BUDGETING AND FORECASTING APPLICATION DEVELOPMENT

AN EVALUATION

Pekka Passoja

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ABSTRACT

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The aim of this research was to evaluate the ultimate benefits of what a Finnish stock listed company achieved as the result of a cost budgeting and cost forecasting application development project. Two separate development projects were carried out for the case company's Finnish and Russian organizations. The starting point for the project was the case company's initial need to start using rolling cost forecasting, so that the company could adjust its fixed and variable costs in accordance with the business environment. In addition, the case company wanted to replace its old annual cost budgeting application and implement an entirely new budgeting and forecasting application for the Russian organization, where they had used an Excel program for budgeting and forecasting.

An evaluation of the benefits consisted of the following main question: What were the ultimate benefits the organizations received as the results of this project? This was further elaborated upon with three sub-questions: 1) How well were the Finnish and the Russian organizations able to incorporate the new budgeting and forecasting processes? 2) How have the new budgeting and forecasting processes improved the work of the organizations and stakeholders in the cases of budgeting, forecasting and budget follow-up? 3) How has the use of the new software been adopted and how well does it support the new budgeting and forecasting processes?

This research was carried out as action research. The theoretical framework for action research provided the most suitable approach for this type of development project, where practice and theory are closely tied. The practical findings in this research were based on several meetings, dialogues and observations with the project stakeholders during the Finnish and Russian projects. Through the action research framework, collected practical information was evaluated and transformed into knowledge that was used for the benefit of the organization in the best possible way.

The main findings of this research prove that, from a technological point of view, the case company benefitted considerably due to the new budgeting and forecasting application. The use of the new application has improved work related to annual budgeting and forecasting everywhere within the company. Further findings prove that moving to rolling forecasting is a major change for the organization, which relies heavily on routines perceived to be safe, such as annual budgeting. In addition, it can be stated that nowadays it is technologically possible to implement very complex budgeting and forecasting applications. However, if the requirements are set too strictly, the usability of the application suffers and maintenance becomes difficult.

Key words: annual budgeting, rolling forecasting, change management, organization culture, technology, cognos tm1

CONTENTS

1 Introduction

In the old days, one of the core finance functions in the companies was to take care of bookkeeping and produce basic financial reports to the managers and executives to support decision making. However, organizations and companies have long ago recognized that effective and meaningful financial planning is more than just bookkeeping and simple financial reports. Budgeting and forecasting have also been recognized as critical factors in successful business (Miller and Galeaz 2007, 39). Annual budgeting, for instance, helps organizations and companies develop and plan their business activities, and plans can be concretized, so that necessary actions can be performed to improve business. Budgeting still has a central role in the execution of strategy. When the strategy process is simplified enough, the most important remaining factors are the definitions of the direction the company should go, the choice of the right methods to move forward and the execution of the right decisions to reach these ends (Järvenpää et al. 2010, 235).

Traditional annual budgeting has faced a lot of criticism. According to Åkerberg (2006, 40), the budgeting of companies is an inward process, which does not create value for paying customers, and budgeting rarely has a meaningful connection to strategy-related work. This is due to the fact that during the strategy-planning phase, managers tend to give vague promises about their objectives, so that during the budgeting phase, they can easily commit to the low bar they have set.

The concept of rolling forecasting has been in the headlines in the area of financial management for several years, since it has been proposed to be a substitute method for traditional budgeting. Referring to Montgomery (2000, 41), the speed of change in the world's economy has generated a trend for a continuous forecasting process as a part of financial planning. Rolling forecasting provides many benefits for companies and organizations when compared to annual budgeting, which is static and takes too much time and effort to complete. Rolling forecasting allows organizations to combine overall strategic planning and detailed budgeting in a more flexible manner. Zeller and Metzger (2013, 299) say that the modern business environment is not stable and rolling forecasting provides tools for business when there is a need to react and act fast to generate shareholder value. Static annual budgeting does not provide the needed flexibility in a rapidly changing economy.

The aim of the study was to analyze the benefits of what the case company achieved as a result of the cost budgeting and forecasting application development projects. The objectives of the development project were to renew the annual budgeting application of the case company's Finnish organization, and enable rolling forecasting. The second objective was to implement a whole new budgeting and forecasting application for the case company's Russian organization. The need for this project dates back to the case company's requirement to make the current annual budgeting process more agile, effective and additionally enable rolling forecasting alongside annual budgeting. With these actions, the case company was trying to improve work related to annual budgeting procedures. In addition, the case company sought to enable the possibility to create forecasts, so that it has the ability to react fast when there is a need to adjust variable and fixed costs according to the business environment. At the same time, this would allow for the strategic objectives to be reached better.

The Finnish organization had used an old annual budgeting application for fourteen years. The application had become static and irretrievably too cumbersome to use - it did not respond to the business needs of the company. The Russian organization had not been using any modern applications for annual budgeting or forecasting. The whole annual budgeting and quarterly performed forecasting was done by using the Excel program, which has been proven to be inappropriate for budgeting and forecasting on a large scale. Additionally, budget follow-up (actual costs vs. budget) and tracking the causes of actual costs had also become time-consuming, ineffective and laborious processes. In summation, in both organizations annual budgeting processes had become time-consuming and laborious processes that tied up a lot of people.

Another objective of this study was to evaluate how the case company was able to change its annual budgeting processes. How has the rolling forecasting process been adopted and have both organizations been able to increase the productivity of their employees in budgeting and forecasting processes? How do the new budgeting application and processes meet the case company's strategic objectives today?

This study was carried out as action research. As a method, action research provides a suitable framework for this research, which is closely practice-related. The framework of action research is participatory and democratic and it combines theory and practice effectively. Action research is conducted in cyclical reflection and learning stages that include

different phases, which help recognize possible problems and spots of change in an organization. Other phases provide guidance in a way that enables the researcher to ultimately intervene by suggesting solutions on how to solve a particular problem or how to change something.

1.1 Research method

According to Heikkinen et al. (1999, 13-14), as a research strategy, action research seeks interaction between research theory and practical actions. In action research, pragmatic thinking is highlighted with recurring learning, which is based on evolving information of actions and experiments. The typical objective in action research is to work consistently by evaluating and developing activities in groups.

Reason & Bradbury (2001) point out that action research is a participatory and democratic process, which provides practical knowledge that is worthwhile for human purposes. The action research method brings together action, reflection, theory and practice in participation with individuals and communities.

The action research framework is well suited to be the research method in this study, because the development project was closely related to practical activities and the whole project was carried out in cooperation with project stakeholders, such as various managers and executives, the budget owners of the case company and peripheral technology consultants. Additionally, it is my experience that the reflective spiral model of the action research framework has similar elements with an agile project management method that has been used in similar development projects.

The following characters are the main pillars of group-work in action research:

- Democratic
- Participation
- The aim to influence activities socially and the promotion of science

Democratic, in this context, refers to dialogue among research practitioners. Democratic dialogue means that every participant has a chance to be heard and it can be stated that it

is almost a duty to participate in discussions in order to facilitate learning and development (Heikkinen et. al 1999, 206).

The role of an action researcher is to join the community actively, participate in discussions and facilitate actions. Thus, a major part of the action researchers' time is spent in various conversations and meetings, where activities are planned and evaluated. An action researcher actively converses with stakeholders, gets to known the working methods, makes observations and encourages interaction so that every participant is heard and their views can be taken into account (Heikkinen et. al 1999, 40).

The researcher's role in this development project was to work as project manager. The researcher has several years of experience guiding the case company's annual budgeting process in Finland. The guidance, however, has been limited mainly to application maintenance and helping the budgeters throughout the process. The level of costs and other strategic budgeting guidelines have been set by executives and other managers. In this development project, the project group stakeholders were the CFOs (chief financial officer) from the Finnish and Russian organizations as well as financial managers, financial accountants and the end users of the budgeting and forecasting application. All stakeholders participated actively in the meetings and discussions on how to make the existing budgeting procedures more agile end effective, so that work could be improved. Interaction between the project stakeholders was active and democratic from the beginning of the project. Reason and Bradbury (2001) state that action research can only be done with, for and by people and communities where stakeholders participate by questioning and making sense in order to provide information to the researcher and guide actions.

Action research is a social process in which actions are executed on individual and social levels. Targets for the research actions are the activities in the organization. As a method, action research can be understood in various ways depending on the approach and it is not necessarily easy to describe. For instance, one way of developing activities based on the action research method can entail a technological improvement in a company in order to reach better results. On the other hand, studying the identity of aboriginals via action research requires a totally different approach. This is natural, because action research is a constantly evolving and developing framework and there is no absolutely wrong or right way to utilize it. Although action research can be understood in many ways, there are certain elements that are commonly used when discussing the action research method:

- Reflectivity
- Pragmatism
- Change in intervention
- People's active participation in the project

These elements constitute action research as a process, which aims to change and improve things. Continuous in nature, this process of change actually never ends. The result of action research is not necessarily a specific improved activity. It is more like a process that has been understood in a new way and it is natural to observe it as an education process (Heikkinen et. al 1999, 17-18).

It is often said that action research is a particularly reflective process, where planning, action, observation and phases of reflectivity follow each other in a spiral model. Reflectivity as a concept means that researchers position themselves to reach a new relationship with experience. Observation takes place from a different perspective and experiences will be reflected accordingly, facilitating learning (Heikkinen et. al 1999, 17-18).

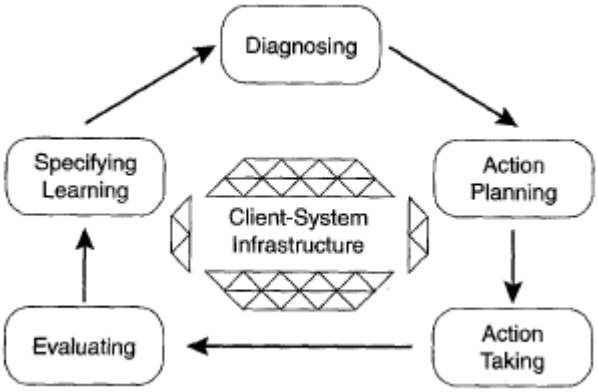


Figure 1. Action research cycle (Baskerville and Wood-Harper 1996, 237)

Baskerville and Wood-Harper (1996, 237) introduce a five-phase action research cycle, where research progresses through different cycles and ultimately leads to the learning stage. The Client-System Infrastructure constitutes the research environment. The Infrastructure must determine the responsibilities between the client and the researcher. The main point is that the researcher works closely with the stakeholders located in the client-system and actions are collaboratively evaluated, based on their benefits to the organization.

The diagnostic stage consists of identifying the primary problem that reflects the organizations desires to change. The diagnosis should provide theories on the problem and its domain, as well as the nature of the organization. The researcher and practitioners will then collaboratively move on to the next activity: action planning. In the action planning stage, the aim is to implement planned actions in way that allows the researcher and practitioners to collaborate and intervene with the client organization by suggesting ideas on various changes. When the actions are completed, the researcher and practitioners evaluate the results. This phase contains determination on whether the theoretical impacts of the actions were realized and whether the impacts solved the problem. Learning is usually an ongoing process. The knowledge gained from the actions, whether they were successful or not, can be addressed three different ways:

1) Learning is the reform for organizational norms to produce new knowledge gained by the organization during the research.
2) If the change was unsuccessful, additional knowledge may provide important information for further intervention phases.
3) Whether the change was successful or not, theoretical knowledge provides important information for future research.

Typically project-work of this type happens in phases, such as planning, implementation, testing, evaluation and deployment. This kind of project-work actually includes elements from the spiral model. In this type project-work it is common for various everyday issues to occur. These need to be discussed thoroughly and in collaboration with members of the project. Project stakeholders need to observe the situation from different perspectives and contribute ideas on how to act and tackle issues (similar to intervention). Diagnosing, processing and reflecting ideas together with the spiral model eventually produces learning and the best possible solution for an issue will eventually be found.

From the beginning, the main point of action research is proximity to practical actions. According to Reason and Bradbury (2001), the primary purpose of action research is to create new forms of understanding and practical knowledge that can be utilized in everyday life. Adhering to these definitions, the main goals of these development projects were

to fulfill the case company's business needs by implementing a new budgeting and forecasting application and to improve existing budgeting processes by making them lighter and less time consuming.

The objective of change intervention is to change something existing, do something differently and see what affects this has. Intervention has a kind a double meaning when discussing its nature of social activities. The concept of action includes the idea that it is not static and stationary - it proceeds and changes. On the other hand, social activities have the tendency to become structures, routine and self-evident practices. It makes work in a community easier, but at the same time it leads to a situation where structures that cannot be rationalized by the goals will become part of the community (Heikkinen et. al 1999, 45). Referring to Baskerville and Wood-Harper (1996, 238), in the spiral model the action-taking phase produces intervention actions for the organization by causing changes that seek to improve or change something existing.

In this research, one of the objectives was to examine how activities in the cost budgeting processes of the case company were improved with the utilization of the new budgeting and forecasting application in the Finnish and the Russian organizations. The annual budgeting processes in both organizations had become time consuming and heavy, lacking a clear relation to strategy. Hence, the case organizations wanted to do budgeting in a different, more agile manner, and begin to use rolling forecasting. These changes were sought in order to reach business objectives, improve the productivity of employees and lighten the process itself.

Established practices will sometimes become something other than what they are supposed to be. Certain activities may have been meaningful in the circumstances where they were first undertaken. When circumstances change, old established practices become irrelevant, mere habits echoing the way people are used to doing things. When established practices change, habits that have not been seen before in the community are revealed. In other words, intervention uncovers something from reality that has not been visible before (Heikkinen et. al 1999, 45). The laborious and clumsy budgeting process of the case company's Finnish organization had become a well-established practice of several years, mostly because the world economy had been quite a stable for long time and there was no need to react to external threats. The annual cost budgeting process of the case company's Russian organization had become even worse, due to growing business and a lack

of budgeting tools. In 2008, when the world economy faced a major shock, circumstances changed dramatically. The aftermath of this financial shock triggered the need to renew the cost budgeting process and enable rolling cost forecasting, because the world economy had become more unpredictable.

There are no research methods without critics. Baskerville and Wood-Harper (1996, 240-241) point out a few issues concerning action research framework:

1) In some cases, action research as a method has been rejected due to signs of researcher impartiality.
2) In the perspective of the scientific community, some provided action researches may not have been rigorous enough. The credibility of action research has also been questioned by research funding agencies. It is argued that the researcher may become so involved in the immediate practical impacts of the research that they neglect scientific discipline.
3) Sometimes action research is branded with a proximity to regular consulting work. Sloppy action research may lose its connection to science and turn into consulting.
4) Action research is context-bound and therefore not context-free. It is said that action research produces narrow learning in its context, because situations are unique and unrepeatable.

These issues undoubtedly constitute real concerns in the practice of action research. It is easy to recognize such pitfalls in the action research method. In this development project, for example, the researcher worked as a project manager and simultaneously represented the case company. The risk of insufficient objectivity and impartiality was undoubtedly higher compared to a project manager that operated from the outside. Without a doubt, action research bears a similarity to consulting work and it is easy to believe that in some cases, action research may turn into consulting and lack scientific outcomes. It is also argued that action research is not context-free. In some cases learning may remain modest if the situation cannot be observed well enough and cannot be repeated.

1.2 Research process

The previous chapter introduced action research, a participatory process that aims to produce practical knowledge that can be utilized in the organization. Practical knowledge is

constantly assessed by members of the research, ultimately leading to development and learning taking place in the organization. The starting point of the research process was getting to know the cost budgeting and cost forecasting processes and functional requirements in the Finnish and the Russian organizations closely. In this research, cost budgeting or cost forecasting processes are defined as activities that involve annual budgeting or rolling forecasting. An example of the process can be as follows: loading actual monthly data from the data warehouse into the application and checking actual figures versus budgeted figures. An example of a functional requirement can be an application from where the actual figures versus budget figures can be checked.

In the first meeting, the aim was to discuss, evaluate and examine all the information stated to be crucial for cost budgeting and cost forecasting with the project stakeholders. The target of the meeting was to reach a general consensus on how cost budgeting and cost forecasting processes should work in the new application and what were the functional requirements the application must fulfill. The project stakeholders consisted of the CFOs (chief financial officer) of the Finnish and Russian organizations, financial managers, financial accountants and the project manager (researcher). The topics of discussion and evaluation were high-level objectives, such as strategic and process improvement objectives, which were agreed upon and recorded in the requirement specification list. These "high-level" requirements included objectives that concerned processes, such as how to communicate and incorporate new processes like rolling forecasting.

The rest of the meetings were held in smaller groups that consisted of the project manager, financial managers and financial accountants from the Finnish and Russian organizations. The aim of the small group workshops was to discuss and examine in detail every level of information related to cost budgeting and cost forecasting processes and to specify the functional requirements of the upcoming application. When the so-called "in-house" requirement specification workshops were completed and a general consensus achieved, a principal software consultant joined in the meetings. The role of the consultant at this point was to get to know to the defined cost budgeting and cost forecasting processes and the functional requirements related to the application. The entire project was discussed and evaluated in cooperation with the project stakeholders and the principal consultant - the process and its functional requirements and whether or not they were easily doable.

Figure 2 illustrates the research process stages, through which all the essential processes and functions of cost budgeting and cost forecasting were recognized. At the same time, stages from the action research cycle were utilized in each research process stage. In a sense, each stage went through the action research cycle, enabling the creation of new knowledge and learning throughout the research process.

The research process started with a baseline evaluation the goal of which was to identify required changes. A couple of financial accountants, the project manager and the software consultant were present in the regular meetings. The aim of the very first meetings with the project stakeholders was to get to know the existing cost budgeting and cost forecasting processes and activities in the Finnish and Russian organizations. As a result of these meetings, the most essential processes and functionalities were identified and recorded on the requirement specification list. In this context, essential means the processes or functionalities that must be enabled in the new budgeting and forecasting application. Next, possible problems were identified, discussed and evaluated by the project stakeholders. The idea was to keep the meetings open for discussion, so that every participant could be heard and the best and most satisfactory possible solution could be found. When all the identified problems were processed and a solution or improvement was found, a process and a functional requirement were recorded.

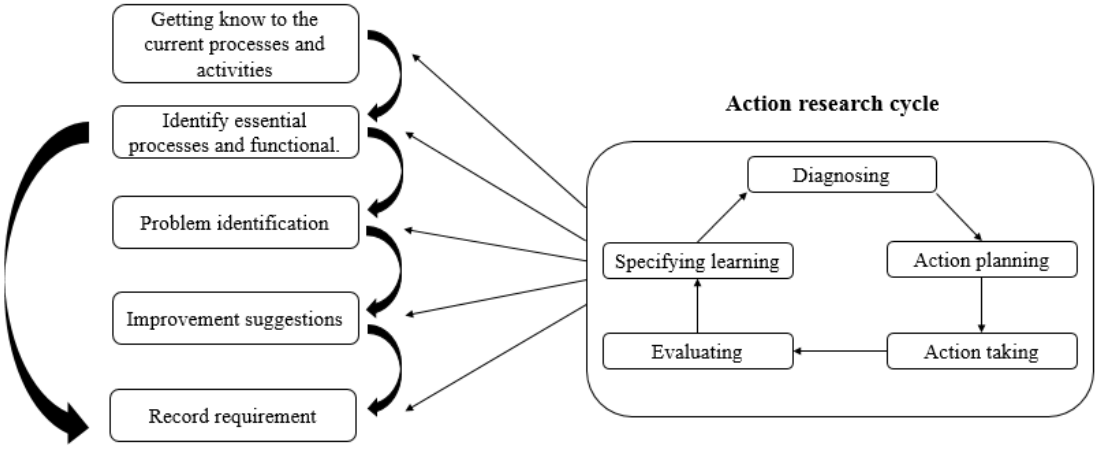


Figure 2. The research process diagram

1.3 Research questions

Traditional annual budgeting is still a widely used financial planning method in companies and organizations, although it has faced a lot of criticism. Annual budgeting may

have a loose connection to strategy and as a process it may have become merely well-established practice. Thus, companies are just used to performing it and it might be a difficult routine to abandon.

In the case company, annual cost budgeting had also become well-established practice without a clear relation to strategy. The role of annual budgeting has been more akin to a static cost controlling mechanism that creates cost awareness among the budget owners. Based on personal experience in guiding the case company's budgeting process, it could be stated that annual cost budgeting seems to be an entirely mandatory routine which people feel to be laborious and in some sense also a bit unnecessary. However, cost budgeting has kept its place in the case company's financial planning methods for a long time, as it is stated to be necessary.

As mentioned earlier, after the 2008 shock in the world economy, executives in the case company stated that the existing annual cost budgeting process needed to be updated to be more agile and rolling cost forecasting should be enabled, so that operative costs could be adjusted to respond to the situation of the prevailing market. The aim of the research questions is to analyze what kind of benefits the case company has received from the results of this project. The main research question can be formed as follows:

- What were the ultimate benefits the organizations have received from the results of this project?

  Additionally, three supportive sub-questions are formed as follows:
  - How well were the Finnish and Russian organizations able to incorporate the new budgeting and forecasting processes?
  - How have the new budgeting and forecasting processes improved the organizations and stakeholders work related to budgeting, forecasting and budget follow-up?
  - How has use of the new software been adopted and how well does it support the new budgeting and forecasting processes?

The main objective of the research questions was to evaluate the real benefits the Finnish and Russian organizations achieved after the new application was utilized and the budgeting and forecasting processes had evolved. The first sub-question takes a stand on how both organizations communicated and incorporated the new processes. Organizational

cultures are remarkably different in Finland and Russia, so both organizations had a different approach on how to incorporate the new ways of working. The aim of the second sub-question was to evaluate how the working methods related to budgeting, forecasting and budget follow-up were improved. By way of example, working in this context means: did the application improve productivity, was it easier and faster to make the budget and/or forecast and did the application improve budget follow-up possibilities? The goal of the third sub-question was to assess how users of the application had adopted to using the new tool. Is the usability good, is the chosen technology functioning well and does the application fulfill their business needs?

1.4 Limitations of the research

Companies and organizations usually have several different types of annual budgets to do. Typical annual budgets are, for example, profit and loss budgets, balance sheet budgets, sales budgets, production budgets and cost budgets. Companies often make forecasts alongside an annual budget, allowing them to adjust financial plans according to the current financial situation. Due the fact that the themes of budgeting and forecasting are quite wide as topics, it is necessary to limit the scope of the research. This research focuses on the budgeting and forecasting of operative costs, such as fixed and variable costs.

Referring to Neilimo and Uusi-Rauva (2010, 236), different types of budgets form the company's budgeting scheme together. The budgeting scheme consists of the available budgets and their associations. Although budgeting schemes might be very company or industry specific, there are a few general features that are included in almost all budgeting schemes. In general, there are two main budgets: the profit and loss budget and the financial budget. The profit and loss budget is a plan that displays the company's budgeted annual result, which takes into account sales and expenditures. The financial budget expresses the company's budgeted liquidity. The profit and loss budget consists of sub-budgets, such as the sales budget, production budget, purchase budget, inventory budget, cost budget and investment budget.

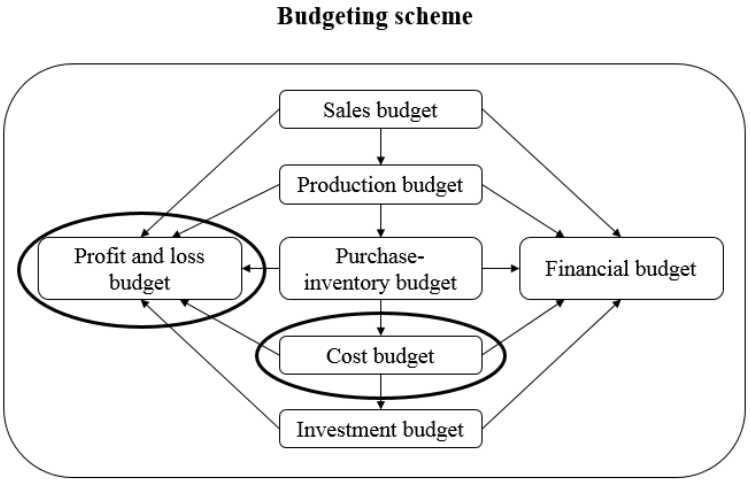


Figure 3. The typical budgeting scheme of an industrial company (Neilimo & Uusi-Rauva 2010, 236)

In the budgeting scheme, sub-budgets such as the cost budget join the cost rows of the profit and loss budget, whereas the sales budget joins the sales rows. In this way, the connection between the sub-budgets and the main budgets is established.

This research is limited in its scope and only concerns the profit and loss budget and its associated sub-budget, the cost budget. Even though all the sub-budgets are associated with the financial budget, this topic is disregarded due to the aforementioned limitations. The balance sheet budget is also excluded from this research.

1.5 Structure of the research

The rest of this study consists of eight chapters that are organized as follows. Chapter 2 introduces the concept of strategy, with reflections on the case company - what strategy is all about and how it is linked to financial management and budgeting. Chapter 3 introduces the concept of organization and consolidation - how they are related to this research. Chapter 4 covers the budgeting processes and budgeting methods and explains what budgeting and budgets are all about. In addition to this, the criticism towards traditional budgeting and financial planning without traditional budgeting is explained. These concepts are also assessed from the perspective of the case company. In chapter 5, the concept of rolling forecasting is introduced - what are the different forecasting models and what are the tools and best practices to perform rolling forecasting. These concepts are also discussed within the context of the case company. The concept of change management is

described in the chapter 6 - why should change management practices be considered important factors in this kind of development project. Chapter 7 introduces the planning of software principles and practices and what should be taken into account from the point of view of technology. Chapter 8 explains the concepts of project and project management - what kind of project management framework was used in this development project. The main points from the Finnish and the Russian development projects are also discussed. Chapter 9 concludes this study.

2 Strategy

Strategy is one of the oldest concepts in organization management, leadership and business development. Strategy is an extensive and multi-dimensional concept that forms a versatile framework to steer and develop business and lead people (Kamensky 2014, 13). According to Neilimo and Uusi-Rauva (2010, 334), strategy integrates the most important goals and activities of a company or organization and constitutes the leading theme on how to achieve long term targets. In addition, strategy underlines common goals and the means to achieve targets.

Strategy is also the most used term in business development, but at the same time it is also the most misused term. When working the strategy program, there is a risk that the concept gets an incorrect context, as it depends on the capabilities, desires and purposes of the user. That is why it is important to define clearly what the strategy is all about and, even more important, to ask why strategy exists. In the long term, strategy will determine the company's success. Creating a good strategy requires a lot of contextual thinking before good practical goals can be achieved (Kamensky 2014, 14).

Strategic leadership and strategies can be observed in different aspects, such as the executive level, the profit center level and the business area level. All these aspects may have their own strategic goals and means to achieve these goals, but at the top, there is always the overall strategy of the company to be followed. Strategic leadership on the profit center level is narrower and more specialized as it concerns only their specific areas of business. However, profit center level strategies have an important steering role on the top level strategy of the company (Neilimo and Uusi-Rauva 2010, 334 - 335).

In summation, strategy is everything when it comes to the steering of companies and organizations. Strategy determines the direction of movement and the leadership should support that as well. It is obvious that without a strategy a company cannot survive or grow. In relating these facts to the strategy work of the case company, it can be said that said work is done more or less by the book. However, the focus in the case company’s strategy is more on the profit center level, as one of the profit centers generates a vast majority of the turnover and profits. Therefore, that particular profit center can be seen as a dominant factor in the strategic leadership. The overall strategy of the company is, to a greater or lesser extent, formed by the business of this particular profit center and the role

of the strategies of the other profit centers is more to accompany and to support that strategy.

According to Kamensky (2014, 18), the concept of strategy is multi-dimensional and extensive, so it is difficult to define it briefly. Nonetheless, Kamensky has defined two relatively simple approaches to strategy:

1) Strategy is the company's conscious choices of goals and guidelines in the constantly changing world. This definition highlights the following subjects:

    - The starting point for the strategy is the changing world i.e. the business environment.
    - Strategy includes objectives, essential guidelines and policies.
    - The question largely concerns choices between several options, putting things in order of precedence and consciously abandoning some equally good options.
    - The company and its organizations are aware of the chosen options and they have a consensus on the actions required.

2) Strategy allows the company to manage the environment. This approach is expanded into the following control levels:

    - The company tries to adapt to environmental changes.
    - The company modifies its environment and tries to influence its environment.
    - The company chooses its business environment.

Naturally it is clear that a company cannot influence all of the changes in the environment, but there are differences on how companies anticipate environmental changes and how they react to these changes. The question is how vigilant companies are, how fast do they analyze occurring changes and how do they change their own business in accordance with the changes, or can they even change their business before any changes occur (Kamensky 2014, 19).

One thing is sure however, the business environment changes and companies have to change and improve their activities. Sensitivity to change varies among companies and various reaction types can be categorized as follows:

1) Change has happened, but the company does not even see that.
2) Change has happened, the company recognizes it, but does not understand the impacts and does not react.
3) Change has happened, the company recognizes it, understands the impacts, but either cannot or does not want to change.
4) Change has happened, the company recognizes it, understands the impacts and changes it business accordingly.
5) The company detects upcoming changes in advance and translates threats and opportunities to its advantage.

In the long run, a company can only survive if it is able to operate in group 4 or 5. The most successful companies belong to group 5, which requires good management (Kamensky 2014, 20). Comparing Kamensky's approaches to the strategy of the case company, it can be said that one of the objectives of the case company is to foresee the changes in its business environment and to react quickly by adjusting its operations accordingly and in the best possible way. One particular strategic instrument is to manage cost structures, such as operative costs (fixed and variable costs), which relate to the case company's strategic steering.

In this research, the objective was not to focus too deeply into the concept of strategy. The point was rather to emphasize the importance of strategy, and how changes in the business environment have to be taken into account in strategic steering. Referring to Kamensky's five level sensitivity of change, the case company aims to operate between levels 4 and 5. The new budgeting and forecasting applications should support this strategy and help the case company remain on these levels.

2.1 Financial management and strategy

These days, strategic leadership is a widely discussed topic in business. According to Neilimo and Uusi-Rauva (2010, 331), strategic leadership has been a trending topic because of growing interest among executives, competitors, researchers and journalists.

There is ample justification for this, as strategic leadership is the key pillar for any successful business. Strategic leadership concerns the whole company and focuses on the most essential factors. Strategic planning, strategic analyzing and strategic follow-up are the main tasks in strategic leadership. The decision-making related to these factors requires financial information produced by financial software, especially when there is a need to examine financially strategic objectives or their financial impacts.

Kamensky (2014, 191) argues that financial management in companies has traditionally not been orientated much towards providing help in strategy work. Rather, financial management produces basic financial information and focuses on controlling more operative activities by concentrating on examinations of what has happened in the past. Kamensky (2014, 195) points out that, for example, analyses related to costs should be done on various levels and a drilling down to the details should be possible as well. Smith (2005, 15) says that the information that supports strategic decision-making comes from multiple sources, but the major source is still the traditional combination of internal-quantitative-financial-accounting. This traditional approach gathers and provides information for planning and control mechanisms e.g. for budgeting. Research findings support these determinations. During the requirement specification phase in the Finnish and Russian organizations, it was stated that the new application has to allow the possibility to drill down from the actuals to detail-level transactions, so that the budget owners will get a better understanding of what has happened in the past months or year. This way it would better support the analysis of needs and decision-making.

Referring to Neilimo and Uusi-Rauva (2010, 338), strategic accounting produces information based on the data that the operative systems of the company produce and the aim is to help executives in strategic decision-making, planning and control. Additionally, the same strategic information should help decision-making in business area management as well as profit center management.

It can be said that strategic leadership requires focus on the most essential factors, such as revenues and expenditures, so that steering the company in the right direction is possible. It is also obvious that the follow-up and analysis of these factors relies on the data that is produced by operative and accounting systems. It can also be stated that the accounting software and other planning and control applications have to be up to date, so

that the data from the operative systems can be transformed into valuable information that, in turn, can be utilized in decision-making.

2.2 Budgeting and strategy

Budgeting has been one of the greatest processes in the management of organizations over time and it is still the critical link between strategic planning and operational control. The budgeting process must be approached in a rational and realistic manner in order for it to be truly meaningful and effective. Budgeting also has to be aligned with the objectives of an organization (Joiner & Chapman 1981, 4).

Budgeting is an organized and instructed process, which ultimately leads to the complete budget. The budget itself will be monitored on a regular basis. Budgeting relates essentially to the companies long term planning and implementation of the objectives defined in the strategy. The aim is to solidify and set short-term plans and goals that ensure the strategic targets of the company. Budgeting is an important part of the implementation of strategy - it helps executives recognize and solidify annual directions of development and planning. Budget controlling, on the other hand, helps keep the company on track toward its financial goals. The actions of setting budget targets, analyzing budget differences against actuals and making corrective actions based on these analyses have central roles in the budget control process (Järvenpää et al. 2010, 253).

Strategic leadership provides the basis for tactical annual budgeting, which is an essential tool to help steer the company towards its targets. Annual budgeting can support the leadership of the company in many ways:

- Budgeting helps specify the objectives of the company.
- Budgeting motivates people to achieve set targets. It allows resource allocations to different functions and helps to integrate different functions of leading.
- The budget specifies management responsibilities and clarifies organizations.
- Budgeting generates discussions in organizations.
- The budget is an important source of information on the deficiencies of a company. It also steers the development of information systems.

Additionally, the budgeting process has to be simple enough, so that budget targets can be achieved. Overly complicated information systems and a bureaucratic budgeting process can jeopardize the achievement of targets (Neilimo & Uusi-Rauva 2010, 233-235).

Miller and Galeaz (2007, 39) state that budgeting and forecasting are powerful management tools to help drive strategic decisions. Strategic business drivers should be identified and incorporated into the budgeting and forecasting processes. The management level should make sure that the budget targets are aligned with the organizational strategy and value drivers. If this connection is missing, the budgeting and reporting processes become merely a loose exercise without the important association to strategy.

All of the authors emphasize that budgeting should be a meaningful, well-organized and simple process that supports the organization in its work to reach set targets. The research observations confirm these facts to be important for the case company's executives. During the discussions with the budget owners in the Finnish organization, however, it was revealed that most of them did not feel that budgeting has a great role in strategic steering. Rather, they felt that it is just a tool for controlling costs and an annual routine that needs to be take care of. The budget owners in the Russian organization, on the other hand, had greater belief in the importance that budgeting has in strategy and they therefore took the budgeting process much more seriously. However, this was discovered to be partly due to the fact that the relation of cost control to the annual budget follow-up was seen as very important. In other words, commitment to stay within the budget was felt to be a strategically significant factor.

3 Organization

Where there is a company, there is also the organization and its structure. Large companies typically operate via a decentralized organization that consists of different profit centers. An example of a profit center can be the subsidiary, the internal manufacturing unit or the product development unit of a company. The point is that a profit center is an independent organizational unit, which has relatively large decision-making mandates. Companies seek faster decision-making and flexibility by operating through profit centers (Neilimo & Uusi-Rauva (2010, 253-255).

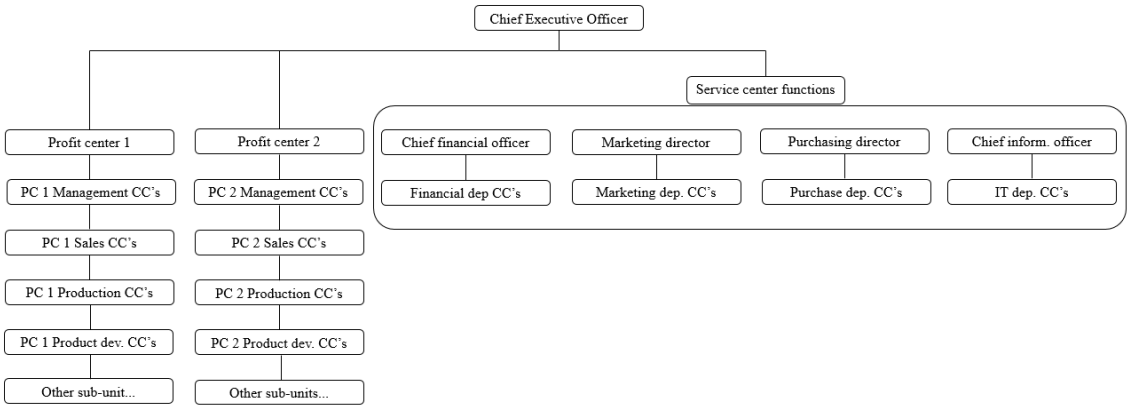


Figure 4. An illustrative example of the case company's organizational structures in the Finnish and Russian organizations (non-comprehensive)

Figure 4 shows how organizational structure is presented in this research. This figure provides a general picture of the kind of organizational structure that is in use in the Finnish and Russian organizations. One exception is that there is no profit center 2 in the Russian organization. Additionally, in this organizational structure, profit centers and service centers have several cost centers as sub-units, whereas the role of service centers is to support profit centers in their business needs. In a manner of speaking, profit centers and their sub-units (cost centers) buy services from the support functions, e. g. financial and IT-services.

According to Neilimo and Uusi-Rauva (2010, 258), cost centers are generally internal service units that do not produce services or products outside of the company. The objective of cost centers is to improve internal cost effectiveness in a way that enables services or products to be produced effectively and economically, in comparison to external ser-

vice providers. These definitions are also valid in the case company. It is also worth pointing out that the case company's Finnish organization has roughly 150 different cost centers and about 80 cost centers in the Russian organization. This yields a perspective on how important the role of cost centers is in the case company's cost management. The internal cost effectiveness and comprehensive cost controlling mechanisms are based on these multiple cost centers and their expenses that form the profit center or service centers expenses and ultimately the expenses of the whole company. For such a bottom-to-top structure to make sense and the cost follow-up to be possible across the hierarchy of the organization, all of the cost centers have to be consolidated to the next level up - the profit center level, the support function level or other sub-unit levels. Neilimo and Uusi-Rauva (2010, 255) point out that successful profit center leadership requires a suitable financial information system that can serve decision-making on the profit center level efficiently. This, in turn, requires careful attention from top management in terms of information management strategy. Berry and Jarvis (2011, 439) say that in general, the more decentralized an organization is, the more complex the information systems will be.

3.1 The concept of consolidation

Several corporations consist of numerous separate companies, the activities and financial performance of which top management, financial managers and controllers want to follow up on a regular basis. This means that these separate companies, subsidiaries for example, need to prepare financial statements, such as profit and loss statements and balance sheet statements, on a monthly basis, so that regular follow up and analysis is possible. Referring to Baker et. al (2004), the purpose of consolidated financial statements is to gather different companies together to present them as a single economic entity. Consolidated statements draw a clear picture of the financial performance of combined entities that are under the control of the parent company.

Successful consolidation requires a suitable consolidation software, through which the comprehensive management of the financial performance of all the companies is conducted. Simply put, all the necessary companies, profit centers, accounts and other needed organizational structures are brought into the consolidation program and actuals, budgets and forecasts are set in place, according to specific requirements and based on certain accounting rules. It should also be mentioned that the main budgets, such as the profit and

loss budget and the balance sheet budgets that were introduced in chapter 1.3, are typically brought into the consolidation software. In the case company's Finnish and Russian organizations, sub-budgets, such as cost budgets, are done by using the new budgeting application, which provides the budgeted figures that are entered into the consolidation software. In this research, the aim is not to discuss consolidation in detail. The point is rather to introduce the connection between cost budgets and the concept of financial statement consolidation.

4 Budgeting

As was mentioned in chapter 2.3, budgeting has to have a link to the strategy of the company, as it is a tool that helps steer the company's activities. Budgeting must create a detailed level of description of the goals of the company's functions for the desired period of planning and action. At the same time, the budget links the different functions of the company together and it can be used for the purposes of employee commitment and motivation as well. Budgeting helps management plan business activities based on the changes in the financial situation of the company or in the competition environment. By knowing these factors, the management of the company can give guidelines for the budgeting process, which has three main phases (Neilimo & Uusi-Rauva 2010, 230-232).

- The budget planning phase includes steps, such as setting up budget goals, defining the resources and actions on how to achieve set goals and the persons responsible for budgeting.
- The budget phase is simply the stage where all the abovementioned steps are steered in a way that allows for all the budget targets to be achieved.
- The budget control phase allows the observation of the budget and actual costs and deeper analyses of the reasons for deviations (Neilimo & Uusi-Rauva 2010, 243-244).

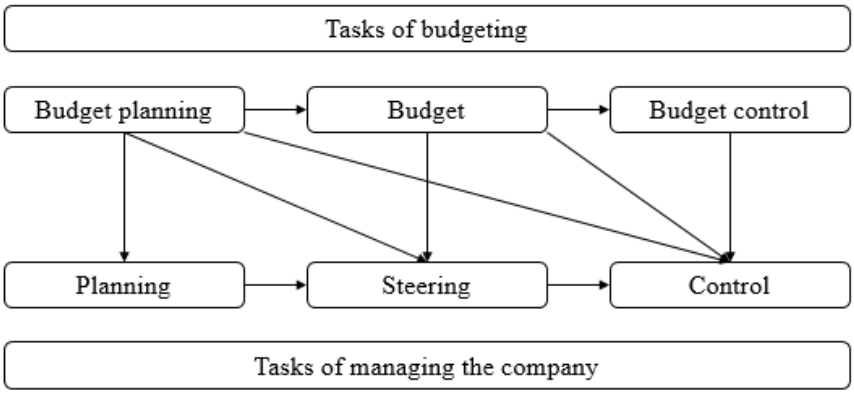


Figure 4. The connection between budgeting and company management (Neilimo & Uusi-Rauva 2010, 232)

The organization budgeting scheme typically includes master budgets (budgeted income statement, budgeted balance sheet and cash budget) and related sub-budgets, such as the

sales budget, production budget, purchase budget and the cost budget. Budgets are combined in accordance with the organizational structure. Cost center level budgets are combined into the profit center level, while profit center level budgets form the organization level budgets. In budget steering, the most essential level is the profit center level, as that is generally where profit result responsibilities lie. There can be different departments under profit centers and department managers are usually responsible for their budgets. Typically, the financial department is responsible for coordinating the budgeting process and compiling the budgets. Budget proposals are repeatedly handled and discussed in different management meetings before the board accepts the final budget versions (Järvenpää et. al 2010, 239-241).

The case company's budgeting scheme in the Finnish and Russian organizations is formed precisely according to the previously presented budgeting scheme. The organizational structures of the Finnish and Russian companies follow the profit center-cost center structure that ultimately forms the cost budget of the whole company. Master budgets, such as the profit and loss budgets and balance sheet budgets, are done in the consolidation application on the profit center level. Sub-budgets, such as cost budgets, are done using the cost budgeting application on the cost center level. This will eventually generate profit center level budgets. Profit center level cost budgets will then be entered into the consolidation application.

As mentioned earlier, budget reviews take place in several management meetings, the aim of which is to reach a consensus on the right cost budget levels per profit center, department and cost center. This structure has remained the same for a long time and during the discussions on possible amendments in the organizational structures, it was discovered that the participants wanted to keep these fundamentals untouched.

One significant deviance related to cost center ownerships and responsibilities was observed in the Russian organization. In the Finnish organization, one person can own one or several cost centers and is responsible for budget compiling and budget controlling of each cost center he or she is named the owner of. In the Russian organization, all of the cost centers are shared among the persons that compile the budgets. In other words, all of the people responsible for the budget have access to all of the cost centers across the organization. However, the persons who enter the budget figures into the budget item lines are not necessarily responsible for that particular cost center as a whole - only the

budget item lines he or she has entered. The cost center owner is typically a manager who is responsible for the entirety, but not individual budget item lines made by the one responsible for the budget. These findings are noteworthy, because this had a significant impact on the design and implementation of the budgeting and forecasting application.

According to Berry and Jarvis (2011, 439), before the budgeting process can begin, top management has to consider budgeting guidelines and policies based on the assumed financial performance of the organization. The guidelines and policies act as a framework for budget preparers, so that they understand the budget margins that are being aimed at. In order for the budget preparers to be able to make decent budgets, the guidelines have to be communicated clearly enough by top management. Neilimo and Uusi-Rauva (2010, 234) point out that an essential part of the annual budgeting process is to analyze the past financial development of the organization, comparing it to the set budget goals. This analysis can be done when the outcome of the budget of the past year is complete. Normally this is done before the budget preparations for the next year begin. The next step is to consider business environment changes and the plans of the organization for the next year. This phase is usually done during the summer time before budget preparation, which will take place in late autumn. According to Fabozzi, Peterson and Polimeni (2008, 160), the budgeting process generally begins four to six months prior to the end of the year. Companies typically have certain procedures to be followed in compiling the budget and the process is managed by a CFO, a financial manager or a controller.

In the case company's Finnish organization, the cost budgeting process has remained more or less the same, ever since the first budgeting application was launched in 1997. In the Russian organization, the budgeting process follows the same guidelines and policies as the Finnish organization, but the process itself is adjusted based on local needs and manners. The annual cost budgeting process follows the definitions outlined in the previous chapter. For example, when the sales budget and production budget has been completed, the top management in both organizations gives the guidelines of cost budget levels based on the overall situation in the business environment. In other respects, both organizations are by and large free to prepare and initiate the budgeting process as they like. The financial departments are nonetheless responsible for the whole budgeting process.

Knowledge of the phase findings proves that the annual cost budgeting process does not need major changes or updates. Expectations were more focused on the new budgeting

application, which should fulfill modern business needs in both organizations. The main issue in the Finnish organization seemed to be the old system and its lack of features. The main problem in the Russian organization was completely missing a budgeting solution. As a summary, in the case company's Finnish organization, the budgeting process had become a well-established practice that was performed every autumn more or less like a routine. Sticking to old routines had been easy, because the business environment had not previously changed at the same speed it has during the past few years. Additionally, the old budgeting system did not support decision-making well enough. The Russian organization, in turn, needed a whole new budgeting system.

4.1 Budgeting methods and styles

There are two general concepts that relate to the budgeting scheme, budgeting method and budgeting style. Budgeting method refers to the principal starting point of how the organization organizes its budget planning and budget preparation responsibilities. Budgeting style refers to the role the budget gets in the control of operations, in particular budget outcome evaluations (Järvenpää et. al 2010, 242). In the democratic method, budgeting is done from the bottom to the top, in other words, the starting point for budgeting is the profit center or function level. The role of top management is to give the guidelines for budgeting, compile all the function or profit center level budgets together and make adjustments if needed. This kind of build-up method commits the budgeters to the budgeting process, allowing the utilization of knowledge that is on the profit center or function level (Neilimo & Uusi-Rauva 2010, 239).

In the authoritarian method, top management defines the main budget levels and gives the instructions based on strategic goals. In this method, managers and budget owners have a lower chance to impact the budgets, as the top management may give strict orders concerning the budget levels. Hence, the role of managers and budget owners may be to merely enter the budget figures into the system. However, the responsibility to stay within the budget still remains (Järvenpää et. al 2010, 243). Neilimo and Uusi-Rauva (2010, 239) point out that the authoritarian method may be particularly useful in crisis situations, when it is necessary to lead the company in a centralized manner and according to the targets.

The co-operation method is a combination of the democratic and authoritarian methods. It is widely used in big and middle-sized companies. In this method, top management

defines budget levels and targets in cooperation with the profit center or function level managers. The co-operation method typically requires several budget rounds before the final budget is completed and accepted (Järvenpää et. al 2010, 243).

These facts will be set into the research framework, combined with the discussions and comments that came up in the getting to know phase. It can be stated that the introduced budgeting methods and styles do not deviate much from the case company's methods and styles. The case company's Finnish organization wanted to keep its budget planning and budget preparation unchanged, as adjustments in that area were not seen as important. Discussions also confirmed that the prevailing democratic budgeting method can remain as is, because the structure of the organization was based on cost center levels, which are consolidated to the profit center and up to the company level (bottom to top).

In the Russian organization, the budgeting method can be said to be the authoritarian method. Top management defines strict budget levels and all the people responsible for the budget have to follow these guidelines closely. Observations based on discussions confirmed that in this method, the role of budget responsibility was more limited and, in many cases, the only task seemed to be entering the budget figures into the budget sheets. However, the budget owner's responsibility to stay within the budget remained. Deeper analysis or controlling the outcome of the cost center was the duty of the manager and not necessarily of the one responsible for the budget.

4.2 The budget

Budgets have a number of purposes in organizations. Berry and Jarvis (2011, 436) introduce a few central points. The budget increases coordination and communication between departments and units within an organization. Managers are forced to think about relationships with other departments that allow better integrations of business plans. The budget provides a control mechanism, which enables the evaluation of performance by recognizing deviations from plans. By identifying differences, managers can make corrective actions to avoid such deviations in the future. The budget can also be used to authorize expenditures. Persons who are responsible for budgets can get approval for future expenditures from the top management and these expenditures can be booked on the budget, which means that further approvals are not needed.

It can be agreed that budgets, and budgeting overall, increase communication between the departments and cost centers. The findings in the Finnish and Russian organizations proved that during annual budgeting, discussion between the cost centers was active, which indicated that cost center owners have to think about goals and plans together. This is done in order to align the budgets according to the given guidelines, taking future business plans into account.

Referring to Järvenpää et. al. (2010, 235), a budget is a goal-oriented plan that aims to reach the best possible financial performance in a given period of time. Traditionally, the budget has referred to the level of the annual or fiscal year, which, at the same time, includes the goals of monthly, quarter and half year periods. The budget is typically done separately on the unit, profit center, division and corporate levels. Neilimo and Uusi-Rauva (2010, 231) have defined the budget in a similar way. The budget is a goal-oriented action plan that defines activities, resources, schedules and areas of responsibility. The budget is drawn up for a specific period of time on the corporate and profit center levels containing the most advantageous financial result, measured in terms of money or quantity.

Budget compiling should begin with an assessment of desired goals and how to achieve them. After this phase is carefully evaluated, actual budget compiling can be started. Too often, however, budget compiling is started by comparing the figures of the previous year to forthcoming budget figures, without all the necessary evaluation. In this scenario, existing budgeting is not questioned, nor are new innovations supported. In order for the budget to be useful in the planning of operations, a considerable amount of information and analysis on the future business environment is required (Järvenpää et. al 2010, 247). This definition supports the observations of the communication between the cost centers made earlier. Before cost budget compiling can begin, the objectives and the means to achieve them have to be assessed thoroughly enough. However, one finding during the annual budgeting round in the Finnish organization showed that many of the cost center owners started compiling the cost budget by comparing the figures of the previous year with the forthcoming budget figures, which they felt to be necessary. One reason was that it helps to outline the aim of the new budget as a whole. At the same time, however, the budget owners also evaluated future business plans, so that those too were noted in the new budget.

Åkerberg (2006, 42-44) argues that there are two opposite ways of composing a budget. Traditionally, top management has emphasized that the budget is a commitment that must be kept. Those that do not commit have to have a very good explanation. It is clear that in this situation, the ones responsible will draw up a budget that is easy to achieve. Another way to compose a budget is to set the goals challenging enough to make achieving them require hard work. This scenario also requires participants to understand if the targets cannot be reached every time. Someone may have the courage to work differently, even though targets cannot be reached, which may, however, have some consequences in the organization.

One finding during the getting to know phase concerned the budget owners, who were working closely with the manufacturing operations. They showed more interest in budgeting and cost controlling compared to other budget owners working in other departments, such as the finance department. One explanatory factor turned out to be the fact that manufacturing operations cause considerably larger expenditures than the so-called support functions, such as finance and communication. Expenditures in manufacturing operations also vary much more during the year than in any other department. This is due to the fact that the manufacturing unit acquires various machines, spare parts and services, which are unnecessary in other units. Additionally, the manufacturing unit has a labor force on its payroll, hence resourcing also varies during the year. Other units, such as finance and communication, have no labor force on the payroll, only white-collar workers.

As a conclusion, manufacturing units in the Finnish and Russian organizations are much more sensitive to changes than support functions, such as finance and communication. A classic example is the scenario in which a company may have to adjust its manufacturing resourcing to correspond to the prevailing business environment if future business does not look good enough. Such a changes in the business environment do not necessarily cause resource reforms in the support functions, at least not on same scale. Ultimately, these types of changes have to be taken into account when planning the cost budget for the next year.

4.3 Criticism of traditional budgeting

Traditional annual budgeting has held its ground for a long time in the financial processes of companies. Despite the fact that traditional annual budgeting has faced a lot of criticism

during the decades, it seems to be an everlasting as a financial process – an unchangeable, well established practice, not easily abandoned. According to Ekholm and Wallin (2000, 519), traditional annual budgeting has been accused of being inefficient and not meeting the needs of a rapidly changing business environment. They point out some general criticism aimed at annual budgeting: Annual budgeting is merely an annual, time-consuming and cumbersome ritual unable to signal changes in the business environment. It ties the company to a twelve-month commitment. Risky, as the business environment changes constantly.

It is easy to agree with these arguments. During the research, observations and discussions with the accountants proved that in the Russian organization, the annual budgeting process had become extremely heavy and time-consuming. Mainly this was due to the whole budgeting being performed by using the Excel program, which was not suitable at all for budgeting purposes on that scale. In the Finnish organization, annual budgeting had also become a time consuming and laborious process, mostly because the old budgeting system was clumsy and it did not respond to business needs well enough. Additionally, it was stated in both organizations that a twelve-month commitment to the budget was problematic, due to the rapidly changing business environment.

De Waal et. al (2011, 318) write about similar findings. Composing a budget takes a lot of time and resources. They argue that organizations can spend nearly 20-30 percent of their management time on budgeting. This is due to the fact that budgeting requires plenty of detailed information and discussions between different management levels. The budget is often intended for short term planning (typically for one year). Therefore, it does not encourage reaching long-term strategic objectives. In addition, budgeting may lead to pointless actions. For example, budget owners may cause unnecessary costs at the end of the budget period to avoid cost cuts in the budget round next year.

Annual budgeting has even been accused of being an organizational game. As pointed out by Cokins (2009, 140), the early attempts of organizations to be more flexible and to manage spending have been all that successful. Thus, organizations have evolved to operate by separate functions, which lead to strong hierarchies. As time passes, those separate functions create their own identities and way of working, ultimately becoming fortresses. Naturally, working inside a fortress promotes jealously and protectiveness. This

kind of structure makes managers act stubbornly, placing their personal needs above those of co-workers and the organization.

Cokins (2009, 141) argues that even accountants do not make matters easier. Their way of working supports the hierarchical functional silos. They collect the budget data from the accounting system on the cost center level and consolidate it to the functional level. When accountants ask managers to submit the budgets of the next year, the managers will try to give the best estimate of the expenses of the current year line by line. They then incrementally increase the next year's budget with by certain percentage. Budgeting software makes it easy to create these calculations and, therefore, even the software supports this bad game-like habit of incremental or decremental manipulation. Åkerberg (2006, 38-39) pointedly underscores the fact that traditional annual budgeting is an inwardly angled process by nature, and it is performed to fulfil one's own real, or imagined, needs. Budgeting as a tool of management, suffers from a lack of confidence and credibility, because traditional budgeting is full of manipulation and pointless explanations without an evident link to strategic decision-making.

As a summary, it is obvious that traditional annual budgeting has its shortcomings. It can be stated that one of the biggest shortcomings is that the budgets are done for the next year, typically during the previous autumn. This means that, at this point, the company executives have to have the best possible vision concerning upcoming business. However, changes within the modern world economy happen in a short period of time, quarterly or even within months, so the conditions will change equally fast. Laboriously prepared budgets may become meaningless quickly. It is no wonder that so many experts question traditional annual budgeting.

4.4 Financial planning without traditional annual budgeting

As was found in the previous chapter, the traditional annual budgeting cannot meet all of the needs that companies have in financial planning. The annual budget, for example, is quite static and therefore does not provide the necessary weak signals beforehand. Variance analyses of annual budgets focus on analysing what has happened in the past and what were the factors. Nowadays, companies want to shift the focus to analyse the present and future actions, instead of looking into the past. By shifting their focus to the future, companies will get a better view of upcoming changes in the competitive environment,

and that knowledge can be utilized in financial planning activities (Järvenpää et. al 2010, 281).

Traditional budgeting also influences leadership style. According to Zeller and Metzger (2013, 300), in companies, where traditional budgeting is very much alive, the culture of leadership is more commanding and controlling. This is due to the fact that the annual budget is locked and the focus of decision-making is to drive the company to reach the budget values. The variance analyses work as a feedback mechanism. Therefore, the leadership devotes valuable time to evaluate budget variances as a method of learning and feedback. This style of leadership forces managers and decision makers to look back into the past, instead of the future. They state that throughout rolling forecasting, leadership can be proactive and focus on future outcomes: where the company thinks it will be. Future estimates can be made by assessing current assumptions and economic forecasts of changes in the environment. Rolling forecasting requires leadership that looks into the future, so that financial plans can be changed according to the changes in the business environment.

The toughest annual budget critics recommend that it should be abandoned. It is not an easy task to abandon annual budgeting and replace it with some new financial planning method when the annual budgeting process has been a cemented part of the financial planning processes of the company. Järvenpää et. al (2010, 282) say that it is a fundamental change when the company is about to abandon traditional budgeting. It requires changes in the whole strategic steering model and a rethinking of concepts. They point out that the abandoned traditional budgeting is often replaced with rolling budgeting, which they consider to be a mere variant of annual budgeting.

According to the study of De Waal et. al (2011, 319), changing the budgeting process is not necessarily an easy task. Changing the process can be costly, as it requires a lot time and effort from personnel and it typically requires consultant work and investments in the new systems and software. Changing the process can be complex too, because traditional budgeting has a central role in several companies as it often fulfils basic needs (directing, evaluation and monitoring). Budgeting reaches many of the management processes, such as strategic planning, resource allocation and cost management, therefore changing the process has implications for other processes as well. In many companies, there is a lack of the resources required to get involved in changing the budgeting process efficiently

enough. The timetable to change the process is also often limited to the moment the organization is not tied up with the budgeting process. Moreover, many companies lack the knowledge to change the process effectively and in the right way. Often there is also a resistance to change in the organizations when planning changes in the existing processes. Executives and managers may think that radical changes may have implications within internal power structures.

De Waal et. al (2011, 319) point out that, based on the abovementioned reasons, changing the budgeting process is often not the first priority of the companies. However, at the same time, many of the organizations unsatisfied in their current budgeting process, which is kind of paradoxical.

Rolling forecasting has been suggested as the substitute for annual budgeting. Referring to Ekholm and Wallin (2000, 521), rolling forecasts have a better image than annual budgets, because rolling forecasting is not as old-fashioned and it can provide much-needed flexibility, compared to annual budgets. Rolling forecasting is certainly not a perfect solution and it has its drawbacks. For example, it is said that it causes more uncertainty among the managers as it is changing constantly. Thus, rolling forecasts done on a monthly or quarterly basis are widely used in the companies in parallel with annual budgets. Åkerberg (2006, 58-60) poses a question: why do some companies use rolling budgeting and annual budgeting in parallel, despite rolling forecasts being proposed as the main alternative for annual budgets? He points out that it is not appropriate to just start using both methods in parallel without carefully assessing current processes and their particular purposes. It is essential to consider what is meant for rolling forecasts or annual budgets and how the processes are understood within the organization, so that optimal and meaningful performance can be reached.

In their study, Ekholm and Wallin (2000, 519-528) investigated whether companies are abandoning annual budgeting. Their study covered 650 Finnish companies with a turnover of more than 16M€. The results showed that the vast majority of the companies are not going to abandon annual budgeting. Instead, they are trying to develop existing budgeting processes to meet new demands. Referring to the comments they received, annual budgeting can still provide a good framework for operational management for the traditional manufacturing company. Only a few of the companies had replaced annual budgets

with rolling forecasts and some companies are using rolling forecasts in parallel with annual budgets.

When a company has performed annual budgeting for a long time and is planning to move on to rolling forecasting, one of the biggest concerns is how to change and incorporate the new processes. Discussions and observations during the research proved that, in the case company, this subject caused a lot conversation, especially within the Finnish organization. Some of the project stakeholders questioned the whole idea of moving to rolling forecasting, as they did not understand the benefits, whereas others were excited about it. The debate sparked questions to the tune of: how much time will rolling forecasting take per month or quarter? Should all the budget owners prepare forecasts? How far should the forecast reach? Would there be a regular basis for forecast audits? What if most of the cost center owners do not have anything to forecast, because yearly and monthly expenses remain as budgeted? However, the opinion of top management was that the company will benefit from rolling cost forecasting, because the business environment changes and the operative costs (variable costs and fixed costs) have to be adjusted accordingly.

Meanwhile, evaluations on possible benefits in the Russian organization were more straightforward. Top management stated that their organization will benefit much from rolling forecasting, like the Finnish organization, and the rolling forecasting process just needed to be incorporated properly across the organization. It was noticeable that the question was more about how to incorporate the rolling forecasting process, than evaluating and analyzing how the organization will benefit from rolling forecasting as a whole. It was also noteworthy during discussions on how the rolling forecasting process was to be incorporated and what the action plan to do it would be. In a sense, the project stakeholders bypassed this topic, explaining that the new process taking place will merely be a top management announcement to other organization levels, so there will be no need for action plans.

The idea to abandon annual budgeting and replace it with rolling forecasting did not receive support on any organization level. The reason was that traditional annual budgeting has been in use for so long that financial planning without it is simply impossible to even imagine. Hence, the Finnish and Russian organizations both wanted to keep annual budgeting as a part of the financial planning routines and rolling forecasting as a parallel function.

5 Rolling forecasting

Rolling forecasting - also known as rolling budgeting or continuous budgeting aims to increase flexibility in budget controlling - steers planning in anticipation of the future and adapts the activities of the organization according to the prevailing business conditions (Järvenpää et al. 2010, 235; Åkerberg 2006, 60; Montgomery 2000, 42).

The essential thing about rolling forecasting is its focus on the indicators that play a central role in the strategic steering of the company, such as revenue and cost structures. The follow up of these indicators should be systematic and in real time. Analyzing past events simultaneously is important as well, so that predicting the future is easier and expected benefits can be achieved. Moving on to rolling forecasting requires fundamental changes in a company's planning system. The change requires reforms in areas of responsibility and, in addition, it requires a new information system and a new way of thinking. The main benefit of rolling forecasting is that changes in the business environment will be taken into account, when planning future objectives as a continuous process. Rolling forecasting should also stimulate discussions on the management level to support decision-making and act as a driver for a flexible steering model (Järvenpää et al. 2010, 292).

When a company intends to start using rolling forecasting, it is important to carefully evaluate what it wants to achieve with rolling forecasting and how it is going to be done as whole. A company has to have a common goal and understanding about the benefits of rolling forecasting. The rolling forecasting process should not be a copy of annual budgeting. Otherwise, it does not create the necessary extra value to the company and its operations.

A few points to consider in what to expect, when considering the move to rolling forecasting:

- Better anticipation of annual results.
- Ability to steer operational controls easier and react faster to changes.
- Abandon calendar-based yearly planning and move to continuous planning.
- Reduce unnecessary work.

If these points are not assessed well enough, or executive support is lacking, there is a risk that rolling forecasting will just be a variant of annual budgeting, which is repeated a number of times during the year. This does not benefit the reliability of the process or the motivation of the participants (Åkerberg 2006, 58-61).

At the beginning of the study, when the amendments were discussed and evaluated together with the project stakeholders in the Finnish organization, a few important observations were recorded. Discussions on what benefits the Finnish organization is really aiming to achieve with rolling forecasting produced the following findings: faster reaction to the changes that have impacts on cost structures, a better anticipation of the future, increased cost knowledge among the budget owners, more flexibility on cost planning and follow-up overall. According to these findings, it can be stated that the Finnish organization had quite a good consensus on the benefits that rolling forecasting should enable. In addition, the findings were identical to what was presented in the forecasting literature.

In the Russian organization, expectations on the benefits were similar, but what was noteworthy was that they put more emphasis on the importance of the new application and how it should improve their productivity and way of working and at the same time bring needed agility to cost controlling. This is because they have used Excel for several years for cost budgeting and it was obvious that Excel did not meet their demands. In a way, they hung all of their expectations on the new application, on how it would automatically change everything for the better.

When the project stakeholders discussed the changes rolling forecasting entails - for example, whether there will be a change of responsibilities, how should things be re-organized and incorporated in general - it was noteworthy that the stakeholders in the Finnish organization did not recognize any significant need of change in responsibilities. The responsibilities of budget owners would remain the same, in the cases of both annual budgeting and forecasting. It was also a bit of a surprise that discussions on how rolling forecasting should be performed in general gave rise to a lot of questions, as if it had not been considered at all.

The findings in the Russian organization were similar when it came to responsibilities, as they did not see the need for any major process-related changes in that area either. It is

worthy of mentioning, however, that they had put more consideration on how rolling forecasting should be conducted in general. It seemed that they had a somewhat better understanding of and consensus on how they were going to perform rolling forecasting.

There is a similar concept called rolling planning that is associated with rolling forecasting. Rolling planning is a comprehensive and flexible financial steering model that enables constant updates to the financial plans of a company. Rolling forecasts are used together with rolling planning and, for example, it is related to incomes or expenses that are being updated according to changes in the business environment. By way of example, rolling planning can be valid for one year ahead and the plan can be updated on a regular basis, typically quarterly. This is the natural cycle for most of the stock-listed companies, as they make their interim reports quarterly. For non-stock-listed companies, the planning cycle is more free (Järvenpää et al. 2010, 290).

Åkerberg (2006, 60) also mentions two different concepts related to rolling forecasting. First is rolling forecasting, where the essential thing is that the planning horizon extends over the current year. Second are updates to the estimates, where the annual budget is updated, for example, on a quarterly or half year basis to respond better to the prevailing business conditions and the aim is not to extend the updates over the current year. Neilimo and Uusi-Rauva (2010, 239) share this same concept. Some companies make updates to annual budgets instead of using rolling forecasting that reaches over the current year. This method is called the latest estimate -method. The method is suitable for short-term budget controlling. The aim is to find budget discrepancies and their causes and to react quickly by making corrective actions.

It can be stated that one important decision related to rolling forecasting is the choice of the method with which rolling forecasting will be performed. It is essential to understand the difference between forecasts that extend over the current year and forecasts that are done within the current year (latest estimate -method). When this topic was carefully discussed and evaluated in the Finnish and Russian organizations, it turned out that both organizations wanted to start using rolling forecasting in a way that only allowed forecasts to be done within the current year. At this point, some of the stakeholders criticized the whole idea, questioning if it was even meaningful to start using rolling forecasting in this way, as it would not be “real” rolling forecasting that reaches over the current year. However, most of the participants agreed that it would still make sense to make forecasts

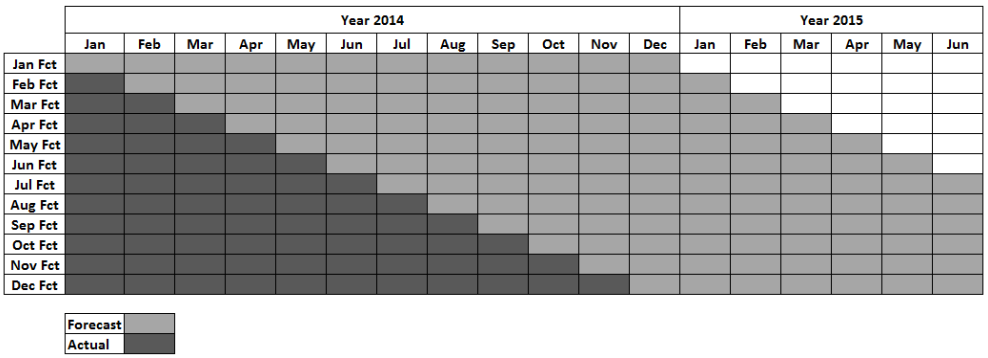
within the current year, as it would help adjust expenses according to changes in the business environment and, in this way, the forecasting process should support strategic steering as well. When it was discussed, whether the forecasts would be done on a monthly, quarterly or half year basis, it was decided that they would be done on a quarterly basis in both organizations, unless otherwise announced. It seems that it may have something to do with the fact the Russian organization had already performed forecasting on a quarterly basis and this was seen as a natural continuum.

5.1 Forecasting methods

As was mentioned in the previous chapter, there are different methods of performing rolling forecasting. This chapter clarifies the differences between the rolling forecasting methods described in the previous chapter. Four different forecasting methods are presented in the tables below.

Table 1 shows rolling forecasting performed on a monthly basis, exceeding over the current year. The idea in this method is to update the forecast every month in a way that ensures that there is always a 12 month forecast available. In other words, when the actual month replaces the forecasted month, another month will be added to the end of the forecast.

Table 1. Forecast performed monthly, exceeding current year



The idea in quarterly performed rolling forecasting is to make a new forecast for every quarter by adding the new forecasted quarter to the end of the forecast. Typically, in this method, the new forecast is made before the current quarter ends, for example in February or May.

Table 2. Forecast performed quarterly, exceeding current year

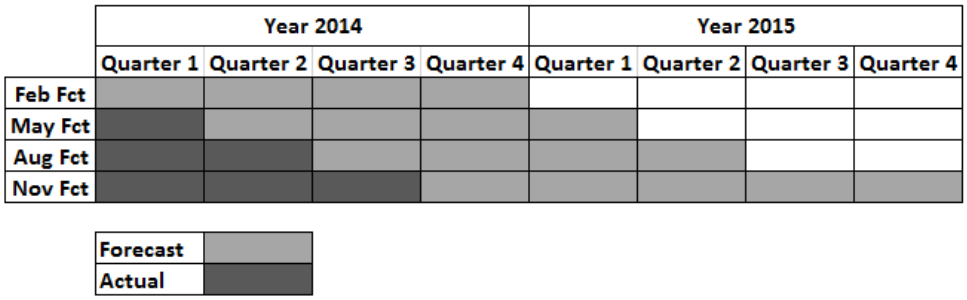


Table 3 present a hybrid model, where the annual budget is done for the whole year during the budgeting period, for example, in late autumn. In this method, the forecasted months do not exceed the current year. The process in this method works in a way that allows annual budget figures to be copied on to the base month by month for the forecast. Actuals will be updated when the reporting period of the previous month is finished. The actuals are then ready to be transferred to the forecast. The remaining forecast months can be updated on a monthly basis, according to the needs. This process forms the latest estimate.

Table 3. Forecast performed monthly, inside the current year

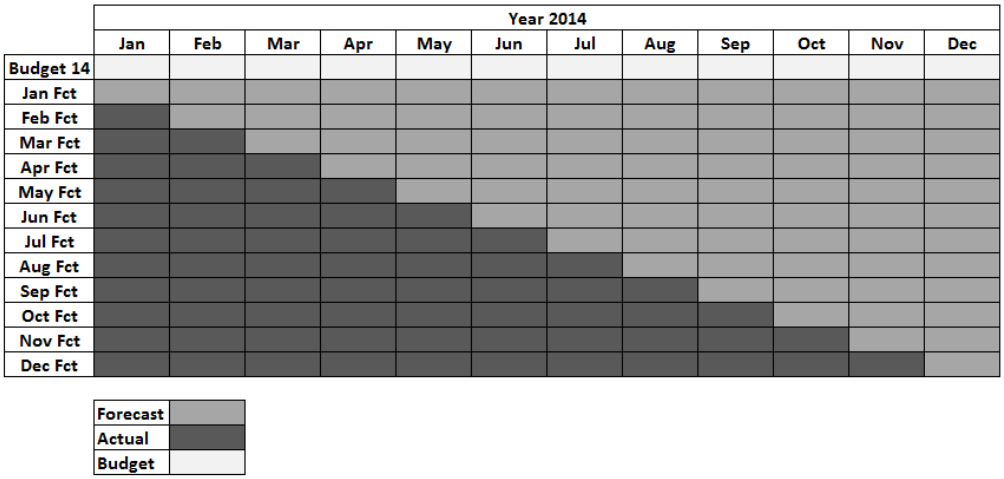
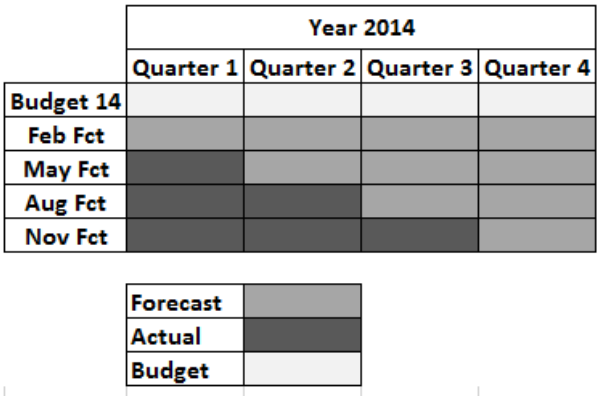


Table 4 describes a hybrid model, where the annual budget is done for the whole year and forecasts are done quarterly inside the current year. This method is the so-called latest estimate -method and it works similarly to the monthly forecast -method, except that the forecasts are done quarterly. This hybrid method was chosen for use in the Finnish and Russian organizations of the case company.

Table 4. Forecast performed quarterly, inside the current year



Referring to research of Ekholm and Wallin (2000, 537) that covered 650 Finnish companies, traditional annual budgeting is widely used and the hybrid model consisting of an annual budget and rolling forecasting is the most common model. However, their study did not examine which hybrid model is the most common in large Finnish companies. The case company in this research does not provide an exception when comparing its choices to the results of the research by Ekholm and Wallin.

5.2 Best practices in rolling forecasting

Literature on rolling forecasting has some recommendations and best practices that should be taken into account, when planning to move to rolling forecasting. According to Cognizant consulting company (Replacing the Annual Budget with Rolling Forecasts, 2011), there are multiple steps to focus on when planning to embrace rolling forecasts. The focus should be on the drivers that are essential for decision-making and analysis. Having too many details is a challenge for decision-making. It is important to ensure that there is a link between strategy and forecasting. From the strategic point of view, rolling forecasting should, for example, allow what-if analyses and scenario planning to help simulations. The budget owners have to be involved in forecasting, because involvement will ensure that the managers will get a better outlook on the current position and future outcomes. Deploying appropriate technology and software enables quick analyses of what has happened and where the business is heading. Accurate data and a small set of drivers are the keys for a successful forecasting process. Moving to rolling forecasting is

a great cultural change in an organization, so it is good to plan a meaningful change management program. The change program should clearly explain the routines and practices related to forecasting, as well as cover training and the sharing of knowledge.

The forecasting requires appropriate tools, so that the whole process will make sense. Acquiring meaningful planning software is an important step and Microsoft Excel is not an appropriate tool for forecasting. Excel is lacking in several areas. It has no proper versioning, organizations may have several versions in use, and files may not work properly with different versions. If the sheets built by an accountant are overly complex and undecipherable, there is a great risk of errors. Excel is not intended for the bottom-up consolidation process often required in forecasting or budgeting either (Palmenter 2007).

The forecast should be done on a summarized account level, not on an overly detailed level, as it would be too complex to manage. Additionally, there should be some sort of hierarchical structure built around grouped cost centers that enables better controlling and helps managers focus more on higher level observation. An integrated application supplemented with historical data that can manage both budgets and forecasts is a must. This helps cost center managers analyze budget targets against forecast targets. In addition, a single system can provide consistent and accurate measurements and a link between both budgets and forecasts. Meaningful metrics and parameters in the application support usability and it is worth paying attention to the visual side as well (Montgomery 2000, 43).

At this point in the research, the case company's Finnish and Russian organizations methods of carrying out rolling forecasting had become clear. The next step was to discuss and evaluate the case company's own best practices, related to annual cost budgeting; whether there was something that they wanted to include in the upcoming rolling forecasting process. Discussions on this topic were quite straightforward with the Finnish organization and, therefore, the diagnosis of the best practices to be used was clear. The consensus was that the whole cost budgeting concept with all the existing responsibilities, cost center hierarchies and account hierarchies would be copied as a sort of base for rolling forecasting. There seemed to be a common trust among the project participants on the copying of existing budgeting processes enabling a smooth transition and being the best way to start rolling forecasting. It was also stated that using equal processes and structures ensured

that both cost budgeting and cost forecasting would function side by side and the follow-up and analyzing would be meaningful as well.

The Russian organization also decided that their current cost budgeting processes would be transformed into forecasting processes as is. During the discussions in the getting to know phase, it was observed that their current cost budgeting model included very detailed bookkeeping data, which they also wanted to include in the budgeting and forecasting model. Their level was compared to the Finnish budgeting and forecasting level and it was found that the Russian organization forecasted and budgeted one level deeper than the Finnish organization. In the other words, they wanted to enter the budget and forecast figures in the lowest possible level of detail and follow actuals up accordingly. In addition, they required the system to allow inserting text comments to those detail level lines. Comparing these requirements to the best practices presented in the literature, it can be stated that the approach of the Russian organization was totally opposite to what was recommended. This was a most opportune moment for intervention. However, despite exhaustive efforts and after comprehensive conversations, it eventually turned out that the best practices offered by the Finnish budgeting and forecasting methods did not satisfy the project stakeholders of the Russian organization. They wanted to keep all the existing budgeting and forecasting methods within the scope of the project. Therefore, their initial requirements had to be recorded into the requirement specifications.

6 Change management

Business, organizations and companies confront changes every day. The driver for change may come from internal or external sources. The requirement for change may come from the organization itself. The need for internal change can be an organizational or process-related improvement that aims to achieve better outcomes for the business or improve internal services. Nowadays, changes in technology also push organizations to change, as new systems and procedures take place. Changes are typically managed, planned, organized and controlled by the management and possibly by employees of the business. Another source for change can be external, such as changes in the business environment that is outside of direct management control. Such changes come with speed and many businesses find themselves unprepared and unable to control changes in the appropriate way (Nixon, 2004, 1-2).

It is easy to admit that the requirement for change is triggered by either external or internal change. In the case company, the origins of the need for change were both external and internal. Changes in the global economy affect the business environment of the case company and, therefore, its financial drivers have to be able to adjust accordingly. Internal changes related to needs to improve financial processes and services, such as budgeting and forecasting processes. Additionally, the company wanted to replace its old budgeting and forecast application, because it did not meet its needs. It can be also said, that changes in technology triggered the need for change.

Change management is an essential part of any performance improvement process in an organization. Change management is a set of tools, techniques and processes for the management of the human-side of change to achieve the wanted outcome. Change management aims to reduce and manage the resistance to change when implementing a change in a process, technology or organization. Change management is not, a) a process improvement method, b) a stand-alone technique for change improvement or c) a tool to design a new business solution. As was mentioned in chapter 4.2., when an organization is planning to move to rolling forecasting a change program is required, whereby the project can be successful and benefits can be achieved (Prosci. Change management learning center).

The Prosci change management learning center has defined several useful tips that help to plan and execute a successful change program:

- Readiness assessment aims to assess the organization's ability to change. The scope of the change can be evaluated by asking these questions: How large is the change? Is it radical or gentle? How many people does it concern? Evaluate your change management team and their strengths. Asses your sponsors to change and enable them to lead the change effectively.

- Communication helps you create awareness around the need for change. Effective communication assists in creating awareness of the reasons for change and of the risks of not changing. A communication plan starts with assessing your audience, how to message them and the right timing for this messaging. The message should reach all the stakeholders, such as employees, managers and executives.

- Sponsor activities are the activities that help business leaders and managers carry out the change. Executives and managers are typically in a sponsor role in the change program and that role is a critical success factor. Active and visible participation by sponsors is a must throughout the process. However, many executives do not know how to act as a sponsor, thus the job of a project leader or change agent includes assisting executives to do the right things.

- Coaching and training aims to gain the support of managers and sponsors to build change leadership. Managers play a key role in change programs and it is common that the resistance for change is high among managers, so it is vital to convince them of the need for change and that training and coaching activities should be utilized on an individual level. Training programs can be formed based on the skills and knowledge of the members of a project team. This information can be utilized as a starting point in developing the required training programs.

- Resistance management helps manage the resistance normal among employees and managers. The change management team should recognize, understand and manage resistance throughout the organization, so that persistent resistance does not jeopardize the project.

- Feedback data collection and analysis is a necessary action in the change management process. Feedback collected from employees is valuable information that can be analyzed and used for corrective actions during the process.

- Recognizing success and celebrating it is an important part of the change management process. Short-term and long-term wins must be celebrated. This will reinforce the change in the organization. Additionally, it is vital to analyze the ultimate results of the project by identifying successes and failures for the next project. If the organization can maintain continuous improvements in change management, it will lead to change competency (Prosci. Change management learning center).

Referring to the best practices of Prosci's change management, it can be said that by following these kinds of change management practices, any IT-project, for instance, should be closer to success. It can also be stated that change management is mainly about leading people in the right way, so that the change will be successful and the desired benefits can be achieved. Comparing these best practices to the case company in this research, it can be stated that change management is a somewhat unidentified concept in the company. Discussions and evaluations on how to manage and incorporate the change the new rolling forecasting process and the new application will bring revealed that the Finnish and Russian organizations had not considered this topic very well. This may be due to the fact that change management had not been identified as a part of project work, at least not on a large scale. Change management in the case company has been seen as more of a user-training and user manual creation process.

It was observed that there were shortcomings in change management in the Finnish and Russian organizations, when the findings were compared to Prosci's best practices. The readiness assessment of the organizations was more or less just a statement that there will be top management sponsors from both organizations and they will take care of the activities related to change leading together with the managers. The communication plan consisted of the top management sending an email in which all the main points of the upcoming changes would be clarified. The email would be sent to all the project stakeholders when the project was completed and the new application ready for use. As pertains to the manager's coaching and training activities, it was stated that there are no

special needs for that, as the required information was available in the email and if something remained unclear, further assistance would be provided. The role of the manager, then, was to incorporate the changes to the budget and forecast owners. Resistance management policy was also felt to be somewhat unnecessary, because forecasting was thought to be a part of strategic steering and, therefore, it would be easy to incorporate into every organizational level, without change resistance. Feedback collection from the project stakeholders was seen as an important part of the project, when the questions concerned, for example, the usage or usability of the new application. Feedback related to the forecasting process itself was not seen as that important. Additionally, can be said that celebrating short-term wins, such as successful milestones during project work, is not a habitual or familiar part of project work in the case company. Recognition of success or failure typically had a role when projects ended.

As a conclusion, based on findings and evaluations, it can be stated that change management is not a very clear concept in the case company. There are shortcomings that may have something to do with the fact that project outcomes do not necessarily always equal expectations. From the research perspective, it was interesting to observe, how organizations can stick to old habits and practices. It seemed that new ideas on how to improve and change ways of working do not get enough support and, in a way, even continuous learning stops. The project stakeholders seemed to underestimate the efforts needed for successful change. It seemed, more or less, like incorporating the upcoming change was intended to be a job just for the executives. If communication and incorporating change is only the executives' job, they have to be veritable champions of change in order for the transformation to be successful and the objectives to be achieved.

7 Planning software

When an organization or company comes to the conclusion that there is the need for a new IT application that should improve existing processes, increase productivity or solve some particular business issues, choosing the right technology is one of the cornerstones of success. It is obvious that before any technological decisions can be made, it is essential to understand the specific requirements an organization or company has. When the requirements are clear enough, evaluations can begin on the available technologies to meet the needs.

Technological choices in this case study were based on the discussions and observations that came up during the baseline evaluation phase at the beginning of the research. The baseline evaluation phase included stages, such as getting to know the current processes and activities as well as identifying the most essential processes and activities and problem recognition. According to the evaluations, the project stakeholders were collaboratively able to record specific requirements the upcoming budgeting and forecasting application must be able to fulfil for the Finnish and Russian organizations.

7.1 Acquiring suitable planning software

There are several noteworthy points to be taken into account when planning to acquire a new budgeting and forecasting application:

- Start by recognizing and streamlining your current budgeting processes. It is a good opportunity to renew old processes before acquiring a new application. It may not be meaningful to just copy the old processes into the new system.

- Acquire a system that can handle much more than just the budgets. At its best, the new application could be a tool for comprehensive performance monitoring, which includes actual data and planning data side by side.

- Make sure that the planning application user interface is modern, web based, for example, and that the application have good data visualization tools. It should offer more than boring charts.

- The planning application is not intended for the simulation of bookkeeping data. In bookkeeping, transactions are entered into the detailed account level, but not into the planning application. Far too often, the planning application is sold with arguments that the system allows data entering per cost center and account. A good planning application should be more than that. A good planning application allows business simulations and includes various plans, which are connected to together. Ultimately, all the various budgets should form the profit and loss budget and the balance sheet budget.

- Acquire an application that actually supports the business and doesn't merely fit into the company's IT architecture. The value for the business should be the number one argument in the acquiring process. Of course, the IT department may not like this, but even if the application does fit into the company's IT architecture, there is always a need for different kind of data integrations between systems.

- There is nothing wrong with Excel as a planning tool, but it has its shortcomings. Data consolidation is difficult, formulas are error-prone, versioning is problematic, and so forth. All of these shortcomings can be tackled with a good planning application. However, it might be a good idea to include the possibility to enter figures into the planning application via Excel. Excel is widely used for planning and people are familiar with it, so ultimately, figures have a tendency to end up in Excel, at least for further analysis (Budjetointi- ja ennustejärjestelmän ostajan opas, 2015).

Comparing these buyers guide recommendations to the case company's acquiring process and assessment decisions, there are similarities and a few differences. Of course, this is due to the fact that each business has its own unique needs. Therefore, the known best practices are used when applying. In this research, the aim is not to introduce various buyers guide recommendations or the best practices of acquiring process, because most of the guides have, more or less, the same recommendations.

As was mentioned earlier, the Finnish and Russian organizations decided to leave their budgeting and forecasting processes un-streamlined, opting rather to keep existing processes as they were. In other words, the old processes were to be copied into the upcoming

budgeting and forecasting application. In the case of the processes of the Finnish organization the situation was simple, as the Finnish organization was used its old budgeting application. There was more awareness and knowledge on how the existing processes should work when the new application is in use. In the Russian organization, the situation was not as simple, as they had not used any budgeting or forecasting application before. They had only used Excel and, therefore, the process requirements and expectations they reflected were strongly based on their experiences in the use of Excel.

When discussing whether the acquired budgeting and forecasting application should offer more than just a cost budgeting and forecasting and act rather as a comprehensive financial performance monitoring tool, it was observed that the readiness of both organizations to change their mindset and all the related processes accordingly and to begin using such a tool was not seen as topical at this point. The usability and user interface of the upcoming application was seen as very important in both organizations. All the project stakeholders stated that the application should be web-based, easy to use and offer some basic visualization tools as well.

As the best practices point out, the planning application is not intended for handling details on the level of bookkeeping data, but, on the other hand, selling arguments for the software rely on arguments promising that data entry on the detailed level is possible. This could be interpreted as generalization, as the nature of accounting structure in use in a company determines what the level of detail is in each company's accounting structure. In the case company's Finnish organization, for example, cost budgeting and cost follow-up were based on cost centers and certain account groups, so it is obvious that those determine the level in which planning takes place. As was mentioned in chapter 5.2, the Russian organization's cost budgeting, forecasting and cost follow-up happens on a detailed level, which they stated to be a crucial part of their accounting procedures. It turned out that this particular requirement was one of the most discussed topics during the whole software evaluation phase.

The buyer's guide says that the most important factor in the software acquiring process is how much value the new software can provide for the business of the organization, not how well new the software fits into its IT architecture. Different types of planning software were evaluated by the project stakeholders of the case company's Finnish organization. The considered software would, more or less, have been able to provide the required

functionalities. After the assessment phase, however, the factor with the most influence turned out to be how well the upcoming software fits to the case company's IT architecture. The arguments during the discussions were a) it is beneficial for the software to come from the same software vendor whose products the company already uses, b) it is an advantageous for the IT department to be familiar with the software vendor, c) application implementation should be done by the same cooperation partner the company has used for several years and who represents well-known brands of budgeting and forecasting software - software licenses could be negotiated for cheaper as well. In the end, these arguments satisfied all the present project stakeholders well enough and a consensus on the suitable software was about to be born.

The last debate concerned whether the Excel is compatible with the upcoming software, after all. Excel evoked a lot of feelings among the users as they were so familiar with it and they felt it to be a must to have the possibility to import and export data through Excel. However, after deeper analysis, it was observed that there was no need to import any data from Excel to the planning software in the Finnish organization. This is due to the fact that the budgeting and forecasting process of the Finnish organization were stated to be close to general standards, so all the data inputs and imports could be handled throughout the web user interface, instead of Excel, which was stated to be unnecessary. In the Russian organization, however, the case was different, as their way of performing budgets and forecasts included such a large amount of detailed level information and on such a large scale. Excel import and input was stated to be a mandatory function. In addition, it was stated that the system should enable data export to Excel, as users have needs for further analysis and Excel is the most natural choice for that.

There are also other important points to be taken into account when evaluating suitable software. According to Budjetointi- ja ennustejärjestelmän ostajan opas (2015), during the software evaluation phase, it is good to discuss about these subjects and functionalities:

- How are different workflows controlled and maintained?
- How can data integrations be built and maintained?
- How are hierarchies and dimensions maintained?
- How are user rights maintained?
- How can the handling and elimination of internal items be done?

- Is it possible to input data on different levels?
- Is it possible to make planning over the calendar year (Rolling forecasting)?
- Is it possible to flexibly open and close accounting periods and budget versions?
- Is it possible to make what-if simulations?

Comparing these recommendations to the software evaluation phase of the case company, it can be said that these subjects were more or less the same as the ones that came up when discussing what the upcoming budgeting and forecast application should enable with the project stakeholders in the Finnish organization. It is noteworthy that these functions can be stated to be quite basic and universal, as almost every budgeting and forecasting software vendor has built these functions into their software. In order to perform budgeting and forecasting effectively and supplemented with meaningful processes, it could also be stated that these functions are more must-have than good-to-have.

Last, but not least, Budjetointi- ja ennustejärjestelmän ostajan opas (2015) recommends investing in know-how and education within the company, when the new planning software is about to be implemented. In addition, it is essential to ensure that there is a system-owner or specified main user in the company, so that self-maintaining and small development can be done in-house. By taking these actions seriously, the company will benefit much more from the new system and the investment will be more valuable.

In the case company's Finnish organization, matters of training, education and know-how were planned to be a part of the responsibilities of the system owner. When the old budgeting software was still in use, the role was similar. It was seen as important and the benefits as indisputable. A system owner that can maintain the system, make some small developments and serve the end-users satisfies all parties. When the system was in one's own hands, so to speak, it satisfied managers, among others, because of reduced costs due to the reduced need to use of external consultants. The end-users were also able to get in-house user support much faster. In addition, when there is a need to make a greater system development, an in-house system owner can make the necessary requirement specifications for the external consultants and work in close cooperation with them. It was easy to state the importance of this system owner role and, therefore, it was seen as a natural continuum when the new application was launched.

In the Russian organization, the case was different. They had not had any experience with the roles of a system owner, as they had not had any particular systems in use that could have had a specified owner. The Excel program they had used for budgeting and forecasting did not have a specified owner, but they had a budgeting and forecasting process owner, whose role was to take care of the process by collecting the Excel sheets, make the necessary calculations, consolidations and so forth. Eventually it was decided that the current process owner would be named for the role of system owner for the new Russian budgeting and forecasting application. The person is responsible for training, maintaining and small-scale development.

When the budgeting and forecasting requirements of the Finnish and Russian organizations were evaluated, suitable software was benchmarked and a potential cooperation partner was found. The acquired software was chosen to be IBM Cognos TM1. As was mentioned earlier, the existing IT portfolio in the case company already included IBM's technology, which had a significant influence on the decision-making. In a way, it was seen as natural to acquire the software from the same familiar software vendor. It is also noteworthy that, during software evaluations and discussions with external consultants, it was observed that the requirements of the Finnish organization in a sense drove the acquiring process further. This lead to the project stakeholders stating, that if the IBM software was suitable for the Finnish organization, it must also be suitable for the Russian organization. It turned out, however, that the project participants of the Russian organization actually wanted to acquire different software, instead of Cognos TM1. Ultimately, after demonstrations of the software and assessments of its ability to really meet all of their requirements, the project stakeholders of the Russian organization were convinced that Cognos TM1 should be suitable for them as well.

7.2 IBM Cognos TM1 in a nutshell

The features and benefits of Cognos TM1 are compared to the case company's needs and requirements and a summary at the end of the chapter points out the highlights of the benefits the case company saw in the Cognos TM1 software. According to the IBM Cognos TM1 data sheet (2014), TM1 provides a comprehensive planning, budgeting and analysis tool for company-wide performance management activities. TM1 adapts planning and forecast processes in way that the processes can easily be incorporated into the organization. Process ownership and basic maintenance can be, for example, within the

finance department, while personalized analysis needs can be met by the end users themselves by building their own data sets and views and sharing them within their own team.

With Cognos TM1, users can perform planning by using Excel or Web user interfaces, or alternatively the Contribution user interface, the user interface of the application itself. User rights and security rules, what users can see and what not, can easily be managed with Cognos TM1 (IBM Cognos TM1 data sheet, 2014).

Cognos TM1 is based on 64-bit in-memory OLAP technology, which enables large and complex multi-dimensional data handling in seconds. Cognos TM1 enables users to input values and recalculate them on demand. All values will be consolidated across the hierarchies immediately. In addition, Cognos TM1 allows drill down to initial transactions, which makes analysing more convenient and decision-making easier. The data model engine behind Cognos TM1 is flexible and high-performance - every component is integrated. Data management is based on pre-defined rules and data processes that are performed by using specific TM1 functions. Additionally, Cognos TM1 enables data integrations from external data sources, such as ERP or data warehouses (IBM Cognos TM1 data sheet, 2014).

Comparing the features of Cognos TM1 to the case company's needs, several features support the decision to acquire Cognos TM1 as the new budgeting and forecasting tool. Cognos TM1 fits the case company's IT portfolio. Other factors that supported acquiring the software were high performance, multiple data entry interfaces, good external data integration features and customization possibilities. No significant functional shortcomings were detected, but some concerns related to programming needs did arise. As was mentioned, Cognos TM1 data management is based on rules and data processes, which are done by programming. Naturally, the programmer has to be skilful enough for the needed functionalities to be implemented as requested. At this point, deeper discussions with the principal Cognos TM1 consultant took place. The project stakeholders wanted to ensure that the functionalities required by the Finnish and Russian organizations were feasible with Cognos TM1 and that the implementation consultant was capable of doing the needed programming work. After additional discussions and evaluations, the project stakeholders agreed that Cognos TM1 remained worthy of acquiring and the principal implementation consultant seemed capable of doing the entire implementation for both organizations.

8 The project and project management

As has become clear, the end result of this research produced a new cost budgeting and forecasting application for the case company's Finnish and Russian organizations. It is obvious that in order for the development of such an application to be possible, the development process must be carried out throughout the project, which is managed by using specific project management principles. The purpose, however, is not to open the project or project management concepts comprehensively, but instead to introduce the basics. According to Artto et. al. (2011, 17), "A project is a unique entity formed of complex and interrelated activities, having a predefined goal that must be completed by a specific time, within budget, and according to specification." Patel (2008, 1) states that a project is a one-time endeavor that aims to create a beneficial and a value-added product or service. It can be said that in all their simplicity, these definitions include all the main pillars that need to be taken into account in every project.

Complexity in a project means that project activities are typically not predictable or repeatable. Repeating simple activities is appropriate for serial production, but complicated activities that occur in the project require special competence. Constant evaluations, creativity and solid decision-making is essential, so that project activities can be performed effectively and meaningfully. Interrelated activities are those project activities that must be conducted in a certain order. Project activities are typically formed into logical entities that have relationships and dependencies, and they form the essential part of the complexity of a project. A project has a starting point and an ending point, which means that a project is limited in time. Results of a project must be ready within a predefined schedule and available for customer use. Another important limitation in a project is cost. Completing a project requires resources like a labor force and some purchases must be assumed, so there must be a budget within which the project must be completed. Last, but not least, a project must have a specific scope, which is formed by technical and operational specifications that must be fulfilled upon project completion. Such specifications must be agreed upon beforehand in association with the project customer and project supplier. Scope, therefore, is like a predefined product that should be achieved at the end of the project (Artto et. al. 2011, 18).

Comparing, for example, the research project to the development project, there are differences and one element is uncertainty, which is more present in the research projects

than in development projects. This due to the fact that result expectations can be determined more specifically in development projects, whereas in research projects, it is more difficult to foresee what the expected results and benefits will be (Artto et. al. 2011, 14-15).

Comparing these general definitions of the project and project types to the approach in this research, it can be stated that the definitions support the framework of this research well. This research is a development project, the aim of which was to produce a new application for cost budgeting and cost forecasting. Therefore, this objective, supplemented with requirement specifications, formed the scope for this development project. When the scope was clear enough for the project stakeholders of the Finnish and Russian organizations, the schedule for this project was agreed to be one and a half year. This estimation was based on the case company's annul budgeting schedules and work estimates by principal implementation consultants. Also based on work estimates and their costs, a decent budget was granted for this development project. This way, three of the most essential pillars of a project (scope, time and budget) were formed. It was agreed with the project stakeholders that the application of the Finnish organization will be implemented first, because its scope was simpler, as the idea was to migrate existing annual budgeting processes into the new application and enable rolling forecasting accordingly. In this way, the project manager (researcher) and the principal implementation consultant got valuable experience with the new technology and its use simultaneously. That knowledge was supposed to be utilized in the implementation phase of the Russian budgeting and forecasting application, the requirement specifications of which were stated to be far more complex than in the Finnish organization.

In general, it can be said the projects are complex. Different project activities can be difficult to predict perfectly, as situations may change during the project. Complexity is present in every project in its own way, and the dependencies and relationships of different activities form this whole complexity. From the project manager's point of view, complexity defined in this way is a significant concern in such a development project. Even though the requirement specifications were done on a decent level for both organizations and the guidelines were clear enough, it was still very difficult to foresee all of the dependencies and relationships that are included in such a budgeting and forecasting project. It is noteworthy to point out that even though the project manager (researcher) knows the annual budgeting process and its dependencies within the Finnish organization quite well,

technology forms a great factor of uncertainty. In this project, Cognos TM1 was chosen to be the technology to perform the budgeting and forecasting. What makes the technology factor uncertain is the fact that technology can also be unpredictable and it is difficult foresee how well it is eventually able to meet all the requirements. Often the customer is dependent on the information the consultants have been provided with and presented. Of course, software demonstrations can relieve uncertainty, but it is good to keep in mind that all the requirements may be unique and therefore difficult to demonstrate well enough beforehand. However, in order to relieve all of these uncertainty factors, it is essential to choose the right project management framework that is suitable for the case at hand.

8.1 Project management

It is a well-known fact that the biggest challenge in a project is to achieve the goal, expectations and requirements. Project success is dependent on several factors, such as technical, financial and social factors. In order to manage these factors successfully, effectively and in a meaningful way, appropriate project management methods are required. Referring to Artto et. al. (2011, 25) "Project management is the application of management practices aimed at achieving the project goal and objectives". Management practices are the knowledge, competence, methods and tools that are needed to achieve the project goals and objectives. The purpose of project management is to fulfill the various needs and requirements of project stakeholders and, ultimately, to achieve the satisfaction of said stakeholders. It is crucial to ensure that the project stakeholders are well aware of the project goals and objectives and that their needs are taken into account. Project stakeholders may have different demands and expectations and, additionally, there may even be unidentified expectations or requirements. In order for managing and controlling to be possible, communication and information exchange have to have a central role in the project. Constant communication and information exchange create learning that helps the project stakeholders incorporate new knowledge into the project at hand and this should lead to greater success.

In this development project, it was observed during the information exchange meetings related to the requirement specifications that people were not necessarily capable or willing to share all their expectations and requirements. For example, in the meetings with the Russian organization, it was observed that the English language skills of some of the project stakeholders caused misunderstandings. This was a clear challenge in the project

when it came to information exchange. This could also be one reason for the unidentified requirements that came up during the later phases in the project, causing extra problems and working hours. It can be stated that it really is crucial to work things out thoroughly during the information exchange meetings when it comes to requirements and expectations, so that all of the expectations and requirements will be revealed as well as possible.

8.2 Project management methods

There are several different project management frameworks available for different types of projects. Today's project management trend in software development projects is agile methodology. According to Holcombe (2008, 1), changes in world economy, technology, business and social structures happen with an intense pace, which means that business processes change equally fast, as companies try to adjust their operations accordingly. It is an obvious fact that companies need different kinds of software that support their business. When business and processes change rapidly, it naturally poses a challenge for software developers and programmers, as they need to keep up, so that business software can offer all the features the business requires. Patel (2008, 3) wisely points out that software developers are tools that a project manager uses. Therefore, leadership, teamwork and resource management are essential parts of project management. Referring to Cooke (2012, 191-192), in order to get true benefits from the agile method, all of the project participants have to be educated in the agile principles and practices, so that they will be aware of how the project will be carried out. Cooke also points out that in projects where the project stakeholders are not fully committed, the project development team may nevertheless use agile practices, but in this situation, the development process could be considered to be a more traditional development project, not an agile project.

Traditional software development projects are carried out using the waterfall framework, which has been accused of being clumsy and inflexible. Holcombe (2008, 3) criticizes the waterfall method, arguing that at the end of a project, the client may have a complicated and detailed designed system that may not fulfill business needs that have changed during the project. Hence, this kind of traditional development method cannot handle this challenge effectively, as changing implemented functionalities could require a significant amount of extra work.

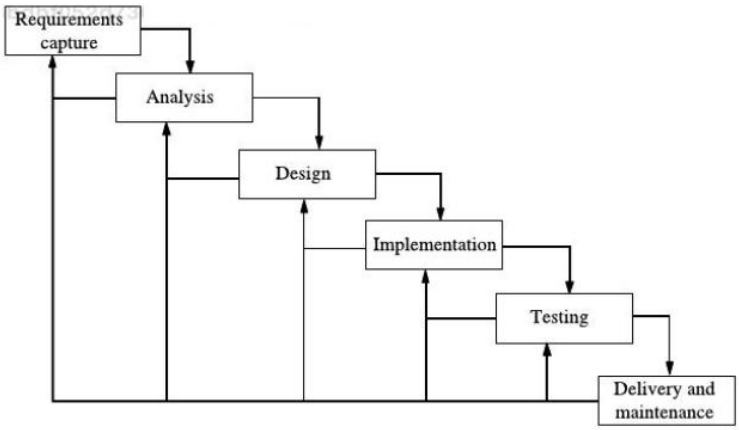


Figure 5. The waterfall framework (Holcombe 2008, 4)

The known problem spots of the waterfall method: In the requirement phase, the aim is to get to known the business case, to find out what kind of data is involved, how the data is to be handled, how all the activities are connected to each other overall and what the proposed system is supposed to do. The next step is to figure out how the system should be interacting with other systems and business processes. Based on this information, a detailed requirement document divided by functional requirements and non-functional requirements will be produced. At this point, the client should be satisfied with what is proposed. It is quite difficult, however, to convince the client by trying to visualize how the upcoming system will work and look like, so there is an obvious risk of misunderstandings. The objective of the analysis phase is to examine more operational things, such as what kind of computing resources and technology are needed, so that such a system would work effectively (Holcombe 2008, 2-3).

In the design phase, the objective is to gather together all the information from the requirement and analysis phases and plan the needed data and process models. Then the task is to figure out how the system could be built up by using available technology. This phase is often complicated and lengthy. Typically in this stage, development work can drift onto the wrong track. There can be many reasons for this, one being that information exchange between the client and developers may start lacking, and developers may start making decisions that they should not. Ultimately, the result may be a large and complicated system, which may or may not correspond to the customer's needs. If the customer is not satisfied, there may be reluctance to change the design significantly or start the whole process over again. If the customer is satisfied, on the other hand, the process continues to the implementation stage and then on to the testing stage, and finally all the way to the delivery stage (Holcombe 2008, 3).

When the suitable project management frameworks in this development project were discussed, it was observed that the project stakeholders in the Finnish and Russian organization did not have any specific framework in mind. The general statement was that the project manager can choose whatever framework he wants, as long as the project will be completed with great success. Ultimately however, it was decided that it is wise to allow some flexibility for project work, as there would always be some changes or surprises. The traditional waterfall method was a more or less known method among the project stakeholders, but it was said to be too old and inflexible for this kind of development project. All the project stakeholders, especially in the Russian organization, wanted to keep the development flexible and iterative, so that all of the possible change requirements could be taken into account in system design. The project stakeholders in the Finnish organization, however, felt that the process requirements and functional requirements were so clear that the principal Cognos TM1 consultant could just start the implementation and inform them when all was ready. Even though the requirements were seen as straightforward and the design and implementation stages should be easy to complete. It was agreed with the Cognos TM1 consultant that it is wise to use a flexible approach, because the technology is new and, as was mentioned earlier, there could always be surprises and changes that need to be taken care of flexibly.

Agile methodology is a flexible and adaptive project management method that can respond well to rapid changes in the scope or requirements, without neglecting the high quality that customers demand. In addition, the agile method is cost-effective and unburdened by the bureaucracy that is not favored by agile software developers (Holcombe 2008, 2). According to Cooke (2012, 29), the agile method is an adaptive project management approach, which aims to:

- Replace upfront planning with incremental planning.
- Recognize technical risks as early as possible.
- Provide a low structure to modulate originally identified requirements to the new requirements.
- Deliver value for the organization by providing new features in the solution frequently.
- Promote constant communication between the project stakeholders to ensure that usability, functionality and quality are always on an acceptable level.

The abovementioned arguments were the precise key elements of why the agile method was chosen for utilization in the Finnish and Russian development projects. The agile method was found to be a natural approach for these types of development projects, because this way all the changes that occur during the project could be taken into account far better than with the all-at-once style delivery of waterfall methods.

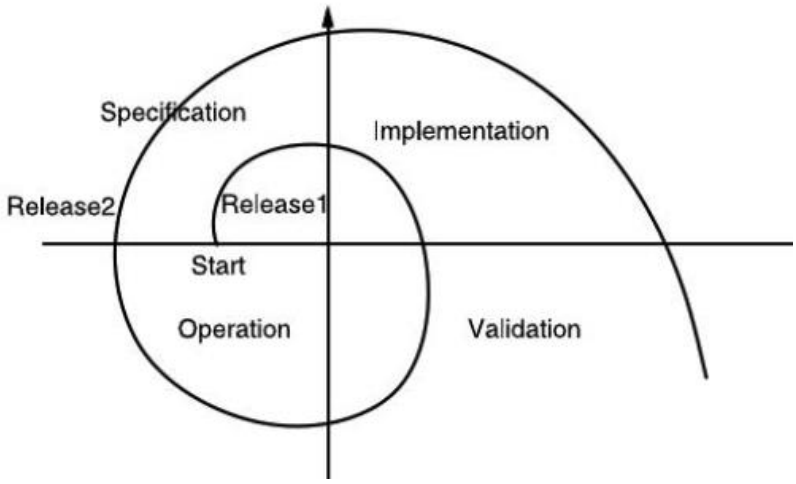


Figure 6. The agile method spiral model (Holcombe 2008, 5)

Referring to (Holcombe 2008, 4-6), the idea of the spiral model is to operate iteratively by creating a loop with requirements, specifications, implementation, testing, delivery and operation. The results will be reviewed periodically in every prototype release. The time from release to release can be very short. In order for this kind of methodology to be possible to perform, an ongoing relationship and open communication with the customer are required. That relationship does not necessarily end in the delivery of the system, but will continue through several further phases, involving improvements into the system. In these cases, collaboration continues and, basically, there is no such thing as a finished system.

The waterfall and agile project management methods were somewhat familiar to the project stakeholders in the Finnish and Russian organization. It was found that there was no particular need to start educating people for agile or waterfall methodologies widely. Rather, it was stated that flexibility was the key thing all the project participants emphasized. On the other hand, during the discussions, someone questioned the importance of the

choice of project management method when the functional and non-functional requirements were well known and must-have in the new budgeting and forecasting application. These arguments supported the fact that there is nothing necessarily obsolete in the traditional waterfall method, if the requirements are straightforward and feasible. Ultimately, after the discussions, it was decided that this development project was to be carried out by using a hybrid project management model which, in a sense, included elements from both waterfall and agile methods.

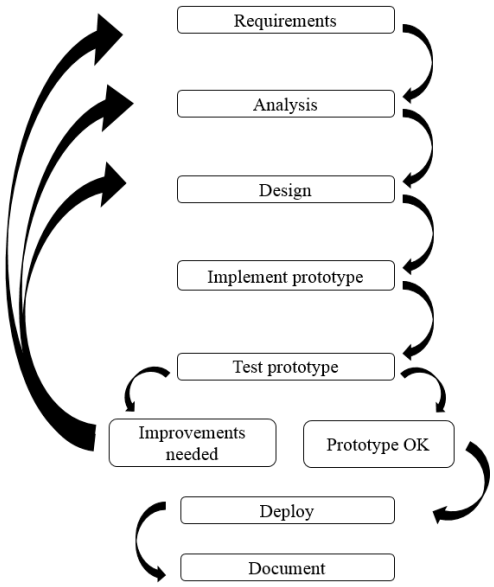


Figure 7. An illustration of the chosen project management method

The main idea in this “hybrid” model was to utilize the framework of the waterfall method. It was found that waterfall development framework is easy to understand, as there are logical steps. This way, the development process was more understandable among the project stakeholders. But, at the same time, the aim was to keep the development as agile as possible and the time between prototype releases short.

The project management method was used by executing the following steps:

- The requirements the upcoming budgeting and forecasting application had to fulfill were recorded from the results of the baseline evaluations (chapter 1.1. page 13). These fundamental requirements worked as a starting point for the Cognos TM1 implementation consultant.

- The role of the analysis stage was to act as a technology workshop. All the technical changes related to the Cognos TM1 environment were evaluated, installed and tested during this stage. There were a few corrective technical installations during the project, which affected the project work.

- The idea of the design stage was to allow for the time needed by the consultant for system planning purposes and to keep the information exchange active among the project participants. As was stated in the literature, this stage is very laborious and requires a lot of effort from the project stakeholders, so that the project does not drift onto the wrong track.

- In the implement prototype phase, designed functionalities get concretized. This stage was more or less sanctified for the consultant by allowing time needed for programming work.

- The aim of the test stage was to test implemented prototypes and evaluate whether they met the requirements as planned. If the prototype was accepted, it was migrated into the production environment and documentation was updated accordingly. If the prototype did not meet the requirements or further improvements were needed, the process was iteratively returned back to the requirement, analysis or design stage, depending on the case in question. The goal was to keep the cycle of creating a new prototype short, so that development would proceed smoothly.

The objective of this research is not to provide an in-depth description of all the detailed steps and the twists and turns that took place during the projects in the Finnish and Russian organization. Rather, the aim is to sum up the essential points and highlights from both projects.

8.3 The project in the Finnish organization

The Finnish project began in March 2013 and ended in October 2013. Eight months was estimated as enough time to complete the Finnish budgeting and forecasting model as a whole. In the Finnish project, it was agreed upon that a somewhat self-designed project management model would be used, which in turn consisted of elements from the waterfall

method and agile method. The project management model was formed mainly in this way, because the requirement specifications for the Finnish budgeting and forecasting model were stated to be quite straightforward and the software consultant convinced the project stakeholders that the functionalities were feasible within the budget and time, as there were no recognized major pitfalls that would have caused major problems for the project. The waterfall method worked as a base, but it was used with agility, so that the change requests that occurred could be handled without causing a lot of extra work.

In brief, the first three months of the project were spent on the design stage, where all the most essential processes and functionalities were designed and admitted by the project manager. During the implementation stage, the prototype creation cycle was kept short, as planned. This helped testing and evaluating, whether the prototype corresponded to what was designed. Eventually, in the end of August 2013, the prototype already covered most of the requirements and functionalities the Finnish organization had defined. The last month of the project was spent mainly on user manual creation, documentation and adjusting the application for its final appearance. In the middle of October 2013, after the final solution review was accepted, the budgeting and forecasting application was launched for production use, starting with the preparations for 2014 annual budgeting. In the Finnish project, the project manager (researcher) and the TM1 software consultant carried out the whole project execution phase alone.

The feedback from the Finnish organization budget owners has been very positive ever since the application was taken in use. They said that the application is fast, easy to use and it enables all the basic reporting and analyzing needs the users have. The first annual budget was easy to complete, also from the perspective of the financial accountants. However, even though rolling forecasting is possible to perform in the application, no rolling forecasting has been conducted in the Finnish organization since the launch of the application. The reasons for this are discussed in the conclusion chapter.

From the project point of view, the success factors in the Finnish project were:

- Clear project scope.
- Enough time to complete the project.

- The project manager's double role: to act as a project manager and at the same time work as a subject matter expert in annual budgeting and forecasting matters in the Finnish organization.
- Useful project management framework.
- Communication between the project stakeholders.
- Highly skillful Cognos TM1 software consultant.
- Flexible and highly customizable software.

The recognized shortcoming in the Finnish project were:

- TM1 software is not modular. In other words, there is no ready-made modules that could be utilized when needed. All the functionalities more or less require programming to function.
- TM1 software requires a lot of programming.
- Programming became person-bound.
- Self-maintaining the application is limited.
- TM1 software maintaining may require consultant assistance.

Based on the experiences received from the Finnish project, the project manager (researcher) and the software consultant discussed and evaluated the project as whole. The aim was to evaluate and learn what the technical limitations, issues and pitfalls were, so that those could be tackled in the best possible way in the Russian project. The Finnish budgeting and forecasting application was presented to the Russian project stakeholders and they liked what they saw. However, it is noteworthy to state that the Finnish budgeting and forecasting model is relatively simple compared to the requirements of the Russian organization.

8.4 The project in the Russian organization

The Russian project began right after the Finnish project was completed in October 2013. Roughly one year was estimated to be the completion time for the Russian project, but the target for the application launch was optimistically set to August 2014, so that the annual budgeting of 2015 could be performed with the new application. In the Russian project, an agile method was agreed to be used as a project management method. This was due to the fact that the scope was not as clear as in the Finnish project. There were a

lot of feasible requirements that were recorded into the requirement specifications during the getting to know stage at the beginning of the project. At the same time, however, there were still a lot of functional requirements the feasibility of which just could not be confirmed until the first prototype was ready. One practical example of such a special requirement was the possibility to mass load budget and forecast data from Excel into the budgeting and forecasting application. This specific requirement related to the cases where the need was to prefill, for example, salary data to every cost center, so that the budget owners did not need to enter salary data. This was meant to be a task for the payroll administrators and the people responsible did not want to enter the data per cost center, because that would have taken too much time. It is noteworthy to point out that Cognos TM1 supports Excel functions quite well, as it is included as an add-on in the software. However, it is mainly meant for relatively light use, instead of heavy usage.

The project started from the design phase, as planned. Known functional requirements were designed and implemented first, so that the first prototype could be released as fast as possible and the Russian project stakeholders could get a first impression of the upcoming application. The very first prototype was ready around December 2013. The prototype included the basic functionalities required and, additionally, a specifically tailor-made Excel add-on intended for the mass loading of salary data to the cost centers. When the prototype was reviewed and tested, some improvement suggestions naturally came up, but also a bunch of other Excel add-on requirements.

When the project stakeholders of the Russian organization realized that the Cognos TM1 application provided a decent Excel add-on, their requirements changed dramatically. All of the sudden, several other Excel add-on requirements appeared and those were stated to be crucial to have in the application. At this point, the scope started to expand drastically. Despite the best efforts made by the project manager and TM1 software consultant, it was difficult to negotiate solutions that would have pleased all of the Russian project stakeholders. The pressure set by the Russian organization to fulfill all the needs they asked for caused a laborious development cycle for the next six months. The project stakeholders of the Russian organization were not willing to give up on their requirements, even though their implementation was stated to be technically very complex, if even possible.

Ultimately, during the summer of 2014 and after arduous development sprints, the prototype included many of the required functionalities, but a lot of was still missing, as they

were impossible to implement and the time and the budget was running out. In the final solution review during August 2014, the project stakeholders of the Russian organization finally accepted the application, as it met the minimum requirements and they were able to start compiling the annual budget for 2015. Basically, the project completed in time and within budget, but as there was still a big list of improvements to do, it was agreed on that the rest of the required functionalities would be implemented piece by piece as a continuous development. It is noteworthy to state that the project manager (researcher) was the only member from the Finnish organization involved in the Russian project after all. The other person was the TM1 software consultant, who was involved in the Russian project from Finland.

From the project point of view, the success factors in the Russian project were:

- Highly skillful Cognos TM1 software consultant.
- Flexible and highly customizable TM1 software.
- Agile project management method.

The recognized shortcoming in the Russian project were:

- Unclear scope that changed constantly.
- Overly strict requirements and expectations.
- Change resistance.
- TM1 software's technical limitations.
- The application included a lot of complex programming.
- Different working cultures Russia and Finland.
- Communication issues.
- The application became very complex to maintain.

The above pros and cons summarize the project execution time in brief. In the beginning of the project, during the getting to know and requirement specification phases, the project seemed very feasible. There were only a few technically challenging requirements that were identified at the time and stated to be doable. The big surprises started during the project execution time, when the project scope got out of control because of the new

requirements that came up constantly. When the project scope starts expanding drastically, even the agile project management method cannot solve all problems, though it may mitigate some and make project work easier.

There are probably many reasons why this project was so challenging to manage and complete. However, the empirical observations during the project revealed the great differences in working culture, working methods and decision-making between the Finnish and Russian organization. These three factors surprised the project manager (researcher) and the software consultant quite a bit. Such a large discrepancies were not taken into account at all. Even though the project manager had had experience working with the Russian organization before. Not, however, on projects.

According to Lidokhover and Domsch (2006, 69-70), the common leadership style in Russia is paternalistic or authoritarian, and enterprises are used to following a one-man management principle. The approach in communication style is top down with little possibility to initiate horizontal communication. Guidelines and timetables are transmitted top down and typically with a little feedback upwards. Reflecting these leadership principles to the case project, it could be stated that these elements are somewhat recognizable. One significant factor that makes project work challenging is that decision-making is clearly the task of top management, not necessarily of the project manager or other project members. This was observed when discussing, for example, of the possibility to change something related to the budgeting or forecasting procedures. A project member, such as a financial manager, could not necessarily make the decision without discussing it first with the top management. The observation is also shared by Lidokhover and Domsch (2006, 94). People do not want to take personal responsibility for decision-making before the entire group and top management has agreed. This way of working naturally causes difficulties in interaction relationships and the progress of the project, as the mid-level manager or even the project manager do not have a mandate to make any decisions. It is quite challenging to negotiate, if every change and adjustment has to be discussed with top management and wait for approval. It is also noteworthy to point out that the top management did not participate in the regular project meetings.

Another significant observation was the history of the Russian organization of working with the Excel program. They have used the Excel program for several years for almost every operation and on a large scale. For this reason, they in a sense compared all the

functionalities that Excel can provide with the Cognos TM1 software. They felt that if something is possible to do in Excel, it must be possible to do with a modern budgeting and forecasting software like Cognos TM1. This kind of confrontation naturally caused a lot of frustration among the Russian project stakeholders. As a type of intervention, the project manager and the software consultant tried constantly to propose alternative options to perform some particular process or function in the application. The aim was to offer more simplified ways to do things, but often the proposed options were shot down by the Russian project stakeholders, citing the fact their organization has always done things like this, hence they must be done in that way in the new budgeting and forecasting application. Despite the difference in opinions and the setbacks, the project proceeded, though in some parts awkwardly. After all, the application was made to work on an acceptable level without the Russian organization having to significantly change their working methods or budgeting and forecasting procedures.

After the application had been used for a while, feedback collected from the end users was both positive and negative. Positive feedback was given by users who did not have as much responsibility in budgeting or forecasting. They mainly felt that the system fulfilled their basic needs well enough and that usability was on a decent level. Meanwhile, people with more budgeting responsibilities and reporting needs complained about the bad usability of the application. Financial accountants who are responsible of coordinating budgeting and forecasting activities belong in this group. They felt the system is not easy enough to use, when there is a lot of budget item lines to enter per cost center. This is due to the fact that the Russian organization's way to enter the budget item lines on a detailed level with text comments was not easy to implement, from the point of view of the system. That is why the user experience is not the best possible. Another positive item of feedback concerned the speed the application can provide. It consolidated the entered data across the hierarchies and reports in seconds, offering quick access to upper level figures for further analysis and reporting. In addition, rolling forecasting has been conducted more or less successfully in the Russian organization a couple of times since the application was launched.

9 Conclusions and discussion

The object of this research was to evaluate the benefits the case company has received of the results of cost budgeting and cost forecasting projects as a whole. The starting point for the research was the initial need of the case company's Finnish organization to replace an obsolete annual budgeting application and to start using rolling forecasting in parallel with annual budgeting. The second target was to provide the same annual budgeting application for the Russian organization of the case company and enable rolling forecasting as well. By renewing its old budgeting application, the Finnish organization of the case company aimed to improve its annual budgeting process to be more agile, effective and less time consuming. The same objectives were set for the annual budgeting of the company's Russian organization. The wish was for rolling forecasting to be taken into use in parallel with annual budgeting, so that the case company could react better to changes in business conditions by adjusting its operative costs according to the prevailing economic situation. The preliminary needs could thus be considered partly strategic and partly technological.

Development projects are typically complex entities and it is always difficult to clearly foresee the outcome and how the project will eventually go. During the project, there will always be surprises that affect the scope, no matter how well the groundwork has been done. Completing the project within time, budget and scope requires constant information exchange and assessment on the most essential information to understand and how it can be transformed into knowledge, which, in turn, should be used for the benefit of the project. If the project stakeholders are not able to utilize new knowledge, but instead rely on old knowledge, the organization may not achieve the expected benefits.

This study was carried out as action research. The theoretical framework of action research provided the most suitable approach to these types of development projects, where practice and theory are close. The theoretical contribution to this research was formed from several meetings, dialogues and observations with the project stakeholders throughout the projects. A considerable amount of new information and knowledge was born during the projects. It can be stated that the projects resemble continuous education processes that generate new information constantly, from beginning to end. This information should have the ability to transform into knowledge that can be used for the benefit of the organization, so that learning and change is possible. However, all of the information and

knowledge that was born during the research did not have the ability to be utilized for the benefit of the case company in the best possible way. There are probably several factors and reasons for that. Based on research findings, in order for the organization to be capable of learning and changing something existing for its own benefit, the organizational culture must allow it. It could be said that if the company's organizational culture relies heavily on well-established practices, routines perceived as safe and a top-to-bottom decision-making culture, learning and changing become difficult, possibly even unachievable.

There can be many reasons for amendments within the organizations. In this case study, the main reasons that triggered the needs for change were partly strategic and partly technological. In this case, technology was seen as an enabler that would automatically make the annual budgeting process effective and faster, as the old budgeting system was replaced with a new application. The observations during the Finnish and Russian projects showed that many of the financial processes of the case company had become well-established practices and those processes were supported by people who liked to do things according to routine, without the routines being disturbed in vain. This became apparent when, for example, it was discussed whether the annual budgeting processes should be simplified and pointless parts trimmed away and not just count on the new system to make the annual budgeting easier automatically. Eventually however, both organizations decided not to change anything related to annual budgeting processes, but to keep everything as is, so that people could continue working like they were used to. It was noticeable that managers felt it would have been too major a transition to change the annual budgeting routines and methods. Therefore, it could be stated that all the improvement expectations were truly hung on what the new budgeting application has brought with it.

When assessing the achieved benefits of the case company from a technological point of view, the new application ultimately did what was expected, even though all of the existing annual budgeting processes were kept unchanged. The new application has been adopted well among the users, especially in the Finnish organization. The acceptance was eased by the fact that the essential structures related to budgeting, such as cost centers, account groups and hierarchies, were kept the same as in the old system. In addition, the application user interface was made simple and all the needed data was accessible quickly. In the Russian organization, however, usage of the new application has been

adopted partly well, partly with reservations. Adoption was easier, because all the essential structures remain the same they have used before in their budgeting and forecasting Excels. It turned out, however, that for precisely this reason, and because of the requirements to be able to use customized Excel-add-ons and the possibility to enter text comments across the system, the system became a complicated entity and, as a result, usability and user experience suffered. These risks were recognized during the project, however, and attempts of intervention, of influencing the budgeting processes and working methods of the Russian organization by offering simplified solutions, were unsuccessful.

As Budjetointi- ja ennustejärjestelmän ostajan opas (2015) wisely pointed out, it is recommendable to try and locate the weak spots of current budgeting processes and make improvements accordingly, so that known problem spots will not be copied into the new system to cause harm. It could be said that failures in the attempts to try and to offer simplified solutions to the Russian organization were probably the biggest setback, as copying all the existing detailed level structures and procedures into the new application was precisely what affected the usability and general satisfaction negatively. Budjetointi- ja ennustejärjestelmän ostajan opas (2015) also warned of an overly detailed level budgeting trap, stating that operating on the level of bookkeeping data is not the purpose of the planning software. It could be said that despite known pitfalls, the Russian organization partly fell upon them. It is not necessarily possible to rely on the fact that technology can automatically make things easier, especially if the processes, procedures and structures behind it are too complicated and the organization rejects amendments. Thus, technology does not necessarily enable as much as was expected.

Rolling forecasting was argued to be strategically important for the case company, so that operative costs could be adjusted according to business and decision-making would be improved. This pertains to strategic needs. If, for example, a company executive says that something is strategically important and the company should start operating accordingly. Therefore, basically any kind of strategic need or requirement top management has stated to be of importance can be a sufficient reason to start a development project, the goal of which is to fulfil that particular strategic need, whether it is a process related change or a technological change, or both. There are probably not many financial managers or controllers who would immediately start questioning the vision or requirements of top management on the benefits of such a strategic move. Mid-level management and controllers

are, however, in a central role in incorporating strategic actions, processes and IT-systems. It is paradoxical that mid-level management is on the organizational level where change management activities freeze, but, at the same time, they are the ones who should promote and lead change activities, so that changes are successful across the organization and desired benefits can be achieved.

The findings of this study proved that the shortcomings in change management are the main reason rolling forecasting has not been conducted in the Finnish organization of the case company since the new budgeting and forecasting application was launched. Even though there was a lot of discussion during the project on how rolling forecasting as a process should be incorporated into the Finnish organization, the change was never made. The change was found to have been too major for the budget owners to start rolling forecasting after all, in comparison to the benefits that would have been achieved from it. In addition, it turned out that even the initial strategic need was not actually valid. As was explained earlier, the case company wanted to have the possibility to adjust its operative fixed and variable costs according to the changes in the business environment.

However, the reasons rolling forecasting has not been incorporated were discovered, after all. For example, when the turnover of the case company drops, for instance 5M€ within one quarter, operative costs do not necessarily need to be adjusted at all, because the actual impacts on the cost structures could be minor. Hence, it was stated that it is not worth it to force the budget owners to make forecasts, if there are no changes in their cost center cost structures. If the costs need to be adjusted by making the latest estimate of costs, a financial accountant makes the changes directly into the consolidation program on the profit center level, bypassing, in a sense, the whole forecasting application. This was stated to be the easiest way to do cost adjustments from the point of view of the financial department. Based on these facts, it could be stated that rolling forecasting was eventually not a necessary method for the Finnish organization of the case company, because of the nature of business it is not needed, at least at the moment. In addition, it can be said that the connection to strategy was loose from the beginning.

When an organization is going to improve an existing process or intends to deploy a new IT-system, for instance, it requires the organization to try to evaluate its abilities to adopt to the change the new IT system or process improvement brings along, by any means. If the process change is large, it may concern several people and their working methods, so

this should be a significant factor that should be taken into account during the readiness assessment of the organization. An organization should truly be able to recognize how the new process could improve, decrease or increase the workload. Another important factor is to consider how to rationalize the need for change across the organization, and how to incorporate the change effectively, in way that the benefits can be achieved as planned. If the readiness assessment of the organization is lacking, the change may not necessarily be successful and the outcome is not what it is supposed to be.

When it comes to the Russian organization, they have conducted rolling forecasting every quarter since the application was launched. This was supported by the fact that they have conducted rolling forecasting in the past, so the change, from their point of view, was more technological. In this case, technology improved their rolling forecasting processes and improved the productivity of their budget owners, even though the usability of the application was not the best possible. Another significant factor that was observed is the different organization culture, in comparison with the culture in the Finnish organization. The culture in the Russian organization is paternalistic leadership, from top-to-down. If the top management decides to change something, whether it is a technological or process-related change, or both, mid-level managers, financial accountants and budget owners will not question its meaningfulness or rationality. They will take care of the needed actions one way or another. It is not necessarily a question of how productive or necessary something is, the question is more about how to fulfil a requested need and that is typically done by any means necessary.

In summation, the ultimate benefits the case company achieved from this project: the new application has improved the work of budget owners related to annual budgeting and forecasting procedures in several areas, compared to the past. Completion of the budget is now easier, faster and all the necessary data and measures budget owners need are available. In addition, work related to budget preparations and follow-up has decreased in the financial department. Now the budget owners are able to follow-up their budget and forecasts more comprehensively, as self-service and drill-down to detailed level transactions all the way to the level of invoice is enabled. In the past, the financial department had to make all kinds of reports to the budget owners, monthly or per request. Incorporating of ways of working was successful across the company, expect for rolling forecasting in the Finnish organization. However, it is possible to conduct this any time it will be necessary.

9.1 Future research

The findings of the study pointed out interesting topics in the area of change management and organizational culture, and how those affect project work. It could be said that modern technology is so developed that basically no matter how complex the budgeting or forecasting procedures are, technology is most likely able to handle it. The question is more of whether the organization is willing or capable to change its routines, procedures or processes if there is a need, and what the plan is to incorporate the change successfully. Naturally, organizational culture affects this. Should the prevailing organization culture, where such a budgeting or forecasting software development project is to be carried out, be studied first? Is the organizational culture one that favours change and new ways of working, or is does the culture favour safe routines and stability? In other words, is the organizational culture conservative, where people do not like changes? Based on findings in this research, it could be stated that if the organizational culture is conservative, desired changes without a proper change management policy are difficult, maybe even impossible. In addition, it would be crucial to critically examine the strategic vision the top-management has set and compare it to the mid-level management - how they experience the same vision and how it affects practice, for example, the working methods. This way, the organization could get valuable information about where the strategic vision and practice do not meet well enough and the problematic change spots would be revealed.

It would be interesting to focus further research precisely on the factors that can jeopardize the outcome of a budgeting or forecasting application development project. Understanding the relationship of strategy, organizational culture and change management, and examining the weak spots and strengths of an organization around these factors, would surely help organizations with their target achievements.

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