparing subsidiaries of multinational enterprises (MNE) in the USA, Finland, and Russia and investigated which HRM practices work better in different countries. Based on their survey among general, deputy and HR managers in subsidiaries of 241 multinational enterprises in Finland, USA and Russia they identified mediating factors affecting the relation between HRM practices and firm performance. Performance was measured using interviewees' subjective as-

assessment based on a comparison with similar enterprises. Practices enhancing both personnel's motivation and ability were found to have maximum effect on firm performance. In Finland, characterized by a low power distance related to the two other countries, communication was proved as especially important in promoting motivation.

Koski *et al.* (2012) have explored why some firms innovate more than others, the firm innovativeness being measured by patents, and whether there are differences between small vs. large and low tech vs. high tech firms. Their telephone interviews in 398 Finnish manufacturing firms revealed that very different organisational practices lead to more innovation (measured by the number of patents) both between small and large firms, and between the firms that operate in high- and low-tech industries. In small firms, innovation benefits from practices that enhance employee participation in decision-making. Large firms with more decentralised decision-making patterns do not seem to innovate more than those with a more bureaucratic decision-making structure. The most efficient incentive for innovation seems to be the ownership of a firm's stocks by employees and/or managers (Koski *et al.* 2012). They also found performance-based wages also related positively to innovation, but only when combined with a systematic monitoring of the firm's performance.

The paper of Jones *et al.* (2010) looks whether innovative HRM policies matter also in settings where the job tasks are rather simple and no specific skills are required. Panel data from 47 units of a Finnish retail firm in non-food retail trade was used to assess whether participation, information sharing, supervisor feedback and performance appraisal created added value there. The authors found that also in settings where employees do simple tasks and are relatively low-skilled, participatory work environments can enhance business performance. Productivity is enhanced when employees have opportunities to participate, and receive appropriate information and feedback from their supervisors.

#### Importance of organizational strategy

Mantere (2013) looks in his theoretical paper for preconditions for collective strategy among organizational members using the language-based view on strategy. The employees are considered in terms of their relation to organizational strategy (whether it exists or the organization allows pluralism). Mantere (2013) concludes that existence of (a monolithic) organizational strategy may under certain conditions cause poor performance. A view of organizational strategy as a language game that governs the use of strategy labels in the organization helps to understand linkages between institutional, network, organizational, and micro

level views on strategy. Organizational strategy exhibits a division of linguistic labour, where responsibility for key concepts is assigned to particular individuals or organizational functions that oversee the proper use and maintenance of strategy language.

Saari & Talja (2009) advocate new dialogical cross-level managerial practices for research organizations. Based on their case studies in Finnish research organizations on organizational changes and research group development, Saari & Talja (2009) explore the different world views of researchers and top management and propose a framework for more efficient organizational practices. They speak for the importance of local, emerging strategies, connected with the organization level guidance to enhance innovativeness and economic performance. Thus communication and learning based leadership is called for to embed communication and learning as integral parts of a knowledge organization's practice. The paper offers guidelines for constructing dialogue between managers and knowledge workers. Further, it presents four new constructions that the management and personnel of a research organization tend to interpret very differently: the tension between freedom and control, formation of research strategies, applicability of business management models to research organizations, and the meaning of structural changes.

#### **5.4.4 *Managing change***

Seppälä's (2006) case study on a change process in a Finnish engineering company was a participative and collaborative development effort with four-year follow-up. The aim of the change process was to increase productivity by enhancing flexibility and agility. For this purpose manufacturing cells and teamwork in the machining department of the company were launched with measures for work enlargement. Seppälä (2006) collected data by interviews and observation. He concluded that to achieve real changes in practice it is necessary to ensure the participation and collaboration of all affected persons. Pilot projects in part of an organization may fail due to interdependencies with other parts of the organization that may prevent the change if they are not addressed appropriately. According to Seppälä (2006), also the changing role of foremen and superiors must be addressed more thoroughly.

Talja *et al.* (2009) present a case study on a change process in a large technological research organization. There a new unit of 500 persons was formed by merging two former ones, with the aim to enhance utilization of synergy and created preconditions for more professional management, as larger units throughout organizational layers would allow

pronouncing leaders' roles and increasing their time allocation for managerial tasks. Interviews of 50 persons covering all hierarchical levels throughout the new unit were conducted. The middle managers were seen to have a crucial visioning, motivating and energizing role and effect on the success of the organizational part they are responsible for. In terms of change management, independent of the outcome of the change process from a local point of view, the personnel preferred leaders actively engaging them in the process. The top management's role could rather be described as a change initiator than executor. By setting new types of boundaries and allocating resources they forced the organizational units to change, and the local success of the change heavily depended on the skills and orientation of the middle managers.

#### **5.4.5 *Managing the aging workforce***

In the social and health care services, the budget cut pressures and aging of the employees set especially high challenges for managing. In that context Tenhiälä *et al.* (2013) have studied how experienced organizational justice affects sickness absences in different age groups. Their survey covered more than 37,000 respondents in ten towns and 21 public hospitals, most of them working in non-manual professions. It was looking at factors affecting absenteeism and need for age-related management. The study indicated that high-quality relationships with supervisors can prevent both short and long spells of sickness absence at all ages. A high level of experienced procedural justice reduces long spells of medically certified sickness absence at older employees. Besides, older employees are less likely to take short, non-certified sickness absences from work.

Further, von Bonsdorff (2011) has explored age-related differences in the employees' reward-preference. 628 nurses working in two public Finnish hospitals participated in her survey. She studied the efficiency of both financial and non-financial forms of rewarding for increasing productivity by motivating the employees to retire later. Both financial and non-financial elements of rewarding were highly appreciated and older nurses preferred financial rewarding more than younger nurses.

#### **5.4.6 *Leadership tools and development***

Tiuraniemi (2008) and Yliruka & Karvinen-Niinikoski (2013) have studied leadership tools for improving performance in the social welfare sector; the former in terms of improving leaders' self-awareness and the

latter via developing dynamically reflective structures and dialogic leadership. Tiuraniemi (2008) explored how leaders' self-awareness is related to subordinate assessment of organizational atmosphere. His survey in two organizations covered 44 managers, and the total size of the sample was 445 participants. Tiuraniemi (2008) considers the quality of leadership to be correlated with the quality of the activity in the work community estimated by the subordinate. He identified connections between the quality of performance of the working community and the actions of superiors, as well as their ability for self-assessment: in terms of discrepancy between self-ratings and mean subordinate ratings, accurate and underrating were related to good evaluation of work activities. Further, Tiuraniemi (2008) pointed out that superior's self-assessment is a skill, which can be developed, for example from a practical reflective point of view.

Yliruka & Karvinen-Niinikoski (2013) presented a tool for increasing productivity by enhancing the performance capacity of employees in social work. For that purpose, transformative expertise can be developed utilizing dynamically reflective structures and dialogic leadership. The article examines how to enhance the ability of managers to promote productivity through reflective structures and appreciatively evaluative dialogues based on front-line expertise and knowledge in social work practice. Besides a framework for the dialogue, the authors present an open innovation tool called Mirror for enhancing transformative learning among social workers and service users. Yliruka & Karvinen-Niinikoski (2013) also remind that instead of seeing productivity in social work merely in terms of savings it should be considered holistically as an effort to produce long-term effectiveness, quality and benefits to the society and that the costs and consequences of mismanaged social services should be understood.

Viitala (2005) studied managers' development intentions and found out that only rather seldom managers had any aims in that direction. Besides, although they saw leadership and supervisory skills as the most urgent development areas in general they usually thought that this didn't concern themselves: instead they rather had aims at developing their own technical and business skills. Thus Viitala (2005) concluded that managers should first be educated in management competencies, including management and learning issues, before they can become thoroughly conscious of their own competencies and development needs.



#### 5.4.7 *Assessment of productivity drivers*

Kujansivu & Oksanen (2010) explored whether white-collar workers' productivity drivers at macro-level could be identified by the assessment method Knowledge Workers' Productivity Assessment (KWPA) that had been developed for measuring knowledge workers' productivity. A further aim was to identify problems of Finnish knowledge workers' productivity. In the KWPA process, four types of productivity drivers are examined: organisational and personal inputs, process-related factors and output factors. The process consists both of questioning employees and interviewing certain employee groups. With this tool the management can observe the state of productivity at a certain point of time, and it is aimed for planning and monitoring the state of organizational infrastructure. KWPA survey was conducted among 840 white-collar workers, representing different organizations and profession groups. Differences were seen between profession groups, the share of positive answers typically increasing with the strength of position. Generally, rewarding policies and feedback practices were identified as the biggest challenges to productivity improvement.

### 5.5 Conclusions

According to our core papers, the most important aspects of good management practices that promote both organizational performance and working conditions can be summarized as follows:

- Generally, the importance of nonhierarchical, dialogue based and participatory leadership practices are emphasized. This conclusion is very strongly supported by the above summarized core and supporting papers, covering a wide range of industries: Andreeva & Kianto (2012), Fey *et al.* (2009), Jones *et al.* (2012), Koski *et al.* (2012), Pyöriä (2005), Saari & Talja (2009), Seppälä (2006), Talja *et al.* (2009), Tiuraniemi (2008) and Yliruka & Karvinen-Niinikoski (2013).
- The focus is on management as an activity, rather than characteristics individual managers. Good leadership is not related to personal features but rather to skills that can be developed (e.g. Talja *et al.* (2009), Tiuraniemi (2008), Viitala (2005) and Yliruka & Karvinen-Niinikoski (2013).
- ICT and other technological tools are often overemphasized in relation to human related practices (Andreeva & Kianto 2012, Pyöriä 2005).

- In the core papers, besides the activities of managers as individuals, considerable attention is paid on the organizations' general human resource management and knowledge management practices.
- Flexible and versatile working and human resource management practices are needed e.g. in the case of aging workers on the public sector; aging is an especially big demographic issue in Finland.

Besides the conclusions based on what has been highlighted in the analysed publications, it may be interesting to try to identify such working life related issues that are topical in the Finnish working life and in the current Finnish public and political debate but not covered in our analysis above. There are several that either are completely missing or surprisingly weakly present in our core (and net) paper datasets:

- The case studies typically deal with quite successfully conducted change processes in successful companies. However, it would be good to be able to learn also from analyses of less well-functioning practices in less well successful firms.
- There is a lot of discussion going on about the demographic change in Finnish working places. The so-called large age groups, born in the end of 40s and in the beginning of 50s are retiring and young people ("the Y generation") with their completely different expectations and demands are entering into work. However, none of our identified papers dealt with issues related to managing young employees.
- Correspondingly, the Finnish society, which has been culturally much more homogeneous than many other countries in Western Europe, is becoming more and more multicultural due to immigration. This affects, of course, also the Finnish working places. Despite of this, the multicultural aspects of managements haven't been dealt with the analysed papers either.
- One important aspect in Finland has been the current turbulence in the Finnish IT sector. For instance, former Nokia employees have created many small innovative new start-ups. This development is at least not yet largely reflected in published journal articles.
- Despite the change going on in the educational sector, another uncovered area was teachers' work, both in schools and universities, where our searches grasped a few papers written from the students' point of view.

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## 6. Norway – National findings

*Hans Torvatn, Tove Håpnes*

### 6.1 Key features of Norwegian work life

The Norwegian work life shares many similarities with the other Nordic countries such as (Munkeby *et al.* 2010):

- Universal welfare system and a large public sector.
- High employment rate and a high proportion of women in work life.
- Small differences in wage level and high social mobility.
- Centrally coordinated wage system, local negotiations at enterprise level.
- Strong tripartite cooperation between government, trade unions and business confederations.
- High degree of involvement and participation at enterprise level.

Added to this could be a relatively strong Occupational Health and Safety regime, with rules on participation, training (including training of management), safety representatives, and regulations requiring systematic OHS work (Forseth, Torvatn, & Andersen, 2009). As the other Nordic countries Norway has increased the educational level of its population, and hence its work force, and the shift from agriculture to industry to service has been going on for some decades. It should be mentioned though that the percentage of work force in industry has been stable at around 15% for some time, however expectations are always on decrease, not increase of this percentage. Structurally the Norwegian private work life is, as all other countries, made up mostly by SMEs, in 2010 there were 980 enterprises with more than 200 employees, these 980 employed 20% of the total work population then. But this is probably one of the aspects of work life that is most like the rest of the world. While many of these features are quite different from the rest of the world they are shared with the rest of the Nordic countries, and as such

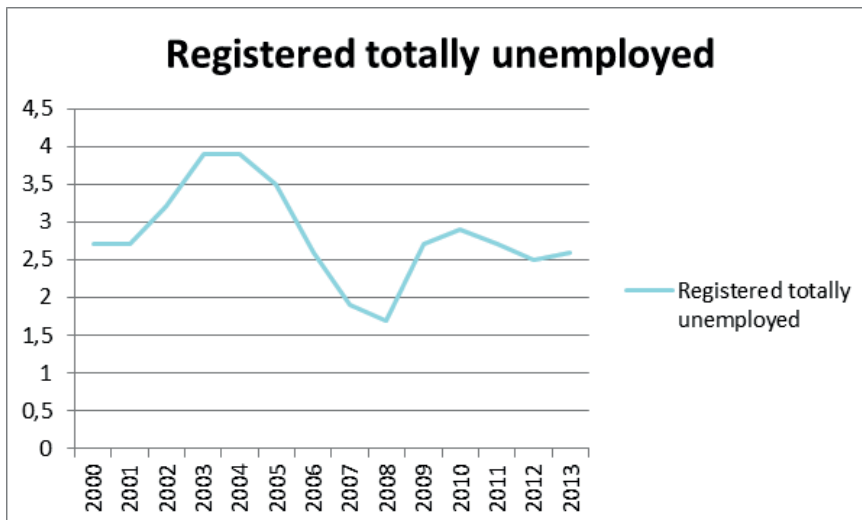
should be expected to create a similarity in research traditions with the other countries.

There is however some differences between Norway and the other countries that might affect the research conducted on work life. We will mention the following:

1. An even lower employment rate than the other Nordic countries.
2. A high degree of work migration into Norway the last decade.
3. A lower degree of unionism than the other Nordic countries.
4. Norway is not a member of the EU.
5. The importance and effect of oil and gas industry in Norway.

The two first are probably the most important. The unemployment rate in Norway has been low for decades, and even the financial crisis in 2008 has not hit Norway hard:

**Figure 33. Percentage of registered totally unemployed in Norway. Source: Statistics Norway**

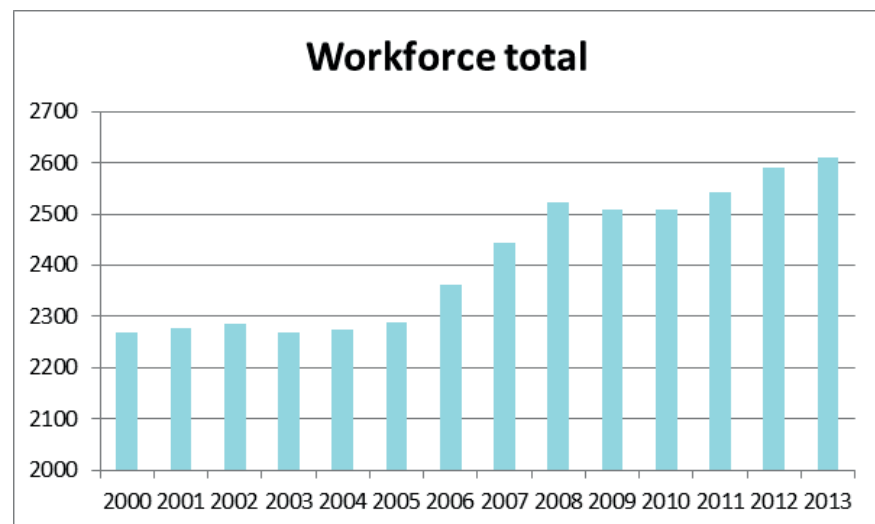


The levels in the other countries have varied, but however we see it unemployment has not been a big problem in Norway in the period we are investigating. Further, in the same period the work force has grown from 2,269 thousand to 2,609 thousand, a total of growth of 340 thousand.

In a situation where unemployment has been permanently low it is unsurprising that the growth has come through work migration. In some sectors, like the construction industry, approximately 1 out of 4 workers

is Non-Norwegian (Torvatn & Finnestrand, 2011). Some of this migration has been inter-Nordic, but even more so there has been an influx from Eastern Europe and the Baltic states. Poland is the biggest single contributor; a very rough estimate would place 100 thousand Poles working in Norway these days. Not all of these will be in Statistics Norway registers. This has led to some research on working conditions and migration in Norway, important themes have been social dumping, exploitation, (un)equality issues, threats to the Norwegian work life model and so on. One of the major research institutions in Norway now has a whole division dedicated to this research (FAFO Øst), but it is less clear to what degree this research has focused on productivity and management issues. As this research is growing it can be expected to include this in the future.

**Figure 34. Growth in total workforce in Norway 2000 to 2013, numbers in 1,000**



A little less known fact is that Norway has lower labor organization than the other Nordic countries. In 2007 the percentage of unionized workers were 52, slowly declining (Munkeby *et al.* 2010). However, relative to the non-Nordic states Norway has a high degree of unionization, and the tripartite model is still strong. This may not affect research in the area of work much.

Norway is not a member of the EU, but the Economic Cooperation Space membership provides most of the benefit (like market access) and Norway is also above EU standard in implementing EU regulations. The regulations and the court decisions on work life binds Norway as well, in

most cases. This should not create differences between Norwegian research and the other Nordic countries.

Finally, Norway is an oil and gas producing country and enjoys large income thanks to this. In absolute numbers relatively few are working directly with the oil and gas industry (1%), but the effects on the work life is profound and goes far beyond those working directly. Of course this source of income is what drives the growth, but it also affects research on work life. The oil and gas industry has a major interest in occupational health and safety, especially safety, and promotes research in that area. Its working methods (are also both copied (as an ideal) and forced (through contracts) on the rest of work life. For instance the so called "Internal control" of OHS was a model developed in and for big oil companies, which has subsequently been made into regulations covering all Norwegian industry. We might therefore expect safety based studies as well as oil and gas case based studies.

## 6.2 The Norwegian search

The Norwegian search was conducted as outlined in section 2.2. It covered both national and international databases and from the beginning we included report, books and thesis. The search was carried out from June to December 2013, with only refinement in 2014. The search had three clear phases:

- Initial search: 288 publications identified
  - On management, productivity and work environment.
  - 83 on management and occupational health.
  - 183 on management and productivity.
- Scopus search: 42 publications identified.
  - 11 covering management, productivity and work environment.
  - 22 on management and occupational health.
  - 9 on management and productivity.
- Handpicked works from grey literature/books/thesis.
  - 13 on management, productivity and work environment.

In phase one the most important source for identifying works were Web of science, the journals and BIBSYS. In this search we identified reports, books, theses (master and PhD level) in addition to journals and confer-



ence papers. The Scopus search yielded fewer publications, but these were limited to journal and conference papers. It also had a higher proportion of management and occupational health. The handpicked works were found on webpages and publication lists from research agencies known to do research in this area.<sup>4</sup> Adjusting for duplicates we got 322 unique works, of which 203 were journal papers. The complete Norwegian gross reference list of publications can be found in Appendix N1.

The classification above was done on minimum abstracts and introductions, in some cases we had to do full text analysis. Based on the above (removing duplicates) we identified a set of 36 publications supposedly including empirical analysis on the relationship between management, productivity and working conditions.

Full text analysis reduced the number of works focusing on all three topics even more. Analysing the various works in-depth and in full text for the most relevant we found 27 works possible core works. The core work set was further reduced to 12 core journal publications when we decided to concentrate on journals only. However, in section 6.5 we will add some comments on these non journal publications as well as some support works.

### 6.3 The overall publication pattern in Norway

Before looking at 12 core publication we will look closer at the gross set of publications, to see what they can tell as about Norwegian research on work, management and publications. The 322 identified Norwegian publications were distributed in the following publication types:

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<sup>4</sup> FAFO, SINTEF, AFI, NOVA, IRIS.

### 6.3.1 Publication types

**Table 9. Gross Set of Norwegian publications on management, productivity and working conditions by publication type, 2000 to 2013**

Publication type	Number identified
Book sections	3
Books	35
Conference proceedings	12
Dissertations (master and PhD level)	45
Journal papers	203
Reports by research institutions	24
Total	322

As we can see journal papers is by far the most prominent publication form, accounting for 2/3 of the publication. Searches in databases tend to find these since journal publications almost always have abstracts and key words to search in. Databases are also building atop on journals.

Then we have quite a number of thesis registered, this is due to the Norwegian library system and database BIBSYS which registers these publications systematically. The number of reports identified could be seen as low, especially given the strong tradition of work life research in Norway and the length of the time period (14 years). Almost all reports from institutions like FAFO, AFI, NOVA and SINTEF could be said to include something on at least one of the three topics. However, work life research is quite a broad theme and would include studies on inclusive work life and absenteeism; work migration, corporate social responsibility as well as other topics which may not fit the search criteria. And when we try to combine two of the three topics the number drops quickly.<sup>5</sup>

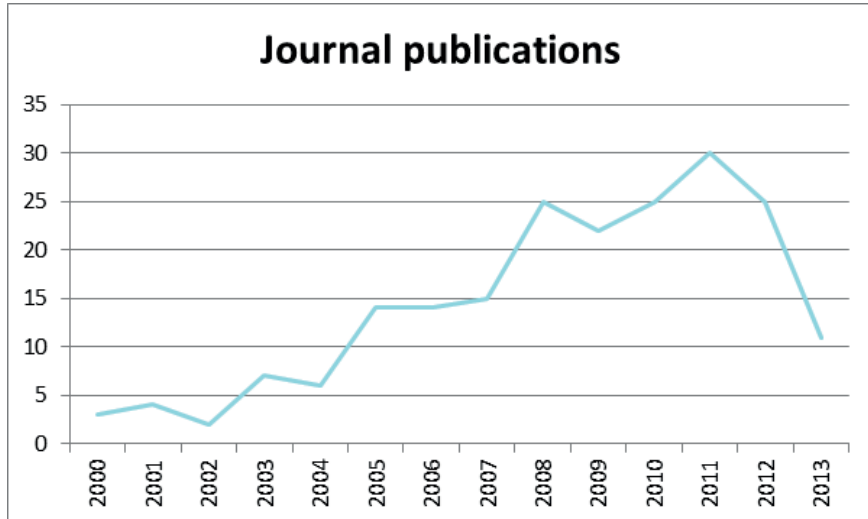
Unsurprisingly there are a number of books on these topics, there is much research going on, and there is a large interest in these topics among students as well as the general public. A book could also be seen to be a good vehicle for discussing three rather broad topics. Regarding book section and conference proceedings the low number is probably due to the difficulties in finding them.

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<sup>5</sup> We also noticed that the researchers were not always diligent in reporting keywords and writing titles that made for easy identification in the searches. Cool and non academic titles make nice presentation, but after a few years they may be difficult to find through searches. We are guilty of this ourselves and have seen it from others.

### 6.3.2 Journal publication patterns for Norway

**Figure 35.** Number of journal publications in Norway from 2000–2013, gross set identified, total 203



We can see a clear increase in the number of publications from 2000 to 2012. The drop in publications in probably due to the time of the searches, carried out in fall 2013. While part of the increase is probably due to improvements in database and registering practices some of it must be due to an increase in publishing in journals among Norwegian researchers. Being part of the field we certainly feel the pressure to publish.

Where are the papers published?

**Table 10.** Norwegian papers distributed across journals by frequency

Journals used 3 times or more	64
Journals used 2 times	30
Journals used once	109
Total volume	203

The papers were published over a wide set of journals. Of the 203 papers 109, or 60% were published in journal that were not reused in the period. 30 papers were published in journals with one reuse, and 64 publications were in journals used 3 or more times. The most important conclusion we can draw from this is that the researchers are more interested in finding a publication outlet than establishing and participating in some sort of tradition in the field. We should however distinguish between publication outlet and content of the publication. Given the many different possibilities for papers on the three topic areas it is still

possible that there is a tradition to be found by analysing content of the papers, instead of looking at the publication outlets.

**Table 11 Journals used three times or more for by Norwegian researchers**

Journal name	N
Magma	12
Safety Science	10
Scandinavian Journal of Psychology	5
Tidsskrift for Norsk Psykologforening	5
International Journal of Human Resource Management	4
Personnel Review	4
Scandinavian Journal of Organizational Psychology	4
Tidsskrift for den Norske Lægeforening	4
Work & Stress	4
BMC Health services research	3
Human Resource Management Journal	3
Journal of nursing management	3
Nordiske organisasjonsstudier	3

If we look at those journals that have been used repeatedly we get the table above. The most popular journal for publishing on management, working life and productivity issues is Magma. Magma is a Norwegian journal for economics and administration, and is owned by the ECONOS, the Norwegian association for economists. As such it is a peer reviewed society for a professional organisation, and similar to “Tidsskrift for Norsk Psykologforening” (Journal of the Norwegian psychologists) and “Tidsskrift for den Norske Lægeforening” (Journal of medical doctors). The interests of economists and psychologists in these topics are unsurprising, but the interest from doctors somewhat surprising. Note however the “BMC Health Services Research” as well as the “Journal of Nursing Management”, which taken together shows that there is an interest in research on management, work conditions and productivity in the health sector. Given the size of the health sector in Norway this is not surprising. Regarding psychologist, there is a clear cluster of papers in psychology oriented journals, three out of the thirteen journals use the word psychology in their title.

The second most popular journal is Safety Science. Here we can probably see some effects of the oil and gas sector, there exists a lot of funding, interest and competence on safety in Norway, it is to be expected that this also result in publications. Although not on the list there were also publications in journals on risk management, a clearly related topic.

Two journals on personnel/human resource perspective are as should be expected in such a list. The Work and stress journal would seem logical for this kind paper. The same for the Nordiske Organisasjonsstudier (Nordic Organizational studies).

Finally, there are some traces of Scandinavian and Nordic co-operation, in the three journals with Nordic/ Scandinavian in their names. However, we do not know the content of the publications here, it may be that the papers focus on Norway only.

To sum it up we find that the Norwegian work researchers do publish, and their publications have increased since 2000. They are not concerned about creating any tradition in this area, most likely focusing on getting published in reviewed journals. Still we find that psychologists, economists, human resource and safety research are dominating the Norwegian research. We also find a tradition of sector oriented research on these issues, in the health sector. The next section will present the 12 core publications we extracted from the gross set and see how they add to the picture.

## 6.4 What can we learn from the 12 core publications?

In this section we analyze the 12 core publications (Andersen, Rasch, Hochlin, Tollefsen, & Sandvik, 2009; Bang, Fuglesang, Ovesen, & Eilertsen, 2010; Brøgger, 2010; de Vibe & Konsmo, 2005; Holum, 2012; Landstad, Gelin, Malmquist, & Vinberg, 2002; Martinussen, Adolfsen, Lauritzen, & Richardsen, 2012; Rolfsen, 2013; Saksvik & Tvedt, 2009; Skjorshammer, 2001; Stensaker & Langley, 2010; Strand & Skogseid, 2013).

They are here referred to as CW1 to CW12. In Section 6.6 the publications are described according to the analytical matrix we defined in section 2.3, providing a more information about each of them and forming the underlying empirical material for the following analysis.

### 6.4.1 *Where and how is the research taking place?*

The research is taking in place the following sectors/empirical settings:

**Table 12. Sectorial distribution of Norwegian core work**

Sector/empirical setting	No cases	CW number
Hospitals	5	1, 4, 5, 6, 10
Private Service (Retail)	2	3, 6
Public organizations	3	2, 7, 9
Industry	3	8, 11, 12

The sectorial distribution of Norwegian core works is somewhat surprising. Given the small number of studies we cannot expect sectorial representativeness, but the high number of studies in hospitals is unexpected.

It is not even the health sector, but the subset hospitals that dominates sector wise. If we included health sector in general at least one other study (CW7 on youth health/welfare work in municipalities) might be included, and also CW9 includes health organizations and hospitals, but is not limited to that. On the other hand it could be argued that CW6 is really about cleaners and not about hospitals as organisation, and should be counted as something else like service work.

The three studies in industry is as expected, the Norwegian work research tradition have always had a strong tradition for working with industry. The three public sector cases are rather different, CW2 is about top management group in large public organisations, and CW9 is about change management in public sector. This is a rather different empirical setting than CW7 focusing on welfare services. Finally there is one cases in private service sector; CW3 in retail. CW6 on cleaning could be seen as equally as service sector study than a hospital study, but the case study takes part in a hospital, even though that seems to matter little to what is done.

There are some rather large sectors missing. There is almost nothing on private sector services. There is nothing on ICT, Finance, Consultancy, Construction and Schools. However it should be pointed out that while we are able to identify sector for all cases, little analytical is being made out of the setting. The setting is just where the empirical studies happen to take place, even in hospital studies there is little reflection on sectorial differences. The focus of the studies is never sectorial differences.

While the sectors studied are somewhat concentrated the methods employed are much more varied:

**Table 13. Main methodological approaches employed in the Norwegian core works**

Method	Number of cases employing it	Core work number
Register data (prevalence)	1	1
Observation	3	2, 8, 11
Self reported data	1	2
Participatory/action research	3	3,10,12
Interviews (in-depth)	5	4,5,8,9,11
Experiment (field and quasi)	2	6,7

As we can see the dominating method is interview, variations of the qualitative in-depth interview. Both group interviews and individual interviews are included. We have 5 cases employing this as a major method. The next method is the action research. While we can assume that interviews have been carried out also in these projects the underlying idea of AR is to support development, not to get stories on what happened. We also have two variations of experiment, and while the controlled random experiment is missing there are at least control group

and repeated measurements. While experiments and action research can be considered to be two very different methods from an epistemological point of view they share one important similarity: they are used to study interventions. Thus, we have 5 studies out of 12 with an intervention focus.

Observation was part of three studies, two cases studies (8,11) and the study of top management teams (CW2). Register data (the prevalence studies in CW1) was employed in one study, and CW2 also employed self reported data from the researched group. Interestingly enough one method is missing, the grand survey. None of the studies have employed surveys as a main method, although it has been included in the experiments. Why this is the case we do not know, but a possible explanation is that the survey is very much tailored to individual experiences. Surveys are therefore good to employ for studying aspects of management and working conditions in an empirical setting. However, surveys are not so suited for group or organizational level variables, and work performance is a variable often at group level. Thus in a study like this surveys would have to be combined with some other method. Why this has not happened we do not know.

#### ***6.4.2 What does the core publications tell us about the relationship between productivity and working conditions?***

A key issue in this study is to investigate what the research says about the relationship between productivity and working conditions and management. The 12 core publications all have information about this, but not at the same level of detail.

We have used a pretty wide interpretation of productivity as well as working conditions in this report. The results presented in section 6.6 can be summarized as shown below:

**Table 14. Summary of relationship productivity and working conditions in core cases in Norway**

CW	Productivity measure	Working condition measure	Relationship	Comments
1	Hospital acquired infections	Workload	Increase in work load increases HAI	
2	Team effectiveness	Relational quality	Increase in relational quality increases team effectiveness	
3	Transaction costs/ productivity	Participation	Lack of employee participation increases transaction costs and reduces productivity	
4	Patient satisfaction, service quality	Involvement	Increasing involvement and active leadership increases patient satisfaction and work climate	
5	Implementation of IP	Organisational culture	Organisational culture in the form of readiness for change affects goal attainment	
6	Cost reduction	Psychosocial and physical work conditions	Improving working conditions reduced costs of sickness absenteeism	
7	Service quality Level of team collaboration	Engagement Burnout	Increasing level of team collaboration increased engagement and reduced risk of burnout, but did not affect service quality	Should team collaboration be a productivity measure?
8	Teamwork	Industrial relations	Good industrial relation supported effective teamwork	
9	Goal attainment in change processes	Healthy process	A set of six managerial practices supporting both goal attainment and positive working conditions were identified	
10	Cost of conflicts, Management skills in conflict handling	Conflict level	Training and a system of handling conflicts reduces conflict level	Nothing is learned here on this because conflict level and cost of conflict are so similar. Further the results are documented for a very short period of time.
11	Goal attainment	Employee relations	A balance between these two is necessary to succeed with both in a change process	
12	Goal attainment	Collaboration between union and management	A successful recipe in one enterprise for establishing good relations and reaching change goals cannot be repeated without adjusting for local conditions in another enterprise	



We can draw some clear conclusions based on this:

While we cannot find these results in all cases (CW7, CW 10 could be dropped) we still claim that there is a clear relationship between working conditions and productivity. This relationship goes both ways, improving working conditions (especially involvement and collaboration) improves productivity (CW2, CW6, CW8) and reducing working conditions reduce productivity (CW1 & CW3). The relationship might sometimes actually go the other way (CW4, CW5) as well. As shown in CW8, CW 11 and CW12 it is necessary for management and change agents to work consciously to create the good results, while the relationship exists it is not automatic.

### 6.4.3 *What management practices are advised?*

Regarding good management practices we can sum up the advice in the table below:

**Table 15. Core Norwegian papers advice on management**

Paper	Management advices	Comments
CW1	Avoid reorganization reducing direct health care in hospitals	The paper criticizes a reform, but does not offer management advice
CW2	In work teams the management team should establish clear goals and keep communication focused.	The paper offer more detailed advice on how to do this, as does a subsequent book.
CW3	Management needs to establish some formal system for organizing dialogue and relationship with employers	
CW4	Learning networks is a valid method for creating dialogue and improving service quality. It is necessary for the manager to support such networks to succeed	The paper was an evaluation of learning networks
CW5	When implementing an organizational reform it is necessary for the manager to develop a local implementation strategy, support the reform at all times, check on progress systematically and be supportive in the process	The paper was an evaluation of learning networks
CW6	The paper tells that a set of measures for improving work life quality in cleaning, as well as leadership development programs and rehabilitation routines exists and can be employed. Details on what these measures consist of are not provided.	The paper focuses on the economic effects of implementing these measures
CW7	Training courses and establishment of inter-professional teams were evaluated, but details on these measures were not provided	
CW8	Structures external to management, such as local representation and labour management partnership supports effective teamwork	

Paper	Management advices	Comments
CW9	The paper summarizes six good management practices in change management: Behave responsible, Be available for your subordinates, tolerate uncertainty, Involve subordinates in decisions, communicate clearly and embrace the change	These advices are spelled out more in detail in a preceding report.
CW10	Establish formal procedures for handling conflicts and train management (and possibly others) in conflict handling	
CW11	In a change process there is a need to balance between three important concerns: Goal attainment concerns, political concerns and employee relationship concerns. Long term results require all and a careful navigation between them.	
CW12	When implementing a central developed procedure management needs to adapt to local traditions	

It is obvious that such a table runs the risk of over simplifying the advice and ignoring important caveats provided in the papers. However, such a table also shows how similar these advises are, even across very different topics, sectors and methodological strategies. With the exception of CW1 which focus mostly on demonstrating the negative effects of a managerial reform (the advice here would be “dont do it”, which is simple enough, but not always likely to be followed), all the other papers offers relatively clear advice to managers. And they are relatively consistent as well.

The first important lesson from these papers is not spelled out directly, but in all papers from CW2 to CW12 the authors are optimistic in the possibilities for managers to influence. It is possible to attain economic goals and have/improve a good work life quality. This is particularly important since the papers with the exception of CW2 focus on *first line and middle managers*. It is not only the charismatic and visionary top executive that shapes the enterprises and decides on success.

The second is that all the papers emphasis the need for a supportive manager, involvement, participation and dialouge. They differ in how this should be done, but not the need for it. Teamwork, training, formal procedures, learning networks; all are variants of this. We will not say that it does not matter which methods should be chosen, actually several of the papers point to the need for local strategies (CW7, CW12) so the manager should choose carefully how to establish this, but the need for it is stressed. As a comment here we would say that it is interesting that after 40 years of advocating for worker involvement, cooperation and teamwork, and within one of the most egalitarian societies in the world the need for even more cooperation is stressed. Is this due to lack of diffusion of old ideas, or an increase in expectations for participation or something else entirely?

Thirdly, there are some more detailed advices on how to succeed offered here. CW3 and CW8 both underscore the importance of formal and external systems to cooperation, both advocating for the importance of labour relations. CW2 on teamwork stresses the need for working structured with teamwork as well, and while internal teamwork systems is something quite different from labour relation structure the need for formal structure is the same. The advice of CW12 on being aware of local (in this case regional) perspectives, echoed in CW5 on implementation and CW11 on change management has been heard in other settings. Finally the need for the manager to personally be involved and support whatever change is being attempted is mentioned both in CW5, CW9, as well as indirectly in CW11.

#### **6.4.4 *What topics are of particular interest in Norway?***

The topics touched upon in all works except CW1 is collaboration/participation. It is not always at the core of the paper, but it is there and is always promoted. Less frequently mentioned but still found in several works is the following

How to successfully achieve change is/ change management is discussed in five core works: CW7, CW8, CW9, CW11, CW12. Here we have included CW8 because successful implementation of a governmental reform is of course change work. CW1 does indeed discuss effects of a change, but not the change process itself and is therefore something else.

Teamwork- discussed explicitly in CW2 and CW8, and part of CW7. It is indeed logical when advocating collaboration and participation to be concerned about teamwork, and the core paper offers advice both on team effectiveness as well as the need for support structures.

It should also be mentioned here that five of the papers (VW1, CW4, CW, 5, CW6, CW7) explicitly states that an evaluation is part of what is being conducted. CW11 on change management trajectory could easily be interpreted as an evaluation of three different change management strategies, but does not say so in the paper. Also CW12 can be interpreted as an evaluation of two different change processes, again this is not stated explicitly. However, what these papers do is indeed evaluative, they describe the process and offer judgment on good and not good practices and strategies based on a coherent analysis of pro and cons along several dimensions. This point about analysing several dimensions in an evaluation might actually explain why there are so many evaluative papers here. Evaluations are by their nature often quite broad in their scope, and it can be necessary to balance pros and cons of several di-

mensions against each other this may explain why so large a proportion of the papers are evaluations. We searched for papers covering several dimensions and found evaluations.

## 6.5 Supporting and grey literature

As mentioned earlier we decided to concentrate the analysis on the journal papers, for reasons outlined in section 2.3. However we had in Norway identified already 15 possible additional core works that were either reports, thesis or books. We have not conducted a complete analysis on these 15 works as the 12 in section 6.4, but below are their titles and author:

1. Democratic lean?: work systems in Norwegian industry (Ingvaldsen, 2013).
2. Demokrati i arbeidslivet: den norske samarbeidsmodellen som konkurransefortrinn (Levin, Nilssen, Ravn, & Øyum, 2012).
3. Endringsledelse: eksempler og modeller (Kristensen & Statskonsult, 2000).
4. Gamle og nye produksjonssystemer – nye krav til ledere og operatører: en studie av møbelkonsernet Ekornes. (Moland, 2003).
5. God ledelsespraksis i endrings-prosesser: eksempler på hvordan ledere har gjort endrings-prosessen til en positiv erfaring for de ansatte (Øyum, Andersen, Buvik, Knutstad, & Skarholt, 2006).
6. How can employee empowerment be made conducive to both employee health and organisation performance? An empirical investigation of a tailor-made approach to organisation learning in a municipal public service organisation. (Hauge, 2011).
7. Lean på norsk : med erfaringer fra Raufoss-industrien (Johnstad, Gjæver, Holtskog, & Strand, 2012).
8. Konkurranseutsetting og nye organisasjonsformer i norske kommuner. (Moland & Bogen, 2001).
9. Leading to the extraordinary?: Antecedents and outcomes of transformational leadership (Hetland, 2004).
10. Nærværende lederskap og tverrfaglighet i pleie- og omsorgssektoren: arbeidslagsmodellen i Rykkinn, et pilotprosjekt i Bærum kommune. (Moland & Holmli, 2002).

11. PALU: Utvikling og praktisering av den norske samarbeidsmodellen. (Øyum *et al.* 2010).
12. Sammen er vi sterke. En historie om nedbemanning i Nortura. (Hertzberg, Andersen, & Alsos, 2009).
13. Management in Scandinavia: culture, context and change. (Schramm Nielsen, Sivesind, & Lawrence, 2004).
14. Does team management matter? A study of impacts on job satisfaction and organizational commitment in mental hospital departments. (Skudal, 2009).
15. In search of Nordic management styles (Smith, Andersen, Ekelund, Graversen, & Ropo, 2003).

Some conclusions can be drawn on this as well. First we can see that the most popular topic is management, mentioned in 9 of the 15 works (numbers 3, 5, 9, 10, 11, 12, 13, 14, 15). Two of these (3 and 5) focus on change management, the other on others aspects. At least four of the papers are evaluations of something (4, 10, 12, 14) and no 8 could be seen as an evaluation of competitiveness. Of the 15 works 5 of them are from industry (1, 4, 7, 11,<sup>6</sup> 12), we have 3 in public sector (6, 8 and 10) but only 1 in hospital (14). This is also the only one dealing in teamwork. The lower frequency of hospital experiences are likely due to different publishing traditions, but may also be because we have not searched explicitly for hospital related reports in research institutions carrying out health organization studies. Several exists.

Overall the picture is that the research interest and topics are the same in the two groups of works. Adding these 15 works to the total would probably only have altered the main conclusions slightly. Cooperation, involvement, participation and so on is central in several of these works as can be gleaned from the title, or a study of their abstracts. Almost the only new topic brought to the table by the additional works is lean production, an important topic because it has been so widely employed in many different settings the last decade. Analysis of Lean may have provided some new insights, but otherwise the main conclusions would have hold. What we would have gotten were more nuanced and broader insights in the details on how to establish fruitful participation.

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<sup>6</sup> The PALU paper is six industry enterprises in Trøndelag.

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## 7. Sweden – National findings

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### 7.1 Introduction

There are many who testify that there is a Nordic tradition in terms of leading and organizing workplaces (Adler 2013). This is characterized by for example sociotechnical forms of work organization, dialogue forms of management, informal communication, cooperation with the unions, decentralized decision making, influence in and over work, advanced competence development and descent working conditions. At the same time, we can see big changes in the labour market. These changes can be characterized by a transformation from an industrial logic to a service-based production, interaction between different activities and organizations as well as globalisation (Castell 1996, Eriksson 2008, Berglund & Schedin 2009). The question is whether and, if so, how this affects leadership, working conditions and productivity/efficiency in the workplaces.

The aim of this chapter is to show and analyse the Swedish results of a review of literature that addresses these three areas with an integrated approach. We will describe different kinds of attempts and strategies to integrate good leadership, good working conditions and competitive businesses/efficient public organizations in the 2000s.

As a background, initially the Swedish labour market and the Swedish industrial relations are briefly described. Thereafter the search process is presented through which we found the literature we were after. Then follows a presentation of the literature and the report concludes with an analysis of the publications described.

## 7.2 The Swedish labour market and industrial relations

The labour market is an abstract market consisting of those who hire labour force and those who hire out their labour force; the employers and the employees. Those who hire labour force are of various kinds, such as big companies, small companies, public authorities or organizations, non-government organizations as well as individuals. In the end, those who hire out their labour force are always individuals (Furåker 2009). Parnes (1968) has identified some further actors on the labour market: the trade unions, the employers' associations and the state. The labour market in Sweden cannot be understood without considering both the organizations on the labour market and the state. There is a special Swedish labour market model, which is well-known around the world. Even though there have been economic-political reforms and changing balances of power in the labour market, the Swedish model essentially has been consisted (Magnusson & Ottosson 2012). The main elements of the model can be summarized as follows: central bargaining, collective agreements based in voluntary agreement between the social partners, no government interference in collective bargaining, peace obligation under the contract periods and a wage solidarity policy (Berglund & Schedin 2009). By far the most predominant feature of the Swedish model is the high degree of organization. This applies to employees and employers alike.

The total number of individuals in the Swedish labour market (employees) amounts to around 4.2 million. The majority of these are employed in the private sector. However, over the past few decades the public sector has expanded very substantially and nowadays almost 32% of all employees are public employees, some three quarter of them in local-government employment. Looking at the labour market from a gender perspective we can conclude that men and women are in different parts of the labour market. 18% of the men are working in the public sector, while 46% of the women work there. We have relatively large gender segregation in the Swedish labour market. The industry sectors that employ the most people are the health and care industry, the financial industry and manufacturing. In Table 7.1 the distribution of employees in various industries are presented in total and among men and women separately.

**Table 16. Distribution of Swedish employees in different industries in total and divided into men and women 2013. Percentage**

Industry	Total	Men	Women
Agriculture, forestry and fishing	1	1	0
Manufacturing, mining, energy and environment	13	20	7
Construction	6	10	1
Trade	11	13	10
Hotel and restaurant	5	8	2
Transport service	3	3	4
Information and communication	4	6	3
Financial intermediation, business services	15	16	14
Public administration	7	6	8
Education	12	7	18
Health and social care	18	6	28
Personal and cultural services	5	4	5
N	4,157,500	2,077,000	2,081,500

Source: Arbetskraftsundersökningarna (Labour Force Survey), Statistics Sweden (2014).

Also here we can see the gender differences. Men can mainly be found in manufacturing, financial, trade and construction industries while women mainly are active in health and care, education, financial and trade industries.

If you compare IR-systems in different countries it is usual to distinguish between a Nordic, a continental and an Anglo-Saxon IR-system (Kjellberg 2009). Characteristics of the Nordic model, to which Sweden belongs, are the collective agreements; focus on cooperation and party regulation rather than state regulation. The collective agreements are written agreements between employers' associations (or employers) and trade unions regarding employees' terms and regulate the conditions of employment and other aspects of employer/employee relations.

Sweden has a high degree of union density. About 70% of the wage earners are members of a trade union. Another feature of the Swedish labour market is that the relationship between the unions and the employers is characterized by cooperation and negotiation rather than confrontation. This is due to the fact that the parties are of equal strength (Kjellberg 2009). Compared to the situation in many other countries, the Swedish trade unions have reached many of their goals. There is no doubt that this is an important reason for the high level of membership in the Swedish trade unions. Together with Denmark and Finland, Sweden has the world record for unionization. It might be paradoxical that the Nordic countries, normally seen as welfare states with far-reaching ambitions, have the world's most class based trade unions with specific trade unions for blue-collar workers, university educated employees and other white-collar workers.

In the same way as the employees are organized in trade unions, the employers are organized in employer's associations. Also among them, the

level of membership is high: about 75–80% of the employees are working on companies associated to an employer's association. In the private sector, the Confederation of Swedish Enterprise is the dominant employers' organization alongside a small number of autonomous associations such as the Banking Employers Association and the Newspaper Employers' association. In the local-government sector there are two associations the Swedish Federation of Local Authorities and the Federation of Provincial Councils. The former consists of some 290 municipalities (the smallest local administrative unit) while the latter consists of some 20 regional bodies. In the state sector (i.e. central government) the relevant employers' association is the Swedish Agency for Government Employers.

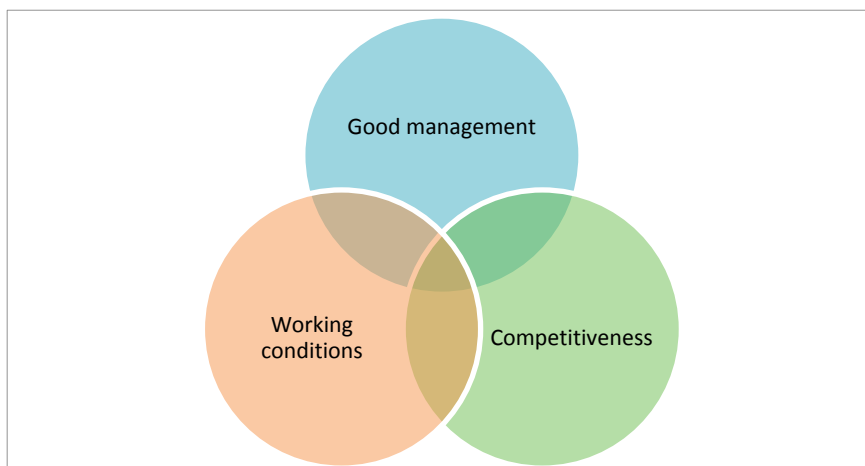
The state is a big employer. However, the state also plays an important role when there are conflicts on the labour market, and is responsible for the labour market policy. This policy has three main tasks: To channel work to the unemployed and labour force to the employers; to combat recruitment.

Problems and finally to take initiatives to help those who have difficulty obtaining work in the regular labour market. The labour market policy is administrated by the central government agency, the Swedish employment agency (Arbetsförmedlingen).

### 7.3 Search methods

After this introduction, we go on to describe the Swedish search process. The searches are based on the following model, developed within the project.

**Figure 36. Number of found publications structured by the search model. Sweden**



We have focused on three areas during the searches. These are management, working conditions and productivity. All three areas are seen in a very broad sense and are represented by various concepts respectively.

The searches in the different databases have been carried out in three steps based on keywords, title and abstracts respectively. In the first step, the searches started within each main area (circle in the model). Secondly, the areas were combined two and two which means that we were searching for literature on management *and* working conditions, on management *and* productivity as well as on working conditions *and* productivity. In the last step, finally, all three areas were included: management *and* working conditions *and* productivity. The results of this search are presented as the *relevant results* from the different databases. Our searches cover the period 2000–2013 and they are confined to peer-reviewed literature in certain disciplines and contain books, articles, dissertations and book chapters.

### **7.3.1 Databases**

OneSearch is the University Library's search tool for common searches in full-text databases, reference databases and the local library catalogue at Karlstad University. OneSearch is a good place to start a literature search, because it provides users with an easy, yet powerful means of accessing most of an institution's information resources through a single search. It makes it possible to search quickly across many resources at once, rather than searching individual databases. The results can be limited based on a number of facets, including date range, source type and full-text availability. In our case, the limitations were publications about Swedish conditions within the disciplines of Sociology, Economy, Psychology, Business administration and Leadership.

Scopus is a multidisciplinary database of scientific literature and web resources with abstracts and citations. Scopus contains scientific journals many of which are Open Access journals. The publisher Elsevier owns Scopus. Our search in Scopus was confined to the disciplines Sociology, Business administration, Economy, Decision and Psychology.

SwePub contains references to research publications registered in about thirty Swedish universities' databases. SwePub provides a single entry point to scientific publications at Swedish universities. Here you have the opportunity to search through peer reviewed articles, conference papers, and dissertations. However, all disciplines are included since the database did not allow a limitation to select specific areas of

science. In SwePub, it is possible to use search terms in either English or Swedish and still find publications in both languages

Libris is a national search service providing information on titles held by Swedish university and research libraries, as well as about twenty public libraries. Here you can find books, periodicals, articles, maps, posters, printed music, electronic resources, etc. The National Library of Sweden is responsible for the operation and development of this online search service. Libris the joint catalogue of the Swedish academic and research libraries and is updated on a daily basis. The libraries providing cataloguing input all contribute jointly to building up the databases contents. At present the Libris database contains 7 million titles. Also in Libris, it was possible to use Swedish search concept but still find publications in English as well as in Swedish.

Other sources are *Scandinavian Journal of Public Administration* for the years 2010–2013 and the predecessor *Kommunal ekonomi och politik* from 2000 to 2009. Of 269 abstracts it was relevant to read the whole articles in five cases. One of these was assessed as relevant in all three areas. The Swedish journal *Arbetsmarknad & Arbetsliv* for the period 2009–2013 contains 91 articles.

We used keywords in English as well as in Swedish. For working conditions we used the keywords “working conditions OR work environment OR employees”. Management was operationalized as “management\* OR leader\*”. Regarding productivity, this area was covered by “productivity OR efficiency OR service quality OR innovation”.

In Swedish the search concepts were “Arbetsvillkor: arbetsvillkor OR arbetsmiljö OR anställda”.

“Management: management OR ledn\* OR ledar\*”, “Productivity: produktiv\* OR effektiv\* OR servicekvalit\* OR innovation”. In Libris we did not include the word “anställda” (employees) in the area of working conditions (arbetsvillkor). The reason for this was that we got too many irrelevant publications.

**Table 17. The results from the searches in OneSearch, Scopus, SwePub and Libris**

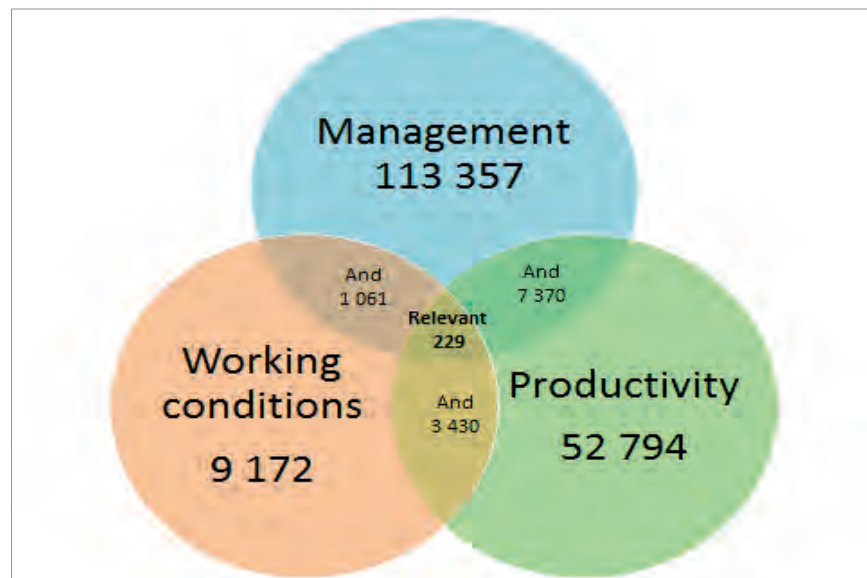
Keywords	Results	Results	Relevant results
Working conditions	9,172		
Management	113,357		
Productivity	52,794		
Working conditions AND Management		1,061	
Management AND Productivity		7,370	
Productivity AND Working conditions		3,430	
Working conditions AND Management AND Productivity			229

From the literature search we can conclude that there is a great deal of literature on the three areas one by one, especially regarding management and productivity. However, when it came to the search, which includes all three areas we only found 229 publications.

### 7.3.2 Summary of the search results

From Figure 37 we can see that most publications were on management, followed by productivity and least could be found on working conditions. When combining two areas, there were most publications on management and productivity and less on management and working conditions. In total, the different searches generated 229 relevant documents, i.e. publications containing management and working conditions as well as productivity.

**Figure 37. Number of found publications structured by the search model. Sweden**



These documents were subsequently valued and assessed regarding their relevance for our study. The purpose of this assessment was to find the publications that constitute the core of our literature review. The following describes how this process has been carried out.

### **7.3.3    *The selection process***

The selection of the core publications was done in three steps. Firstly, the 229 documents in question were compared on an overall level based on title and authors. Duplicates between the databases One Search, Scopus, Swepub and Libris were now eliminated. After this structural analysis, 213 relevant works remained. Thus, the different databases did not contain many duplicates. Secondly, there was a review of the abstracts. They were here assessed whether the publications really contained all three criteria; management, working conditions and productivity. Further aspects, which excluded publications in this step were:

- there was lack of empirical study
- there was a theory-generating study
- the content was not relevant for our purposes,
- the publication was Swedish, but described other countries or cultures.

This step in the selection process resulted in 58 publications that were considered still relevant. Thirdly, there was a review of the remaining publications in full text. After this review, we sorted out the core results of the Swedish literature search and got 28 publications. Characteristics of the publications that were discarded in this step were:

- they did not touch all three main areas even though they were mentioned in the abstract
- their content was not relevant.

### **7.3.4    *Other sources***

Other sources resulted in 7 more publications where research within the area was presented.



**Figure 38. The results of the selection process Sweden**

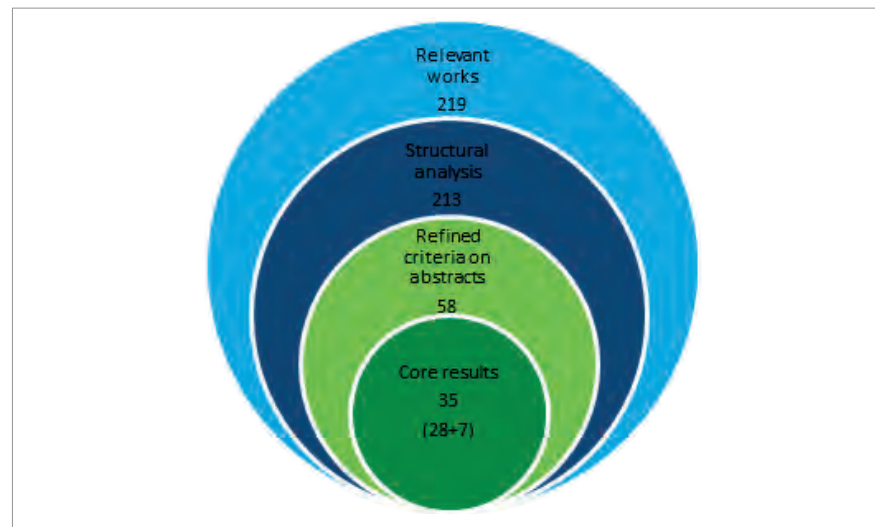


Figure 38 shows that the result of the database searches and other sources now contained 35 publications. These have been summarized according to a common structure including; author, title, publisher and kind of publication empirical setting, background and aim, methods and materials, production / management system, employees working conditions, performance results main message, theoretical tradition / international research, exclusion / inclusion and finally what does the researcher want to tell us.

### **7.3.5 Summary of the core results**

The core results can be summarized in 20 articles, since we decided that licentiat dissertations, doctoral dissertations, conference paper and books should not be included. The articles have been published in 19 various journals. One common denominator is that 12 of these journals are combined with the area of management. The studies mainly concern businesses in manufacturing, public sector, preferably in healthcare, banks and post office.

## **7.4 Results**

In the result section we shall give a brief description of the contents of the 20 articles we have reviewed including the results of our analysis. We begin by presenting our point of departure in our analysis work and by describing which methods have been used in each core article. In the

concluding section we shall present our conclusions and suggest ideas for further research.

Our analysis put focus on differentiating between studies that focus on successful change processes in practice, from other studies that presents possible change processes of practice. The sociotechnical tradition emphasises that there is a strong link between the technical and social system in organisations (Trist & Bamforth 1951). One of the pillars in this theoretical tradition is to expect that changes needs to take place simultaneously in both systems when changes are implemented in either of the systems. Core results from our analysis show that there are examples of studies where we can identify that there exists an uneven balance between the two systems according to above assumptions (Arvonen & Pettersson 2002; Dabhilkar & Bengtsson 2004; Hemphälä & Magnusson 2012; Krok & Eklund 2010; Neumann *et al.* 2006). This means that our analysis cannot verify that working conditions have improved as a result of change processes implemented to improve company performance; instead they focus on suggesting change processes in order to improve working conditions.

Nevertheless, our analysis show examples of studies where management have been successful in improving working conditions while implementing change processes with the ambition to increase company performance (Arnetz 2005; Arnetz & Blomkvist 2007; Björk & Magnusson 2009; Bäckström *et al.* 2009; Din *et al.* 2013; Grundén 2009; Kammerlind *et al.* 2004; Kollberg & Elg 2011; Larsson & Vinberg 2010; Lindqvist 2007; Pohl & Elmqvist 2010; Ryd & Fristedt 2007; Wallo *et al.* 2012; Wreder 2007; Wreder *et al.* 2007). These studies present that good leadership and good working conditions can be integrated with effective and competitive organisations. In this study we have analysed the specific characteristics of management, working conditions and effectivity/productivity in successful organisations.

Our analysis also includes a presentation of how the different research studies have been conducted. We differentiate between action research studies, interactive research, traditional research and evaluation research. The purpose with action research is to contribute to development and improvement in practise. Interactive research aims to create a common and deep knowledge between researchers and practitioners. In traditional research researchers generate knowledge about practice, without particularly extensive interaction with practitioners (Svensson *et al.* 2002). None of the 20 studies have used action research in their research design. Evaluation research evaluates practice compared to something such as targets, effects or processes (Karlsson 1999).

Five studies have an interactive approach and they are all characterized by the authors using several data collection techniques. One of these studies combines interviews with workshops (Bäckström *et al.* 2009), one study combines interviews with questionnaires (Krok & Eklund 2010), one study combines interviews with questionnaires and video analysis (Lindqvist 2007), one study combines interviews with observations (Wallo *et al.* 2012), and finally one study combines interviews with a review of documents.

Twelve studies have applied traditional research. Four of these have based their data collection on surveys, (Arnetz 2005; Arnetz & Blomkvist 2007; Arvonen & Pettersson 2002; Kammerlind *et al.* 2004), and six studies based their data collection on interviews, (Dabhikar & Bengtsson 2004; Kollberg & Elg 2011; Larsson & Vinberg 2010; Lindqvist 2007; Pohl & Elmqvist 2010; Wreder 2007). In addition, two studies have combined several methods for data collection, where the first study was based on surveys combined with document reviews (Hemphälä & Magnusson 2012), and the second study was based on interviews, document reviews and workshops. In all three evaluation studies data was collected by interviews (Björk & Magnusson 2009; Din *et al.* 2013; Grundén 2009), except from one study which also included document reviews (Björk & Magnusson 2009).

To support our analysis we have included a matrix where we have collated the specific characteristics from all the different studies (and their different methods for data collection). In this section of the paper, we shall describe the sectors in which the studies are based, and thereafter we shall give a short presentation of the 20 articles. The results are presented by alphabetical order.

Nine of the selected 20 articles describe public sector organizations and another nine articles describe private sector companies. In addition, two articles include both public and private sectors. Below we have described the type of organizations where the studies have taken place.

Four studies describe research conducted in public sector medical care organisations (Arnetz 2005; Arnetz & Blomkvist 2007; Kammerlind *et al.* 2004; Kollberg & Elg 2011). One study describes a state chemist, (Hemphälä & Magnusson 2012) and one study describes a co-operative dental clinic, (Lindqvist 2007). Finally, one study describes a waste disposal service company (Krok & Eklund 2010) and one study describes the National Road Safety Office (Grundén 2009). In addition, two studies describe both public sector medical care organisations and private companies (Bäckström *et al.* 2009; Larsson & Vinberg 2010).

Two of the nine research studies, conducted in private companies, describe private banks (Wreder 2007; Wreder *et al.* 2007), while the other seven studies mainly are based in retail and manufacturing companies (Arvonen & Pettersson 2002; Björk & Magnusson 2009; Dabhilkar & Bengtsson 2004; Din *et al.* 2013; Neumann *et al.* 2006; Pohl & Elmqvist 2010; Wallo *et al.* 2012).

Arnetz (2005) explored which aspects of leadership are important in order to cope with changes and stress factors, during the process of change, when medical care organisations are set to improve their company performance and effectivity. The author concluded that the management's ability to communicate and focus on organisational objectives can improve the overall wellbeing of their employees. In a later study, of psycho social working conditions within four hospitals, it was verified that feedback of performance and sympathetic leadership in addition to clear targets can improve employee's mental health when the medical organisation is in the process of streamlining their operations (Arnetz & Blomkvist 2007).

Arvonen and Pettersson (2002) investigated the link between leadership and organisational effectiveness in the terms of cost efficiency and effective change management. Cost efficiency requires a combination of both structure oriented and relation oriented leadership behaviour, while effective change management requires a combination of both change oriented and relation oriented leadership behaviour. A co-worker centred leadership is important irrespective of the outcome in the studies and leadership needs to be adapted to the situation (situational leadership).

Björk and Magnusson (2009) studied the link between the quality of ideas and innovation in relation to employee's access to networks. The authors concluded that it is possible to improve company competitiveness through ideas and innovations and the process of idea generation facilitates by meeting places where information and knowledge can be exchanged.

Bäckström and her collaborators (2009) were investigating several aspects of management. For example how managers created motivated employees, created a good working environment with happy customers and developed good financial results. Their study showed that in successful companies, which have acquired national awards such as "The best workplace in Sweden", the leadership can be characterized by communication and information, strategic and visionary leadership, a learning culture, and finally by a sympathetic and present leadership.

Dabhilkar and Bengtsson (2004) examined the development of strategic improvements through the means of Balance Scorecard (BSC) in three

companies. The study showed that important aspects for success to sustain strategic improvements at the operative level were motivated employees and learning opportunities. Autonomy and local management were also important factors, in addition to feedback on work performance.

Din and colleagues (2013) tried to find out how successful and competitive so-called “Hidden Champions” compete. The authors have pointed out several factors that affect the innovation processes in a positive direction, as for example private ownership, close relation to customers, producing unique products, innovations and committed employees, informal work structures and collaboration, and cross functional cooperation. Leadership based on integration and relationship oriented has also a positive impact.

Grundén (2009) evaluated the implementation of electronic-administration (e-administration) in a public authority regarding the social aspects of work processes and work situation. Implementing e-administration is an attempt to make the public sector more efficient. The evaluation showed that there is a need to introduce competence development for the stakeholders and developmental personnel in regard to the social consequences of the implementation process. The author pinpoints some social consequences of e-administration which need to get attention: how to handle stress and specifically the growing digital divide in the internal work organisations and the growing digital divide between groups in the society, such as people with disabilities and the elder generation. She also argues that the management need to clarify which targets should be top priority when implementing e-administration.

Hemphälä and Magnusson (2012) discussed how to stimulate incremental and radical innovations. Their study was based on the assumption that innovation is a social and an interactive process where collaboration and exchange of knowledge and information plays an important role for the process. The results showed that managers who wish to promote incremental innovation needs to develop tight social networks and in the cases when stimulating radical innovations the managers need to follow up on the process and develop open network structures. The authors concluded that incremental and radical innovations cannot be maximized simultaneously.

Kammerlind *et al.* (2004) examined the climate for improvement work in public medical care, within a specific county council, in regard to see how it affects patients’ and employees’ job satisfaction. Their study showed that organizations that have a well-structured and systematic approach towards improvement activities also seem to have more content employees and patients. The most important characteristics of

these organisations are their focus on meeting customer demands and needs and also their process orientation where processes are clearly defined and mapped.

Kollberg and Elgh (2011) focused on the use of Balance Scorecards (BSC) in everyday practice in three different public medical care organisations. BSC enables national comparison and contributes towards a more open health and medical care for citizens. The tool makes it possible to balance several different aspects, such as processes, targets and development perspectives, besides the financial aspects in order to achieve a good health on equal terms. The authors show that BSC can be used as a tool by managers and employees in discussions, dissemination activities, for knowledge creation, and used for monitoring and reporting. BSC can also balance different roles in the organisation, open up the organisation and create a dialogue *between management*, and gives voice to weaker parties within the organisation. Their conclusion is that it creates a better understanding of the improvement processes in the organisation.

Krok and Eklund's (2010) research was part of a cross-disciplinary research project named, "Recycling plants in Sweden, working conditions, environment- and system-performance." The purpose of the project was to analyse how managers, employees, end users and operators could have a greater impact on the environment performance in the overall recycling system. The results pointed out that managers must take into consideration that end-users expect easy accessible information on-site by better arranged containers and by better placed signs where the terminology is adjusted. The employees can then focus their efforts on the more problematic fractions of the site. The authors showed that it can be contradictory to improve the sorting process and the working conditions simultaneously, as the sorting process to remove goods, which have been placed in the wrong container, can lead to an increase of injuries. The study showed that when the workload peaks it seems to be important to have adequate facilities and access to an increase in manning to facilitate high work control. A basic task for managers and co-workers is to develop information and guidance materials for end-users, for the use at home and at the recycling plant.

Larsson and Vinberg (2010) was studying management behaviour in four successful organisations; one public medical care organisation, one retail and two manufacturing companies. Their conclusion was that successful leadership is relationship focused, and when the situation requires they apply leadership, which is structure and change oriented. The authors identified nine categories for leadership in successful organisations, listed as: "strategic and visionary leader, communication

and information, authority and responsibility, learning culture, clarity and simplicity, sympathetic and trusting, walking around, and a reflective and personal leadership” (ibid: 329).

Lindqvist’s article (2007) was based on research on the consequences of implementing employee co-operative in dental care clinics. The study showed that the employees become more aware of the costs, which lead to better finances. An increase in market competition has also lead to a more cost effective organization. The author described some consequences of the new organization, such as higher work satisfaction among employees, more variation in work tasks, increased motivation and better self-esteem and a clearer link between work and appreciation. The author pointed out the fact that it is more difficult for the commissioner to get insight information about the organizations when employee co-operatives are introduced.

Neumann and co-workers (2006) conducted a study of the transition process relating to changing the production system in a car manufacturing plant. They describe how the old parallel cell based assembly line was changed into a new production system where the assembly line was set up and aligned in series. The study explored the consequences on the productivity and the ergonomics of the employees. The new system resulted in an increased risk of strain injuries, shorter cycles with an increase in monotonous work and decreased work autonomy. Irregularities in the workload between the different workstations created a problem in managing the workflow. The authors showed that risks can be minimized, in the new production system, when group structures that are able to facilitate work rotation are introduced and when administrative tasks are included in the work. They recommended managers of operations to introduce hybrid system designs where teamwork and parallel workflows are combined, in order to improve both ergonomics and productivity. Improvements can be achieved by setting up targets and indicators for physical and psycho social work environment, in addition to introducing targets for productivity which harmonies with ergonomic targets where the work-organisation supports the workflow.

Pohl and Elmqvist (2010) investigated how a relatively small company within the car manufacturing business managed to implement radical technology changes even when resources were scarce. The company made progress by setting up precise and stable project goals, an extensive use of skilled suppliers of technology and the reuse of technical solutions. The authors showed that vehicles were used as important tools for employees in communication with top management in addition to using a bottom-up strategy to change company norms and values.

The purpose of Ryd and Fristed's research (2007) was to investigate the process of changing premises within the national mail services (Posten AB). They examined the success factors when business demands are translated and developed in collaboration with buyer and supplier. The authors identified following success factors; the importance of trustful cooperation both internally and externally, early coordination between business plans and premises, clear and communicative targets which are followed and monitored, distinct decision making processes, sufficient time for calculating facility needs, and the use of pilot projects during the implementation process. The authors also described that the company had an ambition not to disrupt daily operations during the change process. They conclude that the transition period was subjected to plenty of criticism, nevertheless it has since then been described as a successful change process.

Wallo and his collaborators (2012) researched the transition process in a company during a period of crisis. Their study described how the company management handled the economic crisis in a successful manner and they show that the actions of the management were important for the outcome. The company showed that they were competent to deal with the situation. The company management explored the situation and through successful strategic decision making, they could adapt company activities, and alternating between accelerating and breaking the pace, to survive. When accelerating they looked for new customers and markets and by growing on established markets. Braking meant to lower costs and improving company cash flow. The three most important learning experiences from the change process were to set aside time for learning at work, work actively to explore and create better relations with the employees, ensure that learning targets are distributed from the organizational level to individual level. Only specific parts of the study covered the work situation for the employees, which are related to learning.

Wreder (2007) investigated how managers at different levels in an organization work to support the development of good health and profitability in a private bank, Swedbank. This bank was awarded "The best workplace in Sweden" in 2003. The success factors for the management were to set up clear strategies including easy to follow health targets. The author showed that work for the middle management can be supported through different tools and by providing them with resources and by them developing a business perspective on health. Success factors for the middle management were to delegate and to give them mandate, create trust, and through clear communication. Other success factors were their ability to coach and trust co-workers, and to demand



results and finally to be present by walking around. Success factors for the first line managers were to be present by walking around the shop floor, create a dialogue and to build relations with the employees, and to set up targets and to follow up on performance. Communication through weekly and monthly meetings was found to be important factors for success.

Wreder and her colleagues (2007) continued the study mentioned above and compared Swedbank to smaller organizations, all of which have won the same award. The purpose of their study was to develop a model of how managers can create conditions for sustainable health. The authors concluded that there are four core values for managers and employees work; management commitment, employee influence, continuous development, and finally, customer focus.

## 7.5 Analysis

Key questions in our study were to examine how management, working conditions and effectiveness/productivity relate to each other. Our ambition, in the result section, was to give a short description of this relation and its contents, in each of the 20 studies. In the analysis section we have instead, chosen to analyse what topics and patterns that relate to management, working conditions and effectiveness/productivity are addressed in each study. We analyse both the success stories described from practice and the theoretical improvement studies. We shall present our results from the analysis, in following order, management, working conditions and finally, effectiveness/productivity.

### 7.5.1 *Management*

Our study shows those successful organisations are distinguished by communication, active and participating leadership, which is focused on building relations with employees. Learning activities and learning processes appears to be important and so is the implementation of strategic tools (cf. Renman 2013).

The meaning of communicative leadership seems to include many aspects; it is about visionary leadership (Bäckström *et al.* 2009), communicating targets (Arnetz 2005; Ryd & Fristedt 2007), appraisals and feedback on performance (Arnetz & Blomkvist 2007) and improving the wellbeing of the employees. Communication is necessary to strengthen employee relations (Wallo *et al.* 2012), however, communication need to

be clear and easy to understand for employees (Wreder 2007). Clear and explicit information is important for employees in successful organisations (Larsson & Vinberg 2010) and in order to create an effective organisation, employees are dependent on having access to good clear information in regard to customer relations (Krok & Eklund 2010). Managers are expected to create a dialogue by walking around and chat with employees (Wreder *et al.* 2007). Communication can be stimulated in a successful way when applying a bottom-up approach, this in particular when communication is related to products in the production line (car manufacturing) (Pohl & Elmqvist 2010). Issues, which relate to the implementation of strategic tools, such as BSC, can contribute towards a better dialogue between managers and employees and at the same time leading to giving voice to the weaker parts in the organisation, when communication is based on setting targets for the organisation (Kollberg & Elgh 2011).

Leadership behaviour should be adapted to different situations when organisations introduce change processes. Arvonen & Pettersson, (2002) states that leadership focusing on relationship building is demanded both when organisations aspire to decrease costs and when conducting organisational change, in order to achieve set targets. Wallo *et al.* (2012) also states that it is important to build relations with employees when organisations are in change. In order to maintaining competitive organisations it seems to be important that leadership also focus on customer relations (Din *et al.* 2013). Leadership that put focus on relationship building entails being present at the shop floor by walking around (Larsson & Winberg 2010; Wreder 2007) and participating in organisational activities (Lindqvist 2007; Wreder *et al.* 2007).

One specific issue, which is frequently discussed in the studies, in relation to successful organisations, is related to how management can create opportunities for learning (Arnetz 2005; Bäckström *et al.* 2009; Krok & Eklund 2010; Larsson & Vinberg 2010; Pihl & Elmqvist 2010; Wallo *et al.* 2012.) Arnetz (2005) show in their study that learning about organisational objectives during change processes lowers stress and uncertainty. The learning culture, which is developed by management, has a positive effect on work environment and financial results (Bäckström *et al.* 2009; Larsson & Vinberg 2010). A learning culture is distinguished by a work environment, where employees are not penalised when they make mistakes, instead management are clear to communicate that they expect the employees to make things right next time. A learning culture entails that management can communicate both negative and positive feedback (Bäckström *et al.*; Larsson & Vinberg 2010).

Management strives to recruit employees who share the company learning culture (Bäckström *et al.* 2009).

Manager's responsibility to introduce learning can be directed towards employees and towards customers (Krok & Eklund 2010). An effective waste disposal service means to involve customers in learning, and management need to improve information and communication in order to make it easier for the customers to understand how to sort the waste in an effective way (Krok & Eklund 2010).

Pohl and Elmqvist (2010) describe learning from a knowledge based perspective. Their study shows that knowledge can successfully (in a short-term perspective) be externally derived from company networks and suppliers. By connecting the management and employees to knowledge, the company developed cost effective routes to high skills, which in turn strengthened the competitiveness of the company. While implementing strategic tools, such as BSC, employees need training in using the tool, in order to learn and understand how to use it (Dabhilkar & Bengtsson, 2004).

### **7.5.2 Working conditions**

There appears to be a divide in how the contents of the good and effective work are described in relation to employees working conditions. The most prominent issues, which appear are related to learning and competence development, setting clear work targets, quality work, participation and influence and the development of good relations.

When analysing the concept of management it is apparent that the management need to create prerequisites for competence development and learning (Arnetz 2005; Bäckström *et al.* 2009; Krok & Eklund 2010; Larsson & Vinberg 2010; Pohl & Elmqvist 2010; Wallo *et al.* 2012). From the employees perspective we can point out that additional studies show that employees needs to be provided with work related learning, this in order to develop successful organisations (Bäckström *et al.* 2009; Din *et al.* 2013; Kollberg & Elg 2011; Wreder *et al.* 2007).

The studies also show that different methods are applied in the process of creating a learning culture, such as job rotation, work change, project work, and development groups in the organisation (Bäckström *et al.* 2009). Din *et al.* (2013) also point out that cross-functional work organisations and the transfer of knowledge has a positive impact on innovation. Larsson and Vinberg (2010) describe in their study how work feedback and a high tolerance for errors plays an vital role for the development of a learning culture. Some authors argue that it is necessary to

provide time for learning at work (Wallo *et al.* 2012). They (Wallo *et al.*) also point out that managers have the responsibility to bridge learning outcomes between the organisational and individual level.

When management implement tools for quality management for example BSC, a dialogue is created in the organisation, which will act to strengthen knowledge creation, and boost the employee's understanding of the incentives for quality improvements (Kollberg & Elg 2011). Dabhilkar and Bengtsson (2004) also show that it is important that employees are provided with opportunities for learning in order to sustain strategic improvement work at the operative level.

It appears that setting clear work targets are important for employees working conditions in successful organisations. Clear targets affect the wellbeing of employees (Arnetz 2005; Arnetz & Blomkvist 2007) and setting targets for the work environment can contribute towards an improved physical and psychosocial work environment (Arnetz & Blomkvist 2007). However, setting clear targets is not sufficient in its own, it needs to be placed in a system where the targets are disseminated and monitored (Ryd and Fristedt 2007; Wreder 2007). When BSC have been implemented, targets that balance different perspectives can be set and this process increases the knowledge about what targets are to be achieved (Kollberg och Elghs 2011). In addition, strategic and visionary leadership can be linked to setting clear targets (Bäckström *et al.* 2009) and so are studies that address customer focus and quality work (Wreder *et al.* 2007; Hemphälä & Magnusson 2012; Kollberg & Elg 2011).

The importance of participation and influence in work is hardly a surprising issue related to a successful organisation. However, the concept of participation is described in a various ways in the core articles. Participation is created when employees can take responsibility for additional and a variation of work tasks, for example business administration (Lindqvist 2007). Participation in change processes creates trustful co-operation both internally and externally (Ryd & Fristedt 2007). It can also be about delegating work tasks and to give employees mandate to make their own decisions (Wreder 2007). Dabhilkar and Bengtsson (2004) argue that work autonomy and opportunities to manage processes is important. We have described the importance of building good relations between managers and employees earlier in this paper. The importance of building relations between employees and between work teams is described in other studies (Arvonen & Pettersson; Björk & Magnusson; Wallo *et al.* 2012; Wreder 2007; Wreder *et al.* 2007). In general, we can verify that change processes and innovation development is a specific area where good relations is emphasised.

### 7.5.3 *Effectiveness/Productivity*

The successful organisation includes descriptions of effectiveness, productivity, innovations, quality and customer focus.

The concepts of effectiveness and productivity are described in rather general terms in the different studies. The concepts can be used to describe meeting performance targets (Arnetz 2005), or a successful use of strategic management tools such as Balance Score Cards (Dabhilkar & Bengtsson 2004; Kollberg & Elgh 2011). The management's strategic decision to lower costs and to broaden the markets, in order to survive a financial crisis, is additional meanings of the concept of effectiveness (Wallo *et al.* 2012). Effectiveness means reaching positive financial results (Bäckström *et al.* 2009), while Arvonen and Pettersson (2002) except from cost efficiency also studied change effectiveness. In studies of successful organisations (Larsson & Vinberg 2010) the concepts of efficiency and productivity are related to different leadership behaviours such as; relation orientated-, structure and change directed leadership. The concept of productivity becomes more apparent in the study of Neumann *et al.* (2006), where they describe the implementation of a line based production. Employee co-operatives have been linked to the concept of effectiveness, as the employee's awareness of finances increased as a result of the change in ownership (Lindqvist 2007).

Our analysis also shows that effectiveness is about innovations. It is about how successful innovative ideas can strengthen company competitiveness, through the means of ICT-support and the development of meeting places for social networking (Björk & Magnusson 2009). Innovations contribute to unique products that strengthen the competitiveness if cross-functional cooperation is established (Din *et al.* (2013). Pohl and Elmqvist (2010) mean that radical innovations can be facilitated through skilled entrepreneurs and by reusing technical solutions. However, Hemphälä and Magnussons (2012) mean that radical and incremental innovations cannot be maximised simultaneously. Incremental innovations can be best stimulated by facilitating social networking. The transition of the national mail service (Posten AB) gives a good example of how the radical innovation was initially harshly criticized, but later was described as a very successful innovation (Ryd & Fristedt 2007).

Effectiveness is also about quality (assurance) and customer focus. Larsson and Vinberg (2010) mean that leadership plays an important role for successful quality management, where they show the importance of a change directed and relationship building orientated leadership. Communicative leadership leads to improved processes in the organisation (Kollberg & Elgh 2011; Bäckström *et al.* 2009) and the im-

plementation of Balance Score Cards have contributed to improvements (Kollberg & Elgh 2011). The quality improves also when the buyer and customers are involved in the change process (Ryd & Fristedt 2007). A continuous development and customer focus are core values that create successful organisations. Putting focus on customers can determine the effectiveness (Krok & Eklund 2010). Krok and Eklund point out that environmental performance in waste disposal plants is dependent of the customer and the customers' expectations of effective waste disposal management.

#### **7.5.4 Conclusions**

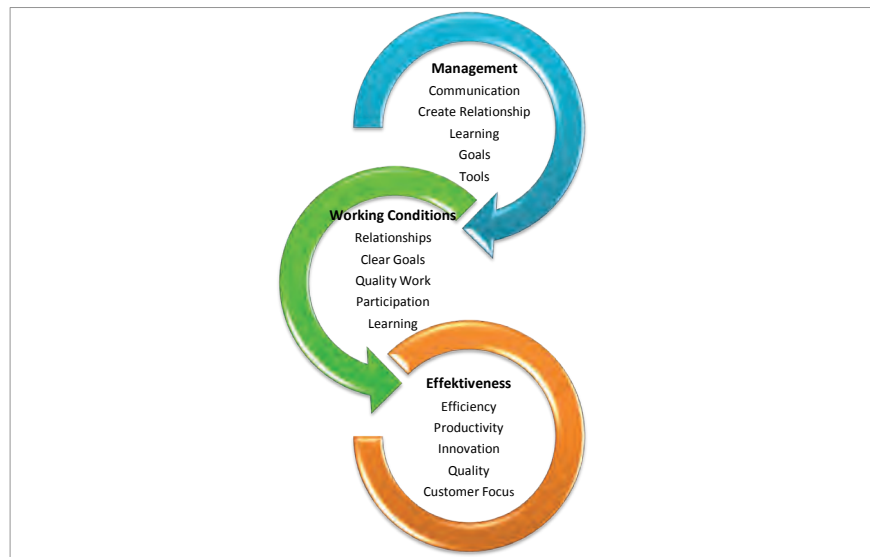
In this paragraph we shall give a short summary of our conclusions based on our findings:

- About 50% of the articles are based on studies of public sector organisations and the other 50% are based on studies of private sector organisations. We can note that medical care organisations are represented in several of the articles.
- None of the studies refer to industrial relations and trade unions activities.
- Several studies refer to successful organisations that have previously reached attention for some reason.
- It appears that communicative leadership is a prerequisite for developing successful organisations, this if the leadership is directed towards building relations with employees, and accompanied with present managers that spends time on the shop floor chatting with employees.
- Managers need to create opportunities for learning in the organisation and they need to set up targets for organisational activities.
- We can verify that a variation of issues such as clear targets, learning and participation is discussed in relation to achieving good working conditions in successful organisations.
- Employees are dependent on competence development and learning at work for developing working conditions.
- Clear targets for work achievements strengthen employees and reduces work related stress.
- Employee participation is emphasized and so is participation in quality assurance management.

- The concept of effectiveness is described in general terms in the studies, and can mean cost effectiveness, change effectiveness, process productivity, innovations, quality and customer focus.

We have summarized the characteristics that we can distinguish from analysing the core cases, as themes (issues) in below illustrations.

**Figure 39. Themes in core cases**



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## 8. Findings, Discussions and Implications

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This section summarizes the results of the project on Nordic research in the area of management, productivity and working conditions. The Nordic Council of Ministries initiated the project in 2012 by pointed out the lack of knowledge on the causal relationships between management, work environment and productivity. Therefore, it was asked for a critical review of the scientific literature on relationships between management, work environment and productivity, aiming to identify how Nordic enterprises could work to establish good management practices and develop work participation and at the same time improve working conditions and productivity/change readiness.

This section is divided as follows; first the main findings are presented, then a more detailed analysis of each main finding is presented, followed by a discussion and set of implications.

### 8.1 Main findings

The project has four main findings:

1. Nordic research that inquires into all three subjects: management, working life and productivity is limited in extend but broad in content and therefore fragmented. Even when we apply a very broad interpretation of working conditions, workplace performance and management practices, very few research papers combine all three research topics compared to the total volume of research in each of the three topics.
2. There are clear national differences such as research subjects and research outlets. We have only identified few examples of joint research, no aligned publication strategies and patterns, no joint methods and no common thread of research topics when we analyzes

the content of the few papers. However, compared to international research we have identified a set of Nordic values related to cooperation and participation that permeating them.

3. Within the few works that encompasses all three research topics there are positive connections between management practices, working conditions and workplace performance.
4. Positive management practices in all four countries are characterized by high levels of dialogue and cooperation between managers and subordinates. The details of how this should be achieved vary from publication to publication, but a set of guidelines is summarized per nation.

## 8.2 Research on management, working life and productivity is fragmented

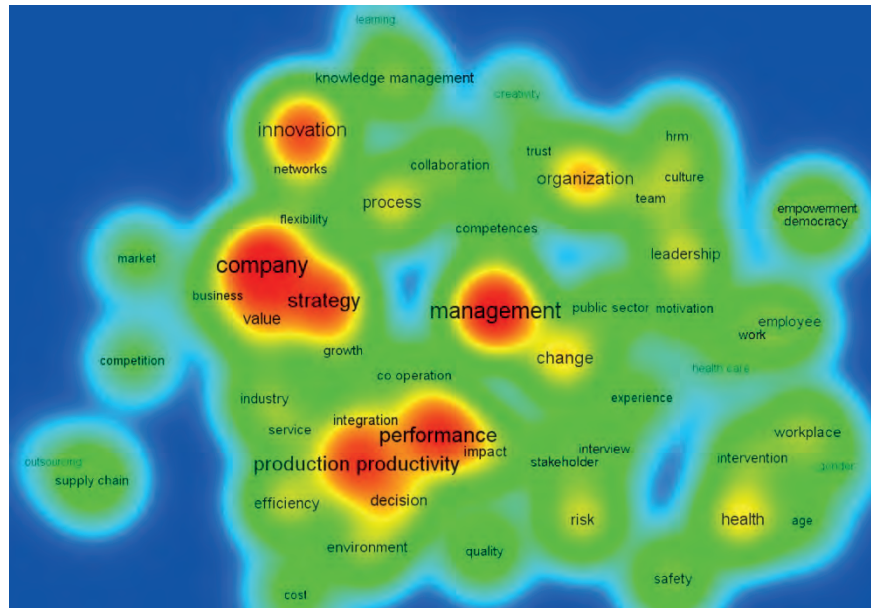
### **8.2.1 Three popular topics, with limited cross over**

Very early in the research process we discovered that the research on management, working life and productivity is fragmented. The Swedish team found more than 100,000 hits on management, 50,000 on productivity and 10,000 on working conditions. But only 229 hits when all three subjects were combined, of these 147 journal papers. Similar results were found in the other countries. The Norwegian team found 203 journal papers, Denmark 129, Finland 143. In the Scopus search carried out by all Nordic partners (cross reference) approximately 8% of the papers identified covered all three topics.

The heat map below shows distribution of words in abstracts, titles and key words of the 2,760 identified works from the Scopus search (cross reference).

When interpreting this figure we should bear in mind that these are the papers identified through a search where we wanted to find common threads. These are the 2,760 papers from 2000–2013 with management and work performance/ or working conditions. As we can see there are many different topics and subtopics, and connections between the terms are difficult to interpret. We can also see that typical working condition topics such as health, workplace, employee, democracy, teams are placed in some distance from performance and productivity, not to mention the distance to supply chain and outsourcing. Overall, we conclude that this research is fragmented.

**Figure 40. Heatmap of words in abstracts, Scopus search**



The Scopus search identified papers with either productivity or working conditions and management. Therefore a certain fragmentation could be expected. But what if we narrow this down to the works combining productivity and working conditions? The 8% in the Scopus search, the net set of each investigation? We will first see the outlet density of the publication, how many different outlets are used? Are the identified works published in some few select outlets focusing on this or anywhere the researchers are able?

**Table 18. Outlet density of publication per nation**

	Denmark	Finland	Norway	Sweden
Gross total volume of papers in journals	129	143	203	147
Numbers of papers in journals used 3 times or more	55	66	64	67
Numbers of papers in journals used 2 times	18	18	30	34
Numbers of papers in journals used once	56	59	109	46

As we can see there are a large percentage of papers published in journals used once or twice for all four countries. The wide distribution of publication outlets testify both to the diversity of scientific journals and the ability and interest of the researchers in finding an outlet for their research. However, it does not point to any particular Nordic tradition of research in this area. When we look closer at the most popular topics we find the same picture. The table below shows distribution of papers combining all three topics per journal across the four countries, only journals with 3 or more works shown:

**Table 19. Frequently used journals in Denmark, Finland, Norway and Sweden, number of papers covering all three topics. Only journals with 3 or more publications identified**

Denmark		Finland		Norway		Sweden	
Journal name	N	Journal name	N	Journal name	N	Journal name	N
Tidsskrift for Arbejdsliv	15	Safety Science	11	Magma	12	Applied Ergonomics	9
Scandinavian Journal of Management	10	Personnel Review	7	Safety Science	10	Total Quality Management & Business Excellence	7
Economic and Industrial Democracy	7	Proceedings of the European Conference on Knowledge Management, ECKM	7	Scandinavian Journal of Psychology	5	Quality Management in Health Care	5
International Journal of Operations & Production Management	6	International Journal of Human Resource Management	6	Tidsskrift for Norsk Psykologforening	5	Health Promotion International	4
Økonomistyring og Informatik	6	Social Science and Medicine	6	International Journal of Human Resource Management	4	International Journal of Industrial Ergonomics	4
Beta	5	International Journal of Occupational Safety and Ergonomics	5	Personnel Review	4	Work	4
Human resource management	3	Applied Ergonomics	4	Scandinavian Journal of Organizational Psychology	4	Scandinavian Journal of Public Administration	4
International Journal of Industrial Ergonomics	3	International Journal of Industrial Ergonomics	4	Tidsskrift for den Norske Lægeforening	4	Ergonomics	3
		Journal of Business Ethics	4	Work & Stress	4	Facilities	3
		Baltic Journal of Management	3	BMC Health services Research	3	International Journal of Human Resource Management	3
		Facilities	3	Human Resource Management Journal	3	International Journal of Occupational Safety and Ergonomics	3
		Journal of International Business Studies	3	Journal of nursing management	3	International Journal of Production Research	3
		Psychosomatic Medicine	3	Nordiske organisasjonsstudier	3	International Journal of Technology Management	3
						Journal of Manufacturing Technology Management	3
						Journal of Workplace Learning	3
						Social Science and Medicine	3
						Worldviews on Evidence-Based Nursing	3

This table shows all journals with three or more identified works covering all three topics. First of all, there is no clear Nordic arena of outlet for this research. None of the popular journals are popular in all four countries. Some are popular in two, like Safety Science (Finland and Norway), Personnel review (Finland and Norway), Beta (Denmark and Norway) and International Journal of Industrial Ergonomics (Finland and Denmark). But the general picture is that there are different traditions of outlets for all countries.

Second, within each country we can find some patterns. In Norway we can see a more local oriented management and production publication tradition like Magma and Beta. In addition to these, we find a work environment and safety tradition (Safety Science, Work and stress), a strong tradition of writing in medical journals (Tidsskrift for Norske Lægeforening, BMC Health Research and Journal of Nursing management). There is also a Human Relations tradition (Human Resource, Personnel review) and finally a lot of work in this area is published in psychological based journals.

In Denmark the picture is different. There is a strong tradition for management-oriented publications (Scandinavian Journal of Management, International Journal of Operations & Production Management, Økonomistyring og Informatik and Beta). There is also a work environment and working life tradition, here in Tidsskrift for Arbejdsliv, with a total of 15 publications. Here there are some with a Nordic perspective. Also there are some ergonomic papers and again the Human Relation publication. Absent is the medical tradition as well as the safety found in Norway.

In Finland, we find an ergonomic tradition with three different journals International Journal of Occupational Safety and Ergonomics, Applied Ergonomics, International Journal of Industrial Ergonomics. Further a very strong tradition for safety research (11 publications in Safety Science). There are also some Human Relations journals (International Journal of Human Resource Management, Personnel Review) and some management journals (Baltic Management, Journal of international business studies.) Two popular journals are focusing on the health sector (Psychosomatic Medicine and Social Science and Medicine.) There are also some papers on ethics and a set of papers on knowledge management. These topics are unique to Finland.

Like in Finland, there is an ergonomic tradition in Sweden and the same ergonomic oriented journals as in Finland have been used for publishing articles in this area. As in Norway, Sweden has a strong tradition of publishing articles in medical and health journals, for example in Quality Management in Health Care, Health Promotion and Social Science and

Medicine. Sweden has also a similarity to Denmark in the sense that there is a tradition of management-oriented publications in journals such as Total Quality Management and Business Excellence and International Journal of Human Resource Management. A tradition that is unique to Sweden is the production and manufacturing journals: International Journal of Production Research, International Journal of Technology Management and Journal of Manufacturing Technology Management.

Overall we can see the fragmentation of the research; there is no single journal popular for these topics for researchers in all countries. Thus, having analysed publication metadata and structure of publication outlet for the net sample (journal part of it) we can conclude that the researchers do publish on these topics, but it seems likely that they care more for getting published than for establishing a research tradition on management, working conditions and productivity.

To understand publication patterns we should also not forget that many of these journals are journals rooted in a discipline/ research tradition in which the researchers are likely to be trained and educated. Psychologist will publish in journals of psychology, ergonomists in journals of ergonomics, engineers in production and technology oriented journals and so on. There are few journals that are not narrowly discipline oriented but who are oriented towards the broad topics that we are interested in. Magma, Tidsskrift for Arbejdsliv, Work and Nordiske Organisasjonsstudier are probably the best candidates as outlets for papers on the issues we are discussing. We should add that publication patterns was also analysed in the section on meta-analysis and the conclusions were clear: There was little co-publication, and limited agreement on which topics were important.

### **8.2.2 *From net to core – further reduction***

In chapter 3 we showed the fragmented nature of Nordic research combining the issues of productivity, work environment and management. This fragmentation is indicated by the analysis of the metadata on the publications, and the analysis the content in the papers strengthens this conclusion/finding. The analysis of abstracts and subsequently of the publication content lead to the exclusion of up to 90% of the identified papers. The main reason was threefold:



- Imprecise keywords/ phrases in the abstract.
- Too limited empirical data, often implying connections between one of the topics and the others instead of using empirical data on all three topics.
- Not particular to the nordic context.

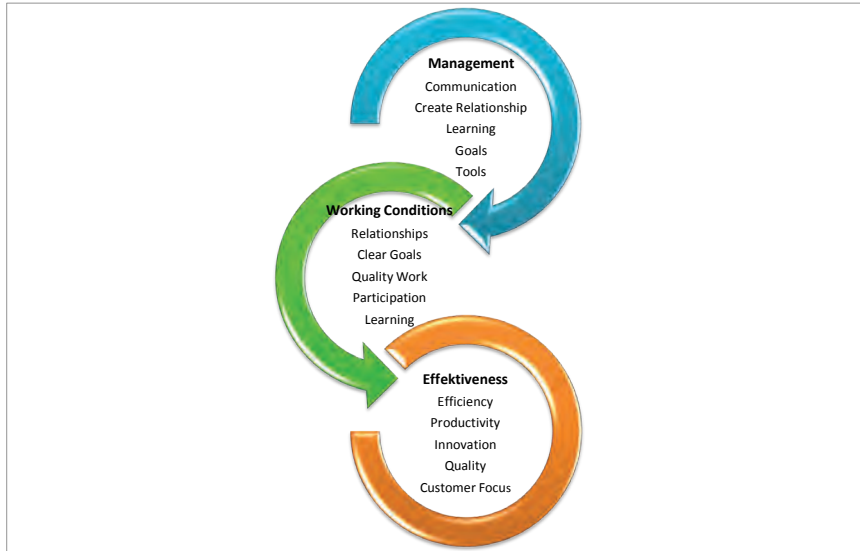
Searching for terms in abstracts/keywords are often imprecise. They are to some degree used to promote the paper. The searches will also return hit even if a reading of the abstract shows that a word/phrase was not used to describe the content of the paper. Especially this would be true for a word like management that could be used in many ways without implying that the paper was an empirical study of management.

Often abstracts added implied conclusions not supported by empirical data in the paper. For instance an abstract on a paper on bullying could say something like “Our research shows that bullying has negative implications on working conditions, which will result in reduced performance. Therefore, management must reduce bullying at workplaces.” While we wholeheartedly agree with these statements, the comments on reduced performance here is an implication, not empirically investigated, and the connection to management is also just an implication. Although we sympathize with the researchers and understand why they write it, we consider it a paper on bullying and not an investigation into the relationships on issues of management, working life and productivity. Such papers were excluded. Thus, excluding publication based on the abstracts and content of the papers, lead to even more fragmentation and showed us that publications discussing all these relationships at the same time were few and far between.

### **8.2.3 *Positive connections between the three areas***

The single most important question in this project has been: What relationships can be identified between management, working conditions and performance? As explained above this question is answered by a relatively little set of publications in each country. However, the answer to that question is given quite clearly by all researchers and can be summed up with this figure from the Swedish analysis:

**Figure 41. Relationships between management, working conditions and effectiveness (Sweden)**



The basic relationship found in national reports is at its simplest thus: Positive management practices create positive working conditions, which again create effectiveness. This, again forms a good basis for developing even better practices. Hence the positive circles of improvement. We would actually have expected that some effects going from productivity to working environment to management, but we did not find any publications reporting on this. However, a literature review by Westgaard & Winkel indicates that the relationship between effectiveness and working conditions can be quite complicated when effectiveness is the starting point (Westgaard & Winkel, 2011).

The main trust of the Danish research is the same as in the Swedish chapter, but which mechanisms that lead to which positive results is described a little more detailed. The three main findings on this are summarized as follows:

- Management and HRM practices that focus on worker involvement, autonomy and cooperation will have positive productivity outcomes related to one of the following: better quality, more innovation, higher knowledge sharing, lower turn-over, and lower absenteeism.
- Occupational health and safety practices that focus on creating management involvement, a positive internal climate and less repetitive jobs results in higher financial performance.

- Higher levels of organizational social capital in terms of trust and cooperation affect productivity positively by creating less turnover and absenteeism and fewer strikes.

The Finnish chapter discusses how several working conditions issues such as:

- HRM/ KM/ ICT practices.
- Understanding the demands of core task.
- Working principles in teams.
- Participation, relation with superior.
- Managerial skills.

Affect performance/productivity dimensions like Financial results, General productivity and efficiency, innovation, health and sickness absence and safety issues. The main conclusion is the same as the Swedes and Danes there is a strong connection between improving working conditions and improving performance.

Finally, the Norwegian chapter summarizes the findings from the 12 core papers as follows: While we cannot find these results in all cases (two cases could be dropped) we still claim that there is a clear relationship between working conditions and productivity. This relationship goes both ways, improving working conditions (especially involvement and collaboration) improves productivity and reducing working conditions reduce productivity. The relationship might sometimes actually go the other way as well. Also it is necessary for management and change agents to work consciously to create the positive results, while the relationship exists it are not automatic. A difference between the Norwegian research and the other Nordic countries is that there are some Norwegian papers describing the negative relationship between poor working conditions and poor performance.

There is no clear pattern as to what topics are covered and how the relationship between working conditions and effectiveness is investigated. However, the direction of the relationship is the same in all four countries.

### 8.3 Characteristics of positive management practices

Different, but related positive managerial practices leading to improvements in productivity and working environment conditions were identified in the different Nordic countries. In Denmark these were:

- Ensure that the span of control is manageable and that management is accessible.
- Provide employees with OSH competences e.g. through training.
- Improve feedback and nurture a culture for knowledge sharing.
- Create and nurture high-involvement practices.
- Use autonomous teams – when the work function is appropriate.
- Nurture trust and cooperation between management and employees.

In Finland the managerial advices were:

- Generally, the importance of nonhierarchical, dialogue based and participatory leadership practices are emphasized. This conclusion is very strongly supported by the above summarized core and supporting papers, covering a wide range of industries.
- The focus is on management as an activity, rather than characteristics individual managers.
- Positive leadership is not related to personal features but rather to skills that can be developed.
- ICT and other technological tools are often overemphasized in relation to human related practices .
- In the core papers, besides the activities of managers as individuals, considerable attention is paid on the organizations' general human resource management and knowledge management practices.

In Norway the core papers stress:

- That it is possible to attain economic goals and have/improve a positive work life quality. This is particularly important since the papers in general focus on first line and middle managers. It is not only the charismatic and visionary top executive that shapes the enterprises and decides on success.

- The need for a supportive manager, involvement, participation and dialogue. They differ in how this should be done, but not the need for it. Possibilities include but are probably not limited to:
  - Teamwork.
  - Training.
  - Formal procedures.
  - Learning networks.
- Formal and external systems are useful to support cooperation and teamwork.
- The manager needs to be aware of local differences when implementing changes.
- In change processes the manager needs to support the change in order to succeed.

In Sweden the managerial advice can be summed up as follows:

- It appears that communicative leadership is a prerequisite for developing successful organisations, this if the leadership is directed towards building relations with employees, and accompanied with present managers that spends time on the shop floor chatting with employees.
- Managers need to create opportunities for learning in the organisation and they need to set up targets for organisational activities.
- Clear achievable targets for work achievements strengthen employees and reduces work related stress.

There are clear variations in the findings, but the overall, cross-cutting conclusion is: positive management practices are characterized by nonhierarchical relations and dialogue based, participatory leadership practices. Details are important and appropriate practices depend on the particular context. Therefore, managers should carefully analyze the situation before they determine how such practices should be implemented.

At this point we would like to add a cautionary note. When we propose dialogue based participatory leadership strategies, we do not propose more dialogue on every decision and action in an organization. It is too simplistic just to recommend «more dialogue». Discussion for discussion's sake may be waste of time. A more difficult question (and a possible topic for future research) is, what are feasible and appropriate

organizational practices and leadership strategies that will enhance both wellbeing and productivity? The lists above are some examples, but on a very high level. We need to establish concrete and detailed description of practices.

Such a description should not be translated into recipes for success. We do not expect or want to create recipes for success. We cannot rely on recipes. «Recipe» thinking is not likely to be successful in today's complex world. However, it is important to have some simple guiding principles that can be applied to develop successful practices in particular organizational settings. There are a lot of local parameters that need to be taken into account. For instance, one of the Finish core papers showed that employee inclusion was successful not only in expert work but also in work with low competence demands. There were marked differences according to the size of the firm: in large firms this principle was not the successful. Thus, better understanding on the path dependencies as well as more detail and advice on practices are needed.

## 8.4 What is not there?

While the identified publications cover many research aspects and use methods ranging from experiments to action research, we think important research is missing. The following topics should be investigated in more detail:

- Private non-industry and service sector, including the “new knowledge industry” primarily within information and communications technology (ICT), but also construction, energy and media. In general, the private sector equals industry, but not exclusively so. Finland has more papers on ICT, but in our literature search we didn't find yet published articles on new post-Nokia start ups have been ignored so far.
- The publications focusing on the public sector are dominated by the health and welfare sectors. While this is probably the largest sector in all four countries, other public workplaces such as schools (at all level of education), public administration, police, directorates and others would be of interest.
- Several modern organizational methods and techniques are surprisingly little covered, even in the small sample we have. Two of the most obvious are lean production and outsourcing. These publications especially lack an interest in the working life domain.

- Low union density workplaces are rarely covered, in the public sector union density is generally high, in the industry reasonably high, while the new service sectors in private sector it is lower.
- We lack studies of migration workers, working conditions and performance. There are many studies of migration workers, work environment and social dumping. However, none of the studies identified as core works in any of the countries that focus on migration workers has also included measures of workplace performance. It may even be that the Nordic management practices are less effective for persons originating from countries with higher power distance. In addition, the varying cultural expectations e.g. within a team, may lead to more complex than in a culturally homogeneous setup.
- We did not find any studies that also included reflections on the role of gender in these discussions. This is surprising given the gendered work life in Nordic countries.

## 8.5 Implications

The list of under-researched topics elicits a very important and difficult question regarding the validity of these findings. The idea that positive working conditions, involvement and dialogue (democratic, participative etc.) create high performance has been around for at least four decades in Nordic work research. The sociotechnical forms of work organization, the ideas of Thorsrud, Gustavsen, Gardell and others summarize this idea (Gardell & Westlander, 1968; Gustavsen, 1992; Thorsrud & Emery, 1970). Two important question raises from this.

The first question is whether these findings primarily reflect our own norms, ideas and theories? Do we simply find what we are looking for? However, given that the findings are there in all four countries, in very different settings, employing different methods, testing different aspects and in general seems to have little in common except the results, we believe the answer is “no”. The question should also be rejected because we believe that the researchers who have done the research generally strive to be as diligent and professional as possible, and because the results are published in many peer-reviewed non-Scandinavian journals as well, where our norms should have less influence. Overall, even though the question must be raised, we believe that the findings hold.

The second question is why do we need to repeat the findings? If Thorsrud, Gardell, Theorell (and others) “proved” the relations between

the working environment, workplace performance and positive management practices 40 years ago, couldn't we just cite them and be done with it? Why all this repetition of research?

There are several reasons why we need the repetition. The first is simply that without replicating, at some level, the findings cannot be considered solid. Thorsrud had six case studies; even the Norwegian set of core works was twice as big. Repeating the findings under different circumstances is an essential part of science, and research methods have developed a lot since then. Of course, without findings repeated after 40 years, somebody would also challenge them because society has moved on and circumstances have changed. Add to this that some fights are only partially won (proven scientifically) some time ago, but new research results from other contexts (Japan, US) "invade" us and may gradually make the previous "victories" seem obsolete and old fashioned. We can see echoes from this in the meta-analysis, which shows that terms such as "democracy" are fading even in the Nordic countries, which uphold them relative to the world. Hence, there is a constant need for "repetition", i.e. for studying the phenomena in different contexts and trying to understand the context dependencies. On the other hand, the insistence for more democracy and dialogue can be seen as an antithesis for the traditional management research and hierarchical models, which were created for mass production 100 years ago. Perhaps it is now time for a paradigm shift, taking the next steps and for creating a bit more specific models for positive management.

Even more importantly, the research fills out very important details. We have a general idea of the positive ideas of democratization, participation, cooperation, and positive management practices. The papers fill out this rather vague and abstract theory with details. There are models of trust, of structures for supporting dialogue, of teamwork, of innovation, etc. While they adhere to the general theory, they also provide a rich and important picture of how particular elements in the theories could be affected in contemporary society. Meticulous investigation of all the details, filling out the every little element of the picture is necessary to make it possible for all parts of the Nordic work life to participate and broaden in the overall vision of a democratic, egalitarian work life where managers and workers jointly strive for both working conditions and performance.



## 8.6 References

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DOI: <http://dx.doi.org/10.1016/j.apergo.2010.07.002>



# God nordisk ledelsespraksis- sammendrag på norsk

Mellom 2012 og 2014 gjennomførte fire nordiske forskningsinstitusjoner i Danmark, Finland, Norge og Sverige (Aalborg Universitet, VTT, SINTEF og Karlstad Universitet) en studie av god nordisk ledelsespraksis.

Hovedfokus i prosjektet var å identifisere og sammenfatte Nordisk forskning som empirisk studerte forholdet mellom tre sentrale forskningstradisjoner: Ledelsesforskning, arbeidsmiljø/arbeidsforhold og konkurranseevne/produktivitet. Hver enkelt av disse tradisjonene er svært omfattende, prosjektet fokuserte derfor på den forskning som lå i skjæringspunktet mellom disse tre tradisjonene. Prosjektet søkte etter alle publikasjoner i perioden 2000 til 2013, og fant mer enn 2,700 publikasjoner som dekket to av disse. For disse publikasjonene gjorde prosjektet en metaanalyse av sammendrag. Prosjektet analyserte så de relativt få publikasjonene (totalt 54) som behandlet alle tre temaene empirisk samtidig og basert på dette konkluderte forskerne med at:

- nordisk forskning som empirisk studerer alle tre temaene samtidig er sjelden og fragmentert
- det er klare nasjonale forskjeller mellom landene hva publiseringstradisjon, publiseringskanaler, forskningstema angår. Likevel, når man sammenligner nordiske land i en blokk med øvrig EU eller USA er det mulig å se en nordisk tradisjon med fokus på tema som innovasjon, sikkerhet, samarbeid, demokrati, kompetanse, fleksibilitet relativt til de to andre gruppene av land
- i de relativt få publikasjonene som dekker alle tre tema empirisk var det en klar sammenheng mellom godt arbeidsmiljø, god ledelse og produktivitet
- god ledelses praksis i alle fire land ble karakterisert av høyt nivå av dialog og samarbeid mellom ledelse og ansatte. Konkrete råd om hvordan dette skulle oppnås i praksis varierte fra land til land og studie til studie, men på nasjonalt nivå ble konkret ledelsespraksis identifisert.



# Appendix A: Search string

Elsevier Scopus search string: (Finland as example):

((TITLE(management OR managing OR managerial OR leadership OR manager) OR KEY(management OR managing OR managerial OR leadership OR manager) OR TITLE((firm OR company OR corporation OR enterprise OR "public sector") AND (strategy OR administration OR governance)) OR KEY((firm OR company OR corporation OR enterprise OR "public sector") AND (strategy OR administration OR governance)) OR TITLE("operations management") OR KEY("operations management")) AND (TITLE("working condition\*" OR "work condition\*" OR "work place" OR workplace OR "working place" OR "place of work" OR "place of employment" OR "work environment" OR "working environment" OR "work behaviour" OR "work behaviour" OR "work process\*" OR "work adaptation\*" OR "work change\*" OR "work practice\*" OR "working practice\*" OR "work participation" OR workforce OR "work force" OR hrm OR "human resources") OR KEY("working condition\*" OR "work condition\*" OR "work place" OR workplace OR "working place" OR "place of work" OR "place of employment" OR "work environment" OR "working environment" OR "work behaviour" OR "work behaviour" OR "work process\*" OR "work adaptation\*" OR "work change\*" OR "work practice\*" OR "working practice\*" OR "work participation" OR workforce OR "work force" OR hrm OR "human resources")) OR TITLE(work\* AND organisation\*) OR KEY(work\* AND organisation\*) OR TITLE(work\* AND organization\*) OR KEY(work\* AND organization\*) OR TITLE(work\* AND collaboration) OR KEY(work\* AND collaboration) OR TITLE(work AND development) OR KEY(work AND development) OR TITLE(democracy OR democratic OR democratization OR empowerment OR intervention\* OR intervening) OR KEY(democracy OR democratic OR democratization OR empowerment OR intervention\* OR intervening) OR TITLE("occupational health" W/3 safety) OR KEY("occupational health" W/1 safety) OR TITLE("occupational safety" W/3 health) OR KEY("occupational safety" W/1 health) OR TITLE("works council\*") OR KEY("works council\*") OR TITLE((employee\* OR worker\*) W/3 representative\*) OR KEY((employee\* OR worker\*) W/1 representative\*) OR TITLE(productivi\* OR innovation\* OR efficiency OR output OR competi-

tive\* OR performance OR outsourcing OR privatization) OR  
 KEY(productivi\* OR innovation\* OR efficiency OR output OR competi-  
 tive\* OR performance OR outsourcing OR privatization) OR TI-  
 TLE(business AND (development OR opportunit\* OR operation\*)) OR  
 KEY(business AND (development OR opportunit\* OR operation\*)) OR  
 TITLE(effectiveness) OR TITLE(employee\* AND (empower\* OR crea-  
 tiv\*)) OR KEY(effectiveness) OR KEY(employee\* AND (empower\* OR  
 creativ\*)) OR TITLE(production AND (increase\* OR incentive\*)) OR  
 KEY(production AND (increase\* OR incentive\*)) AND ((finland OR  
 finnish OR finns OR sweden OR swedish OR swedes OR norway OR nor-  
 wegian\* OR denmark OR danish OR danes OR scandinavia\* OR "nordic  
 countr\*")) AND (LIMIT-TO(AFFILCOUNTRY, "Sweden") OR LIMIT-  
 TO(AFFILCOUNTRY, "Finland") OR LIMIT-TO(AFFILCOUNTRY, "Nor-  
 way") OR LIMIT-TO(AFFILCOUNTRY, "Denmark")) AND (LIMIT-  
 TO(SUBJAREA, "BUSI") OR LIMIT-TO(SUBJAREA, "SOCI") OR LIMIT-  
 TO(SUBJAREA, "DECI") OR LIMIT-TO(SUBJAREA, "ECON") OR LIMIT-  
 TO(SUBJAREA, "PSYC")) AND (LIMIT-TO(PUBYEAR, 2014) OR LIMIT-  
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# Appendix B: Core publications

## Danish core publications

***Cottini, E., Kato, T., & Westergaard-Nielsen, N. (2011). Adverse workplace conditions, high-involvement work practices and labor turnover: Evidence from Danish linked employer-employee data. Labour Economics, 18(6), 872-880***

### **Empirical setting**

Uses cross-sectional firm data from Danish companies.

### **Method and materials**

Uses cross-sectional firm data from Danish companies.

### **Production/management system**

Not one system, but a representative study of companies of different size and industry.

### **Employees, working conditions**

Physical hazards and their effect on turnover-rates.

### **Performance results**

Turnover-rates can be mitigated by employee involvement.

### **Main message**

Turnover-rates can be mitigated by employee involvement.

### **International research**

–

### **Exclusion/Inclusion**

Included: Because of the documented effect between hazards and turnover-rates, and the effect between turnover-rates and involvement.

### **Background/support/Core**

Core.

**Aims or hypothesis**

the quit-enhancing effect of workplace hazards can be mitigated by high involvement work systems.

**Reflection on the topic of management (is management a key concept in the paper?)**

Management can mitigate turnover-rates by using high-involvement work practices.



***Hasle, P., & Hvid, H. (2003). Human development and working life. Aldershot, Ashgate***

**Empirical setting**

A book describing the results from a large Danish case study research project. Different cases in different settings. Both industrial, public and service oriented.

**Method and materials**

Qualitative methods mainly.

**Production/management system**

None specific.

**Employees, working conditions**

The book is about how companies mix development of workers involvement and cooperation and human resource management.

**Performance results**

A chapter about enhanced quality and development through employee participation.

**International research**

Influence, HRM, Participation.

**Reflection on the topic of management (is management a key concept in the paper?)**

Yes. How managers facilitate the sustainable development in the companies.

**Exclusion/Inclusion**

Strong. Empirical evidence about quality and participation.

**Background/support/Core**

Core.

**Aims or hypothesis**

Can the development of human resources at company level create better working life condition and better performance.

***Fausning, M. S., Jeppesen, H. J., Jønsson, T. S., Lewandowski, J., & Bligh, M. C. (2013). Moderators of shared leadership: work function and team autonomy. Team Performance Management, 19(5/6), 244–262***

**Empirical setting**

Cross sectional study of teamwork in Danish production companies.

**Method and materials**

hierarchical regression analyses and ran moderated two-way regression analyses using a field sample of 552 employees comprising 81 teams in a Danish manufacturing company.

**Production/management system**

Not one specific.

**Employees, working conditions**

Autonomy and teamwork.

**Performance results**

Strong: Interestingly enough the study shows that autonomy and teamwork has a negative relationship with performance in manufacturing work, and correspondingly a positive relationship with performance in knowledge work.

**Main message**

Work function is the main moderator for performance in teams.

**International research**

No.

**Reflection on the topic of management (is management a key concept in the paper?)**

Management is one of the underlying factors, however it is not the central factor in the analysis.

**Exclusion/Inclusion**

Included: Peer reviewed and fairly strong connection between autonomy and performance.

**Background/support/Core**

Core.

**Aims or hypothesis**

Work function is the main moderator for performance in teams.

***Hasle, P., & Møller, N. (2007). From conflict to shared development: Social capital in a tayloristic environment. Economic and Industrial Democracy, 28(3), 401–429***

**Empirical setting**

Multiple case studies in four Danish slaughterhouses.

**Method and materials**

Observations, document studies, qualitative interviews, history workshops.

**Production/management system**

Not specified, but a highly Taylorized production system in all cases.

**Employees, working conditions**

Working conditions, both physical and psycho-social, is an important theme in the paper, as is how they are managed in the local industrial democracy on the plants.

**Performance results**

Strong: Three of the four cases managed to reduce the number of wildcat strikes, and improve the social capital and trust between management and employees. Also turnover-rates and absenteeism were affected in a positive way.

**Main message**

This study suggests that in spite of a highly Taylorized work system, it is possible to attain a better psychosocial work environment – not through activities directly targeted towards this end, but through a goal-oriented effort to create better working relations and prevent conflict.

**International research**

No.

**Reflection on the topic of management (is management a key concept in the paper?)**

Yes. How can management create social capital and trust, with positive results to follow.

**Exclusion/Inclusion**

Included: Peer-reviewed, presents findings on the connection between productivity and well being.

**Background/support/Core**

Core.

**Foss, N. J., Minbaeva, D. B., Pedersen, T., & Reinholt, M. (2009). Encouraging knowledge sharing among employees: How job design matters. *Human Resource Management*, 48(6), 871–89**

**Aims or hypothesis**

Social capital and trust makes slaughterhouses more effective.

**Empirical setting**

They collected all data used in the analysis based on one-site sampling the Copenhagen site of the German multinational company MAN Diesel.

**Method and materials**

A case study using sampling in a large Danish production site (a subsidiary of a MNC).

**Production/management system**

HRM.

**Employees, working conditions**

Different working conditions as independent variables, such as autonomy, cooperation etc.

**Performance results**

Better knowledge sharing is a dependent variable.

**Main message**

Job design matters for degree of knowledge sharing.

**International research**

Yes.

**Reflection on the topic of management (is management a key concept in the paper?)**

No, but it included some reflections related to autonomy and job design.

**Exclusion/Inclusion**

Included: Data shows a correlation between working conditions and improved knowledge sharing.

**Background/support/Core**

Core.

**Aims or hypothesis**

Job motivation is caused by working conditions and job design, and will in turn heighten knowledge sharing.

**Nielsen, P., Nielsen, R. N., Bamberger, S. G., Stamhus, J., Fonager, K., Larsen, A., ... & Omland, Ø. (2012). Capabilities for innovation: The Nordic model and employee participation. *Nordic Journal of Working Life Studies*, 2(4), pp 85**

**Empirical setting**

Cross sectional study of Danish companies.

**Method and materials**

Survey carried out in 2010.

**Production/management system**

Not specified.

**Employees, working conditions**

Yes. Especially participation.

**Performance results**

Strong: The article shows how innovative performance is linked to participation.

**Main message**

The article shows how mobilization of human and organizational resources is crucial for innovative capabilities, and it's main hypothesis concerning this point is, that competence development and organizational configurations encouraging learning is related to capabilities for innovation in the firm.

**International research**

No.

**Reflection on the topic of management (is management a key concept in the paper?)**

Yes, how to manage innovation.

**Exclusion/Inclusion**

Included: Peer reviewed, strong connection between performance and well being (or employee variables).

**Background/support/Core**

Core.

**Aims or hypothesis**

Innovative performance is linked to participation.

## Finnish core publications

***Andreeva, T., & Kianto, A. (2012). Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance. Journal of Knowledge Management, 16(4), 617–636***

### **Empirical setting**

The relation of different KM practices and firm's economic performance is explored.

### **Method and materials**

Survey among top and middle managers as well as experts.

### **Production/management system**

Firms in service and manufacturing sectors in Finland, Russia and China.

### **Employees, working conditions**

Various ICT and HRM based practices.

### **Performance results**

Financial performance.

### **Main message**

HRM and ICT practices for KM are quite strongly correlated and influence both financial performance and competitiveness of the firm. ICT practices improve financial performance only when they are coupled with HRM practices.

### **International research**

Knowledge management.

### **Reflection on the topic of management (is management a key concept in the paper?)**

Strong.

### **Exclusion/Inclusion**

Core (1).

### **Background/support/Core**

No marked national differences were identified; the national datasets are, however, quite limited in size.

***Bosch-Sijtsema, P. M., Ruohomäki, V., & Vartiainen, M. (2009). Knowledge work productivity in distributed teams. Journal of Knowledge Management, 13(6), 533–546***

**Empirical setting**

Integrate literature on knowledge work productivity and present and overview on elements affecting it.

**Method and materials**

Conceptual paper. Review of research on productivity of knowledge work; integration of different disciplines.

**Production/management system**

Global technology companies.

**Employees, working conditions**

Distributed teams; physical, virtual, social and mental workspaces.

**Performance results**

Productivity.

**Main message**

Crucial elements affecting KWP are team tasks, team structure and processes, the physical, virtual and social workspaces as well as organizational context.

**International research**

Integrates several theories.

**Reflection on the topic of management (is management a key concept in the paper?)**

Asserted.

**Exclusion/Inclusion**

Core (2).

**Background/support/Core**

Reminds of the various dimensions to be considered.

***Böckerman, P., Johansson, E., Kauhanen, A. 2012. Innovative work practices and sickness absence: what does a nationally representative employee survey tell? Industrial and Corporate Change 21(2012)3 p. 587–613***

**Empirical setting**

To study possible negative effects on employees' health e.g. due to higher pace.

**Method and materials**

The Finnish Quality of Work Life Survey (QWLS) data was used. The sample is representative of Finnish wage and salary earners.

**Production/management system**

Various.

**Employees, working conditions**

Self-managed teams, information sharing, training, incentive pay.

**Performance results**

Sickness absence and accidents at work.

**Main message**

Innovative working practices aiming at a high-performance workplace system has little impact on the overall health of employees.

**Theoretical tradition/ International research**

Human resource management.

**Strong/weak/asserted**

Strong.

**Core/background/ support**

Core (3).



***Fey, C. F., Morgulis-Yakushev, S., Park, H. J., & Björkman, I. (2009). Opening the black box of the relationship between HRM practices and firm performance: A comparison of MNE subsidiaries in the USA, Finland, and Russia. Journal of International Business Studies, 40(4), 690–712***

**Empirical setting**

To investigate which HRM practices work better in different countries.

**Method and materials**

Survey among general, deputy and HR managers in subsidiaries of 241 multinational enterprises in Finland, USA and Russia.

**Production/management system**

Subsidiaries of multinational enterprises.

**Employees, working conditions**

Various HRM practices for promoting firm's productivity.

**Performance results**

Firm performance.

**Main message**

Mediating factors affecting the relation between HRM practices and firm performance were identified. Practices enhancing both personnel's motivation and ability have maximum effect on firm performance. In Finland, characterized by a low power distance related to the two other countries, communication was proved as especially important for promoting motivation.

**International research**

Human resource management.

**Strong/weak/asserted**

Strong.

**Background/support/Core**

Core (4).

**Henttonen, K., Janhonen, M., Johanson, J-E. 2013. *Internal social networks in work teams: structure, knowledge sharing and performance. International Journal of Manpower* 34(2013)6 p. 616-634**

**Empirical setting**

Various sectors (social sector & health care, public administration, education, retail trade, finance).

**Method and materials**

Survey in 499 employees in 76 work teams in 48 organizations.

**Production/management system**

Fairly knowledge-intensive but only moderately complex tasks.

**Employees, working conditions**

Social network structure in the team.

**Performance results**

Team performance.

**Main message**

Both dense and fragmented instrumental-network structures affect work-team performance. However, fragmentation in expressive networks has a negative impact. Only instrumental, especially dense, networks transfer knowledge and thus dense instrumental relationships should be stimulate while overly fragmented expressive relationships should be avoided.

**International research**

Social-capital theory.

**Strong/weak/asserted**

Strong.

**Background/support/Core**

Core (5).

**Other contribution/background**

Neither knowledge sharing nor team performance is facilitated through expressive social-supportive networks.

***Jones D.C., Kalmi P., Kauhanen A. 2010. How does employee involvement stack up? The effects of human resource management policies on performance in a retail firm. Industrial Relations 49(2010\*)1 p. 1-21***

**Empirical setting**

To study whether innovative HRM policies matter in settings where the job tasks are rather simple and no specific skills are required.

**Method and materials**

Panel data from 47 units of a Finnish retail firm.

**Production/management system**

Non-food retail trade.

**Employees, working conditions**

Participation, information sharing, supervisor feedback and performance appraisal.

**Performance results**

Value added.

**Main message**

Also in settings where employees do simple tasks and are relatively low-skilled, participatory work environments can enhance business performance. Productivity is enhanced when employees have opportunities to participate, and receive appropriate information and feedback from their supervisors.

**International research**

Employee involvement.

**Strong/weak/asserted**

Strong.

**Background/support/Core**

Core (6).

**Koski, H., Marengo, L., Mäkinen, I. 2012. Firm size, managerial practices and innovativeness: some evidence from Finnish manufacturing. *International Journal of Technology Management* 59(2012)1/2 p. 92–115**

**Empirical setting**

To explore why some firms innovate more than others, and whether there are differences between small vs. large and low tech vs. high tech firms.

**Method and materials**

Telephone interviews in 398 Finnish manufacturing firms.

**Production/management system**

Manufacturing.

**Employees, working conditions**

Different HRM practices for promoting firm's innovativeness.

**Performance results**

Innovation, measured by patents.

**Main message**

Very different organisational practices lead to more innovation (measured by the number of patents) both between small and large firms, and between the firms that operate in high- and low-tech industries. In small firms, innovation benefits from the practices enhancing employee participation in decision-making. Large firms with more decentralised decision-making patterns do not seem to innovate more than those with a more bureaucratic decision-making structure. The most efficient incentive for innovation seems to be the ownership of a firm's stocks by employees and/or managers.

**International research**

Innovation management.

**Strong/weak/asserted**

Strong.

**Background/support/Core**

Core (7).

**Other contribution/background**

Performance-based wages also relate positively to innovation, but only when it is combined with a systematic monitoring of the firm's performance.

***Kujansivu P., Oksanen L. 2010. White-collar worker productivity: Challenges in Finland. Int. J. Services Technology Management 14(2010)4 p. 391–405***

**Empirical setting**

To explore whether white-collar workers' productivity drivers at macro-level can be identified by the KWPA method developed for measuring knowledge workers' productivity.

**Method and materials**

The KWPA survey was tested among 840 white-collar eworkers representing different organizations and profession groups.

**Production/management system**

Knowledge work.

**Employees, working conditions**

Productivity drivers classified as organizational and personal inputs, as well as process and outputs.

**Performance results**

Productivity.

**Main message**

Rewarding policies and feedback practices are the biggest challenges in productivity improvement.

**International research**

Productivity assessment.

**Strong/weak/asserted**

Weak.

**Background/support/Core**

Core (8).

**Other contribution/background**

KWPA is a suitable method to assess the productivity drivers.

**Mantere, S. 2013. *What Is Organizational Strategy? A Language-Based View*. *Journal of Management Studies* 50(2013)8 p. 1408–1426**

**Empirical setting**

To explore under what conditions does a collective strategy exist among organizational members.

**Method and materials**

Theoretical paper.

**Production/management system**

None specified (general).

**Employees, working conditions**

Seen in terms of their relation to organizational strategy (whether it exists or the organization allows pluralism).

**Performance results**

Performance.

**Main message**

Existence of organizational strategy may under certain conditions cause poor performance. A view of organizational strategy as a language game that governs the use of strategy labels in the organization helps to understand linkages between institutional, network, organizational, and micro level views on strategy. Organizational strategy exhibits a division of linguistic labour, where responsibility for key concepts is assigned to particular individuals or organizational functions that oversee the proper use and maintenance of strategy language.

**International research**

Strategy.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (9).

**Nuutinen, M. 2005. Contextual assessment of working practices in changing work. *International Journal of Industrial Ergonomics* 35(2005) p. 905–930**

**Empirical setting**

Present and apply the CAWP method (Contextual Assessment of Working Practices).

**Method and materials**

Data from the three cases collected by interviews, observation, workshops etc.

**Production/management system**

Conventional power plant, expert services and vessel traffic service.

**Employees, working conditions**

Wellbeing, skills needed for new work practices.

**Performance results**

Effectiveness in changing work.

**Main message**

The importance of the interrelated and continuous development of technology and practices based on the contextual analysis of the real content of the work, operators' competences, and current practices and sources of professional identities in order to maintain productivity and wellbeing at work is emphasised.

**International research**

Human performance.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (10).

**Other contribution/background**

Management of the change at work is one of the most important ways to support human performance in the socio-technical system and thus to promote system efficiency.



***Pyöriä, P. 2005. Information technology, human relations and knowledge work teams. Team Performance Management 11(2005)3/4 p. 104–112***

**Empirical setting**

To explore preconditions for productive collaborative work in teams.

**Method and materials**

General review paper on organization research concerning teams since Mayo.

**Production/management system**

Knowledge work.

**Employees, working conditions**

Practices supporting collaborative problem solving.

**Performance results**

Organizational productivity; creativity.

**Main message**

Informal organizational culture is the foundation of healthy and productive work environments. Managers are encouraged to pay less attention to the latest technology and more attention to human relations.

**International research**

Organization research on teams.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (11).

**Other contribution/background**

In knowledge intensive organizations the reduction of communication overhead does not refer to interpersonal communication. IT can be useful in reducing routine communication costs.

**Reiman, T., Oedewald, P. 2007. *Assessment of complex sociotechnical systems – Theoretical issues concerning the use of organizational culture and organizational core task concepts. Safety Science 45(2007) p. 745–768***

**Empirical setting**

To present premises for predictive and proactive promotion of organizational safety.

**Method and materials**

Conceptual paper.

**Production/management system**

Industrial organizations.

**Employees, working conditions**

Seen as vital part of complex socio-technical system.

**Performance results**

Safety, system efficiency.

**Main message**

Efficient models of safety management are based on a contextual image of an organization as complex sociotechnical system that is a socially constructed and dynamic culture. To assess such systems an understanding of the organizational core task is required. Effectiveness and safety depend on the cultural conceptions of the organizational core task.

**International research**

Safety science, organizational culture.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (12).

**Other contribution/background**

Safety and effectiveness of an organization can be analyzed by assessing the organizational culture.

**Saari E., Talja H. 2009. *Towards communication and learning based leadership: Observations in Finnish public research organizations. The Learning Organization* 16(2009)3 p. 251–260**

**Empirical setting**

To explore the different world views of researchers and top management and propose a framework for more efficient organizational practices.

**Method and materials**

Results of various case studies on organizational changes and research group development are analyzed and summarized.

**Production/management system**

Research organizations.

**Employees, working conditions**

Participation, dialogue.

**Performance results**

Innovativeness, financial.

**Main message**

The paper offers guidelines for constructing dialogue between managers and knowledge workers and highlights the importance of embedding communication and learning as an integral part of a knowledge organization's practice.

**International research**

Learning, leadership.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (13).

**Other contribution/background**

The paper presents four new constructions that the management and personnel of a research organization tend to interpret very differently: the tension between freedom and control, formation of research strategies, applicability of business management models to research organizations, and the meaning of structural changes.

***Seppälä, P. 2006. How to carry out sustainable change? An analysis of introducing manufacturing cells in a Finnish engineering company. Human Factors and Ergonomics in Manufacturing 16(2006)1 p. 17-37***

**Empirical setting**

A Finnish engineering company. Launching manufacturing cells and teamwork in the machining department of an engineering company.

**Method and materials**

Case study. Participative and collaborative development with 4-year follow-up. Data collection by interviews and observation.

**Production/management system**

Manufacturing cells and teamwork.

**Employees, working conditions**

Manufacturing cells. Teamwork. Work enlargement.

**Performance results**

Flexibility, agility.

**Main message**

To achieve real changes in practice it is necessary to ensure the participation and collaboration of all affected persons. Pilot projects in part of an organizations may fail due to interdependencies with other parts of the organization that may prevent the change if they are not addressed appropriately.

**International research**

Change management.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (14).

**Other contribution/background**

Also the changing role of foremen and superiors must be addressed more thoroughly.

***Talja, H., Buhanist, B., Miettinen, A. 2009. Continuous and discontinuous change efforts in an expert organization – emerging crucial middle management view point. Nordiske Organisasjonstudier 11(4)2009 p 5–28***

**Empirical setting**

A large research organization. Forming a new unit of 500 persons by merging two former ones.

**Method and materials**

Case study. Interviews of 50 persons throughout the new unit.

**Production/management system**

Technological research.

**Employees, working conditions**

Research teams.

**Performance results**

Synergy and more professional management.

**Main message**

By setting new types of boundaries, the top management's role was rather a change initiator than executor. The middle managers had a crucial visioning, motivating and energizing role and effect on the success of the organizational part.

**International research**

Change management.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (15).

**Other contribution/background**

Independent of the outcome of the change process from a local point of view, the personnel preferred leaders actively engaging them in the process.

***Tenhiälä, A., Linna, A., von Bonsdorff, M., Pentti, J., Vahtera, J., Kivimäki, M., Elovainio, M. 2013. Organizational justice, sickness absence and employee age. Journal of Managerial Psychology 28(2013)7/8 p. 805–825***

**Empirical setting**

Finnish public sector.

**Method and materials**

Survey; > 37,000 respondents.

**Production/management system**

Ten towns and 21 public hospitals.

**Employees, working conditions**

Mostly non-manual professions.

**Performance results**

Absenteeism.

**Main message**

High-quality relationships with supervisors can prevent both short and long spells of sickness absence at all ages. A high level of experienced procedural justice reduces long spells of medically certified sickness absence at older employees.

**International research**

Age-related management.

**Strong/weak/asserted**

Strong.

**Background/support/Core**

Core (16).

**Other contribution/background**

Older employees are less likely to take short, non-certified sickness absences from work.

***Tiuraniemi, J. 2008. Leader Self-Awareness and Its Relationship to Subordinate Assessment of Organizational Atmosphere in the Social Welfare Sector. Administration in Social Work 32(2008)4 p. 23–38***

**Empirical setting**

Social welfare work.

**Method and materials**

Survey in two organizations; 44 managers and 445 participants.

**Production/management system**

Managerial work.

**Employees, working conditions**

The quality of leadership is correlated with the quality of the activity in the work community estimated by the subordinate.

**Performance results**

There are connections between the quality of performance of the working community and the actions of superiors, as well as their ability for self-assessment.

**Main message**

The quality of leadership is correlated with the quality of the activity in the work community estimated by the subordinates. In terms of discrepancy between self-ratings and mean subordinate ratings, accurate and underrating are related to good evaluation of work activities.

**International research**

Leadership.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (17).

**Other contribution/background**

The superior's self-assessment is a skill, which can be developed, for example, from a practical reflective point of view.

***Viitala, R. 2005. Perceived development needs of managers compared to an integrated management competency model. Journal of Workplace Learning 17(2005)7 p. 436–451***

**Empirical setting**

Different industries of the Finish private sector.

**Method and materials**

Internet survey, 794 middle and senior managers responded.

**Production/management system**

Managerial work.

**Employees, working conditions**

Blank.

**Performance results**

Blank.

**Main message**

Many managers do not have any specific development intentions for themselves. In organizations where management development was both well organized and connected to strategic management, managers were more consciously aware of the development needs at a personal as well as at a general level.

**International research**

Leadership.

**Strong/weak/asserted**

Asserted.

**Background/support/Core**

Core (18).

**Other contribution/background**

In general, leadership and supervisory skills were seen as the most urgent development needs but not for the respondents themselves. Instead, they emphasized technical and business skills.



***von Bonsdorff, M.E. 2011. Age-related differences in reward preferences. The International Journal of Human Resource Management 22(2011)6 p. 1262–1276***

**Empirical setting**

Explore age-related differences in reward-preference.

**Method and materials**

Survey among nurses working in two Finnish hospitals. Effective sample of 628.

**Production/management system**

Public hospitals.

**Employees, working conditions**

Financial and non-financial forms of rewarding.

**Performance results**

Increasing productivity by reward systems that motivate to retire later.

**Main message**

Older nurses prefer financial rewarding more than younger nurses.

**International research**

Human resource management.

**Strong/weak/asserted**

Strong.

**Background/support/Core**

Core (19).

**Other contribution/background**

Both financial and non-financial elements of rewarding were highly appreciated.

***Yliruka, L., Karvinen-Niinikoski, S. 2013. How can We Enhance Productivity in Social Work? Dynamically Reflective Structures, Dialogic Leadership and the Development of Transformative Expertise. Journal of Social Work Practice: Psychotherapeutic Approaches in Health, Welfare and the Community 27(2013)2 p. 191–206***

**Empirical setting**

The article examines how to enhance the ability of managers to promote productivity through reflective structures and appreciatively evaluative dialogues based on front-line expertise and knowledge in social work practice.

**Method and materials**

A framework for the dialogue and the open innovation tool Mirror are presented.

**Production/management system**

Social work.

**Employees, working conditions**

Teams.

**Performance results**

Productivity by enhancing the performance capacity of employees.

**Main message**

The Mirror method was proposed as a tool enhancing transformative learning among social workers and service users.

**International research**

Productivity enhancement.

**Strong/weak/asserted**

Weak.

**Background/support/Core**

Core (20).

**Other contribution/background**

Instead of seeing productivity in social work merely in terms of savings it should be considered holistically as an effort to produce long-term effectiveness, quality and benefits to the society and the costs and consequences of mismanaged social services should be understood.

## Norwegian core publication

**Andersen, B. M., Rasch, M., Hochlin, K., Tollefsen, T., & Sandvik, L. (2009). Hospital-acquired infections before and after healthcare reorganization in a tertiary university hospital in Norway. *Journal of Public Health*, 31(1), 98–104**

### **Empirical setting**

Patients admitted to a tertiary university hospital.

### **Method and materials.**

Point prevalence studies.

### **Production/management system**

Hospital.

### **Employees, working conditions.**

Workload.

### **Performance results**

Hospital-acquired infections amongst patients (HAI-rate).

### **Result/Main message**

The study evaluate hospital-acquired infections (HAIs among patients admitted to a tertiary university hospital in Oslo, before and after reorganization of the Norwegian healthcare system in 2002. From 2003 to 2007, HAI increased significantly as did the number of somatic patients and workload at our hospital.

### **Theoretical tradition/ International research**

Management and organization in health care sector.

### **Strong/weak/asserted**

Strong negative link, increase in workload produced increase in HAI.

**Bang, H., Fuglesang, S. L., Ovesen, M. R., & Eilertsen, D. E. (2010). Effectiveness in top management group meetings: The role of goal clarity, focused communication, and learning behavior. *Scandinavian Journal of Psychology*, 51(3), 253–261**

**Empirical setting**

Top management groups in large enterprises.

**Method and materials.**

Self-report and observer data from eight top management groups that processed 56 agenda items during meetings were analyzed.

**Production/management system**

Management teams.

**Employees, working conditions.**

Task performance, relationship quality, and member satisfaction

**Performance results**

Team effectiveness.

**Result/Main message**

The goal of the study was to explore the relationship between goal clarity, focused communication, learning behavior, and team effectiveness (i.e., task performance, relationship quality, and member satisfaction). It was found that goal clarity and focused communication was positively related to team effectiveness. The effect of goal clarity on team effectiveness was partially mediated by focused communication. Speaking up when a goal was unclear increased focused communication, task performance and relationship quality. Speaking up when the discussion was off track was not related to task performance and member satisfaction, and was negatively related to relationship quality.

**Theoretical tradition/ International research**

Team research.

**Strong/weak/asserted**

Strong positive link on team level.

***Brøgger, B. (2010). An innovative approach to employee participation in a norwegian retail chain. Economic and Industrial Democracy, 31(4), 477–495***

**Empirical setting**

Retail chain in Norway called Technical Supplies Partner.

**Method and materials.**

The research strategy was based on a participatory approach called “democratic dialogue”.

**Production/management system**

Retail chain with individual stores.

**Employees, working conditions.**

Employee participation.

**Performance results**

Employee participation, productivity.

**Result/Main message**

The paper discusses practical experiences with establishing conditions for employee participation in retailing. Social dialogue and human resource management perspectives frame the discussion. These are two different systems for organizing relations between employers and employees. There are many “bleak houses” in retailing, and work conditions leave much to be desired. This increases transaction costs and has adverse effects on work climate and productivity.

**Theoretical tradition/ International research**

Norwegian industrial democracy tradition.

**Strong/weak/asserted**

Strong. Links all three; management, working environment, competitiveness.

***de Vibe, M., & Konsmo, T. (2005). Pasientfokusert forbedringsarbeid i psykisk helsevern. [Learning networks in mental health services]. Tidsskrift for Psykisk Helsearbeid, 1, 45–53***

**Empirical setting**

Psychiatric hospital and two district Psychiatric Center.

**Method and materials.**

Interviews with patients. Project based experiences.

**Production/management system**

Multidisciplinary teams in mental health care.

**Employees, working conditions.**

Work climate. Leadership support. Involvement. Patient satisfaction.

**Performance results**

Patient satisfaction. Enhance the various dimensions of service quality. Patient-focused improvement and process improvement.

**Result/Main message**

Establishing learning networks has been used as improvement method in three psychiatric health care institutions. The paper evaluates experiences from the projects. The evaluation demonstrates improved user involvement and interdisciplinary cooperation through the learning networks. The work climate has improved and all units wish to continue the improvement process. Important success criteria are active leadership support and broad involvement of the staff and the patients in the improvement work.

**Theoretical tradition/ International research**

Management in health sector.

**Strong/weak/asserted**

Strong. Links work climate, user involvement and service quality.

**Holum, L. C. (2012). "It is a good idea, but..." A qualitative study of implementation of "individual plan" in norwegian mental health care. *International Journal of Integrated Care*, 12**

**Empirical setting**

Different clinics and organizational levels within mental care in Norway.

**Method and materials.**

Twenty-two managers from different clinics and organisational levels within mental health care were interviewed with an in-depth semi-structured interview about the implementation process in their organisation.

**Production/management system**

Multidisciplinary teams.

**Employees, working conditions.**

Characteristics of organisational culture.

**Performance results**

Implementation of "Individual Plan" (Goal attainment in implementing governmental reform) Administration, time and resources.

**Result/Main message**

The study shows how organizational factors, process factors and individual factors affect the implementation rate in a complex picture of barriers and dilemmas. Organisational factors includes general implementation challenges and characteristics of organisational culture (change readiness), Process factors is local implementation strategies and individual (manager) factors include managers identification with IP, the need to follow up and check implementation and being a supportive manager.

**Theoretical tradition/ International research**

Implementation theory and research.

**Strong/weak/asserted**

Weak.

**Comments**

Higher political level decided "Individual Plan" should be implemented.



***Landstad, B. J., Gelin, G., Malmquist, C., & Vinberg, S. (2002). A statistical human resources costing and accounting model for analysing the economic effects of an intervention at a workplace. Ergonomics, 45(11), 764–787***

**Empirical setting**

Cleaning jobs at predominantly female workplaces.

**Method and materials.**

Quasi-experimental study, non-randomized control group.

**Production/management system**

Service work in public sector (Cleaners).

**Employees, working conditions.**

Psychosocial working conditions.

**Performance results**

Economic effects of intervention, reduced sickness absence costs.

**Result/Main message**

In the study a new model for evaluating costs (HRCA) was formulated and then evaluated in a quasi-experimental intervention study amongst cleaners.

The intervention studied contained occupational organizational measures, competence development, physical and psychosocial working environmental measures and individual and rehabilitation measures on both an individual and group basis.

Calculating the economic benefits of the intervention employing both the HRCA and other methods results in a net saving of EUR 266 per employee during an 8 month period due to the intervention. Both models produced approximately the same monetary outcomes.

**Theoretical tradition/ International research**

Ergonomic, experimental.

**Strong/weak/asserted**

Strong, demonstrates cost reduction when implementing ergonomic measures. Links data at different levels (individual and group costs).

**Comments**

A Swedish-Norwegian joint paper.

**Martinussen, M., Adolfsen, F., Lauritzen, C., & Richardsen, A. M. (2012). *Improving interprofessional collaboration in a community setting: Relationships with burnout, engagement and service quality. Journal of Interprofessional Care, 26(3), 219–225***

**Empirical setting**

The sample was recruited from six different small municipalities in Northern Norway (N = 93) and a comparison group from four similar municipalities (N = 58).

**Method and materials.**

Field experiment (intervention). Maslach burnout inventory.

**Production/management system**

Human service professionals working with children and adolescents in public sector.

**Employees, working conditions**

Burnout, engagement.

**Performance results**

Level of collaboration, perceived level of service.

**Result/Main message**

The main purpose of this study was to evaluate the effect of an intervention aimed at improving inter-professional collaboration and service quality, and examine if collaboration could predict burnout, engagement and service quality among human service professionals working with children and adolescents. The intervention included the establishment of local inter-professional teams and offering courses.

Participation in the project increased the level of collaboration in the intervention group significantly, reduced burnout and increased engagement, but not the perceived level of service quality.

**Theoretical tradition/ International research**

Interprofessional collaboration, Maslach Burnout Inventory, mental health, occupational stress (international).

**Strong/weak/asserted**

Strong on the relationship between collaboration and the intervention, no relationship on service quality.

Engagement could lead to competitiveness, but no clear indications in the paper.

**Rolfsen, M. (2013). "We put teamwork back on the agenda again and again": The role of support systems in autonomous teamwork. *Team Performance Management*, 19(5-6), 292-304**

**Empirical setting**

Industrial company.

**Method and materials.**

Case study in a single company.

**Production/management system**

Semi-autonomous teams.

**Employees, working conditions**

Industrial relations conceptualized as local representation and partnership Industrial partnership.

**Performance results**

The influence support systems, like industrial relations, have on teamwork.

**Result/Main message**

Industrial relations conceptualized as local representation and partnership had a strong influence on all three dimensions of teamwork; technical, governmental and normative. Especially important is the union's involvement in the introduction of teamwork, shaping the arrangement and interpretation of it. The main contribution is to highlight how local representation and labor-management partnership has influenced the dimensions of teamwork.

Incremental, Divergent and Convergent. The first stepwise approach succeeded in both goal attainment and keeping employee relationships good, the second focused too quickly of goal attainment, losing first employee relations and then credibility due to the loss, in the convergent process the organisational unit and change agent chose what corporate goals to be attained locally. This resulted in keeping good local relations, but many goals were not reached.

**Theoretical tradition/ International research**

Contingency theory, contingency-balancing model, change agents.

**Strong/weak/asserted**

Asserted- goal attainment.

**Saksvik, P. Ø., & Tvedt, S. D. (2009). *Leading change in a healthy way. Scandinavian Journal of Organizational Psychology, 1(1), 20–28***

**Empirical setting**

Six public enterprises with successful healthy changes processes.

**Method and materials**

59 individual and group interviews were undertaken. For each enterprise, the six middle-managers was interviewed separately, and four to seven employees.

**Production/management system**

Public sector.

**Employees, working conditions**

Collective sensemaking, building local knowledge, and enabling employees to cope with change.

**Performance results**

Self reported and external goal attainment in change process.

**Result/Main message**

The objective for the article was to discuss how middle managers deal with implementation of change and follow the claims of the new Norwegian work environment act.

The middlemanagers identified were considered successful in reaching organizational goals and keeping the process healthy. The good leader of this sample behaved in a responsible way, where present for the employees, and tolerated a lot of uncertainty. They involved their followers in important decisions and were always willing to communicate both established plans and unforeseen consequences.

For the leader to have enough self-confidence to stand in the chaos and at the same time show relational competence, embracing the change seems to be a key factor in managing change.

**Theoretical tradition/ International research**

International change theory/literature.

**Strong/weak/asserted**

Strong, the performance result is goal attainment.

**Comments**

Also reported in a Nordic Management report (Andersen *et al.*).

***Skjørshammer, M. (2001). Conflict management in a hospital: Designing processing structures and intervention methods. Journal of Management in Medicine, 15(2), 156–166***

**Empirical setting**

Norwegian city hospital.

**Method and materials**

Case study. Action research approach characterized by creating change through dialogue and the use of local expertise.

**Production/management system**

City hospital.

**Employees, working conditions.**

Level of conflicts.

**Performance results**

Cost of conflicts, Management skills in conflict handling.

**Result/Main message**

The article presents a case study describing the development, structure and operation of a comprehensive system for managing conflicts. By changing the ways managers and professional handle their disputes, the hospital hopes to reduce the costs and realize its benefits.

The system and conflict management training program were implemented and seem to have created more consciousness in the hospital on how to handle conflicts and reduce their level. Non-management groups ask for training, and these are indicators that system is increasing coordination and collaboration among hospital employees.

**Theoretical tradition/ International research**

Health management research.

**Strong/weak/asserted**

Asserted (Poorly handled conflicts results in poor efficiency, quality of care and work environment.).

**Comments**

The assentation about the problems with conflicts are sound, but the author states that the system has been in use for less than a year, thus nothing is known about the long term effects.

***Stensaker, I. G. and Langley, A. (2010). Change Management Choices and Trajectories in a Multidivisional Firm. British Journal of Management, 21: 7-27***

**Empirical setting**

Three different divisions of a multidivisional Norwegian oil company over a period of 4 years.

**Method and materials**

Data were collected through interviews, observations and documents. Eighty-four semi-structured interviews.

**Production/management system**

Industry, multidivisional oil company.

**Employees, working conditions**

Employee relations.

**Performance results**

Change goals attained.

**Result/Main message**

Change agents navigated amongst three concerns: substantive concerns related to goal attainment, political concerns related to conformity to corporate demands, and relational concerns concerning relations with employees. Three different change patterns were identified: Incremental, Divergent and Convergent. The first stepwise approach succeeded in both goal attainment and keeping employee relationships good, the second focused too quickly on goal attainment, losing first employee relations and then credibility due to the loss, in the convergent process the organisational unit and change agent chose what corporate goals to be attained locally. This resulted in keeping good local relations, but many goals were not reached.

**Theoretical tradition/ International research**

Contingency theory, contingency-balancing model, change agents.

**Strong/weak/asserted**

Asserted- goal attainment.

***Strand, G. L., & Skogseid, I. (2013). Management and Employees' Collaboration: Is the Norwegian Work Life Model Suited for All? Systemic Practice and Action Research, 26(1), 53–74***

**Empirical setting**

Two companies involved in an AR change process for enterprise development.

**Method and materials**

Case study (data collected during action research). Different qualitative data.

**Production/management system**

Industry, Manufacturing.

**Employees, working conditions**

Collaboration between unions, employees and managers.

**Performance results**

Opportunities to achieve change, goal attainment.

**Result/Main message**

When introducing new collaboration patterns between managers, union and employees in a company, it is important to take regional traditions into consideration. One of the companies succeeded in implementing direct manager employee collaboration, and the other company failed to implement broad collaboration. This article explores the reasons behind the different results.

**Theoretical tradition/ International research**

The Norwegian industrial democracy. Collaboration. Management style in Scandinavia.

**Strong/weak/asserted**

Asserted (performance results must be deduced by the reader).

**Comments**

Explores collaboration and management style in relation to change.

## Swedish core publications

**Arnetz, Bengt B. (2005). *Subjective indicators as a gauge for improving organizational well-being: An attempt to apply the cognitive activation theory to organizations.* *Psychoneuroendocrinology*. Vol. 30, No. 10, pp.1022–1026**

### **Empirical setting**

Continuous improvement of productivity and efficiency is described as the driving force behind organizational change and downsizing. The challenge is how necessary changes can be implemented without adverse health effects in workers. The study was conducted in a public regional hospital.

### **Aims/hypothesis /research questions**

The aim is to study the aspects of leadership that is essential for managing change and stressors

### **Methods and materials**

Questionnaire survey was conducted twice every three years (n = 2,336–2,035) within 18 departments. Response rate was 66% (1,544) at the first measurement and 77% (in 1,558) at the second occasion. The instrument QWC (quality work competence) measuring organizational and employee well-being in 10 key indexes as for example work tempo, goals and work climate.

### **Production/management system**

It is not specific methods such as Business Process Reengineering or outsourcing that is success factor but strategy, culture and other non-tangible factors that determine whether the result is sustainable.

### **Employees, working conditions**

Organizational stress and well-being were studied. Organizational goals.

### **Performance results**

The study found significant differences in organizational and professional well-being in the first measurement between both departments as professionals. The differences, however, had disappeared at the second measurement. Organizational goals proved to be an important moderator of organizational stress and general well-being. Employees in departments with unclear objectives were more stressed and threatened by future uncertainty as the ability to be proactive inhibition. Manage-



ment can reduce stress reactions by increasing employee awareness of organizational goals.

#### **Theoretical tradition/International research**

The study was based on the CATS theory explaining the individual's response to stress (1) stress stimuli, (2) stress experience (3), non-specific general stress and (4) experience of stress.

#### **Other contribution/background**

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#### **Main message**

By increasing management's communication skills and focus on clarity of organizational goals reduces employees' uncertainty associated with a specific goal to be achieved in the organization, for example, adaptation or survival, thereby reducing stress. CATS theory is applicable to the organizational level and may increase the understanding of inter-individual differences in stress responses.

**Arnetz, Bengt & Vanja Blomkvist (2007). Leadership, mental health, and organizational efficacy in health care organizations: Psychosocial predictors of healthy organizational development based on prospective data from four different organizations. *Psychotherapy and Psychosomatics*. Vol. 76, No. 4, 242–248**

#### **Empirical setting**

Few studies of psychosocial determinants of employee health and organizational development have been prospective, involving more than one organization and applying standardized assessment tools. The study was conducted in four hospitals in Sweden with a total of 6,000 employees.

#### **Aims/hypothesis/research questions**

The aim is to describe changes in psychosocial working conditions in four hospitals in Sweden. Specific psychosocial work characteristic (skills development, participatory management) related to employee mental health, leadership, and efficacy.

#### **Methods and materials**

Questionnaires were answered by employees at four hospitals with total 6,000 employees in Sweden. Employee respond anonymous the survey on two occasions, approximately 2 years apart (n= 2,070). Response rate varied between 58% and a high of 78% per year. Analyses: Change over time in three outcome measures- mental health, efficacy, and leadership.

#### **Production management system**

The importance of leadership for the employees' mental health has been examined.

#### **Employees, working conditions**

Work-related stress; work pace and work climate.

#### **Performance results**

The most significant predictors of changes in mental health were work tempo, a proxy measure for work stress in knowledge workers, and work climate. Increased completion, demands for more efficient operations as well as financial cutbacks have resulted in an increased work stress in health care. There are also reports of high levels of mental ill health and mental fatigue in health care settings. Efficacy was predicted by goal clarity and participatory management. Skills development was

only a significant predictor on one specific area (leadership) and then only one hospital.

**Theoretical tradition/International research**

Quality, Work, Competence (QWC) to assess staff perception of their organization, work environment, quality of care.

**Other contribution/background**

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**Main message**

Performance feedback and participatory management might be two common predictors of healthy workplaces. Some of the psychosocial determinants of healthy organizations suggested in previous research might not be universally valid. It is suggested that future research should to a larger degree make use of multiple departments and organizations in studies of psychosocial determinants of healthy organizations.

**Arvonen, Jouko & Pär Pettersson (2002). *Leadership behaviours as predictors of cost and change effectiveness. Scandinavian Journal of Management, Vol. 18, No 1, pp 101–112***

#### **Empirical setting**

Global competition creates business environments that place new demands on management when the business is going to be streamlined and developed. Management's behaviour and different technologies will be a key factor that will influence the outcome. Leadership that motivates, develops human resources and manages creative processes is necessary. A change-oriented leadership is related to employee satisfaction with leadership and efficiency in different situations. The study is based on an internationally successful privately owned industrial firm.

#### **Aims/hypothesis/research questions**

The purpose of the study is to study the relationship between leadership behaviour and organizational effectiveness both in terms of cost (cost-effectiveness) and partly in the form of change (change-effectiveness).

#### **Methods and materials**

A postal survey included 363 employees and managers in 49 departments (marketing, production, administration). Response rate 73%. Data were collected at the individual level but analysed at the department level (factor analysis) based CPE theory (Change, Production, Employee). Regression analysis has been conducted to verify that leadership behaviours are relevant for predicting effectiveness.

#### **Productions/Management system**

Philosophy is to implement incremental change to radical. Positioning is used.

#### **Employees, working conditions**

Employee relation-oriented leadership behaviour in 15 variables (ex. considerate, trust, allow his/her subordinates to decide, friendly, plans carefully, controlling, gives clear instructions, offers ideas, initiate new projects etc.).

#### **Performance results**

There was a correlation between relationship-oriented leadership and effectiveness in terms of both costs and change. Cost-effectiveness requires a combination of structure and relationship-oriented leadership

behaviour (explaining 29%). The changing effectiveness requires a combination of change and relationship-oriented leadership behaviour (explaining 31%). The combinations are specific to different situations. Employee oriented leadership behaviour is important regardless of organizational outcomes in the study.

### **Theoretical tradition/International research**

The study is based on the CPE theory (Change, Production, and Employee).

### **Main message**

The three leadership behaviours are necessary to the asset in any organization. When requirements change increases, leadership behaviour is increasingly important to be successful. A transformational and charismatic leadership is here preferred. Leaders should adapt situation the three leadership behaviours and should also be considered when managers are recruited and when they receive further training.

***Björk, Jennie & Mats Magnusson (2009). Where Do Good Innovation Ideas Come From? Exploring the Influence of Network Connectivity on Innovation Idea Quality. Journal of Product Innovation Management. Vol. 26, No. 6, pp. 662–670***

#### **Empirical setting**

The empirical setting is a Swedish company, which over a long period of time has used an information technology (IT)-based system for capturing and storing innovation ideas.

#### **Aims/hypothesis/research questions**

The aim of the paper is to add innovation management theory and practice by exploring the interrelationship between innovation idea quality and idea providers' network connectivity.

#### **Methods and materials**

Data consists of a continuous stream of ideas as fuel for innovation. The data used to investigate the interrelationship between idea providers' network connectivity and innovation idea quality come. In addition to this database, a number of interviews with key individuals within innovation were conducted to create rich contextual knowledge and to understand more in detail how ideas are handled in the company.

#### **Production/management system**

The study was done at a company that had worked systematically with idea management over a long period of time.

#### **Employees, working conditions**

The employees studied are those working with ideas.

#### **Performance results**

The analysis indicated that there is a clear interrelationship between the network connectivity and the quality of the innovation ideas created. For innovation teams, it was evident that a certain level of network connectivity had a positive effect on innovation idea quality but that highly connected groups did not provide a higher proportion of high-quality ideas.

#### **Theoretical tradition/International research**

The study was based on innovation management theory.

#### **Other contribution/background**

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**Main message**

To increase the number of high-quality innovation ideas created by individuals, the possibility to interact with other people should be supported and facilitated.

***Bäckström, Ingela, Johan Larsson & Håkan Wiklund (2009).  
Are healthy and successful organizations working  
accordingly to quality management. International Journal  
of Workplace. Vol. 2, No. 2009, pp. 245–257***

**Empirical setting**

Three organizations are studied: two manufacturing companies (Fresh AB and Roxtec International AB) and one hospital (SÖS Emergency).

**Aims/hypothesis/research questions**

The aim with this paper is to illuminate management methodologies for sustainable health among employees, customer satisfaction and good bottom line results. Questions dealt with in the paper are: How can managers commit employees to be part of the proactive work with sustainable health? What methodologies can top managers use to get well-motivated employees, a good work environment, satisfied customers and good financial results?

**Methods and materials**

Workshops with co-workers and in-depth interviews with the top managers.

**Production/management system**

In all organizations the leadership is relationship-oriented to a high degree and they are characterized by great humanity, informality, a long-range perspective and a holistic view. They have all received the national reward "The best workplace in Sweden".

**Employees, working conditions**

The working conditions are not mentioned explicit. We just know something about it by the reward as best work place in Sweden.

**Performance results**

Leadership in successful organizations are characterized by communication and information, strategic and visionary, learning culture, plainness and simplicity, humanity and thrust, walking around, authority and responsibility as well as co-worker conversations.

**Theoretical tradition/International research**

The study is based on the belief that good workplaces are characterized great humanity, informality, a long-range perspective and a holistic view. The three organizations are analysed based on Deming's 14 point.

**Other contribution/background**

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**Main message**

Organizations should improve their leadership according to the results above.



***Dabhilkar, Mandar & Lars Bengtsson (2004). Balanced scorecards for strategic and sustainable continuous improvement capability. Journal of Manufacturing Technology Management of the company. Vol. 15, No. 4, pp. 350–359***

#### **Empirical setting**

The Balanced scorecard (BSC) is a new approach for strategy development and deployment that has entered the management scene during the last decade. Three Swedish manufacturing companies; Sapa Heat Transfer, SKF, ABB Control have implemented BSC.

#### **Aims/hypothesis /research questions**

Illustrate how a strategic continuous improvement (CI) have been developed in the three companies that have implemented balance score card, BSC.

#### **Methods and materials**

The study was a multi case study. Data was collected by interviews. Sapa Heat Transfer had 480 employees of which 360 were blue-collar workers. SKF had 150 employees of which 120 were blue-collar workers. ABB Control?

#### **Production/management system**

Sapa Heat Transfer: temporary projects which are either cross-functional or functional.

SKF: product-oriented production lines.

ABB: Control, process-oriented and organized in target-oriented teams (50%).

TQM and BSC.

#### **Employees, working conditions**

What role have the features of the work organization at the operational level played in developing and sustaining the strategic CI capability. Motivated employees and learning opportunities is two important variables. Meaningfulness, autonomy, feedback.

#### **Performance results**

BSC may serve as an enabler for policy deployment in developing the strategic CI capability.

Both front-line workers and managers have to be committed to BSC, which requires addressing both parties' needs in the implementation

and use of the concept. To maintain this strategic CI capability over the years and thus obtain commitment, there seems to be a need for an advanced work.

#### **Theoretical tradition/International research**

The five-level evolutionary model of CI behavior, which describes particular patterns that confer competitive advantage (Bessant *et al.* 2001) was used. (Level 1: trying out the ideas. Level 2: systematic CI capability, Level 3: strategic CI capability, Level 4: proactive CI capability Level 5: the learning organization).

#### **Other contribution/background**

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#### **Main message**

In order to maintain a developed strategic CI capability, companies need to move on to the fourth level of the model; that is, to transfer autonomy and empowering individuals to manage their own processes.

***Din, Fateh-Ud, Harald Dolles & Rick Middel (2013).  
Strategies for small and medium-sized enterprises to  
compete successfully on the world market: Cases of Swedish  
hidden champions. Asian Business & Management. Vol. 12,  
No. 5, pp. 591–612***

#### **Empirical setting**

The study addresses how small-and medium-sized businesses called “hidden champions” are able to plan for growth and survival in a competitive and global environment.

#### **Aims/hypothesis/research questions**

The objective of this article was three-fold: (1) the approach to innovation in hidden champions, (2) exploring how such companies successfully compete, and (3) the application of the hidden champions concept to the Swedish situation.

#### **Methods and materials**

They applied a multiple-case study design with a choice of four companies. Data was collected by interviews of managers (n =?) with questionnaires, and reading assignments. The data were analysed using a qualitative content analysis.

#### **Production/management system**

Small-and medium-sized businesses.

#### **Working conditions**

Innovation is created with the right person in the right place, which means that employees’ attitudes, curiosity and how they learn is relevant. The management is committed to creating close relationships and to motivate their employees. Qualified professional development implemented.

#### **Performance results**

There was a positive correlation between “hidden champions” and innovation, and between private ownership and innovation. A close relationship with customers positively affects innovation and a close relationship with the suppliers. Competitors affects positively by products developed to be unique. Correlation between innovation and HRM (see working conditions) in terms of dedicated employees and innovation. Informal organizational structures and informal teamwork, knowledge

transfer and cross-functional collaboration has a positive effect on innovation development. Integrating leadership style has a positive impact.

**Theoretical tradition/International research**

Both push and pull factors influences innovation performance.

**Other contribution/background**

Employees are not included. The study is based on management perspective.

**Main message**

How the studied cases of relatively small hidden champion have a positive impact on the development of innovation regarding – private ownership, close relationships with customers, competitors effect on innovation strategy, with high involvement internship human resources, informal organizational structures and knowledge management, integrative leadership and informal networks – have a positive impact on the development of innovation.

***Grundén, Kerstin (2009). A Social Perspective on Implementation of e-Government: A Longitudinal Study at the County Administration of Sweden. Electronic Journal of e-Government Vol. 7, No. 1, pp. 65–76***

**Empirical setting**

The empirical setting is the County Administration of West Gotaland where the implementation of e-Government was evaluated in a longitudinal study.

**Aims/hypothesis/research questions**

The aim of the evaluation was to especially focus on social aspects in order to contribute with increased understanding of the importance of these aspects in the implementation process.

**Methods and materials**

Two interview studies were conducted and compared – at the legal as well as the traffic departments. Decision makers, handling officers and administrative assistants focusing on social consequences of work situations, work processes and quality of e-services to the clients were interviewed.

**Production/management system**

In the County Administration of West Gotaland an e-Government system was implemented at the end of 2007.

**Employees, working conditions**

The study focused partly on the social aspects of the work processes as well as the work situation.

**Performance results**

The respondents seemed to have a mainly positive attitude towards e-Government. But they were also aware of some presumed negative consequences.

**Theoretical tradition/International research**

The study was based on the MOA-E model saying that there are complex interdependencies between work processes from a managerial perspective, work situations for the staff and the services provided to the patients.

**Other contribution/background**

Many countries have put a great deal of effort into developing and implementing e-Government during the last decade. The public organisations

should be precursors in this development and contribute to increased availability of public information and services to Swedish citizens.

**Main message**

There is a need for competence development of social consequences related to IT implementation also for development personnel and different interest groups.

***Hemphälä, Jens & Mats Magnusson (2012) Networks for Innovation: But What Networks and What Innovation? Creativity and innovation management. Vol. 21, No. 1, pp. 3–16***

**Empirical setting**

The empirical setting is 22 pharmacies of the government-owned National Corporation of Swedish Pharmacies (NCSP or Apoteket AB in Swedish).

**Aims/hypothesis/research questions**

The paper aims to investigate whether different types of communication network structures serve separate ends in terms of incremental and radical innovation. The authors have tested two conflicting hypotheses on two separate measures of innovation. One hypothesis builds upon arguments for open network structures in the acquisition of innovation. The other builds upon arguments for closed network structures for innovation.

**Methods and materials**

Self-report data from a questionnaire and NCSP's balanced scorecard data.

**Production/management system**

How management create good innovation system.

**Employees, working conditions**

Explicit the employees are included as informants, implicit they are included as innovators.

**Performance results**

Findings suggest that social network measures are powerful predictors of innovation and, further, that the impact of these are likely to be radically different depending upon the type and measure of innovation.

**Theoretical tradition/International research**

The study is testing Burt's structural hole hypothesis (open networks is the mechanism by which brokerage becomes social capital) and the density hypothesis (open networks pose a fundamental problem for acting upon new ideas because the dispersed actors are more difficult to coordinate due to their opposing interests, unique perspectives and different languages).

**Other contribution/background**

The background is that innovation is a social and interactive process in which collaboration and exchange of knowledge and information play crucial roles. The question is, however, what networks for what kind of innovations?

**Main message**

Those managers that aim to stimulate incremental innovation are advised to pay close attention to the presence and development of dense networks; managers interested in facilitating radical innovation are advised to also monitor and develop open networks.



***Kammerlind Peter, Jens J. Dahlgaard & Hans Rutberg  
(2004): Climate for improvement and the effects on  
performance in Swedish healthcare: A survey in the County  
Council of Östergötland. Total Quality Management and  
Business Excellence, Vol. 15, No 7, pp 909–924***

#### **Empirical setting**

This is an investigation of the climate for improvement in the Swedish healthcare. The empirical setting is the County Council of Östergötland. The study objects are leaders at three hospitals and the Medical Laboratory units, other employees as well as the patients.

#### **Aims/hypothesis/research questions**

The aim of the study was to explore the climate for improvement in healthcare and its impact on patient and employee satisfaction.

#### **Methods and material**

The issue is explored via a self-assessment model. A questionnaire has been designed and distributed to the leaders. It was divided into two parts. The first part concerned the leaders and their individual leadership. The second part of the questionnaire contained statements regarding the climate for improvement. An Employee Satisfaction Questionnaire was sent to over 11,500 employees and the response rate was 82%. A Patient questionnaire was also included in the study and was sent to 16,800 outpatients and 15,000 inpatients and the response rates were 68 and 72% respectively.

#### **Production/management system**

The degree of climate for improvements was measured. Three quality tools were used – TQM, EFQM and SIQ

#### **Employees, working conditions**

The questionnaire which was designed to measure job satisfaction was based on the Swedish quality award model and contained over 100 questions.

#### **Performance results**

Statistically significant positive correlations were found between systematic quality improvement activities and employee satisfaction, as well as patient satisfaction.

**Theoretical tradition/International research**

An overall model that illustrates the relations between leadership, climate for improvement, patient and employee satisfaction is used.

**Other contribution/background**

Focus is on a small part of the leadership, namely climate for improvements.

**Main message**

Organizations with a structured and systematic approach to improvement activities have more satisfied employees as well as patients. The characteristics of clinical departments with a suitable climate for improvement are a focus on processes and patient involvement.

***Kollberg, Beata & Mattias Elg (2010). The practice of the Balanced Scorecard in health care Services. International Journal of Productivity and Performance Management. Vol. 60, No. 5, pp. 427–445***

#### **Empirical setting**

The Swedish health system has experienced an extensive reorganization involving cost reduction, downsizing and decentralization initiatives. In order to improve the follow-up process, and focus of the organization on other than economic measures, several county councils have implementing the Balanced Scorecard (BSC). Three health care organizations are concerned that all come a long way in the implementation of the BSC.

#### **Aims/hypothesis/research questions**

The purpose of the paper is to identify the main characteristics of the Balanced Scorecard (BSC) practices in health care.

#### **Methods and materials**

Case study with three organizations. Interviews (n = 34) and document studies. The researches have done analysis of coding in the theme and sub-themes.

#### **Production/management system**

BSC.

#### **Working conditions**

Strengthens the dialogue between employees and management. Strengthens weak voices in the organization. Increased demands on management. Knowledge development, understanding and improvement. Important participation and commitment among employees for BSC.

#### **Performance results**

BSC enables comparisons and contribute to a more transparent health care for citizens. Balances more aspects than just economic order to achieve good health on equal terms. Opens up the organization and creates dialogue between management and the weak voices within the organization, increasing the demand for lead. Provides a better understanding of the process of improvement in the organization. To be considered as a quality tool in health care organization.

#### **Theoretical tradition/International research**

Research BSC.

**Other contribution/background**

No.

**Main message**

In the health care context, the BSC helps managers improve performance measurements. BSC can be used as a tool of management and employees in the discussions, information dissemination, knowledge development, monitoring and reporting processes. Instead of using the BSC as a tool for implementing and communicating the strategy formulated by management it is used as a tool to open up the organization and provide a basis for improved dialogue, thereby increasing demands on management.

***Krook, Joakim & Mats Eklund (2010). The strategic role of recycling centres for environmental performance of waste. Applied Ergonomics 41 (2010), pp 362–367***

#### **Empirical setting**

Sorting wrong of waste affects the environmental performance of waste management as a whole. The purpose of the entire research program is to improve recycling centers as regards working conditions, environmental performance and economy.

#### **Aims/hypothesis/research questions**

The aim is to analyse how the recycling centres' directors, employees, users and operators further affect the environmental performance of the entire waste management system.

#### **Methods and materials**

Ten different instruments have been developed within the research program. In the study, survey data from employees at 42 recycling centres (n = 122) and private users (n = 300) at 16 recycling centres analysed. Interviews were conducted with 16 managers. Analysis of incorrect sorting of garbage and analysis of improvement by head interviews were done.

#### **Production/Management Systems**

The leadership needs to adapt to the introduction of source separation of garbage.

#### **Working conditions**

Employees and managers need to develop information and guidance to users to reduce the risk of injury at work.

#### **Performance results/Main message**

Narrow mixed materials when the product is designed increase the possibility of dismantling the waste. Users have a need for professional standards, as well as training in waste sorting. Managers need to take into account that the customer expects to get information on the spot through a better arrangement of containers and better signage. The terminology needs to be customized. Increase staffing at high load for a greater control of the sort. Employees can focus the most problematic fractions. Improving the sorting and working conditions may be contradictory. To pick up wrongly sorted waste increases the risk of injury. Adequate facilities are important.

**Theoretical tradition/International research**

The study is part of an interdisciplinary research on "Recycling centres in Sweden, working conditions, environmental and system performance." The research is done by representatives from various disciplines such as ergonomics, safety, external environment, and production systems.

**Other contribution/background**

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**Main message**

Customers have difficulty sorting waste which reduces the function of the entire waste management. Several measures have been identified, such as product design, improved terminology for labelling of waste and increased staffing at recycling. A fundamental task for managers and employees are to further develop information and guidance to users, both at home and at recycling centres. Many of their discarded products, leading to decreased performance of the entire waste management-system of which recycling centres are a part.

***Larsson, Johan & Stig Vinberg (2010). Leadership behaviour in successful organisations: Universal or situation dependent? Total Quality Management & Business Excellence, Vol. 21, No 3, pp 317–334***

#### **Empirical setting**

The empirical setting is four successful organizations, two manufacturing companies, one hospital and one retail operation.

#### **Aims/hypothesis/research questions**

The article has two purposes:

- To identify and summarize leadership behaviours common among successful organizations.
- To use these common elements to discuss those theoretical implications which concern situational aspects of successful leadership behaviour.

#### **Methods and materials**

The common leadership behaviours were explored using a comparative qualitative method. The identified common leadership behaviours were then analysed in relation to the three-dimensional leadership behaviour theory – change-, structure- and relation-orientation.

#### **Production/management system**

The identified behaviours were in all the three behaviour dimension. However, the relation-oriented leadership behaviour was by far the strongest of the three.

#### **Employees, working conditions**

The cases were selected since they were successful in terms of quality of work and health results.

#### **Performance results**

The selected cases were also successful when it comes to effectiveness.

#### **Theoretical tradition/International research**

The results are analysed in relation to the three-dimensional leadership behaviour theory (change-, structure- and relation-orientation).

#### **Other contribution/background**

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**Main message**

A successful leader uses high relation-orientation as a base. At the same time, this successful leader uses all three behaviour dimensions. The two additional dimensions of structure- and change-orientation can be altered by leaders according to situational factors. This conclusion implies that successful leadership behaviour includes both universal and contingency elements.



***Lindkvist, Lars (2007). Tänder tillsammans: När landsting inför personalkooperativ som vårdorganisation. Kommunal ekonomi och politik, Vol. 12, No 1, pp. 35–56***

**Empirical setting**

The interest in alternative modes of health care is increasing and this study deals with staff cooperative in dentistry. The idea of organizational change was that economic associations would create a cost-efficient operation with better working environment for employees.

**Aims/hypothesis/research questions**

The study aims to highlight the consequences of the introduction of a staff cooperative in the dental clinics.

**Methods and materials**

Longitudinal case study of three staff cooperative in dentistry. Interviews on 4 occasions 1993, 1995, 1999, 2002. All staff was interviewed on four occasions.

**Production/management system**

Cooperatively with common ownership. Hierarchical organization is broken and the staff is becoming entrepreneurs.

**Employees, working conditions**

Increased job satisfaction, job expansion and duties. Clear and transparent work was essential. To learn the importance of no longer being employees was more difficult for some people than for others. Initially, there were problems of legitimacy against the cooperative form.

**Performance results**

Some employees wanted to take more responsibility at work. Cooperatives resulted in increased job satisfaction with; job extension and variety in work, greater self-esteem and increased motivation at work, clearer effort between work and reward. In addition, an improved economy through; enhanced economic development, greater economic awareness compared to other competition that stimulated other organizations to reduce costs was important. Hierarchical structure disappeared. Staff cooperative felt clearer and more transparent to the county council's large organization. Competition has increased among the activities which enriched the organizations where the mixture has been central. Cooperatives also reduced ability to control and reduced transparency for the principal owner.

**Theoretical tradition/International research**

The starting point is the New Public Management perspective.

**Other contribution/background**

No.

**Main message**

The goal of increasing human influence and commitment, ownership, better quality of care, greater cost and revenue awareness was achieved through organizational form with staff cooperative. The pressure on uniform public health went to break. The organizational form is described as more legitimate in dental care than other health care organization. Regions Management carriers of values and norms affect the institutional conditions. Management's values / norms will determine what is possible to implement in practice.

**Neumann, W. P., J. Winkel, L. Medbo, R. Magneberg & S. E. Mathiassen (2006). *Production system design elements influencing productivity and ergonomics: A case study of parallel and serial flow strategies. International Journal of Operations & Production Management. Vol. 26, No. 8, pp. 904–923***

#### **Empirical setting**

In Scandinavia, there is a trend to return to the line-based production (previously socio-technical-based models). Strategic decisions in system design phase can have an impact on both productivity and ergonomics. The study compares the two production systems at an engine manufacturing systems at Volvo Powertrain in Sweden.

#### **Aims/hypothesis/research questions**

The aim of the paper is to identify specific production system design elements and their consequences for both productivity and ergonomics in a case of production strategy change. From parallel cell-based assembly (old) to serial-line assembly (new).

#### **Methods and materials**

Multiple methods was used. Records and video analysis, questionnaires, interviews (n = 54), biomechanical modelling, and flow simulations were applied. Three different query instruments were used (Borg, 1990; Kuorinka et al. 1987; Karasek, 1979; Karasek & Theorell, 1990; Rubenowitz, 1997), all were tested with paired t-tests. Analysis of the two production systems advantages and disadvantages was done.

#### **Production/ management system**

Transition to line-based production with a serial flow of 18 stations, for all product variants.

#### **Employees working conditions**

Increased risk of musculoskeletal injuries, deteriorating psychosocial work conditions.

#### **Performance results**

Both systems have their advantages and disadvantages. New system showed an increased risk of musculoskeletal injuries (monotony), shorter lead times with increased repetition decreased perception of influence in the work. Uneven load (high) in various workstations created problems in handling the workload. Reduce risk by using group struc-

tures in the new system (job rotation varies the load), and transfer the administrative work and development to the forefront.

**Theoretical tradition/International research**

The study had a sociotechnical-based approach

**Other contribution/background**

No

**Main message**

Both systems have advantages and disadvantages. Researchers recommend practitioners to create hybrid systems combinations, establish targets and indicators for the physical and psychosocial work environment, create productivity and ergonomic goals that are in harmony and work organization designed to support a flow system.

***Pohl, Hans & Maria Elmquist (2010): Radical innovation in a small firm: a hybrid electric vehicle development project at Volvo Cars. R&D Management. Vol. 40, No. 4, pp. 372–382***

**Empirical setting**

Car manufacturers are investigating alternative powertrains and alternative fuels, and they need more innovations for to become successful. The paper describes a radical innovation in a relatively small company in a mature automotive industry.

**Aims/hypothesis/research questions**

A study of how a relatively small firm in the mature automotive industry approached the development of radical technologies under conditions of scarce resources.

**Methods and materials**

Data were collected through 14 semi-structured interviews (workshop staff, line managers, top managers). There is a comparison between Volvo and Toyota Prius projects into four core capability dimensions by Leonard-Barton (1992): (1) the knowledge and skills embedded in employees, (2) the knowledge embedded in technical systems, (3) the leading system that guides the creation of knowledge and control processes (4) the values and norms associated with these processes. Core competence is becoming more difficult to change as they become more intangible, meaning that technical systems is codified, are easier to change than managerial systems and skills.

**Production/management system**

Lean.

**Employees, working condition**

Employees knowledge and skills were studied.

**Performance results**

Among the differences contributing to Volvo Cars' relatively rapid progress in its HEV development, despite limited resources were: (1) the precise and stable project objectives; (2) the extensive use of knowledgeable suppliers of new core technologies and the reuse of existing technical solutions where possible; and (3) a bottom-up approach to altering the firm's values and norms, where the vehicles were used as important tools for communication with top management.

**Theoretical tradition/International research**

Lean manufacturing

**Other contribution/background**

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**Main message**

An example of how a relatively small company can reverse the trend of how a radical innovation was handled in a small company with limited resources. Toyota focused on changing the core competencies while Volvo invested in entrepreneurial employees, who were exploiting the current conditions and available resources to produce radical innovation.

**Ryd, Nina & Sven Fristedt (2007). *Transforming strategic briefing into project briefs: A case study about client and contractor collaboration. Sweden Facilities Vol. 25, No. 5/6, pp. 185–202***

#### **Empirical setting**

Monitoring of key projects is seen as necessary and too rare. The article concerns the monitoring of Sweden's Posten AB change with project support network where 500 projects were the subject of conversion. The project is now considered a role model.

#### **Aims/hypothesis/research questions**

The aim is to describe the process of how customer requirements operationalized in strategic lines, and how they then converted into a number of different project categories, as implemented in 500 projects in Sweden.

#### **Methods and materials**

Two research methods have been applied: a broad case study based on a workshop, interviews and studies of project documentation, and literature studies with the aim of generalizing and analyzing the client's brief work on the basis of the case studied.

#### **Production/management system**

Project implementation.

#### **Employees, working conditions**

The employees participated in changes (for example regarding design of premises), in the decision process and formulation of clear goals.

#### **Performance results**

Factors that have had a positive effect on project implementation:

- Trusting collaboration both internally and externally.
- Business planning and premises planning were coordinated at a very early stage.
- Clear targets for the project were worked out and continuously communicated to everyone involved in the project.
- Utilization of reference projects – pilots.
- Project overview list (controlling and collaborative effect)
- Setting aside adequate time for stocktaking.
- Established national organizations.

- Clear decision-making processes.
- Not disturbing the business – implementing rearrangement without production stoppages.
- Development of briefs.

### **Theoretical tradition/International research**

Theories about implementation.

### **Other contribution/background**

#### **Main message**

Identifying improvement opportunities and utilise those experiences for similar projects and identifying improvement opportunities. The project was successful and this article described some factors that have had a positive effect on project implementation.



**Wallo, Andreas, Henrik Kock & Peter Nilsson (2012).**  
***PERSPECTIVE ON PRACTICE. Accelerating and braking in times of economic crisis. Organisational learning in a top management team. European Journal of Training and Development. Vol. 36, No. 9, pp. 930–944***

#### **Empirical setting**

A Swedish industrial company that experienced a crisis due to the economic recession of the late 2000s.

#### **Aims/hypothesis/research questions**

The aim is to present the results of a case study of a company top management team (TMT) struggle to survive the economic crisis and come out stronger from the crisis with a focus on:

- Composition of senior management, group processes and work.
- Organizational learning processes.
- Factors that allows appropriate strategies.

#### **Methods and materials**

Longitudinal case study between 2009 and 2011. Observations of meetings involving the TMT were done. Observations spanned approximately 224 hours; 18 board meetings, 14 management meetings, two business unit meetings, and four market strategy meetings. Semi-structured face-to-face interviews with eight managers were also done.

#### **Production/management system**

Management had a human resource development (HRD) perspective.

#### **Employees, working conditions**

Low level of diversity in the leadership team. Not described.

#### **Performance results**

Management's actions are described as important. The company showed a highly skilled ability to both explore and exploit the situation in order to make successful strategic decisions by accelerating and braking in order to survive the economic crisis. Accelerate was about finding new customers and markets and grow existing ones. Braking was about to cut costs and improve the cash flow of the company. Three key lessons to make time for learning on the job, working actively to explore and develop relationships with employees, responsible for the learning outcomes are forwarded to the organizational level and again at the individual.

**Theoretical tradition/International research**

Theories about top management teams (TMT) and organizational learning.

**Other contribution/background**

The papers don't involve the employees.

**Main message**

By helping organizations create expansive conditions for learning, HRD activities may contribute to increasing the survival rate of companies in global and highly turbulent markets.

***Wreder, Åsa (2007). Successful Management Methodologies for Achieving Co-Worker Health in a Large Organization. Total Quality Management. Vol. 25, No. 6, pp. 823–584***

#### **Empirical setting**

The study involves a large bank that received the award “Sweden’s best workplace”. The studies point to the difficulty of exercising good leadership in large organizations, which may affect employee health. TQM is considered to have a positive relationship with company performance, but also with employees’ health.

#### **Aims/hypothesis/research questions**

The aim was to examine how managers at different levels have worked to achieve employee health and how managers at different levels consciously working to support the development of employees’ health and profitability, and the methods that have been successful.

#### **Methods and materials**

Qualitative study with interviews of executives at three levels (n = 6). The material has been analyzed in several steps to identify salient patterns.

#### **Production/Management Systems**

TQM.

#### **Working conditions**

TQM values of customer focus, total employee involvement and evidence-based decision.

#### **Performance results/Main message**

Successful strategies for executive managers have been to develop clear strategies with the goals of health that can be monitored. Facilitate the work of middle managers with different tools, allocate resources and have a business perspective on health. For middle management, it’s about delegating and giving mandate, build confidence, be clear in communication, be coaching and trust of subordinates and ask for the results. Walking around and act as they talk is important. For first-line managers, it is about creating trust by walking around and create dialogue and build a relationship with the employees. Communication with weekly information and monthly meetings is recommended. Set goals and track performance of confidence among employees and emphasis on the equal value.

**Theoretical tradition/International research**

This study is a part of other studies of the bank. See Wreder et al. 2007.

**Other contribution/background**

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**Main message**

Immediate supervisor is essential for success. The author paints a picture of what managers at all levels can do to create good working conditions that enhance the experience of health at work. The examples presented above in the main message.

**Wreder, Åsa, Maria Gustavsson & Bengt Klefsjö (2008).  
Management for sustainable Health: A TQM-inspired model  
based on experiences taken from successful Swedish  
organizations. International Journal of Quality & Reliability  
Management. Vol. 25, No. 6, pp. 561–584**

#### **Empirical setting**

The empirical setting is a large bank which received the award "Sweden's best workplace".

#### **Aims/hypothesis/research questions**

The purpose is threefold. (1) Describe how a large organization successfully works to achieve health. (2) Compare the work done by that large organization with methodologies used by smaller successful organizations. (3) Create a model for how managers, of larger organizations, can work to create sustainable health.

#### **Methods and materials**

A qualitative single-case study. Interviews with managers (n=9), workshops with two groups of employees (n=9). This was complemented with document studies. The data were also compared to results from earlier case studies of three smaller organizations that have received the same award (methodologies).

#### **Production/management system**

A culture of core values that are tenaciously supported by methodologies and tools. The management was inspired of TQM.

#### **Employees, working conditions**

Success factors; customer orientation by giving the employees the opportunity to meet the customers in person and understand their own contribution to the customers; creating infrastructure for communication and information; giving everyone the opportunity for a holistic view by, for example, work rotation; routines for learning from each other; continuous education and development through projects and cross functional groups; and maintaining committed and charismatic leaders who give the employees responsibility and authority to influence their work.

#### **Performance results**

Managers' and employees' work based on four core values dedicated to creating a good workplace and sustainable health: (1) management

commitment; (2) employee involvement;(3) continuous development;  
(4) customer focus.

**Theoretical tradition/International research**

One of several case studies within a research project about “Leadership for sustainable health”.

**Other contribution/background**

No.

**Main message**

How the proposed model can generate a broader strategy for managers to promote sustainable health in large and small organizations.



## Good Nordic management practices

The project identified good Nordic management practices by analysing Nordic research on management, working conditions, and productivity. The project identified 2760 publications combining these topics and analysed in detail 38 core publications combining all three topics. The main findings were:

1. Nordic research that combine all three topics is limited in extend but broad in content and therefore fragmented. Values related to cooperation and participation permeated the publications, which sets them apart from EU and US publications.
2. The core publications identified positive relations between management practices, working conditions and workplace performance.
3. Positive management practices are characterised by dialogue and cooperation between managers and subordinates.

The research was conducted in 2012-2014 at Aalborg University, SINTEF, VTT, and Karlstad University.

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