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**DELAY REDUCTION IN COURTS OF JUSTICE – POSSIBILITIES
AND CHALLENGES OF PROCESS IMPROVEMENT IN
PROFESSIONAL PUBLIC ORGANIZATIONS**

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presented with due permission for public examination and
criticism in the Auditorium of the Student Union House at
Lappeenranta University of Technology, Lappeenranta on
the December 3rd, 2011, at noon.*

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Abstract

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Delays in the justice system have been undermining the functioning and performance of the court system all over the world for decades. Despite the widespread concern about delays, the solutions have not kept up with the growth of the problem. The delay problem existing in the justice courts processes is a good example of the growing need and pressure in professional public organizations to start improving their business process performance. This study analyses the possibilities and challenges of process improvement in professional public organizations. The study is based on experiences gained in two longitudinal action research improvement projects conducted in two separate Finnish law instances; in the Helsinki Court of Appeal and in the Insurance Court. The thesis has two objectives. First objective is to study what kinds of factors in court system operations cause delays and unmanageable backlogs and how to reduce and prevent delays. Based on the lessons learned from the case projects the objective is to give new insights on the critical factors of process improvement conducted in professional public organizations.

Four main areas and factors behind the delay problem is identified: 1) goal setting and performance measurement practices, 2) the process control system, 3) production and capacity planning procedures, and 4) process roles and responsibilities. The appropriate improvement solutions include tools to enhance project planning and scheduling and monitoring the agreed time-frames for different phases of the handling process and pending inventory. The study introduces the identified critical factors in different phases of process improvement work carried out in professional public organizations, the ways the critical factors can be incorporated to the different stages of the projects, and discusses the role of external facilitator in assisting process improvement work and in enhancing ownership towards the solutions and improvement. The study highlights the need to concentrate on the critical factors aiming to get the employees to challenge their existing ways of conducting work, analyze their own processes, and create procedures for diffusing the process improvement culture instead of merely concentrating of finding tools, techniques, and solutions appropriate for applications from the manufacturing sector.

Keywords: Justice courts, Delay reduction, Process improvement, Professional public organizations, Action research, Operations management

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Lappeenranta, October 6th, 2011

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1 Introduction

“Everyone has the right to have his or her case dealt with appropriately and *without undue delay* by a legally competent court of law or other authority, as well as to have a decision pertaining to his or her rights or obligations reviewed by a court of law or other independent organ for the administration of justice.”

Finnish constitution (Section 21, Protection under the law)

A similar statement is also written into the European Convention of Human Rights (Art. 6 Par. 1), as one of the protected human rights. Finnish courts, like numerous courts around the world, have struggled with prolonged throughput-times and have received appeals and been condemned by the European Court of Human Rights concerning unreasonable duration in the handling of judicial cases.

Finland has received over 50 condemnations concerning unreasonable duration by the year 2010, and the situation is not expected to get any better (Salo, 2009; Kalenius and Salo, 2010; Finnish Ministry of Justice, 2010). The throughput-times in different court instances are a topical issue in Finland at the moment, and the concern for delays and court resources rises up regularly in political debates (Henttonen, 2010). The delays can be seen as one of the biggest problems associated with the Finnish legal system. Finland has factually no corruption or other major quality problems associated with court operations, and the confidence of the public on the judiciary is one of the highest in Europe. However, one important factor influencing the confidence of citizens in the legal system is their perceptions of how quickly cases are processed by the justice system (Litmala, 2003; Smolej, 2006; Spolander, 2007).

Delays are not particularly a Finnish phenomenon, nor are they something new. Delays in the justice system have been a target of concern all over the world for decades, but the reasons for delays are still little understood, and solutions have not kept up with the growth of the problem (Di Vita, 2010; McWilliams, 1992). “Delay is a problem that undermines the functioning of court systems around the world. Its implications and possible solutions, however, are not so widely understood” (Vereck and Muhl, 2000, page 243). Especially the time it takes for a court to process its cases varies widely from case to case, and the sources of this variation have remained largely obscure (Luskin and Luskin, 1987). The president of the European Group of Public Administration observed in 1999 that the courts in all European countries are faced with problems of management ineffectiveness and inefficiency that have resulted in their being burdened with a backlog of work, with cases portrayed beyond reasonable time limits (Steelman and Fabri, 2008).

Despite the widespread concern for delays in recent decades, the balancing between process throughput-times and case quality remains a global challenge. Conventional thinking still holds that the two basic values, reasonable throughput-times and quality of justice, are in conflict, meaning that improvement in one will be a loss in the other (Ostrom and Hanson, 2000). An old advice for judges says that a judge should not be hasty when giving judgment but should thoroughly consider the evidence, because hasty

judgment is rarely good and right. This advice, however, does not refer to process throughput-times or otherwise to the handling procedures, it is purely an advice for decision-making (Spolander, 2007). The advice does, however, express well the consistent tug-of-war between time and quality in judicial processes. This consistent balancing problem can cause not only violation of basic human rights, but it can also produce significant expenses for societies all over and lead to individual tragedies in connection with people's most basic everyday life, such as children, family, income, living conditions, work, property and safety.

1.1 Background of the study

The backbone of court system operations is, like in all professional organizations, autonomous work of highly motivated and educated individuals (Lowendahl, 2005; Mintzberg, 1983; Powell et al., 1999). In the court system the judges also need to be completely independent and "beyond control" to ensure objective ruling. At the same time, the court system is a process with a set of sequential tasks and activities linked together, concerning different participants. In terms of operations management, judicial processes are, at first glance, quite simple and straightforward job-shops consisting of manufacturing cells and buffers between them. Despite the apparent simplicity, almost every justice organization is facing difficulties to manage the work flow and throughput-times of the process. It is obvious that the environment has different types of complexity, which are difficult to express with basic operations management terms. The judicial process demands a continuous and coordinated flow of a very large number of individual and infinitely different types of cases, and it demands cooperation and coordination between multiple stakeholders. Even though every case is individual, the handling procedures cannot be completely individualized due to the great volume of cases, and the process still needs to be as standardized as possible.

It can be said that courts are organizations balancing between the needs and requirements of independent professional work and an effective mass-production process. Both these organizational features should be well functioning for the court to perform its basic task: good quality rulings in a reasonable time. However, the tension and tug-of-war between time and quality has always been present in judicial processes and is still strong in the culture, attitudes and working methods of the courts. This tension is even referred to as "assembly line justice causing injustice" (Coolsen, 2008). The fact that both "assembly line" and high quality professional work requirements exist in the court system processes cannot be totally ignored, either. The global problems in throughput-times indicate that the issues of process and production effectiveness have not been fully recognized, accepted and given the attention they need in the different areas of justice organization operations. Some matters cause process ineffectiveness in justice systems all around the world, even though the legislation, court systems, resources and methods in judiciary vary from one country to another.

The primary underlying reasons for global process ineffectiveness and inefficiencies in justice systems are still quite unclear and controversial. The recognition that delays are a problem has not yet led to comprehensive understanding of the causes of delay or to active development of delay reduction projects and programs. Many of those who work inside a court have long blamed a high workload and inadequate resources for the delays. Practitioners have also often assumed that the delay problem stems from a single, identifiable cause that can be easily remedied. The explanations have varied during decades from lack of resources and chronic underfunding to increased complexity of cases and to inconsistent and unsuitable working, management and control practices. One point is globally agreed upon: much more systematic empirical research concerning the practices of the courts is needed in order to assess the potential problems and development opportunities. (See for example Ervasti and Kallioinen, 2003; Kiesiläinen, 2000; Martins, 2007; Moog, 1997; Ostrom and Hanson, 2000; Smolej, 2006; Steelman and Fabri, 2008; Stevens, 1981)

Underlying factor that drives the research concerning operations improvement in justice systems is the ongoing national programs to increase public sector productivity and increase the process performance. The reality in Finland is similar to that in many other countries: the decreasing work force and tax resources demand better public sector productivity. The pressure to increase process effectiveness and productivity has grown enormously in the operational environment of all public sector organizations in recent decades. In almost every country today, government entities are being asked to improve services to citizens while at the same time reducing the cost of day-to-day operations. To respond effectively to these two pressures the courts, like other public organizations, must consider changing the ways they carry out their everyday work activities – in other words improve their business process performance. It is said that the classical models of professional bureaucracy may no longer fit the changing and more dynamic environment, and large publicly funded professional bureaucracies have received enormous pressure from governments for changes in operations and management practices (Radnor and Wally, 2008). A wave of managerial and productivity reforms have spread the governmental instances all around the world since the beginning of the 1980s, which has exposed the “traditional bureaucratic systems” to the ideology of market mechanisms and challenged them to invent new, more flexible, models for operations. The pressure has been especially strong in large professional bureaucracies, for example in the public health care, justice systems and universities. Pursuing the goal of productivity and customer satisfaction has been a great source for innovations in public management, as can be seen in the classical works on paradigm change in the public sector and the diffusion of the “new public management” (Greenwood and Lachman, 1996; Parker and Bradley, 2000; Powell et al., 1999; Ongaro, 2004).

Business process effectiveness, efficiency, productivity, coordination, cost-efficiency and customer orientation have been obvious themes and targets of improvement in the private sector for a long time but in the public sector the time for change and process improvement has truly come relatively recently. As a basis for this improvement task, professional public organizations have increasingly started to apply improvement concepts and methods traditionally designed for process performance improvement in the

manufacturing industry. Much can, and should, be learned from operations improvement and process improvement initiatives in the private sector, but the applications need to be complemented with thorough understanding of the special characteristics, traditions and history of operations in different public bureaucracies (Radnor and Wally, 2008).

The present research project started in the early 2006 with a call for assistance from the Finnish Ministry of Justice, which wanted to start an improvement project. The project aimed to study the Finnish court system processes in order to find some new ways of reducing the throughput-times without endangering the quality of decisions or increasing the resources. The research project started in a time of financial pressures anticipating more reduction in resources and services. There were already several task forces founded in different courts, whose assignment was to consider the possibilities to improve work methods and reduce delays in courts. As a part of this task, they had concluded that it would be useful to get a totally new perspective and expertise into these groups as a means to get fresh thinking and improvement solutions to the court system operations and processes. A research group at Lappeenranta University of Technology, the author included, seized the opportunity to be a part of this interesting and challenging process improvement task. Soon it became evident that the perspective and subject of process improvement and operations management possibilities and application in the professional work environment is an interesting, important and maybe currently underrated research area.

1.2 Motivation and objectives of the study

The initial motivation and starting point for the study has been the need existing in court organizations to understand better the causes and possible remedies concerning the delay problem.

The persistent delay problem existing in the justice court processes is a good example of the growing need and pressure in professional public organizations in general to start improving their business process performance. This growing pressure has in recent years led to a rise in the use and application of different techniques, tools, practices, and solutions of process performance improvement traditionally designed for the manufacturing industry (e.g. Korhonen 2008; Radnor 2010; Radnor and Walley 2008). Generally, the process improvement needs and expectations concentrate on throughput-times and queues, and particularly applying Lean principles has been proposed as a way to achieve substantial improvements (Korhonen 2008; Radnor and Walley 2008).

The application of process improvement and operations management techniques and approaches have in most cases yielded significant outcomes, and the potential for improvement is remarkable (Korhonen 2008; Radnor 2010; Radnor and Walley 2008). The need and potential to improve process performance and operations is clear, and the question is not whether these organizations should improve their business processes, but how they should go about it (Brashier et al., 1996). Changing from a traditional stable bureaucratic structure emphasizing rules and procedures towards greater orientation on

change, flexibility, efficiency and productivity is not an easy task, and a lot of organizational issues need to be considered. The differentiating process and organizational characteristics between public professional organizations and private manufacturing organizations can lead to managerial and change creation challenges which need to be incorporated in the improvement efforts (Cheng, 1990; Hartley and Skelcher, 2008; Lowendahl, 2005; Nutt and Backoff, 1993; O'Mahony et al., 2008; Radnor and Wally, 2008; Thong et al., 2000).

Especially changes concerning process improvement can be challenging due to the contradictory mindset concerning process-based efficiency and the demands of autonomous, individual professional work and the fact that there is often not competence and previous experience of conducting process improvement projects in the organization itself. Therefore, organizations often need to rely on external process improvement expertise in their improvement applications, which can create problems concerning the suitability, acceptability, and ownership of the changes. Process improvement projects and applications in professional public sector organization have been noticed to most often fail in the implementation and in a failure to create sustainable change and an improvement culture. Further research is needed on the possibilities of carrying out process improvement work in a way that increases acceptance of the improvement solutions and builds the organization's improvement capability (e.g. Adler et al. 2003; Radnor 2010; Radnor and Walley 2008; Rahbek et al. 2011).

The underlying aim and motivation for this study is a desire to understand better the basic dilemma inherent in influential process improvement work in professional public organizations: how to effectively apply unfamiliar process improvement solutions from the industrial environment by utilizing external help and expertise, and at the same time create ownership and acceptance towards the solutions, and achieve not only technical performance improvement, but also sustainable cultural, competence and attitudinal change?

The objective is to increase the understanding of the critical factors inherent in process improvement projects which need to be taken into consideration in order to support the effective application of novel improvement solutions and to create and maintain the ownership of the solutions in the organization. The aim is also to discuss the possible ways to take into account these factors in different stages of process improvement projects.

The study aims to contribute both to the practical need in courts to understand thoroughly the delay problem, its causes and remedies and to the theoretical discussion concerning the possibilities and challenges of process improvement applications in professional public organizations. By identifying and analyzing the critical factors in process improvements projects utilizing also external process improvement expertise, the study aim to provide insights and suggestions on how to successfully carry out future process improvement interventions in professional public organizations.

The research objectives of the study are introduced in more details in chapter 2.5 presenting the literature summary, research gap and the research questions of the study.

1.3 The case organizations

The Finnish court system is tripartite for civil and criminal cases. The first level is the District Courts. The Finnish District Courts deal with criminal and civil cases and also with petitionary matters. There are 27 District Courts in Finland. The decisions of the District Courts can then normally be appealed in a Court of Appeal. There are six Courts of Appeal in Finland; one each in Helsinki, Kuopio, Kouvola, Rovaniemi, Turku, and Vaasa. Most of the cases dealt with by the Courts of Appeal are appeals against decisions of the District Courts. In addition, the Courts of Appeal decide, as a first instance, upon matters of treason and certain offences in public office. Another task of the Courts of Appeal is to supervise the operations of the District Courts in their jurisdiction on a general level. The decisions of the Courts of Appeal, then, can be appealed in the Supreme Court, provided that the Supreme Court grants a leave to appeal. The most important function of the Supreme Court is to establish judicial precedents in leading cases, thus ensuring uniformity in the administration of justice by the lower courts.

The judicial oversight of administrative acts in Finland is the task of the Administrative Courts and Supreme Administrative Court. There are eight regional Administrative Courts in Finland; in Helsinki, Hämeenlinna, Kouvola, Kuopio, Oulu, Rovaniemi, Turku, and Vaasa. There are also certain special courts in Finland. These are the Market Court, the Labour Court, the Insurance Court, and the High Court of Impeachment.

The thesis is based on experiences gained in two large process improvement projects conducted in two separate Finnish law instances; in the *Helsinki Court of Appeal* and in the *Insurance Court*. These courts were selected by the Ministry of Justice to be candidates for the process improvement projects, because in these courts the current situation was estimated to be problematic, and the courts had been struggling with backlogs and delays for years. These court instances had also had bad publicity in various media concerning delays and long throughput-times. The case courts are introduced in the following.

1.3.1 Helsinki Court of Appeal

The Helsinki Court of Appeal is the largest court of appeal in Finland. In recent years it has solved around 4000 cases annually, which makes about 30% of all cases handled in Finnish Courts of Appeal.

The head of the Helsinki Court of Appeal is called Chief Justice. The other *judge members* of the Helsinki Court of Appeal are called Senior Justices or Justices. Cases are presented for decision by legally trained *referendaries*, who are called Senior Assistant Justices or Assistant Justices. The Helsinki Court of Appeal operates in seven

independent departments each headed by a Senior Justice. The jurisdiction staff in every department consists of approximately 7 Justices, 1 Senior Assistant Justice (the most senior referendary in a given division) and 7-8 Assistant Justices. In addition, there is also clerical staff. Altogether there are about 170 employees in the Helsinki Court of Appeal.

The case handling process starts with preparation. The referendaries and the members see to the preparation and hearing of cases. The extent and form of needed preparation varies according to the nature of the matter. For every case, a responsible Justice is named who is responsible for the preparation work of the case in general. Usually also a responsible Assistant Justice is named for each case, who is largely responsible for the practical preparation work. During the preparation, the Court of Appeal decides if the matter is to be taken up for further consideration. This is called a screening procedure. If three members of the Court of Appeal are convinced that the decision made by the District Court is correct, the handling of the matter is not continued. Screening is a relatively new procedure, which was started at 2003. In the beginning as much as 20 % of the cases were handled by screening, but nowadays the number of screened cases has dropped considerably and screening has now only marginal meaning for the work load. In 2008 only 8% of the incoming cases were screened. The decrease is largely due to received complaints from Supreme Court concerning screening decisions.

If the matter is taken up for further consideration, the opposing party is requested to respond to the appeal in writing. In addition to the proposed settlement done by the referendary, the preparation covers also the practical arrangements, such as agreeing on the date and the summoning of the parties and the witnesses to the hearing. There are two procedures for making the decision; a written procedure or a main hearing. The decision whether or not to hold a main hearing is also made during the preparation. Likewise, decisions to obtain an expert opinion, to receive documentary evidence, to hold a judicial inspection, and to hear given witnesses are made during the preparation. The responsible judge can make independent decisions relating to the preparation and also issue certain decisions specifically prescribed by law, including decisions in matters relating to granting of legal aid and appointment of a legal aid attorney, as well as certain urgent and provisional decisions.

In the written procedure, the referendary circulates among the members who belong to the deciding composition, the decision of the District Court, the appeal, the response, other material compiled and a proposed settlement and a memorandum which he/she has written in the preparation phase. Normally, cases are decided by a composition of three judge members. After all the members have become acquainted with the case material, the three members and the referendary convene in a presentation, where the referendary summarizes the case orally. The members discuss the case and finally state their opinion and make a decision. If necessary, a vote is taken. In the written procedure, the parties and the public can not be present. In certain cases (HOL 9§) an experienced referendary may serve as one of the three deciding members. The majority of cases (about 60%) in the Helsinki Court of Appeal are handled with the written procedure.

In the main hearing, the referendary, or one of the judge members, first summarizes the decision of the District Court and the results of the preparation of the case. Then he/she asks whether the points made by the appellant and the respondent during the course of the preparation still correspond to their views. After that, the appellant and the respondent justify their positions and comment on the submissions of their opposing parties. All circumstances that are to be referred to must be submitted orally, because only such items are taken into account in the decision. The parties present their documentary evidence and testimony is heard. In this manner, the members of the court of appeal have the opportunity to assess the credibility of the witnesses. The main hearing ends with closing arguments. At this stage, the parties evaluate the evidence that has been submitted and present their view as to whether or not and how the decision of the district court should be changed. The decision is also normally made by composition of three judge members. In simple cases, the decision may be promulgated immediately at the end of the hearing. In other cases, it is handed down from the registry, normally in 30 days. The number of cases that need to be decided in a main hearing has grown in recent years. In 2008 33% of the handled cases were decided in a main hearing. This is 4% more than the year before.

The parties involved and the main stages of the case handling process are presented in Figure 1.

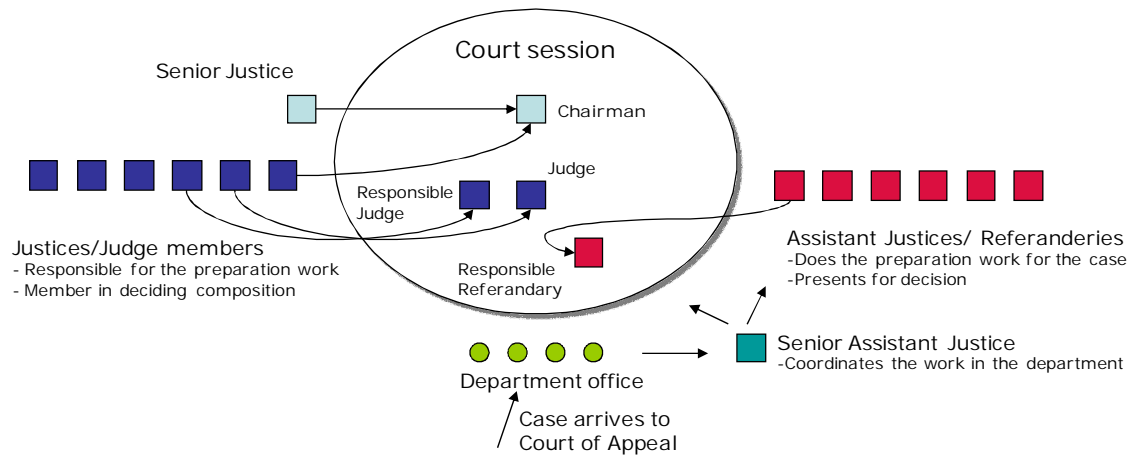


Figure 1 - Case handling operations in Helsinki Court of Appeal

The preparation phase is the most time-consuming stage in the whole process. The time needed varies according to the width and complexity of an individual case. When the case arrives to the Court of Appeal, the presumable workload and preparation time are assessed and the cases are divided to five size-groups: S, M, L, XL and XXL. This assessment is done mainly on the basis of the type and nature of the felony and on the number of pages in the case material. There are two main types of cases: civil cases and criminal cases. About 1/3 of the incoming cases are civil cases and 2/3 are criminal cases. The cases are also prioritized and categorized to four classes according to the assessed urgency of the case. The first priority level concerns “emergency” type of cases, which need to be handled immediately, for example child guardian issues, restraining orders or

cases where the respondent is in prison. Other cases are divided to priority levels 1, 2 or 3 using several criteria according to the nature of the felony or dispute.

1.3.2 Insurance Court

The Insurance Court is an independent and impartial special court of law dealing with income security matters, for example a person's right to an earnings-related pension, national pension, unemployment benefit, wage security, housing allowance, financial aid for students and disability benefits paid by the Social Insurance Institution of Finland. The court also deals with matters concerning benefits according to the Health Insurance Act, rehabilitation, right to compensation on the grounds of occupational accidents and diseases, criminally caused injuries, military injuries or military accidents. There are over 30 different subject groups of cases. The Insurance Court is the supreme appeal body in income security issues. In general, the appeals of decisions made by institutions and companies are first made to appeal boards dealing with such matters. Appeals against the decisions of the boards can then be made to the Insurance Court. The Insurance Court handles as much as 10 000 cases annually.

The activities of the Insurance Court are led by a Chief Justice. The Insurance Court has three departments, each headed by a Senior Judge. The other juridical staff consist judge members, senior referanderies and referanderies. Additionally, there are court clerks responsible for preliminary preparations as well as other administrative staff. Altogether there are approximately 110 employees.

The departments are specialized; department 1 mainly deals with matters concerning occupational accidents and diseases, criminally caused injuries, financial aid for students and military injuries. Department 2 mainly deals with matters concerning pensions on the basis of private employment, national pensions and general housing allowances. Department 3 mainly deals with matters concerning pensions on the basis of public employment, as well as unemployment security, disability benefits and health insurance.

The case handling process starts with a preliminary preparation of the case, which is done by a Court Clerk. The prepared cases are then distributed to the referendaries, who make a case memorandum and a proposed settlement on the basis of the documentation. After that the first judge member studies the case and makes the needed corrections and changes. Afterwards the case goes to another judge member, the chairman. When the chairman considers that the case is mature for making a decision, he or she determines that a hearing can be held and a decision can be made in a court session. In general, the Insurance Court makes decisions only by a written procedure. Oral hearings, similar to main hearings, are possible in certain circumstances, but they are extremely rare.

Depending on the subject matter and the nature of the case, three or five court members participate in the decision-making composition. There are two main types of cases: legal matters and medical matters. All cases are presented by a referendary. In legal matters the decision-making body consists of the chairman, two legally trained members of whom one is an insurance court judge and the other the referendary. In case a medical

investigation may have an impact on the settlement of the case, a physician, who is a part-time public service employee of the Insurance Court, replaces the referendary as a member of decision-making body. When five court members are needed, in addition to these persons, two outside experts appointed by the Government on a secondary job basis participate in the decision-making composition. Before the court session, also outside experts need to get acquainted with the case documents and memorandums.

The parties involved and the main stages of the case handling process are presented in Figure 2.

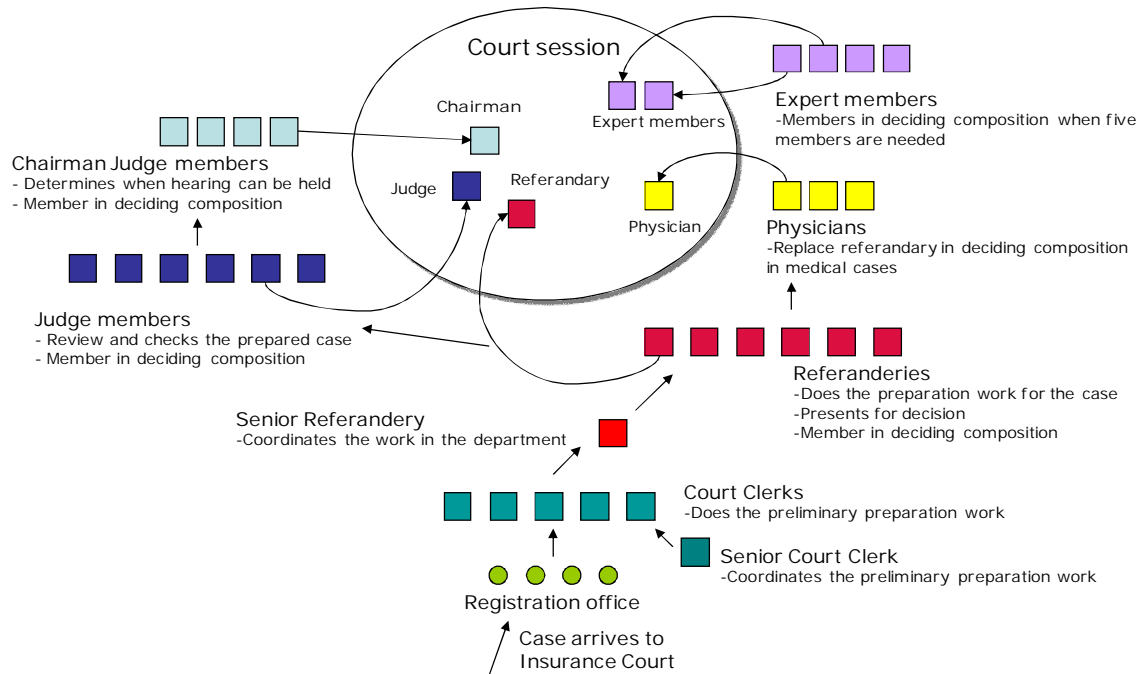


Figure 2 - Case handling operations in the Insurance Court

There is no division of cases either by size or urgency. All cases should be treated equally. The applicant has the possibility to present new evidence to the court, either as an enclosure to the appeal document or at any later stage during the case handling process, if new evidence emerges. Evidence presented after the case has been decided is not taken for consideration.

1.3.3 Case comparison

Both case organizations are relatively large professional organizations and both have difficulties in managing their process performance, which have led to problems connected to delays and backlogs. Both case courts also operate on an appellate level in Finnish judiciary system. Because the case courts operate in different roles in the Finnish judicial system, it means that there are certain differences in the structure, process and

working methods, but the basic principles of professional organization apply in both case courts.

The biggest differences between the two case courts from the process and operations management perspective are connected to the variety of the cases to be handled and to the handling procedures needed. In the Helsinki Court of Appeal the individual cases vary more in the sense of size/complexity and urgency. The urgency varies from extremely urgent to priority level three cases, and the size from very large and complex cases to relatively simple and straightforward ones. Also the handling procedure varies from screening to resource-consuming main hearings, and the main hearings create a need for interaction with the customer and need for more coordination between the parties. The variety in the product range and production process makes the need for differentiation of processes and products, planning the actions and process flow even more important but also more challenging.

In the Insurance Court, while there is some variety in the complexity of the cases and in the deciding composition, the cases are more heterogenic in the sense of size and urgency, and the handling procedures are more standardized. It can be said that the process in the Insurance Court is more a mass production process by nature, when viewed from the perspective of the customization level of the output, the amount of output produced, the predictability and standardization possibilities, the customer involvement, and the work and resource planning need and practices.

One basic difference of the case courts is connected to the nature of the cases. The cases in the Insurance Court deal with people's livelihood, and it is thus even more important that the throughput-times do not vary a lot from case to case. This has influences to the employees' perception of who are the primary customers and thus the willingness and desire to start the delay reduction efforts and equalize throughput-times.

1.4 Structure of the thesis

The thesis consists of seven main chapters. In the first introductory chapter the background, motivation and objectives of the study, and the case organizations were presented.

Chapter 2 presents the theoretical areas and a literature review related to the study. At the end of the chapter 2 the research gap and the research questions are presented.

In chapter 3 the research approach, methodological choices and the research projects conducted in the case organizations (the stages, events and interventions and their implication) are presented and discussed. At the end of the chapter 3, the data analysis process of the study is described.

In chapter 4, the empirical results from the analysis phase of the process improvement projects are described. The emphasis is in describing the scope and scale of the process improvement task in courts and what affected the success of the analysis phase.

In chapter 5, the empirical results of the planning phase of the process improvement projects are described. The emphasis is in describing the context of the solutions designed and in discussing the nature of solutions designed and implemented.

In chapter 6 the empirical results of the factors affecting the approval, adoption and utilization of the solutions is analyzed and discussed. In addition, the results concerning the nature of changes attained from the process improvement interventions carried out are analyzed.

Finally, in the Conclusions chapter, the contributions of the study are presented and discussed, as well as the evaluation of the study and further research needs introduced.

The following chapters and their contents are summarized in figure 3.

Structure of the thesis
Chapter 2 : Literature review -Process improvement concepts - Characteristics of professional public organizations -Process improvement in professional public organizations -Process improvement in Courts of Justice -Research gap and research questions
Chapter 3: Research projects and methodology -Research strategy and methodology -Action Research projects -Data collection and analysis
Chapter 4: Analyzing the process performance problem and the underlying reasons
Chapter 5: Planning the process improvement solutions
Chapter 6: Adoption and approval of process improvement solutions and the changes happened.
Chapter 7: Conclusions -Theoretical and practical contributions -Evaluation of the study and further research needs

Figure 3 - The structure of the thesis

2 Literature review

The research focus of the study is the factors connected to successful process improvement work in professional public organizations. In this chapter, a literature review related to the study is presented.

The first part (2.1 Process improvement concepts) concentrates on defining the important underlying concepts concerning process improvement work in organizations.

The second part (2.2 Characteristics of professional public organizations) aims to outline the special characteristics of professional public organizations and processes affecting process improvement and change creation efforts.

In chapter 2.3 the literature concerning the application and transfer of different types of process improvement techniques to professional public organizations is reviewed.

In chapter 2.4 the literature concerning caseload management applications in courts of justice is reviewed.

Finally, in chapter 2.5, the literature is summarized and the research gap and research questions of the study are outlined.

2.1 Process improvement concepts

“Organization development (OD) is an effort, planned, organization-wide and managed from the top to increase organization development and health through planned interventions in the organization process, using behavioral science knowledge” (Huczynski and Buchanan, 2001, p. 560). Organizational development and organizational change have been studied for years, starting from the original thinking of Kurt Lewin and his studies in social and behavioral settings.

Organizational development can be seen as a general process that incorporates organizational learning and change embracing a wide range of intervention strategies into the processes of an organization (Mullins, 1999; Schein, 1999). The literature of organizational development and change reflects different approaches, each of which contributes to our understanding of the phenomenon. The different approaches include for example the impacts of the scale and scope of change, human- and technical approaches to change, top-down and bottom-up approaches and the role of organizational learning in the change processes (Korhonen, 2008; Riis et al., 2001).

Organizational development is increasingly studied also in public sector organizations in guiding change initiatives. It has been argued that the traditional OD concept has some limitations when applied to professional bureaucracies. The introduction of OD in organizations that are under centralized control and bureaucratic and political working conditions may clash with the prevailing organizational culture. Especially effects of top-

down or bottom-up approaches to change and the crucial role of top management have been discussed in the literature concerning organizational development in the public sector (Leitko and Szczerbacki, 1987; Nutt and Backoff, 1993; Parry and Proctor-Thompson, 2003; Sminia and Nistelrooij, 2006; Wallace and Fertig, 2008).

In a very general sense, organizational development is concerned with attempts to improve the overall performance and effectiveness of an organization (Mullins, 1999). Therefore, process improvement is an approach to organizational development. Process improvement can be broadly defined to include all types of actions and projects taken to identify, analyze and improve existing processes in organizations to meet the goals set for operations. The goals can include decreasing the time and cost required, and improving the quality or the ability to react to variations. Operations management is the activity of managing the resources and all the activities which are devoted to turning inputs to outputs in the organization. Operations management is thus basically about managing processes (Jansen-Vullers and Reijers, 2005; Slack et al., 2007).

There are many concepts and terms connected to process improvement in organizations, for example process redesign, process management and process re-engineering (BPR). All these are a blend of ideas, concepts and techniques (Slack et al., 2007), where the scope of the organizational changes striven for can be different, but they all aim at increasing the existing process performance and improving the value of the outputs received by the customers.

The development of the concepts and practice of BPR has started from the initial work of Hammer (1990), Hammer and Champy (1993) and Davenport (1993). Hammer and Champy (1993, p. 32) define reengineering as “the fundamental rethinking and radical redesign of processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed”. The striking influence of different types of BPR programs has formed almost self-explanatory approaches to process-based change management. These programmed approaches to change management have also received critique, especially due to their limited emphasis on the “how” aspects of change (Armistead, 1995; Cicmil, 1999).

Process improvement and operations management have been studied extensively, and the research has produced many important strategies and techniques for organizational operations and process improvement; for example just-in-time manufacturing, lean manufacturing, total quality management, six sigma and the theory of constraints, to mention just a few. “Time is money” and the reduction of throughput-times through for example just-in-time systems has done much to reduce the length and costs of the manufacturing supply chain.

This study takes a project perspective on managing change in an organization and the concept of organizational development work, process improvement and change processes is understood from the perspective of deliberate, systematic and target-oriented work carried out by individuals in the organization to achieve a more effective specified state (Cicmil, 1999; Niemi, 2008). Major organizational change efforts tend to be organized as

projects: they have a separate management structure and objectives to be realized within a fixed time using certain resources (Korhonen, 2008; Partington, 1996). The project form has proved to be an effective way of transforming a change initiative into a focused, yet interactive and integrating organizational intervention, with measurable outcomes and a traceable learning process. The project approach also stresses the importance of planning, goal-setting and follow-up (Cicmil, 1999; Korhonen, 2008).

Despite the major concern in recent decades for organizational change in business and academics research, empirical evidence confirms that the majority of organizations are still far from the optimal level in managing their change projects. The change initiatives fail to produce sustainable changes in processes, behavior or performance too often still. Poor achievement of project goals is in most cases due to problems during the implementation phase of the projects. (Cicmil, 1999; Roberto and Levesque, 2005).

The dominant view suggests, based on Lewin's original terminology, that a change project contains three phases, described as "Unfreeze-Change- Refreeze". Unfreezing the system means creating the motivation to change and challenging the existing ways of doing things. Changing means introducing new systems and processes and taking the necessary action. Refreezing mean generalization and institutionalization of the changes made (Korhonen, 2008; Roberto and Levesque, 2005; Schein, 1987). Based on Lewin's theory and combining the models of reengineering and continuous improvement, different step-by-step models for improvement projects have been suggested (see e.g. Davenport, 1993; Hammer, 2001). There seem to be the following broad phases in improvement projects: planning the change, producing readiness and capability to change, pursuing changing interventions and institutionalizing the changes. Even though programmatic models for change projects are generally considered beneficial, it has been noticed that the seed for effective institutionalization (process of getting procedural and behavioral changes) must be planted long before the introduction of change initiatives. This is why the phases must be seen as partly overlapping and parts of an interactive cycle, not exact stages in which the previous one has to be finished before the next may start (Korhonen, 2008; Roberto and Levesque, 2005).

Lack of experience, resources and know-how in carrying out process improvement projects in the organization has made the organizations and managers utilize the help of external process improvement expertise more and more. Schein (1987, 1999) has introduced three basic helping models for a change facilitator: 1) the Expertise Model, 2) the Doctor-Patient Model and 3) the Process Consultation Model.

The idea of the process consultation model is to help the client to learn how to learn by passing the skills of how to diagnose and constructively intervene, so that the client is more able to continue on their own to improve the organization. The interventionist's primary task is to generate valid information to help the client system to make informed and responsible choices, and to develop internal commitment to those choices (Argyris, 1970; Schein, 1999)

The process consultation model is the preferred approach to help in the situation where the client organization needs help in diagnosing what their problems actually are, need to be helped to know what kind of help to seek, need help in identifying what to improve and how to improve it, and learn to diagnose and manage their own strengths and weaknesses. The advantage of the process consultation model is also the fact that only the client knows what will ultimately work for them, and unless they see the problems for themselves and think through their own remedies, they will be less likely to implement the solutions and less likely to learn how to fix such problems in the future. The process consultation model is the only helping approach which incorporates effectively the necessary unfreezing of the system and creating motivation to change. When the helper has helped the system to unfreeze and refreeze, the task is only completed if unfreezing the system is done in a way that changes in the future will be even more possible. Producing change alone is thus not an adequate criterion for judging the effectiveness of the helper (Argyris, 1970; Schein, 1987, 1999). Thus it is an important aim of process consultation to increase the client's competences and capabilities to improve their processes.

In facilitating process improvement projects it might be necessary for the facilitator to act in different roles. In process improvement there is a need for an expertise model due to the novelty of process improvement and the challenges in the change process itself. There is also strong demand for the process consultation model because it is important to maintain the ownership of the program within the client organization and to support organizational learning (Korhonen, 2008).

The external facilitator can utilize many forms of interventions during the helping relationship. "To intervene is to enter into an ongoing system of relationship, to come between or among persons, groups or objects for the purpose of helping them" (Argyris, 1970, p. 15). Schein (1987) defines four intervention types: 1) exploratory intervention (to get information), 2) diagnostic intervention (get the client to think about what is really going on), 3) action-oriented intervention (focus on new behavior that the client may want to consider) and 4) confrontative intervention (focus on possible areas of resistance).

2.2 Characteristics of professional public organizations

There are numerous ways to define professionalism and professional work; important collective characteristics are, for example, the enjoyment of autonomy, and specialist skills acquired by intellectual and practical training. The legal profession is one of the "classical" professions and is today a relatively sizeable profession. It is a firmly established profession with a high social standing, second only maybe to medicine. This status relies most heavily on long history and traditions, as well as to the perceived complexity of the knowledge base (Becher, 1999). The study of professional activities and professional organizations has existed long as a science field, especially among sociologist. Professionals have been typically understood to undertake their work in

organizations variously referred as professional organizations, professional bureaucracies or professional service organizations (McAuley et al., 2000).

Mintzberg (1979) argues that the professional organization often constitutes a “professional bureaucracy”, one of his five dominant organizational configurations. In professional bureaucracies standardization and coordination are achieved through standardization of skills and internationalized values, which means that professionals can be relied upon to carry out their fairly stable but complex work very independently and yet produce relatively similar products with similar procedures. Bureaucracy is today often considered as an unwanted state of an organization. However, it is originally meant to cover a pure type of structure, where there are more or less stable and regulated patterns of behavior based on a fixed structure of roles and specialized tasks. There are many different types of bureaucratic structures, each exhibiting some features of the “ideal” bureaucratic structure. Fixed and official jurisdictional areas, which are generally ordered by rules (laws and administrative regulations), often hold typical bureaucratic features. Mintzberg (1979) defines a structure quite broadly as bureaucratic when its behavior is predetermined or predictable. Mintzberg’s configuration reflected the structural arrangements and systems of large professional organizations, both professional firms and governmental instances, over a generation ago. Much has happened since and there are questions about its relevance in the new millennium. It is true that especially in private professional firms, law firms included, structural and operational configurations have changed to more flexible structures, due to competition, technical development and globalization in the past thirty years (Brock, 2006; Pinnigton and Morris, 2003; Powell et al., 1999). However, large governmental organizations, like courts of justice, can be still described as fairly typical professional bureaucracies, continuing to emphasize the basic values of a bureaucratic organization: rules, fixed roles and procedures, and stability.

It is said that the operations and process management are essentially the same in all types of organizations. Operations in all types of processes need the same decisions to be made – how to produce products and services, invest in technology, contract out some activities, devise performance measures, improve operations and process performance, and so on (Slack et al., 2007). However, the organizational and process characteristics and special social issues have influence on the success of the process improvement and change creation actions. The professional public sector organizations have special process and organizational characteristics and differences compared to private sector manufacturing organizations. These special characteristics influence the aims and means and the appropriate steps for process improvement and the work of advancing operational performance. In many cases not only are the reasons different for initiating change, but also the concepts and approaches that are transferred from the private sector can lead to contradictory results (Sminia and Nistelrooij, 2006).

Every organization’s operations can be characterized as a transformation process which turns inputs into outputs. Manufacturing organizations rely to a great extent on technology, machines and highly routinized and standardized operations, and their efficiency is often based on the ability to produce a large number of fairly similar

products with repetitive processes (Lowendahl, 2005). The products and services that are provided, the resources used, the operational environment and the production process have some unique features in a professional public organization and they have implications on the management and management means and need to be taken into account in the process improvement applications. The main special characteristics discussed in the literature are summarized in figure 5 and discussed below.

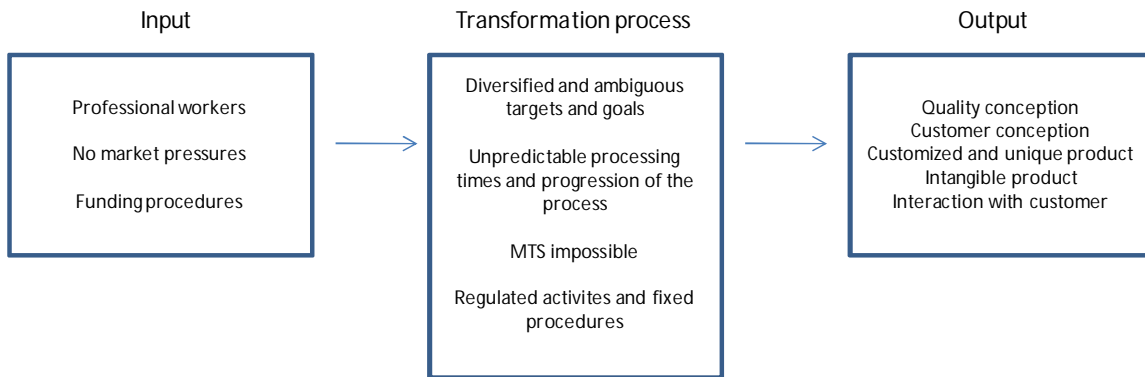


Figure 4 - Main special characteristics of the operations of professional public organization

2.2.1 Characteristics of inputs

In professional organizations the main inputs are intangibles, such as the expertise of individual professionals. The professionals are the most important resource and main asset in a professional organization. The recruiting, keeping and managing the most important asset of the organization are a challenging task and make the management maybe even more critical than in a traditional manufacturing organization. Professional organizations cannot overcome the fact that their efficiency depends on the performance of individual professionals and the main coordination for activities is the standardization of the inputs - the skills of the professionals (Cheng, 1990; Lowendahl, 2005). The fundamental question in a professional organization is how to organize and manage autonomous professionals in a productive way without inhibiting fundamental inquiry and restricting necessary autonomy. The activities of professionals are too complex to be closely supervised and too skill-immersed to be completely standardized (Cheng, 1990; McAuley et al., 2000; Seppänen-Järvelä, 2005).

Professionals enjoy a great deal of autonomy and are insistent on that autonomy. The management of a professional organization is referred to as “managing resources that make their own decisions” (Lowendahl, 2005, p. 55), and change in a professional organization requires a lot of negotiations and persuasion (Lowendahl, 2005). The organization can seldom apply strong pressure, rewards or punishment on its professional employees; power tactics usually are more damaging than constructive. Managers can control the resources connected with the work, but they cannot control most of what the workers do and how they do it (Cheng, 1990; Hernes, 2005). Hernes (2005) points out in her study that professional public sector employees still have similar expectations for

managers as in any other organization: to give directions toward accomplishment of goals, to get work done, and to ensure good relationship with the employees and motivation among them.

The management of a professional organization is also considered a paradox: generalizing, professionals do not want to be managed, nor do they want to be managers and take little interest in managing activities (Cheng, 1990; Lowendahl, 2005; McAuley et al., 2000). Professionals like to be independent and rely on their own judgment and tend only to respect managers with proven professional expertise. A major challenge is therefore to find and develop good managers who are at the same time the best professionals. A major risk in becoming a manager is to lose the professional respect and status, and to be a manager without authority is not an easy or tempting task. Due to the autonomic nature of the task and the professionals' resistance to rules, the professionals need to be allowed and encouraged for large part to "manage themselves" and be able to practice without strict control and supervision (Lowendahl, 2005; McAuley, 2000; Seppänen-Järvelä, 2005).

Due to the autonomic and self-managing nature of the work and the complicating factors in managing change in professional public organizations Fernandez and Rainey (2006), O'Brien (2002), Price and Brodie (2001) and Sminia and Nistelrooij (2006) all highlight in their articles the critical importance of the widespread participation of employees in the improvement and change creation efforts, convincing all employees of the need and urgency of the change, and creating shared views about the desired new state and operational steps as an addition to top-management involvement, as well as having a clear plan for change efforts and implementation. The present study aims to study the ways these requirements can be incorporated to the different stages of the process improvement projects carried out in professional public organizations.

If the commitment of the professional employees is lacking, the implementation of change efforts is virtually impossible, as nothing else than the professionals themselves exists (Cheng, 1990). The need and requirement for the bottom-up approach in the public sector change explains the growing interest in OD concepts and methods research in public sector organizations, where the prevailing organizational culture needs to be taken into account. Especially the improvement issues surrounding the process and operations need to be accepted, adopted and implemented throughout the whole organization in order to be successful (Cheng, 1990; Radnor and Walley, 2008; Sminia and Nistelrooij, 2006).

Cheng (1990) points out that the culture and reliance on fixed rules of procedures in professional public organizations make them tend to preserve the status quo and change only marginally and incrementally by searching the readily available, "good enough" solutions, which does not change too much the customary organizational routines. The bigger the behavioral change required, the stronger the resistance. In change processes, great deals of activities are directed to satisfying organizational needs rather than seriously pursuing any formal goal. In the change processes the use of self-evaluating organization, action research approach and utilizing change agents to facilitate change

can be used in breaking the established patterns of behavior, shake up the informal structures and enhance the close monitoring and evaluation of the change process but they need to be well planned in order to maintain the ownership in the organization (Cheng, 1990). The present study aims to increase the knowledge of how to use outside expertise in process improvement projects in order to both increase the application of novel solutions and increase the acceptance and ownership of them.

Public organizations have less market pressures and market exposure, which means fewer incentives for reducing costs and improving productivity and effectiveness as well as increased reluctance to massive changes through process improvement. Public organizations have “forced clients” and monopoly with no competitors in providing the service in question which further lowers their incentive to improve and change existing operations. Due to the less market exposure, there is lower availability of market indicators and information (Thong et al., 2000).

The access to financial resources and budget procedures causes inflexibilities in the process and its improvement efforts. Governments have pressures for cost cutting; the financial resources for budget periods are tight, and they are also often tightly allocated. Change and improvement requires funding, and this can cause unnecessary stiffness in the improvement efforts (Cheng, 1990).

2.2.2 Characteristics of the transformation process

The transformation process in professional organizations is usually quite abstract; it is largely a process of creativity and new solutions development. As a result, it is difficult to make such processes efficient and assess their quality objectively (Lowendahl, 2005). The whole concept of the process-based view to operations is far more recognized in manufacturing environments, although the need to move towards more process-based thinking is recognized in order to reduce throughput-times also in professional public organization. Often the structures are still departmentalized and individualized and the lack of process view almost culturally embedded (Radnor and Walley, 2008).

Measuring, managing and controlling performance is the key activity in controlling and directing the transformation process in any organization and guiding all improvement efforts (Slack et al., 2007). In a professional public organization the setting of precise goals and targets for operations is said to be challenging (Leitko and Szczerbacki, 1987).

Maybe the most distinctive characteristics of public sector organizations in the performance measurement context is the multiplicity of stakeholders: owners, employees, customers, suppliers and the community, bringing in conflicting goals and needs to the target setting of the organization. The goals tend to be ambiguous and complex and it is not clear what should be measured, and this makes it difficult to set agreed targets or strategy. The target setting and the ultimate targets of operations may be unclear or blurred, which makes it difficult for the managers to define the most important aspects and measures (Rantanen et al., 2007; van Thiel and Leeuw, 2002; Wisniewski and

Stewart, 2004). The multiplicity of stakeholders also raises the question of who should select the measures and set targets to them. Van Thiel and Leeuw (2002) argue that public policies often set many and sometimes contradictory goals, and the performance indicators are usually not neutral but contested measures in the public sector, both between politicians and between politicians and managers. However, it can be stated that the employees are the best experts regarding their own tasks, especially in the professional work context, and several studies argue that the employees should be involved in the decision-making regarding their own jobs and targets (Bourne et al., 2005; Bititci et al., 2006; Ukko et al., 2008; Ukko et al., 2009; Zapata-Phelan et al., 2009).

An eternal, but maybe even more relevant question in the public is whether to measure output/efficiency or outcome/effectiveness. Outputs can be easily measured in quantifiable terms, such as patients treated, crimes solved, students gaining various qualifications at different grades, and so on. However, these numbers tell us little about the real success of the organization, and are mainly of use in the calculation of the ratio of input to output. Increase in the number of outputs, for a given input, simply demonstrates how efficiently the organization is converting its inputs into outputs, but provides very little information about the effectiveness or value of these outputs (Boland and Fowler, 2000). Rantanen et al. (2007) pose the question of whether the goal of a hospital should be to carry out a lot of operations with the given resources (i.e. to be efficient) or whether it should find out ways to improve the health of its patients in the long run. As commonly known, measuring the outcomes is more difficult than measuring the output, and probably for this reason, output measures are used more often than outcome measures. Another reason for this can be the importance for the government to display the ability to deliver outputs (Chan, 2004; Pöllänen, 2005; Townley, 2008).

In the production process of professional services, the unpredictability is built into the transformation process in terms of processing times and progression of the process. As an addition to the unpredictable nature of the production process, the production can only start and occur after the order is received. Thus the flow time directly determines the customer lead-time (Samuel et al., 2010). Hence, the production capacity should ideally fit the volume and timing of a partially unpredictable volume and timing of demand. This brings pressures for capacity management, making the ideal professional organization highly flexible in terms of size and type of expertise resources available in different times (Lowendahl, 2005).

Operations and process management is concerned with capacity management in the absence of finished goods inventories (Samuel et al., 2010). Finished goods inventories cannot be utilized in the balancing of the production process and capacity, but managing work-in-process inventories play a significant role in buffering the production process and coordination work between different work units and are in a central role of diminishing throughput-times, as high levels of work-in-process lead to long response times. The process often includes multiple backlogs when one stage hands work to another (Ronen et al., 2006; Samuel et al., 2010). In their study Ronen et al., (2006) conclude that according to their experience in health services, the work time is often no

more than 1 percent of the total throughput-time. Thus the management and control of work-in-process inventories and thus shortening the response time of the process is important.

As public organizations have a broad and significant impact on the society, many procedures in professional public organizations are dictated by laws and other regulations, and the professional public operations and procedures are often either directly or indirectly under the formal control of politicians. This means that the management and operations need to take account of the political and policy context linked to their operational decisions. Some central governmental instances can feel that their priority is policy-making, rather than operations. The mandates and obligations often limit the autonomy and authority of an individual organization to make operational and strategic decisions and create inflexibility to the process and management (Hartley and Skelcher, 2008; Lowendahl, 2005; Nutt and Backoff, 1993; Radnor and Walley, 2008; Seppänen-Järvelä, 2005; Thong et al., 2000).

2.2.3 Characteristics of outputs

Every hospital employee, university professor and judge believes that he/she is giving and wants to give the best quality service they possibly can, and professionals are typically persons with extreme quality standards and ethics. The challenge in this is that the assessment of good quality of a professional service is subjective by nature, and clear measures for quality are difficult to apply. The information asymmetry (the professional is required to know more than their customers about similar situations) adds difficulties to the quality assurance. The more specialized the expertise, the more difficult it is to evaluate the quality of what is delivered. The perceptions of other key stakeholders are crucial to the final evaluation of the quality. Especially peer feedback is important, and usually there exists strong group pressure to conform to the group's norms and goals (Brashier et al., 1996; Cheng, 1990; Lowendahl, 2005; O'Mahony et al., 2008).

Professionals resent the idea that someone tries to tell them how to do their jobs or to treat them as assembly-line workers. They claim they are not factory workers and cannot be managed or assessed as such. This creates a prejudice towards performance improvement efforts, due to the fear that they will weaken the quality of their work. The use of buzzwords of process improvement in the improvement of professional organizations, for example process control, zero defects and process performance improvement, can cause professionals to erect barriers and hinder all future efforts in the name of quality (Brashier et al., 1996). Citizens demand that the goods and services produced by the public sector maintain certain quality, and that they are not priced according to the market mechanisms. Defining the attributes of quality which are valued by customers in different public instances remains largely an unresolved problem (O'Mahony et al., 2008; Seppänen-Järvelä, 2005). The concept of quality and the value desired by customers in a professional organization would thus have to be more exactly defined and internalized as the basis for improvement (Brashier et al., 1996). The

problem is that due to the multiple stakeholders, it is sometimes difficult to clearly define who the primary customer for specific operations is.

In professional public services every case, every customer and every situation is different and unique (Brashier et al.,1996). The high degree of customization makes traditional management principles, such as standardization, routinization and supervision difficult to apply. This creates the problem of how to apply standard procedures to unique problems and still deliver the customized and idiosyncratic solution appropriate for the customer. A professional organization needs to rely on non-routine problem solving based on a high degree of professional expertise and the ability to solve whatever problems need to be solved in order to fulfill the customer order (Lowendahl, 2005). Producing a tailor-made and intangible product requires close cooperation with each individual customer. Professional services cannot be usually delivered without close cooperation between the service provider and the customer. The customer participates in the problem definition, the choice of the appropriate solution, and also in the process of developing and implementing the solutions. This adds one critical dimension to managing the interaction process with the customer. (Lowendahl, 2005).

2.2.4 Courts of Justice as professional public organizations

Viewing the justice court process and operations from the standpoint of the features of a professional public organization, the justice courts can be seen as fairly typical professional public organizations. However, there are some distinctive and pronounced characteristics inherent in the operations.

Characteristics of input

Perhaps the most distinctive characteristic is the even greater emphasis on the autonomy and self- management of the employees in justice courts than in other professional services. The inherent need for objectivity (objectivity being the most important quality criterion of rulings) makes the issues concerning performance management and new operational procedures quite sensitive and delicate issues in courts. The fear of losing objectivity and autonomy can manifest in the form of a negative attitude towards process improvement and change, even though the need for improvement is realized.

The pronounced role of the need for autonomy and objectivity and the fixed role and duties of the different participant creates silo-thinking and restricts the possibilities to utilize more co-operation in the production process. The lack of co-operation possibilities in the court processes makes also the work more monotonous and mentally straining (Järvenpää and Vartiainen 1988).

Justice courts have monopoly in their own field and have no market pressures. The typical features of public funding also apply to justice courts.

Characteristics of transformation process

Courts can be seen to have many customers, e.g. litigants, state officials, witnesses, the media, tax payers, attorneys, police agencies, victims of a criminal case and the general public. It is difficult to avoid tension in the customers' interest completely or to design programs that will please them all. Different perspectives need to be considered and the customers redefined for the different processes and aspects of court operations (Aikman, 1994). These facts create difficulties in determining the exact goals and performance measures for process and operations and specify the value creation process of the organization.

The unpredictability is built into the production process. The unpredictability is larger as the heterogeneity of the products increases. There are always going to be cases adjourned, witnesses not turning up and so on (Townley, 2008). As Townley (2008, p. 138) quotes in his article about justice systems "it is impossible to predict which cases will not go ahead on the day of the trial in advance of the day of the trial and not easy to calculate how long the trial is likely to take". The same applies to estimating exactly the time it takes to prepare the cases for trial.

Even though due to the customized products MTS is impossible also in justice courts, but the work-in-process inventories play a key task in the process and operations management. The unpredictability of the transformation process and the heterogeneity of the products make the otherwise sensible solution of a first-in-first-out inventory policy impossible. The unpredictability is not only connected to the difficulty of estimating the processing times, it also concerns the lack of "straightforwardness" in the process. For example the products need to be left waiting for settlements or considered a bit longer, or the process needs to be started all over again due to new evidence. The complexity and heterogeneity of the product range create the danger and possibility for products to get side-tracked from the process flow. This makes the planning of production and tight work-in-process inventory control a necessity for good process and operations performance.

The operational practices are also traditional, containing legal and compulsory procedures which need to be undertaken in a certain manner and taken into account in the designing of improvement efforts. The fixed roles and responsibilities create stiffness to the capacity management and resource allocation of court processes.

Characteristics of output

The quality conception in justice courts is very traditional and highlights strongly the traditional aspects of good rulings and justification. There has not been much room for appreciation of process based efficiency as a source of quality improvement. The quality conception is largely a reflection of professional pride.

The physical participation of the customer in the process and operations, and the interaction between the customer and judges are not as notable as for example in the

health care processes. As the products are highly customized, the customer certainly participates in defining the problem and the choice of appropriate methods and solutions, but is not present in the transformation process. The document files represent the customer who is physically present only in the end of the process or not at all.

2.3 Application of different process improvement techniques in professional public organizations

As the pressure to improve process effectiveness has expanded also to the operational environment of public sector organizations, the process improvement approach to change has become increasingly studied also in the public sector and in the professional and service organizations, especially in health care. Improvement expectations in these areas concentrate very often on decreasing throughput-times, managing time-related issues in the process, and increasing organizational flexibility (Fernie and Rees, 1995; Lowendahl, 2005; Korhonen, 2008; Ongaro, 2004).

The labeling features in the literature concerning process improvement work and applications in professional public sector organizations are such that the most common environment for studying the applications and the most extensive examples appear to be in the health care sector. The most common approach for studying the issue is learning and studying the implementation possibilities of tools and techniques under some known philosophy and concept, most commonly Business process re-engineering (BPR), Lean thinking and Total Quality Management (TQM). In recent years the research has especially concentrated on the possibilities of Lean thinking to bring process performance improvement in professional public sector. There has been good success in process performance improvement reported in the studies of applications of traditionally process improvement concepts to the public sector.

2.3.1 Business process re-engineering applications

MacIntosh (2003) compared public and private sector applications of BPR using three higher education cases as illustrative examples. MacIntosh (2003) study highlighted some key differences and similarities. The first key difference is that public sector projects can face greater restrictions in terms of providing resources for improvements, even if there is evidence that an investment would be justified. Second key difference is that public sector projects tend to be more participative in nature with greater emphasis on consultation and consensus. The similarities founded are connected to use of process mapping techniques and project management software. MacIntosh (2003) conclude that BPR projects can succeed in the public sector and while academic interest in BPR is fading, the public's sector interest may persist for some time to come.

McAdam and Donaghy (1999) studied the critical success factors of Business Process Re-engineering applications in the public sector. They conclude that while the professionalized organization presents special issues for the introduction of BPR, the

techniques has large potential for improving processes within public sector organizations. According to McAdam and Donaghy (1999) the complicating issues arises especially from the fact that professional autonomy and established hierarchies are feared to be at stake in radical change efforts. McAdam and Donaghy (1999) suggest that greater emphasis should be given to the “soft issues” of people management in BPR applications. Based on their case study findings, the critical success factors in BPR applications in public sector are (McAdam and Donaghy (1999) :

- top management support, commitment and understanding of BPR
- communication
- empowerment
- alleviation of downsizing fears
- preparedness for organizational change
- choosing the re-engineering team
- enlisting customer and stakeholder support

Based on the identified critical success factors McAdam and Donaghy (1999) suggest especially to make sure that organization is ready for change brought by BPR; people must be prepared for it and get them willingly exchange and share information concerning the change. The sponsors of change efforts should make sure that the critical success factors are thoroughly addressed and recognize the uniqueness of public sector organization before embarking on initiatives involving radical “clean sheet” approaches. The aim of the present study is to increase the knowledge on how can these factors be better incorporated and taken into account in different stages of process improvement work carried out in professional public organizations.

Evaluating and creating the public organization’s readiness for business process re-engineering has been highlighted as critical factor in the studies of successful applications. Halachmi and Bovaird (1997) address the importance for public agencies to determine their “BPR capacity” before they can effectively transfer reengineering techniques from the private sector. BPR capacity means the ability to survive such a radical initiative. The difficulty factors in achieving the BPR capacity are the challenges in conceptualization of value creation (define what is meant by value and which organizational functions contribute to it). Similarly than in private sector the success of reengineering depend on the strategic capability of the organization prior to improvement efforts. Well-performing organizations (public or private) are more likely to survive BPR. Halachmi and Bovard (1997) highlight the importance of concentrating to create the BPR capacity rather than expect the experiences of others to provide tailor-made solutions to organization’s specific problems. Knowing and understanding the reasons for success and failure of BPR in private sector can prepare the public sector managers for undertaking the effort, but it cannot automatically indicate a preferred model for reengineering.

Martins and Carvalho (2005) discuss in their article the concepts of value and value creation in service supply chains and particularly in judicial processes on the basis of two case studies. They point out that judicial processes concentrate too much on defining value for the customer as making “justice”. They should also include making it on time

and accurately, considering also the service, time, quality and costs. Based on their study, Martins and Carvalho (2005) state that the value in terms of time and costs is not accomplished in Portuguese judicial processes. Martins and Carvalho (2005) suggest that the personnel's sensibility to waste reduction need to be increased, the number of courtrooms increased and the judges' evaluation criteria redefined.

Martins et al. (2007) used two case courts in identifying constraints in the court system process by applying the concept of Theory of Constraints and found very similar results. They found out that the judge staff, the judge and the courtrooms are the main constraints in the process. Based on their study, these emerge from lack of ability to manage the work flow and to schedule and explore the courtroom constraints, from the way the judges are evaluated, as well as lack of availability and poor access to data bases with information on the parties. They conclude that the differences in human resource management lead to differences in the total duration between courts and departments. Their study reveals that there is a deliberate tendency among judges to stall the more complex/time consuming cases because they are seeking good statistical performance in terms of the number of analyzed cases. In order to generate more value to the customer, the courts must therefore change the way the human resources are motivated and educated. Judges need to have proper training on scheduling activities, on the use of computer technology, on accessing external data bases, and most of all there is a need for radical change in the practices of how judges are evaluated, where not only, as an addition to quality measures, the number of cases analyzed is considered.

2.3.2 Lean thinking applications

Radnor and Walley (2008) studied eight health and governmental agencies in their Lean thinking application efforts. All the case sites reported that the improvements had been worthwhile and produced significant benefits to the speed and productivity of the process, although most sites had neither previous experience of process management nor a history of process improvement. They conclude that the introduction of the Lean approach was the first step towards a process-based view, customer focus and elimination of waste, as well as a clearly needed initial outcome for employees to move towards greater acceptance of process perspective and customer orientation. This is a more needed outcome than the successful application of some specific tool or technique under the Lean umbrella. Radnor and Walley (2008) emphasize in their conclusions that if the improvement efforts are too much focused on some particular tool or technique, it will lead to the fact that the Lean will be built on sand, where there is a lack of even the basic conditions: e.g. the process view, understanding capacity and demand, and linking improvement activities to strategy. The precise tools of process improvement have place in these organizations, at least in starting to create a process and customer view, but as the name of their article says; professional public organizations must learn to walk before they can run in their process improvement efforts and solutions. Radnor and Walley (2008) discuss in their article that the size of the gains may as much a measure of how poor the processes were originally as the power of the Lean approach to yield results. The lean concept in these organizations has thus more to do with the engagement of

employees to the change process, thus developing a culture of more structured problem-solving and target-oriented improvement of operations and processes. The fuller implementation and taking a more longitudinal development approach, rather than just implementing tools, allows the establishment of a sustainable Lean capability.

Radnor (2010) studied in another article the transfer of the Lean approach into a large government department in order to understand which tools are relevant and have an impact. He found out that a significant impact can be achieved, but the approach may not be the “purest” form of lean thinking, and some tools met greater resistance than other. The main differences appeared to be in the understanding of the concepts rather than fundamental differences related to the principles of the Lean approach. In particular, the ideas of “standard work” and “standard processes” were met with resistance, as the employees felt that they were not being involved in developing the new processes nor had the ability to change how they carried out a task. This illustrates not only the importance of involving employees in the development of new ideas, but also that “standard work” does not fit as a concept into the environment where there is need to respond to demand in a number of different ways. That is why a better approach would be to understand and manage the type of demand and to support stable processes with clear options and choices for a “family” of different requirements, a similar approach to that taken by cellular manufacturing.

In his study Radnor (2010) also highlights the need to first understand the processes and only after that use a range of tools to improve them. In order to use a tool, there needs to be a change in behavior, and in the end it changes the behavior beyond the tool itself. This highlights the fact that Lean approach in these types of organizations needs to be a journey, which takes time, and people need time to engage with and embed the ideas. Radnor’s article presents a framework for this journey: of what lean thinking in public organizations could be and how the tools can be linked to the journey of understanding the process and developing a process view step by step. Radnor (2010) called the framework “the house of lean for public services”, presented in figure 6. The framework consists of different tools, the stages in developing the process view, including different factors enhancing commitment and implementation, allowing not only technical but also cultural change to occur. The present study aims to increase the knowledge of the elements in successful process improvement journey.

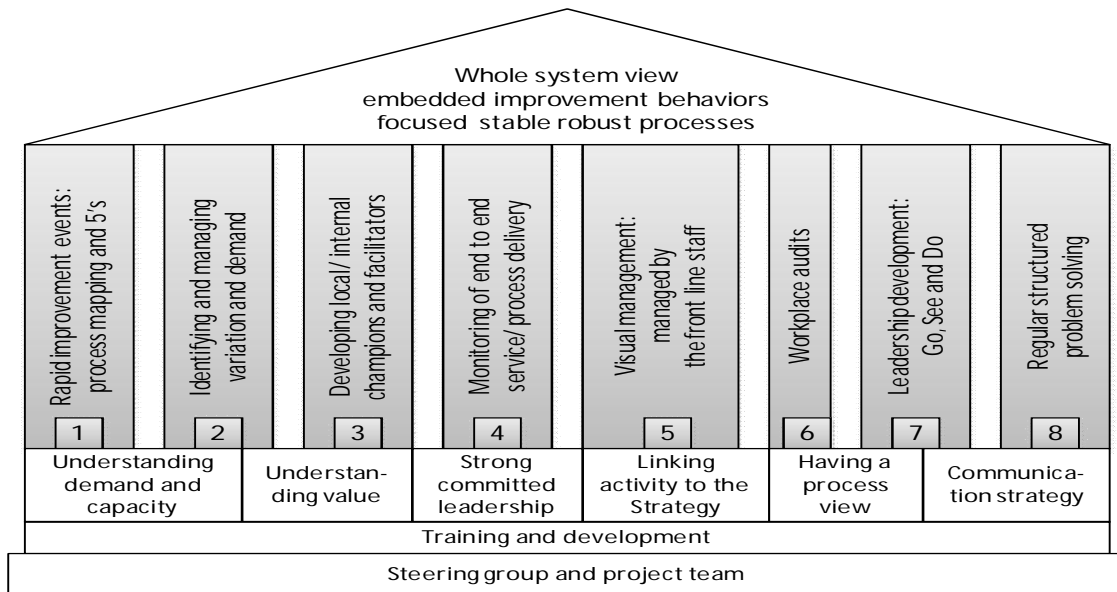


Figure 5 - The house of lean for public services (Radnor 2010, p. 425)

Also Erridge and Murray (1998) found out in their study of the application of lean thinking in local government that perceived barriers preventing progress towards implementation of lean supply are lack of understanding of the concepts and lack of cultural fit.

Hines and Martins (2005) tested the boundaries of lean thinking in judicial processes with two case studies in Portugal and Wales. Their work shows that there are both major opportunities for the application of Lean Supply Chain Thinking, as well as a climate that is suitable for its translation, and the gains to be achieved, certainly in percentages, is far greater due to the “unimproved” environment. However, modifications are needed, not least in the language that should be used and the added importance of people in the improvement work. Hines and Martins (2005) points out the lack of continuous improvement culture in justice courts; there is no culture of continuously searching for the next improvement target and opportunities.

2.3.3 Total Quality Management applications

Brashier et al. (1996) made a study of implementing TQM to the health-care industry and examined nine hospitals/health-care organizations. They point out that there is no “diagrammed” or “follow this path and success will follow” situation in health care, as there might be in other industries. Every health care organization needs to go about it just a little differently, beginning from the very first step. While there are no diagrammed “instant success” paths, common elements can be identified in every TQM effort. These include for example the crucial role of top management, involving physicians early on in the process, forming cross-sectional teams, advertising the success achieved by encouraging, as well as seeking feedback from all affected areas and naming the improvement process while dissociating it from the “industry” programs. Brashier et al.

(1996) highlight the importance of measurement in improvement - obtaining the relevant data, organizing it, converting it into relevant information, communicating it and putting it into real use. The primary conclusion is therefore that while an improvement project needs to be somewhat unique, it can still be methodical.

Harte and Dale (1995) studied eight different types of professional service organizations and their TQM programs. They highlight the importance of management involvement in the process and the acquiring of considerable knowledge about the concept. The need for knowledge about the concepts has sometimes led to over-reliance on external helpers, which can become realized as a lack of clear direction and ownership for the organization itself. One significant problem expressed was maintaining the momentum of the improvement initiatives, once the initial flurry of excitement had subsided. Adler et al., (2003) point out that the problem is the gap between knowing and doing, and highlight the importance of concentrating on the implementation and improving the organization's own improvement capability (performance improvement capability including all internal resources and processes supporting both the generation and the diffusion of the appropriate solution), rather than only introducing new concepts by external experts from the manufacturing sector. Adler et al. (2003) argue that managers know what needs to be done, but the implementation is the significant problem, due to the stifling effects of bureaucracy and people's tendency to resist change. Thus building the organization's improvement capability will take time. Ongaro (2004) points out in his study that the implementation of different process management techniques and principles cannot and should not be conceived as a recipe by itself, automatically increasing the effectiveness of public administrators. Rather, it should be viewed as a broader approach supporting public managers to engage in finding the ways and making their organizations capable of operating in a complex inter-organizational context. Ongaro (2004) points out that while significant operational improvement is achieved, the contribution of process management is especially in making the "administrative machinery" work in more interconnected ways.

In the United States, Aikman (1994), representing the National Center for State Courts, has written a handbook about Total Quality Management applications in courts. Four key points in TQM applications can be identified from the handbook. The first is the importance of involving and empowering the staff and thus creating an energized atmosphere and a steady stream of ideas for enhancing continuous improvement. The second is that the concept and technique used need not be highlighted. It is not required that courts use the term "total quality management" in their improvement efforts. A survey among courts proved that courts have used the principles of TQM in their improvement work but adopted and preferred some other label for it. In courts it is important that improvements need not be implemented in some predefined steps and schedule; the time-frame for improvement projects in government units normally needs to be much longer than in the private sector. The change needs to be introduced patiently and persistently, inch by inch. Thirdly, the importance of leadership commitment was highlighted in keeping the improvement work ongoing by endorsing it as the most appropriate management approach. The fourth key point is the need to use objective performance data as the foundations for management decisions and improvement. Courts

have usually mountains of data; however, the use of the data is often not suitable to enhance the identification of the causes for problems or identifying the possible solutions. For example, only a proportion of courts collect and analyze data concerning the age of pending cases. Aikman (1994) noticed that there is usually an attitudinal factor behind this problem; people in courts hear that there is statistical data analysis involved in improvement and think that they or their colleagues cannot handle complex data manipulation.

2.4 Caseflow Management

The process improvement work in justice courts, concentrating on reducing the delays in the system, has produced a research field surrounding the concept called the Caseflow Management. The caseflow management can be seen as a process improvement and operations management application designed for the needs of justice court processes. Therefore, a lot of the results of the caseflow management application studies can be transferred also to other professional organizations.

The United States is the pioneer and forerunner of research in the field of litigation delays and throughput-times. There has been inquiry into the subject of the caseflow management process in the court system for over 100 years. From the early 1970 onwards, there has been a considerable nation-scope research on factors associated with delay reduction in courts (Coolsen, 2008; Steelman and Fabri, 2008).

Coolsen (2008) identified three distinct generations of research concerning caseflow in justice courts in United States. Some of the leading researchers and authors at the time and the focus of the research in these generations are summarized in table 1.

Table 1 - Evolution of court caseflow process research in United States

Generation	Authors	Focus of the research
1 (1906-)	Pound	Resources Structural issues
2 (1973-89)	Solomon Church Mahoney	"Caseflow management" "Local legal culture" Cooperation practices
3 (1990-)	Steelman Ostrom Hanson Coolsen	Attitudes towards efficiency and quality "Court Culture" Time standards and measurement "Differentiated case management"

The first research generation started as early as 1906, when the dean of Harvard School of Law, Roscoe Pound, pointed out that judicial organizations and procedures caused a lot of dissatisfaction. In this era of research, the emphasis was on addressing resource and

structural issues of the courts, such as caseload per judge and optimal court size, which are said to be the kind of issues most likely to arise within the cognitive framework of judges, law professors and lawyers. Already in 1978 Church et al., found out that no pattern emerged between the caseload and throughput times. The courts with the highest caseload per judge were not the courts with slowest disposition times, nor were the comparatively under-worked courts speedier. In the last forty years, after many individual court studies, the focus of the research in the United States has shifted to the shared expectations, practices and informal rules of behavior of judges and lawyers – named “local legal culture”. The conclusion was that the pace of litigation and court performance is mostly a function of these interconnected cultural issues, rather than structural issues. The new wisdom was that courts must start reshaping their values and attitudes and actively control the progress of cases from initiation to conclusion – in other words manage their case flow (Coolsen, 2008; Gallas, 2005; Steelman and Fabri, 2008).

The term “caseflow management” was first popularized by the American Bar Association in 1973 by the publication of the monograph “Caseflow management in the trial court”, written by the court consultant Maureen Solomon. Other notable initial work in caseflow management research, just to mention a few, have been conducted by the Professor of Political Science, Thomas Church (1978), the President at the Justice Management Institute, Barry Mahoney (1981) and the Principal Court Management Consultant for the National Center for State Courts, David Steelman (2003). A great amount of books, reports and guidebooks for practitioners have been written about the concept of caseflow management. In the United States there are several research institutions that are specialized to publishing research and reports about court systems, including for example the American Bar Association, the Bureau of Justice Assistance, the National Center for State Courts, the Bureau of Justice Statistics and the National Institute of Justice. They have promoted the adoption of caseflow management techniques in different court instances in the United States. The basis for their research is very often practical and directed to providing step-by-step guide manuals and checklists for court managers in their caseflow management adoption work.

The basic idea of caseflow management is that the court controls the pace of litigation by establishing meaningful events, setting scheduled dates and timeframes for pre-trial events and trials accompanied by strong leadership, commitment to a shared vision, effective communication, and active management of appropriate time standards and goals as well as the continuous control of their accomplishment by monitoring and measuring actual performance (Hammergren, 2001; McWilliams, 1992; Steelman and Fabri, 2008; Rollon et al., 2004).

McWilliams (1992, p. 21) define in his article that caseflow suggests “that cases should be viewed as moving through a series of interconnected events such that overall case processing times, and cost to the litigants, can be saved by reducing the unnecessary time between events, rather than by altering or eliminating the events themselves.” The term “management” is intended to suggest that the preferred approach to dealing with cases is to seek management solutions to case processing problems.

According to the above definition of the caseflow management concept, the term can be seen as a synonym for promoting the process effectiveness viewpoint and perspective in the operations and management of court systems. Caseflow management is thus basically a term for the application of very basic operations management and process improvement concepts to the processes of courts of justice.

Four concepts characterized the research in the past twenty years during the third generation of research in the United States. These concepts are 1) the critical role of judicial attitudes to the effectiveness of court processes, 2) the impacts of a historical and unique organizational culture, 3) the development of time standards and measurement and evaluation of process performance, and 4) case differentiation as a means to reduce delays. (Coolsen, 2008)

2.4.1 Judicial attitudes and court culture

Ostrom and Hanson (1999) and Ostrom et al. (2005) have studied the impact of the attitudes of different stakeholders to the pace of litigation. They conclude that the attitudes of judges and attorneys towards a number of critical issues (e.g. adequacy of resources, leadership and management, and the process performance level) are important for the progress of cases and thus throughput-times. One of the critical issues connected to the caseflow management principles over the years has been the legal stakeholders' attitudes towards the relationship between process efficiency and fairness of rulings.

Coolsen (2008, p. 85) concludes in his article that one big challenge still remaining in effective caseflow management applications is "the popular opinion among legal stakeholders that the court is operating in a "zero-sum-game" environment and that an expedited pace of litigation might be unfair and might only come at the expense of justice". Delays are often a symptom of both a lack of effective management controls and lack of desire for such controls. Some courts fear that the proposed cures will be worse than the known problems (Hewitt et al., 1990). Ostrom and Hanson (1999) did a study of the connection between the quality of decisions and throughput-times in nine Criminal Trial Courts and founded no evidence that good throughput-times would lead to poorer quality decisions. On the contrary, judges and attorneys in the fastest courts had a more positive outlook on court practices and were more satisfied with the level of communication, preparation and trial skills than those in slower courts. Ostrom and Hanson (1999) conclude that delay reduction is still, pointlessly, seen as a threat to quality and resistance to changing working methods is largely a consequence of adopted values and attitudes, and that well performing courts should be expected to excel both in timeliness and quality. By increasing the understanding that both good quality and delay reduction are natural consequences of increased effectiveness, resistance to change will diminish over time (Coolsen, 2008; Ostrom and Hanson, 1999).

The importance of the quite unique and traditional organizational culture in courts has been a subject of interest in recent decades in the United States. This research has continued the work of Church (1978) surrounding the concept of "local legal culture" and

shared expectations. In these studies many cultural issues (social, political, economical and legal) are identified, and their complicating influence on creating change and managing organizational development projects within courts are noticed. The concept of the “local legal culture” has proven to be very useful, both in theoretical and practical sense, in improving the processing times and understanding the factors behind court performance in the United States (Coolsen, 2008; Gallas, 2005). Ostrom et al. (2005) have taken this research further by exploring the cultural landscape more deeply. They have defined the concept of “court culture” and developed a classification tool to determine it and its impact on operations in different courts. The culture has influence on how the planned change in court organizations takes hold or is blocked and eventually “withered on the vine”. Ostrom et al. (2005, p. 15) define “court culture” as “expectations and beliefs that judges and court administrators have about the way work gets done.” These views vary considerably both within and between judicial organizations. However, Ostrom et al. (2005) argue, based on their study conducted in 12 felony criminal courts in the U.S that a cluster of views can be determined, and courts classified to particular combinations of outlook. These clusters of dominant court culture in the U.S courts are summarized in figure 6.

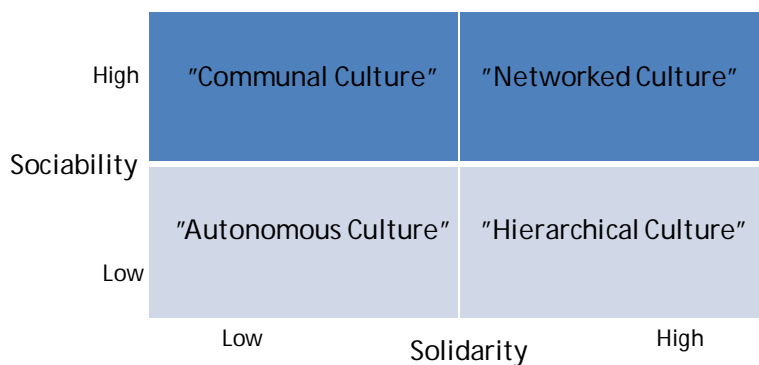


Figure 6 - Classification of court cultures in United States (Ostrom et al., 2005, p. 14)

The classification has been achieved by identifying that the views fall along two dimensions: sociability and solidarity. In this classification, sociability means the degree to which judges and administrators get along and emphasize the importance of cooperation and social skills. Solidarity means the degree to which judges and administrators pursue shared goals, common tasks and agreed-upon procedures. In a communal culture the judges emphasize the importance of getting along and acting collectively. Rather than rules and lines of authority, group involvement and mutual agreement upon goals is emphasized. In a networked culture creativity and innovations and efforts to build consensus with all stakeholders on policies and practices are emphasized. Court leaders count everyone accountable for jointly agreed performance standards. In an autonomous culture basically the importance of allowing each judge to conduct individually the business as he or she sees fit is emphasized. In a hierarchical culture the established rules and procedures to meet clearly stated court-wide objectives is emphasized. These rules are viewed as the mechanisms to reduce confusion and conflict in how judges make the decisions (Ostrom and Hanson, 2005).

The classification is meant to be only a tool to help in outlining the cultural issues and in capturing and describing the court cultures in a coherent and comprehensive manner. These court cultures are not blood types, and most courts certainly combine aspects of different orientations. Still, the dominant culture in a given court can be usually identified. The dominant culture in a particular court is seen to have impacts on almost all aspects of operations: the dominant case management style, judicial and staff relations, change management, courthouse leadership, and internal organizational arrangements. For example the impacts on the dominant case management style are summarized by Ostrom and Hanson (2005) as follows:

1. Communal culture (Flexibility) – General agreement of performance goals exists, but centralized judicial and staff leadership are downplayed and creativity is encouraged. As a result, individual judges apply court rules, policies and procedures in alternative, acceptable ways.
2. Networked culture (Judicial consensus) – Judicial expectations concerning the timing of key procedural events come from a working policy built on the deliberate involvement and planning of the entire bench. Follow-through of established goals is championed and encouraged by the presiding judge.
3. Autonomous culture (Self-managing) – Limited discussion and agreement on the importance of court-wide performance goals exists. Individual judges are relatively free to make their own determinations on when the key procedural events are to be completed.
4. Hierarchical culture (Rule-oriented) - Judges are committed to the use of caseflow management (e.g. early case control, case coordination and firm trial dates) with the support of the administrative and courtroom staff. Written court rules and procedures are applied uniformly by the judges.

This concept of “court culture” has said to have a more narrow focus than earlier research on “local legal culture” (Coolson, 2008; Gallas, 2005). All in all, these studies have further strengthened the fact that cultural aspects in courts have an impact on the courts’ process performance, including case processing times, and on the success of process improvement efforts. The expectations and beliefs of judges on how work should be done in a particular court is one of the greatest explaining factors for why some courts perform differently than others and why some courts have more difficulties in the adoption of best practices. These different cultural aspects of the courts should therefore be recognized and known in order to design an appropriate path towards a better performing justice organization.

2.4.2 Performance standards and measurement

Starting in 1975 and continuing to the late 1990’s, emphasis in the work of research institutes was in the development of performance standards and the measurement of these standards in U.S courts. In 1997, the Bureau of Justice Assistance released a comprehensive self-assessment guide for state trial courts, “Trial Court Performance Standards and Measurement System”. This guide includes over twenty performance

standards grouped in five categories: 1) Access to Justice, 2) Expedition and timeliness, 3) Equality, fairness and integrity, 4) Independence and Accountability, and 5) Public trust and confidence (Bureau of Justice Assistance, 1997; Coolsen, 2008). The standards in the second performance area are particularly relevant to the subject of delay reduction and throughput-times. In this area the timely handling of all court services is articulated in three performance standards, which require all courts to do the following (Bureau of Justice Assistance, 1997):

- establish and comply with recognized guidelines for timely case processing, while at the same time remaining current with its incoming caseload;
- disburse its funds promptly, provide reports and information according to required schedules, and respond to requests for information and other services on an established schedule that ensures their effective use;
- promptly implement changes in law and procedures.

Despite the growing emphasis and promotion on time standards and on the measurement and monitoring of these standards in the United States courts, Coolsen (2008) noticed in his study that one central problem associated to effective case management in the U.S courts is the low acceptance of established time standards among legal stakeholders. Although time standards are relatively loose and modest in several courts, and while the notion, concept and importance of time standards is widely accepted, there is still serious concern among legal stakeholders about the specific time standards set by the courts. This is also largely a consequence of adopted attitudes towards the relationship between time and quality. In his survey study in large urban felony courts, Coolsen (2008) found that judges are almost evenly divided in their acceptance of time standards. This makes the acceptance of standards by the majority of stakeholders a significant and important challenge. Until a more “unified voice” about the acceptance of and compliance with the time standards is achieved, the caseflow management principles cannot really take hold (Coolsen, 2008). This problem implies that the implementation efforts and initiatives for ensuring commitment to released time standards for the operations and management processes of courts, as well as the monitoring have not been sufficient.

2.4.3 Differentiated caseflow management

The difference in the complexity of cases is a very important characteristic that needs to be taken into account in delay reduction. Di Vita (2010) found in his statistical analysis in Italian courts that the legal complexity of the case and the length of the proceedings are strongly and positively correlated. In the United States this same concern associated with the establishment of time standards was that cases varied a lot in the amount of time needed to prepare them for a fair and just decision. This notion started the research around the concept called “Differentiated Case Management” (DCM) in the late 1980s. DCM synthesizes the past three decades of development around caseflow management, but includes the premise that all cases are not the same and do not have the same demands. Some cases can be disposed with little or no discovery and only a few intermediate events, others require extensive court supervision over many pretrial

motions. This is why some cases can – and should – proceed through the system at a faster pace than others and not wait for disposition simply on the basis of the chronological order of their filing. The cases can be differentiated on several bases, for example the seriousness of the case, the characteristics of the claims, the time required for preparation, or simply by the case type, or a combination of these. The DCM approach aims to ensure timely disposition of all types of cases according to their preparation and case management needs and to improve the utilization of judicial system resources (Bureau of Justice Assistance, 1993; Coolsen, 2008). The main principles in Differentiated Case Management include (Bureau of Justice Assistance, 1993):

- creation of multiple tracks for case handling with differing procedural requirements, pre-trial events and time frames designed for the processing requirements of the cases assigned to that track;
- screening procedures of each case shortly after filing so that each case is assigned to a proper track according to defined criteria;
- continuous monitoring and follow-up of case progress within each track to ensure that the deadlines, time limits and requirements placed for each track are achieved;
- procedures for changing the track if the characteristics of the case change during the handling process

The DCM system is now widely used in the United States courts (Bureau of Justice Assistance, 1993; Coolsen, 2008).

Hewitt et al. (1990) did a study where they closely observed six successful courts for delay reduction. The same courts were also the test sites in preparing the “Trial Court Performance Standards and Measurement System” guide. Hewitt et al. (1990) assumed that a lot can be learned from courts that have successfully reduced the delays, because the courts that are engaged in monitoring the time to disposition are regularly also monitoring their overall performance better, and that those courts that take the symptom of delays seriously are probably paying attention to their organization’s health in other areas as well (they assumed that courts perform good or bad evenly in all five performance standard areas). These facts suggest that these courts have succeeded in something more profound and important than moving cases to disposition quickly. These courts view delay as a disease that interferes with their ability to carry out their mission, and understand that the reasons for delays are behind almost every aspect and element of court actions. Hewitt et al. (1990) used a framework in evaluating the successfulness of the courts’ case flow management and delay reduction. The framework includes ten common elements behind successful delay reduction and caseflow. These elements are presented in figure 7.



Figure 7 - Common elements behind successful delay reduction and caseflow (Hewitt et al., 1990, p. 80)

The elements are interdependent and, except for leadership and goals, without an implied hierarchy. Leadership and goals form the hub of an eight-spoke wheel, signifying the centrality of these elements within the synergistic character of the whole (Hewitt et al., 1990). These elements are meant to be a tool for learning and self-evaluation. The elements permit court managers and developers to look at the operations and management procedures from several different perspectives, and to analyze how these elements affect the process performance and delays, as well as find areas and ways for improvement. These elements of successful caseflow management programs indicate that the reasons and sources for delays and performance problems are usually highly diverse, highly interconnected and inherent in almost every aspect of court operations and functions, not caused by a single clear defect. Successful courts have succeeded in incorporating all aspects of operations to delay reduction programs, strong management being the heart of all actions.

The conclusion from recent research in the United States is that the previously emphasized reasons for delays, namely case volume and lack of resources, are not the most important explaining factors for delays. These previously most commonly held arguments have not been confirmed by new studies, and delays are avoidable in extremely different kinds of conditions, although a sufficient and balanced level of resources and a manageable case-load are self-explanatory foundations for applying effective case management (Coolson, 2008). According to recent studies, the number of cases per judge had very limited effect on throughput times. In fact, in some cases the slowest courts had the fewest cases per judge. Increasing the number of judges is thus not a definite remedy for fixing this problem, and to focus just on the number of judges as a relation to delays is to adopt quite a narrow and static view of judicial processes. Rather, delays have been found to be more a factor of the “local legal culture”, meaning the working methods, attitudes and values adopted by the people working in the courts. Successful process improvement and case management efforts should focus on these attitudes, unwritten rules and practices. Therefore court managers should actively examine and define their court values and cultural issues from several different aspects of operations and start to actively control the progress of different types of cases. The establishment and measurement of time standards for different type of cases, strong leadership and accurate, timely and well-presented information are central themes in

successful case management (Coolsen, 2008; Kiesiläinen, 2000; Moog, 1997; Ostrom and Hanson, 2000; Steelman and Fabri, 2008). The caseload management efforts in the United States have been for most parts successful, and a large proportion of U.S courts have ongoing delay reduction programs, but the research concerning delays has been slowing down in the past ten years. There are very little publications concerning the successfulness and success factors of the implementation process and rooting of the caseload management principles in the U.S courts and on the procedures of how these values, attitudes and expectations can be changed. For a large part the publications surrounding caseload management are practical guides and manuals.

2.4.4 Caseload management research in Europe

There has been research on factors causing delays, as well as attempts to apply caseload management principles in other countries as well. In European countries, the courts have started to consider how to cope with delays, and researchers in Europe have begun to take interest in court processing and management problems (Moog, 1997; Soden, 1993; Steelman and Fabri, 2008).

Stelman and Fabri (2008) have done a research on caseload management applications in Europe, in Italy, a country that has one of the largest backlogs and lowest pace of litigation in Europe. They concluded that in Europe there has not yet been sufficient research concerning the factors associated with the pace of litigation. The U.S experiences of causes behind delays and caseload management programs is not directly applicable in the Italian court environment, and therefore probably not in most European countries, either. This is due to several elements which make the whole legal system very different in Europe from that in the United States. These distinctive elements are, according to the study of Steelman and Fabri (2008), connected to issues of the educational and occupational background of judges, the leadership behavior and the status of court managers, the codes concerning judges' independency, and the structure of law procedures. In Italy the judges are more bureaucratic, relying more on systematic logic, theoretical constructs and rational principles of law. This reflects also to improvement; in Italy judges usually prefer a more formal approach to improvement and are less likely to allow experimentations and learning from experience. In the United States the selecting and promotion of court managers is based more on leadership and good management skills, whereas in Italy the most important criterion is often seniority. The codes of independency are not so strict in the United States, which makes the cooperation across different authorities much easier. Steelman and Fabri (2008) also noticed that in Italy the reasons for delays are more often built into the structure of the laws due to more inflexible requirements of following formal procedures.

Mitsopoulos and Pelagidis (2007) studied the relationship between staff resources and the time to dispose cases in Greek courts. They noticed that the increase in spending and resources has so far not led to visible improvements in Greek courts, and that organizational measures have better results than a simple increase of spending or staff numbers. They suggest that the topic for further research should be to investigate the

suggestions that the main problem in the Greek judicial system is not one of insufficient staffing and funding, but rather a problem of insufficient organization and excessively burdensome procedures.

Gramckow (2005) have studied the application boundaries of US-type court management approach in the Balkan states and introduces lessons learned from court reform efforts under way in Serbia, Bosnia and Croatia. The conclusion from the study is that while the management techniques and systems are developed based on a very different system in the U.S, the basic premises of caseflow management are universal enough to provide useful examples and lessons to be further developed for the needs of the European courts. However, while most principles of court management can be universally applied, they need to be adjusted to the individual court environment to which they are being transferred. The adjustments are not needed only on a national level, but also for courts of different sizes and different legal culture present. According to Gramckow (2005) the improvement of court efficiency requires planning, commitment and changes to the way that operations are viewed. Especially Gramckow (2005) highlights the importance of taking a holistic view to analyzing the operations and giving enough time for change to happen. In court change efforts the assessing and analyzing the current case- and workloads as a basis for change efforts is important, and enables the operations and processes viewed in a comprehensive manner. The amount of time for the key judicial players to fully understand how and to what extend the different caseflow management techniques impact processing and what the introduction of such changes actually means for their own roles is another important factor. Since lawyers are generally not trained in considering court processes and practices in the light of management terms they require guidance and time in acquiring the understanding of how processing and management changes impact the pace of litigation (i.e. their own work, roles in managing time and creating efficient operations).

The differences in legal systems and court cultures around the world make it beneficial to carry out research of the causes and remedies for delays nationally, or at least continentally. The Council of Europe has its own instance for promoting judicial efficiency: the European Commission for the Efficiency of Justice (CEPEJ). The aim of CEPEJ is improving the efficiency and functioning of justice in the member states. The participants in CEPEJ are legal experts and developers from all the 47 member countries. One of the announced improvement areas in CEPEJ is “Time Management” in courts. CEPEJ collects and analyses performance data from different counties and publishes different kinds of reports (advice, guidelines, action plans). In their annual plenary meeting, CEPEJ has released survey studies about the throughput-times and the probable causes for delays in different countries. The throughput times and reasons vary a lot from country to country and from a court instance to another. Even the definition and boundary for “long duration” range from 3 months to 3 years, depending on the country and the court. According to a survey study conducted in Europe by Fabri and Piscitelli (2008), the most important factors that courts name for causing delays are high caseloads, the complexity of cases, the involvement of experts and witnesses, delaying tactics from the parties, the complexity of the law, and a lack of judges. These reasons can be seen as “easy” explanations for delays, and are quite contradictory to the outcomes of recent

studies carried out in the United States. This indicates that the research concerning court operations and performance in Europe lags somewhat behind, and that also in Europe, the explanations and remedies should be sought elsewhere, instead just silently submitting to the prevailing conditions (Kiesiläinen, 2000). CEPEJ has released a checklist of indicators for the analysis of lengths of proceedings in the justice system; called “Time management checklist” (CEPEJ, 2005; Kiesiläinen, 2010). The checklist is meant as a tool for courts to collect appropriate information and to analyze relevant aspects connected the duration of judicial proceedings. The checklist introduces six indicators from which perspectives the analysis should be conducted 1) ability to assess the overall length of proceedings, 2) established standards for duration of proceedings, 3) sufficiently elaborated typology of cases, 4) ability to monitor course of proceedings, 5) means to promptly diagnose delay and mitigate their consequences and 6) the use of modern technology as a tool for time management in the justice system. The checklist highlights the importance of setting targets and creating procedures and tools for the monitoring of them as the key factors in reducing delays.

Courts in Europe have taken steps to reduce the length of proceedings. Common steps include for example judge specialization, increasing the number of non-judge staff, implementation of time-frames, and differentiated caseload management. However, the knowledge of whether or not these steps have fulfilled the expectations remains still unclear, and especially knowledge concerning implementation and approval barriers is non-existing. One problem is that information on factors affecting the functions of courts cannot be obtained through pure statistical examinations of case processing times, and other applicable method would be to conduct more in-depth empirical investigation in courts and to study the nature and impact of different ongoing delay reduction programs and policies more thoroughly (Fabri and Piscitelli, 2008; Johnsen, 2006; Smolej, 2006).

2.4.5 Caseload management research in Finland

In recent decades, the Finnish legal system has gone through considerable change reforms: civil proceedings were reformed in 1993, administrative proceedings in 1996 and criminal proceedings in 1997 (Ervasti and Kallioinen, 2003). Finland has also a research institute for judicial issues (National Research Institute of Legal Policy), but their research concentrates on jurisdiction matters and rules of procedures. The research concerning the pace and improvement of justice system processes has not been the target of widespread research in Finland. Some writers have mentioned the importance of the pace of litigations, and the questions surrounding it, in other judicial contexts, (see e.g. Järvenpää and Vartiainen 1988; Smolej, 2006; Spolander, 2007; Vartiainen and Järvenpää 1988) but there are not much in-depth academic studies on throughput-times and delays in courts.

Kiesiläinen (2000) has done a study where he reviews the Finnish legal system against the United States and the caseload management principles. He concludes that while the judicial systems and cultures differ in many ways, a lot can and should be learned from the basic caseload management principles. Central improvement themes would be the use

of time standards and better co-operation practices between judges. Kiesiläinen (2000) finds no reasons why these best practices could not be adopted also in Finland.

Ervasti and Kallionen (2003) have studied the problems related to legal proceedings (civil, criminal and administrative) and the application of procedural rules in Finland. Condensed, the central problem areas proved to be the delays and high cost, as well as the inconsistent practices among judges. Ervasti and Kallioinen (2003) note that one central problem associated with research related to courts in Finland is the fact that there is no solid and systematic research tradition about courts and the lack of systematic empirical data about court practices makes it difficult to assess the development opportunities and potential problems. They conclude that the most important remedies for improving the working of courts includes strengthening empirical research on court practices and problem areas in Finland, carrying out projects aimed at improving the quality of court practices, concentrating on personnel training, and strengthening the professional identity of judges.

In 2010, the Finnish Committee for Constitutional Law examined the reasons for delays and published a report concerning the issue. The Committee concludes that the reasons for delays are highly diverse and have emerged during a long period of time. According to the report, there are several different categories of reasons behind the delays: structural, procedural, working method, management, co-operation, and resource related factors (Kalenius and Salo, 2010). The Finnish Ministry of Justice (2010) has published a task force report on preventing delays in justice processes. The report states that the primary problems at the moment are connected to the complexity of the cases, to the working methods of different participants (for example lack of co-operation and impractical resource allocation), and to other operations carried out by different participants (for example hiding of the defendant and other deliberately delaying tactics). Several improvement suggestions are given for different areas of the Finnish justice system. The suggestion areas deal with for instance actions of preventing crimes beforehand, actions of improving the resource situation, the performance measurement in the light of the whole justice chain, co-operation and coordination between different Ministries and between participants in the whole chain, specialization and training and improving the utilization of information technology.

Overall, justice court operations and organizational improvement, despite the growing concern on ineffectiveness, has not been a target of wide academic interest outside the science of law and outside the American continent. The present time is said to be favorable for studying process improvement efforts and programs in justice courts, because the willingness to change has increased a lot in recent years due to the increased perception among legal stakeholders that delays are a real, consistent and growing problem (Coolsen, 2008). The research concerning justice systems has been so far for the most part in the hands of judges, law professors and lawyers. This has directed the research towards traditionally valued aspects of quality, including jurisdiction matters and rules of procedures rather than process effectiveness, throughput-times and operation improvement issues. It has also led to nation-specific research, because it relies on the regulatory aspects and matters linked to the legal framework of each country. It would be

beneficial to take an altogether broader view to justice and its operations and regard the system more from the stance of other scientific disciplines and knowledge (Rollon et al., 2004; Steelman and Fabri, 2008).

2.5 Research gap and research questions

The challenges inherent in organizational improvement projects are usually connected to problems in creating sustainable change and building organizational improvement competences. Usually, the underlying elements behind these problems are difficulties in incorporating the culture and human behavioral aspects to change implementation projects. The difficulties are often connected to a lack of earlier experience from similar projects and difficulties in determining the resources, competences and time needed for the project. Resistance to change usually reflects the confusion caused by not knowing (the tangible objective) or not understanding (the implementation process, individual and team involvement). The lack of fully understanding the implications of the intended change and the lack of understanding the reasons behind the need for change causes low morale, disinterest and lack of enthusiasm towards the project and changes. To overcome these problems greater emphasis should be put to the project procedures and interventions aiming at building organizational commitment to change and making the change initiatives stick in the organization; namely to the unfreeze and defreeze phases of change projects (see e.g. Cicmil, 1999; Hammer, 2001 Korhonen, 2008; Longenecker et al., 2006; Roberto and Levesque, 2005).

Critical success factors to be considered in achieving these aims have been said to be for example the level of participation, a clear focus and project scope, strong leadership, a sense of urgency, real-time feedback through testing and experimenting, a clearly defined improvement plan, effective training, and effective analysis based on accurate data (see e.g. Hammer 2001 Korhonen 2008; Longenecker et al. 2006 Roberto and Levesque 2005).

The special characteristics of professional public organizations and processes make it even more important, but also more difficult, to achieve the commitment and willingness to change and the ownership and institutionalizing of the change efforts. The autonomic and individual nature of the work makes the achieving of widespread willingness and motivation to improvement a prerequisite for a successful improvement project. The need for autonomy, traditional and historical working methods, and the complicating factors inherent in the production process create prejudice towards the suitability and functionality of process improvement solutions. A low level of process understanding and competence and multiplicity of stakeholders make it more difficult to get consensus of what is important and what is the goal, value, and customer of the operations and processes. Due to these complicating characteristics, special attention is needed in the participation of employees, building the process improvement capability, understanding the need for change, reinforcing the change and the crucial role of top management in the improvement efforts (see e.g. Brashier et al., 1996; Cheng, 1990; Fernandez and Rainey, 2006; Lowendahl, 2005; Price and Brodie, 2001; Rantanen et al., 2007).

The research on process improvement in professional public organizations has concentrated on studying the application and transfer possibilities and challenges of concepts and techniques designed for the manufacturing industry. Good results in improving the performance of the processes have been reported using different approaches and scale of improvement but it is acknowledged that the techniques need to be considerably adjusted in order to achieve the cultural fit needed in professional public work conditions. The results of the research indicate that professional public organizations need to start building the basic conditions for process understanding, build commitment to process-based efficiency and start building competences and improvement culture in the organization. Introducing concepts and techniques from the manufacturing industry is said to be a good starting point in this and in creating initial interest towards process improvement, but also something more profound is needed in order to create the motivation, willingness, and ownership to improve the processes inside the organizations. Lessons of success and failures from the manufacturing sector should be utilized but an own approach for improving professional processes is also needed. (see e.g. Adler et al.,2003; Halachmi and Bovard, 1997; Hines and Martins 2005; McAdam and Donaghy, 1999; Radnor 2010; Radnor and Walley, 2008).

The studies on process improvement work in justice courts (the research on caseload management applications) has produced a variety of practical and functional solution proposals to reduce delays in courts. The remaining challenge is the cultural and attitudinal unfit of the solutions and therefore the low acceptance of them in courts. The research has recognized the elements causing the low acceptance, but the research on how to carry out and execute caseload management improvement work in courts in order to increase the functionality and acceptability of the solutions appears to be non-existent (see e.g. Coolson, 2008; Gramckow, 2005; Ostrom, 2005; Steelman and Fabri, 2005).

In order to enhance the acceptance and functionality of different caseload management techniques in courts there is a need to increase knowledge concerning the underlying operational reasons behind the delays and the functional and acceptable solutions to increase the role of time in operations, as well as the procedures how to organize and carry out delay reduction programs. The present study aims to increase the knowledge concerning the delay problem and delay reduction in courts by studying and analyzing the following questions:

1. What are the underlying reasons behind delays and backlogs and how do these reasons influence the operations in court organizations?
2. What are the potential solutions and procedures to reduce and prevent delays and backlogs in court organizations?

With the lessons learned from the process improvement projects conducted in the case courts, the study aims to contribute to the literature and discussion of the possibilities and challenges of process improvement applications in professional public organizations.

The majority of academic literature on process improvement work and applications in professional public organizations is still descriptive, dispersed, and developmental by nature (Radnor 2010; Radnor and Walley, 2008). More empirical evidence and knowledge of successful and unsuccessful process improvement efforts and the factors causing failure and success in transferring process improvement concepts to professional public organizations are needed. When more cases of success and failure are documented on, it might be possible to undertake and start the development of more generic models of process improvement in the professional public sector (see e.g. Halachmi and Bovaird, 1997; Radnor 2010; Radnor and Walley, 2008). Especially participant-observation studies are needed in order to shed more light on the factors that shape the various stages of the process improvement work in professional public organizations (Rahbek et al., 2011).

Further research and investigation is still needed on how the professional public organizations should go about the improving of the business process performance and the application of concepts and techniques from manufacturing sectors: the procedures, elements and factors which need to be taken into account and emphasized in the application efforts and in achieving the commitment and ownership during the different stages of process improvement work.

The research on process improvement in professional organizations has recognized the special characteristics and needs (e.g. need for participation and top management involvement). However, the ways that the improvement work should be carried out in order to meet the aims and the aspects in improvement work that need to be highlighted need more investigation. This calls for more empirically evidence and studies on the influence of different approaches, procedures and initiatives taken during the improvement work, in order to understand what enables and hinders the achievement of the commitment and ownership to process improvement applications and thus ultimately the level of applicability and acceptability of the solutions. Despite the almost build-in need to use outside process improvement expertise, the research surrounding the possibilities and challenges of outside interventions appears to be practically non-existent and should be more addressed in studies concerning process improvement possibilities in professional public organizations.

Based on these research needs the present study aims to bring new insights and knowledge on the following topics and questions:

1. What are the critical factors of process improvement in professional public organizations?
2. How can the critical factors be taken into account and incorporated to different stages of the improvement work and projects?
3. What are the possibilities and challenges of using outside expertise in process improvement application projects in professional public organizations?

3. Research projects and methodology

This section describes the research approach and process of the thesis. In chapter 3.1 and 3.2 the research approach and methodology are presented. Chapter 3.3 presents the context of the research projects, and in chapter 3.4 the data collection and analysis are introduced.

3.1 Research approach

This is a case study research with an empirical, inductive, theory-building research approach. Building theories from case studies is a research approach that involves using one or more cases to create theoretical constructs, propositions or mid-range theory from case-based, empirical evidence (Eisenhardt and Graebner, 2007).

Case studies are an appropriate research strategy particularly on research areas where qualitative data is needed in order to create proper understanding of the studied phenomenon. Qualitative case study research also has the possibility to provide deep understanding, a holistic view, and broad and rich descriptions of a complex phenomenon with many different types of interconnections and not straightly measurable and quantified issues (Eisenhardt, 1989; Gummesson, 2000). Theory-building research using cases typically answers research questions that address “how” and “why” in unexplored research areas (Eisenhardt and Graebner, 2007).

As the research on the factors associated with successful process improvement work in professional public organizations is still at a developmental stage, there is not yet a solid theoretical foundation to be tested further. Instead, there is a need to get more empirical evidence and experiences on process improvement work in order to better understand the constructs and aspects connected to the improvement work. On the basis of the factors emerging from more empirical experiences it might be possible to start building more generic models of process improvement work in professional organizations to be tested in the future (see e.g. Radnor 2010, Radnor and Walley, 2008, Halachmi and Bovaird 1997).

The research aim and objectives of the present study require that the organizations and the change creation process are studied intensively and for a long period of time: what is actually happening in the change creation process, what things influence the need for change and success of improvement work and what are the interconnections between these all. The case study research gives the possibility to study this type of complex real-world social processes from diversified perspectives and the possibility to get rich empirical evidence and data concerning the different factors connected to process improvement in professional public organizations.

This study is based on two case studies, conducted partly simultaneously. Selecting the cases is an important part in building theory from case study research (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). Multiple-case studies can provide a stronger base for

theory building by enabling comparison, more varied empirical evidence and elimination of alternative explanations and broader exploration of research questions (Eisenhardt and Graebner, 2007). The case organizations in this study operate in the same professional sector and were chosen on the basis of a need for improving the process performance. Both organizations had a strong need for change and process improvement. Usually, it makes sense to choose cases in this type of extreme situations where the target of interest is transparently observable (Eisenhardt, 1989).

Due to the fact that the case studies were carried out partly consecutively, they were not independent experiment settings. A lot of learning of the critical success factors could be transferred from case to case and taken into account in the designing of the latter improvement project. This made it possible to replicate the findings of the previous case and test and verify the implication of different types of interventions to the successfulness of the process improvement projects, and thus learn from successful and unsuccessful improvement solutions. The similarities and differences of the case projects are discussed in case comparison chapters (chapters 3.3.3, 4.1.3, 4.2.3, 5.1.3, 6.1.3, and 6.2.3).

Case studies can accommodate a rich variety of data sources and provide the opportunity to employ multiple investigators, allowing the cases to be viewed from many different perspectives (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). The present study utilizes different sources of data and has employed the opportunities of multiple investigators in both collecting, analyzing the research data and verifying the interpretations from the data. The data collection and analysis process is described in chapter 3.4.

The case studies in the present study have been carried out using the action research approach, where the researcher is an active internal part of the change creation process, not only an observer. This has made it possible to get a rich source of data and firsthand experience and perceptions of factors connected to and influencing the process improvement work and interventions. The aim of the study is to identify critical factors connected to process improvement and analyze the influence of different interventions to the change creation process. The action research approach provides a good opportunity to study these issues by offering the possibility to get diversified and deep understanding of the factors connected to the improvement projects and to find out the impacts of different procedures by being actively involved in the change creation process.

Supply chain management and operations management is an applied field of research and this is why it often identifies research questions that are of particular relevance to business managers in different fields (Näslund et al., 2010). The problems are often ill-structured, real-world problems needing practical and relevant solutions and being of mutual interest to both researchers and practitioners. Action research is applicable to the study of these unstructured and integrative issues. It has broad relevance to practitioners, while at the same time it can contribute to theory (Coughlan and Coughlan, 2009; Mangan, 2004; Näslund, 2002; Näslund et al., 2010). Because creating change in courts has been an important aim of the research projects, action research has been a natural approach to study this phenomenon.

The evaluation of the research approach is discussed in chapter 7.3.

The general characteristics of the action research approach and its implementation and quality criteria are discussed in the following chapter.

3.2 Action research

The term “action research” was invented and introduced by the eminent social scientist Kurt Lewin in the mid 1940s. Lewin argued that the main purpose of doing research should be its usefulness for the society. Lewin and his colleagues conducted action research projects in different social settings. Through the following decades, action research in organizations grew into what became recognized as organization development (OD), particularly in the U.S. Nowadays it is used among researchers involved in the study of organizations and total social systems from many different perspectives and a wide variety of settings and scientific disciplines. Particular areas named are, for example, organizational development, education, health care, and social care. In these areas, it is said to have a particular niche among professionals who want to use research to improve their practices and operations (Coughlan and Coghlan, 2009; Eden and Huxham, 2002; French, 2009; Gronhaug and Olson, 1999; Näslund et al., 2010; Ottosson, 2003).

The progression of the action research process is iterative by nature, with a constant dialogue between observations and theories, including iterative inductive and deductive research phases.

The courts of justice need the utilization of different perspectives and integrative research in order to deal with this unstructured practical problem. Action research is fundamentally about change, where the methods and objectives of the study cannot be completely separated; in this research project, the aims have been both in creating change and gaining new knowledge about that change, so the action research approach was a natural research strategy choice for studying this issue.

There are numerous definitions for action research and action research itself is a generic terms and a family of research methodologies which covers many forms of action-oriented research. It provides a wide choice of appropriate approaches for action researchers to plan the research project to fit their particular research questions (Coughlan and Coghlan, 2002 and 2009; Dick, 2002; Näslund et al., 2010). In action research the emphasis is on real-world organizational and managerial problems, where the researcher is not an independent observer but acts as a participant in the change creation process, and simultaneously accommodating the goals of creating new knowledge. In action research, the research informs practice iteratively and constantly, and practice informs research synergistically (Näslund et al., 2010; Westbrook, 1995). As the name, action research, suggests, it is a participative approach to problem solving and it has dual purpose and aim: taking action and creating knowledge about that action and contributing

both to practical concerns and to the goals of science (Coughlan and Coughlan, 2002, 2009; Näslund et al., 2010).

3.2.1 Implementing action research

The designing of the action research process involves consecutive stages which are cyclical by nature and continuing action cycles one after another. Due to the fact that there is a wide and free choice of appropriate approaches, also slightly different versions of these continuing action research cycles are presented in the literature about action research. However, all these approaches incorporate the basic idea of plan-act-observe-reflect cycles (see for example Coughlan and Coughlan, 2009; Eden and Huxham, 2002; Nogeste, 2008).

In figure 8, the action research cycle adapted from Coughlan and Coughlan (2009) is presented, which is concurrent with the action research improvement projects carried out and studied in this thesis. The cycle involves a pre-step and four basic steps: diagnosing, planning action, taking action, and evaluating action.

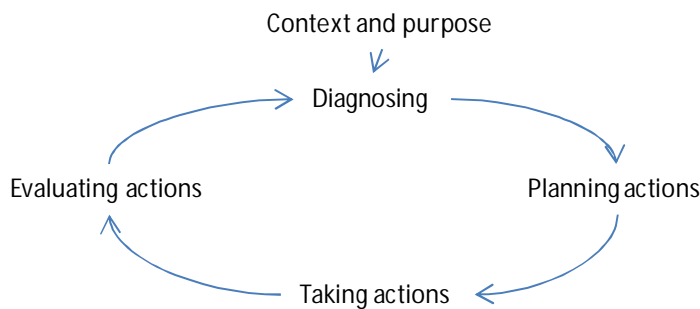


Figure 8 - The action research cycle (Coughlan and Coughlan, 2009, p. 247)

The action research process starts often with the notion that a change in practice is needed and justified. In the pre-step, the context and purpose of the problem need to be understood by the key members in order to identify and clarify the concern. In this step the point is to agree about the problem areas, but not pre-specify the solutions. The pre-step is driven by questions of the rationale for action and research: why is the project and action necessary/desirable and why is this action project worth studying? The researcher needs to position the research in relation both to the research aims and to the needs of the organization, by acknowledging both what we are doing and what we are researching. Good and thorough knowledge of the problem and the organization is a prerequisite for engaging action research (Coughlan and Coughlan, 2002, 2009; French, 2009; Westbrook, 1995).

The diagnosis step is important and needs to be done carefully and thoroughly. It involves data gathering, data feedback and data analysis in order to increase the understanding about the situation and problem at hand as a basis for planning correct actions. The data has a central role in the diagnosis; both hard data (e.g. performance

statistics) and soft data (e.g. expectations and perceptions) are usually needed. Data is generated also by the inquiry itself and observable behavior, in addition to the formal mechanisms. The key is that the diagnosis step is a collaborative venture; the action researcher takes the data and feeds them back to the client system by making them available for analysis, and the data analysis is done collaboratively – by the researcher and the members of the client system together. This approach is based on the notion that the clients know their organization best and will ultimately be the ones who implement the designed actions (Coughlan and Coughlan, 2002; 2009).

Planning the actions follows from the previous analysis and needs to be consistent with them. Key questions in an extensive change plan are for example: what and where needs to be changed, what type of change is required, how is this change accomplished (support, commitment, resistance)? Here again the important issue is the collaboration; in the same vein as in diagnosis, the action plan needs to be a joint effort between the client and the researchers (Coughlan and Coughlan, 2002; 2009).

Taking the action is self-evidently the clients' responsibility, but the researchers can take part in helping the implementation process and planning the implementation procedures in the planning stage. The action involves basic implementation procedures: making the desired change and following the plans through (Coughlan and Coughlan, 2002; 2009).

Evaluating means the reflection of the outcomes (intended and unintended) of the actions taken. A review and evaluation of the process undertaken is the key to learning; both for new action and new knowledge. The views in evaluation can be for example: was the original diagnosis correct, was the action taken correct, and was the implementation carried out in an appropriate manner and what should we learn for the next cycle (Coughlan and Coughlan, 2002; 2009)?

A necessary aspect of the action cycle and creating knowledge about the cycle is the need for a meta-learning cycle including reflection about the actual action learning cycle; learning about learning. Due to the dual aims of action research, the approach always needs to involve a dual cycle nature: a cycle for problem solving interest and a cycle for research interest (Nogeste, 2008). As the researcher is involved in the actual project in the action research problem solving cycle, she/he needs to step aside for reflection and analysis of the cycle; to conduct a research interest cycle. This is the key requirement for both generating knowledge and for taking new actions, and this is what makes action research different from pure consulting and everyday problem solving (Coughlan and Coughlan, 2009; Näslund et al., 2010).

The research interest cycle should involve generating the research questions, reconnaissance from relevant literature, and planning the research and data analysis project for answering the research questions. The research cycle is fundamentally about reflection of the problem solving cycle for research purposes, based on the research interest (Nogeste, 2008). The reflection of the action research cycle should incorporate content reflection (what happened), process reflection (how things were done), and

premise reflection (what were the underlying assumptions behind attitudes and behavior). This dual cycle nature of action research is summarized in figure 9.

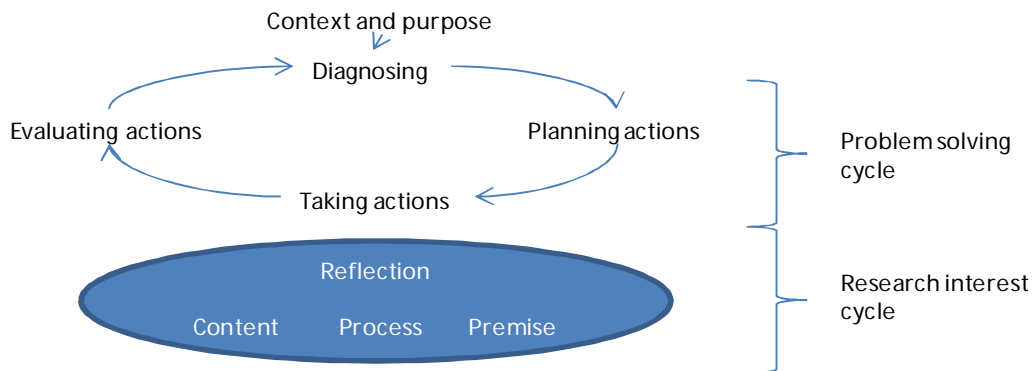


Figure 9 - Meta-cycle of action research (adopted from Coughlan and Coughlan, 2009 and Nogeste, 2008)

3.2.2 Quality in Action Research

Good action research needs to fulfill both the aims of action and research. Not all organizational intervention projects are necessarily action research unless they satisfy the criteria of *rigorous research*, and not all research within an organization is necessarily action research unless it satisfies the characteristics of *action orientation* (Eden and Huxham, 2002).

The action research approach has had a contradictory past; it is both criticized and at the same time claimed to be almost the only way to produce useful and relevant knowledge. The critique over the decades has largely stemmed from the fact that the rigor and quality has been assessed with criteria appropriate for other paradigms or the traditional criteria of positivist social science (for example objectivity, repeatability, quantification, precise research questions, and substantial early literature review). The label action research has also been used occasionally rather broadly and left undefined and fuzzy (Eden and Huxham, 2002; Dick, 2002; Gronhaug and Olson, 1999).

Different views on what constitutes scientific research prevail. Action research does not have to justify itself in relation to alternative epistemologies and research approaches, as it must be justified in its own terms, particularly those which argue that the reflection and data generation and the emergent theories cannot be captured readily by alternative approaches. The action research approach has been contrasted to the positivist paradigm. As the positivist applies and highlights the criteria of internal and external validity, reliability and objectivity for good research, the action research paradigm needs its own quality criteria. Four criteria for judging the quality of action research has been suggested by Coughlan and Coughlan (2009):

- **Participation** – how well does the action research reflect the cooperation between the action researcher and members of the organization?

- **Real-life problems** – Is the action research project guided by a concern for real-life practical outcomes and is it governed by constant and iterative reflection as a part of the process of organizational change and improvement?
- **Joint-meaning construction** - Is the process of interpreting events, articulating meaning and generating understanding a collaborative process between the action researcher and members of the organization?
- **Workable solutions** – Does action research engage a significant work; does sustainable change come out of the project?

In order to maintain good quality and rigor in action research the following criteria need to be fulfilled (Coughlan and Coughlan, 2009; Näslund et al., 2010):

- the process of exploration of the data must demonstrate a high degree of method and orderliness;
- the action research learning cycles need to be consciously enacted and a logical chain of evidence described;
- multiple different data sources need to be used in providing contradictory and confirming interpretations;
- own assumptions, viewpoints and interpretations need to be tested throughout the project and made open for public testing and critique;
- the interpretations and outcomes need to be challenged, supported or disconfirmed by existing literature.

The inferences made in action research can be tested by combining advocacy with inquiry, illustrating inferences with directly observable data, making the reasoning explicit at each inferential step, by actively seeking alternative explanations and disconfirming data, allowing the making of mistakes in the service of learning, by actively inquiring into own impacts in the learning context and designing ongoing experiments to test any competing views (Coughlan and Coughlan, 2009).

The value of action research can be seen to be in the developing and elaborating theory from practice. Theory generated through action research has some special characteristics. It is *situation specific*, not general theory. By its very nature, action research does not lean itself to repeatable experimentation. Each action research project and the context will be different from the other, so each time it will be necessary to adjust the interpretations of the theory to the circumstances. Action research is at its best in producing contextual knowledge and studying systemic relationships between a set of different theories, where the aim is to understand how some theory must be understood in the context of other related theories. This is often important in organizational studies. Secondly, it is *emergent* theory, where the theory develops from the synthesis of the understanding of what emerges from the data and from the use in practice of the body of previous knowledge which was the basis of the intervention and research intent. Unlike in positivists science, where the theory to be tested is defined from the outset, in action research the theoretical understanding unfolds through reflection on the implementation and outcomes. The theory building from action research is also *incremental*, moving through the cycle of developing theory- to action- to reflection- to developing theory

from the particular to the general in small steps (Coughlan and Coughlan, 2009; Eden and Huxham, 2002; Gronhaug and Olson, 1999).

The main advantages of the action research approach are similar to the advantages of qualitative research approaches in general; the possibility for deep understanding of the problem, change opportunities and phenomena, elaborateness and versatility of the data, and the possibility to use multiple data collection techniques and to acquire first-hand data from multiple, known sources. In action research also unspoken and diffuse information can be revealed while being part of the organization and change process: unexpected reactions can be observed and problems not previously thought of discovered. These benefits are emphasized in studies exploring concepts and undefined problems in the real world and seeking answers to questions regarding what is happening and how and why something is done. The benefits of action research are also the fast feedback cycles and constant dialogue between theory and practice. The outcomes of research are immediately in the use of the organization, the outcomes are always applicable and relevant as the starting point is practical problem needing a solution, and the organization has selected the problem and has been part of the inquiry process. The research process also benefits from the fact that the thoughts and ideas of the researcher can be discussed with the client organization throughout the research process.

Despite of these undisputable advantages, there are challenges and potentially problematic areas connected to the action research approach, which need particular attention in order to be controlled and taken into account during the action research project.

The elements of access and trust are of significant importance to action research (Coughlan and Coughlan, 2009; Näslund et al., 2010). Access means, basically, gaining right-of-entry to information and data about the phenomenon being studied, and it is also necessary to get tacit knowledge about the organization and employees (Näslund et al., 2010). The access to tacit knowledge is a key competitive advantage for action research, but is also a challenging task as it requires a shared interest towards the potential outcomes and a feeling of joint mission between the client and the researcher, as well as great level of trust and an acceptable ethical framework between them. Trust is sometimes difficult to achieve, since action research may lead to unwanted changes to the status quo of the client organization (Näslund et al., 2010). The action research projects often need to be intensive and longitudinal, so there is great deal of time and resources deployed by both parties to the solving of the problem at hand, and this is why the interest towards the outcomes must be present in both parties.

To gain access and trust and to carry out a good action research project requires many skills and personal characteristics from the researcher. This is what makes action research sometimes a challenging approach to research. It requires skills not only as a researcher but also as an active member of the organizational change creation process. To work as an action researcher in organizations requires skills of diagnosing, utilizing many data collection techniques, making interventions in relation to issues and problems in a given organization, creating adequate theoretical knowledge, learning from actions, making

adequate observations, making sense of the observations by conceptualization skills, and having good documentation and reflection skills. For an inexperienced action researcher it is therefore often a prerequisite to be a part of a team with experienced researchers (Coughlan and Coughlan, 2009; Gronhaug and Olson, 1999).

Action researcher can have different roles in the client organization and during the action research projects. It is an important point in controlling action research projects to consider and agree the roles played by the clients and the researchers. A key point is that the researchers and clients differ in knowledge. The clients are the "problem owners". They have experience-based knowledge of the actual context. The true role of the researcher is to provide theory-based and new knowledge to the problem solving situation and process. For the action researcher, there exist potential role ambiguity and role conflict, as the action and research can have conflicting demands. This is why there is a clear need for negotiating, contracting and agreeing on the role of the researcher in different situations in the change creating process (Coughlan and Coughlan, 2009).

In general, the action researcher can be an outside agent or an insider studying their own organization. More commonly, action researchers are outside agents and outside helpers to the client system, working in a facilitative manner by helping the client to inquiry into their own issues and create and implement solutions. Here the outside helper can utilize different roles in different situations in order to help the client to create the best possible solutions: from a doctor-patient model to a process consultant model (Coughlan and Coughlan, 2009; Gronhaug and Olson, 1999; Schein, 1999). The possible role conflict, being inside and outside at the same time and thus absent of pure objectivity, creates an argument opposing action research, based on the possible influences of researcher to the interpretation, reflection and analysis. In order to reduce the problem of bias, the role of the researcher must be clearly described in different situations of the action research project and emphasis must be put to the criteria of conducting rigorous research in the reflection of the action research. (Gronhaus and Olson, 1999; Näslund et al., 2010).

In order to control the problematic aspects of action research (gaining access, achieving trust, achieving the different skills needed, negotiating about the role of the researcher and avoiding biased interpretations), the team-based approach to action research is encouraged and a good possibility. The team-based approach increases the rigor of the data collected in terms of reliability, since the risk of bias is reduced with several researchers studying the same phenomenon and collecting and analyzing the evidence. Different members of the team also bring different skills and strengths to the project and thus help in gaining access, creating trust with the client, hindering role conflicts and achieving all the skills necessary to help the client. In an action research project, there can be a team-based approach on different levels; there is the research team (including at least two researchers), a project team (including both researchers and members of the client organization), and sometimes there is also a specific, separate project team in the organization itself (including only the organizational members). As the analysis and interpretations of the problem and change creation are done and connected from many different levels and from many different perspectives, the problem of biased

interpretations and not having the skills required is significantly reduced (Näslund et al., 2010).

3.3 Process improvement projects

This chapter introduces the general progress and content of the action research improvement projects carried out in the case courts and describes the phases, actions, and interventions used, as well as the role of the research group in the projects and in the different phases.

The action research projects conducted in the case organization had similar stages as the action research cycle introduced by Coughlan and Coghlan (2009). There were constant analyze-plan-act-reflect cycles during the improvement projects and between the two projects. Different data collection methods have been utilized during different stages and all collected data has been analyzed by multiple observers. During the projects, the data, the situation and the planned actions were analyzed constantly and collectively with the client and research group for change creation purposes. After the improvement projects, all the collected data was analyzed and reflected upon for research question purposes by the research group.

The case projects are first introduced separately and then compared in chapter 3.3.3.

3.3.1 Helsinki Court of Appeal

The initiative for the project and the action came from the Ministry of Justice. On the basis of the improvement needs and the delay problem, the management group of Helsinki Court of Appeal named a process improvement team on 2 March 2006. The research group from Lappeenranta University of Technology (3-4 researchers) was involved as change facilitators in the project from the beginning. The researchers joined the improvement team in March 2006.

From the Helsinki Court of Appeal there were 10 members in the improvement team: the Chief Justice, two Justices, three Senior Assistant Justices, three Assistant Justices and one Court Clerk. This way all personnel groups were represented in the work group.

The process improvement project in the Helsinki Court of Appeal lasted altogether about four years. The project consisted of five main phases: diagnosis (initial data gathering and analysis), action planning, pilot testing, and implementation and evaluation (see figure 10).

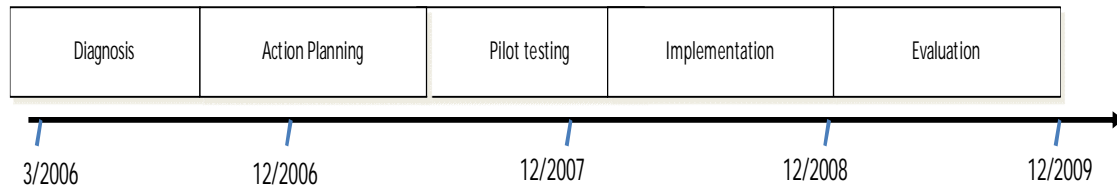


Figure 10 - Phases of the process improvement project in Helsinki Court of Appeal

The phases of the project, the actions taken in them, the working methods and the role of the researchers are described in detail below. As an addition to the collaborative main events discussed and summarized below, the data and situation were also analyzed and discussed with the representatives of the Ministry of Justice regularly twice a year.

Diagnosis – the initial data gathering and analysis

The diagnosis phase lasted about six months. The purpose of the phase was to get acquainted with the organization and its operations and processes, and to get a detailed picture of the situation concerning delays, process performance and the improvement needs, as well as the roles and responsibilities of the researchers in future improvement efforts. Because no one in the research group had previous experience of judicial processes, familiarization with the operations and terminology was a long process.

The project started with conversations and e-mail exchange between the Ministry, the Chief Justice and our research group. In these first meetings the client’s representatives introduced the general process performance problems and discussed the need to study the process from operations management and logistics perspectives in order to find new applicable operations model. On 28 March 2006 our research group participated in a meeting of the improvement team in Helsinki Court of Appeal. The purpose of the meeting was to discuss the problem and situation more thoroughly and to decide upon our role in the future improvement efforts. The conclusion from this meeting was that our research group would be an active member in the future improvement actions and in the improvement team.

After that our research group performed numerical analysis and collected operational statistics from the client’s database concerning the situation in delays and process performance. The main numerical analyses composed were:

- age of active pending inventory
 - departments
 - size groups
 - urgency levels
- number of active pending inventory
 - departments
 - size groups
 - urgency levels
- analyses of solved cases

- departments
- size compared to output
- complexity compared to output
- process mapping
 - active and passive times in different phases of the handling process
- inventory turnover
- queuing analyses
 - age of the pending cases compared to target throughput-time

The data gathered with the numerical analyses were then fed back to the client system. All the prepared analyses were thoroughly and collaboratively talked through, discussed and analyzed in three half-day workshops of the improvement team. The dates of these analyzing workshops are presented in table 2.

Table 2 - Summary of the dates and themes of the analysis workshops (Helsinki Court of Appeal)

Analysis workshop	Theme
1 16 May 2006	Analyzing the situation, problems and improvement needs
2 19 June 2006	Analyzing the situation, problems and improvement needs
3 12 September 2006	Analyzing the situation, problems and improvement needs

In these workshops the researchers introduced the analyses made, as well as own observations and conclusions drawn from them, and together with the improvement team, main conclusions concerning the starting point of improvement and the biggest process performance problems were drawn. The numerical analyses opened up new ways to examine the process and its performance. The novel approaches to analyze and study the process performance furthered and encouraged a lot of discussions and thoughts in the improvement team concerning the factors and reasons behind the delays and the process performance problems. These interventions, worked thus well in both assisting the starting up of the improvement project and also in generating “hard” and “soft” data for our research group.

On the basis of the analyses and conversations, the improvement team decided to start planning a new comprehensive way to plan and control operations and processes; a new operations model. The main point in the new operations model was to renew the work planning practices.

Action planning

The purpose of this phase was to plan the needed changes and actions, namely the features of the new operations model. The action planning phase was decided to be

carried out as a series of team workshops. Our research group acted as process improvement facilitators offering expertise and mapping out and leading the planning process. The rest of the improvement team was responsible of the actual planning of the improvement actions and solutions (because they had the best knowledge of the organization and what will work, and of course they had to ultimately implement and follow through the actions planned).

Every workshop had a certain theme, and the theme was handled by structured ideating, discussions and teamwork. The role and objective of the workshops was to generate material, ideas and part-solutions, which our research group structured afterwards as solution proposals concerning the new operations model. The new operation model and the solutions were planned piece by piece in these workshops.

Altogether the action planning phase lasted about 6 months, including 10 team workshops of ½ -1 day each. The researchers plan the workshops: the group work methods to be used and the contents of the day, and gathered and constructed the outcomes of the workshops for the next session. The dates and themes of the workshops are presented in table below.

Table 3 - Summary of the dates and themes of the action planning workshops (Helsinki Court of Appeal)

Action planning workshop	Theme
1 22 September 2006	Defining the boundaries for improvement. Determining and clarifying the objectives.
2 3 October 2006	Ideating separate solutions proposals. Listing open questions and unclear matters
3 24 October 2006	Forming the overall operations model
4 7 November 2006	Forming the overall operations model
5 22 November 2006	Forming the overall operations model
6 15 December 2006	Forming the overall operations model
7 26 January 2007	Planning the pilot-testing phase
8 14 February 2007	Planning the pilot-testing phase
9 14 March 2007	Planning the follow-up procedures of the pilot testing
10 7 June 2007	Generating a plan and schedule for the rest of the improvement project.

Pilot testing

The purpose of the pilot-testing phase was to test in practice the functionality of the planned solutions and the new operations model. The aim was that the experiences gained from the pilot testing would reveal the practices and solutions that would be viable and applicable and solutions that needed more refining and changes. Based on the

experiences, the new operation model would then be finalized before the actual implementation in all departments.

The management group of the Helsinki Court of Appeal decided that the departments which would participate in the pilot testing were departments 5 and 6. These departments started the pilot testing in spring 2007.

The first step in the pilot-testing phase was a “launching event” which was arranged on 2 May 2007. This occasion was mainly directed to the personnel in the pilot-testing departments, but employees from other departments had the possibility to attend as well. The purpose was to introduce the new operations model to the employees responsible for the testing. In addition to our research group and the improvement team, about 60 personnel participated in the launching event. The event inspired a lot of needed and hoped-for discussions about current and new, planned, working methods and operations practices. Also valuable ideas and views concerning the practical realization of the planning and implementation were received.

Department 6 started the testing right after the launch. The start-up was decided to be carried out in stages. In the first stage, two Justices and two Assistant Justices tested the new practices. Based on their experiences, our research group, together with the employees in department 6 prepared a pilot-testing manual. The manual included practical details and instructions concerning the application of the new operations model. The manual was distributed to all employees in department 6 on 24 April 2007, and after that the whole department started the pilot testing. When the pilot testing was started in department 5, we already had experiences and material from department 6, and therefore the testing was decided to cover the whole department immediately. In a kick-off meeting held on 19 April, our research group reported about the experiences in department 6 and the needed practical arrangements were discussed. After the meeting, also department 5 started the pilot testing. At the start of the pilot testing in spring 2007, one member of our research group was on the spot, helping and guiding the employees in putting the planned solutions into action.

The pilot-testing phase lasted altogether about a year; this time was considered to be required for the strengths, weaknesses and needs for change to reveal. Two checkpoint meetings were arranged to assess the situation in the pilot testing; one in September 2007 and one in October 2007. In these meetings the situation in the departments, the actions taken, the experiences and the needs for change were discussed and collected. Feedback was also collected on separate questionnaire form. The main collaborative events and meetings held in the pilot testing phase are presented in table 4.

Table 4 - Summary of the dates and themes of the pilot testing events (Helsinki Court of Appeal)

Pilot testing events	Theme
Launching 4 March 2007	Introducing and discussing the new operations model with the pilot departments
Kick-off 19 April 2007	Experiences from the pilot testing and the pilot-testing manual from department 6

Checkpoint 1 4 September 2007	Assessing the situation, experiences and change needs according to the pilot testing
Checkpoint 2 1 October 2007	Assessing the situation, experiences and change needs according to the pilot testing

Implementation

The planning of the implementation was started partly simultaneously with the pilot-testing phase. In August 2007 a separate task group was founded from the improvement team members. The responsibility of this task group was to plan the implementation process so that all departments would be ready to start applying the new operations model by spring 2008.

It was decided that “a change-agent team” would be named for each department. The change agents would be primarily responsible for reporting and ensuring the implementation actions in their own department. The actions required for selecting and training the change agents were started to be planned in two meetings held in September and October 2007, and finalized in a change agent information meeting in November. In every department one Justice, one Assistant Justice and a Senior Assistant Justice formed the change agent team. In the information meeting the change agents were informed on the pilot-testing experiences and their role in the implementation actions.

In order to finalize the features of the new operations model, two more workshops were held. The participants in these workshops were the improvement team, the change agents and representatives of the pilot departments. In workshop 1, the issues and elements of the operations model which still needed clarifying or changes were collected and documented. Five main categories of issues needing clarifying were formed. A sub-group was named for every category, and their task was to plan the needed adjustments to the final operations model. In workshop 2, every sub-group presented their proposals and after the participants had thoroughly discussed the proposals, the administrative lawyer was named responsible for formulating the final version of the new operations model based on the discussions.

After the management team had approved the new operations model, “a process improvement theme day” was arranged. In practice, all employees in the Helsinki Court of Appeal attended the day. The program of the day was presenting and discussing the new operations model and its features. After this occasion, all departments were recommended to start operation according to the new solutions, with the help of the change agents.

The main events and workshops arranged in the implementation phase are presented in table 5.

Table 5 - Summary of the dates and themes of the implementation events and workshops (Helsinki Court of Appeal)

Implementation events and workshops	Theme
Change agent teams 1 24 September 2007	Planning the selection and training of change agents
Change agent teams 2 5 October 2007	Planning the selection and training of change agents
Change agent teams 3 21 November 2007	Change agent information and training
Workshop 1 18 January 2008	Collecting the change and improvement needs for the operations model
Workshop 2 12 February 2008	Deciding the final changes for the operations model
Process improvement theme day 12 March 2008	Presenting and discussing the operations model

Evaluation

The progress in the number and age of active pending case inventory was monitored and evaluated throughout the whole improvement project. This analysis was continued in the evaluation phase of the project by making pending inventory reports in every three months for two years after the new operations model had been introduced.

The success and failures of the process improvement project and the new operation model were also evaluated by conducting 32 individual interviews in November-December 2008. All personnel groups and departments were represented in the interviews in order to get broad views concerning the project, the operation model and further development needs.

An “evaluation day” was arranged on 27 August 2009. In addition of our research group, all Senior Assistant Justices from all seven departments participated in this workshop. The Senior Assistant Justices are on a “box seat” to witness and assess the situation concerning the operations model and practices at their department. The main content of this workshop was to evaluate the situation of the new practices in all departments, to raise and discuss the challenges concerning the new operations model and the best practices in the different departments, and to discuss the ways that best practices could be transferred over department boundaries. It was a known fact that the different departments operate very independently, so it was hoped that this workshop would increase the exchange of thoughts between the departments in the long run. The workshop was assessed to have been successful and productive, and on the basis of the discussion it was decided that a handbook of best practices in different departments would be beneficial.

The design of the best practices handbook was started in a planning meeting on 1 October 2009. The participants in this meeting were our research group, one Senior Assistant Justice, two Justices and the Administrative lawyer. In the meeting the conclusions of the evaluation day were introduced and the method of the practical realization of the best practices handbook was discussed. It was decided that our research group would draft a

template of the handbook including different themes which would be in view for everyone in the Helsinki Court of Appeal intranet. After that everyone could fill out the handbook by describing individual best practices, principles, ideas and tools under these themes. The handbook was hoped to strengthen the rooting of the new operations model practices by keeping them in mind and helping new employees to get acquainted with the practices.

A summary of the main collaborative events arranged in the evaluation phase is presented in table 6.

Table 6 - Summary of the dates and themes of the evaluation events (Helsinki Court of Appeal)

Evaluation events	Theme
Evaluation day 27 August 2009	Evaluate the situation of new operations model in every department
Best practices 1 October 2009	Planning the best practices handbook

The improvement project was officially ended at the end of the year 2009.

3.3.2 Insurance Court

The management team of the Insurance Court had heard of the ongoing project in the Helsinki Court of Appeal in 2008, and got interested in it. The Ministry of Justice had also encouraged them to start an improvement project of their own. In June 2008 our research group visited the management team of the Insurance Court to discuss the situation, process performance problems and possibilities to launch a similar improvement project in the Insurance Court as well. After this meeting, our research group and the Insurance Court decided to start cooperation. The actual work in the improvement project started in August 2008.

An improvement team was founded, which at the beginning included 15 members: 3 persons of our research group at Lappeenranta University of Technology, 10 members of the Insurance Court (the Chief Justice, 3 Senior Judges, the Administrative Manager, a Judge, a Senior Referendary, a Senior Court Clerk, and 2 administrative staff members). The improvement team also included 2 representatives of the Ministry of Justice.

The project in the Insurance Court consisted of three main phases: 1) diagnosis (initial data gathering and analysis), 2) planning and implementation, and 3) evaluation. The project lasted about two years (see figure 11). When the project in the Insurance Court started, the project in the Helsinki Court of Appeal was already in the implementation phase. So, a lot of learning about conducting process improvement work and understanding delay problems could be transferred from one project to the other. This speeded up the start of the project and also encouraged to use more analysis data in the beginning and to involve the clients more.

The phases of the project, the actions taken in them, the working methods and the role of the researchers are described in more details below. As an addition to these main collaborative events discussed and summarized below, the data and situation were also analyzed and discussed with the representatives of the Ministry of Justice regularly twice a year.

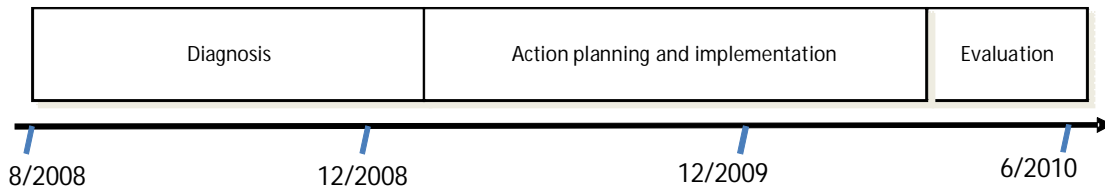


Figure 11 - Phases of the process improvement project in the Insurance Court

Diagnosis – initial data gathering and analysis

The initial data gathering and analysis phase lasted about 6 months. The purpose of this phase was to get an overall picture of the process and its performance, to examine the duration of different handling phases, and to analyze the factors and phenomena behind the throughput-times and delays. On the basis of these analyses, the aim of the phase was to collect and highlight the problematic areas in the process, as well as the important improvement potentials.

For the purposes of the initial data gathering and analysis, a process description was prepared first. This process mapping gave an overall picture of the work flow, the progress and handling times of cases in the different handling phases, and the use and utilization of the data system in the process.

After this our research group made numerical analysis and produced operational statistics from the client's database concerning the situation in delays and process performance. The main numerical analyses composed were:

- age of active pending inventory
 - departments
 - subject groups
 - situation compared to the previous year
- amount of active pending inventory
 - departments
 - subject groups
- analyses of solved cases
 - departments
 - categorization of cases by throughput-times
 - effects of decision making composition on throughput-times
 - situation compared to the previous year

- analyses of different handling phases
 - age and number of pending cases
 - distribution analyses for phase throughput-times
- process mapping
 - active and passive times in different phases of the handling process

All and all, very detailed data were available in the Insurance Court's database, and a great amount of different types of numerical analyses was conducted. All the analyzed data was fed back to the client system. Similarly to the Helsinki Court of Appeal, all prepared analyses were thoroughly and collaboratively talked through, discussed and analyzed in three half-day meetings of the improvement team. Again, this type of analysis approach was novel and encouraged a lot of discussion in the improvement team concerning the factors behind delays and long throughput-times in different handling phases. Also in the Insurance Court this intervention worked well in both assisting the starting up of the improvement project, as well as in generating "hard" and "soft" data for our research group.

The starting point for improvement was also analyzed by conducting 30 individual interviews in October-November 2008. The interviews concerned the factors behind delays, the most problematic areas in the process and the most important improvement potentials. All employee groups were represented in the interviews in order to get a comprehensive picture of the process and to enable all employee groups to participate in analyzing the process improvement potentials. Our research group planned and carried out the interviews. The plan for the interviews was talked through and discussed in a meeting of the improvement team before the interviews. The main conclusions and summary of the interviews were also presented and analyzed in an improvement team meeting right after the interviews had been carried out.

The conducted analyses and discussions during the data gathering and analysis phase revealed different types of process and operation improvement needs. The most important improvement themes were formulated in a workshop meeting of the improvement team in December 2008. These themes were the foundation for starting to plan the needed process improvement initiatives. The workshops held in the data gathering and analysis phase are presented in table 7.

Table 7 - Summary of the dates and themes of the analysis workshops (Insurance Court)

Analysis workshops	Theme
1 9 September 2008	Analyzing the situation, problems and improvement needs
2 30 September 2008	Analyzing the situation, problems and improvement needs
3 21 October 2008	Analyzing the situation, problems and improvement needs. Discussing the plan for interviews
4 18 November 2008	Presenting and analyzing a summary of the interviews
5 9 December 2008	Forming the improvement themes

Action planning and implementation

Based on the improvement themes formed in the data gathering and analysis phase, the planning of the process improvement initiatives and the implementation process was started in January 2009. In this phase the improvement team was extended to include altogether 24 members, in order to get more views for planning purposes and to improve the implementation by enhancing the commitment to improvement initiatives, as well as to improve the flow of information about the planned solutions to the whole organization. As an addition, 9 new members of the Insurance Court’s personnel joined the group: two Judge Members, two Senior Referendaries, three Referendaries and two Court Clerks. There were some variations in the combination of the group during the improvement project.

Because of the rather large size of the improvement team, the work was organized in the way that the whole group (the researchers and the client’s representatives) formed a “steering group” for planning. This steering group was responsible for the general view of planning, the progress of the planning work, outlining and controlling the planning work and finalizing the content of the planned improvement initiatives.

As an addition, the Insurance Court members formed an executive planning team. This planning team was responsible for planning the general content of the improvement initiatives and the implementation process. As a part of this executive team, a small task group (4-5 members) worked more intensively and formed concrete drafts, work instructions and action plans based on the discussions and plans conducted in the steering and executive groups.

The planning of the improvement initiatives was done very intensively in the first part of the year 2009. At this time the steering group had six workshops and the executive group about ten. The dates and main themes of the steering group meetings are presented in table 8. The executive group and the task group had several planning workshops between every steering group meeting.

Table 8 - Summary of the dates and themes of the steering group action planning workshops (Insurance Court)

Action planning workshops	Theme
<p style="text-align: center;">1</p> <p style="text-align: center;">27 January 2009</p>	<p>Finalizing the first planning task Outlining the planning process</p>
<p style="text-align: center;">2</p> <p style="text-align: center;">3 March 2009</p>	<p>Finalizing the second planning task Overall follow-up of the planning project and process performance</p>
<p style="text-align: center;">3</p> <p style="text-align: center;">30 March 2009</p>	<p>Summary of the planning project so far Outlining and planning the third planning task</p>
<p style="text-align: center;">4</p> <p style="text-align: center;">4 May 2009</p>	<p>Follow-up and planning of the third planning task</p>
<p style="text-align: center;">5</p> <p style="text-align: center;">8 June 2009</p>	<p>Follow-up and planning of the third planning task Experiences of the experiments of the planned solutions</p>
<p style="text-align: center;">6</p> <p style="text-align: center;">24 August 2009</p>	<p>Summary of the planned solutions Planning the experiments, implementation and evaluation</p>

The ideas of the new planned initiatives were launched, and the experiments and testing of the improvement proposals were already started in spring 2009 simultaneously with the planning process. The last part of the year 2009 was employed by testing and finalizing the improvement initiatives. The testing was done by preparing written working instructions and action plans to all employees, and after that, by collecting opinions about the functionality of the new operation ways and models in practice. Also a training and informative meeting about the changes was arranged to all employees.

The executive group had regular meetings at fall 2009 concerning the needs for changes based on the experiments and kept the steering group informed about the situation and the content of their meetings. The implementation of the new way of working was carried out almost automatically as the new instructions for working methods were informed by the management to be permanent and that they should be adopted. At this point these ways of working were familiar to all employees, and everyone had had the opportunity to influence their contents.

Evaluation

The progress in the amount and age of active pending case inventory was monitored and evaluated throughout the whole improvement project. This analysis was continued in the evaluation phase of the project by making pending inventory reports every three months. These evaluation reports are still prepared regularly and forwarded to the Insurance Court's management and personnel, even though the improvement project is no longer in active operation.

The first evaluation meeting with the steering group was arranged in January 2010. Before the meeting, the employee members of the steering group were asked to collect opinions and feedback from their colleagues in their departments. In this meeting the situation concerning the success of the implementation and the use and acceptance of the new ways of working was summarized and discussed.

The success and failures of the process improvement project and the new ways of working were also evaluated by conducting 20 individual interviews in May 2010. All personnel groups and departments were represented in the interviews in order to get broad views concerning the project, the improvement initiatives and further development needs. Our research group planned and conducted the interviews.

Right after the interviews had been conducted, a second evaluation meeting of the steering group was arranged in May 2010. In this meeting the main conclusions of the interviews were introduced and discussed, and a summary of the whole improvement project, its results and further development needs was prepared. A summary of the main collaborative events in the evaluation phase is presented in table 9.

Table 9 - Summary of the dates and themes of the evaluation workshops (Insurance Court)

Evaluation workshops	Theme
1 12 January 2010	Analyzing opinions and feedback of improvement efforts and changes
2 11 May 2010	Analyzing the summary of the interviews. Analyzing needs for changes.

The improvement project was officially ended in June 2010.

3.3.3 Case comparison

The project in the Helsinki Court of Appeal lasted altogether almost two years longer than the one in the Insurance Court. One reason behind this is that in the Insurance Court project the research group had already prior experience and knowhow of organizing and carrying out process improvement projects in courts. Learning and knowhow concerning successful and unsuccessful procedures and interventions could be transferred to the Insurance Court project. The research group was also more familiar with the court operations and processes.

The example of the Helsinki Court of Appeal about the possibilities to achieve good results and outcomes from the projects influenced the start-up of the project in the Insurance Court. The gaining of trust between the participants was easier and it had influence on the general atmosphere and enthusiasm towards the project and the improvement effort.

More effort was put to the problem and improvement need analysis in the Insurance Court project. The experience from the Helsinki Court of Appeal that a thorough problem and improvement analysis is a good way to gain commitment and interest, to find new perspectives and to get the employees to understand and accept the need for improvement motivated the researchers to conduct an even more diversified analysis in the Insurance Court and to participate the employees in the problem definition process through initiative interviews. The interviews built and spread commitment towards the project and

gave a more diversified picture of the improvement needs. The more diversified analysis in the beginning made the implementation efforts easier, as more employees were familiar with and committed to the project.

Learning to pay more attention to keeping the ownership of the solutions in the organization as a means to increase the acceptability and decrease the prejudice led to the solution that the Insurance Court personnel formed group of their own which was primarily responsible for planning the context of the improvement initiatives. The steering group and the external experts took more of the role of advising, directing, controlling and keeping the planning work ongoing in the Insurance Court project.

In the Helsinki Court of Appeal more effort and intervention procedures were needed in the implementation phase of the project (e.g. pilot testing, change agents, different types of launching events). This was due to the fact that in the Insurance Court attention to improving the implementation process was given earlier in the project. The solution initiatives in the Helsinki Court of Appeal required more changes in the customized way of working. This made also the implementation phase more challenging.

3.4 Data collection and analysis

In action research, the data collection and analysis serve two purposes: they help in creating change and in generating new knowledge, and there should be constant interaction between theory and practice. This dual nature has implications to the data analysis process. The data collected in this study were analyzed several times during the improvement projects for change creation purposes. As here the data collection and analysis process needed to be very iterative by nature: the data was interpreted as collected, interpretations were turned into actions and immediately acted upon, and then the cycle was done all over again. The data collection and analysis cycles were incorporated in the improvement projects and repeated several times as the knowledge accumulated.

As an addition to this analysis, all the collected data was analyzed and reflected in the “meta cycle” of action research for research question and knowledge generation purposes after the improvement projects were ended in the reflection phase of the study. In this chapter the data used and the analysis process applied in this reflection phase is described.

The use of different research approaches, methods or techniques in the same study is known as triangulation, and this helps to overcome the potential bias and sterility of single method approaches. All forms of data collection methods are recommended to be utilized in action research, varying from so called hard data (e.g. statistics and surveys) to so called soft data (e.g. interviews and observations) (Mangan et al., 2004; Näslund et al., 2010; Voss, 2009). This study utilizes data triangulation, as multiple different data collection methods and sources were used at different times during the improvement projects. The researchers acted in many different roles and made several different

interventions in the case organizations during the five years of field research on this subject. Diversified data from a long period of time was critical for deep understanding and comprehensive analysis of the process flow in justice courts, the underlying organizational features influencing it, as well as for studying the change happening in the process performance and the way of actions over a long period of time. The multiple data collection methods also enabled reliable analysis and interpretations by making the longitudinal research projects an interactive and iterative process between data collection, data analyzing and reflection to theory.

The data collected and analyzed in this study can be divided to five main categories:

- i. Interview data
- ii. Observation data
- iii. Workshop materials
- iv. Quantitative analysis and statistics
- v. Other material

The collected data in these categories and the analysis process are described below.

3.4.1 Interview data

Semi-structured interviews conducted during the improvement projects form the first category of data collected and analyzed in this study.

In a semi-structured interview, a framework of themes, an interview agenda, is planned beforehand, including the topics of interest and open-ended questions that need to be covered during the discussion, usually in a particular order. By using semi-structured interviews (compared to highly structured or completely unstructured ones) it is possible to allow the informants to express their opinions and thoughts about the subject at hand freely and in their own words and terms and with examples. It also makes it possible for the informant to highlight the issues of particular importance for him/her and for the interviewer to ask additional and corrective questions during the interview, while at the same time making sure that the conversation remains within the subject at hand and on the topics wanted to be explored and studied. Other important benefits that can be achieved by using this interview technique are flexibility in designing and conducting the interviews, the possibility to explore the underlying motives and thoughts more directly, the possibility to reveal and discuss issues not identified previously, and ask questions differently from informants with a different background and still make sure that reliable and comparable qualitative data is achieved for research purposes. (Fontana and Frey, 2000; Hirsjärvi and Hurme, 1995; Horton et al., 2004; Lindlof and Taylor, 2002; Saunders et al., 2009)

All the benefits of this interview technique were important elements in this research. The semi-structured interview method was also chosen as the interview technique because the subject under study required deep and broad understanding of complex, extensive and

highly interconnected organizational issues, where not only the “what” and “how” but also the “why” needed to be revealed. The objective of the interviews was to collect rich data covering broadly the factors and issues attached to process performance and delays. The issues surrounding the subject of throughput-times and delays were quite novel and vague issues for some of the informants and this technique made it possible to ensure that everybody understood the themes of the conversation correctly. The technique also ensured that the views and verification concerning previously identified themes were obtained from all informants, and it also made it possible to identify new ways of understanding the subject and find out other related issues. One important reason why semi-structured interviews were chosen as the interview technique was also the fact that the interview material served not only research purposes but acted as an important channel to gain information for the improvement projects and enhance implementation. This is why certain topics needed to be addressed in the interviews in order to gain information concerning for example most important improvement needs, potentials and opinions concerning the designed improvement initiatives, implementation process and changes. The fact that the research group had primary understanding of the subject and related issues accumulated in the projects made it also possible to develop relevant and meaningful semi-structured questions for the interviews.

Altogether 82 semi-structured, individual, face-to-face interviews were conducted and analyzed in this study. 32 interviews were conducted in the Helsinki Court of Appeal and 50 interviews in the Insurance Court. The interview agenda, the themes and the questions were designed by the research group. The members in the improvement group had also an opportunity to offer suggestions and ideas for the themes. All the interviews were tape-recorded, and all the tapes were transcribed for analysis. This made it possible for the interviewers to concentrate and focus on the interview and enabled all the conversations to be included in the analysis.

The made interviews, informants and themes are described in more details below, separately for the interviews conducted in Helsinki court of appeal and in Insurance court. The content analysis process for collected interview material is described after these descriptions.

Interviews in the Helsinki Court of Appeal

The 32 interviews in the Helsinki Court of Appeal were conducted in November 2008, when the improvement project was in the evaluation phase and the new operations model had been in full practice for about a year. The interviewed persons included representatives from all seven departments and all employee groups. Seven of the interviewed persons were active members of the improvement group. The researchers decided on the number of informants from different personnel groups, but the actual persons were named by the organization. An individual interview lasted between 45-60 minutes and all the interviews were tape-recorded. The interviewed personnel groups and the combined durations of the interviews are presented in table 10.

Table 10 - Personnel groups, number and durations of the interviews conducted in Helsinki Court of Appeal

Personnel group	Number	Duration (min.)
Management	8	390
Judges	7	400
Senior referendaries	7	410
Referendaries	7	360
Office personnel	3	135
In total	32	1695 (28 hours)

The same interview agenda was used for every personnel group, but the emphasis on different themes and questions was adapted according to the position and background of the informant. The informants were informed beforehand that the interviews would deal with the process improvement project, the changes made in the project and delay reduction in general, but the precise themes and questions were not revealed beforehand. Two persons of our research group conducted the interviews, one of them the present author. The themes and the main open-ended questions in every theme are presented in table 11.

Table 11 - The interview agenda used in the Helsinki Court of Appeal interviews

<p>1. Background information of the informant</p> <ul style="list-style-type: none"> • How long have you worked for Helsinki Court of Appeal? • How long have you worked in your current position?
<p>2. The situation concerning throughput-times</p> <ul style="list-style-type: none"> • How would you assess the situation concerning throughput-times at the moment? • How have the throughput-times progressed and changed in the past two years? • What things have had most impact on the changes in your opinion?
<p>3. Background and history of throughput-times</p> <ul style="list-style-type: none"> • What are the reasons for the need to start improving the process and throughput-times, in your opinion? • Why do you think that the subject of throughput-times has become so topical? • What things, in your opinion, have induced the trend of prolonging throughput-times?
<p>4. Management practices</p> <ul style="list-style-type: none"> • How does the management regard the throughput-times and delays? Have there been changes in the way that management takes time- related issues into account? What kind of changes? • How would you describe the performance measurement, target setting and control practices in your organization? Have there been changes in these in past two years? • What is your opinion of the set time-frames? • How does the management motivate people to keep the time-frames?
<p>5. Quality conception</p> <ul style="list-style-type: none"> • How would you define quality in your work? • What is the most important success criterion in your work? • Have you noticed any changes in attitudes towards time in your organization in the past two years? What kind of changes?
<p>6. Personal work improvement needs</p> <ul style="list-style-type: none"> • What concrete changes have the project brought to the ways you conduct your everyday work? (good and bad) • How would you further improve the ways you conduct your work? • What things cause problems and hindrances in your work at the moment?

<p>7. Co-operation practices</p> <ul style="list-style-type: none"> • With whom do you do co-operation? What kind of co-operation? • Have there been changes in co-operation practices and successfulness in the past two years? • How would you improve the co-operation practices further?
<p>8. Delays and varying throughput-times</p> <ul style="list-style-type: none"> • What are the background factors for the emerging of very long delays in your opinion? • What efforts and actions have been taken to prevent these very long delays? Have these actions succeeded? What should be done in the future?
<p>9. Process improvement needs</p> <ul style="list-style-type: none"> • What is the biggest change in the process and operations practices that the process improvement project has encouraged? • What are the most important further process improvement needs?
<p>10. Opinions about the process improvement project</p> <ul style="list-style-type: none"> • What is your opinions of the project: working methods, implementation, results? • Should the process improvement project be continued? How?

Interviews in the Insurance Court

The interviews in the Insurance Court were conducted in two different occasions and project phases. The first interviews were conducted in October 2008 when the project was in the data gathering and analysis phase.

Altogether 30 persons were interviewed in this first set of interviews. The persons represented all three departments and all employee groups. When the interviews were carried out, 8 of the interviewed persons had been involved in the improvement project team. In later stages of the project, when the improvement team was enlarged, there were more interviewees as team members. The office personnel group represented a variety of tasks, for example data administration, head of information, secretaries and customer service. The researchers decided on the number of informants from different personnel groups, but the actual persons were named by the organization. An individual interview lasted between 60-90 minutes and all the interviews were tape-recorded. The interviewed personnel groups in the first interviews and the durations are presented in table 12.

Table 12 - Personnel groups, number and durations of the first interviews conducted in the Insurance Court

Personnel group	Number	Duration (min.)
Management	5	350
Judges	5	340
Senior referendaries	3	200
Referendaries	3	200
Court clerks	3	210
Physicians	2	90
Office personnel	9	575
In total	30	1965 (33 hours)

The same interview agenda was used for every personnel group, but the emphasis on different themes and questions was adapted according to the position and background of the informant. The informants were informed beforehand that the interviews would deal with finding out process improvement and delay reduction needs and potentials and get

the personnel's opinions of process performance related issues in general for improvement purposes. The precise themes and questions were not revealed beforehand. Two persons of our research group conducted the interviews, one of them the present author. The themes and the main open-ended questions in every theme are presented in table 13.

Table 13 - The interview agenda used in the first interviews in the Insurance Court

<p>1. Background information of the informant</p> <ul style="list-style-type: none"> • How long have you worked for the Insurance Court? • How long have you worked in your current position?
<p>2. The situation concerning throughput-times</p> <ul style="list-style-type: none"> • How would you assess the situation concerning throughput-times at the moment? • What are the reasons for the need to start improving process and throughput-times, in your opinion? • How important, in your opinion, is it that work for process improvement and delay reduction is started? Why? • What you did you think about the process improvement project when you first heard about it? What kind of expectations did you have of it?
<p>1. Background and history of throughput-times</p> <ul style="list-style-type: none"> • How have the throughput-times progressed during this millennium? • What things have influenced this progress?
<p>2. Management practices</p> <ul style="list-style-type: none"> • How does the management regard the throughput-times and delays? • How would you describe the performance measurement, target setting and control practices in your organization? • What is the role of throughput-times in measurement and target-setting? • How would you improve the measurement, target setting and control practices?
<p>3. Quality conception</p> <ul style="list-style-type: none"> • How would you define quality in your work? • What is the most important success criterion in your work? • How important is timeliness in the quality of your own work?
<p>4. Personal work improvement needs</p> <ul style="list-style-type: none"> • What things are currently causing most problems in your everyday work? • How would you improve your own work? • What would you improve in the operations of your unit of work?
<p>5. Co-operation practices</p> <ul style="list-style-type: none"> • With whom do you do co-operation? What kind of co-operation? • How well you are aware of the working methods of your colleagues? • In what areas would co-operation need to be increased? How would you otherwise improve the co-operation practices?
<p>6. Process improvement needs</p> <ul style="list-style-type: none"> • What are the most problematic issues in the light of process performance? • How would you improve the process performance? • What kinds of actions have previously been taken in order to improve process performance and reduce delays? • Have these actions succeeded? Why/why not?
<p>7. Delays and varying throughput-times</p> <ul style="list-style-type: none"> • What in your opinion are the background factors for the emerging of very long delays? • What would be, in your opinion, the most potential changes which would prevent the very long delays from emerging?

The second round of interviews in the Insurance Court was conducted in May 2010 when the project was in the evaluation phase. In this occasion, altogether 20 persons were interviewed. 10 of the interviewed persons were the same as in the first interviews and, 8 of the interviewed persons had been involved in the process improvement group. This time the interviews concerned the designed improvement initiatives, the implementation and the changes, and all the informants were jurisdiction staff who had the best knowledge to assess these issues. Also in these interviews the researchers decided on the number of informants from different personnel groups, but the actual persons were named by the organization. An individual interview lasted between 30-60 minutes and all the interviews were tape-recorded. The interviewed personnel groups in the first interviews and the durations are presented in table 14.

Table 14 - Personnel groups, number and durations of the second interviews conducted in the Insurance Court

Personnel group	Number	Duration (min.)
Management	4	175
Judges	5	190
Senior referendaries	3	105
Referendaries	3	130
Court clerks	5	155
In total	20	755 (13 hours)

Similarly to the previous interviews, the same interview agenda was used for every personnel group, but the emphasis on different themes and questions was adapted according to the position and background of the interviewee. The interviewees were informed beforehand that the interviews would deal with assessing the designed improvement initiatives, the implementation and the changes, but the precise themes and questions were not revealed beforehand. The present author conducted all the interviews in this occasion. The themes and the main open-ended questions in every theme are presented in table 15.

Table 15 - The interview agenda used in the second interviews in the Insurance Court

<p>1. Background information of the informant</p> <ul style="list-style-type: none"> • Have you been involved in the improvement project? If not, what do you know about the project and its content? • How long have you worked in the Insurance Court? • How long have you worked in your current position?
<p>2. The situation concerning throughput-times</p> <ul style="list-style-type: none"> • How would you assess the situation concerning throughput-times at the moment? • How have the throughput-times progressed and changed in past two years? • What things have had most impact on the changes, in your opinion?
<p>3. Process improvement reform: Prioritization and differentiation rules</p> <ul style="list-style-type: none"> • What was successful? (in the reform and the implementation) • What was unsuccessful? (in the reform and the implementation) • What would you have done differently? • Has the reform affected and changed your everyday working methods and operations? If so, how? • Do you have knowledge of how the personnel in general regard this reform?

<p>4. Process improvement reform: Recognition procedures for complex cases</p> <ul style="list-style-type: none"> • What was successful? (in the reform and the implementation) • What was unsuccessful? (in the reform and the implementation) • What would you have done differently? • Has the reform affected and changed your everyday working methods and operations? If so, how? • Do you have knowledge of how the personnel in general regard this reform?
<p>5. Process improvement reform: Time-frames and alarm-system</p> <ul style="list-style-type: none"> • What was successful? (in the reform and the implementation) • What was unsuccessful? (in the reform and the implementation) • What would you have done differently? • Has the reform affected and changed your everyday working methods and operations? If so, how? • Do you have knowledge of how the personnel in general regard this reform?
<p>6. Changes in attitudes towards time</p> <ul style="list-style-type: none"> • How does the management regard the throughput-times and delays? • Have there been any changes in this in the past two years? What has caused the fact that there have/have not been changes? • How do the other personnel regard the throughput-times and delays? • Have there been any changes in this in past two years? What has caused the fact that there have/have not been changes?
<p>7. Changes in working methods</p> <ul style="list-style-type: none"> • Have there been any changes in the past two years in the ways you carry out your everyday work? If so, what kind? • Have there been any changes in the past two years in the ways co-operation is carried out? If so, what kind? • What other improvements have been carried out in your organization in the past two years besides this improvement project? What has affected the successfulness of these other improvements?
<p>8. Improvement project and further improvement needs</p> <ul style="list-style-type: none"> • As a summary, what are the biggest changes that this improvement project has brought to your organization and to your own work? (good and bad) • What things cause problems in your own work and in the process flow at the moment? What would still need to be done in order to reduce the delays? • Should this improvement project be still carried out somehow? How? • Opinion about the project in general, for example working methods, results, settings?

Analysis process of the interview data

Content analysis is a process that is used when the purpose is to analyze documents systematically and objectively. It is a method aiming to abstract, organize, describe, categorize and conceptualize the phenomenon under study. The aim is to get a description of the phenomenon in a condensed and generalized form and the outcome is descriptive categories and their identified relationships on the subject under study (Hirsjärvi and Hurme, 1995; Kyngäs and Vanhanen, 1999; Metsämuuronen, 2005; Saunders et al., 2009). Analyzing qualitative data is considered a challenging task due to the facts that the data is often in a non-standardized and complex form, and because there are no detailed rules for conducting the analysis, only guidelines for the progression of the analysis work (Åhlström and Karlsson, 2009).

There are two basic approaches to qualitative content analysis, inductive and deductive. In inductive content analysis, concepts are derived from the data by simplifying, categorizing, grouping and abstracting the data, using the research task and questions as a basis and indicatives in this task. Deductive content analysis is used when the structure of the analysis is based on and the analysis process guided by previous knowledge and a fixed theoretical framework. While one of the two is used in the beginning in principle, in practice very often, the analysis work is likely to combine elements of both and incorporate inductive phases and deductive phases. The analysis work and the categorization should be a constant iteration and dialog between the data and the forming of categories (Hirsjärvi and Hurme, 1995; Kyngäs and Vanhanen, 1999; Saunders et al., 2009).

Even though there are no standardized procedures for analyzing qualitative data, the analysis process usually follows certain phases in order to get reliable and reportable results. The common phases in qualitative content analysis include: 1) deciding on the unit of analysis, 2) summarizing (condensation) of meanings from the data, 3) categorization (grouping) of meanings, and 4) analyzing relationships between categories (Kyngäs and Vanhanen, 1999; Saunders et al., 2009). Usually, the first phase in content analysis is to decide the unit of analysis based on the research task and questions (e.g. word, sentence or concept). After deciding the analysis unit, the data is summarized in order to become conversant with the principal themes emerging from the interviews. The basis of the summarizing is either the phrasing of questions or the theoretical framework, depending on the approach chosen for the analysis. This data reduction is the core of analyzing qualitative data. Summarizing the data is basically simplifying and abstracting it by searching and coding from the data the relevant issues from the point of view of the unit of analysis, namely simplifying phrases from the data. These phrases are then grouped and re-grouped by searching similarities, interconnections, regularities, patterns and commonalities between them. The purpose of this grouping is to develop categories and to analyze and recognize the relationships between these categories. The result of the analysis is then for example recognized and interpreted categories, a model, a concept system or grouping and the content of the different categories. The content analysis process is usually time-consuming. The researcher can use appropriate tools to make the analysis process easier, for example different kinds of software, matrixes, listings or mappings (Kyngäs and Vanhanen, 1999; Saunders et al., 2009; Åhlström and Karlsson, 2009).

The analysis of the interview material collected in this thesis follows the principles of qualitative content analysis. The analysis of the collected data was started by preparing the material for analysis, i.e. by transcribing the interview material. The author transcribed a part of the interviews by herself, and a part was transcribed by a professional copyist. All transcribing was done by noting down exactly what was said. The author also made quite detailed summaries of the issues and main points that came up in the interviews; right after the interviews had been conducted. These summaries were also discussed in the improvement teams in the case organizations before the actual content analysis process was started. After the data were prepared for analysis, the analysis was started by reading through all the interview material for several times.

The analysis was done manually, meaning that no computer program software was used.

The interview data was analyzed three times using three different units of analysis. The analysis units were:

- factors behind delays and varying throughput-times;
- factors affecting the approval, adoption and implementation of the improvement initiatives;
- changes in the ways of action and process performance.

The analysis process was similar in all the three separate analyses, and it was done separately for the Helsinki Court of Appeal and the Insurance Court and then compared. First all individual comments, remarks and observations related to the analysis unit were coded, collected from the data and written down on post-it notes. The meanings of individual comments were simplified, but the original comment was left on the note. Different colored notes were used to symbolize different departments and personnel groups. All the notes were then gathered to a wall board and grouped according to similarities and differences between the individual comments. The grouping was done first by the author, after which it was discussed and analyzed with other members of the research group. Some of the groups of notes were then re-grouped and connected and the finally formed categories named. Finally, interconnections between different categories were analyzed and marked. The result was a map representing the categories, the content of different categories, and their connections.

The progress of the data analysis process for the interview material is summarized in Appendix 1. Examples of formed categories in different analysis are presented in Appendixes 2, 3 and 4.

3.4.2 Observation data

Especially in action research, the data collected through participant observation forms a important and fundamental source of research data which enables immersing to the subject under study and to gain deep understanding. Usually the data gathered through participant observation is rich and diversified and enables to get first-hand, real-life data on what is going on in a particular situation. The main challenges in participant observation deal with the fact that it is a demanding and time-consuming approach and requires extra attention given to the issues surrounding the researcher's bias and role conflict (Angrosino and Mays de Perez, 2000; Saunders et al., 2009).

The researcher can have different roles in participant observation, varying from a complete participant to a complete observer (Metsämuuronen, 2005; Saunders et al., 2009). The choice of the appropriate role depends for example on the purpose and strategy of the research, the time available, personal characteristics, access to the organization, and ethical considerations (Saunders et al., 2009).

The data collected through observation usually includes written or recorded material (e.g. interim summaries, memos and researcher's diaries), which can be primary (what happened or what was said), secondary (statements from the observer of what happened or what was said), or experiential (observer's perceptions and feelings of the experience). The content of the observations can be analyzed with appropriate methods for research purposes (Metsämuuronen, 2005; Saunders et al., 2009).

The observation data analyzed in this study was collected over a long period of time during the process improvement projects. It is altogether rich and diversified. During this five-year journey in the legal world, besides a large amount of field-notes taken in the improvement workshops, meetings and group reflections, everyone in the research group had many meetings and discussions with the representatives of the case organizations and other stakeholder groups (e.g. other court instances and the Ministry of justice).

It was very beneficial in the sense of creating research data from observations that a group of researchers engaged in the projects (always 2-4 persons from the research group were present in every meeting and workshop). This made it possible for some members to concentrate more on participating, controlling and guiding the change creating process and for others to concentrate on observing the situation and taking detailed field-notes. The group of researchers making the observations also made the reflection afterwards richer and the reflection material concerning different situations more reliable and diverse and hindered the problem of biased interpretations of the situations.

The observation data collected and analyzed in this study formed two basic groups:

- Field-notes taken in the meetings and workshops
- Group reflection documents made after the meetings and workshops

One or two persons from the research group were always primarily responsible for concentrating on observing the situation and taking notes.

The field-notes included both primary and secondary observations: what topics were covered, who said and what, how the situation progressed (timetables), attitudes towards assignments, what was the general atmosphere, and so on. Afterwards, the meeting and workshop was reflected in the group: what new did we learn from the problem and the organization and what and how we should have done differently.

The analysis work for the collected observation data was iterative, the notes and reflection documents were analyzed and discussed several times in the research group during the improvement projects and in planning the next stages and interventions made in the projects.

In the reflection phase of the action research, the content of all observation material was analyzed. The observation material was analyzed from the perspective of what solutions, interventions and things enabled and hindered adoption and approval of change initiatives in different stages of the improvement projects. The enabling and hindering factors were

collected first separately from Helsinki Court of Appeal and Insurance Court and then compared.

The general progress of the analysis process for the observation data is summarized in Appendix 5.

The observation data was also analyzed for planning the interviews, as well as simultaneously with the interview data to verify and support the conclusions and categories drawn from the interview material.

3.4.3 Workshop materials

One important group of the data analyzed in the reflection phase formed the planned material for and the outputs produced in the improvement workshops conducted in the case organization.

Several planning workshops and other group meetings were arranged in both case courts in different stages of the projects. The research group planned the content and subject matter to be handled and planned in a particular workshop or meeting. The planning materials (slides, plans and schemes of progression for the day, working instructions and assignments and timetables) for every occasion formed an important source of data in analyzing and reflecting the progression and the factors affecting the implementation and change creation process in the justice courts.

In every workshop, the improvement group worked on a particular assignment or discussed a particular subject using different types of group work methods or techniques. The results and outputs (analysis and decision points, optional solution proposals and parts of the planning task) of these planning and analyzing assignments and group work were documented and collected. These documents were analyzed in order to find out what kind of issues rose up in the analyzing and planning stages of the projects, and how the process of producing the improvement solutions progressed. The workshop outputs were also used in analyzing the project group's self-reflection and self-evaluation as the improvement project proceeded.

3.4.4 Quantitative analysis and statistics

In analyzing the situation concerning delays and process performance and the changes happening in process performance, the qualitative data was complied with quantitative analysis and statistics. A great amount of numerical analysis was conducted during the improvement projects. The basic process performance analysis was conducted every 3 months in both case courts. These regular analyses were also made on the basis of historic performance data (prior to the improvement projects) and also after the projects had officially ended. This was done in order to get longitudinal comparison and analysis data about the changes. In addition to the basic process performance analysis conducted

regularly, in the beginning of the projects the situation was also analyzed with broader numerical analysis (described in chapter 2.2 above).

The “raw” data was derived from the case courts’ databases. The research group conducted the analyses which were then collectively analyzed and conclusions drawn in the improvement group and workshops. The reasons behind the level of change in the process performance were discussed in the improvement groups on the basis of quantitative analyses. The role of the quantitative analyses was important in the research because they helped in revealing matters to be discussed and made it possible to follow the concrete effects of the improvement efforts to the process performance constantly.

The main part of the regularly conducted basic analysis formed a point in time snapshot analysis: the pending caseload analysis. These analyses were used in reflecting upon the changes and in real-time follow-up of the situation. The analysis revealed the relationship between the targets and the situation of active cases concretely, and helped in determining the backlogs. The active pending caseload analyses were made separately for the whole court, for the different departments, and for different case and prioritization groups. Clearance rate analyses and throughput-time analyses for different types of cases were included in the regular process performance analyses.

3.4.5 Other material

During the five years of field study on this subject, also other material accumulated and was utilized in the reflection phase of this research.

One group of general material utilized is the annual reports of this decade of both case courts. The annual reports were used in forming a general historic view; in analyzing the acute subjects of operations in different years and in collecting basic statistics and performance and productivity data for different years.

For the Helsinki Court of Appeal the other material consisted of the final report and memo of a previous improvement group (work improvement task group 2004), different types of ways-of-action reports and rules of procedure, case distribution lists of judges, process maps, and proceedings from the meetings that the court members had had among themselves.

For the Insurance Court the other material consisted of a history review of the Insurance Court, different types of rules of procedure documents and process maps, the proceedings that a secretary of the Insurance Court produced for every steering group workshop, and the proceeding of every executive group meeting and workshop. The proceedings of the workshops from the point of view of the personnel of the Insurance Court, the workshop output and material, and research group’s own field notes of the workshops formed a detailed picture of the progression and events of the project from different perspectives.

4 Analyzing the process performance problem and the underlying reasons

This chapter introduces the analyzed process performance problem, the underlying reasons behind the problem and the success factors connected to the analysis phase of the improvement projects.

The first part of this chapter (4.1) includes a description concerning the history of backlogs and delays in the case courts: how the backlogs had developed previously and what means had been used prior to the process improvement projects to control them. After that, the situation concerning the backlogs and delays when the improvement projects first started is presented and analyzed. This analysis aims to point out what the problem in process performance was that caused delays in order to deepen the understanding of the structure of the problem and to describe the initial starting point for improvement.

The second part of this chapter (4.2) focuses on analyzing the main factors in the current way of actions and operations models of the court system which have caused and enabled the introduced problem to occur. The case courts' current way of actions and operations are analyzed in order to identify the possible reasons for the ineffectiveness of the process and performance problems, and to find out the exact and visible consequences of these sources to everyday operations.

The results and conclusions of analysis phase of process improvement projects are then summarized in chapter 4.3.

4.1 Process performance problem

The throughput-time in a justice court is the time that the case in the process, from the institution of the proceedings to the ruling made. The throughput-time consists of active working time by individual workers and waiting time before and between the workers. The waiting time is proportional to the amount of work-in-process (WIP) in the process. The accumulation of WIP to backlogs of cases, long waiting times and long throughput-times diminishes the motivation of managers and workers (frustration resulting from work pressures), diminishes the organizations ability to meet deadlines and adhere to timetables and eventually diminishes customer satisfaction (Ronen et al., 2006).

Throughput-time of the process equals to the sum of processing times (by an individual worker) plus the sum of waiting times (before and between individual workers) (Ronen et al., 2006). Work-in-process is the number of units (cases) within a process waiting to be processed further (Slack et al., 2007)

Delay is a processing time beyond what is necessary and goes beyond the agreed-upon time-frames and standards (Vereeck and Muhl, 2000).

Backlog can be defined in many ways. Backlog is generally understood as the accumulation over time of work waiting to be done and unfinished work (excess amount of work in process compared to the capacity). Church et al., (1978) used a backlog index relating to the number of pending cases that a court has relative to its yearly productivity. They calculated the index by dividing a court's pending cases at the beginning of a given year with the number of cases solved during the given year. The term is used in this study as the proportion and amount of pending work-in-process cases which has exceeded the appropriate time-standards (the amount of delayed work-in-process cases).

4.1.1 Helsinki Court of Appeal

The Helsinki Court of Appeal had to deal with large backlogs in the 1990s after the depression period in Finland. In 1998, a procedure reform to courts of appeal was introduced. Before the reform, the cases were handled practically only by a written procedure, main hearings were exceptional. After the reform, the main hearings became a normal handling procedure and have been generalized year after year since then. In 1996, the Helsinki Court of Appeal had a project aiming to remove backlogs before the reform came into effect. The backlogs were dealt with by allocating extra resources temporarily in order to get the backlogs removed. This worked and the situation was estimated to be quite good after that for a couple of years, but because the main hearing is a time-consuming procedure, the problems associated with delays and backlogs returned in the early 2000. The amount of incoming cases had been greater than the generated output from the year 1999 onwards, which obviously increased the number of pending cases every year and made the piling up of cases a reality. In 2004, the clearance rate turned positive due to an increase in output and a decrease in input. The amount of incoming and resolved cases in the years 2000-2005 (before the improvement project), and the amount of pending cases at the end of each year can be seen in figure 12. The resources and productivity figures for the same period are summarized in table 16.

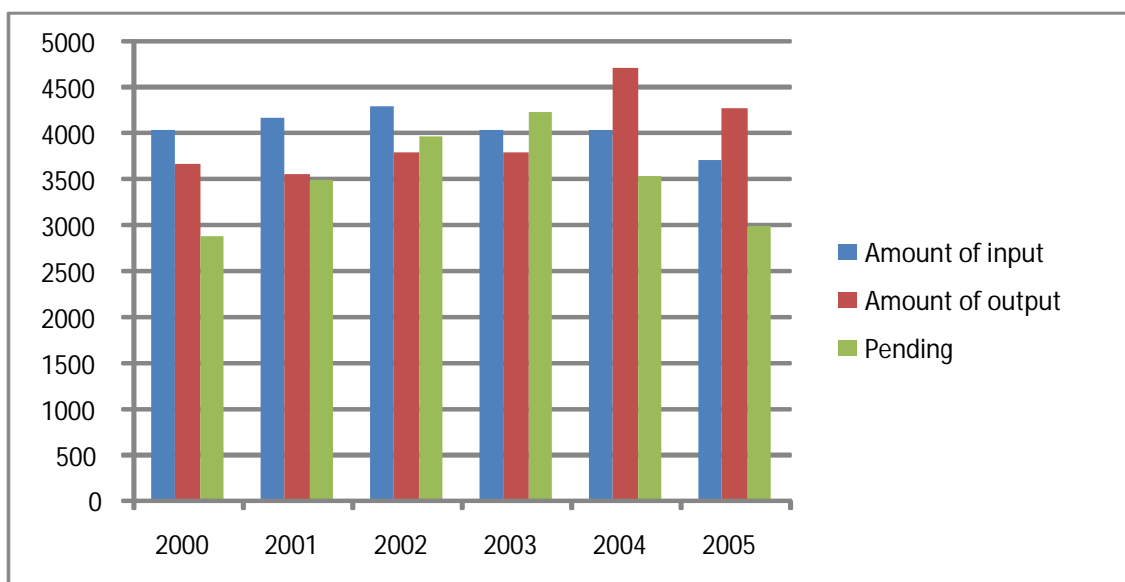


Figure 12 - The amounts of incoming, resolved and pending cases (Helsinki Court of Appeal, years 2000-2005)

Table 16 - Resources and productivity (Helsinki Court of Appeal, years 2000-2005)

	2000	2001	2002	2003	2004	2005
Resources (man-years)	172	172	172	171	170	173
Productivity (output/man-year)	22	23	22	22	28	25

The personnel resources stayed similar in the first part of the decade, so the increase in the year 2004 output is a result of increase in the productivity per employee. The reason for this increase in productivity in 2004 is somewhat obscure. Possible reasons are the introduction of screening procedure and that in that year the removing of backlogs was handled more energetically, and the work concentrated on producing output and thus removing the backlogs.

There have been many projects, task groups and innovations during the whole new millennium aiming to find a definite solution for this problem. The screening procedure which was introduced in 2003 was hoped to be a good remedy for this problem. It did, however, have only marginal impact on dealing with backlogs and delays, largely because the possibilities to use the screening procedure diminished fast.

The year 2004 was named in the interviews to have been the worst year in delays and backlogs, and also a turnaround year in dealing with them. It was said that this problem and getting it under control was handled more energetically in that year. Several interviewees said that one turning point in this year was the selection of a new Chief Justice, who strongly promoted the importance of increasing the effectiveness of operations and the importance of finding ways to get the backlogs under control and preventing them in the future. In 2004, a “work improvement” task group was founded in

order to find ways to improve the situation by finding development opportunities in the working methods, organizational structures and responsibilities, and in the utilization of new information technology. The task group made suggestions for improving the working methods and routines, which aimed to save time and cut out unnecessary procedures. The suggestions dealt, among others, with issues related to the division of duties, work methods and outcome goals. Perhaps the most influential changes were the introduction of a seventh department which would handle the very large and complex cases, more full use of HOL 9§ opportunity (see chapter 1.3.1), more specialization on different levels, increasing the number of cases where responsible judge operates independently, and writing the file copy already in the court session when possible. Also other minor alterations to working methods were suggested.

In 2004, also the regional division of incoming cases to different courts of appeal was changed. The cases from some district courts (Raasepori and Hyvinkää) that had previously come to the Helsinki Court of Appeal were turned over to Kouvola and Turku. This was estimated to drop the annual input by about 300 cases. In 2005, the Finnish Ministry of Justice founded a working group to consider the possibilities to shorten the overall throughput-times across different authority boundaries (preliminary investigation, prosecuting authority, courts of law). The Helsinki Court of Appeal took part in this project and the working group. In 2005 also the weekly quota of cases that a referendary needs to handle, the “pensum practice”, was withdrawn from the Helsinki Court of Appeal. This brought flexibility to the planning possibilities of the referendaries’ work.

Despite all the reforms to working methods in this decade, the situation was still considered to be quite bad in the year 2006. Even though the number of pending cases had been diminishing for a few years and the clearance rate seemed good, the delays remained. The biggest expressed problems were the facts that due to shortages in planning practices and procedures, the workload was distributed unevenly throughout the year and proportion of cases were still unreasonably delayed. In 2006, the Helsinki Court of Appeal founded a new working group – called *the logistics group* – to deal with backlogs and delays and to find ways to prevent them in the future, especially by renewing work planning practices. Outside expertise was considered to be beneficial in this work and the co-operation between our research group and the Helsinki Court of Appeal started.

The average throughput-time of resolved cases depends heavily on the needed handling procedure, as can be seen in figure 13. In the year 2005, the average throughput-time in main hearings was 18.8 months, in written procedures 10.9 months, in screening 2.8 months, and altogether approximately 11.2 months. When the time that cases were in active handling were estimated and compared to the average throughput-times, the estimation was that the active time was about 10% of the whole throughput-time. An especially long passive waiting time was estimated to be in the stage where the case waited the decision on whether or not a main hearing would need to be arranged.

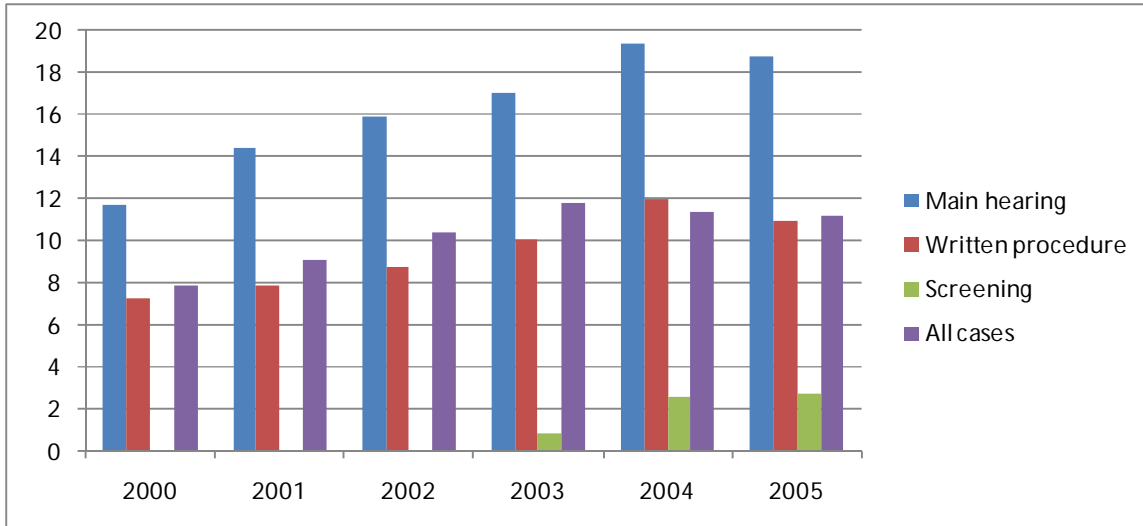
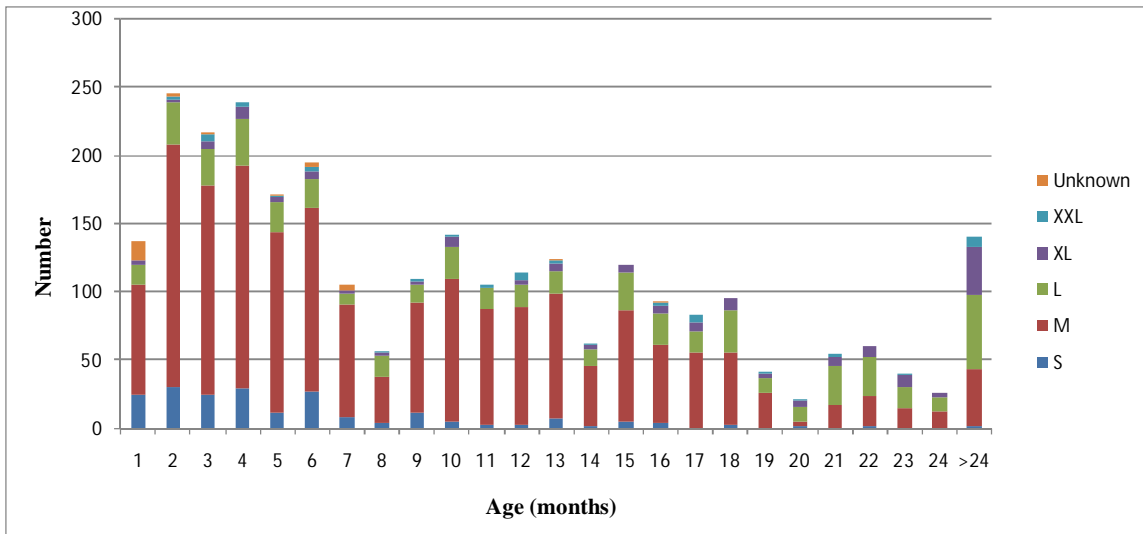


Figure 13 - Average throughput-times in months with different handling procedures (Helsinki Court of Appeal, years 2000-2005)

Even though the average throughput-times were considered to be too high, the real apparent problem was not associated with the amount of solved cases or the average throughput-times. The problem was that some cases got prolonged, even several years, and the throughput-time varied a lot from case to case. Even though the average throughput-time of solved cases could be dropped significantly, if the viewpoint were not changed to the age of work-in-process cases, the cases with unreasonable duration would remain.

A maximum limit for reasonable throughput-time was expressed to be 12 months, and the ultimate goal of the improvement project was that in the future no case should exceed that time. When the improvement project started in May 2006, the amount of pending cases was 2793, and 34% of them were already over the expressed time standard; older than 12 months. The amount of cases that had been pending for several years (two or more) was clearly too high as well. The age and size of the active pending cases at the start of the improvement project are presented in figure 14.



Pending	2793
Over 12 months	958 (34%)
Over 24 months	140 (5%)

Figure 14 - Age and size of pending cases (Helsinki Court of Appeal, 4 May 2006)

The percentage of cases over the time standard varied according to the size-group. It can be concluded that from throughput-time and delay perspective, the problematic group was the large cases (size groups L, XL, XXL). Large cases also often need the main hearing as the handling procedure. The proportion of larger and more complex cases increases in connection to the age of the pending cases: the proportion of large cases (L-XXL) in the whole pending case inventory was 26 %, proportion in “age over 12 months” was 43%, and in “age over 24 months” as much as 69%. There were no small cases in the group “age over 24 months”.

The number of old cases varied slightly in different departments. The departments 3, 5 and 6 had better situation when the amount and proportion of cases pending over 12 and 24 months was examined. Departments 3 and 6 had only a few cases older than 24 months, and department 5 approximately 20 cases. Departments 1, 2 and 4 had approximately 30-40 cases in the group “older than 24 months”. The amounts and proportion of old cases in different departments can be seen in figure 15.

The six departments are equal in size and resources. Department 7 has been left out of this comparison, because they only handle the very large and complex cases and the volume of cases to be handled is thus different, and makes them therefore non-comparable to the other departments. The cases from department 7 are included in the figures presenting the situation in the whole court.

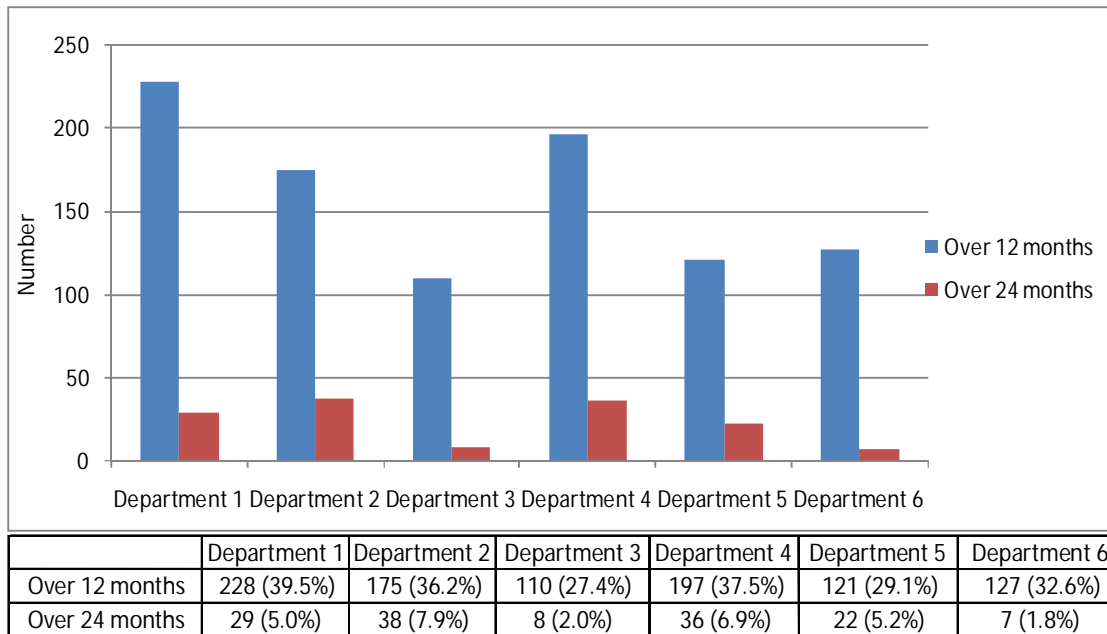


Figure 15 - Amount and proportion of old cases in different departments (Helsinki Court of Appeal, 4 May 2006)

In departments 3, 5 and 6 the amount of annual output in 2005 was larger, between 720-761 cases. In departments 1, 2 and 4 the number of annual outputs was between 644-674 cases. Therefore, there was no correlation between the department's amount of annual output and the proportion of old cases in the pending inventory. Neither was the proportion of large cases from the overall output different between departments. Therefore, it can be said that the departments that had produced more cases, had not done it at the expense of larger cases. Departments 3, 5 and 6 had been able to produce good output and had still managed to solve also the larger cases and been able to keep the delays better in control.

4.1.2 Insurance Court

The Insurance Court had been struggling with delays for some time, and it had been criticized in different instances and medias about the issue. For example the legality control and ombudsman had made observations and complaints concerning the long throughput-times and delays in the Insurance Court (Paunio, 2005). The criticism concerning delays was strong due to the nature of the cases handled. The cases deal directly with people's income and health, so every long delay can cause individual tragedies. This type of issues raises arguments more easily than for example crime issues.

The Insurance Court had also noted the problems concerning throughput-times and the climate had become more favorable towards development. Some reforms and innovations had been taken in order to rationalize the working methods. The biggest reform was in 2003 when the organizational structure was changed and the court was divided to three departments. Before that there was no division to departments. The primary underlying

reason for this reform was the hoped improvements to quality of decisions due to the possibilities of specialization in departments. The departments were now specialized in different types of cases. Also the establishment of middle management (Senior Judges) was hoped to bring effectiveness to the functions and operations of the established departments. Other minor improvements were made to the working methods, for example better utilization of information technology in circuiting the documents among outside expert members (all members could get acquainted with the material simultaneously) and by making limitations to the applicant’s right to present new evidence after the decision. There have been independent improvement teams and improvement projects in the Insurance Court almost constantly in recent years. In the interviews it was said that perhaps there have been too many different kinds of task forces and working groups in action. The work in these groups has concentrated on the improvement of quality, administration and preparing of different types of working and technicality instructions. There had not been improvement teams or efforts concentrating on process improvement or delay reduction until the *Logistics group* was founded in June 2008 to deal with these issues.

The capacity to solve cases stayed very static for the whole decade; the amount of annual output was around 10 000 cases. The amount of incoming cases, on the other hand, dropped in the year 2007 dramatically (see figure 16). The resources increased and the productivity decreased constantly for the whole decade (see table 17). This can be due to the big changes taking place early in the decade, the increased complexity of the cases, and the growing emphasis on the quality of rulings.

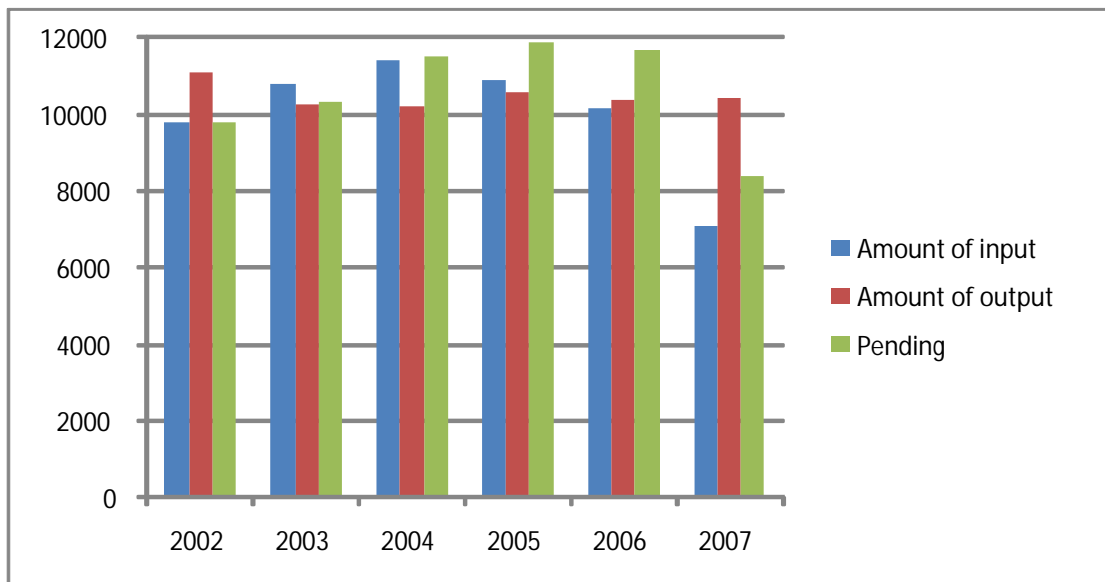


Figure 16 - The amount of resolved, incoming and pending cases (Insurance Court, years 2002-2007)

Table 17 - Resources and productivity (Insurance Court, years 2002-2007)

	2002	2003	2004	2005	2006	2007
Resources (man-years)	100	99	99	107	109	118
Productivity (output/man-year)	111	104	103	99	95	88

The average throughput-time in different years is presented in figure 17. It was approximately between 13-15 months for the whole decade. In the years 2003-2004 both the average throughput-time and productivity were on a good level. This can indicate that the growing inventories were dealt with by producing output by solving also younger cases. The average throughput-time was considered to be clearly too high, considering the nature of the cases.

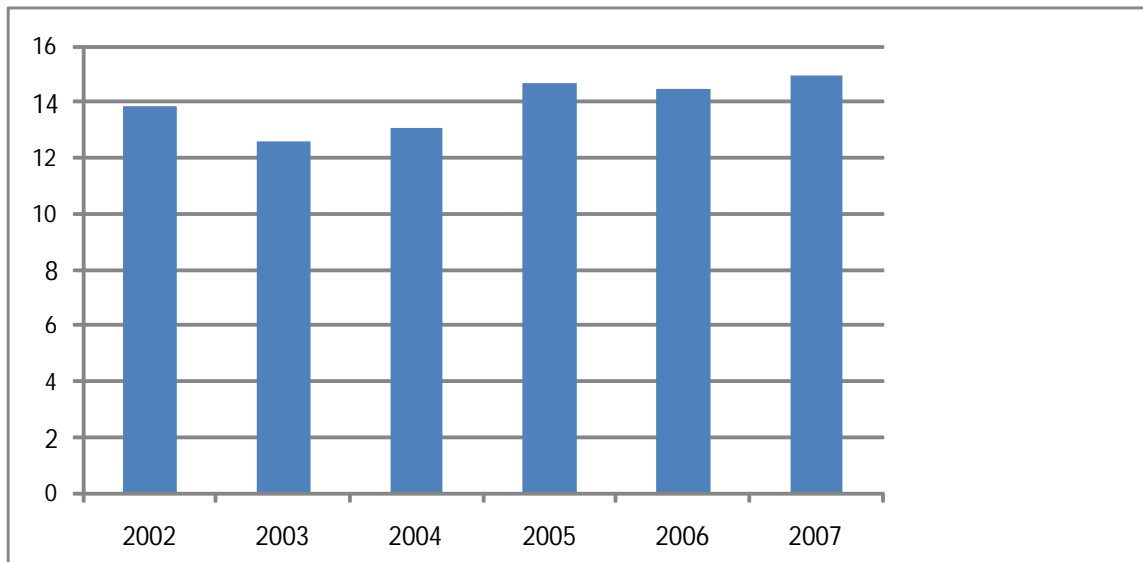
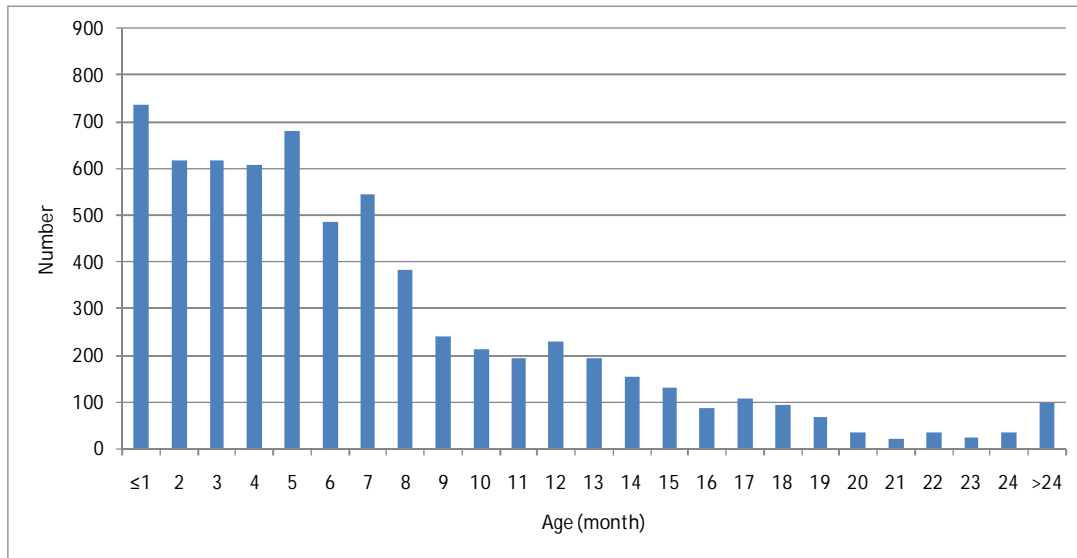


Figure 17 - Average throughput-times in months (Insurance Court, years 2002-2007)

The number of pending cases had dropped so much that the Insurance Court should have had the capacity to diminish the turnover of cases to approximately 6 months. Still the average throughput-time was about 14 months when the improvement project started (largely due to old backlogs), and the proportion of old cases had not dropped as a relation to the overall decrease in pending cases. When the project started in June 2008, there were 6625 cases pending, 16 % (1077) of which were over 12 months old. There was no division of cases by the size, but the appraisal was that the more complex cases were the ones that were delayed. The age of the pending cases at the start of the improvement project is presented in figure 18.

The goal of the improvement project was that the amount of cases pending over 12 months would be less than 5% of all pending cases. This means that all cases that are solvable in 12 months should get solved in that time. It was estimated that about 5% of cases get delayed regardless of the Insurance Court's actions, for example due to

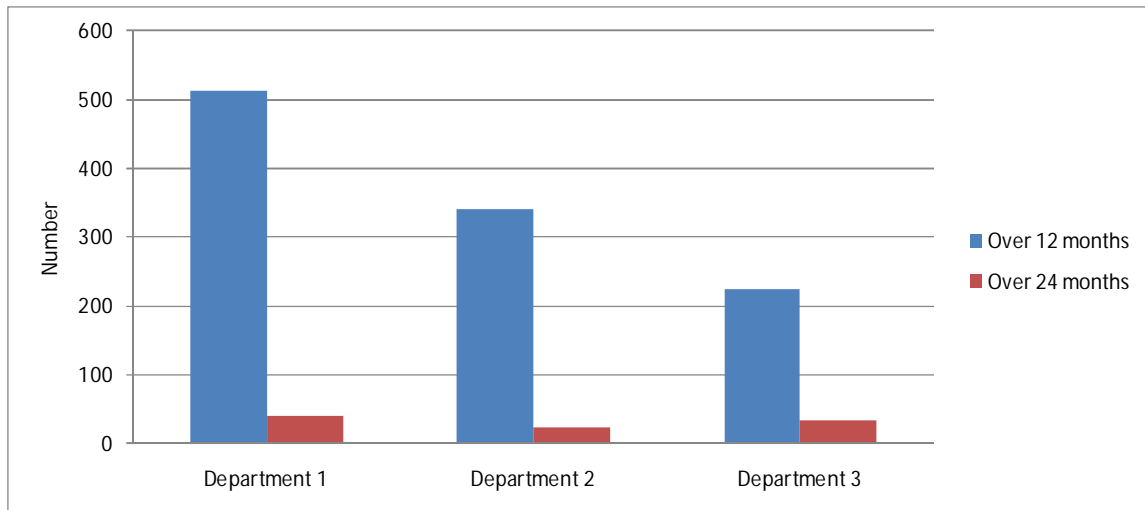
emergence of new evidence. The role of new evidence in causing delays was highlighted in the start of the improvement project. The problem caused by new evidence was like a vicious circle; the longer the throughput-times and delays, more new evidence emerges causing even longer delays. The best remedy for troubles caused by new evidence was considered to be the shortening of throughput-times.



Pending	6625
Over 12 months	1077 (16%)
Over 24 months	96 (1.5%)

Figure 18 - Age of pending cases (Insurance Court, 13 June 2008)

There were small differences in the amount of old cases in the three departments. The number and proportion of old cases in the different departments are presented in figure 19. The differences are explained by the specialization of the departments and by differences in the case structure between the departments. Department 1 handles case groups that can be often considered more complex, for example accident-related issues. In the number and proportion of very old cases (over 24 months), the differences between departments diminishes.



	Department 1	Department 2	Department 3
Over 12 months	512 (21%)	341 (15%)	225 (12%)
Over 24 months	41 (2%)	24 (1%)	32 (2%)

Figure 19 - Amount and proportion of pending old cases in different departments (Insurance Court, 13 June 2008)

4.1.3 Case comparison

Overall, the starting point for improvement in both courts was that the main process performance problem needing a solution was the fact that for some reason the larger and more complex cases got stuck in the process, causing long and varying throughput-times. The long delays and old backlogs had remained in both courts even though the clearance rate had been good and the amount of pending cases had been decreasing fast.

Both case courts had been struggling with the backlogs and delays for many years, and the situation was estimated to be problematic. This caused a favorable climate and good timing for the improvement projects. It was a widespread opinion that something needed to be done to the problem. There had been a lot different types of improvement efforts in the courts in recent years. Improvements had happened, but the problem was not yet fully under control. Therefore attitudes towards utilizing external help and new ideas were generally positive in both courts.

The role of top management in creating the need for change was highlighted especially in the Helsinki Court Appeal. The management's attitudes towards the problem and solving it were estimated to be crucial. Also in the Insurance court the increased management resources had had an influence in creating the initial need for change in process performance.

The introduction of the pending inventory reports was a new way of analyzing the situation online. This proved to be a good starting point for creating understanding of the

problem and encouraged a discussion concerning the situation and differences in different departments.

4.2 Underlying reasons for process performance problem

In this chapter the underlying reasons behind the delay problem are introduced. The reasons are introduced separately for Helsinki Court of Appeal and Insurance and then summarized and compared in chapter 4.2.3.

4.2.1 Helsinki Court of Appeal

In the data analysis concerning the reasons for delays, several individual sources emerged and they were categorized and named in the data analysis process. These categories are formed on the basis of the interview data analysis, described in chapter 3.4.1 and summarized in Appendix 1. One example of a formed reason category is presented in Appendix 2.

The observations and outlooks concerning the factors behind long delays in the Helsinki Court of Appeal formed five main categories. The categories are presented in figure 20 and discussed below.

The introduction and discussion of the categories is enlivened by citations from the interviewed personnel. The role of the citations is to give examples of the opinions of the interviewed employees and the nature of the interview material.

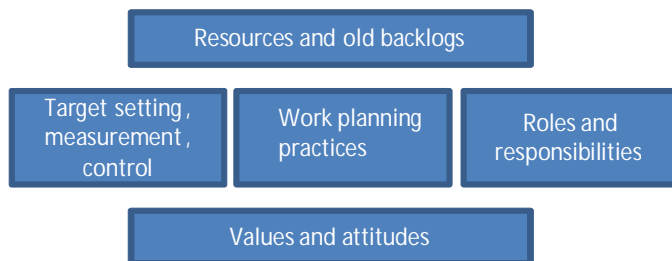


Figure 20 - Categories of reasons for the delays in the Helsinki Court of Appeal

The two categories, resources and old backlogs and attitudes and values, were interpreted to form background elements, evidently influencing productivity, efficiency and the role of time and delays in the operations. The other three groups of reasons were more operation and process-based. This means that the values and attitudes and the backlog and resource situation has influenced on the measuring, planning and responsibility structures and practices in the courts, making the operational based reasons operational manifestations of the inherent values and resource situation.

1. Target setting, measurement and control

The performance and productivity of the Helsinki Court of Appeal was measured mainly by establishing a goal for the amount of annual output. This productivity goal was set in the annual budget negotiations between the court and the Ministry of Justice. The court was responsible to the Ministry for the achievement of the set goal for output. The overall output target was implemented in the organization in the way that it was divided to annual output targets for every department, and further on to every individual. This measure and target had been firmly implemented and deep-rooted in the management and operation systems of the Helsinki Court of Appeal. It was discussed a lot and monitored carefully. This indicates the organization's ability to adopt measuring practices.

“...the thing that is measured and talked about ad nauseam is the output target and the only thing monitored is the number of solved cases. It is what rules the game and what everyone is talking about, sometimes too much....”

In practice, at every organizational level, productivity and process performance were understood as equal and a synonym to the amount of output. There were no clearly articulated targets or time standards for throughput-times.

The emphasizing of the output target had caused distortions and inconsistency in the process, especially to the throughput-times of more complex cases. The pronounced role of the output target in the mindset of all personnel in the Helsinki Court of Appeal stemmed from the expectations of the management, starting at the Ministry level, going all the way to department-level management. A large part of the management and monitoring efforts went to monitoring the output situation. The management stressed the output target and articulated that they wanted the output goal to be the priority in process performance.

“...performance is not measured by throughput-times; it comes from the amount of output. It is very important for the management that the output goal is achieved. And usually not very much attention is paid to how it is achieved as long as it is...”

The chasing of the output goal had reduced co-operation between the departments and the achievement of the output goal had become a subject of rivalry between them. It was said that there were “six little courts of appeal” competing with each other for who was the best in the amount of output. The competition influenced working climate, caused inflexibility and had led to sub-optimization decisions concerning resource allocation. The reaching of the output goal had become a matter of honor for the department and the management. The emphasis on output goal made the personnel feel that they were working as hard as they could, more could not be done, and still there were delays and backlogs. The work of reducing delays and increasing performance felt a hopeless task, because it was presumed that it meant more work, and no more work could be done.

In performance measurement, the throughput-times and delays were left in the shadow of the output goal. It is obvious that a pure and complete first-in-first-out policy is not

suitable for judicial processes, because some cases need more time for consideration, some cases cannot be even solved until additional information is achieved, and in the mean time smaller cases can be handled. However, there were views that the time frames for throughput-times should have a bigger role in the performance measurement.

“...it should be as important as the output, that we solve the cases more in the incoming order. We should consider the oldest cases and only after that the newer ones. This would have impacts on the output in short term, but in the long run it should not matter, because all cases come to a decision sometime...”

Because the performance management efforts were directed to managing the amount of output, the monitoring of throughput-times, delays and pending inventory were insufficient. The problem was not really understood and highlighted or discussed until in recent years. There were no clear targets, objectives or time-frames set for throughput-times, except for urgent cases. If a case was priority level 3 and complex, it could even stay in somebody's case file for years.

“Nobody ever asked you when that precise case would be handled, no one was interested.”

The monitoring and management reports did not include enough real time information about pending cases, their age, beholder or status. Improvements in the monitoring and consciousness of the throughput-time problem were achieved in 2004, and the personnel and management started to discuss the situation. However, no systematic monitoring routines for controlling work-in-progress and pending cases or establishing controllable time-frames for them were designed. The lack of monitoring was evident also at the personnel inventory level. One fact which had made the monitoring of one's own case inventory unpleasant was that the individual buffers of cases were large and unmanageable, so that the occupants no longer knew and recalled the situation precisely.

The management and leadership system in the court posed also other challenges connected to the easiness and desire to control and monitor the delays and interfere with the situation if necessary. Strong department-level management would be important for preventing delays. It is a strong historic and traditional aspect that a judge needs to be beyond control, even in supervisory aspects. Even though the complete autonomy was originally meant to cover only contextual issues of rulings, it has spread to working methods and routines, leading to a situation where the judges are almost “unmanageable”.

As an addition, the managers are chosen by substance skills rather than managerial capabilities, which mean that the best professional becomes the manager not always the best manager. This has led to the fact that the experience, knowledge and interest of a given manager in monitoring performance issues influence the performance of the department. Some managers monitored the delays and throughput-times very carefully, some managers not at all, and did not even feel it was important.

“The position of the Senior Judge is like a valued reward for a job well done. This does not guarantee that this person has the desire or capabilities that are needed for a manager: setting goals, delegating, controlling and analyzing the situation, and continuous monitoring.”

The fact that judges need to be completely independent poses a lot of challenges for management and monitoring. Practically nothing can be done in a situation where the work ethics of an individual judge fails. The judges cannot be fired nor their salary reduced. While the management needs to respect the status of the judges, they must also be able to intervene if the backlog of cases increases without a reason. It was expressed that perhaps some of the managers did not feel superior to other judges and did not see that it was their place to intervene in “colleagues” work. The position of department managers is a secondary occupation; they are also engaged in the regular work of a judge. This also highlights the colleague aspect and makes it more difficult to find time for monitoring and other management duties. The general opinion was that more managerial feedback, positive and negative, was needed and that the managers should monitor the pending cases and delays more carefully and take actions if needed, but this should be done in a constructive and respectful manner.

2. Work planning practices

The fact that there were no formal and collectively accepted practices to plan and schedule the progress of the cases and the production in general produced passive waiting time, idle time, randomness and uncontrollability to the process and caused delays especially for more complex cases. The complex cases would have needed more orderliness to be solved in a reasonable time. The lack of planning had led to the situation where the capacity was not in full use.

Due to the lack of orderliness, the cases and their situation were not in full control of the workers, causing stress and a feeling of inadequacy, and lessening the willingness to even try planning the work. It had created a situation where everyone was busy all the time, but proportions of cases got older and older. In the end of the year there was usually a rush of main hearings, and the time of the referanderies went to these and to the writing of sentences. They did not have time to prepare complex cases and because of this, in the next cycle, there were no main hearings. The main hearings had become unevenly distributed throughout the year, and it was hoped that planning and scheduling procedures could distribute them more evenly.

“If a referandary is very busy and has court sessions for months nonstop, then naturally he does not have time to prepare any complex cases, the cases just lie and lie...Then comes some quiet period and you grab something from your case file. And usually you are busy and take an easier case. The more complex the older it will get.”

“You prepare a case and fix a main hearing...then before the main hearings you have this quieter time...then comes this huge rush and you do not have time to prepare any new cases for main hearings.”

The irregularities and cyclical nature in the distribution of the workload throughout the year caused twitches and breaks to the effective flow of cases, and made it impossible to get the capacity in full use, causing passive waiting time for cases. The working method was that the decision on whether or not a main hearing needed to be arranged for an individual case was not made until the case had been almost fully prepared. Because the arrangements for a main hearing are a difficult coordination task of getting all parties present, the main hearing could take place several months after the preparation had been completed. This created compulsory waiting time and extra work. The longest passive waiting time for a case was estimated to be in the phase where it waits for the handling decision to be made.

One problem stemming from the lack of production planning and scheduling was the fact that it was very hard to find uninterrupted time for preparing complex cases for decision. Because the time for longer preparation was not planned, new, more high-priority cases always emerged and the preparation for more complex cases stopped. The setup times grew when getting acquainted with the case material was done several times all over again. This also lowered severely the motivation to take the larger case for preparation. Because the time to prepare the case varies, depending on the size of the case, also the output pressures makes it more difficult to take the time to prepare the larger cases. The lack of clear intermediate deadlines for cases made the planning seem useless.

“The larger cases are our problem. They would demand planning and making the time for preparing, taking the time to do them...This kind of time is damn hard to get.”

“A complex, laborious case...you just do not ever have the time to grab it. That is how the human mind works...oh no that is terrible...what else did I have here...and then you start doing something easier.”

The randomness inherent in the production process was evident also in the start-up of the process. The whole process, and especially the start-up was said to be clearly too referendary-led. They had huge responsibility for the start-up and smooth and timely running of the process. The referanderies were allowed too much power to decide on the order and pace of cases to be handled. The starting up of the handling of more complex cases depended largely on the motivation, work situation and working methods of an individual referendary.

3. Roles and responsibilities

The cases, the start-up of the handling and the smooth and timely running of the process were in practice the responsibility of the referendary. The court is a place for a referendary to get experience and training and to qualify as a judge. This is why the referanderies change departments and even court instances in every couple of years. The turnover in referanderies in a department is thus high and makes the whole system vulnerable. The court has a rotation system where the referanderies switch the department after 3 years of working. This tradition has its benefits (learning to work with different

kinds of people and with different working methods), but because the mobility of young referendaries is also otherwise great, it distorts the handling process. When a person has had an opportunity to somehow familiarize with his case inventory, it is changed to new ones. This does not encourage starting to plan and control the status of one's pending cases.

In principle, the named responsible judge member for each case should be ultimately responsible of the handling process and timely operations for a given case from the day it arrives to the court of appeal to the day of disposition. The reality and practice was sometimes, however, that they were only namely responsible and had not even always seen the cases which they were responsible for. There were variations: some responsible judges took the responsibility and some practically not at all. This made the working methods in different departments vary and caused vagueness to the roles, leaving the cases sometimes without a clear owner.

“Unfortunately there are some passive responsible judge members and then the case is completely on the referendary's responsibility.”

Because the cases were in principle the responsibility of the responsible judge member, the cases were left in the old department when a referendary changed the department. This caused problems for the throughput-times of more complex cases. First of all, because the preparation work is done usually months before the main hearing actually takes place, there is huge amount of work lost when the referendary changes and the new one has to get acquainted with the case and the materials. When a new referendary arrives, there is always some gap and idle time before he/she has prepared cases for main hearings. Because there is not enough cases that do not need a main hearing, the work load starts to be distributed unevenly from the beginning.

4. Resources and old backlogs

One distinctive reason category for delays was named to be the high caseload per judge and referendary, the nature of the cases, and the old backlogs piled up in previous years, especially in the years 2000-2004.

The piling up of cases in those years was named to be largely a consequence of the fact that the main hearings were a new handling procedure, and there was no routine for arranging main hearings. The proportion of main hearings as a handling procedure had been growing every year. Another reason for the pile-up was that cases were getting more complex and larger.

The main process performance problem was the varying throughput-times and long delays, and the better balanced resources in recent years had not resolved this problem. However, the high caseload per judge and referendary and old previously emerged backlogs were naturally a background factor for other categories of reasons for the emerging of delays. Because of high caseloads, the individual buffers of pending inventory had become so large that the inventory had become formless, unknown and

uncontrollable. This made it more difficult to plan one's work and to control the situation and progress of cases, both at individual and organizational level. It is self-evident that resources need to be adequate compared to the incoming cases in order for the process and operations to be improved.

There are also cases that due to several different reasons cannot be solved in one year, for example that the litigant cannot be subpoenaed, or due to other delaying tactics from the parties involved.

5. Values and attitudes

Another background factor for the delays was the attitudes towards quality and the nature of the work. The nature of the work sets clear boundaries for process improvement. The traditionally valued aspects of quality were seen as contradictory for timeliness, and the quality of the work of the people who took time as an influential factor in the work was sometimes questioned.

“It does not matter if it takes time, as long as it is decided correctly, if anything the hurry mentality is regarded as...like....those are those... “busybodies”...”

The timely resolving of all types of cases had been left in the shadow of both the output target and good quality of rulings. The attitude towards quality was in the background of all other reason categories for delays. Because time had not been previously regarded as an important aspect of quality, not a lot of attention was given to the target setting, monitoring or planning of throughput-times. Regardless of the fact that the active time of preparation and decision making is just a small fraction in the whole throughput-time of the cases, it was still the opinion that time and quality are competing elements in the process.

“This work demands time for thinking, familiarizing and digesting. All cases do not open up immediately. It is not like an assembly line.”

It was also pointed out that the conception of quality has been formed on the historical aspects and judges, their work and professional pride. There was not much customer orientation, or reflection on what a customer wants. This had for example caused the fact that time was spent on spelling and phrasing of final acts, even though in many cases the litigant would perhaps value time more than the phrasing of the decision. This was referred to as making “over-quality” and having outmoded working methods.

“We are correcting after correction... the sentence would be as good and correct even though we would not use days for changing the place of commas and order of words. That is not present day and still we would do good and high-quality work.”

Due to the long and traditional history of the organization and its value system, it is hard to change the way of working, especially among the older judges who are used to doing things according to a fixed method for a long period of time.

The individual reasons in these different categories are all connected to each other, forming a vicious circle of reasons and effects for an inappropriately performing process in the light of long delays. All the main categories of reasons seem to be the origin of the same process performance problem from a slightly different perspective: the management system, the planning procedures and the responsibility structure has enabled and made it more feasible to concentrate on producing output. This has led to a situation where the role of time in the managing and controlling operations has not been sufficient, appearing in the form of varying throughput-times and long delays for complex cases.

The delay problem structure (causes and effects) in the Helsinki Court of Appeal is summarized in figure 21: the main categories of reasons behind delays and the main consequences for operations and process performance.

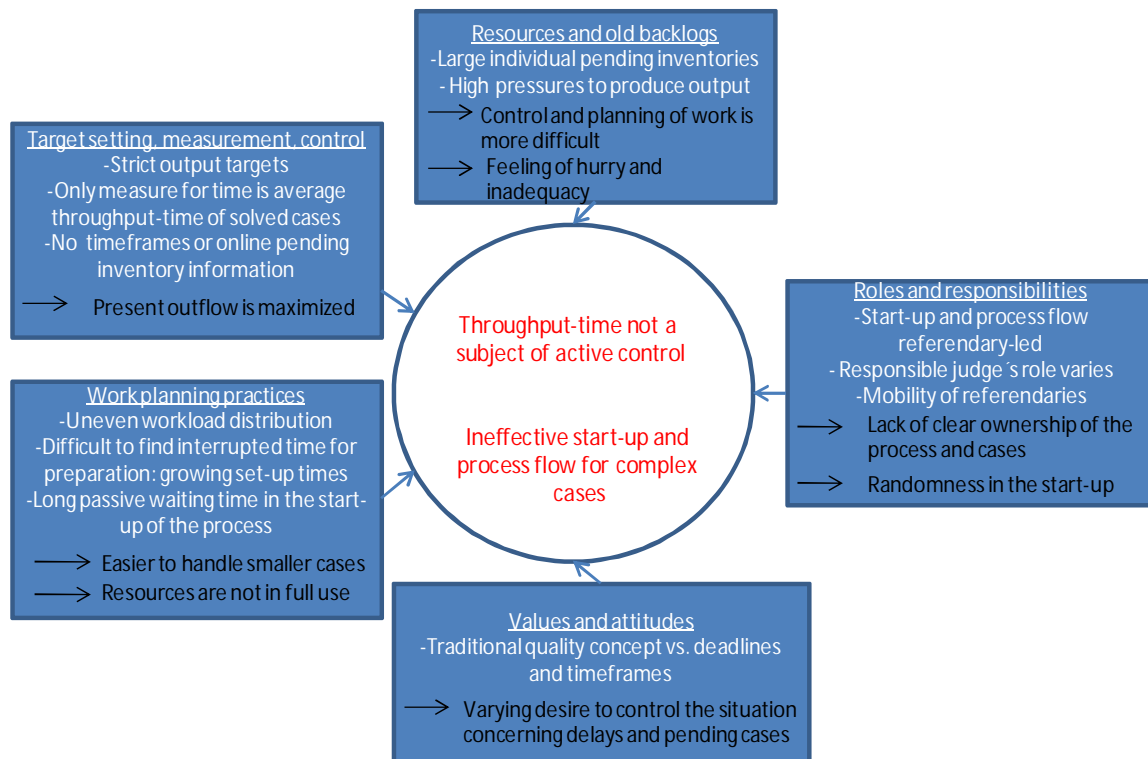


Figure 21 - Summary of the delay problem structure in Helsinki Court of Appeal

4.2.2 Insurance Court

In the data analysis concerning the reasons for delays, several individual sources emerged and they were categorized and named in the data analysis process. These categories are formed on the basis of the interview data analysis, described in chapter 3.4.1 and summarized in Appendix 1.

The observations and outlooks concerning the factors behind long delays in the Insurance Court formed also five main categories. The categories are presented in figure 22 and discussed below.

The introduction and discussion of the categories is enlivened by citations from the interviewed personnel. The role of the citations is to give examples of the opinions of the interviewed employees and the nature of the interview material.

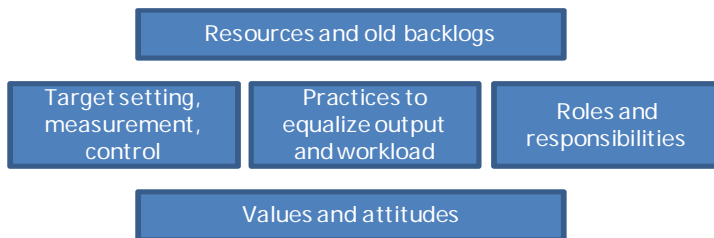


Figure 22 - Categories of reasons for the delays in the Insurance Court

Similarly than in Helsinki Court of Appeal, two categories, resources and old backlogs and values and attitudes, were interpreted to form background elements for delay problem. First the operation and process-based reason categories are introduced and analyzed, and then the influence of the background reason categories to process performance and the other reason categories are analyzed.

1. Target setting, measurement and control

Because the measuring and monitoring efforts concerning performance and productivity are strongly defined in the amount of output, it causes problems to the effective flow of more complex cases. Due to the mass production nature of the processes in the Insurance Court, continuous output is very important and thus it has been highlighted and monitored carefully.

“...if we imagine for a second that our job is to transfer stones for a hundred meters. Every day a truck arrives, full of small stones and large stones. Small stones can be thrown and the larger need to be carried. Now we throw small stones as much as we can, and the transfer of the larger stones gets delayed. If we transferred the stones in the order of arrival, we would not be able to transfer as many stones as expected... We keep the system as it is designed by eating out our own future...”

“The output is the most important, and it is of secondary importance whether or not some case waits and gets delayed...”

Everything starts from the fact that there were no collectively approved timeframes and targets for throughput-times, no real time information about pending cases were systematically collected, and thus the monitoring was not in time and varied according to the individual interest of a given manager. The need for systematic and automatic

procedures of collecting and utilizing online information about pending cases and their progress, and active managerial interventions to delay problems were clearly articulated. The monitoring of pending and old cases was dependable on a list of 100 oldest cases, which was examined regularly but rarely led to any concrete actions.

“It should be understood that managing time is a managerial duty like any other...clear goals and then the managers act in a way that they are accomplished...”

In addition to insufficient monitoring information, the lack of intervening to delay problems was said to be a consequence of the nature of the work and the management style, where the self-determination of judges was valued and the management practices were concentrated on monitoring the overall quality of decisions and justifications.

“This is independent work, and needs to be independent work, but the culture that absolutely nothing is said even if work severely piles up...and only when the situation is really bad, then perhaps some interventions are made.”

The reality is constant balancing between managerial actions, when is it appropriate to intervene, and the autonomic work of the judges. The work of the managers is hard, when there is lack of precise targets (what is expected), online monitoring information, and delicacy in intervening with performance problems. Due to the objectivity requirements it is hard to intervene with the processing of an individual case and its throughput-time. However, the overall pending inventory situation of judges and other personnel would need to be monitored and intervened with if backlogs and delays emerge. The on-time discussions and managerial interventions to severe backlog situations was said also to be important in the light of work satisfaction and ability. Huge work-in-process inventories and delays are a cause of work exhaustion and feeling of frustration for workers.

In the last decade, the management practices in the Insurance Court sharpened a lot. The introduction of departments and department managers in 2003 increased the management resources remarkably. The monitoring capacity of the department managers was still engaged in monitoring of the quality of decisions and justifications, as they controlled all the decisions made in their department in order to keep them in line. This is why there was a need to strengthen the managerial status and responsibilities of the chairman judge members. Management training courses were arranged for them and their role, particularly in time management in their deciding division, was highlighted. Some chairman judge members were interested in the throughput-times and in their divisions the problems were smaller, but some had not yet understood their role as supervisors. However, there had been improvement and awakening in the management of delays, but old habits take long to change, and the managerial means and tools were still quite limited.

2. Practices to equalize output and workload

Because a large amount of cases needs to be solved annually in the Insurance Court, the flow of cases is important for the function of the court. The system was referred to as a “merciless assembly line” in the sense of production quantity. The whole process is different by nature than many other court processes; it is more like an industrial mass production process, where the whole system is vulnerable for the effective flow of cases.

The adequate and continuous flow of cases and equal workload was ensured by establishing firm weekly quotas of cases to the referendaries, called the pensus practice. They had to collect 55 points in a week; one case was about 5 points, so they had to prepare approximately 11 cases per week for continued handling. Extra points could be granted if the case was estimated to be complex. The fact that a week is a short production planning horizon made the whole production planning quite inflexible and stiff and could cause delays for more complex cases. It was hard to find time to prepare the complex cases and still get the weekly quota fulfilled. The extra points did not always compensate for the extra work involved in the more complex cases. There were also varying customs to apply the extra points. It was said that too much time and energy was given to the counting of points and cases in such a short period of time. Even though the quota was meant to be only indicative for the amount of workload, it had become too mechanical and precise.

“The complex cases would demand uninterrupted longer time. You cannot find this time and you cannot just stop the whole process and start doing one single case, it would stop the whole factory.”

“Sometimes it is hard to find time for complex cases. For example on Thursday there is no point in starting to prepare a complex case, even though you felt like it, it is not worthwhile, because it will not be completed by Monday and you do not get your quota fulfilled...”

“Everybody knows that you have to produce output, output need to be fulfilled all the time...and then it means that it is done with routine cases and you do not have time in a week to prepare complex cases.”

It was also said that the weekly number expectation was too big; there was practically no time to prepare the more complex cases. This had been recognized, because cutbacks to the quota had been given for referendaries to be able to prepare the old complex cases.

Even though the quota practice and number expectations caused problems for the handling of the most complex cases, the practice was generally considered good by both the management and other personnel, and the custom was widely wanted to be kept. This was perhaps because it is an easy way to measure and ensure the needed level of output and control and to equalize the workload. The renouncement of the quota practice was said to demand a great deal of sense of responsibility from the referendaries, but it was also admitted that in this kind of work, responsibility should be required.

Another problem was the distributing of workload among judges whose capacity to solve equal amount of cases varied. The distributing of cases was done evenly for judges and everyone was expected to be able to produce the same amount of cases for the process to proceed effectively. Judges had a work partner-system, where the prepared cases of two referendaries were directed to one judge member. Because referanderies had their weekly quota of cases, also the judge members received a fixed weekly input of cases to handle.

This distribution system was, however, a problem in the sense of delays for individual cases. All judges were not able to produce equal amount, due to working methods and individual characteristics, but still the cases were distributed in fixed batches to their personal inventory. This caused bottlenecks to the process with very large work-in-process queues in some production lines.

“The basis is that all judges need to do the same amount, so everybody gets the same amount of cases...regardless of whether you actually do or not do them. In my opinion this is like hiding from the reality...if someone cannot produce, we still push cases to them...”

Previously the cases were distributed to judges according to their personal inventory levels and work situation. This was seen as an unfair system because some judges did more than others, and there were no means to merit pay, and that was why the work-partner system and equal distribution of cases were started. This did not change the fact that some people were still able to do more than others, and now individual cases got delayed. The distribution of cases from court clerks to referendaries was done on the basis of the referendary's personal inventory level and working situation. This worked well, due the fact that the equal flow of numbers from referanderies was ensured by establishing firm weekly quotas for them. Plus-minus-scores and statistics of the amount of solved cases were counted also for the judges, but due to the independent status, the methods to intervene in the space of solving cases were limited. If the score situation of an individual judge was negative, practically nothing could be done to it. Cases were even distributed to the judges from their partner referendaries during holidays and sick leaves. The absence would be taken into account in calculating the scores, but it did not change the fact that the cases were still going out of date in the inventory of the absent person.

Eventually, the Insurance Court was forced to redistribute cases from slower judges' inventory to other judges. This made the work distribution more unequal, because usually the solving of a case gets more complex by the age. The practice of equal distribution of cases was justified by the fact that the cumulating of cases and point scores would force some kind of pace for all judges, but this had not happened, and lot of work exhaustion and sense of unfairness was caused by the output expectations in addition to causing delays.

“There is no rational sense in the practice that even though we know that some persons are considerably slower, we keep distributing the same number of cases to them...and then redistribute them, so that others get these old cases.”

The irrationality of the practice and the obvious consequences for equal throughput-times comes evident when comparing them to the manufacturing environment, where the capacity of an individual manufacturing cell would not be any kind of a factor in the distributing of the workload. The problem in this was the fact that the manufacturing cells are not machines but highly intelligent and completely autonomous professionals. There are limited arsenals of means to increase the capacity of these bottlenecks. It was agreed that there should be other means to overcome this problem, than pushing cases to inventories where the producer just absolutely cannot produce them.

The persons with the weakest capacity to produce output are usually hard-working persons who just have time-consuming working methods. The amount of cases flowing in the process is so huge that it is easy to fall behind and get absolutely backed up, if you cannot keep up with the flow all the time. In the same time, the heart of objective court processing is the individual, autonomous judge, who has the right to decide when the case is ready for decision.

“The persons for whom the cases accumulate...they do not do weaker quality and they are definitely not lazy...usually they are the persons who do the most work, they are just slower. It should be somehow accepted that not everyone can manage the number expected and start distributing the cases a little more unequally...”

3. Roles and responsibilities

Because of the need for flow of cases, the whole production process had been designed for the smooth handling of large masses of fairly simple cases, and the flow of more complex cases had breaks and gaps. The problems of combining assembly line requirements and case-specific requirements appeared in the form of delays for more complex cases.

“Our whole machinery works well in the easier cases, but in complex cases the system starts to cough...”

It is a fact that the more complex cases need more time to reflect on the material, prepare and handle the case. It is also a fact that the more complex cases more got delayed more often. More cooperation in the start-up of the handling was considered as one possibility. The referendaries are usually young and recently graduated and sometimes they are apprehensive of the complexity. The handling process had been designed in the way that the referendaries were alone in the start-up of the process. This increased the difficulty to take on the complex cases. Because there is a good working climate in the Insurance Court, it was hoped that the referendaries would be more active in taking on the preparing of complex cases and ask help if needed. It depends on the person whether he/she has the courage to ask for help if the case seems too complex. If cooperation practices in more complex cases were made a way of working, it could save time and useless work. Often the senior judge members could tell with a glance the main guidelines for a case and direct the referendary to the right track. Sometimes referendaries use a lot of time in preparing the complex case alone and would still go off the track. It was also said that if

referendaries just started up the process and handling more actively, it would often be discovered that the case was not so difficult after all. It should be made clear that asking for help is not a sign of inferiority, but leaving cases lying because of complexity is. There was also the question of what is an appropriate level of cooperation without endangering the impartial and fair handling of cases. However, asking and discussing about the content of complex cases should be somehow made a custom and normal procedure for the more complex cases.

It was also said that the complex cases did not get enough attention in the handling process and got driven to a bypath or disappeared from the active process flow to a “black hole” and lay in everybody’s inventories. It was a tendency that the more complex cases got somewhat unnecessarily delayed in every handling phase and thus cumulated to unreasonable overall throughput-times.

“Everybody handles the complex cases a bit more slowly”

It was also said that while the more complex cases needed more time to consider and refine, it alone could not explain the delays. If a case is considered for a year, it does not get any better or refine, and also for a complex case the active time is still a little fragment of the whole throughput-time.

“It is this image that we want to cherish somehow; that we have so complex cases and this is the reason why the cases are delayed for a year – this is not true, the time is for most part non-active and it does definitely not mean that the longer the throughput-time the better the sentence.”

Due to the decrease in input, the handling of routine cases had become faster but the handling of more complex cases had not quickened at the same pace. This trend called for tools for more active recognition and designing the process flow and the handling procedures of the more complex cases.

4. Resources and old backlogs

One very distinctive reason category for delays was also in the Insurance Court named the high caseload per judge in previous years and the remaining old backlogs. The backlogs were said to be largely a consequence of a lack of resources and the extra attention paid to quality and justifications. Also the cases had become more complex with changes in legislation and thorough joining the European Union. Similarly to the Helsinki Court of Appeal, the lack of resources did not entirely explain the large variations in throughput-times, but was a background factor for other reasons. As the cases get piled up, it is more difficult to control the inventories and plan production, especially without precise targets, plans and tools for it. In some occasions some of the personnel kept high levels of personal inventory. This made the monitoring and controlling the age and situation of one’s own cases more difficult. It was said that some limitations to personal inventory levels would be needed, for example a maximum of a two-week workload. This problem decreased when the overall amount of pending cases dropped and there

were not so many cases to be distributed. When the amount of incoming cases increases, however, this custom should be re-examined.

One straightforward reason for why some cases got delayed was the policy that the applicant could send and present new evidence at any stage during the handling process. In these cases the handling process had to be started all over again, and naturally the overall throughput-time grew. This was also said to be a problem due to the long throughput-times. When the handling process takes a long time, the likelihood that changes happens in the applicant's conditions and that he/she sends new evidence increases. It was admitted that the best policy to avoid new evidence and delays caused by them, is to find means to shorten the throughput-times and get out of this vicious circle.

5. Values and attitudes

Similarly to the Helsinki Court of Appeal, another background factor for delays was the managers' and personnel's attitudes towards quality in justice systems, what is valued and the working methods.

Due to the traditional value system, the whole concepts of throughput-times and delays had been a subject of conversation and attention for a relatively short time. This is why the concept of quality in the operations is equal to the quality of rulings made, and there was little room for timeliness and throughput-times. The delays had not been practically anybody's responsibility and many of the interviewees called for more responsibility concerning also the timeliness. It was said that through good quality rulings comes the respect for both an individual judge and for the whole court organization, but still all aspects would need to be in order and well functioning for the quality to be fully appreciated.

“Good ruling is the main point in our product. But we should also remember that it is not the whole product...the whole package is our product.”

Quality was thought to be something extra magnificent and plentiful. It was said that especially in processes like the ones in the Insurance Court, the quality should be more composed of validity, correctness, carefulness and timeliness.

“We have been thinking that the work in the justice courts is something sacred and that judges are like the earthly representatives of God and that court decisions are something unique. Instead we should think that this is the same kind of process as any other process... and same kind of subsidized service organization as any other...we should think about the customers.”

Also in the Insurance Court, the individual reasons in the different categories were all highly connected to each other, all leading to the same problem: the designed process, operations and procedures were not suitable for effective handling of more complex cases.

The delay problem structure (causes and effects) in the Insurance Court is summarized in figure 23: the main categories of the reasons behind delays, and the main consequences for process performance.

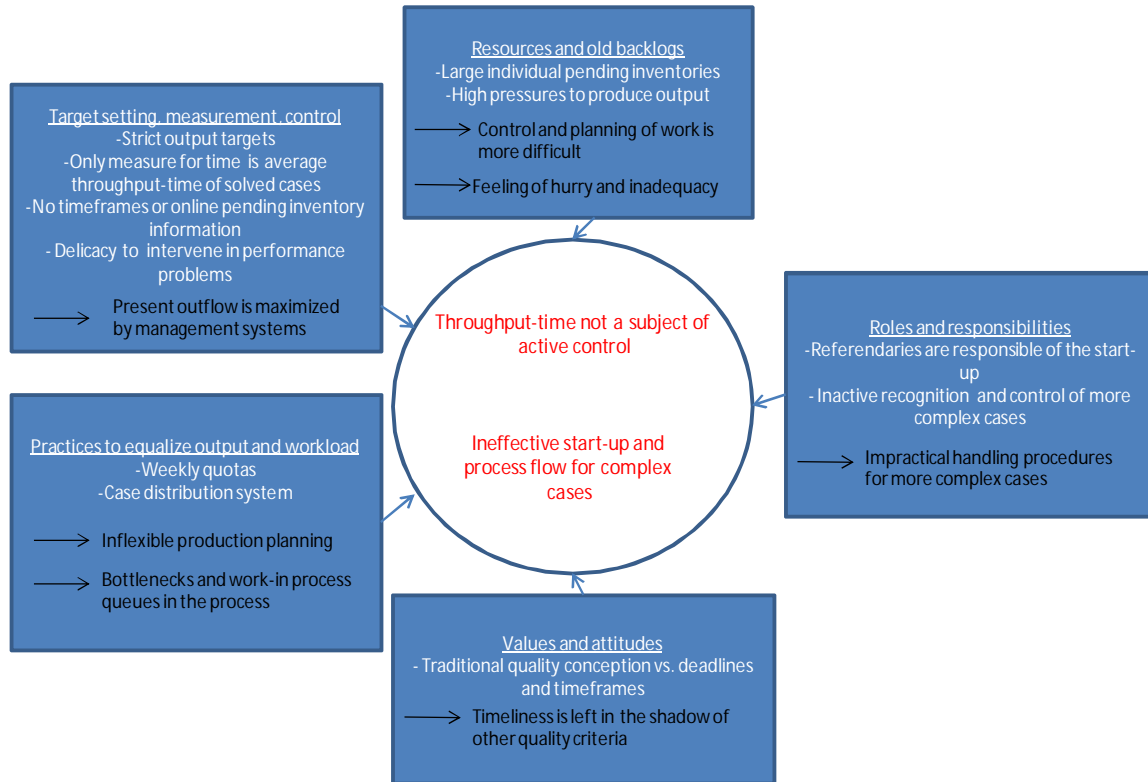


Figure 23 - Summary of the delay problem structure in the Insurance Court

4.2.3 Case comparison

Several categories of reasons behind delays and inadequately performing processes emerged in the case courts' operations. The reasons were similar in both case courts, but were manifested slightly differently due to differences in operational and process characteristics (for example output expectations and differences in the product range and handling procedures).

A widespread perception in the beginning of both projects was that the main cause behind the delays was the lack of resources and general attitude towards quality. Especially in the Helsinki Court of Appeal there were at first some suspicions about how the problem analysis would help the improvement work. When the analyses were conducted it was a general feeling that profound analyses were a necessary first step in understanding the problem structure and all aspects connected to the problem and in creating enthusiasm for further improvement.

The conduction of profound problem analysis in the beginning and discussing the problems in the improvement group helped the participants to understand the scope and scale of the needed improvement efforts. The problem structure and the causes and effects were connected to almost every aspect of the court operations: goal setting, measurement, control systems, planning practices and practices in dividing work. A thorough problem analysis proved to be a necessary requirement for understanding that also the improvement efforts need to be planned by taking into account diversified aspects of operations and no single remedy for fixing the problem exists. The analysis of the operational problem areas also forced the participants to take a new perspective towards the process and the operations.

It was also generally understood during the analysis phase that the improvement efforts need to be concentrated on the operational problem areas (measurement, control and planning) and these are the ways to build more sustainable change: to start influencing the definition of value, to increase process competences and to get the resources in better use.

4.3 Summary of the analyzing of process performance problem and the underlying reasons

The process in the justice court has three effectiveness criteria: quality of rulings, output and timeliness. There exists a balancing problem between these needs: making good quality rulings, producing an adequate level of output, and keeping up the timeliness for all types of cases with different types of requirements, with limited resources. The problems in combining all these aspects in the culture, management, process, operations and actions appeared in the form of varying throughput-times and delays, as the timely handling of all types of cases had been left somewhat in the shadow of both the quality of rulings and the output expectations.

The values and value system inherent in the courts supported the good quality of rulings. The management system in the courts, for one, supported the producing of adequate output. The quality of rulings is a thing that is well internalized and firm part of judges' work ethics, and it will not be compromised in any situation. It does not even need organizational and managerial actions and measurement to control it; it is such a firm part of the value system. The productivity and the achievement of output expectations were on the other hand well controlled and designed in the operational and management solutions of the courts.

Timeliness did not have the supporting mechanisms described above: there were no organizational and operational solutions to effectively ensure the timely handling of all types of cases, and it was not a firm and internalized part of values and quality conception. The main process improvement problem and task was basically - how to change operational solutions to find a better balance between these effectiveness criteria and how to take into account also time-related issues, and how to make the prevention of delays a firm part of the quality conception inherent in the courts.

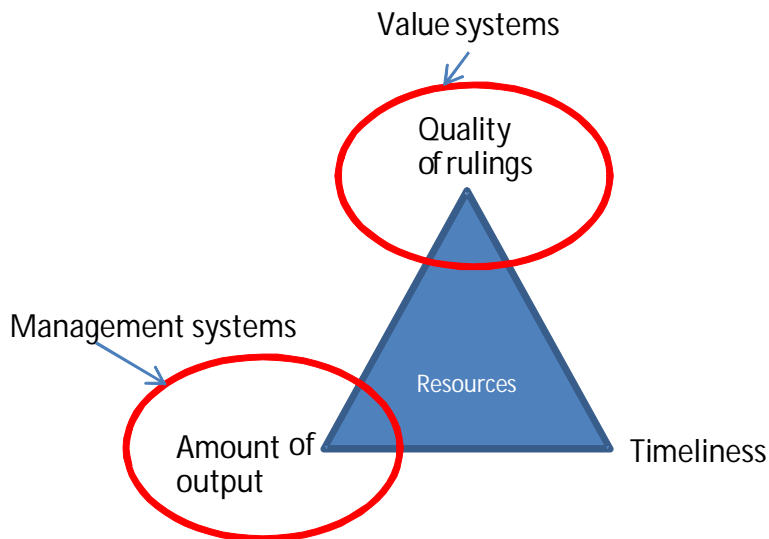


Figure 24 - Underlying problem and improvement need – how to take into account the criteria for effective processes with limited resources?

The basic need for improvement is to start building the basic conditions for process based efficiency. The problem and need analysis phase help in creating the general understanding of the scope and scale of changes needed and help to get new perspective towards operations. By understanding these, the motivation to start planning suitable improvement practices increases and it is better understood that there is no one remedy that can be straightforwardly applied in order to fix the problem.

The starting point and the central problem from the process and operations management perspective was that the organizational and operational solutions had been designed on the optimization of the output with the given resources. The operations (for example measurement, control system and work planning procedures) had been designed in the way that it was both easier and more feasible to solve a large amount of smaller cases. When the cases became more complex with time, the delay problem kept growing and became more visible.

The “natural” solution for this phenomenon is seen the increasing of resources. However, concentrating only on resources as a solution to the problems in court process effectiveness would only have the effect that other improvement potentials and solutions would not be searched and considered. Resources and their lack easily become a reason for not to try to improve the process and operations and find new operations models, when in fact it should be the opposite. An adequate level of resources is of course a self-evident foundation for a well-performing process and for improving the process and operations.

Because the old backlogs are diminishing, the attention should be turned to the procedures on how to handle also the complex cases in a timely manner, how to prevent the situation from getting worse again, and how to ensure timely reactions in problem

situations. Especially in the situation where the resources for public institutions are not likely to increase, rather on the contrary, productivity still needed to be increased. However, the perception that delays are a straightforward consequence of the lack of resources and the problem could be solved simply by increasing the resources is deep-rooted in the courts.

In recent studies conducted in the United States, the delays have been concluded to be a consequence of the adopted values and attitudes (see for example Coolson, 2008; Steelman and Fabri, 2008). Because the delays and throughput-times had been a target of concern, attention and debate in Finnish courts for a short while, they were not a firm part of the values and quality conception internalized by the court stakeholders. The traditional value aspects of quality were seen as contradictory to time. It was clear that attitudes and working methods of individuals affected the delays; some departments and individuals were able to produce adequate output and good quality, and still keep delays in control. Even though the constitution states that timeliness is an important part of quality, the acceptance and attention given to this aspect of quality varied by individuals. It was evident that the values and attitudes were an important background factor for the delays and for the varying throughput-times. The attitudes could be seen behind everything: what is valued is managed, measured, monitored, educated and done. It is rather easy to say that value system and attitudes cause the delays, but what operations are affected by the adopted values and how are the values to be changed, is a more difficult question. Organizational values change over time when operations and working methods are changed. The causality can be seen to go also the other way around: when highlighted by the management, the measures and the way of working, it will also be valued, and changing the procedures in these might be the key in changing also the values.

On the basis of the reasons and sources for the process ineffectiveness problem in the case courts, the area needing improvement and attention in the justice courts could be said to be the overall process management and especially its four important areas: goal setting and process performance measurement practices, process control systems, production and capacity planning, and clear process roles and responsibilities. These areas are depicted in figure 25.

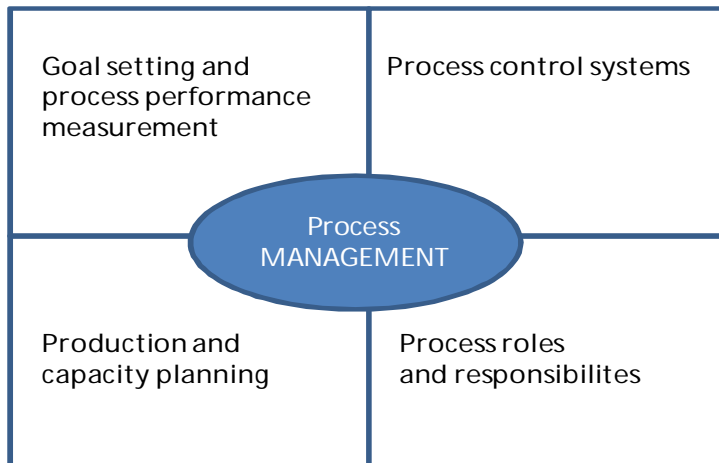


Figure 25 - Summary of the areas needing improvement in justice processes and operations

When examining the basic problems: no clear targets or time-frames for throughput-times, lack of online control of inventory levels and the progress of the work-in-process products, insufficient production planning procedures, capacity planning and overall process responsibility, it is quite a wonder that the process had performed as well as it had. It had been performing thanks to hard working, ethical and moral professionals. The above mentioned are basic operational and process management principles, but the complexity comes from the application boundaries set by the requirements of autonomous professional work and the internalized quality conception.

Because judges are hard working, ethical and rule-oriented people, they do what is expected of them. This is why more attention should be given to the performance measure choices and to the designing of the measurement system. Because the output has strict targets and control system and the timely handling of all cases does not, this guides the actions of courts, departments and individuals. Because autonomous professionals can affect their doings easily, the measures can have negative consequences on operations and process performance more easily. In organizations like justice courts, where the other traditional managerial means are limited, the measurement and targets set for the operations are the primary means to direct, control and coordinate the actions and operations taken by individuals.

Time was controlled mainly with the average throughput-time of solved cases. This was a wrong measure in the light of preventing delays. As control focused on the averages and on the output, the control of throughput-times of individual cases and the pending inventory situation were insufficient. The handling of more complex cases disturbed the flow of the designed process and production, starting from the distribution of work to capacity control and to the scheduling and planning procedures of individual workers. It was hard to finish the more complex cases in the prevailing production process. The need for clear process responsibilities and owners for cases should also be highlighted in the production process and procedures for more complex cases in order to ensure their timely handling.

5 Planning the process improvement solutions

This chapter describes the planning phase of the improvement projects and what kinds of improvement initiatives were designed in the case projects.

The process improvement actions designed and planned are introduced first separately for the project in the Helsinki Court of Appeal and in the Insurance Court and compared and summarized in chapter 5.1.3.

5.1 Helsinki Court of Appeal

In the Helsinki Court of Appeal, the designed process improvement actions concentrated on designing a new way to plan and control operations. The main point was in reforming the work and production planning practices. The main aims of the new operations model were to concentrate on the planning practices for complex cases and to eliminate delays, and make the workload more evenly distributed throughout the year by increasing target-orientation methodically.

All aspects of the new operation model aim to increase the planning in the start-up of the process, right after the case arrives, in order to keep the handling times within agreed time-frames. The designed operations model consists of two main parts: 1) personal work plan and scheduling, and 2) department-level operations control.

Personal work planning and scheduling

The starting point and idea for the new operations model was to apply to an appropriate extent the idea of multi-project scheduling and control, where all the cases are treated as projects. The progress of each project needs to be planned immediately as the project arrives; all needed intermediate phases and events, deadlines for them and schedules, capacity planning and resource requirements. As an addition, all projects need to have an owner, a project manager, clearly responsible for the project and its deadlines from start to finish. The principle of the new operations model and project management idea is presented in figure 26. As all the workers, referendaries and judges, have several projects going on simultaneously, the planning of each project needs to be coordinated with other simultaneous projects using the same resources. The basis for managing the one's project portfolio and coordinating and controlling the multiple projects forms the personal working plans and schedules.

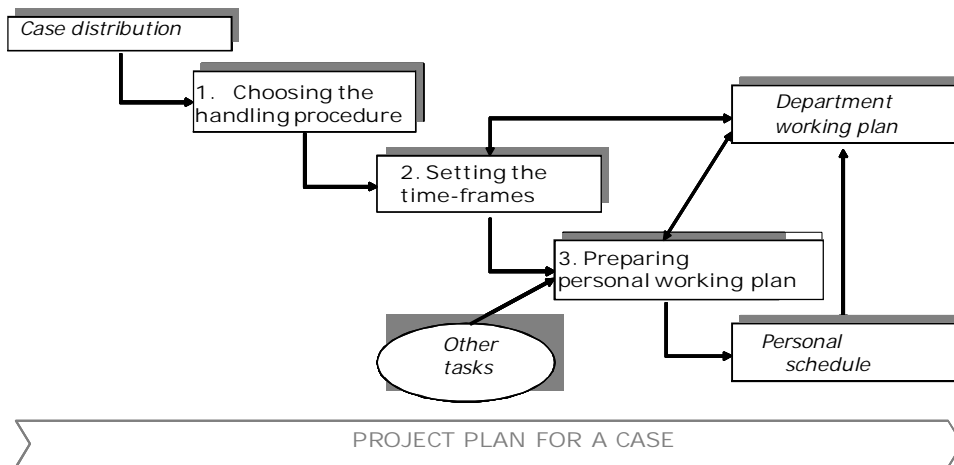


Figure 26 - The principle of the new operations model in the Helsinki Court of Appeal

To put it simply, the idea was that right after the case arrives, the needed handling procedure is decided on, and on the basis of that that the needed pre-trial events are determined and time-frames set for them. Based on the set time-frames, the responsible judge member and the referendary estimate the time and amount of work and resources needed and place the reservation according to the estimates into personal schedules on the basis of free capacity and so that time-frames would not be exceeded.

The starting point was determining differentiated overall time-frames for each type of cases. The time-frames were set in the way that the target handling time of all types of cases would be less than 12 months. The set differentiated time-frames for different types of cases are presented in table 18.

Table 18 - The set time-frames for different types of cases

Written procedure	Time-frame	Main hearing procedure	Time-frame
Priority level 1	3 months	Priority level 1	6 months
Priority level 2	6 months	Priority level 2	9 months
Priority level 3	9 months	Priority level 3	12 months

The plans for the intermediate phases and their deadlines must be planned according to these time-frames. For all types of screening procedure cases, the time-frame was set as 2 months, and it was decided that the screened cases do not need any formal scheduling procedures. All urgency cases are still to be handled immediately, in 2-3 days.

Right after the case arrives, the responsible judge member gives a statement concerning the needed handling procedure and the rough time-table using a designed “preparation and follow-up form” (presented in Appendix 6). In the form, the responsible judge member gives a statement concerning among other things the time-frames and the needed pre-trial motions, and gives pointers and guidelines for the preparation work and for

preparing the draft decision. The form was designed in a separate improvement team consisting of judges and referendaries.

The personal working plan is a weekly workload plan, where the responsible judge members and referendaries place all ongoing projects in a way that the workload is distributed evenly so that projects and intermediate phases will be finished according to the set time-frames. The personal working plan is not meant to be an exact timetable, more a tool for estimating the amount of work and planning the overall working time. The plan is meant to be a rolling production plan, meaning that the plan is made for a needed time span and specified regularly. Examples of the designed time-frame plan and personal working plan and schedule are presented in figures 27 and 28.

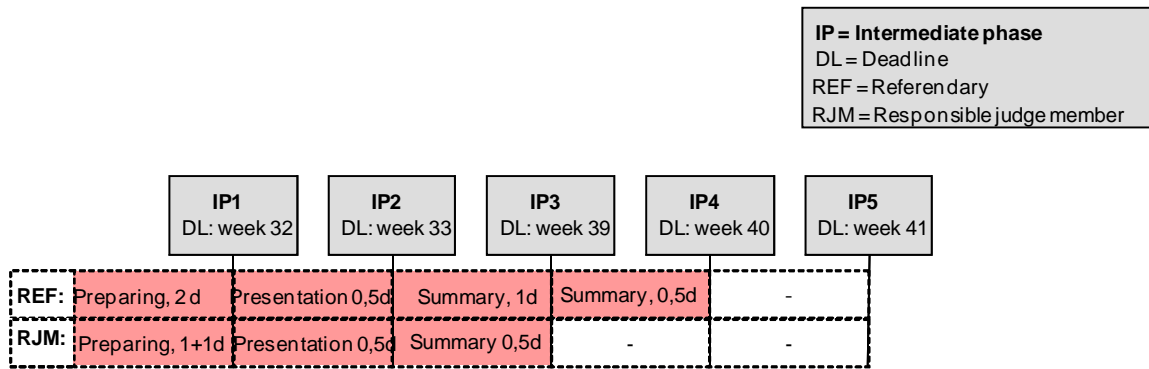


Figure 27 - Example of the original design of the time-frame and personal working plan for a written procedure case

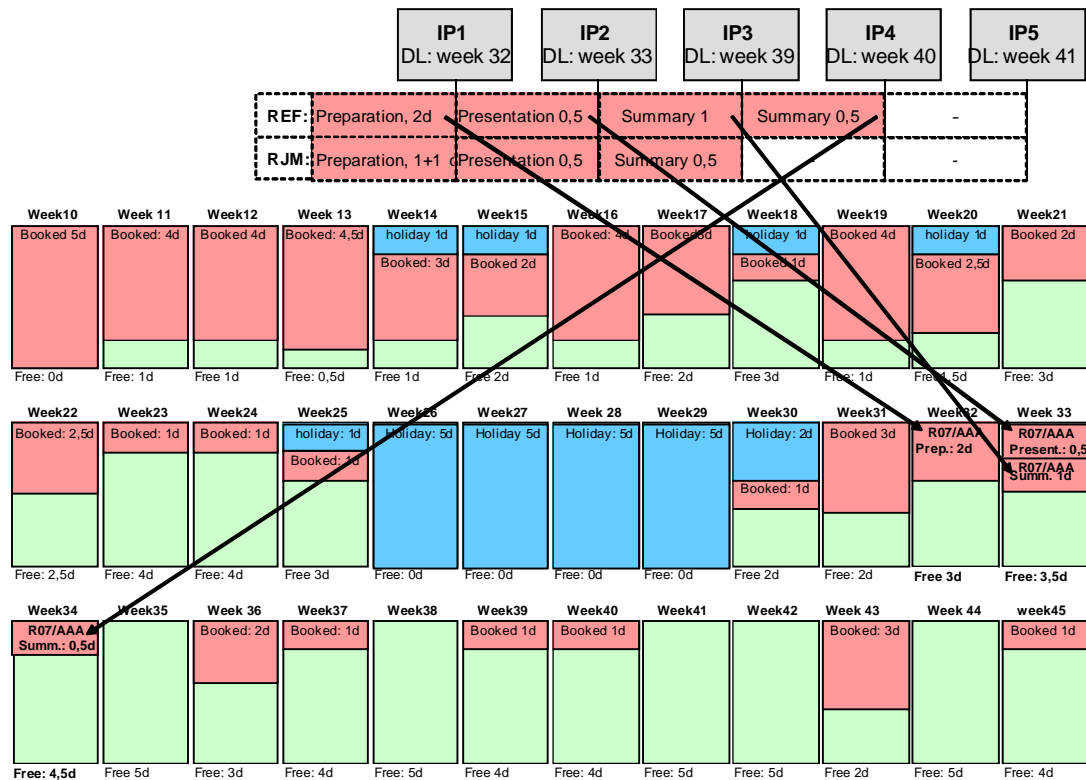


Figure 28 - Example of the original design of a personal schedule for a referendary

It was pointed out that especially the cases needing a main hearing should be scheduled and the date for the hearing should be agreed on and fixed as soon as possible. This was highlighted in order to get the main hearings more evenly distributed, to make the arrangement of the date easier and to decrease the need for getting acquainted with the case material several times. The main hearing date should be scheduled before the preparation is completed. The smaller written procedure cases can sometimes be seen as balancing the workload, and their precise scheduling is not always as crucial as that of the more complex main hearing cases.

An important point in designing the personal scheduling was the concept of “slack time” in the schedules. With this concept it was meant that empty margins should be left to the schedules, so that changes will not disturb the schedule completely. The process includes a lot of quick changes and surprises, and it is quite hard to plan and estimate the needed time for different phases precisely. This is why an appropriate amount of free margins in the schedule is necessary.

A practice that the referendaries are on call, in fixed turns, to handle the emergency-type cases (which need to be handled immediately) was also launched. The aim of this policy was to guarantee that the emergency cases would not disturb the schedules and that their handling of could be planned as well. The rotation practice from one department to another posed a challenge for the scheduling. It was agreed that the time-span for the rotation will be lengthened and the information of the department change needs to come at least 6 months in advance, so that it can be taken into account in the schedules.

The new operations model designed from the personal work planning and scheduling perspective can be summarized in the eight main points introduced in table 19.

Table 19 - Main points in new operations model for personal work planning and scheduling

1. Strict and differentiated time-frames for all types of cases is defined
2. Preparation and follow-up form to enhance co-operation between the responsible judge member and the referendary is filled right after the case arrives
3. The responsible judge member gives a statement concerning the needed handling procedure right after the case arrives
4. The main hearing date is arranged as soon as possible
5. A rough date for a written procedure session is agreed between the responsible judge member and the referendary as soon as possible
6. The resource requirements of every case and phase are estimated beforehand, and the time needed is scheduled to personal schedules
7. An “on-call practice” for emergency-type cases is used in all departments
8. The frequency of the rotation is changed and information about it is given well beforehand. The cases of a transferring referendary are transferred concentratedly.

Department-level operations control

The department-level operations control part in the operations model aimed especially at ensuring the workload and sessions would be distributed as evenly as possible in the department. This was seen as a requirement for the individual planning and scheduling to work as well as possible. Another central theme in the department-level operations control was starting regular monitoring practices where the pending inventory reports are collected and analyzed, and actions and interventions made when necessary.

The cases need to be distributed to the departments and the responsible judge members as soon as they arrive. The directions for distributing cases should support even distribution of the workload, but also take into account possible specializations, training periods and on-call weeks. The personal schedules and work plans need to be transparent for the whole department, and the functionality of the plans and the personal inventory levels, plans and schedules need to be controlled regularly (2-3 times a year) by the department manager.

The methods and practices of arranging the main hearings is one of the most crucial department level policies which need to be congruent. The department secretariat needs to take the time-frames into account in arranging the dates. When the proportion of main

hearings as the needed handling procedure increases, also the role and importance of schedules increases, because it needs to be ensured that certain resources are available on certain main hearing dates and weeks. The personal session plans should also be planned in advance and handed to the department secretariat in order to avoid fragmented session schedules and allow as long uninterrupted times for preparation as possible.

The new operations model designed from the perspective of department level operations control can be summarized in the eight main points presented in table 20.

Table 20 - Main points in the new operations model for department level operations control

1. The department secretariat distribute the cases as soon as they arrive according to the case distribution directions
2. The responsible judge members and the referendaries inform the department manager of their personal inventory levels, working plans and schedules for all cases twice a year
3. A report from the information database which includes personnel-divided pending inventory listings (age, size, priority and agreed session dates) is developed and delivered to the department managers twice a year
4. Regular department meetings are arranged in every department, where all current issues are discussed, including the situation concerning delays
5. Clear and congruent guidelines for the department secretariat for the arrangement of main hearings are prepared
6. The use of a department calendar in all departments, which includes all personnel's agreed sessions, trainings and holidays
7. A session plan for the department is done at least four weeks ahead
8. Smaller sessions are concentrated on the same day when possible

5.2 Insurance Court

The process and operations improvement initiatives designed for the Insurance Court formed three basic categories: 1) establishing rules for prioritization and differentiation, 2) designing recognition procedures for complex cases, and 3) setting time-frames and designing an alarm-system for controlling them.

Establishing rules for prioritization and differentiation

The need to differentiate between the handling procedures of case groups and their standard of service was evident in the Insurance Court, due to the nature of certain cases. Especially the case groups concerning a litigant's rehabilitation issues was seen to need clear priority rules and differentiated time-frames and handling procedures.

The decision to place the rehabilitation issues as a priority involved altogether 11 case groups. As an addition to these groups, also the cases that had been delayed in lower level appellate courts were designed to be prioritized. If a case has been longer than 2 years in the appellate court, it will be a priority in the Insurance Court handling procedures. This way the overall throughput-time will not become intolerable for the litigant, and the 3-year overall throughput-time limit that is the complaint boundary in the European Court of Human Rights will not be exceeded.

For the priority groups, the throughput-time goal and time-frame were set as 5 months. The achievement of this rather tight target requires that these cases are a clear priority in every handling phase. The overall time-frame was divided for different handling phases, and clear guidelines were given that the priority cases need to be handled immediately according to these time-frames.

When a priority case arrives to the Insurance Court, the office secretariat marks the case with a green label to visually highlight that the case is a priority case needing more effective handling. The priority case is also marked to the data management system used in the court, where a green diamond is the symbol of a case needing priority handling.

Designing recognition procedures for complex cases

In order to answer the question concerning the delays for complex cases, procedures for recognizing and identifying the cases in danger to fall behind and enhancing their active handling were designed. The complex cases are not prioritized; instead the procedures aim to turn the attention to the more complex cases, to ensure active handling of them in all phases, and thus equalize the throughput-times. The central aims in better identifying the complex cases were that this would prevent them from “being drowned” in the masses, help distributing the complex cases more evenly to referendaries and judges, and encourage active handling and co-operation between different phases. The deciding composition will be named beforehand for the more complex cases, and this will make it easier to discuss the requirements of the handling and to co-operate more.

The most difficult and laborious phase in designing the recognition procedures for the more complex cases was constructing the criteria used in identifying the potentially complex cases and planning the procedures of who and in what phase will do the actual estimate and recognition work.

It was decided that the improvement team prepares very unambiguous and mechanical criteria for estimating the complexity of cases and identifying the complex cases. The designed criteria are based on experience and knowledge of the features of typically complex and delayed cases. Using these criteria, the court clerks do a preliminary estimation and mark the case as “recognizable complex” during the preliminary preparation phase. After this preliminary recognition, any handler in any future handling phase can perform the estimating by marking the cases as complex or not complex. Especially the senior referendary is in a good position to check the correctness of recognition when he coordinates and distributes the cases in a given department. This

way the estimation and recognition work will not burden any particular phase in the handling process excessively.

When the case is estimated as recognizably complex, the court clerk marks the case with a black label to visually highlight that the case is potentially complex and requires active handling and co-operation in all handling phases. The recognizably complex cases are also marked to the data management system, where a black diamond is the symbol of the case being complex and needing extra attention in every handling phase.

Setting time-frames and designing an alarm-system for controlling them

The improvement of monitoring procedures and methods in order to advance both personal work planning and the utilization of online process performance information was perhaps the most important improvement theme throughout the whole project in the Insurance Court. Based on these needs, a time-frame alarm-system was designed in the project. The time-frame alarm-system aims to be a work planning tool and an important means to equalize throughput-times and reduce the number of cases pending over 12 months, and especially it aims to eliminate the very long delays of certain cases.

The basic idea of the time-frame alarm-system is that the cases in danger to be delayed and lag behind need to be detected earlier, when the overall time-frame can still be reached, not only after they are already delayed or several months old and the process has not even started. With the help of the time-frame alarm-system, attention can be paid to delays happening in the early handling stages, and appropriate interventions can be made or priority given for these cases before the throughput-time builds up unreasonably.

The time-frame alarm system was designed to be three-phased, with control points with time-frames set in three different handling phases. The time-frames for these phases and the alarm-levels were designed in the way that no cases would be pending over 12 months. The alarm-system was designed on the basis of an idea from traffic signals, consisting two alarm-levels: lower alarm-level (when a case starts to draw closer to the set time-frame for the phase) and upper alarm-level (when a case has exceeded the set time-frame for the phase). The time-frames and alarm-levels for the control points were designed separately to priority cases (total throughput-time target 5 months) and other cases (total throughput-time target 12 months).

The idea of the process control points, time-frames for them and alarm-levels are presented in figure 29 and table 21.

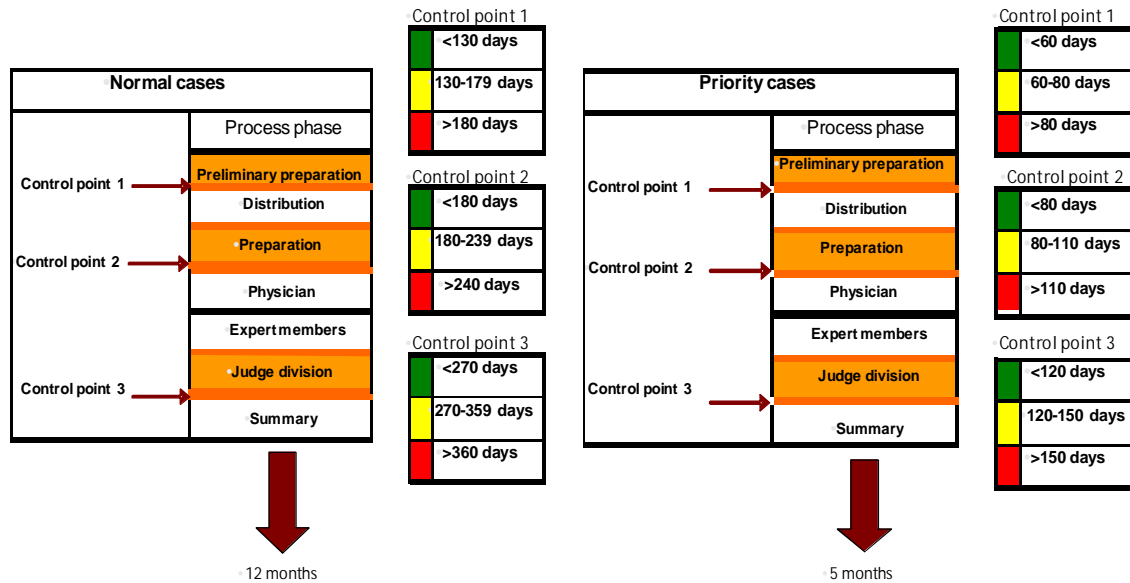


Figure 29 - The control points, time-frames and alarm-levels set for normal and priority cases

Table 21 - Reasons for alarms and the alarm-levels

	Reason for alarm	Recipient of the alarm	Lower alarm-level (days pending)	Upper alarm-level (days pending)
Control point 1	Referendary has not been selected for the case	Court Clerk	130 / 60	180 / 80
Control point 2	The decision draft has not been delivered to Judge division	Referendary	180/ 80	240/ 110
Control point 3	A decision has not been made for the case	Judge	270 /120	360 /150

The practical tool for work planning and the monitoring of pending inventories forms the alarm-system symbols and listings in the data system used in the Insurance Court. With the help of the alarm-system symbols and listings, a person can easily control his/her own inventory situation and easily plan the work according to the age of the cases. The data system also enables the managers to monitor the overall situation of pending cases and inventories easily online, as the pending case listings are available from the data system by the whole court, the departments, persons, subject groups, complexity, priorities and decision divisions.

If the pending time of a case has for some reason exceeded the set time-frames in some control point, the alarm system symbol appears in the case listing in the data system for the particular person responsible for the next advance phase in the handling. If the case has exceeded the lower alarm-level, the symbol in the listings is one exclamation mark, and if the case exceeds the upper alarm level, the symbol is three exclamation marks. As

an addition to these symbols, also the whole time period of pending gets updated daily to the listing. The case lists in the order of age and the exceeding of alarm-levels are the following: first are the priority cases with three exclamation marks in the order of age, then normal cases with three exclamation marks in order of age, and so on. With the help of these different symbols it is easy to control the overall situation of different pending inventories: the exact age of cases, the number of cases over time limits, the number of priority cases, and complex cases.

An example of the basic scene in the data system is depicted in figure 30. In this example a judge’s pending inventory listing is presented with the alarm-system symbols: age in days, exclamation marks, green diamonds for priority cases and black diamonds when the case is evaluated as complex. (all identification information of the cases has been hidden from the picture due to privacy reasons.)

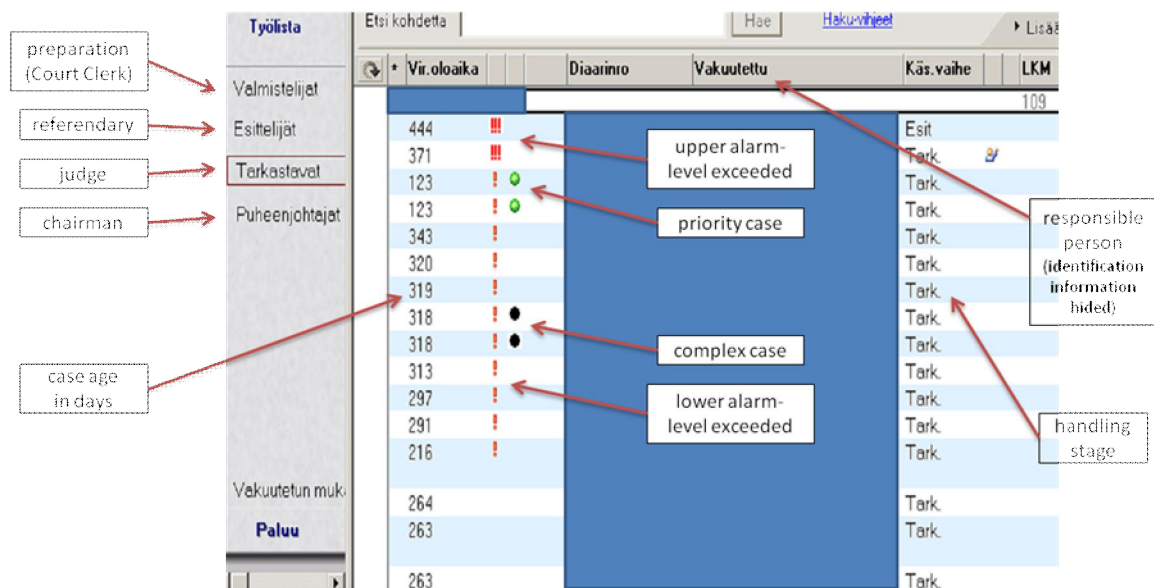


Figure 30 - Example of the alarm-system symbols in judge’s pending inventory listing in the data system

5.3 Case comparison

The designed improvement actions in both case courts aimed to reduce delays and varying throughput-times by increasing the role of the more complex cases in the process flow and operations. Even though the reasons for the process performance problems were similar, they manifested in the operations somewhat differently. The designing of the improvement actions was also based on the greatest expressed operation problems in the courts – in the Helsinki Court of Appeal the uneven workload distribution and in the Insurance Court the need to improve the control and monitoring of the cases.

In the Helsinki Court of Appeal the main focus in the improvement was on renewing the planning practices, as the greater variety in size and urgency of the cases made it more important to concentrate on the project planning of more complex cases.

In the Insurance Court the variety of cases is not so great and the cases are not as large and complex as in the Helsinki Court of Appeal. This is why there was no need to adopt project planning practices but to concentrate on improving the monitoring and control of the whole pending inventory and the overall progress of the cases. The need for differentiation was achieved by establishing rules for prioritization and marking the more complex cases.

The exact need of improvement initiatives varies from court to court. This is why it is important that the planning is based on the exact needs of a given court and on conducted problem analysis. It is also important in creating commitment and ownership towards the solution that the employees in the court plan the needed solution from the beginning themselves. Due to the autonomic and traditional nature of the work and the attitude towards process improvement, it was important that the solutions were not designed to be too complex and they were based on the self-control of the employees.

6 Adoption and approval of process improvement solutions and the changes happened

In chapter 6.1 the factors affecting the adoption and approval of the designed process improvement initiatives is analyzed and discussed. In chapter 6.2 the changes happened in process performance in case courts are discussed and analyzed. In chapter 6.3 the factors affecting the implementation of process improvement actions are summarized.

6.1 Adoption of improvement solutions

The factors affecting the adoption of improvement solutions are introduced first separately to Helsinki Court of Appeal and Insurance Court and then compared and summarized in chapter 6.1.3.

6.1.1 Helsinki Court of Appeal

The adoption, approval and the implementation of the designed new operations model in the Helsinki Court of Appeal varied from person to person, especially in the start-up of the implementation process. In the beginning the perceptions and the use of new planning procedures varied from persons who were inspired and thought that the practices in the operations model will solve problems connected to the unevenly distributed workload and delays, to the other extreme to persons who opposed new practices and thought that they are not suitable for a professional work environment. The majority of the employees were divided to the continuum of these two extremes, utilizing the practices in the new operations model, some on a more detailed level than others.

The interviewed persons estimated a year after the implementation started that a majority had internalized and understood the concept and benefits of the new operations model and that about 2/3 of the employees worked according to the main principles of the advanced planning and scheduling described in the operations model but rarely on as detailed a level as initially planned. It can be roughly said that the personnel was divided to three basic groups in the adoption of the new operations model: persons who did the work planning and scheduling according to the designed principles, persons who did the work planning using some other scheduling technique (for example marking the timeframes to case distribution lists) and did it only for the most complex cases, and third group persons who did not plan and schedule cases and did work according to old methods.

The practices in the new operations model and other work done during the improvement project were revered as a change in the mindset concerning the handling process, and the precise practices of doing the scheduling were not considered as important, and it was seen that everyone can do them according to personal preferences. The main point in the new mindset is that all cases have a plan and are under control, and the flow is followed;

the handling process for a case is planned right after it arrives using the timeframes set, and the main hearing date is fixed as soon as possible. This new mindset was said to be a big change compared to the previous way of working: the practice to decide on the handling procedure and to fix the date before finalizing the preparation requires a lot of attitude and working method changes. It also requires a lot of time in order for this type of change to be internalized and accepted when people have been used to working according to certain methods for a long time. The acceptance and the time it requires to internalize new practices vary according to personal characteristics and willingness to try new type of methods, as well as according to how willing a person is to understand the concept and meaning of long-term work planning, scheduling and timeframes. It was said that in order to be able to work according to the new methods, a personal insight of the concept and meaning is required, and the perceptions of how a big change this needs vary according to the previous personal working style.

Even though the needed change in the mindset was considered big, and there was a tendency to resist change in the organization, it was said that compared to many other previous improvement initiatives and projects, the changes made in this project were better and more generally implemented and accepted than usually. The approval of changes has become better all the time and the opposing has diminished as the benefits of the initiatives have become clearer.

“I was at first very skeptical, but along the way and with time I have become very approving when I have seen that the situation has become better all the time. At the moment there are no strident opponents, so these reforms are surprisingly well adopted and the satisfaction is wide.”

The analysis concerning the factors that have affected the successfulness of the implementation revealed both factors that have helped the adoption and factors that have hindered them.

These factor categories have been formed on the basis on the interview data analysis, introduced in chapter 3.4.1 and summarized in appendix 1. In appendix 3 one example of the formed adoption categories is presented. The factors affecting adoption and approval in Helsinki Court of Appeal are presented in table 22 and discussed below.

The citations are used only as an example of the interview material and opinions.

Table 22 - Factors affecting the adoption of the process improvement initiatives at Helsinki Court of Appeal

Factors facilitating the adoption	Factors hindering the adoption
Commitment and willingness to change – current and important issue	Attitude towards nature of work and suitable working methods
Visible involvement and commitment of top management and wide internal participation	Detailed and complicated planning solutions
External expertise and new improvement methods	Large case inventories and the time-consuming start-up of the planning
Enough time to adopt and internalize changes	

One element in the successfulness of the implementation and adoption of the improvement efforts was the fact that the problem concerning delays and the fact that something needed to be done for it were broadly acknowledged in the organization. The problem concerning delays and backlogs had been a source of strain for several years. Overall, it was a favorable situation to start the project in the light of implementing the improvement efforts. The criticisms in recent years and the upcoming reform that a litigant will be entitled to compensations in case of delays had also prepared the ground for change and strengthened everyone’s commitment to solving the issue, and made the idea of the project and the improvement initiatives welcome.

The crucial role of the top management in the adoption and implementation of change efforts became evident. The preparation for change in the Helsinki Court of Appeal had started in year 2004, when the new Chief of Justice had actively started to address and highlight the importance of timeliness and prevention of delays in the handling process. This was said to have had a big impact on the general atmosphere and the attitudes towards the importance of the issue. The organization is hierarchical and the managers are well respected; the fact that the Chief Justice was an active member in the project group and in designing the improvement initiatives from start to finish highlighted the importance of the issue and made the personnel take the reforms more seriously. In the utilization of the new procedures, the functional department managers were said to be the key and the most critical factor. Even though the judges are independent, they are also dutiful. In departments where the utilization of new procedures was demanded and required and made a department policy and way of working by the managers, the implementation was well achieved. In some departments the managers were not as committed and the utilization of the new procedures varied more.

“The example of the managers is the number one in the implementation. That is the way it is achieved; the managers need to commit to this, utilize the new procedures themselves, spur, demand and demonstrate...”

The adoption and implementation of the planned improvement solutions was also helped by the fact that the planned improvement solutions were widely considered sensible,

practical and genuinely helpful in the prevention of delays and in distributing the workload. Although the idea of the new operations model was considered fresh and novel, the context of the model was planned by members of the organization and the opinions of a large part of the employees were collected and included in the planning process of the new operations model. Even though the organization tends to resist change, the resistance to change diminished when it was recognized that the solutions really worked. It was also widely known and recognized that improving the planning and scheduling was the right method to improve the flow of the more complex cases, as the department 7 had had similar planning procedures in the handling process of the very large and complex cases for several years.

“At first the concept of logistics sounded a bit far-fetched. But during the project, meetings and conversations, everyone started to realize that these are useful, sensible and reasonable issues. When you can influence the things coming up, the resistance to change breaks down and people start to see the rewards...”

Another important element in the implementation was seen to be the use of outside expertise and the utilization of novel improvement procedures and interventions. At first the involvement and benefits of industrial management to the improvement was questioned, but afterwards it was seen as an important part of the successfulness of the project. This way the ideas and perspectives were fresh and novel and the process was analyzed from a completely different viewpoint. It was said that without outside expertise and facilitators, the improvement efforts would not have taken place, due to the fact that the personnel in the organization are so fixed on the methods used and does not see other opportunities easily. It was said that in this project the two different fields of expertise and schools of thought were combined successfully and new innovations were found. The systematic procedures to carry out the improvement project were also seen as important. The improvement culture and procedures in the organization have previously been different and this new approach was seen crucial in the light of implementation and approval. The systematic procedures and the logically progressing project with different carefully planned stages, outside facilitators and the research of the subject also highlighted the importance of the subject and increased the interest towards the results.

“We have had improvement projects after improvement projects but nothing has really changed previously. This was the first time that something completely different was suggested. And something that, at least, I had never even thought about. We are so bound to the old routines and ways of working that you just do not see outside of it. It was crucial that the operations were analyzed from a fresh and critical perspective”

“The working methods were extremely good in the project; they prevented us from just debating about irrelevant issues and forced to proceed in the planning. After the project I was really surprised how well these two worlds connected. I can honestly say this was the best reform and project so far.”

The project lasted altogether as long as four years. The slow, phased proceeding of the project was, however, regarded as one of the crucial elements in the successfulness of the implementation. If change is wanted, a lot of time and constant reminding and different methods are needed. The departments which were chosen as candidates for pilot testing had had the opportunity to familiarize with the new operation model longer and more thoroughly, and the atmosphere towards the change and successfulness of the implementation was estimated to be better. The situation concerning backlogs and delays was also better in these departments, which made it easier for them to start controlling the case inventories. It was also regarded as important in the future that these issues are constantly reminded of and demanded, in order for also the slow movers to adopt the changes. Change never happens quickly, and in an organization with traditional working methods, the change takes even longer. One important target group in promoting the practices in the new operations model should therefore be the new workers who have not yet formed fixed methods and practices to conduct the work.

“Most of all, the logistics project was a project influencing attitudes towards time... and thus all the results of the project will take an enormous amount of time to become visible...”

Perhaps the biggest obstacle in the implementation of the planned operations model was the attitude among some employees that it is absolutely not acceptable and suitable to arrange the hearing dates before the preparation for a case is fully completed. This attitude made some employees refuse to even try advance planning and scheduling and made the implementation among them practically impossible. Some persons felt that they would like to adopt new handling practices but because the functionality of the planning was so questionable, it was not internalized. This question of suitability of planning to professional work divided the employees strongly: some thought that judges should be more practical, flexible and modern in the working methods, and others thought that old methods work best. This was also seen a generation issue; the implementation among younger professionals was more successful.

“Some persons feel that this is absolutely rubbish and waste of time...some engineering science, not suitable for this kind of work. But the ones who have taken time and really thought about what the changes really mean and who generally look at changes as a positive thing, all agree that this has been a huge improvement.”

One thing in the planning of improvement solutions, which implicated also the successfulness of the adoption and implementation, as well as to the attitudes, was the level of details in the initially planned solutions. It was criticized that the detailed scheduling practices were given too much attention and made too complicated, and thus the planned practices would only work in an ideal world. It was said that the scheduling should have been planned to be more open-ended as long as all cases have a plan and are monitored. On the other hand without thorough investigation of the possible planning practices the general implementation might not have worked as well as it did. The detailed planning was said to have made it less inviting for some people to start the procedures and raised the questions of suitability of planning in professional work. It was

also pointed out that in practice the only cases needing planning procedures are the main hearing cases. Still, the majority of employees understood the main concept of planning and understood that the practical planning and scheduling procedures can be implemented according to a person's own needs and working styles.

“The planning practices were introduced perhaps too scientifically and complicatedly, this scared some people. If it had just been said that you need to control your case inventory; have a plan and deadlines for all cases and use your calendar to control them, then perhaps the acceptance among some people would have been better.”

A factor slowing down the implementation was also said to be the high caseload and large pending case inventories, which made the starting of utilization of the planning procedures an extra effort and a time-consuming task. The large case inventories also make the controlling more difficult and lowers the motivation to control and plan the case inventory.

6.1.2 Insurance Court

The approval, adoption and utilization of the new improvement initiatives in the Insurance Court can be estimated to have been wide. The implementation of the changes happened quite easily, and there was little criticism against any of the changes. It was estimated that practically all the employees note the prioritized and evaluated cases and control their own case inventory and the situation concerning the alarm system symbols regularly, as well as utilize the listings as a help in planning the work and the handling order. According to the estimates only a few persons do not follow the listings and ignore the symbols, but this is mostly due to inexperience and unwillingness to use information technology in general.

“The changes made in the logistics project have been, for some reason, the most easily accepted changes in this organization.”

“These changes are surprisingly well accepted and utilized, when considering the fact that there is normally quite a lot resistance to any kind of change.”

The most widely accepted improvement initiative was the establishment of the prioritization rules and the strict time-frames for rehabilitation issues. Nobody criticized this improvement and estimated it as an important change for the litigants, although the start-up of the new handling procedures for prioritization cases was congested. Now the number of prioritized cases to be handled is settled to an adequate level and it does not disturb the handling of other case groups.

The most contradictory acceptance in the beginning of the implementation was for the improvement initiative concerning the recognition procedures the complex cases. The relationship between the extra work required and the benefits gained was questioned somewhat. Although the recognition procedures and screening the complex cases was

widely considered as an important tool in distinguishing the complex cases from the masses, everyone did not see the benefits of it when the new procedure first started. Even though the screening of complex cases does cause some extra work, nobody wanted to end the use of the procedures, as the benefits may come clearer in the future, for example if the caseloads increases and the screening procedures becomes routine.

The alarm system listings were also well approved right from the beginning, and the explanation marks became a regular subject of conversations. It was a general feeling that all employees utilized the listings on some level, even though some persons claimed that they did not care about such things. This feeling came from the fact that after the system has been in use, almost everyone has given improvement suggestions and comments concerning the system. Some persons take the alarms “more seriously” than others and control their own case inventory situation more often. It was generally well understood, that the purpose of the system is to provide a tool for planning the work and control the situation concerning case inventories, not to be a “surveillance tool” and that individual alarms are not be taken too literally. The system should be used as a provider of a good visual view to the overall situation concerning a person’s inventory situation. This way everybody agreed that the alarm system does not have an impact on the quality of individual rulings.

These facts helped to achieve good acceptance and successful implementation. However, some persons thought that there should have been more managerial information concerning how and for what purpose they are going to use the system. The training of the system as a part of the implementation was said to concentrate too much on technical issues and managerial motivations were not discussed thoroughly enough. The doubts concerning the use of the system diminished fast as the benefits of the system became evident. The system provides control and motivates to use the system in three different levels, as it is a tool: for controlling and planning one’s own case inventory and work, for managerial control, and for creating social pressure as all inventory listings are open to all employees. It was said that this creates a psychological impact where a person wants to monitor his/her own situation, wants to make it better and compares it to others. The system was said to effectively highlight the role of throughput-times in the everyday work without requiring big changes to the working methods of individuals, and this is why it was easy to start utilizing.

When the factors affecting the successfulness of the implementation process and efforts in the Insurance Court were analyzed, they proved to be similar to the factors in the implementation of changes in the Helsinki Court of Appeal.

These factor categories have been formed on the basis on the interview data analysis, introduced in chapter 3.4.1 and summarized in appendix 1. The factors affecting adoption and approval in Insurance Court are presented in table 23 and discussed below.

The citations are used only as an example of the interview material and the opinions.

Table 23 - Factors affecting the adoption and implementation of process improvement initiatives in the Insurance Court

Factors facilitating the adoption	Factors hindering the adoption
Commitment and willingness to change – a current and important issue	Attitude towards changes
Visible involvement and commitment of top management and wide participation of different personnel groups	Too many changes and improvement projects going on at once
External expertise and new improvement methods	Old and new operation models overlap
Easily acceptable and adoptable solutions	
Enough time to adopt and internalize changes	

Similarly to the Helsinki Court of Appeal, one important factor in the successfulness of the implementation and approval of changes was the timing of the project. The timing for the delay reduction project in the Insurance Court was said to be good, particularly for two reasons: due to criticism in recent years concerning the delays, and the reduction in incoming cases which made it easier to concentrate on process improvement issues. The complaints in recent years from stakeholders gave a kick-off to the project which appeared as genuine enthusiasm to make the changes and carry out the project. The better resource situation reduced criticisms concerning the designed initiatives and made it possible for several people to really concentrate on the improvement.

“...of course it has been bothering everyone for several years that there have been constantly complaints and bad publicity concerning our throughput-times...”

The improvement work and the multiple improvement groups in the Insurance Court (steering group and planning teams) made it possible for large participation of different personnel groups in the planning of the improvement initiatives in different stages. This was seen as an important factor in the successfulness of the implementation, because it made the information flow concern the changes and made the personnel feel that also their contribution matters, even if the organization is otherwise quite hierarchical. The designed improvement initiatives became also more acceptable, as different ideas were collected and different perspectives utilized in the planning process. The interviews conducted in the diagnosis phase of the project also enabled a large number of people to give their insight into the improvement, and they worked also well as a communication channel concerning the project and its aims. The wide participation made it possible that there were some personnel members in the group who became inspired about the process improvement, changes and delay reduction. These persons were crucial in the light of the implementation. They inspired also others and kept the change process going on in the organization, did a lot of “hands-on” planning work and kept everyone informed about the changes. The large size of the improvement group was also criticized due to the lost working hours and large investment of time. However, generally, the wide participation

was considered as an important factor in the implementation and also lucrative in the way that it brought people from different organizational levels together to discuss important and current issues. The whole management team (the chief justice, all senior judges and the administrative manager) participated actively in the improvement project, in the groups and the planning work, from start to finish. Despite the criticisms towards the resource usage, this was considered also important in the light of the implementation. It made it possible to make firm decisions in the improvement team concerning the changes and made the personnel take and regard the changes and new work instructions more seriously. It made the whole project and the subject of delay reduction seem as an important issue that needed to be solved.

“The investment of time of some persons to this project has been great. Some people have questioned afterwards, whether all the investment has been necessary and would there have been as good a result with fewer human resources...? I think not...now we made the work and the project extremely well and carefully...and the end result is good...functional and acceptable. “

“One reason why this project succeeded so well...I have to give the credit to the Chief Justice. He has had the time and enthusiasm to be in every group meeting, has kept the project under his control, inspired and stimulated people and been very active on this subject.”

Similarly to the Helsinki Court of Appeal, also in the Insurance Court the ways to carry out the improvement project were found dissimilar to the usual improvement projects in the organization. It was found helpful that the progression of the project was carefully planned and it progressed logically from one step to another, which helped in taking into account all necessary aspects of designing the initiatives and implementing them. It was also mentioned that it was good that all the analysis and improvement proposals were thoroughly and without rush discussed and analyzed in the group. The methods to analyze the pending inventory situation and process characteristics was found novel and refreshing, and it illustrated the phenomenon and process characteristics in a new way. This encouraged and provoked new ideas. It was also noticed that the use of outside process and operations expertise in general was an important element in the successfulness of the whole project and in the development of new and fresh improvement solutions, even if the benefits of external experts were at first questioned.

“Without this kind of project and you external experts, we would still be doing things like we always have been. In this kind of organization it is quite common...this is the way that we have always done this and we do not see out the box. It is a great thing that we have had this project and all these new ideas and thoughts...”

“It was quite a surprise for everyone... a university of technology and judiciary together...quite a unique form of co-operation. Nobody could at first imagine how well it was actually carried out.”

One thing which made the implementation of changes in the Insurance Court an easier and more straightforward process than in the Helsinki Court of Appeal was the nature of the designed improvement solutions. The solutions highlighted the time and complex cases in the process flow and the operations, but did not require any major changes in the working methods. The designed solutions were considered easy to adopt and visually present and reminding in everyday operations and this made it easy and feasible to start utilizing the new procedures.

“It is very important that all these reforms are visually present all the time, all these colored labels and diamonds and explanations marks; you just cannot ignore them...”

Enough time to become familiarized with, adopt and internalize changes was also considered an important element in the successful implementation of the changes made in the project. It was said that there is a tendency in the organization to resist all changes in the beginning and only after constant reminding, time and spurring something happens. This is why it was acknowledged that it was important that the project lasted as long as it did and that the changes were introduced in smaller portions and by constantly reminding of them and keeping them on the surface. The fact that the project forced the subject to be a topic of conversations in regular meetings for several years was important in getting over this initial opposition trend concerning working method changes.

“At first and in the beginning there is always this amusement and resistance...why do we need to do these things...we can see the situation without these kinds of projects... what is the point and benefit...why we do not concentrate on the actual work... But these grunts and groans are there always before we can see the benefits. If we just tried new things for a while, we would see that they are not so stupid after all...”

“When we have done things according to some fixed method for ages and people are just dozing in the current situation...and then things start to happen at a quick pace...then we are in a shock for a while and the adoption and approval does not happen just like that...”

This initial opposition and getting all people to try new working methods was the biggest obstacle in the implementation process. Some people had difficulties in seeing the benefits of the changes in the beginning and this led to the fact that they would not even bother to try and had a negative attitude towards the changes. This problem concerned especially the recognition procedures for complex cases where the benefits were harder to comprehend beforehand and which required some extra work. There was also the attitude among some personnel that this problem is not so big that it would need any real changes or that the situation can only be improved by additional resources.

The alarm system and time-limits were at the beginning a cause of stress and suspense for some people. This also caused some resistant and negative attitude towards the changes. It was mentioned that it would have been beneficial and helpful if the managers had explained more clearly what the purpose and possible benefits of the changes were. These changes were for some people a big attitudinal change and required a change in the

mindset, as all personal inventory situation information was open to all and exposed to everyone. Even though time to adopt the changes was granted, there were also opinions that these changes happened too quickly and everyone did not fully understand the definite purpose and feared that the changes would lead to unnecessary intervening to one's working methods. Because of these things, some persons refused to adopt the changes, and it was practice impossible to get them to accept and utilize the procedures.

“Some judges had at first a feeling that these changes mean only managerial sweating and lurking...then comes this resistance towards everything...I definitely will not use these tools...I do not care what they come up with...”

There had been quite a lot different types of smaller improvement projects and improvement teams in the Insurance Court in previous years. Even though these other work improvement projects were not connected to delay reduction, some people were already tired of new work instructions and changes of any kind. It was also criticized that the changes made in this project contained too much information at once. There were quite a lot of new symbols and new information which needed to be adopted, and this raised resistance among some personnel towards improvement in general.

“There has been so much improvement, information, symbols and colors that sometimes you lose the sight of what is really essential...”

Some resistance to the starting of utilizing the new procedures was said to come from the problem that the old models of operations (for example the pensum practice, output measures and case distribution system) were not changed, and the new operation models and time-frames came on top of the old way of working. Because the old and new ways of working are somewhat contradictory, some persons were perplexed about what is the most important thing at the moment; keeping the time-frames for all cases or producing as much output as possible. This caused pressures from different angles and created resistance towards the changes, as it was felt that they only increased the already heavy pressures.

“The old strong traditions disturb: weekly quota, weekly quota, output, output, pensum, pensum...and the ministry complaints that productivity has decreased. It has not decreased; it has changed to a different form.”

6.1.3 Case comparison

The solutions designed in the Helsinki Court of Appeal required somewhat more changes to the customized way of working. The prejudice towards the suitability of the new working methods created challenges and complicated the full adoption and approval. Changes (like the ones made in the Insurance Court), that increase orderliness in the production and set clear targets automatically, but still strongly respect the self-determination of judges concerning the precise working methods, are easier to accept

than changes that alter the individual working methods (the initiatives designed in the Insurance Court were more easily adopted and approved).

Also the prevailing court culture can be seen to have an impact on what needs to be taken into account in enhancing the approval of process improvement solutions. When comparing the cultures in the case courts of this study, it can be said that the culture in the Helsinki Court of Appeal is somewhat more traditional and autonomic, and the judges are used to doing things according to their own methods. In the Insurance Court the culture is more hierarchical with a steady handling process and quite similar handling procedures among the personnel. As a consequence of the prevailing court culture, the implementation of the improvement efforts in the Helsinki Court of Appeal needed more support and time. The prevailing court culture must therefore be recognized and the needed implementation efforts planned according to these needs. The precise content of the improvement initiatives (even though connected to the improvement of the management and production systems) and the implementation process need to be planned according to the precise situation and needs of a given court organization.

Despite the fact that the implementation procedures were more easy and straightforward in the Insurance Court, the factors affecting the success of adoption and approval were surprisingly similar in both courts. The most important factors proved to be the widespread willingness to change, getting right capabilities in the improvement groups (management, employees, and external experts) and utilizing a well-planned project with clear phases, target and enough time to familiarize with the changes. It was also considered important that the solutions were designed by the employees and kept simple.

6.2 Changes in process performance and ways of action

In this chapter the changes that took place during the improvement projects in the process performance, delays, ways of actions, and personnel mindset are analyzed. This analysis is done by analyzing the changes in the key process performance numbers and the opinions and outlooks of the personnel concerning the changes. The analysis is done separately for the Helsinki Court of Appeal and the Insurance Court and compared in chapter 6.2.3.

6.2.1 Helsinki Court of Appeal

The number of incoming, resolved and pending cases in the years of the improvement project (2006-2009) is shown in figure 31. The number of incoming cases has stayed static for the whole millennium, 3500- 4000 cases per year. The amount of output, which increased significantly in 2004, dropped back to about 3500 cases in 2008. This was due to a decrease in the resources and also in productivity. The new procedures, which highlighted the prevention of delays and timely handling of also complex cases, has also had some effects to the total output productivity. The active pending case inventory was about 900 cases smaller in the end of the year 2009 than in the end of the year 2005. The

changes in resources and output productivity in the years 2006-2009 are summarized in table 24.

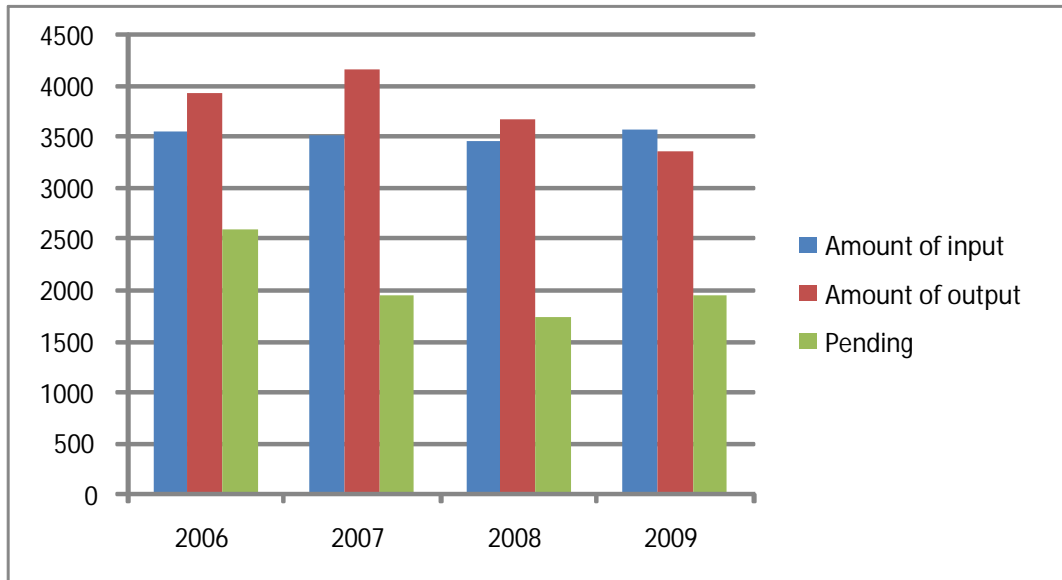


Figure 31 - Number of resolved, incoming and pending cases (Helsinki Court of Appeal, years 2007-2009)

Table 24 - Resources and output productivity (Helsinki Court of Appeal, years 2006-2009)

	2006	2007	2008	2009
Resources (man-years)	172	175	172	168
Productivity (output/man-year)	23	24	21	20

When examining the changes in the average throughput-times of solved cases during the improvement project, it can be concluded that especially the throughput-times of cases needing a main hearing dropped significantly during the improvement project. These throughput-times are introduced in figure 32. This indicates that the new procedures, which concentrated on advance planning and monitoring especially the main hearing cases, speeded up the main hearing process and thus the throughput-times for complex cases. The average throughput-time for main hearing cases was almost halved compared to the year 2005. Also the average throughput-time of all cases dropped and was about 7 months in 2009. This is a good result when compared to the fact that the proportion of cases that need a main hearing as a handling procedure (and are thus usually more complex and time consuming) was constantly growing also in the latter part of the decade. The proportion of cases needing a main hearing was 26% in 2006 and already 36% in 2009. This has probably had the biggest impact on the decreased productivity achieved in recent years.

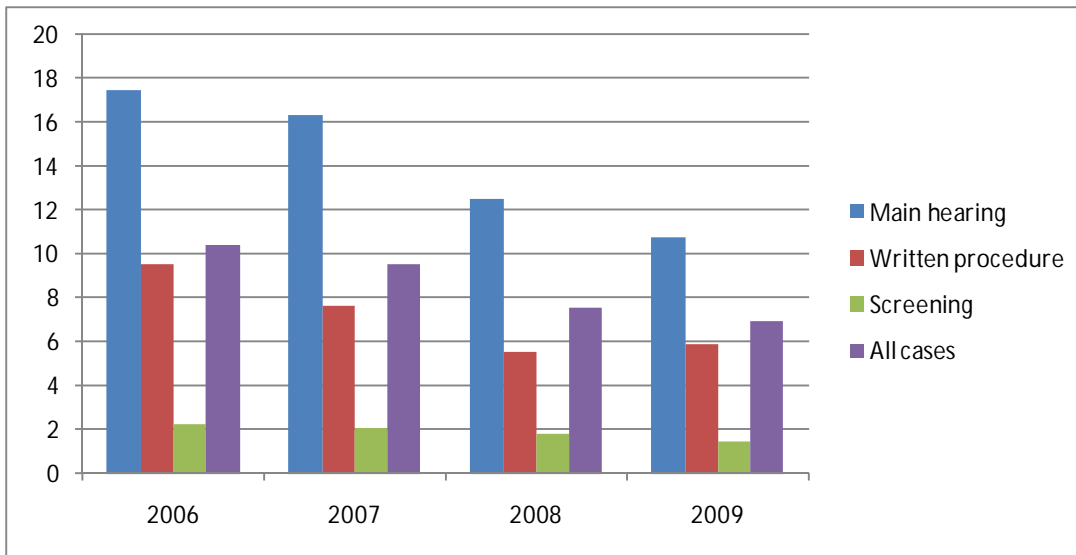
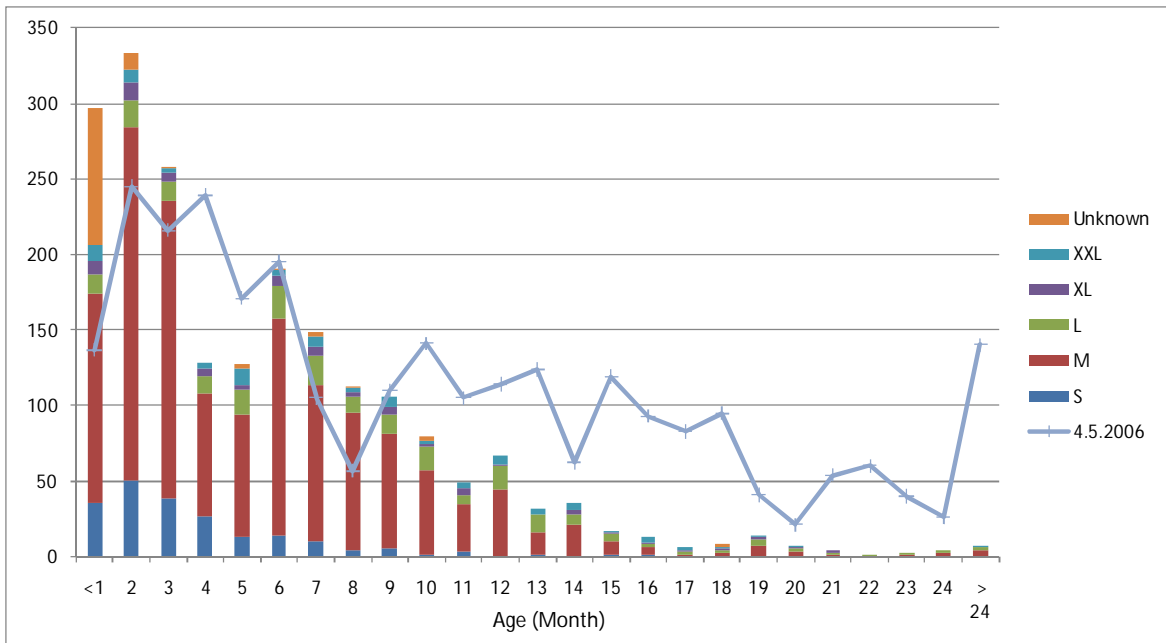


Figure 32 - Average throughput-times in months with different handling procedures (Helsinki Court of Appeal years 2006-2009)

The aim of the improvement project was that no case should be pending over 12 months. The starting point for the project was that 34% of the pending cases were older than this time standard. The situation concerning the age and size of pending cases at the end of the improvement project is presented in figure 33. As can be seen in the figure, the improvement has been huge. The gray line in the picture presents the profile of the pending case inventory when the improvement project started (shown also in figure 14). The proportion of cases pending over 12 months has dropped to 7% and there are factually no very old cases (24 months or older). While the court has been able to decrease overall the number of pending cases, it has been well concentrated on the oldest cases.



	2010	2006
Pending	2048	2793
Over 12 months	151 (7%)	958 (34%)
Over 24 months	7 (0.3%)	140 (5%)

Figure 33 - Age and size of pending cases (Helsinki Court of Appeal, 19 January 2010)

The proportion of complex cases (size groups L-XXL) in the cases older than 12 months is 49 %, when their proportion in the whole pending case inventory is 16%. The relationship has stayed similar, but the absolute numbers of old cases has dropped.

At the start of the project there were some differences in the number and proportion of old cases in different departments. At the end of the project, when there were practically no old cases pending, the differences between the departments had diminished. There were some small differences, but the absolute numbers were so small that these differences could be due to practical reasons concerning for example a temporary resource situation in a given department. All in all, as it can be seen in figure 34 compared to figure 15, the situation concerning old cases had improved in all departments. There were no old cases and the ones that were left were estimated for a large part to be cases that were not solvable for some reason. The fact that the situation was equally good also in departments which were not involved in the pilot testing of new procedures indicates that the implementation in other departments had been successful as well.

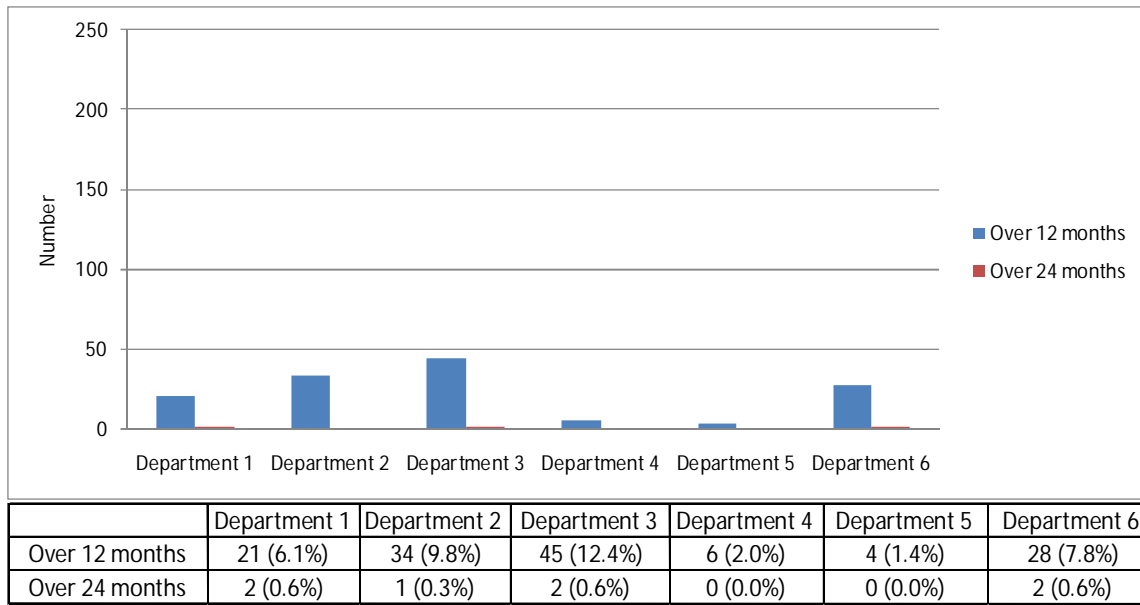


Figure 34 Number and proportion of old cases in different departments (Helsinki Court of Appeal, 19 January 2010)

The main conclusions of the changes in the process performance and effectiveness based on the key performance indicators are that the situation concerning delays improved hugely. There were factually no old cases pending anymore, and the throughput-time for also the more complex cases was now under 12 months. The good trend also in the average throughput-time can be considered an excellent result, as it was achieved together with clearing down the old backlogs and dealing with a growing proportion of main hearing cases. The clearance rate was positive for the whole decade, and the pending case inventory and the backlogs were reduced to a more controllable level. Productivity, on the other hand, has decreased. This was mostly due to the increase in the proportion of main hearing cases and the clearing out the old backlogs (consisting of a large amount of old, complex cases). Now, as the old backlogs have been removed, the situation should be better balanced in the future concerning the proportion of complex cases in the output.

When the changes in the Helsinki Court of Appeal were analyzed on the basis of the opinions and outlooks of the personnel and the researchers' observations, the general opinion was that the situation was now better concerning delays, backlogs, throughput-times, work distribution, and thus the general working climate. The biggest reason for this was said to be the decrease in the number of pending cases, but also the attitude towards time and its importance had changed. Everyone has become more aware of the age of cases and of preventing delays at a concrete level in everyday work. With the help of the new tools, planning and controlling the process flow has become easier, and the appreciation of time has increased. It can be even said that due to the highlighting of time for several years, a "time-culture" has begun to develop. It was also said that delays like the ones in previous years were not possible any longer due to the working method and attitude changes.

“...like some five years ago it would have been possible that a case was in a passive stage for several years and the nation got condemnations because of it. This is absolutely not possible anymore; I genuinely believe it is not. And that is a marvellous thing.”

This changed attitude manifested in concrete changes in the working and management methods and procedures. The concrete improvements and changes were divided based on the interview data analysis (introduced in chapter 3.4.1 and appendix 1) to four main categories of working and management method changes. One example of the formed change categories is given in appendix 5. The citations are used only as an example of the interview material and the opinions.

The four main categories formed based on the analysis of changes happened in Helsinki Court of Appeal were:

- Control practices
- Structural and systematic working procedures
- Active process start-up for all types of cases
- Case ownership

The first change category, changes in the case control practices and culture, were said to be one of the biggest and most concrete changes during the project. The time-frames set and the practices designed to control the achievement of these frames sharpened the control practices, and it was said that now the management was genuinely interested in the pending inventory reports and the age of the pending cases; the project had turned the control practices towards more concrete actions. Due to these improvements in control practices and control reports, it was said that nowadays it is not possible that case exceeds the time-frames without explanation. Almost all department level managers control the plans and inventory reports and take action and demands explanations if needed. This was said to be the key in preventing delays: everyone understands to keep the time-frames when they know that the time-frames are under control. The control of time-frames and thus the time-management practices have gone through a radical and large change. The collectively approved time-frames have made the management control and intervening easier and more acceptable.

“Now the department level managers know the mass they have in their department inventory; the stage, age and plan to solve the pending cases. The consciousness of time has increased a lot on a concrete level...”

“The managers have become much more active in time-management, they actually control how the cases flow and proceed in the process.”

Even though detailed-level scheduling was not considered necessary for all cases and in all situations, the introduction of advance planning and scheduling practices were said to bring orderliness, structure, goal-orientation, predictability and guidelines to the working procedures. The agreed practices to plan and schedule all cases have helped in controlling the own case inventory and made the work to be distributed more evenly throughout the

year, which was considered an important improvement also in the light of productivity and output. The setting of firm time-frames are in key role also in planning, and the keeping up of time-frames forces everyone to plan the time needed and keep the orderliness in the case handling.

“I have never had as good a situation as I have now. Now I always know what to do and when to do it. Previously it felt that the work will never end, now it is divided nicely to plans. It is very easy to do the work, when you know every week what to do...everything proceeds systematically, you do not need to worry or look at the uncontrollable pile of cases, you just have the plan. ”

“The planning procedure does not only prevent delays, it also brings the even work distribution and thus as good an output as possible with these resources. Now the old idle times seem only a distant memory...”

One of the main improvements that the new advance planning practices have brought to the process was said to be the active start of the process for all cases and the fact that the long, unnecessary idle time in the start-up is minimized. Previously, there had been a long passive waiting time in the start-up of the process before anything happened to the case and the case was waiting for the handling procedure decision to be made. Now there is not this idle time practically at all. All cases are made active right after their arrival, and every case has a plan for the process steps and schedule right away. This way the process starts immediately for all cases when the plan has been made. This active start-up and planning not only helps to keep the time-limits and timeliness, but was also said to help produce as good an output as possible, as the resources are in full use when the idle time in the start-up is minimized.

“This has been like a revolution for the process and it has changed the outlook concerning the progress of the case flow completely. Previously the cases were waiting and waiting for the handling process to start, now they are made active right away...”

“We already see that this planning really works, we have had an excellent year, and the idle times are all gone...”

One very noticeable change was named to be the better responsibility for the cases and commitment to the timely handling of all cases by both the responsible judge member and the referendary. The “preparation and follow-up form” which is filled by the responsible judge right after the case arrives has forced the responsible judge members to take over the case in the start: make the handling decision, plan the stages and schedule the process according to the time-limits. Now the case and the process really have a responsible person from start to finish, as the responsible judge members have generally taken this more active role well. This has helped the work of the referendaries and made it easier for them to follow the principles of advance planning and scheduling. It has also improved the co-operation between the judge and the referendary and unified the working methods. The earlier announcement of the department changes for the referendaries has

also improved their commitment to the cases and made it possible to remake the plans in the case of department changes.

It was a general notion that the planning, time-frames and timeliness have not endangered the quality of the decisions. On the contrary it has had positive influences to quality as the planning has increased the uninterrupted time one can spend on preparation. The active time spent for the case handling has not decreased at all, as even previously no-one had indefinite time for an individual case due to the output expectations.

“There have always been some sort of limits to what it is enough in quality because everyone has had personal output goals, which are in principle compulsory to achieve. Then the question is what harms the so called perfect quality least. I would say that planning and scheduling is the best way to ensure also the quality.”

“The referendary has the possibility to influence how much he schedules time for planning...now for once it is possible to take the time needed to prepare the case properly. Nowadays I would say that planning and scheduling are the requirements for quality.”

Even though it was a general opinion that the project and the improvement initiatives had brought improvement to the process flow and most of all to the general attitude towards the importance of time, there were persons whose opinion was that the project had not changed anything and all the improvements in process performance and the situation concerning delays were only a straightforward consequence of decrease in input and thus in active pending inventory and backlogs, creating a better resource situation.

“I do not see how this helped us in any way.”

On the other hand, there were opinions opposite to this remark. The fact that while the input had decreased, the number of pending cases was still huge and the work was not decreased and thus the decrease in input did not have that a big impact on the throughput-times and delay reduction. The remark might come from the feeling that when the personal inventories are smaller, it is easier to control the situation and take notice of the age of an individual case; the caseload is more manageable and controllable. An opposing opinion to this was also the fact that scheduling is the only solution for keeping the delays in control and the output on a satisfactory level also in a more congested situation. There were also claims that the project has made the work in court more difficult because now everyone worked for the addition of quality and output, also in the crossfire of timeliness.

6.2.2 Insurance Court

The number of incoming, resolved and pending cases in the years of the improvement project (2008-2010) is presented in figure 35. The changes in resources and output productivity in the years 2008-2010 are summarized in table 25. The output productivity has been decreasing for the whole millennium (see table 17), and especially after the

improvement project started. The input had been steadily between 6000-7000 cases per year from the year 2007 onwards, and the output had been adapted to the same level as the input for a couple of years. This reduction in the output was for most parts a conscious effort to balance the input-output flow, as they did not want to pull the inventory levels down too much to prevent unnecessary idle time in the process. The fact that due to the time-limits and alarm-system the old, and usually more complex and time consuming cases, were overly prepared from old inventories, had some influence on the decrease in output, but mostly it was a result of lesser pressures to produce output. The reason why they did not want to decrease the inventory levels too much, was the unbalanced resource structure between the process stages, causing both idle time and bottlenecks to the process. The referendaries had times of shortage of cases and the court clerks and especially the judges were still struggling to keep up the process flow. This was one reason for the fact that while the pressures to produce numbers had reduced, there were still both delays and backlogs in some stages of the process. However, the lesser pressures to produce output should have made it considerably easier to improve the operations, to concentrate on preventing delays and clearing down the old and more complex cases.

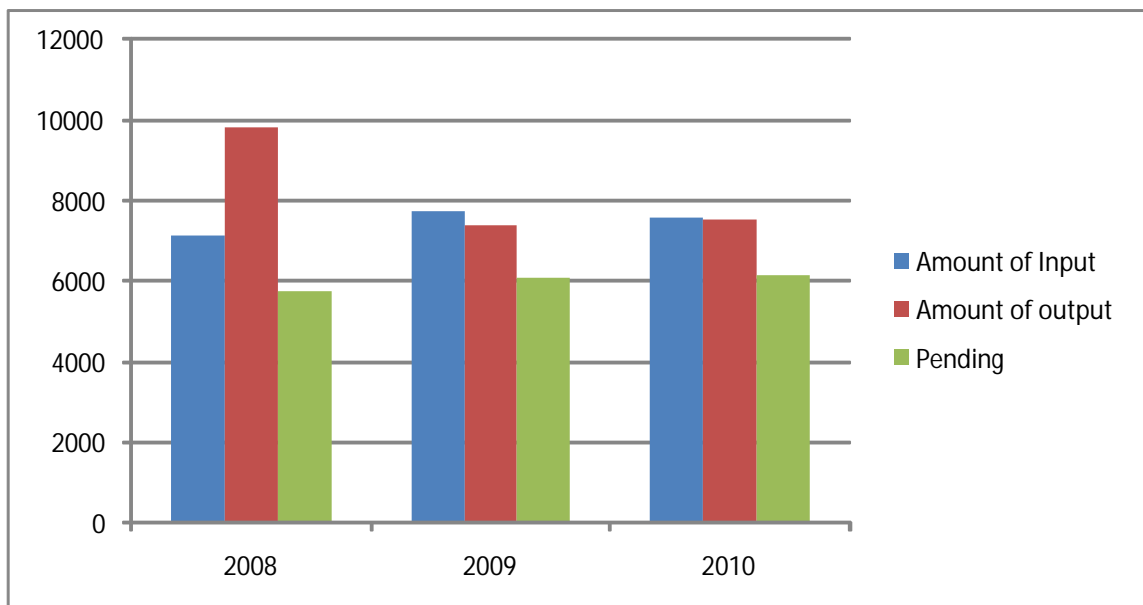


Figure 35 - Number of resolved, incoming and pending cases (Insurance Court, years 2008-2010)

Table 25 - Resources and output productivity (Insurance Court, years 2008-2010)

	2008	2009	2010
Resources (man-years)	117	113	110
Productivity (output/man-year)	84	65	68

The average throughput-times of solved cases are presented in figure 36. Before the improvement project started, the average throughput-time of solved cases was

approximately 14 months. Now the average throughput-time of solved cases dropped to about 10 months. The throughput-time is shortening slowly, but this is a good trend considering that in the start of the project and clearing down of the old backlogs, the average throughput-time grew as larger proportion of older cases was being solved.

The average throughput-time of the rehabilitation cases was 15 months (approximately the same as for all cases) in 2007, and as good as 6 months in 2010. So, the prioritization rules and effective handling had worked well and lowered the average throughput-time.

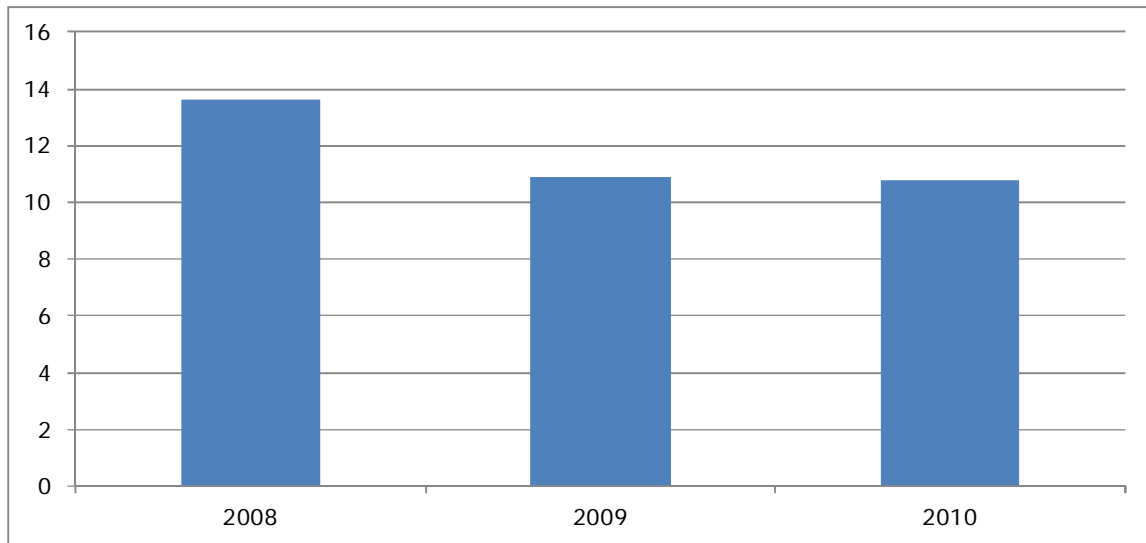
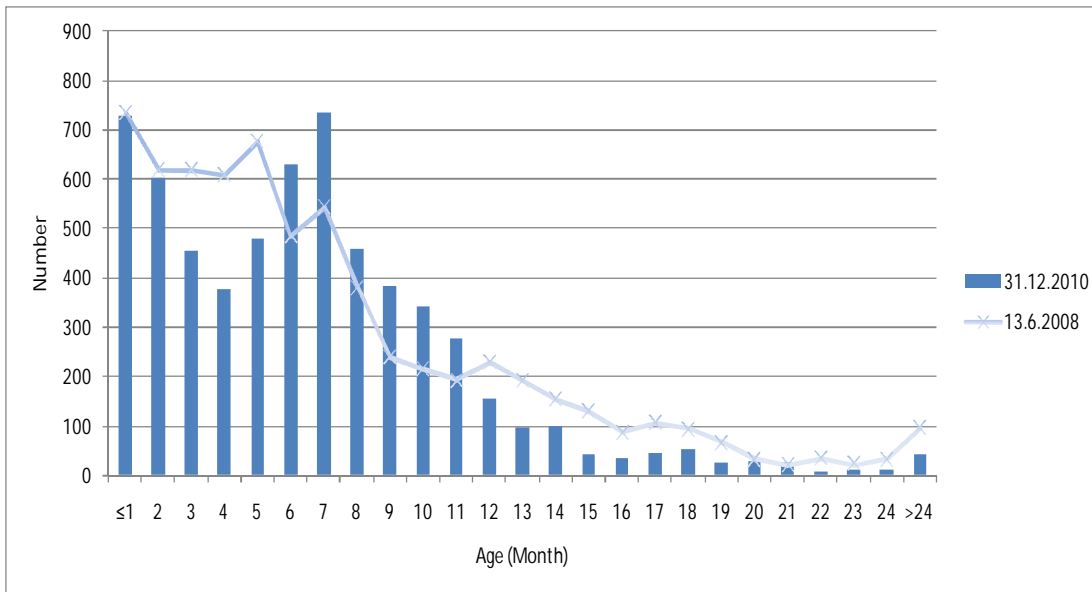


Figure 36 - Average throughput-times in months (Insurance Court, years 2008-2010)

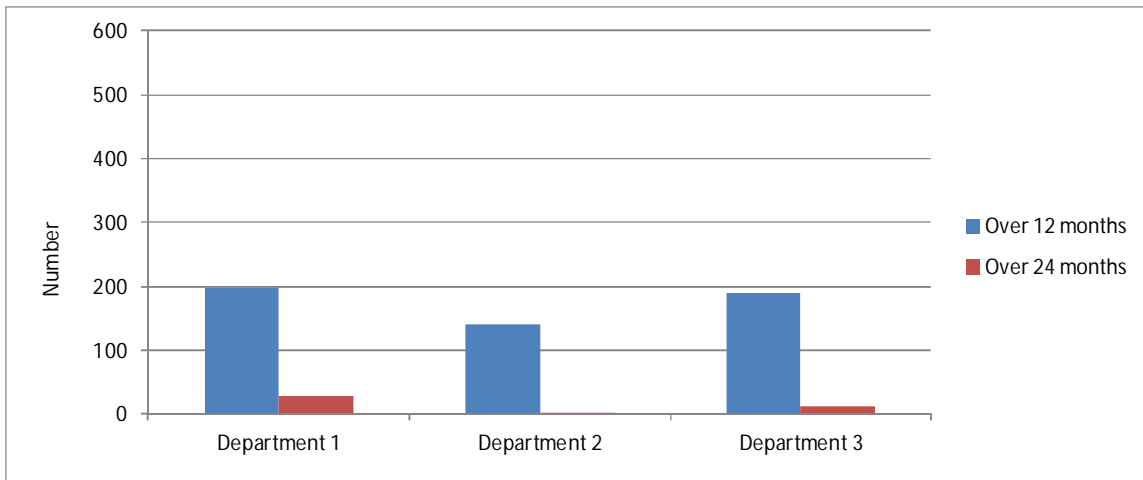
The main aim in the improvement project was to decrease the number of cases pending over 12 months, so that a maximum of 5% of all pending cases would be older than 12 months. The starting point for the project was that 16% of pending cases were older than this time standard. The situation concerning the age of pending cases after the improvement had ended is shown in figure 37. The gray line in the figure presents the profile of the pending case inventory at the start of the improvement project. The reduced number of cases aged 3-5 months can be partly a consequence of the fact that the rehabilitation issues are now for large part solved in less than five months. The removing of old backlogs has concentrated on the oldest part of the cases, as the whole pending inventory has decreased by 9%, and the number of cases over 12 months has decreased by almost 50%. This can be seen from the pending inventory report, where the profile is now more sharply outlined in the 12-month age landmark. It can be said that this is a good result, as the alarm system has been in full function only for about a year and also other improvement initiatives have not yet become completely routine.



	2010	2008
Pending	6155	6625
Over 12 months	527 (9%)	1077 (16%)
Over 24 months	41 (0,7%)	96 (1,5%)

Figure 37 - Age of pending cases (Insurance Court, 31 December 2010)

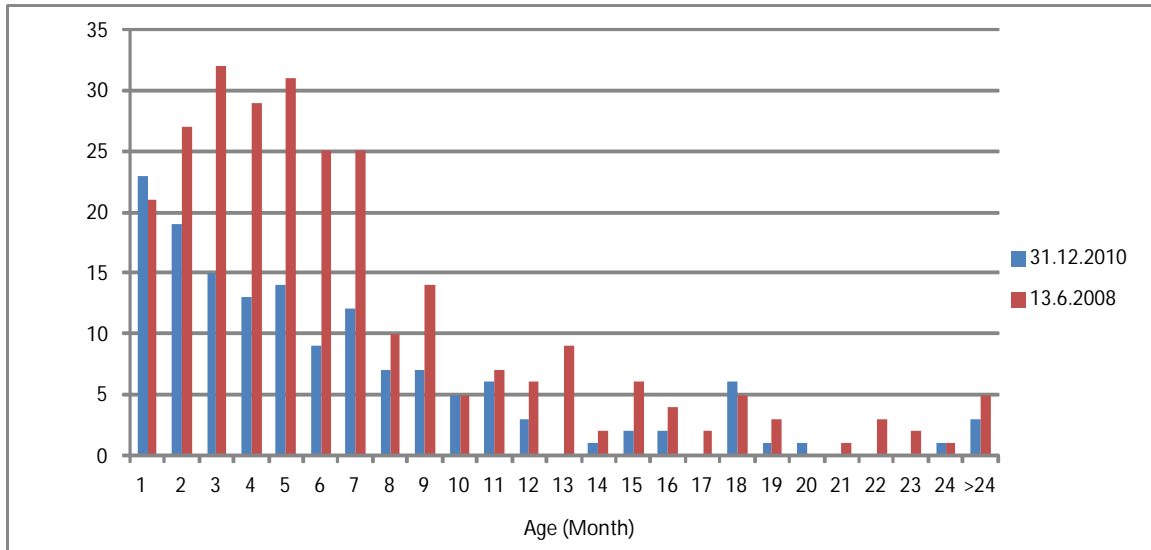
The differences in the number and proportion of old cases between different departments have decreased, as can be seen in figure 38. Now the old cases are divided evenly to the three departments. The alarm-system revealed in the beginning of the implementation that one of the departments had an older pending case inventory than the other two departments. It was found that the number of alarming cases and explanation marks were inappropriately great in this one department, and it was decided to distribute and even out a proportion of the oldest cases between the departments regardless of the specialization. This way all the departments were able to start utilizing the alarm-system from an equal starting point. It was pointed out that the alarm-system generally enables better control concerning the resource and inventory situation between departments, as well as quicker reactions to any problems.



	Department 1	Department 2	Department 3
Over 12 months	197 (8%)	139 (7%)	191 (11%)
Over 24 months	27 (1%)	3 (0,1%)	11 (0,6%)

Figure 38 - Number and proportion of old cases in different departments (Insurance Court, 31 December 2010)

The improvement initiative concerning the establishment of prioritization procedures for the rehabilitation issues has made the situation concerning the pending inventory of rehabilitation issues better, as can be seen in figure 39. Although the new strict time-frame (5 months) has not been fully achieved, the situation has become much better (the average throughput-time has dropped by 9 months). It was estimated that because the new prioritization procedures were so widely approved, in practice the rehabilitation issues that are now over 12 months are for some reason not solvable (for example waiting for some kind of further clarification). The absolute numbers of pending and old rehabilitation cases are now so small that although the changes in the proportionate share are not big, the pending inventory changes indicate that the turnover of the rehabilitation cases is good.



	2010	2008
Pending	150	275
Over 5 months	66 (44%)	135 (49%)
Over 12 months	17 (11%)	43 (15%)
Over 24 months	3 (2%)	5 (2%)

Figure 39 - The age of pending rehabilitation issues (Insurance Court, 13 June 2008 and 31 December 2010)

The main conclusion of the changes in the process performance and effectiveness based on the key performance indicators is that the situation concerning delays and backlogs is getting better all the time, and the number of pending old cases has halved in two years. The decrease in the absolute numbers of old cases has been good, but as the pending inventory has decreased altogether, the changes in the proportions of old cases are not yet on the level that is aimed in the long run. Considering that the implementation and approval of change initiatives were considered successful and the number of input and pending cases has diminished fast in recent years, the change and improvement in the situation is still taking place rather slowly. Also the output productivity has decreased a lot in recent years, which can be partly a consequence of the clearing down of the old backlogs. The much better situation concerning the number of pending cases could have enabled the court to concentrate even more strongly on clearing down the oldest cases, as the pressures to produce output have diminished. However, also in the light of performance indicators, the situation is considerably better than two years ago, which is after all quite a short time for any major changes to happen. It is a good sign that the situation in the light of the key performance indicators is getting better, and the pending inventory is now on a more controllable and manageable level and the utilization of new procedures becomes more and more a routine all the time.

When the changes were analyzed on the basis of the opinions and outlooks of the personnel in the Insurance Court and the researchers' observations, the general opinion was that the atmosphere concerning the subject of delays is now more open and it is easier and more common to talk about the issues surrounding it. With the help of the new tools, time has become a concrete and visual part of everyday work that cannot be

ignored anymore. All the main changes (prioritization rules, recognition procedures and alarm system) were commonly considered as successful improvement initiatives. It was also said that there has become a change in the mindset concerning the role of time in everyday operations, and without any major work method changes the age of cases is now noted on a more concrete level, as the personnel control the explanation marks and try to reduce them from pending inventory listings.

“Now we pay more attention to the time and to the age of cases. It has been a big change and affects many aspects of work by changing the way we regard time.”

The changed attitude and attention towards time was manifested in some concrete working and management method and procedure changes. The concrete improvements and changes were divided based on the interview data analysis (introduced in chapter 3.4.1 and appendix 1) to three main categories of working and management method changes. The citations are used only as an example of the interview material and the opinions.

The three categories formed on the analysis of changes happened in the Insurance Court were:

- Management control practices
- Personal work control and planning procedures
- Attention to complex cases

The time-frames set and the alarm-system and the data system designed for controlling them have facilitated the management control over throughput-times and delays. The alarm-system and the pending inventory listings, which are easily available from the system and which visually and in real time report of the situation, have made the management duty of controlling the progress of cases easier and thus more common and more regular. The alarm system has proved to be an important tool for department managers, as they can easily see the pending inventory situation at one glance at both department and individual level. The collectively set and agreed timeframes and the existence of the alarm system have made it accepted that the management will intervene with problems concerning delays and backlogs more actively. All in all, the alarm system was said to be an important managerial tool.

“Controlling is easier, intervening with problems is easier and the climate surrounding these issues is generally better. It feels fairer to manage these issues and intervene when everyone knows the agreed rules...”

“Now we can react in time if a person’s working situation piles up. Previously these situations would get far too bad....Now the management can see for whom the cases start to pile up and whose inventory levels just keeps growing... where the cases accumulate...you see all this very easily.”

As an addition to the fact that the alarm system is an important managerial tool, it was also said to be helpful for all personnel in controlling their own personal pending inventory and planning the work. The easiness of checking the pending inventory situation has made the controlling of the situation of the cases a weekly routine for several people and has motivated to “clear up” the explanation marks from the listings. The alarm system was said to be a useful tool not only in controlling the age and situation of individual cases, but it also provides a cross-section of the whole case inventory and its development more broadly. The alarm system has also changed the procedures of planning the order of work. The listings have directed the personnel to plan the order of the work more systematically and more according to the age of the cases.

“Now we have on view all our cases and their situation and status. Previously the judges had the case listings on paper but they were not seen anywhere. At the same time that they were not seen, they did not bother anyone either. Now everyone keeps the inventories more in control and follows the situation.”

“Before I take even a single case from my case shelf, I take a look at the inventory listing and what it looks like...what case is on top of the list and what sort of diamonds and explanation marks there are...whether there is something that needs special attention or reaction right away...”

Even though in the beginning of the implementation, the advantages and necessity of the recognition procedures for complex cases were somewhat questioned, in the end it was said to have brought several improvements and changes to the attention paid and to the handling procedures of the more complex cases. Simply the marking of the complex cases has made them come forward from the mass of cases. It was even said that the black label provoked interest towards the case and to its contents, making it more motivating to take it from the case file. The recognition has also made it easier to distribute the complex cases more evenly to the referendaries and judges, and had made it possible to estimate the time needed for the handling of the case better, and thus reserve the time needed for these cases beforehand. This made it easier to go and ask for assistance in the preparing of a complex case. The fact that the marking of complex cases is visible in the data system inventory listings reveals if the complex cases accumulate to some persons, making overly concentration on simpler cases difficult. The labeling of both the complex cases and the prioritization cases was said to improve the attention paid to these cases. It was also mentioned that sometimes this attention can be bad as well, by increasing the bias about the complexity and thus decreasing the motivation to take the cases. However, generally the marking of complex cases and rehabilitation issues was considered a good thing, which and has speeded up the handling of these cases.

“Simply the black label on the cover of the case file highlights it from the pile of cases... and you see: hey, I have to do something about this case...this can take considerably more time...and you know to book this time, so you do not have to always throw it aside to wait.”

“I have started to feel a kind of duty to handle also the more complex cases in the same time as other cases because there are these labels. I do not feel that it is unpleasant or offending, it has simply changed the attitude towards them.”

Similarly into the Helsinki Court of Appeal, there were also some individual opinions in the Insurance Court that the approved situation concerning delays has nothing to do with the improvement project but is merely a consequence of decreased input and thus in the active pending inventory. The decrease in the number of pending cases has naturally had impacts on how easy it is to manage, control and plan the case flow and case inventories. All in all it was a general notion that the created tools and the increased attention towards time will help in a situation where the input increases from the present, and negative comments and outlooks concerning the improvement initiatives in general were practically non-existent.

6.2.3 Case comparison

In both case courts the process improvement projects brought technical improvements to the problem concerning delays and backlogs. On the basis of the evidence, also changes in attitudes and mindsets were achieved in both cases.

The changes were especially connected to the control and planning practices and the ownership, and generally more active attention was paid to the more complex cases and time-related issues. All these changes made the general attitude and climate towards delays easier to confront and discuss about.

In the Helsinki Court of Appeal the changes required more implementation efforts and continuing reminding and demanding for also the slow movers to adopt the changes. The top management in a given department and the example of peers and internal change agents was in crucial role in achieving this. There remained a group of employees in the Helsinki Court of Appeal which continued to do work according to the old working methods and principles. This was possible in the departments where the managers did not demand regular follow-up reports on pending inventory and schedules. As the example of positive effects of the changes has spread, also the adoption and utilization of the techniques has improved.

The fact that the changes were not completely translated to measurement and reward practices (for example the pensus practice and output expectations remained) had a clear negative influence on the success of the implementation in both courts by making it less motivating to start utilizing the new working methods and techniques.

In the Insurance Court the conditions for creating foundations for more sustainable change were better. They established a permanent improvement group which will continue to remind about, spur and monitor the effects of the improvement efforts. They took also more independent responsibility for the designing of the improvement efforts, which increased the ownership towards the solutions and decreased the danger of the

improvement initiatives to fade when the project ended. The improvement plans and schemes were also more effectively communicated to the employees throughout the project.

6.3 Summary of the implementation of process improvement solutions

Improving the court process performance in the light of delay reduction and throughput-times requires an attitude change and a change in the mindset of all personnel and stakeholders on how time is regarded and taken into account in everyday work and operations. This attitude change will not happen unless timeliness and delay reduction are made an important issue in management control procedures and performance measurement practices (management system), and the time-targets are made possible to achieve and concretely present in the everyday working environment by changing the production planning practices and procedures (production system). Both these change areas are connected on building the basic conditions for process performance and process improvement in organization.

Based on the identified problem areas and the improvement solutions designed in the projects, the most potential process improvement initiatives in the courts proved to include changes both in the management system and the production system. The improvement initiatives designed in the improvement projects were tools and collectively accepted principles aiming at eventually enhancing the role of time in the organization by increasing the management control over the progress of cases and by increasing the orderliness in the production process. The main improvement areas and initiatives are summarized in figure 40.

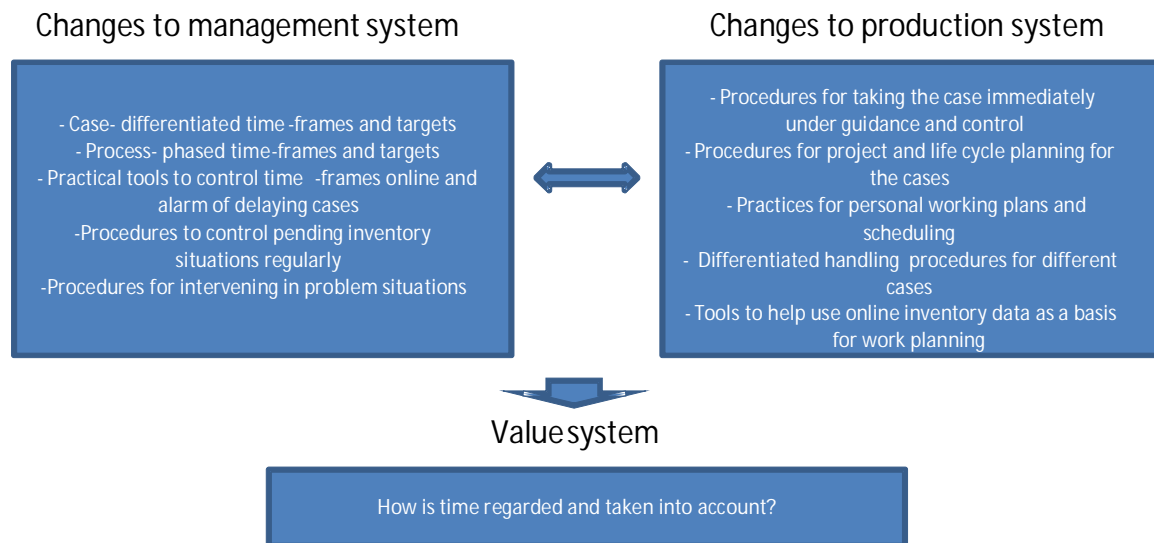


Figure 40 - Main areas of the process improvement solutions

The change in the value system and the way time is regarded need to happen at individual level, due the autonomic nature of work in the courts. The changes in managerial control

and target setting systems are the key in increasing the time orientation among individuals, but also the orderliness of production need to be in order, providing the means to achieve the targets set for delays and throughput-times.

In a simplified manner it can be said that changes to the management systems bring the motivation to keep the timeliness and the changes to the production systems bring the means to do it. The improvement of the management system is in the heart of process improvement and delay reduction work. Like the literature on caseflow management and differentiated caseflow management suggest, the establishment and active management and control of time targets for different types of cases are essential in process improvement work (see for example McWilliams, 1992; Steelman and Fabri, 2008). Targets are fairly easy to set, but the challenge in this work has been to find out the ways of how to get the court personnel really accept and go along with the set targets. Furthermore, to get the time and time management a firm part of the court organization's operations and management models.

The process improvement and delay reduction can be concluded to be for a large part a question of broadening the focus of the management and ultimately change the value and quality conception. Because of the independent nature of the work in the courts and the challenges it brings to traditional means of management, it is important that the improvement solutions are based on self-control and self-direction, and that the new working methods are flexible by nature so that everyone can revise them to fit for themselves. This is needed, even though the solutions would rely on fixed and collectively decided principles and guidelines. Despite the highlighting of the independent nature of work in the courts, it can be said that the judges are quite disciplined and target-oriented and do what is expected of them. This can be seen for example in how seriously the output targets have been taken. Usually the targets, guidelines and rules help to set boundaries for planning and outlining the one's own work and directs people discreetly to do their work according to them.

The biggest obstacle and challenge in this work and in internalizing this idea was the conception and attitude that increasing the role of timeliness in case handling operations would weaken the quality of rulings. This causes the challenge concerning the ownership and acceptance of the solutions. This is why it is crucial that the changes in management practices are complied with changes to the work planning procedures and by creating tools to increase the orderliness and methodical aspects to the work. Sheer targets will not help unless the personnel have, besides desire, also tools and procedures which enable and help them to meet the set targets. The procedures need to be kept simple and designed in a way that automatically directs the personnel to take the time aspects in consideration and to keep the targets. This also helps in accepting the set time-frames and targets. By bringing the planning aspects and orderliness to the handling procedures and by separating the handling procedures of cases with different requirements, it is possible to decrease the uneven workload distribution, idle times and set-up times in the production process and thus both reduce delays and make the resources in better use, making it possible to keep the timeliness, produce adequate level of numbers and maintain the quality of rulings.

The challenges inherent in the process improvement work in the justice courts concern the start-up of the process improvement work: how to motivate and start tackling this problem systematically, and how to get out of the comfort zone in the light of the improvement solutions themselves and in the improvement work generally. Previously, there were problems in both innovating new solutions and in the improvement work and methods. The main challenges in the process improvement work were:

- How to discover genuinely novel, new and fresh process improvement solutions?
- How to organize and plan the improvement work so that it is carried out systematically?

It was expressed that the challenges in any process improvement efforts previously had been more or less connected to these two issues. There had not been motivation and competence to start planning, creating and trying something completely different, not based on old working models. There had also not been motivation and competence to plan thorough, organized and target-oriented handling of the subject and carefully planned and phased improvement projects, not based on old improvement methods. The improvement efforts had for a large part relied on meetings and memorandums concerning the subject, producing administrative suggestions. These were not well enough linked to the implementation and sufficient in the light of analyzing the situation, creating new ideas and getting people to try and adopt the new methods. The implementation of the suggestions had been the responsibility of autonomic individuals and individual managers. This may not be sufficient especially because the characteristic nature of justice courts is relying on steady routines and traditions, which creates a general atmosphere of resistance to change and stationeries.

In order to answer to these challenges, external process improvement expertise was used to bring new ideas and improvement methods, and a new improvement culture for delay reduction efforts. This proved to be important in the light of success in process improvement. It brought novel ideas from a completely different field of expertise, with different types of improvement methods, which included for example the fact that enough time was devoted to different improvement project phases, and the subject was thoroughly analyzed and discussed from different perspectives, as well as making sure that all necessary parties were involved in the project. The use of external expertise also prevented the participants from giving up the improvement by keeping the improvement work ongoing, and by constantly reminding about these issues. The fact that outsiders were used also made the project seem more interesting and important in the eyes of the personnel. All these benefits made the project itself a series of interventions and thus a tool to highlight the importance of time management and to rouse discussion and debate around the issue for several years.

On the other hand, the use of external expertise brought a different set of challenges for process improvement. The fact that expertise from industrial management was used in the designing of the improvement efforts caused resistance and prejudice towards the solutions. Basically the fear was that “assembly line solutions” are brought in and this

will weaken the basics of professional work, and that the special characteristics of the work in the court is not taken into account sufficiently and understood properly in the designing of the improvement initiatives. This caused resistance and a negative pre-attitude towards the solutions, especially in the beginning of the projects. In order to minimize this challenge, it is important that the outsiders do not design the improvement efforts on their own, just bring the ideas and direction of propagation, and the organization members design the precise content of the improvement initiatives to fit the operational models in their organization. The resistance towards the solutions diminished as this was understood in the case organizations.

Another challenge in process improvement is that when external expertise is used, and the outsiders keep the process improvement ongoing and alive by utilizing different kinds of interventions to demand, spur and remind on the improvement regularly, how to maintain this constant spurring after the improvement project ends and the outsiders leave. It was a common fear in the case organizations that after the projects ends, the enthusiasm to utilize the new procedures will diminish and a majority will return to old, routine methods of working. The challenge is that a change in deep-rooted ways of working will need a considerable amount of time and constant reminding. In order to reduce this challenge, it is important that the ownership of the improvement efforts stays in the organization, and that someone in the organization is responsible for keeping the new methods alive and demanding the utilization of them. This is why especially the management needs to be deeply involved to keep up the demand, reminding and spurring after the project ends, and that the methods of keeping the improvement initiatives alive after the project are designed and discussed during the improvement project.

The challenges in process improvement work in the justice courts are summarized in figure 41. Due to these challenges, these types of changes are difficult to achieve with a mere production of guide-manuals coming from external experts. Instead, the organization members need to own the project, its solutions and utilization, but help is needed in order to get new ideas and learn from best practices from other environments, in carrying out the improvement work and developing an improvement culture concentrating on process and operational issues.

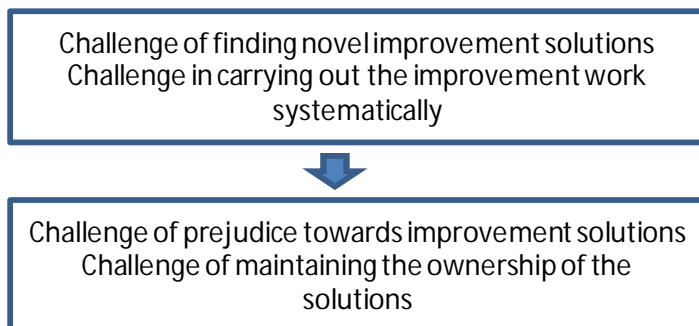


Figure 41 - Summary of the challenges in court process improvement work

7 Conclusions

In this chapter, the contributions and evaluation of the study are introduced and discussed.

First in chapter 7.1 the contributions to the literature on delay reduction and caseflow management in courts, as well as managerial suggestions are presented and discussed.

In chapter 7.2 the contributions to the literature on process improvement work in professional public organizations are presented and discussed.

Chapter 7.3 presents an evaluation of the study and the research approach. Finally, in chapter 7.4 suggestions for further research are given.

7.1 Contributions to the literature on delay reduction work in courts

The present study aimed to increase the knowledge concerning the delay problem and caseflow management possibilities in courts: to identify and analyze the causes of delays and effects to operations and to give functional and acceptable solution proposals on how the delays can be reduced and prevented in the future.

The main problem to be solved in the courts from the perspective of operations management and process improvement, is the situation that even though the courts can have a clearly positive clearance rate, a part of cases still gets delayed, making the throughput-time to vary from case to case. The complexity of the case has a great impact on whether or not the case is in danger to being delayed. Due to the nature of the delay problem, it is not directly a matter of increasing resources, nor can it be explained purely with the greater active working time needed in handling the more complex cases, as the variety is largely a consequence of differences in the passive waiting time of different cases.

Attitudes towards time are the key issue behind the problem. Timeliness does not have a firm part in a court organizations' value system or in the system of managing court performance. Time has been left in the shadow of both productivity management and quality assurance, and it is not present in the everyday work or improvement activities. Changing the values and the mind-set and increasing the understanding of the process are the ultimate aims in solving the problem, but the change needs to start from the operational level and analysis of the problem areas in the process flow. One aim of this research was to uncover the operational areas and factors causing delays, and their influence on process performance in the courts at the operational level.

Four main areas and factors behind the problem were identified in the study:

- 1.) Goal setting and performance measurement practices
- 2.) Process control systems

- 3.) Production and capacity planning procedures
- 4.) Process roles and responsibilities

These areas are highly interconnected and lead to the conclusion that the causes of the problem are incorporated in almost every aspect of the process and operations management practices of the courts. The problem is not a question of some “wrong” individual method or procedure applied; it is a question of not considering the process and the throughput-time comprehensively from different perspectives and areas in everyday operations.

The areas and factors described above influence the effective everyday operations and the problem in different ways, so that it is both possible and feasible not to incorporate time and process issues in the everyday work sufficiently. The performance measures in use direct to producing as much output as possible, making it more feasible to solve a larger amount of smaller cases. The control systems do not encourage or make it easy to collect and utilize online monitoring data about work-in-process inventories, which has led to the fact that the precise inventory levels or the situation of individual cases are not in the knowledge of either the management or the employees, making it possible to “forget” the time-related issues in the hectic everyday work. The lack of production planning practices creates idle times, cyclicity in the work load, set-up times, and problems of finding uninterrupted time for work and the handling of more complex cases. The insufficient long-term planning makes the effective use of resources and capacity difficult and causes unnecessary bottlenecks and delays. The lack of clear established rules for case responsibility during the whole production process creates the possibility for some cases to “fall through the net” and be left without an active responsible handler. The requirement for objective handling and autonomic work supports conducting the work in one’s own corner and creates the need for process-oriented case owners.

The working methods connected to the planning and scheduling of production and their connection to delays have not been discussed extensively previously. The results of the study indicate that the lack of advanced planning and scheduling practices affects both the ability and willingness to prevent delays and to regard time-related issues. In courts where the product range is heterogenic in the sense of case complexity and urgency, the lack of advance planning and scheduling practices is highlighted as a cause for delays.

The handling procedures need to be differentiated in the way that cases with different requirements do not hinder and disorder the effective handling of each other. Especially the large and complicated cases need planning procedures in order to get uninterrupted handling time and to ensure more uniformly divided workload and effective use of resources. Due to the differentiated nature and requirements of the cases, a first-in-first-out policy to control the production is not possible and more diversified planning and a control system for different cases is needed. The results highlight the impact of inadequate long-term work planning as one key factor behind delays and in the resistance towards time standards.

The basic goal in preventing delays is to change the mindset of the personnel and the management about the process flow, time-related issues and performance.

Practical tools and procedures to motivate and facilitate active collection and utilization of monitoring information and to make the time aspect present in everyday work are needed. The problem is not as much a lack of active management in general, as it is a lack of managing the right goals and collecting and utilizing useful monitoring data from the delay reduction perspective. Active management of the output targets and their achievement unfolds the management's and organization's ability to manage performance and to adopt strict performance measures and targets, as well as to monitor their accomplishment closely. The need for setting time targets has to be accompanied by the need for broad consideration of the appropriate performance measures, measuring practices and incentives they give to the operations and to the prevention of delays.

The changes need to force time to become present in the work automatically and to increase its role in everyday operational actions and the decisions made. The setting of mere targets has been opposed because it is considered to endanger the quality and to increase the work load. That is why the setting of targets needs to be accompanied by other tools and procedures in order to get the time visually present, to increase the monitoring and work planning ability, and thus make it easier and more motivating to achieve the set targets. To motivate the achievement of time targets, the procedures need to include a clear monitoring scheme (who, what, how often, intervention practices) with accurate and well-presented information about the online inventory situation. The present study has offered examples on how to conduct a monitoring program for the use of personnel and management by utilizing the possibilities of information technology and setting clear rules for monitoring practices. A clear responsibility structure for the progress of all cases and for their monitoring is also needed. To help the achievement of time targets and to get the resources in better use, the procedures need to include clear guidelines for advance and long-term planning and scheduling of work. Clear planning procedures are needed especially for the more complex cases. The planning procedures help to differentiate the production process for cases with different requirements. Examples of project-based planning and scheduling procedures for complex cases have also been given in the study.

In order to reduce and take into account the challenges in delay reduction and implementing the improvement initiatives, also the process improvement practices need to be improved. The caseflow management guidebooks and manuals offer quite a mechanical picture of process improvement solutions and pay fairly little attention to overcoming the approval barriers. The solutions needed to prevent delays in courts can be quite simple and straightforward, but their implementation is more complicated. In order to reduce and prevent delays efficiently, the courts must adopt an altogether broader and more comprehensive approach to analyzing the process and operational problems and implementing the solutions. Taking into account the challenges of the adoption and implementation of the solutions involves renewing the process improvement practices in order to make them more systematic, continuous and target-oriented. This means setting clear targets for improvement and opening clear improvement paths, participating,

spurring and motivating employees, highlighting the importance of fixing the problem, designing the solutions as easy to use and automatic as possible, and allowing time for change to happen gradually.

7.1.1 Managerial suggestions

The managerial implications are divided to two levels: contribution to the government and ministry level concerning process improvement in the whole Finnish justice system, and contributions to the court managers in different court organizations.

Government and Ministry

The potential managerial implications for the government and ministry level consist of two primary areas of improvement in the management of the whole justice field.

The first area is the implications to a change needed in the focus of performance measurement. The first step in this would be to form a nationwide consensus and a desired state concerning delays, and to hold the court organizations accountable for the achievement of these clear targets about delays with the help of performance measurement and control practices. The performance measures used in monitoring the performance of different courts should explicitly state and reflect the aspects regarded important in the performance and quality of justice processes. The measures used for timeliness need to be changed from measuring and setting targets for average throughput-times of solved cases to controlling of the pending inventory situation and setting targets for maximum throughput-times. This change would aim at preventing all delays and turn the attention of caseload management to the age of the active work in process instead of the output. In performance measurement it is a reality that output productivity needs to be monitored and kept at a satisfactory level. However, also the practices in the measurement of output productivity should be critically considered to ensure that the practices are not contradictory with the delay reduction programs in courts and do not hinder the motivation and efforts to reduce the delays and variations in case throughput-times. It would also be beneficial to evaluate and clarify the roles of managers at different levels in the goal setting and performance monitoring. The government level could concentrate on setting the overall mission, vision, outcomes of operations and target state for different judicial institutions. These issues are currently somewhat forgotten or take a second place compared to the setting of more operational output targets. The management of everyday performance could be brought much closer to the operations; the choice of precise performance measures, as well as the target setting and monitoring should be made the responsibility of the functional management team in a given organization.

Another area of managerial implications to the government-level management is the need to take a broader view and perspective to the process improvement of the whole justice field. Now, as the process improvement work and delay reduction programs have been started in different court instances operating in different roles in the judiciary, it would be

beneficial to start conducting a clear improvement strategy and plan for the whole field. The strategy should include collective assessment tools for analyzing the current process state, paths to improve different areas of operations, and a scheme to transfer the best practices effectively across organizational boundaries.

Court managers

The managerial implications for court-level management also include two primary areas for the improvement of court caseload management.

The first implication is the examples of the practical tools presented in the study for everyday monitoring and controlling the pending inventory situation and the progress of cases in the process, as well as the procedures and rules to increase the planning aspect of the production process and defining clear process responsibilities. The context of the organizational environment that the tools have been designed for is described, making it possible to use the idea of the tools in developing applicable solutions for inventory monitoring and production planning of one's own. The tools highlight the importance of being easy to use, automatic and online, in order to increase the adoption and approval of the solutions. Information technology enables information to be easily collected and utilized in day-to-day management of caseload. By setting clear targets and developing new tools for monitoring, the management can emphasize the importance of time-frames and change the attitude towards and attention paid to time. The need for differentiating the cases in the light of time-frames and handling procedures can also be highlighted as good managerial action. The differentiation not only emphasizes the different needs of case groups, it also makes the planning of the work easier.

Another area of managerial implications for court managers is the introduction of systematic approaches to start the work aiming to create a continuous process improvement culture in the court. Many courts have a lot of improvement work going on constantly, but the process performance issues and delay reduction have so far been left in the shadow of improving other quality and administrative factors. The process thinking and process understanding will not increase and the attitudes will not be changed unless these issues are highlighted more in the organizational improvement efforts. The experience gained in the case courts supports the notion that the management's interest towards process improvement and process performance is critical in initiating the interest towards improving timeliness and in establishing a process culture. It can be beneficial to use external process improvement expertise, especially in the initial phase of the improvement to highlight the importance of the subject and to create systematic procedures for a continuous improvement strategy. Other important aspects in designing a process improvement culture include making the improvement target-oriented, involving as many employees as possible, giving time for improvement, designing clear stages for the improvement work (from problem analysis to implementation efforts), and encouraging continuous identification of operation improvement opportunities. The introduced areas needing improvement help in identifying all relevant aspects and taking into account the connections between them in the process and the operation improvement work.

7.2 Contributions to the literature on process improvement work in professional public organizations

Based on the lessons learned from the two professional public organizations' process improvement projects, the present study aimed to contribute to the theoretical discussions of process improvement applications in professional public organizations by increasing the knowledge concerning critical and influencing factors which need to be highlighted in different stages of process improvement work. On the basis of the lessons learned, the study gives suggestions and guidelines for future process improvement interventions in professional public organizations.

Especially, the thesis aimed to recognize and highlight the critical factors which need to be taken into account in the improvement work in order to apply process improvement techniques effectively and at the same time create ownership towards the solutions. The possible roles of an external experts in achieving these aims are discussed in the context of the critical factors.

The identified factors are discovering and descriptive by nature, where the aim has been to empirically uncover areas and elements connected to successful process improvement in professional organizations to be studied and tested further in the future.

The identified critical factors and areas in different stages of process improvement work in professional public organizations are presented in figure 42 and discussed below.

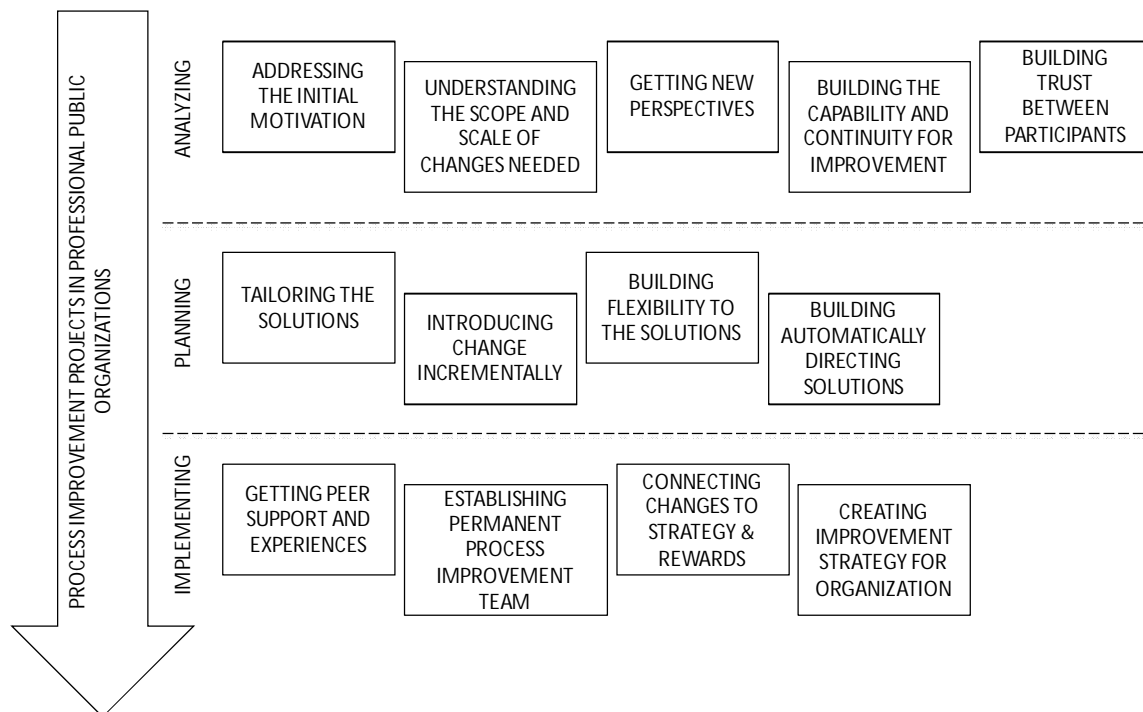


Figure 42 - Critical factors in process improvement work in professional public organizations

Analyzing phase – Creating motivation and challenging the existing working methods

The critical factors in the analysis phase are areas which should be highlighted and incorporated in the unfreeze stage of the improvement work in order to ensure the motivation and capabilities needed for improvement and to create the needed understanding about the process performance problem and change required.

On the basis of the results, the external experts need to concentrate on these diagnostic interventions in order to get the organization to challenge the existing ways of doing things.

1. Addressing the initial motivation

An important critical factor in the analysis stage of a process improvement project is to stress and discuss the origin of the initial need for change and improvement. The initial need for change is not always as straightforward as in industrial organizations (for example market pressures), but the general feeling among the employees of wanting to change is even more critical in creating successful and sustainable change. Especially in improvement efforts connected to process improvement, widespread willingness to improve and change is important due to the delicate nature of process performance issues in professional public organizations and to the fact that the change usually affects all parties in the organization. The widespread willingness and general feeling of wanting to change in the organization turns the whole atmosphere towards improvement and is the first critical building block in creating ownership towards the solutions. Without it there is the danger of “spurious improvement” to please for example the governmental level or other stakeholder groups.

In the case organizations, the general willingness and commitment to change was estimated to be one of the most important factors in enhancing the adoption of change initiatives. The timing of the project is one element which needs to be considered. It needs to be appropriate; some change in old routines and structures (for example a new manager or new management structure) can be a good initial starting point for creating the atmosphere for more widespread change and improvement by already somehow challenging the existing ways of doing things.

However, besides the timing of the projects the initial motivation and starting point for improvement needs to be otherwise actively addressed in the beginning of the project. The role of the top management is crucial in this stage: in building the foundations and motivation for improvement. The managers need to communicate about the ultimate goals of the improvement and set an example by being active members in the improvement work and thus downsize the fears connected to the improvement. In professional organizations the managers are well respected, and thus active managerial involvement in the improvement work makes the work seem important and creates interest towards it.

The use of external expertise can cause fear of cost-cutting or other unwanted changes, and can thus have negative influences on the willingness and motivation to change. The external helpers can decrease this fear by discussing about the purpose of the project and the initial motivation for the improvement work with the employees. The external experts also need to stress that the desire to improve has to come from the organization, not from outside, in order to build ownership towards the project.

2. Understanding the scope and scale of changes needed

In the beginning of the improvement work there is a need to create the basis for understanding the scope and scale of the changes needed. In an industrial organization the process improvement is more often connected to “fine-tuning” the processes, whereas in a professional organization the need is more profound: a need to change the attitudes and customized way of thinking and thus create the basis for process understanding.

There may be the conception that the process performance problem is a cause of some individual source that can be easily remedied (for example lack of resources). Creating understanding that the problem and its causes are structural and connected to diversified and interconnected aspects of organizational operations creates a building block for motivation and willingness to start the process improvement work systematically, aiming for deeper and more profound changes in operations and attitudes.

This calls for conducting profound problem and improvement need analysis in the beginning of the improvement, and the communicating about and discussing them in the organizations. It is important to incorporate different points of view from different positions in order to create a general view of the needs and their interconnections and to create a widespread feeling of influencing the project and the changes.

The use of external experts in conducting the analysis is useful to get an impartial and balanced view of the process improvement needs. The external experts can also utilize different types of interventions for acquiring diversified opinions, for example interviews. Professionals like to talk about their work descriptions and problems connected to it, and by devoting time to talk with different people creates not only a diversified picture of the improvement needs but above all creates a positive atmosphere towards the projects, as different employees groups have the opportunity to express their fears and hopes concerning process improvement.

If the external experts have been able to create a good relationship with the organization and the initial motivation for improvement is understood, the employees are generally more willing to discuss the problem areas with an outsider (and the contrary if the underlying motives of the external experts are questioned). The conclusions and interpretations about the uncovered problem areas still need to be made by the members of the organization. The external expert can make certain that the analysis is done thoroughly and discussed, even though there can be a tendency to move ahead with the planning.

3. Getting new perspectives

Because the procedures in professional organizations have strong and fixed background and traditions and there is often not diversified expertise available in the organization or previous history of process improvement, there can be difficulties in getting a new perspective to work processes and really challenge the existing ways of doing things.

According to the results of the study, the traditional working practices influence the improvement particularly in a way that it is difficult to produce completely new ideas and solutions for the renewing of operations and process flow, and there have not been successful procedures to collect and upgrade process improvement initiatives. This is caused by the fear that improving process performance will weaken the other conditions of professional work. Not knowing makes it more difficult and less attempting to search for and apply novel process improvement concepts in the organization.

In order to analyze the processes without being too tied up with the boundaries set by the existing working methods, the use of external expertise in creating successful change is useful, especially in helping to “see out of the box” and “get out of the comfort zone”. In the case organizations, the biggest benefit from using external expertise was said to be the new perspective to operations and novel ideas. The external expert can bring new insights and increase the understanding of different process improvement methods, conduct a new type of analysis, utilize different types of interventions, and plan opportunities for structural discussion of the possible improvement techniques.

Using external expertise contains also the danger of reinforcing prejudice towards the improvement and decreasing the ownership towards the project. The use of terms and isms from the manufacturing sector can cause challenges to the approval of the offered solutions. It is easier if the external experts have previous knowledge and experience concerning process improvement in professional organizations and can thus use a suitable language and approach to the organization and decrease the fear of unsuitability. The expert could also be a member of another professional organization giving peer example of improvement efforts.

In order to create ownership towards the project in the organization it is important that the outside expert does not force some technique too much, but merely introduces ideas, possibilities and challenges for the organization members to think differently and see new issues connected to their everyday work.

4. Building the capability and continuity for improvement

The staffing of the improvement project proved to be one of the most critical success factors in the case organizations. There were two critical aspects in this: the actual staffing of the improvement group and creating the understanding in the group of the need to commit themselves to long-span and persistent improvement work.

In the staffing of the improvement team, top management involvement is essential in order to create motivation and bring decision making power to the project work. Also members from all personnel groups are needed in order to get all points of view and to avoid resistance towards the changes from some group. It would also be beneficial if the improvement group included both employees that are enthusiastic for improvement and employees with a more suspicious mindset. The enthusiastic employees are the candidates for becoming the internal champions and facilitators which are necessary for creating sustainable change and ownership, but also the strong opposing views should be revealed at the early stages of the improvement work. The staffing decisions are balancing between the participation level and the functional and acceptable size of the group. In order to avoid a too large improvement team, also other participation techniques are needed, for example interviews and the use of smaller task force groups for some special issues.

It is important that the group is permanent and every member is committed to long-term improvement work and are willing to devote time and energy for the project. This should be addressed in the beginning and plan and collectively accept the general content, progression and timetable of the project.

The external expert can help in planning staffing decisions and making sure that right personnel groups are represented in the group. The external expert can help especially in keeping the improvement work going on in the organization, even if it takes time. Keeping the improvement work going on was an important benefit of an external expert highlighted in the case organizations.

5. Building trust between participants

The professional organizations are often hierarchical and the different employees hold a great deal of professional respect and pride. This is why extra attention should be paid to building trust between participants in the improvement group. A good atmosphere and trust are essential in order for everyone to express their opinions and give suggestions freely. This requires encouragement and activation skills from the management.

If an external expert is used in the improvement, it is also necessary to build trust between the organization and the outsider. The external experts need to understand and respect the organizational mechanisms for the trust to be built. It is easier to build the trust if the external experts have previous experience of process improvement work in professional organizations. The benefits of using external expertise are that they may have a power-balancing effect in the work group and by possessing conflict-management skills they can keep the discussion and debate structured and on the subject at hand.

Planning phase – creating new solutions

The critical factors in the planning stage of improvement work are issues that should be incorporated in the improvement initiatives to create functional and acceptable process improvement solutions for professional public organizations.

1. Tailoring the solutions

The context of the process improvement solutions should be designed on the basis of the exact needs of the organization and by the members of the organization to create ownership towards the solutions and to increase functionality and acceptability. Applying a technique directly from the industrial environment causes prejudice and negative attitudes towards the solutions. A solution from another professional organization should not be straightforwardly applied either. The exact needs can differ, and the process of planning the solutions based on the analyzed needs of the organization is an important phase in creating ownership by creating a sense of influencing and by increasing commitment.

The external expert can bring ideas from other improvement projects and keep the planning work going on, but the members of the organization need to plan the exact context of the improvement initiative. If the concentration is too much on introducing some tools or techniques, there is the danger that the employees have not understood and analyzed the need for the tool by themselves.

2. Introducing change incrementally

In professional organizations there is a fear that the improvement solutions will only complicate the already highly complicated work and will require extra work and efforts. This decreases the willingness to try or to even understand new things if they seem too technical, scientific or complicated. This is why the solutions should be kept simple, introduced incrementally, keeping the new information at an acceptable level and using appropriate language.

Even though profound change in the mindset is required, it is more a questions of challenging existing working methods than needing complicated and sophisticated process improvement techniques.

3. Building flexibility to the solutions

The old methods of working are usually deep-rooted in professional organizations and due to the autonomous nature, everyone has created a way of their own in carrying out the work. When the solutions are planned to be flexible so that everyone can utilize them in an appropriate way which does not require too large working method changes, the adoption and acceptability of the solutions is increased. This means that the functional solutions are more in the nature of helpful tools, collectively agreed rules, guidelines and

procedures that do not intervene with the precise content of the working method and style too much and respect the autonomous nature of the employees.

4. Building automatically directing solutions

Due to the autonomous nature of the work, the acceptable and functional solutions should be based on the self-control and self-management of employees which automatically directs their work and are not based only on direct supervision. The solutions need to be genuinely helpful in carrying out the work and automatically present in everyday operations. Computer technology offers possibilities to achieve visual and automatic guidelines for employees to carry out their work.

Implementation phase – Creating mechanisms for diffusing and institutionalizing changes

The critical factors in the implementation phase of improvement work are issues that need to be addressed to make the adoption of the improvement solution more widespread and build the conditions for achieving sustainable change.

1. Peer support and experiences

Due to the prejudice towards process improvement applications and solutions it is critical to get and effectively communicate peer experiences of utilizing the improvement initiatives. There are always going to be slow adapters who want to make sure that the solution is suitable for professional work and that it brings more benefits than disadvantages. The only way to inspire and get the interest in some cases is to get someone from the same professional field to try new procedures and communicate about the experience. That is why in creating widespread and sustainable change, getting and spreading good experiences and best practices is a prerequisite.

External experts can communicate about the good experiences from another professional organization to inspire and motivate the improvement work and design interventions aiming to test and experiment solutions with a smaller group. However, it is vital that change champions and facilitators are found inside the organization, which can spread the experience and good practices, spur and offer guidance and help.

2. Permanent process improvement team

The continuity of the improvement needs to be ensured during the improvement work in order to maintain the momentum of the changes and to continue the improvement efforts. By establishing a permanent process improvement team, it is possible to keep the change initiatives alive, and get also the slow movers to adopt the changes by reminding them. The team can also evaluate and monitor the improvement initiatives, make corrective actions and continue the incremental changes and improvement efforts. The establishment of formal institute responsible of improving the processes and process performance-related issues is an important part in creating process understanding and

culture in the organization. The constant reminding of the improvement efforts is the critical way to diffuse the adoption of the techniques.

External experts can support the functioning of the permanent process improvement team by helping the evaluation work and encouraging them continue the incremental improvement work by identifying future improvement needs.

3. Connecting changes to strategy and rewards

In the case organization the greatest obstacle in creating sustainable change was the failure to transfer the changes effectively to goal setting and reward structures at different levels of the organization structures.

Therefore, it is critical that the governmental level in professional public organizations supports the improvement by making certain that the strategy and operational targets are not in conflict and contradictory with the improvement efforts. Translating the changes to operational goals and measures is challenging in professional public organizations, due to the fact that the organization cannot straightly and solely influence the targets set, and various stakeholders are involved in the setting of targets. The goals set for the operations can also easily affect the choices of an individual and autonomous professional. If the improvement efforts and changes are not made worthwhile through the goal and reward structure, the achievement of sustainable change is challenging.

External experts can help in connecting changes to strategy and rewards by communicating about the changes upstream and influencing the management at all levels to make changes to rewards and to make a clear and unambiguous statement of what is wanted.

4. Creating an improvement strategy for the organizations

As the pressures to improve performance and productivity in professional public organizations have increased in recent years, there is a danger of over-improvement. In the case organizations there was noticeable “improvement- tiredness”.

If there are many different types of improvement projects and efforts going on simultaneously, it influences the willingness, attitude and motivation to improve, makes it more difficult to find the needed capabilities and resources for the improvement groups, and makes the organization to lose sight what is really important. That is why professional public organizations should make a clear improvement plan based on analyzed improvement needs and centralized improvement responsibility. This would decrease the negative effects to the attitudes caused by constant new procedures introduced by several different improvement groups.

7.3 Evaluation of the study

In this chapter, the study and the research approach, methodology and choices are evaluated from five perspectives: the value of the study, the suitability of the research approach to the research questions, objectivity and internal validity, transferability and external validity, and the practical utilization value of the results.

7.3.1 Value of the study

The study has increased the understanding of delays and delay reduction work and the influencing factors in different types of caseflow management techniques in court organizations. It has uncovered and discussed new areas connected to the nature of the delay problem, analyzed the sources of the delays and the implications to everyday operations and the value system. Based on the analyzed needs and problem areas, the study has provided functional and acceptable example solutions on how to increase the role of time in court operations. The study has also provided suggestions and implications for managers on different levels of court organizations in dealing with the delay problem and organizing delay reduction work and programs.

With the lessons learned from two case process improvement projects, the study has brought new perspectives and insights concerning the critical factors of successful process improvement work and projects in professional public organizations.

The study has contributed to the discussion of process improvement applications in professional public organization by confirming critical factors previously highlighted in the literature and bringing new insights into the factors that need to be addressed and incorporated in the process improvement work in order to enhance the application and acceptance of the solutions.

The study has brought new knowledge and suggestions especially on how to carry out process improvement work: what areas and factors need to be highlighted in different phases of the process improvement work, how the critical factors can be incorporated into the different stages and interventions of the process improvement projects and what is the role of an external facilitator in assisting process improvement work and in enhancing ownership towards the solutions and improvement.

Overall, the study has highlighted the need to concentrate on the critical factors aiming to make the employees challenge their existing ways of conducting work, analyze their own processes, and create procedures for diffusing the process improvement culture, instead of merely concentrating of finding tools, techniques, and solutions appropriate for applications from the manufacturing sector.

7.3.2 Suitability of the research approach to the research questions

The research questions of the study aimed to uncover critical factors in process improvement work in professional organizations and to analyze the ways the factors can be taken into account in the different stages of process improvement work and projects utilizing external improvement expertise. The research questions aimed particularly at uncovering areas for research and theory development, describing the critical variables connected to process improvement programs in professional public organizations.

The research topic of process improvement in professional organization is relevant as the literature offers quite limited contributions to the topic, and there is a practical need in professional public organizations to execute and carry out successful and influencing process improvement work. Because the theory and generic models of process improvement in professional organizations are on a developmental stage (see e.g. Radnor and Walley 2008) there is still a need for empirically studies, evidence and experiences on the success factors of process improvement in different types of professional organizations for theory building and theory development purposes.

The qualitative, theory-building case study research approach provided an opportunity to get a rich source of different types of data and made it possible to get diversified insights into the complex processes and interconnections and the “how” aspects inherent and involved in the process improvement work.

The projects and the research questions of this study were guided by a need to solve a real-life problem and a need for practical outcomes. The initial situation was that a need to combine knowledge from the practice and reality in justice courts and the research knowledge of process improvement and operations management was expressed. The aim of the co-operation was to solve the problem concerning delays and increase knowledge concerning process improvement in professional organizations.

Action research helps researchers to explore concepts in the real world and to look for patterns that may help them to understand what is happening and how and why something is done, by providing depth and richness to understanding a phenomenon pertaining in a given situation (Näslund et al., 2010). The action research approach was a natural choice for the present study, as the initial starting point was practice-oriented, and there was increased emphasis and need for relevancy, a need for combining different fields of knowledge, and a need to increase the understanding of both the researchers and the practitioners about the issue.

The inherent relevancy of the research questions is one of the greatest strengths of action research. As the practical need drives the formulation of the research questions and the initial need for studying the issue, the question of relevancy for scientific purposes emerges and can lead to a critique of the research project resembling consulting and lacking theory orientation.

In the current knowledge and literature of process improvement in professional organizations, the need of understanding the application possibilities of process improvement concepts, the possible ways and procedures to carry out successful process improvement work, and especially the need to increase the adoption and acceptance of different process improvement methods have been highlighted (see e.g. Adler et al., 2003; Halachmi and Bovard, 1997; Radnor, 2010; Radnor and Walley, 2008). This made the research questions also theoretically justified and made it possible that the research questions could be formulated in a way that was both beneficial and in mutual interests of the researchers and the client organizations.

Answering the research questions required in-depth and longitudinal case studies using both qualitative and quantitative data emphasizing the rich and real-world context of the process improvement. The case study approach and the action research approach and the shared interest towards answering the research questions motivated both parties to invest a lot of time and resources in studying the phenomenon and made the in-depth, intensive and longitudinal approach possible. The action research approach also made it possible to get access to unique and versatile data and tacit knowledge, and to understand these highly complex and interconnected issues by enabling inside, first-hand involvement in the change process and by motivating the organization to share the information and data with the researchers.

7.3.3 Objectivity and internal validity

The questions surrounding objectivity and internal validity have been highlighted in the discussions concerning the limitations of the action research approach. The possibility of bias and the researcher's influence on the interpretations, reflection and analysis and how these have been taken into account in the research design, the roles of the participants, the data collection and data analysis procedures need to be addressed and described for the research to become more rigorous (Näslund et al., 2010).

The approach to the projects was participative with close co-operation between the parties, where the role of the researchers in the projects was intensive (continuous interaction and dialog for several years). However, the role and purpose were not to sell and implement some readymade solutions. Instead, the primary role was the introduction of new ideas based on current knowledge, and spurring and directing the change creation project (the analysis, planning and implementation efforts) conducted together with the client organizations.

The analysis process was based on joint construction in different co-operational occasions and workshops arranged during the years. All the interpretations about the situation, meanings and data, and all the designed solutions were discussed and analyzed regularly and collaboratively with the client organizations in the workshops throughout the years. This made it possible to test, criticize and make rival conclusions about the researchers' assumptions, viewpoints and conclusions continually. The categorization and the interconnections formed in the reflection and content analysis were introduced to the

client organization and discussed. The role of the research group in the different stages of the project, the number of occasions and the time spent in the organization, as well as the context of different occasions was also explicitly described in the presentation of the research projects.

Multiple investigators have two key advantages: they enhance the creative potential of the study and enhance confidence in the findings (Eisenhardt, 1989). In the present study the investigator triangulation and the team-based approach both in data collection and data analysis increased the reliability of the research outcomes and reduced the risk of investigator bias. At least two members of the research group participated in the data collection and the analysis process of the collected data at all times. The reflection of the projects and the meanings were done on the basis of the observations of several researcher participants. The possibility to use investigator triangulation in all phases of the project also increased the access to data and trust from the client organizations, as multiple skills and competencies could be combined, and experienced researchers were involved. The categories formed in the data analysis process were verified and confirmed within the research group, as summarized in appendixes 1 and 5.

The team-based approach was utilized at many levels during the projects. There was a pure researcher team, a joint project team, and several task teams consisting solely of members of the client organization. In these teams the same issues, events, meanings and situations were analyzed and interpreted from different perspectives and different viewpoints, and combined to joint-meaning constructions.

Theory-building research typically combines multiple data collection methods (Eisenhardt, 1989). In the present study data triangulation was utilized in increasing the reliability and reducing the risk of data bias. Multiple data collection methods were utilized and both “hard” data (operational statistics) and different forms of “soft” data (interviews, observations, and workshop materials) were collected and analyzed during the projects.

One potential risk source is the trust between the client and the researcher, and that the change facilitators conduct the interviews and the interviews serve the aims of both change creation and research. In this situation the informants may want to “keep up appearances” or fear the possible outcomes of the change project. This can have had some effects on the nuances of the answers compared to interviews conducted by a person completely outside of the organization with no connections to the improvement projects. This risk was reduced by the fact that the conclusions from the interviews were challenged and verified with conclusions drawn from other data material and acquired tacit information, and the conclusions and interpretations were verified with the client and compared between the two separate client organizations.

All the collected data was documented, retained and kept available. All interviews were tape-recorded and transcribed, all statistical analyses and workshop materials were retained, and field notes and journals were made in all workshops by several researchers. Also the notes and memos conducted by the client representatives were documented. The

data collection, as well as the analysis process and the categories formed and the data used were described in detail, making the chain of evidence and interpretations observable for readers.

7.3.4 Transferability and external validity

Case study research and action research are criticized about the limits of generalization of the results due to the limited number of cases. Case studies and action research projects are unique and situation-specific, and do not aim to create universal knowledge, but rather deep understanding of a certain phenomenon. The possibilities of exploration from a local situation to local generalization need to be discussed and analyzed (Coghland and Brannick, 2008; Näslund et al., 2010).

This study has included two case studies. Two case studies help generalization, as it makes it possible to cross-case analyze the similarities and differences, as well as the organizational, process and operational characteristics leading to those differences. Also the different forms of data collected in the two cases were consistent and comparable.

As courts of justice are typical professional organizations, these cases were both suitable and relevant with the research goals of the work. Both cases represented professional public organizations with increased need for applying process improvement techniques and solutions.

The number of cases was limited and they were not independent experiments. The two case studies have been used in order to replicate findings from case to case and thus verify and identify the critical factors connected to process improvement work in a more diversified manner, not to build generalized theory. The generalization of all the results was not an important objective of the thesis. The objectivity is the deep understanding of the factors connected to the process improvement, and producing transferable knowledge of what issues need to be addressed and how organizations can go about the improvement work. In action research, completely generalized conclusions cannot be made, the new knowledge produced is situational and contextual, and it cannot be claimed that every professional public organization will behave as the ones studied for this thesis

When adding the results and case comparison to previous knowledge of process improvement applications in professional organizations, it can be said that some parts of the results seem to be more general and transferable both to other courts and to other professional public instances.

Large parts of the practical results are applicable and exploitable in other courts, both in practical court process improvement and in the research on delay reduction and caseload management. It can be claimed that the identified operational areas needing attention in the improvement and the general approach to the improvement work (e.g. progress, phases, and issues needing consideration) are applicable and likely to be useful and relevant also in other court organizations. The results are general in the way that different

court organizations can and should start analyzing their own situation and own suitable solutions from the perspectives, operational areas and approaches introduced in the results. The precise improvement initiatives and tools, and the precise contents of the improvement project depend on the organizational and process characteristics of the given court. This is evident also from the fact that the areas needing attention in the case organizations and the general progress of the improvement were similar (even though the operational environments of the case organizations were different), but the solutions were somewhat different due to differences in the product range, production process, organizational characteristics and for example technological readiness. Still, the basic idea of the introduced tools can be useful and interesting for other courts in inspiring and directing their own development, design and implementation of process improvement techniques.

Even though courts of justice are a unique organizational environment, they have typical characteristics of professional public sector organizations. The results are general in the way that different professional public organizations can and should start and carry out their process improvement work by addressing the factors introduced in the results. The results both support, add to and challenge previous notions and conclusions about factors connected to process improvement in professional public sector organizations, for example concerning the general approach and stages of process improvement and arrangements of improvement. This makes the results of the general approach and factors of process and operations performance and improvement useful and applicable in the research concerning process improvement in similar professional public sector organizations, instances and authorities.

The case organizations where the solutions were implemented, the organizational characteristics affecting the implementation, and the content of the solutions have been described in detail in the thesis. This enables the readers, both practitioners and researchers, to find and compare the similarities and differences with their own situation, assess the potential for transferability, and utilize the results according to them. The complicating side in providing rich descriptions in full detail are the connections between the organization's situation, the problems, the solutions and improvement efforts, the researcher's own learning and self-reflection, and the high interconnection between all these, making the reporting of action research projects a difficult and complicated task.

7.3.5 Practical utilization value of the results

Action research needs to provide significant results, sustainable change and workable solutions for the client organization, and the practical value of the results need to be analyzed and discussed (Coughlan and Coghlan, 2009).

The situation concerning old backlogs and delays in the case court improved considerably during the projects. This could be verified with the regular operational statistical analyses conducted before, during and after the improvement projects. Also the opinions of the client representatives supported the notion of significant improvement both in process

performance and working methods. The longitudinal projects and the fact that also other changes in the environment and organizational settings happened during the years, makes the exact estimating of what scale and amount of the delay and backlog reduction was a straightforward consequence of the improvement project and the new solutions and what were effects of other issues impossible. According the opinions collected in the case organizations, the projects and the changes had a notable effect, especially on the attitudes towards time, on process performance and on operational procedures. The identified problem areas, the designed tools and solutions and the approach to improvement were estimated to be workable, authentic and useful, and the whole project and approach applauded and recommended.

The conclusion that the results were workable and significant is supported by the fact that the solutions and the approach passed the “market test” and the results attained positive interest in the field and gained the approval of the funder. Our research group has started three other similar co-operation improvement projects in Finland. There are ongoing projects at the moment in the Helsinki District Court, in the Helsinki Administrative Court and in the Supreme Administrative Court. There has also been interest towards the results in other European countries, as this approach to court process improvement achieved special mention in the Crystal Scale of Justice Competition in 2009. The price and special mention are granted by the European Commission to innovative solutions contributing to the quality of justice in Europe. The interest in the field towards similar solutions and the improvement approach to similar problems also support the generalization and transferability of the results to other court instances in different sectors and levels of the whole justice system.

7.4 Need for further research

The issues and aspects surrounding effective process improvement work in professional public organization still needs further investigations and research.

An important direction for further research based on the present study is to use the existing knowledge and empirical evidence on the key aspects and critical factors and start generating a model and approach for process improvement. It is evident that the professional public organizations are unique organizational environments, and the initial starting point for process improvement is different from that in many manufacturing organizations. On the basis of the results of this study the model for process improvement should highlight the ways and procedures aiming to build the organization’s willingness, motivation, and capability in analyzing their own improvement needs, design their own solutions, and employ procedures to institutionalize the changes.

In the work of developing the model, the identified critical key aspects, their implications, and importance should be further tested and verified in different types of professional public organizations. Comparative studies including professional public organizations operating in different fields would help to verify and distinguish the common and situation-specific key aspects and get new knowledge on the process,

organizational and operational elements that have influence in the appropriate process improvement procedures and projects.

In order to create an approach and model to process improvement aiming to build sustainable cultural change, the different process improvement interventions carried out in professional public organizations should be studied and reported using more longitudinal approaches. The challenge is revealing and distinguishing solutions that genuinely create the basics for sustainable change instead of quick, short-term improvements. This calls for studies concentrating on what kind of long-term benefits can be achieved with different process improvement approaches and interventions.

One important research topic connected to the process improvement model is to study further the possibilities and challenges of different models of action research and external expertise in process improvement work in professional organizations. The possible roles, interventions and methods of the outside expert aiming not only to act in transferring possible improvement solutions but building the organization's capabilities to analyze their own processes, to design solutions and to create a continuum for the improvement work should be further studied. The research should create suggestions and guidelines for external experts to enhance a public organization's willingness and enthusiasm to improve and to gain ownership towards the solutions. In addition, the external expert's role in transferring best improvement practices and lessons from one professional organization to another should be highlighted more in process improvement studies.

In the industrial environment, the research on the process improvement possibilities has increasingly shifted to studying the improvement possibilities in networks of organizations and from the perspective of the whole supply chain and the organizational interfaces. Research and studies concentrating on the possibilities of finding the improvement potentials inter-organizationally between different institutes and organizations in the public sector appears to be still few in numbers.

Great potential for time and resource reduction may be found in improving co-operation and information exchange between different public institutes and organizations. The need to study thoroughly the value chains, the role of different organizations in the value chain and networks is valid for all professional organizations. Particularly in court organizations, one direction for further investigation would be to concentrate on the reasons behind the emerging of very long delays from the perspective of the whole chain. The approach would be more of a quality assurance and risk management approach to court processes, as it would focus on the "catastrophe" cases and on finding improvement areas from that perspective. By analyzing and studying the "anatomy" of very long delays in connection with different stakeholders (e.g. preliminary investigation, prosecutors, the different court levels and so on), the research could uncover and identify the most common areas, pitfalls and black holes, where the cases are in most danger of getting side-tracked and where long passive waiting times emerge. By knowing the problematic areas in the whole chain, the research can then identify the potential solutions to avoiding the "holes", for example the co-operation, information exchange and waste reduction possibilities in the interfaces of the different participants in the chain of justice. The

incorporation of the whole chain in the process improvement approaches would be beneficial from the perspective of the customers of justice processes. The importance of the reasonableness of the total throughput-time in the whole chain would need to be highlighted in the research of justice system, for example tools to better control and measure total throughput-time would need to be developed.

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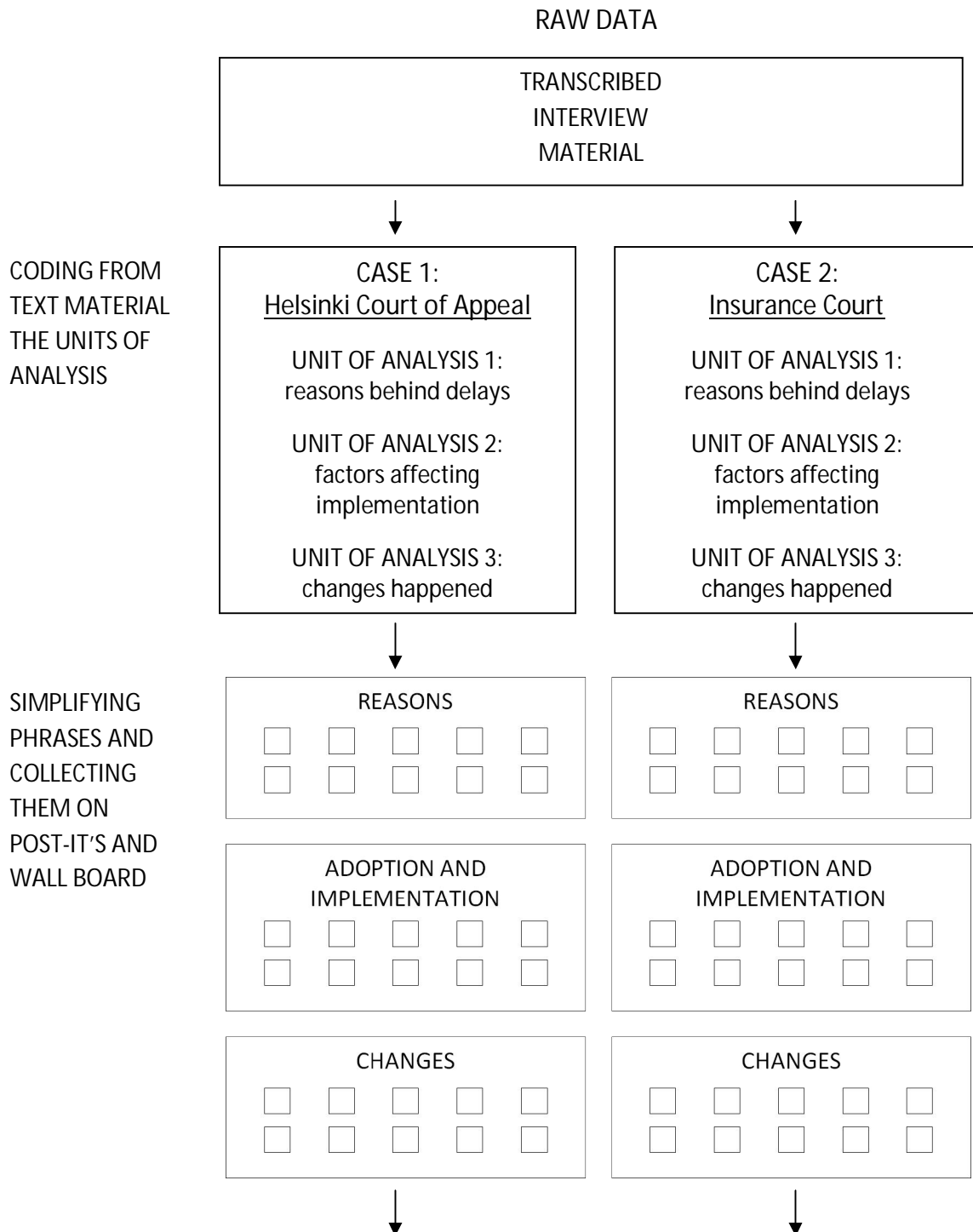
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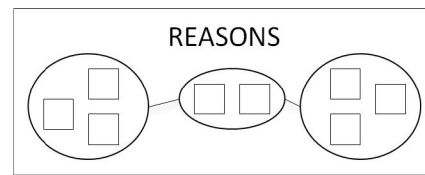
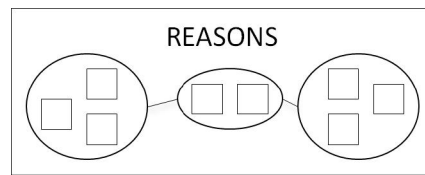
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DATA ANALYSIS PROCESS FOR THE INTERVIEW MATERIAL

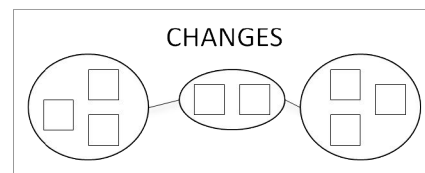
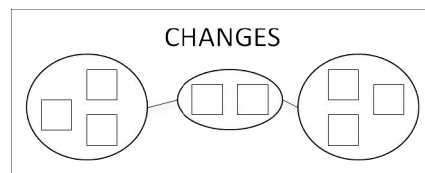
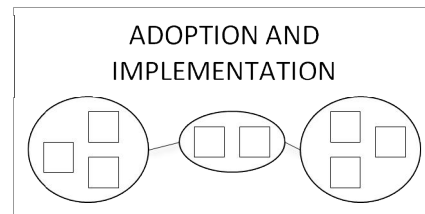
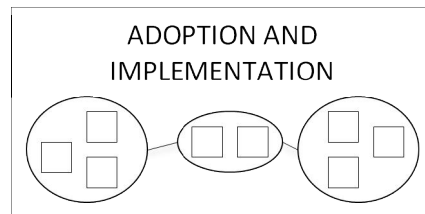


1. GROUPING

Grouping similar phrases

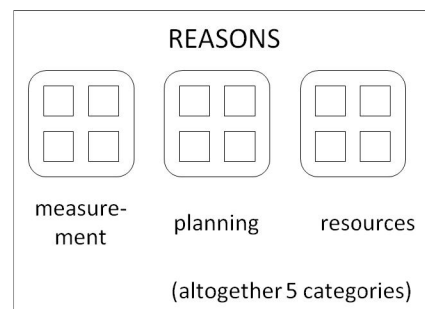
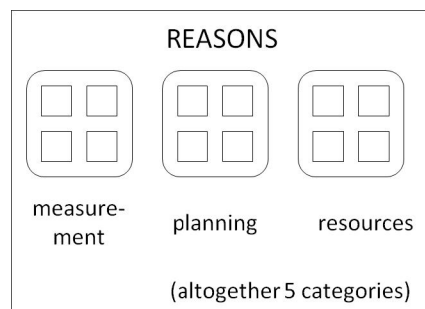


Analyzing connections between groups



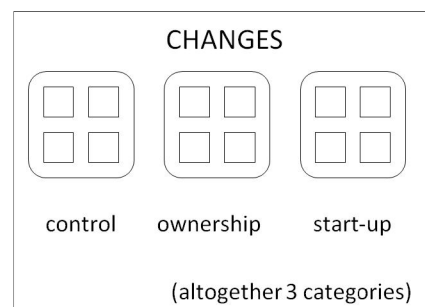
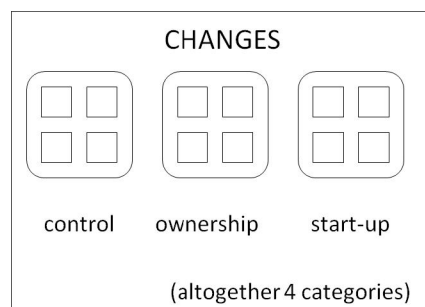
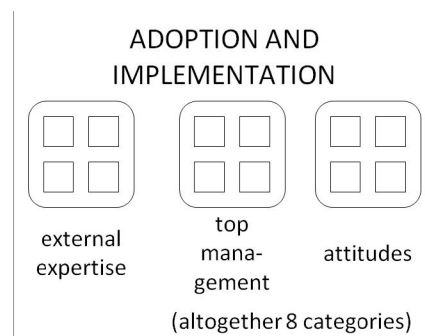
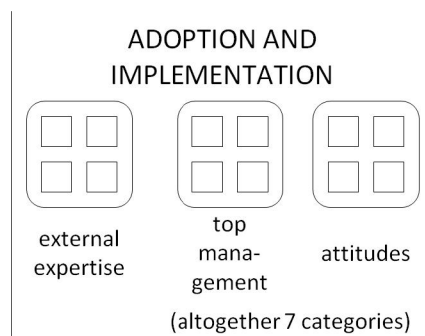
2. CATEGORIES

Discussing and verifying groups in the research group



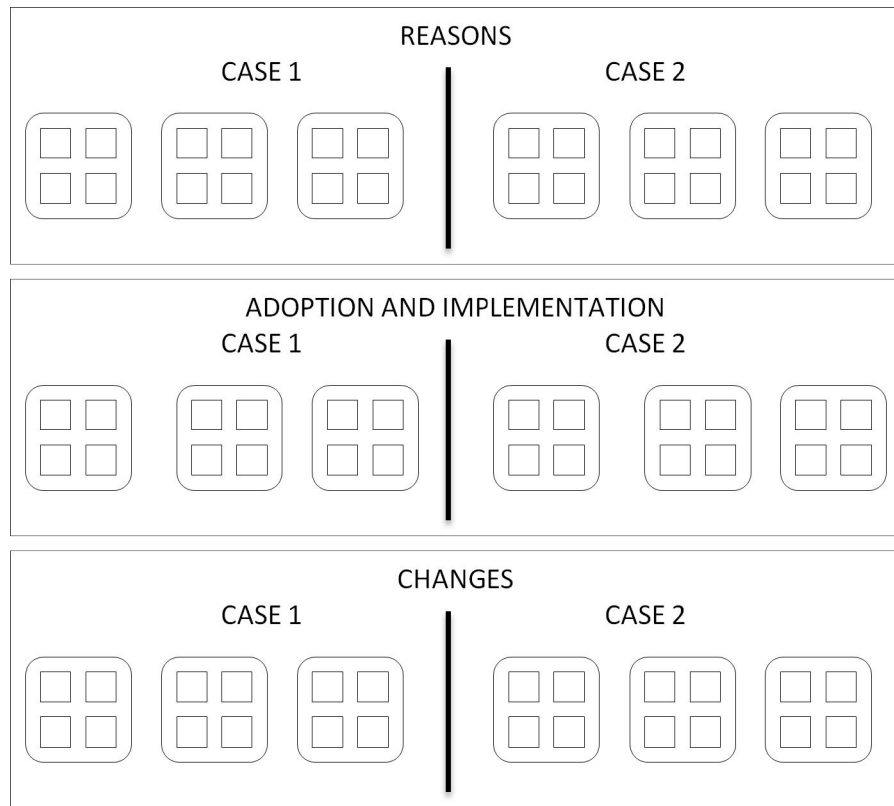
Forming and naming categories

(Examples of formed category maps concerning every analysis are presented in appendixes 2, 3 and 4)



3. COMPARING CATEGORIES BETWEEN CASES

Analyzing similarities and differences

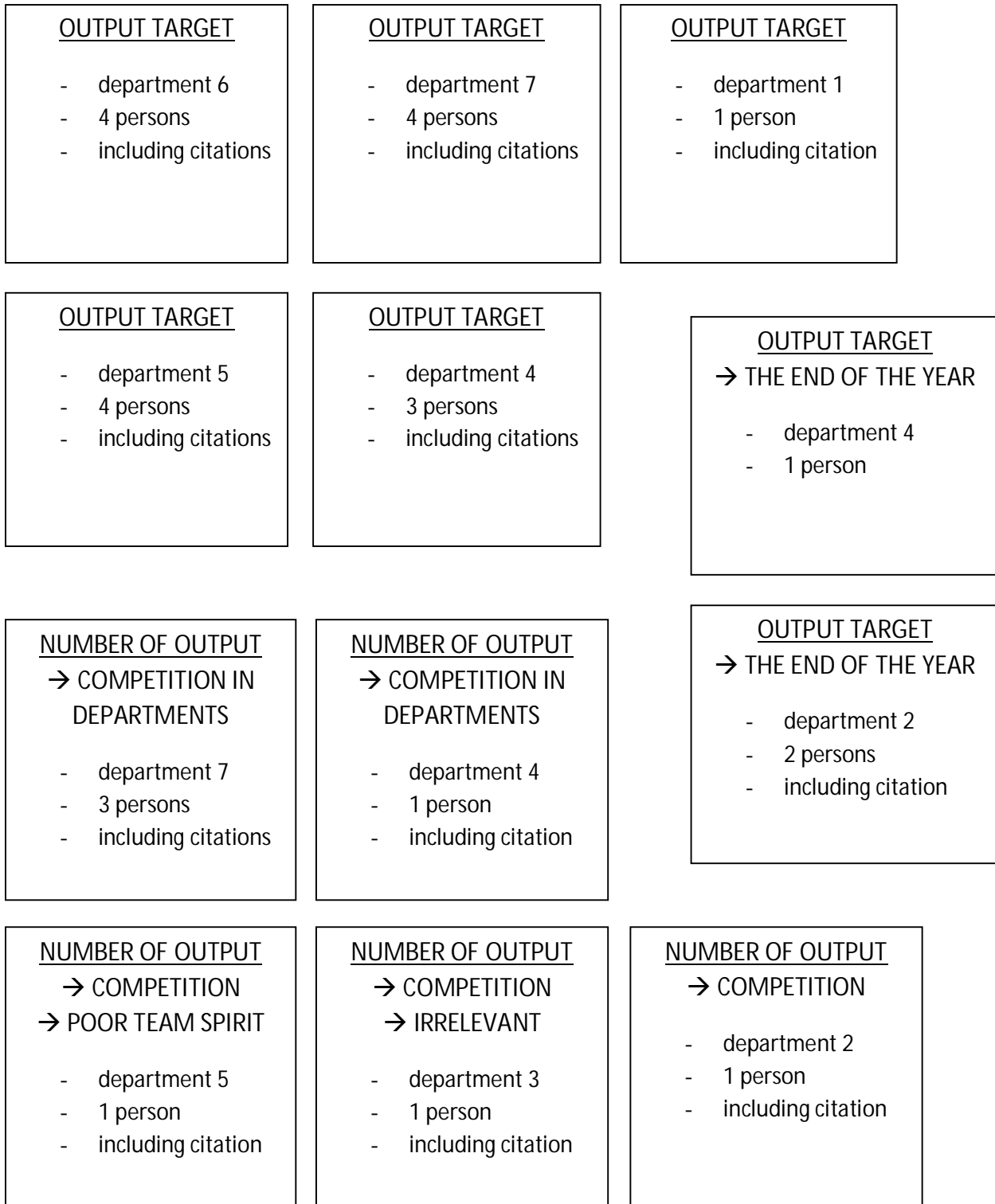


CONCLUSIONS

- WHAT ARE THE REASONS FOR DELAY PROBLEM?
- WHAT FACTORS AFFECT THE SUCCESS OF IMPLEMENTATION AND ENHANCE ACCEPTANCE AND ADOPTION?
- WHAT KIND OF CHANGES CAN BE ATTAINED?

EXAMPLE OF FORMED CATEGORY MAP "MEASUREMENT PRACTICES" AS ONE OF THE REASON CATEGORIES BEHIND DELAYS IN HELSINKI COURT OF APPEAL

MEASUREMENT/ OUTPUT TARGET



TOP MANAGEMENT INTERESTED IN OUTPUT

- department 4
- 1 person
- including citation

TOP MANAGEMENT INTERESTED IN OUTPUT

- department 3
- 1 person
- including citation

TOP MANAGEMENT INTERESTED IN OUTPUT

- department 7
- 2 persons
- including citation

TOP MANAGEMENT'S COMMITMENT TO REACH THE NUMERICAL OUTPUT TARGET

- department 1
- 1 person

HANDLING TIME OVERLOOKED

- department 2
- 2 persons
- including citations

OUTPUT TARGET NOT A GOOD METER FOR OLD CASES

- department 3
- 2 persons
- including citation

EMPLOYEES FED UP WITH CONSTANT ADJUSTING IN THE OUTPUT

- department 7
- 1 person

OUTPUT TARGET OVER THE ORDER OF AGE

- department 1
- 2 persons
- including citations

THE IMPACT OF THE OUTPUT TARGET TO CASE HANDLING ORDER

- department 3
- 1 person
- including citation

LOT OF WORK RUNNING AFTER THE OUTPUT TARGET
→ QUALITY SUFFERS

- department 2
- 1 person

LOT OF WORK RUNNING AFTER THE OUTPUT TARGET

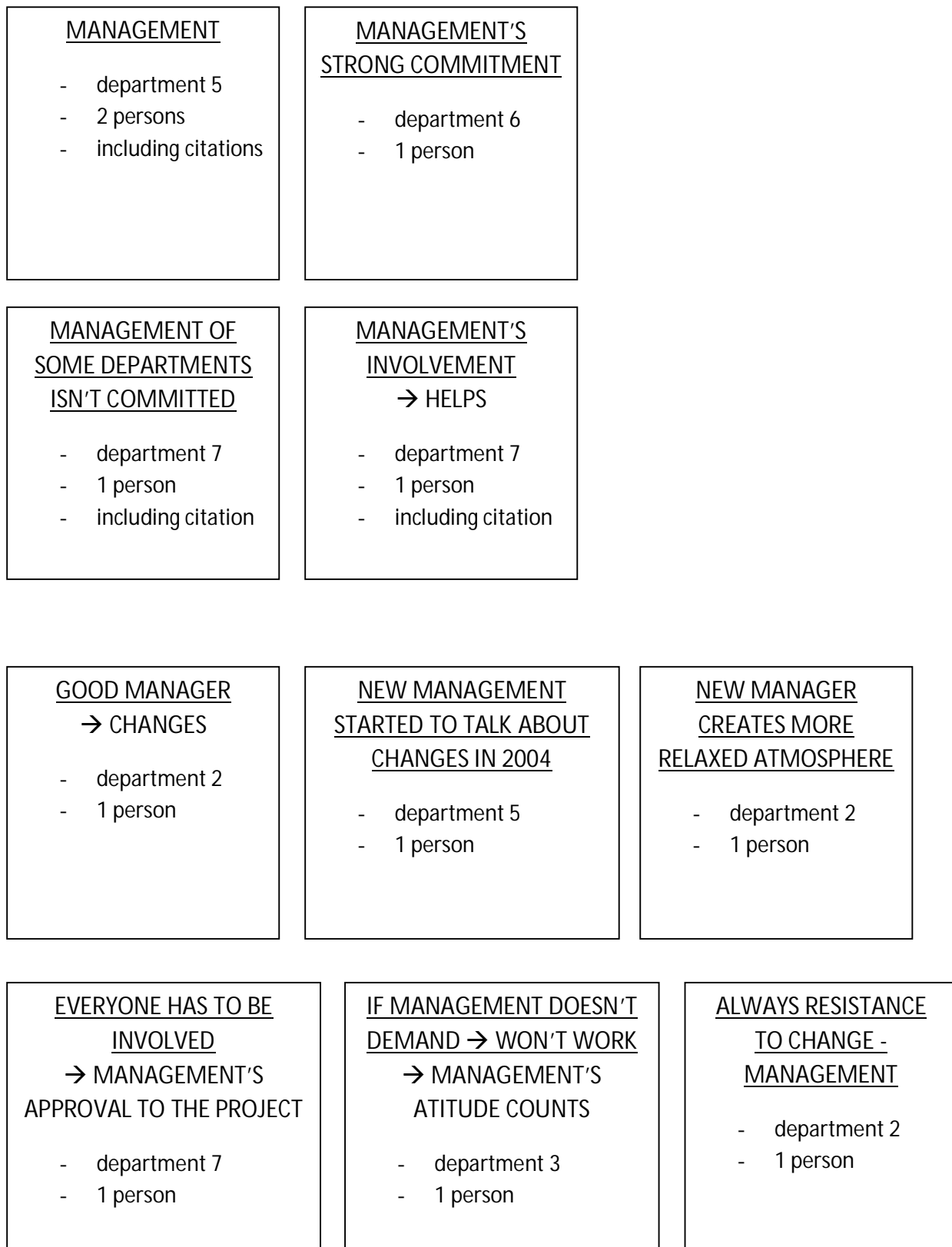
- department 4
- 1 person

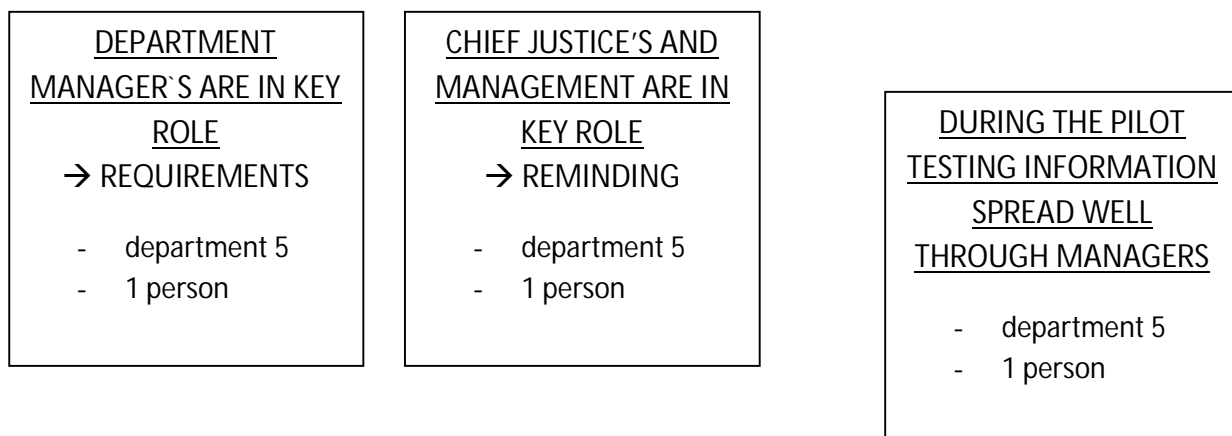
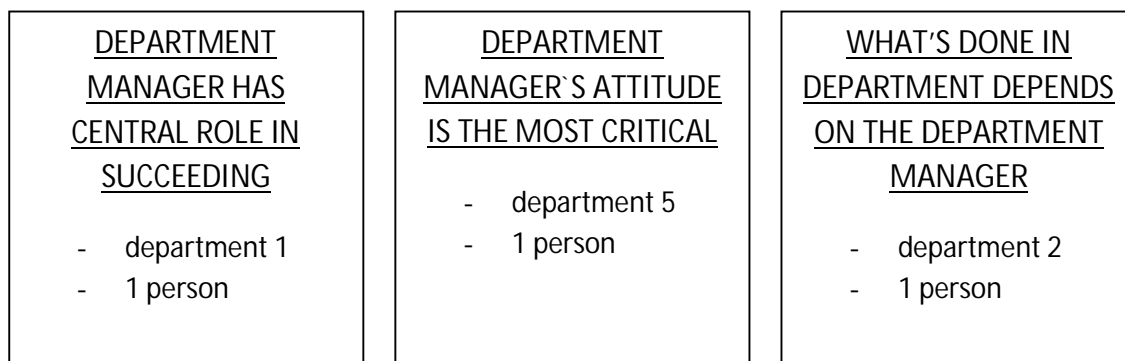
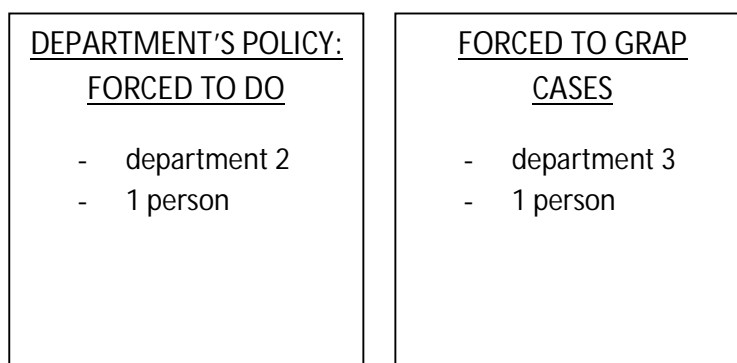
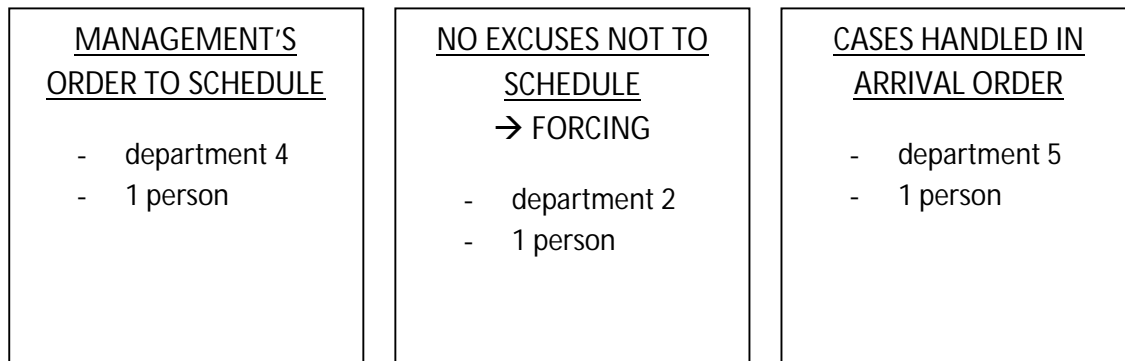
OUTPUT TARGET RIGHT AWAY TO NEW REFERENDARIES
→ NO TIME TO EXPLORE CASE INVENTORIES

- department 4
- 1 person

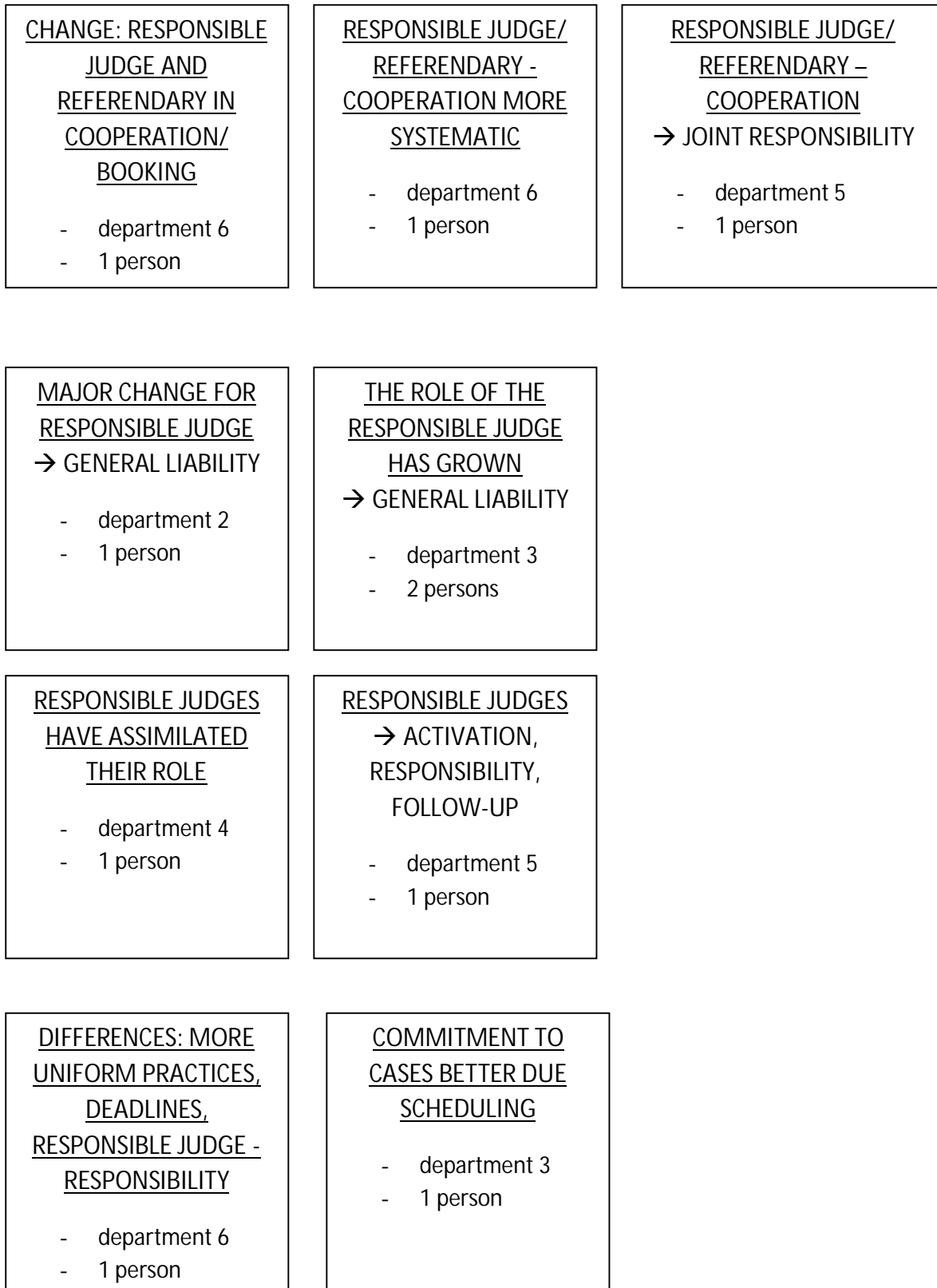
EXAMPLE OF FORMED CATEGORY MAP "COMMITMENT AND INVOLVEMENT OF MANAGEMENT"
AS ONE OF THE FACTOR CATEGORIES AFFECTING THE ADOPTION AND IMPLEMENTATION IN
HELSINKI COURT OF APPEAL

MANAGEMENT'S COMMITMENT AND INVOLVEMENT





EXAMPLE OF FORMED CATEGORY MAP "CASE OWNERSHIP" AS ONE CATEGORIES OF CHANGES HAPPENED



EARLIER INFORMATION
ABOUT THE ROTATION

→ TRANSFER OF
LIABILITY

- department 3
- 1 person

ROTATION WEEKS

GOOD

→ NO SURPRISES
→ GENERAL LIABILITY

- department 3
- 1 person

DEPARTMENT
EXCHANGES KNOWN
EARLIER

- department 1
- 1 person

IT'S MORE UNIFORM
AND DEPARTMENT
EXCHANGES BECOME
MORE EFFICIENT

- department 6
- 1 person

PREPARATION AND
FOLLOW-UP FORM IS
GOOD

- department 4
- 1 person

PREPARATION AND
FOLLOW-UP FORM IS
CONCRETE CHANGE

- department 4
- 1 person

PREPARATION AND
FOLLOW-UP FORM IS
EXCELLENT
→ BRINGS THE
PARTNER-IDEA CLOSER

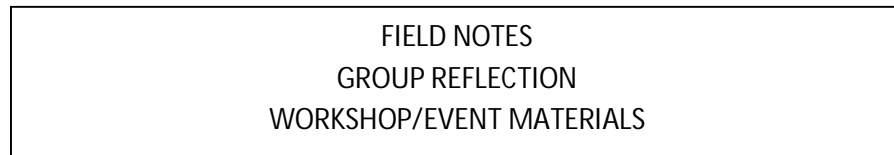
- department 3
- 1 person

IT'S HUGE THING FOR
REFERENDARIES IF
RESPONSIBLE JUDGE
MARKS THE FORM

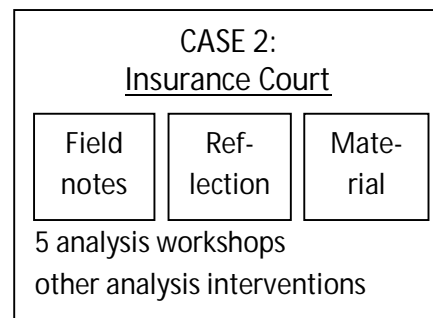
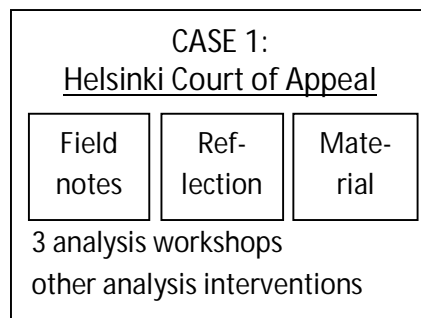
- department 4
- 1 person

DATA ANALYSIS PROCESS FOR OBSERVATION DATA AND WORKSHOP MATERIAL

RAW DATA



ANALYSIS
WORKSHOPS/
INTERVENTIONS



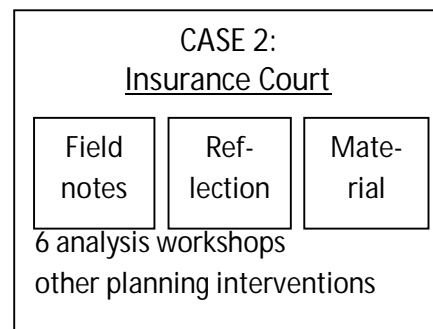
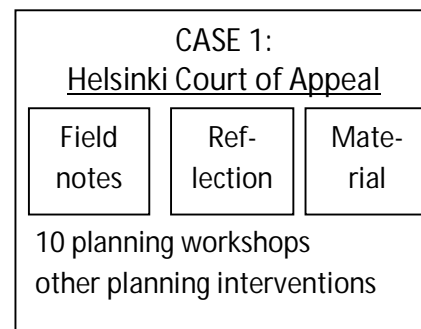
Simplifying and listing

- What advanced the analysis work?

Discussion and verifying in research group

- What impeded the analysis work?

PLANNING
WORKSHOPS/
INTERVENTIONS



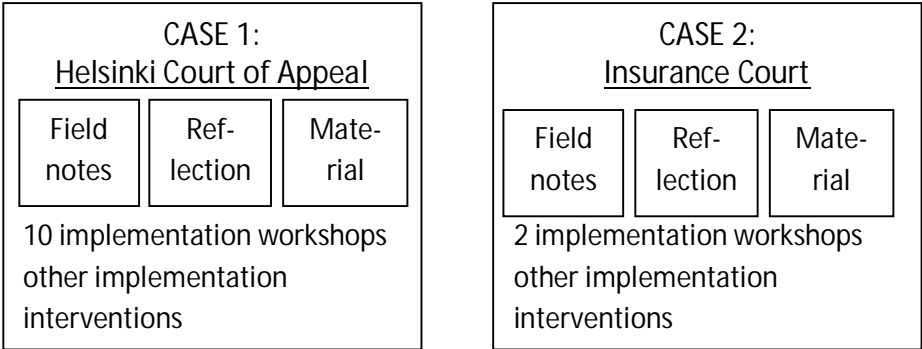
Simplifying and listing

- What advanced the planning work?

Discussion and verifying in research group

- What impeded the planning work?

IMPLEMENTATION
WORKSHOPS/
INTERVENTIONS



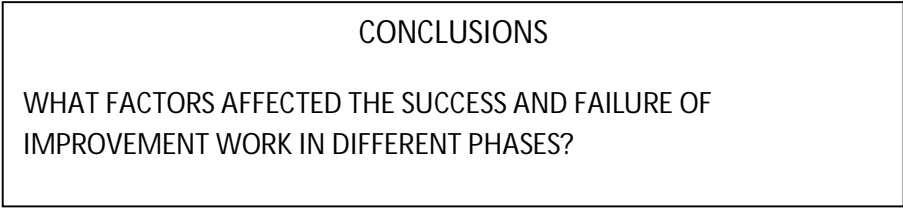
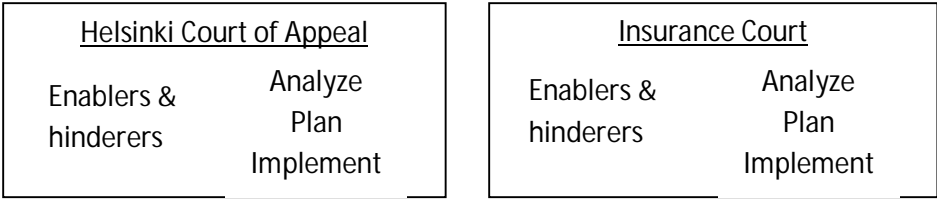
Simplifying and listing

- What advanced the implementation work?
- What impeded the implementation work?

Discussion and verifying in research group



Comparing the cases



PREPARATION AND FOLLOW-UP FORM

Dnr:

RJM: _____

REF: _____

Decision about screening:

- Screening
- No screening
- Screening decision after responses

Responses requested:

.....

.....

.....

.....

.....

.....

Statement requested:

- Probation and After-Care Association
- **Social Services Committee**
- National Supervisory Authority for Welfare and Health
- Unemployment benefit appellate board/ Unemployment Fund
- Traffic Accident Board
- Bailiff
-

Requirement for referendary:

- RJM solves case without referendary
- Assigned to referendary
- Suitable for young referendary (not HOL 9 §)
- Assigned to particular deciding composition, which composition.....
- Assigned to referendary X....., because

Time-frames and schedules:

Date of arrival:

Urgency:

Select category according to the assessed urgency of the case

Case type	Category		
	I	II	III
Screening	2 months	2 months	2 months
Written procedure	3 months	6 months	9 months
Main hearing	6 months	9 months	12 months

Target time-frame for the decision.....

Procedure: Written procedure: Main hearing:

Estimated (point in) time for written procedure/main hearing (weeks/month).....

Necessity of memorandum

..... Memorandum not necessary

..... Memorandum necessary

Especially following legal questions should be answered in the memorandum

.....
.....
.....
.....
.....
.....

In the memorandum special attention should be paid on:

Law-drafting material:

.....
.....
.....
.....

Legal literature:

.....
.....
.....
.....

Precedents:

.....
.....

Necessity of summary

- Separate summary is needed for parties involved in the main hearing case
- Sentence outline function as the summary

Necessity of preliminary hearing

- Preliminary hearing not necessary
- Preliminary hearing necessary

Following questions should be addressed in the preliminary hearing:

.....

.....

.....

.....

Settlement possibilities

- Out-of-court settlement should be aimed during the preparation
- Out-of-court settlement not likely
- Settlement should be aimed during the main-hearing

Settlement procedure

- Case directed to court of appeals' settlement procedures
- RJM settlement

Necessity of preclusion decision

- Preclusion decision not necessary
- Preclusion decision necessary
 - At what stage:
 - Preparation
 - Beginning of the main hearing
 - On what subject:
 - Personal presentation of evidence
 - Written presentation of evidence

DECISION INFORMATION

District Court decision

1. Not changed
2. Only arguments are changed
3. Arguments and decision changed due to the re-evaluation of the evidence
4. Arguments and decision changed due to other reasons
5. Change are attached only to unessential parts of decisions in the light of outcome
6. Appeal is dismiss in action due to procedural reasons
7. Returned
8. Settlement confirmed
9. Statement become void
10. The appeal ignored because of the absence of the appellant.
11. 1. decree appeal approved
12. 1. decree appeal rejected
13. Appeal screened in full
14. Decision to start settlement
15. Settlement requested rejected
16. Settlement stopped

Object of screening decision	Entire appeal	Entire counter-appeal	Part of the appeal	Part of the counter-appeal
-------------------------------------	---------------	-----------------------	--------------------	----------------------------

Referendary's memorandum	Screening decision	Main hearing decision
--------------------------	--------------------	-----------------------

Arguments for the arranging of main-hearing	OK 26:14 § 1 OK 26:15 § 1 OK 26:16 §	Argument for rejecting the main-hearing request OK 26:14 § 2 part: 1 2 3 4 5 6 (circle)
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File copy signed in session

Key words:

Deciding composition's data bank Key words:
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Courts of Appeal legal usage: Key words:

ACTA UNIVERSITATIS LAPPEENRANTAENSIS

402. VAHTERISTO, KARI. Kinetic modeling of mechanisms of industrially important organic reactions in gas and liquid phase. 2010. Diss.
403. LAAKKONEN, TOMMI. Distributed control architecture of power electronics building-block-based frequency converters. 2010. Diss.
404. PELTONIEMI, PASI. Phase voltage control and filtering in a converter-fed single-phase customer-end system of the LVDC distribution network. 2010. Diss.
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414. KAUPPI, TOMI. Eye fundus image analysis for automatic detection of diabetic retinopathy. 2010. Diss.
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421. KORTELAINEN, SAMULI. Analysis of the sources of sustained competitive advantage: System dynamic approach. 2011. Diss.

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441. LAHTI, MATTI. Atomic level phenomena on transition metal surfaces. 2011. Diss.
442. PAKARINEN, JOUNI. Recovery and refining of manganese as by-product from hydrometallurgical processes. 2011. Diss.
443. KASURINEN, JUSSI. Software test process development. 2011. Diss.

