Change Project Manager's Handbook:
An Effective Tool for Change Project Management

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Abstract

This paper introduces a new approach to change project management, combining skills from both project management and change management disciplines. In addition to this, a practical tool, the Change Project Manager's Handbook, is introduced. CPM Handbook is a tool that presents general guidelines and a step-by-step path for effective change project management. The project manager is asked critical self-assessment questions and she is guided to plan the project well in advance and to take certain critical actions in order to prevent major problems.

Motivation and Background

Internal business development projects, here referred to as change projects, differ from traditional external projects in many ways. The most significant distinguishing feature is the fact that the organization itself is changing, i.e., the members of the organization are both suppliers and customers of the project. Other special features include a weak initial foundation, the importance of an organizational learning process and the competition for resources with day-to-day operations (Mikkelssen et al. 1991). The critical success factors of change projects and the skills required of a change project manager are also somewhat different from traditional external projects.

Despite the importance of the issue and the amount of consultants and research organizations offering their help many change efforts fail. They fail to produce the performance enhancements that were planned or they end up months late or with costs remarkably in excess of the budget. Some change efforts die slowly in silence and some can even cause harm to the overall performance of the company. According to a 1991 survey of U.S. electronics companies only 37 percent of those engaged in total quality programs reported that they had succeeded to improve quality defects by 10 percent or more (Schaffer and Thomson 1992). An estimated 50 percent to 70 percent of reengineering efforts never reach their goals (Hammer and Champy 1993). A recent study of Finnish small and medium sized companies revealed somewhat more encouraging results: only 20 percent of the companies reported that the project had failed to produce the anticipated productivity improvements. But even in this study the financial data of the companies reporting to have succeeded in their development efforts didn't show any statistically significant improvement in productivity or profitability (Salminen and Perkiömäki 1998).

According to the authors' experience, change project managers need a practical and guiding tool to be able to successfully manage complex change projects in the dynamic, continuously changing business environment. A tool that helps overcome the greatest obstacles and offers guidance to avoid problems before they even occur would be of great importance to those engaged in change project management. A market survey carried out among Finnish industry and consultants in early 1998 revealed that about half of the respondents, who were all working with internal development and change projects, didn't have sufficient knowledge of change projects. According to the same survey the most important features of a change project handbook seemed to be project plan framework and good examples and real life cases.

Research Methods

The results presented in this paper were received through a research program where different types of change projects were implemented in eight Finnish manufacturing companies in cooperation with the Helsinki University of Technology. The change project cases forming the empirical background for this paper come from different fields of industry and their goals vary from building an empowered manufacturing team to planning a new manufacturing strategy for a complete new factory. The research is based on case study and action research methodology. In addition, interviews, questionnaires and benchmarking was used for locating the biggest problems and best practices. The development work of the CPM Handbook was carried out in close connection with industrial partners.

Exhibit 1. Change Project Management Calls for the Combination of Both Change Management and Project Management Disciplines
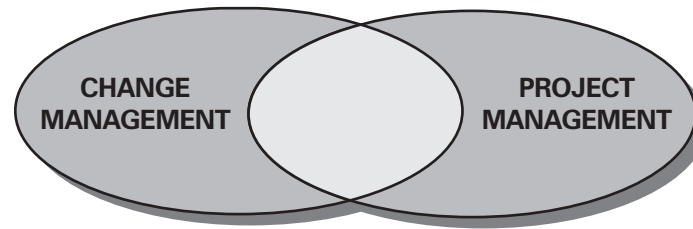
Theoretical Background of the Handbook

The CPM Handbook is based and constructed on factors that authors have found to be the most important success factors in change project implementation in general. From the managerial point of view, a change effort organized as a project requires some very basic project management skills such as goal setting, scheduling and resource allocation, that are often neglected by experts of change management. On the other hand, more people oriented or change management oriented factors such as ensuring the commitment of top management, creating participation and employee involvement and dealing with resistance to change are crucial to successful change project management. Therefore, change efforts should be managed as projects with thorough planning and strict coordination, but bearing in mind that organizational change always deals with changing the way people behave and thus, unavoidably, with organizational learning as well (see Exhibit 1). Effective combination of project management and change management approaches prevents some problems that are characteristic to each approach alone.

A change project completely fulfills the definition of a project as a one-time job that has defined starting and ending date, a clearly specified objective or scope of work to be performed, a predefined budget, and usually a temporary organization that is dismantled once the project is complete (Lewis 1993). The project management discipline is very well-established tools, such as work breakdown structures, risk assessment, and PERT-networks are routinely used to ensure project success and several software tools are commercially available. Most of the principles of project management can be applied to change projects as such. These include project planning and execution, management of scope, time, cost and quality, human resource management, communications management and risk management.

From the change management and leadership point of view the main focus should be placed on the feelings employees have and on organizational structures and procedures enabling or hindering successful change. The obstacles to development can be divided into three categories: (1) lack of *will*, (2) lack of *ability*, and (3) lack of *opportunity* to develop the organization (Lanning 1996). If employees do not have personal motivation and they do not want to engage themselves in the development, willingness and readiness to take concrete actions for development and even make personal sacrifices for the project are not expressed. The level of knowledge and skills of those who are involved in a change project needs to be high enough to really be able to contribute to the project. In addition to this, ability requires comprehension of project vision and understanding one's own role in implementing the change as well. Even though employees might have the will and ability required no major development would occur without a supporting environment and sufficient power to implement the changes. Top management commitment, supporting organizational structure, clearly delineated responsibilities as well as the rules of the game of development are also key elements in offering people an opportunity to change.

Critical Success Factors of Change Projects

By combining key success factors both from change management and project management, it is possible to produce a framework for successful change project implementation (see Exhibit 2). Factors presented in the framework are the most important issues in the change efforts that are implemented as projects.

One of the most important features of project management is *well-defined and accepted goals.* The starting point of any change effort should be an analyzed current-state situation and commonly recognized problems. Once these have been revealed, it is time to define goals for development work. Successful change projects focus on real development actions that move the organization towards the goal.

Exhibit 2. Key Success Factors in Organizational and Operational Change Projects

PROJECT MANAGEMENT	WILL	ABILITY	OPPORTUNITY
Well-defined, accepted goals	Clear need for development	Training	True and visible top management support
Appropriate planning	Individual's perspective		Guiding incentives
Control and guidance	Fast results		
	Participation		

Appropriate planning of the project lays down the basis for the implementation. A good change project plan consists of vision and goals, the background and reasons for the project, methods to be used, work breakdown structure, resources and responsibilities, organization, a schedule, a budget and a plan for communication. When planning a change project it should be borne in mind that it is no use planning at a level too detailed to control. The iterative nature of organizational and operational changes calls for a relatively simple and sketchy plan.

Control and guidance are the essence of managing a project. Checking that work is performed according to plan, that budget and schedules are met, and that the changes implemented are actually taking the organization to the desired direction are project managers' most important responsibilities. But people need encouragement, guidance and motivation as well.

All change efforts should begin with *urgency or a clear need to develop*. All the people affected by the changes or participating in their implementation should have a shared understanding of the reasons that led to the project. The effort needed to increase the sense of urgency is often strongly underestimated. Successful results call for repetitive handling of the current state of an organization.

The individual's perspective and personal incentives are the driving force of change. Without everyone's personal motivation, fast and efficient development is hard, if not impossible. Personnel's personal ambitions and plausible benefits of the change project should thus be widely discussed with everybody involved in the development process.

Fast and tangible results are one of the key factors in keeping the motivation high during the hard and strenuous development work. Most individuals view the effort in a very practical way, and therefore should be provided with concrete and rapid evidence of the usefulness of the new concept. Without fast results, suspiciousness tends to impede the process.

Employee *participation* in the planning and implementation of the project is an important part of successful change projects. The degree of participation should be derived from the specific situation. To gain commitment to solutions and to give people time to adapt to new systems it is advisable to have employees involved as early as possible, preferably already in the planning phase.
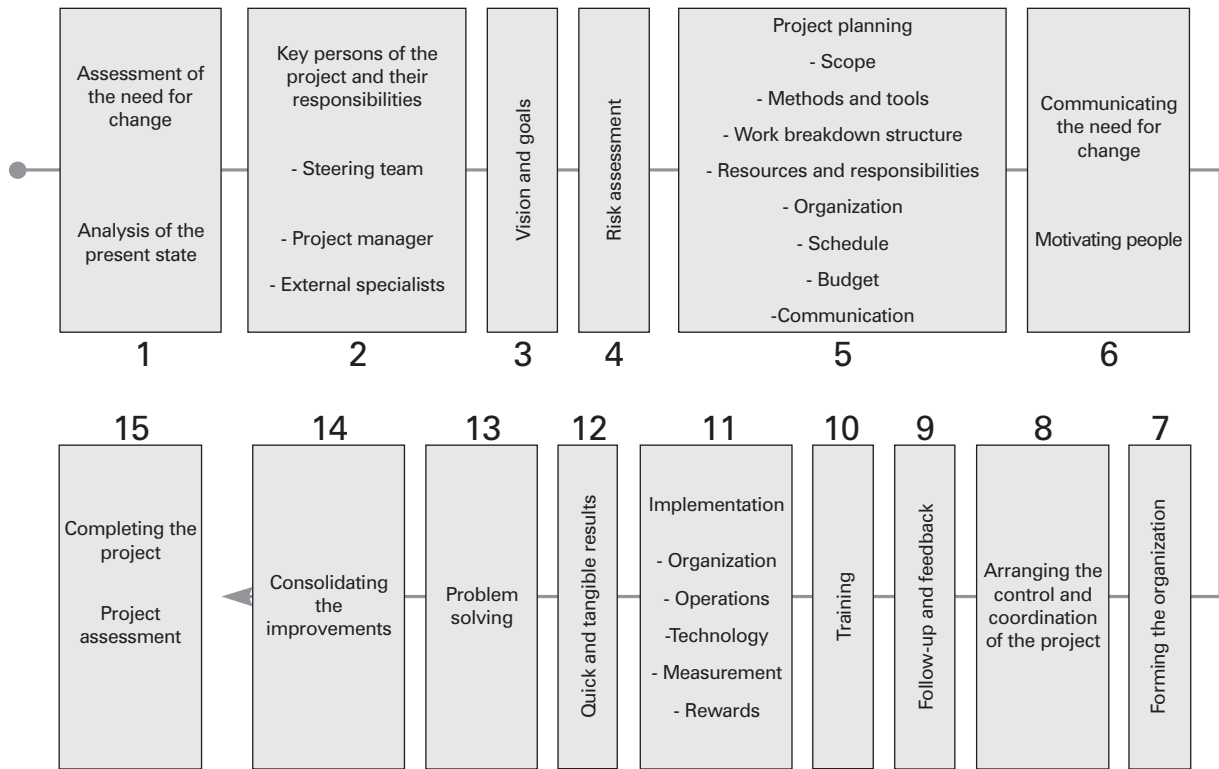
Both general and job-specific *training* are needed. The main objective of the general training is to increase both employee willingness to change and their understanding of the basics of organizational development. By job-specific training, they are guided both to plan their own operations and working methods and to be able to work with enhanced power and responsibility. All training should concentrate on practical and applicable issues. In addition to the orientation of training, skills learned should be tested and applied immediately.

Top management support is a crucial enabler of *sufficient resources*. Without this support, no major changes will occur, and even if something does change, it is not likely to last long, as people may see the new systems to be conflicting with what is anticipated by management. A shared commitment by management to a powerful coalition ensures the appropriate importance and prioritization of the project. Implementation of organizational and operational changes requires a lot of work usually done on a part-time basis. Thus lack of resources is a common problem in change projects as day-to-day operations tend to be seen as more important and development work as something done if there happens to be time.

Guiding incentives are critical for keeping people on the right track of development. Without supporting motivators, i.e., measurement and reward systems fast and fluent development is hard, if not impossible.

The framework of key success factors in change projects may not be a tool practical enough to guide and lead organizations through successful change projects but it is a simple and good starting point when considering the real action needed to be taken in change project implementation. All critical factors must be correctly implemented during different phases of the change project. The

Exhibit 3. Critical Path of a Change Project

1	2	3	4	5	6
Assessment of the need for change Analysis of the present state	Key persons of the project and their responsibilities - Steering team - Project manager - External specialists	Vision and goals	Risk assessment	Project planning - Scope - Methods and tools - Work breakdown structure - Resources and responsibilities - Organization - Schedule - Budget -Communication	Communicating the need for change Motivating people

15	14	13	12	11	10	9	8	7
Completing the project Project assessment	Consolidating the improvements	Problem solving	Quick and tangible results	Implementation - Organization - Operations -Technology - Measurement - Rewards	Training	Follow-up and feedback	Arranging the control and coordination of the project	Forming the organization

real challenge is therefore first to derive from critical success factors a simple implementation method consisting of a step-by-step path to follow and then to find practical and useful tools for the different steps of the path.

Building the CPM Handbook

The planning of CPM Handbook was a creative and iterative team work process. Different kinds of creative methods such as wall charts and brainstorming sessions were used during planning process. Literature and the researchers' earlier experiences from action research projects in different companies were used as a support and a source of ideas.

The actual process of developing CPM Handbook began with converting key success factors into concrete action points. For instance "top management support" was transformed into several useful actions such as "ensuring the resources needed for implementation" and "regular follow-up meeting with top management." More than five hundred different action points were listed in the first stage of the development process. All the action points were placed on a big wall chart. The wall chart was divided vertically into chronological project phases and horizontally into three different parts: (1) issues, which must be taken into account during the whole project, (2) general ideas and actions and (3) concrete tools and procedures. The wall chart served as a preliminary framework for the CPM Handbook.

After the creative planning phase the actual development work of the CPM Handbook was carried out in a systematic manner. The action points were classified and arranged in chronological order to form a step-by-step path of successful project implementation. In addition to that, some effective and tested exercises, group works and training material were assigned to each critical success factor. Despite of the strong practical background it was clear from the outset that the first version of the CPM Handbook is only a preliminary prototype that needs a lot of testing and field work before it reaches the final form that is general enough to be applicable in different organizational contexts, yet concrete enough to be useful with only minor adaptation by the project manager.

Structure and Content of the CPM Handbook

The CPM Handbook is constructed in the form of a work book folder but its separate files can also be used by Microsoft Office programs. Given that every project is an individual effort, the CPM Handbook can be easily tailored and modified by the user to fit the project on hand. In addition to project guidelines, best practices and checklists the handbook includes practical tools such as risk assessment matrix, project plan template, slide shows and different group work guidelines. Numerous examples from different real life cases are included to help the user utilize tools and methods in her project context. All together, the CPM Handbook consists of the following elements:

- A step-by-step path to follow in change project implementation
- Self assessment questions (a checklist) for each step of the path
- Practical examples from real-life cases
- Group work guidelines and other practical tools
- Presentation slides.

The critical step-by-step path of a change project is divided into fifteen steps that usually, but not necessarily, follow each other in a certain sequence illustrated in Exhibit 3. A change project may include some iteration between the steps, risk assessment may for instance lead to change in goal setting. Also the relative weights of the steps may vary by project: some projects are more analysis oriented, some require enormous effort in communicating and motivating and some tend to concentrate on training.

Each step of the path forms a section to the CPM Handbook consisting of tools needed or helpful while taking the step and moving ahead in the path of development (see Exhibit 4). Each step begins with a short description of the subject, which briefly answers the question "Why this step should particularly be taken?" That is followed by some critical self-assessment questions concerning the implementation of the step on hand. For instance, the project manager might be asked if he has ensured that everybody in the project team agree on the project objectives and have a similar idea of the amount of effort needed for a successful implementation. Furthermore, CPM Handbook offers some practical and tested tools for carrying out the tasks.

In addition to checklists and tools each step includes some real-life examples or short case descriptions from various industrial companies. The meaning of examples is on one hand to encourage and make it easy for a project manager to move further in development and on the other hand to offer some warning examples from other companies struggling with similar kind of problems. The last item of each section is a set of transparencies that project manager might need for presenting and emphasizing some important points of the step.

The Use and Advantages of the Handbook

The CPM Handbook has two main purposes. First it helps project manager to carry out change projects in an effective and efficient way and secondly, when the CPM Handbook is systematically used in all change projects, a coherent understanding and concept of change project implementation is formed in the organization. CPM Handbook thus enhances organizational learning and helps to build standard project management procedures.

The effective use of the CPM Handbook requires that the user is familiar with the theory and philosophy behind the handbook. Therefore, it is recommended that the CPM Handbook is used simultaneously with Change Project Management Textbook (CPM Textbook). The purpose of the textbook is to give the user of the CPM Handbook more exact and profound information about change projects. For the successful use of the handbook it is crucial that the user has understood and accepted the philosophy and theories the handbook is based on.
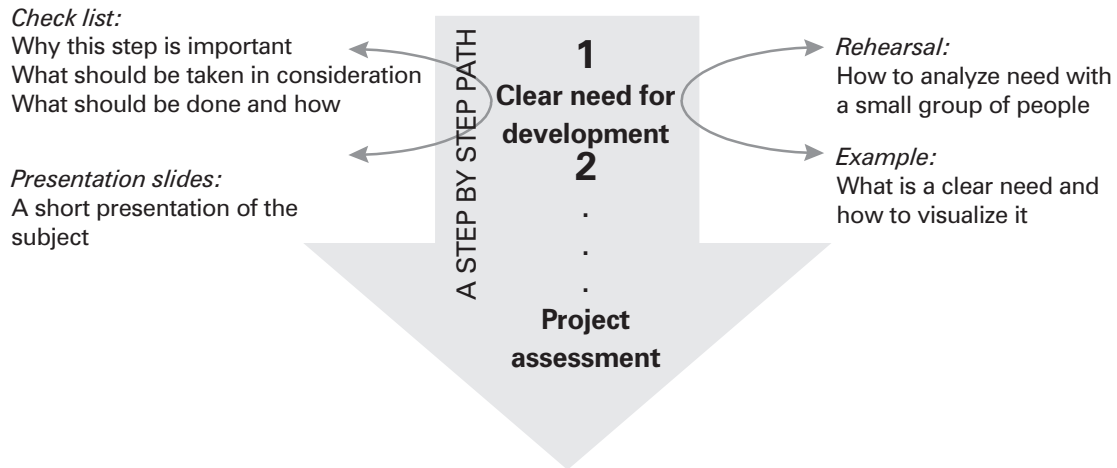
When the user is familiar with the CPM Handbook and the theory behind it she is ready to assess which are the most important elements of the future development project. After recognizing these distinctive elements and features the handbook is tailored for that specific change project by taking out those parts of the book that will not be needed during the implementation. Furthermore, if needed even some new parts such as tailored tools can be added into the Handbook.

In the beginning of the change project CPM Handbook guides the planning of the project by giving instructions and examples on how to define preliminary schedule and how to proceed on the critical path. The purpose is to follow the path step by step and carefully study the questions of each checklist. By every step there is a reference to the chapter of the textbook where the subject is handled in more detail. When a task has been completed it is marked on the summary list in the beginning of the Handbook. This gives the project team a clear picture of the phase of the project with one glance.

The project manager is responsible for the control and follow-up of the project: what has been done and what is to be done in the near future. The CPM Handbook provides a good tool for that and it also gives good practical advises for problematic situations that are usually confronted in change projects.

Exhibit 4. Structure of the CPM Handbook

Check list:
Why this step is important
What should be taken in consideration
What should be done and how

A STEP BY STEP PATH

1
Clear need for development
2
.
.
.
Project assessment

Rehearsal:
How to analyze need with a small group of people

Example:
What is a clear need and how to visualize it

Presentation slides:
A short presentation of the subject

Some specific tools for development must be customized for each organization separately considering its specific needs. Modified and tailored exercises and tools are attached to the Handbook so that they are available in future projects as well. In this way the handbook is built up little by little to meet the distinctive challenges of the organization. If the organization wants to cumulate knowledge and make the ability to change one of its core competencies it is important to regularly update the handbook. It is also useful for the users of the Handbook to meet regularly and share their experiences and in that way disseminate the best internal practices.

Conclusions and Further Research

Preliminary experiences of the use of CPM Handbook are gathered from change projects in manufacturing, service and sales organizations during 1998. The CPM Handbook is refined and developed further on the basis of test results. It seems that in general persons assigned as project managers to change efforts have little or no previous experience about such projects. This means that every practical tool that helps their work is welcome. One of the strengths of the CPM approach is the way it links some well known change management tools and techniques into traditional project planning and management practices. It also looks like the more strictly conducting and guiding the Handbook is the more valuable it is to change project managers. Those with more competence in change project management can use the

Handbook creatively adopting it to their own way of managing change.

The challenge has been to create an easy to use Handbook that can be tailored and distributed in the organization. In project management field there are a lot of examples about tools that have not gained wide popularity among change project managers because of their complexity and lack of features supporting the change management aspect. Another challenge is to arrange the external support for user of CPM Handbook. This means planning of appropriate support and training program and user network.

As present the CPM Handbook is merely a prototype and further research and testing is needed in many aspects of both the substance of the Handbook and the methodology of managing a change project with the help of such a tool. Some research questions that may prove to be fruitful regarding the future work include:

- How universal is the critical path and the step by step model in change project management? What are the limits of the model?
- What kind of tools and instruments are the most effective and useful for managing a change project?
- How to ensure the use of the Handbook not only in one project but also as a means of developing a shared competence of managing a change project into the organization?
- How to deal with the problems of updating and managing different versions of the handbook in an organization?

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