

Project Reporting Challenges in Company X's Americas Region

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<p>The aim of this bachelor's thesis was to research how project reporting is executed in Company X's Americas region and how the results of the reporting process end up to the directors responsible for the whole region's project management. Moreover, the objective was to observe the current challenges in the region's project reporting and suggest improvements for the future needs. This study especially focused on the project reporting process and the actual contents of reports are outside the scope of this study.</p> <p>The theoretical framework introduces management reporting and project management in detail. The purpose is to provide an understanding of what projects are, how they are managed and reported to the project management.</p> <p>The study uses a qualitative research method approach and a case study method for research data collection. The study was conducted in autumn 2014 and the empirical data were collected in two parts through four thematic interviews, and by researching the case company's internal and external material. Three interviews were held in October 2014 in Company X Canada at the Burlington office and one in November 2014 at the company's headquarters in Espoo, Finland.</p> <p>The key findings of the study indicate that Company X's Americas region's project reporting is currently in a developmental phase. The findings showed that the interviewees in the Americas region observed challenges in the project report preparing process. Challenges were mainly technical as the actual filling of the project data to the project reports raised concerns as the preparing process was illustrated too manually and time-consuming. The interview in Finland declared that project reports have to be prepared mostly manually because the quality of the added project data in the SAP system is not good enough and all the needed data is not necessary available, which makes the automation process difficult. Due to this, Company X has recently started a delivery excellence program in Espoo, of which one purpose is to globally harmonize and automate the company's project reporting in the future.</p> <p>The researcher sees the approach taken by Company X to be too much focused on fixing the need for manual filling of project reports and more emphasis should be put into the quality of project data. Automating the project report filling process does not remove the underlying cause related to the varying data input practices around the region. Unreliability of the project data and financial figures in project reports diminishes the benefits of analysing the project reports.</p>	
Keywords Project reporting, Management reporting, Project management, Project	

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1 Introduction

In 1963, Business Week magazine commented that “the great day – when all the information for solving a management problem is only a push button away – is closer than you think”. However, even in this decade, the goal has not been achieved (Axson 2007, 131). Over the past decades information technology has advanced a lot compared to the time before modern computers, when plenty of data was stored in paper ledgers. Companies worldwide have invested more than billions of dollars in business intelligence, data warehousing and different reporting systems in order to obtain information faster to their management. (Kugel 2007, 51.) Nowadays, the need for information is still huge as companies’ management need a wide range of information to monitor and control their businesses. Due to this, management reporting is in a pivotal position when the information has to be made available for company decision makers. (Jyrkkiö & Riistama 2006, 267.)

One of the key roles of management is to follow project performance, for which functioning and adequate project reporting is essential. In recent years also Company X, which is one of the leading companies in minerals and metals processing technology, has invested millions of euros to develop and harmonize its own information management systems. Company X has offices in 27 countries and delivers projects and services to more than 80 countries worldwide, which makes the information gathering challenging. During the last 10 years Company X has also acquired more than 15 companies or businesses which all of them had their own information management systems. Integration of these systems has proved challenging. The group’s continuing globalization together within the numerous acquisitions has brought a growing need to the company to develop and integrate the company’s own information management systems. The underlying needs also stem from the major structural changes made in the organization’s operating culture and in unifying enterprise resource planning system. In July 2013, Company X changed its corporate operating model and organizational structure to two business areas (Minerals Processing and Metals, Energy & Water) and three geographical areas (Americas, EMEA and APAC). Moreover, Company X has started to unify the company’s enterprise resource planning (ERP) software in the whole organization. The implementation process is still in progress in all three geographical areas and in the future, one of its key goals is to improve and standardize the company’s information collecting and reporting procedures. (Company X 2014a; Company X 2014b.)

In recent years Company X has also faced challenges within its project reporting, which is an integral part of the company’s information management systems. Many locations currently have their own kind of project reporting formats, and the figures reported from pro-

jects worldwide are not necessary directly linked to the company's income statement and balance sheet figures. Additionally, at the moment the group's reporting is very manual and therefore time consuming for the company's employees. (Company X 2014c.)

1.1 Research objectives and questions

The purpose of this bachelor's thesis is to research how project reporting is executed in Company X's Americas region and how the results of the reporting process end up to the directors responsible for the whole region's project management. Moreover, the objective is to observe current challenges in the region's project reporting and suggest improvements for the future needs based on the possible findings of the study. This study specifically focuses on the project reporting process and the actual contents of reports are outside the scope of this study. Therefore the main research question of the study is:

1. What are the project reporting challenges in Company X's Americas region?

This study's main research question focuses on the practical problems, which the Americas region's project departments face monthly when preparing project reports for the project management. The research question addresses the interviewees' views of whether the current project reporting procedure works properly or not and what can be improved in the future if necessary. More detailed additional questions are needed in the study in order to receive a thorough answer and understanding of the main research question in order to research the main purpose of the thesis:

1 a. Why does Americas region need project reporting?

1 b. How is the project reporting process executed in the region?

1 c. How are project reports and summary reports prepared in the region?

The aim of the first additional question is to find the most critical and important reasons why the Americas region does project reporting and what kind of benefits reporting gives the region. The second additional question focuses more on discovering the current situation in the region's project reporting; pertaining to the management reporting procedures and the aim is to understand how the project reporting process is enforced. The third additional question concentrates on the preparing process of project reports and summary reports.

Berg (2009, 37) clarifies that conducting a research study depends largely on what your research questions are and it is important to formulate a clear research problem statement. That is why the main research question and three additional questions were influenced by the literature on management reporting and project management. Berg (2009, 26) and Yin (2014, 14) add that relevant literature turn ideas into research questions and defining research questions are probably the most important step to be taken in research study. Overall, the core idea of the thesis is to answer the s main research question and the three additional questions.

1.2 Limitations of the study

The main limitations of the study are related to the choice of focusing on project reporting inside Company X's Americas region. Project reporting conducted in the group's two other geographical areas, EMEA and APAC are not being considered in this study. In the context of this study, reporting refers only to the financial reporting of projects and all other project related reporting is excluded. The research is mainly conducted in Company X Canada entity as this one also well represents other region entities, as Company X's Canada entity is the head office for the region. All research results can be generalized to the whole Americas region as reporting procedures are the same in the whole region.

1.3 Research method and structure of thesis

This study uses a qualitative research method approach and a case study method for research data collection. Yin (2014, 2) suggests that case study research is the preferred method, when the research questions are "how" and "why" questions as all three of this thesis additional questions are. The study was conducted in autumn 2014 and the research data was obtained by four thematic interviews, e-mail conversations and using Company X's internal and external material. Three interviews were conducted in October 2014 in Burlington, Canada and one in November 2014 in Company X's headquarters in Espoo, Finland. Chapter 5 includes more detailed information on the methodology used in this thesis. The researcher has also worked five months as an intern in the case company's Shanghai office in China during spring 2014 in the project financial reporting team.

The thesis is structured as follows. Chapter 2 introduces the case company and the Americas region. Chapter 3 reviews current literature on management reporting and chapter 4 continues with the project management literature. Both chapters use domestic and international literature as a resource to provide an inclusive overview of the research topic. Chapter 5 present the research method and data in more detail. Chapter 6 and 7 cover the empirical part of the thesis. Chapter 6 present the findings from the empirical research

conducted in autumn 2014. The findings are discussed in chapter 7 which also concludes the thesis and gives suggestions for further research.

In summary, the purpose of the study is to give a holistic and detailed picture of the reporting process with its challenges in the Americas region and to utilize available literature to support thesis making. The theoretical part consists of the literature overview, which reviews theoretical prospects about management reporting and project management.

1.4 Definitions

This section provides a summary of the central concepts used in this thesis to ensure that the reader is aware of the exact meanings and definitions of the central concepts used in this thesis and to make reading easier.

- **Management reporting** is defined as a supporting tool for the management decision process, the purpose of which is to guide a company's management to make good and accurate decisions regarding the performance of the company. (Petty & Ng 1999, 72.)
- **Project management** is using one's knowledge, skills, tools and techniques to achieve the project's requirements, and can be referred to as the management discipline that plans, organizes and controls the project in order to complete the project successfully. (Lock 2013, 1; PMI 2008, 6.)
- **Project** is defined as a unique venture which is conducted by people to meet settled goals within parameters of cost, quality and schedule and has a beginning and an end. (Pinto 2010, 24-25.)
- **ERP** is an acronym for Enterprise Resource Planning, which can be described as an enterprise-wide information system that controls and unifies all the company's business processes and transactions. ERP software stores all the collected data in the company's common database and allows the smooth flow of common functional information in order to enhance efficiency and maintain a competitive position. (Addo-Tenkorang & Helo, 2011.)

2 Case company description

By the request of the commissioning company, the name of the company will not be revealed in this study. The case company will be referred as Company X.

The Company X is a Finnish listed technology company, which is one of the leading companies in minerals and metals processing technology. In 2013, Company X's sales were approximately 1.9 billion euros and the company employed nearly 4800 people over the world.

2.1 Corporation

This chapter is concealed.

2.2 The Americas region

This chapter is concealed.

3 Existing literature on management reporting

In this thesis management reporting is defined as a supporting tool for the management decision process, the purpose of which is to guide a company's management to make good and accurate decisions regarding the performance of the company. (Petty & Ng 1999, 72.) According to Kugel (2007, 51-52), these days many companies collect wide sets of data to their enterprise systems to obtain vital information to their executives and other decision-making employees. Jyrkkiö and Riistama (2006, 267) find that companies' operative management need the information because they have to monitor, control and make different kinds of decisions regarding company operations. In addition to the company's own information, it is also essential to know what changes happen in the company's environment and in the financial markets and in the surrounding society at large. Axson (2007, 131) highlights the information flow, calling it the lifeblood of the modern corporation. Without all the information for solving a management problem, decisions cannot be made and this is reflected to company's earnings, while customers cannot be served. Jyrkkiö and Riistama (2006, 267) conclude that in order to provide all the information to the management, the company needs an effective information system, where the data collection and information production is done reliably and systematically. Reporting is in a pivotal position when the information from the company's information system has to be made available for decision makers.

This chapter approaches management reporting from a theoretical point of view, and is based on literature on the topic. Reporting is limited to the financial management reporting as the study focuses on Company X's Americas region's project financial reporting. The chapter introduces management reporting as a part of the company's controlling and information system and is divided into six main sections. The first two sections focus on understanding the reasons why and how companies execute reporting to their management. The third section introduces organization's three reporting levels and describes the information typically reported to these levels. Section four and five study the reports' typical contents and layouts and continues to section six, which presents the distribution options and reliability of management reports. Overall, the aim of the chapter is to provide an overview to the reader of the management reporting procedures and it is linked later with chapter four, i.e. project management, to give an understanding of what the project reporting actually is. Project reporting is one sub-area of management reporting.

3.1 Reporting objectives

The goal of reporting is to analyze, react and anticipate the company's operations, and it is thus an important part of a company's controlling system. With reliable and timely management reporting, the company is able to focus all of its available resources on the right issues, allowing the possibility to look at the company's activities from the past, present and future perspective. By means of reporting, the company can also see the progress of profitability and whether the targets set by the management have been met. (Alhola & Lauslahti 2002, 316.)

Enterprises have invested billions of dollars to develop their management reporting. Due to this, companies' business landscape is these days full of management information systems, data marts and data warehouses. (Axson 2007, 131). Kugel (2007, 51-52) finds that many companies have used effectively their IT resources on data collecting, because otherwise they might fall behind in the competitive race. Axson (2007, 131-132) argues that even with these massive investments, less than one in five managers believe they have now all the information they need to handle their daily jobs effectively. The problem is not the amount of information and data, because a number of organizations already have too much data and more is coming. Emerging technologies promise to create even more data for people to analyze. After interviewing numerous executives over the years he noticed that it takes too much time to produce management reports, which do not even contain all the information that management need, which is why the situation is now a lot more technology than information oriented. That is why management needs an effective reporting process to match the information that is reported to the needs of the recipient at a specific time.

According to Jyrkkiö and Riistama (2006, 276), the company's operative management needs reporting especially to ease and guide decision-making. The management is responsible for running the company and planning its activities and therefore reporting is an essential tool in the decision-making process. Usually, the more people participating in the organization's decision-making processes, i.e. the more areas of responsibility, the more important receiving the reports becomes to the management. Alhola and Lauslahti (2002, 317-322) add that through reporting the organization is also able to steer its own employees to focus on more important matters and give them the means to develop the company's profitability with their own effort. Reporting also has other purposes than to generate information to the management to help forecasting and monitoring. It allows the organization to motivate and tie together its own employees by setting up common goals for them. These goals facilitate the staff to experience the feeling of success and they enable pos-

sibility to obtaining financial benefits. Reporting can also be used as part of company's open communication system. The system tells the employees about the success of the business and what the future targets are to the company.

Axson (2007, 135-139) remarks that effective management reporting is about delivering the right information to the right people at the right time, and that the information must be tailored to its users' needs. Alhola and Lauslahti (2002, 316-317) add that to success in all this, reporting needs a functioning organization. This means that the company's different operations and tasks are clearly divided among different persons and departments. The author of a report needs to know to whom he/she is writing the report or otherwise the report's operational value may not be good enough. Through reporting the organization is able to follow in which direction the business has been developed or in which direction it will develop in the future. Overall, Jyrkkiö and Riistama (2006, 276) outline that reporting provides information on what has happened and what is happening currently in the organization.

3.2 Data collection for reporting

Companies need information systems to collect data and information systematically for the company and its operational management. The company has to know what kind of information they want to collect for their reporting and where the information can be collected. Moreover, a company's size and nature of its business influence what kind of methods and tools the company can use for data collecting and it is very important that the reporting system utilizes all information that the company's accounting information system produces as well as the information obtained from external sources. However, all these have in common the search for systematic use. It is difficult to lead the company with determination, if the data acquisition is done randomly. (Alhola & Lauslahti 2002, 323; Jyrkkiö & Riistama 2006, 267.)

According to Axson (2007, 132), the challenge of the management reporting process is to unite and structure all the data into relevant information and then deliver it to the right person at the right time. The demanding reporting process requires successful data collection, processing and compiling of three different types of information:

1. Transaction reporting (e.g. profit, productivity and sales)
2. Reporting of events (e.g. acquisition of a new customer or launch of a new product)
3. Reporting of cause for something (e.g. cause for negative sales variance) (Axson 2007, 132.)

In addition, Axson (2007, 132-133) presents five steps to translate data into useful management information:

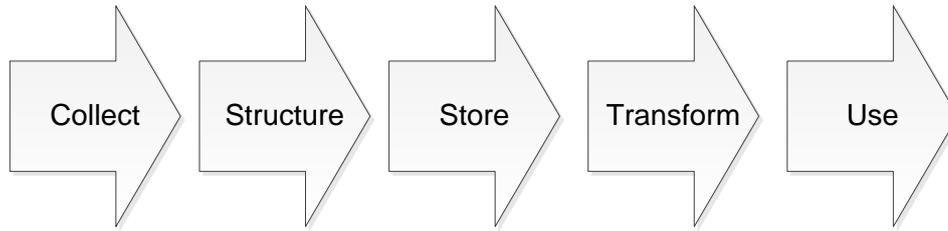


Figure 2. Five steps involved in translating data into useful management information (Axson 2007, 133)

The first step is data collecting, where data is assembled from multiple internal and external sources. Data is collected from different kinds of systems such as customer service, sales, order processing, distribution, finance, human resources, production, inventory management and also from external sources, such as market places, customers systems, and supplier and third-party information sources. The second step is structure, where collected data will be organized into logical groups, for instance to by-product, customer, department, geography or time period. Also the collected data will be checked to ensure its consistency and accuracy. The third step is storage, where collected data is inserted, for example in a data warehouse. There must be easy access to the data for different reporting purposes. The fourth step, transformation, converts the data into useful information by using various kinds of tools, such as accounting and reporting systems. Prepared reports can be traditional paper-based ones, but more often reports are distributed electronically. The last step, use, is the most important step. This step ensures that the right people receive the reports and each user is equipped with the necessary training, skills and tools to use the information effectively. (Axson 2007, 132-133.)

3.3 Reporting levels of the organization

According to Jyrkkiö and Riistama (2006, 278), reporting can be executed differently inside the organization and typically depends largely on what kind of work duties the recipient has as well as what is her/his position in the organization. Axson (2007, 139) emphasizes that it is also highly important to define who in the organization needs what kind of information and how the information should be organized in the company. In addition, Jyrkkiö and Riistama (2006, 278) found that reporting to organization's lower levels normally includes more detailed information than reporting to the upper levels, which in turn, includes more summaries.

Alhola and Lauslahti (2002, 319-320) have categorized reporting in the organization into three different organizational levels, which are illustrated in table 1. People's information needs are linked to their responsibilities and roles, and the table describes what kind of reporting each level generally receives.

Table 1. Reporting levels of the organization (Alhola & Lauslahti 2002, 319-320)

Reporting level	Persons involved	Reporting about
Strategic level	<ul style="list-style-type: none"> - Top management 	<ul style="list-style-type: none"> - Income statement and the balance sheet - (Key performance) indicators and instruments - Funding reports - Market analyses
Business management level	<ul style="list-style-type: none"> - Profit centre managers - Operation managers - Department managers - Marketing managers - Procurement managers 	<ul style="list-style-type: none"> - Income statement and cost analyses - Reports of employees - Indicators and financial ratios - Sales allocation reports by the area of responsibility - Special reports by operation type
Operational level	<ul style="list-style-type: none"> - Supervisors - Project managers - Team leaders 	<ul style="list-style-type: none"> - Own responsible area reports

The first level of the table is the strategic level. The level consists of the company's top management, including the board of directors, the chief executive officer and the executive board. The purpose of the reporting to the strategic level is to display the company's trend of development in the long term. Reporting contains, for instance, information on the income statement and balance sheet, indicators and financial ratios as well as finance reports and market analyses. The second level is the business level. This level consists, for example, of profit centre and operation managers, department managers, marketing

managers and procurement managers. Reporting to the business level comprises expense breakdowns and information on the income statement, indicators and financial ratios. Reporting is also done by employees and sales allocation reports by the area of responsibility and special reports like the sales directors report. The main objective of reporting to the business level is to produce information of managers' responsible areas or the financial state of operations. The third and last level of the table is the operative level. The level is composed from supervisors and normal employees as well as project managers and team leaders. Reporting to this level includes information concerning the completion of the work. Reports contain information on the managers' areas of responsibilities, costs, instruments, financial ratios and employees. (Alhola & Lauslahti 2002, 319-320.)

In summary, the content and accuracy of the report changes regarding to the status of the recipient, and the reporting needs to meet the recipient's needs. Company top management needs to know about company activities and results, but not in a too detailed way. In turn, managers at lower levels have to know every little detail, but only matters related to their own area of responsibility. (Alhola & Lauslahti 2002, 324.)

3.4 The content of the reports

The aim of management reporting process is to deliver correct amount of information to the company's management to support decision-making. Therefore it is very important that the recipient of the report understands clearly what to do with the report. Due to this, management reports should always answer the following four questions: What has happened? Why did it happen? What was the impact? What can we do about it? (Axson 2007, 145.)

Alhola and Lauslahti (2002, 317) point out that the author of the report may execute reporting mostly by using available reports, indicators or financial key figures. Financial reports are mainly aimed for the company's top management, operative management or operational level workers. These reports often include a lot of combined information, but if needed also very detailed information, for example, sales per customer or sales per product. Indicators are by nature reactive and anticipatory assistance tools and they are considered usually as the best tools which are able to alert even from weak signals. Financial key figures are by nature more analysing and reactive such as profit margin and gross margin. With these key figures, management is able to follow the company's development, for example when it comes to profitability. Axson (2007, 139-141) concludes that the amount of data is increasing all the time in the companies' information systems, and defining the right and needed information is becoming more important every day. It is im-

portant that reports are always tailored to a user's needs and match the recipient's roles and responsibilities. The organization has to choose among information which supports most in order to reach overall objectives.

3.5 The layouts of the reports

Excellent content alone does not guarantee a good and comprehensive report to its recipient. Thus it is necessary that companies plan beforehand, how the content of the report should be presented to the receiver. (Axson 2007, 156.) Moreover, Alhola and Lauslahti (2002, 325) emphasize that provided reports must always be easy to read and understandable for its recipient. Furthermore, when the author is planning the layout, he/she should carefully consider what kind of information the report should include.

Axson (2007, 156) states that report designers typically face challenges when they have to balance report content effectively with report layout. For example, many management reports are almost unreadable, because they contain only page after page of numbers. Due to this, Alhola and Lauslahti (2002, 325) suggest that provided reports may include only very essential and highly important information or very detailed information. In addition, report titles must be clearly separated from the rest of the text and measurement units must be clearly visible. The reports must also contain clear information distribution and positive and negative deviations be separated clearly. A high skim value makes it easier to read and understand the report. According to Bagranoff, Simkin & Norman (2010, 222), good managerial reports should also include a named author, page numbers and dates or otherwise the report may lose its information value, while the recipient does not know the time period which report covers. Jyrkkiö and Riistama (2006, 278-279) add that the language used in the reports has to be clear and understandable and it is important to go thoroughly through the essential facts. The recipient may not be familiar with accounting terms, so terms which are difficult to understand should be avoided.

In turn, the data of the report can be presented for instance, in text form, numbers in table form, in graphical presentation form and as financial indicators. The benefits of the graphical presentation form and financial indicators are that they easily demonstrate provided information. On the other hand, it is difficult to present all information sufficiently in detail. Typically, these two presenting formats are supplemented by tables and text. In reports which are done for the management, conclusions and analyses are presented normally in text form. The management might not have enough time to focus on the detailed information in, for example, large tables containing lots of detailed information. The summary part is essential and highly recommendable in management reports, which should include

the most important indicators, financial figures and analyses. (Alhola & Lauslahti 2002, 325.)

Axson (2007, 156) concludes that if the report is designed well, it takes complex information and makes it easy to understand and use. Good management report design might improve company decision making significantly, while the user focuses on the important information and thereby shortens the cycle time to make a decision. Alhola and Lauslahti (2002, 322) add that the provided effect with reporting comes stronger, when it is executed regularly and it is informed in advance to the people who participate in reporting.

3.6 Distribution and reliability

Management reporting is by nature very time consuming and labor intensive for the company. Typically companies' reporting procedures are tied strictly to the calendar and the needs of their accounting department. The information might also be gathered from many different systems and manual sources. (Axson 2007, 134.) This is why a company needs a good distribution system for its reporting. The distribution of reports must happen inside the company at the right moment and must be correctly timed. Distribution is dependent on the company's information system and the possibilities the system allows. If reports are delivered to their recipients too late, all the planned actions cannot be implemented. (Alhola & Lauslahti 2002, 325.)

Management reports can be forwarded within the company by different methods. The company's size, the information systems applied, and the staff's knowledge of using different systems affect how the distribution of reports is executed inside the organization. In practice, reporting can be conducted either on paper or in electronic form. Normally, the recipient's needs and requirements vary and often it is easiest to choose the distribution method in which most of the company's staff is proficient. Electronic distribution is often handled in the company either using a closed internal network (intranet), wireless terminals or more traditionally via email. Paper reporting is disappearing little by little and the advantage of electronic distribution is that reports can be modified and edited afterwards. They give an opportunity to process data more deeply. (Alhola & Lauslahti 2002, 326.) However, Axson (2007, 156) points out that paper still remains a powerful delivery vehicle and the average office worker uses around 10,000 sheet of paper for printing and copying a year.

Overall, distributed information and data produced by the information system must be continuous and reliable. The way how the data is collected for the reports and how they are

combined highly affect the reliability and effectiveness of the report. Even a minor mistake when collecting data may cause a large error and that is the reason why data has to be retrieved carefully. It is highly important to do calculation reviews to be sure that the content of the report is correct. Calculation reviews are also to be recommended when combining information between different pre-systems. Also different kinds of technical problems and natural disasters are to be taken into account when assessing the validity of information. Blackouts are typical such problems. Internal changes conducted inside the organization can also cause problems for reporting. The structure of the organization can change or the company can be merged with another company. It can be difficult for larger companies if both companies in the merger use different systems and the information they contain is to be integrated into the same system. (Alhola ja Lauslahti 2002, 327.)

All in all, when a company executes its management reporting, it is highly important to focus on defining the right information and identify suitable for users as well as to ensure that all information is available to users when needed (Axson 2007, 156). One sub-area of management reporting is project reporting, which is viewed in the next chapter, project management.

4 Existing literature on project management

In today's world, it seems that projects are almost everywhere and nearly everything can be called a project. Projects vary widely in size and type and over the past decades, companies have accomplished more and more work through the use of projects and project management. (Mantel, Meredith, Shafer & Sutton 2008, 2-3.) Project management is using one's knowledge skills, tools and techniques to achieve the project's requirements and it can be called the management discipline that plans, organizes and controls the project in order to complete the project successfully. (Lock 2013, 1; PMI 2008, 6.) In this study, a project is defined as a unique venture which is conducted by people to meet settled goals within parameters of cost, quality and schedule and has a beginning and end. (Pinto 2010, 24-25.)

This second area of literature overview contains the main theories concerning projects, project management and project reporting. This study focuses on Company X's Americas region's project reporting and due to this, the aim of the chapter is to provide an understanding of what projects actually are and how companies typically manage their projects during the project's whole life cycle. Reporting is an important part of project management and together with the management reporting chapter, the aim of the theoretical framework of this study is to provide an understanding of what projects are, how they are managed and reported to the project management.

4.1 The definition of a project

A project can be defined as a temporary endeavour whose main purpose is to create a unique product, service or result and can change repeatedly on its size and type. By nature projects are specific and have desired completion dates as well as require input from different people with different kinds of knowledge and expertise. (Mantel & al. 2008, 1-2; PMI 2008, 5.) Projects are usually also very complex and one-time processes, which are limited by budget, resources and schedule, are developed to resolve a clear goal or set of goals and are customer focused. (Pinto 2010, 24-25.) However, projects have three inter-related main objectives to accomplish: to meet the set budget, to finish on schedule and to meet specifications that satisfy the customer of the project. (Mantel & al. 2008, 7.)

Typically large-scale projects such as many of those in Company X's Americas region can be very complicated to handle, because they require input from numerous members of the organization. For instance, project members can come from different countries, departments, organizational units or functional areas of the organization and can require com-

bined work of engineering, supply, marketing, finance and so forth. By nature projects are resource-constrained, which means that projects are defined by their limitations and project members have to work all the time with limited human and financial resources while executing the project. Projects also have finite budgets, definite schedules and carefully stated specifications for completion. In addition, project schedules, budgets and specifications can usually conflict with each other. This means that the needs and desires of the project client might conflict with the needs of the project developer. However, the underlying purpose of any project is to satisfy its client needs. (Mantel & al. 2008, 1-2; Pinto 2010, 24-26.)

Two projects are never exactly alike and can often be a step into the unknown with uncertainty and risk. Project management is a management discipline, which helps the organization to plan, organize and control the people and money so that the project can be completed successfully in spite of all the mentioned risks. Every project should have a project manager, whose aim is to finish project on time, within a budget as well as satisfy the project investor and all the other stakeholders. (Lock 2013, 1.)

4.2 Project types

Pelin (2011, 31-34) states that projects are often by nature and content very different and appears at every organizational level. Projects can be executed, for example, in company marketing, production, management and product development and can be categorized by nature into different project types. In turn, Lock (2013, 6-9) divides projects into four different categories according to their features:

1. Civil and chemical engineering and construction projects
2. Manufacturing projects
3. Management projects
4. Scientific research projects. (Lock 2013, 6-9.)

The first two categories best describe what kind of projects Company X's Americas region delivers to its customers worldwide. Company X designs and supplies tailored solutions and life cycle services for minerals and metals, water, energy, and chemical processing. The first category projects are typically large industrial projects, which are conducted on site. These kinds of projects can require massive capital investments and need strict management of progress, finance and quality. Company X Americas region provides its customers, for instance, large-scale factory complexes such as sulfuric acid plants, pelletizing plants, concentrator plants and ferrochrome plants as well as individual large

process equipment such as thickeners, flotation cells, grinding mills and roasting furnaces. The second category projects, manufacturing projects, are implemented mainly in a factory or laboratory and can be, for example a machine, mechanical or electronic equipment or some other product or item or specially designed hardware. The finished product can also be purpose-built for a single customer. Typically Company X produces, for example, analysers, stripping machines and filters for solid-liquid separation. The third category, management projects, are more the company's internal projects and are not conducted for profit or other benefits. These kinds of projects arise when the company develops and introduces a new computer system, restructures the organization or launches a marketing campaign. For instance, currently Company X is implementing a new ERP system in the organization. Scientific research project objectives are usually difficult or impossible to define and there may be no awareness of the possible income. Company X spends some 30 million on research and development projects annually. (Lock 2013, 6-9; Company X 2014f.) This thesis focuses on project reporting related to 1 and 2 category projects.

4.3 Project life cycle

The period between the beginning and end of a project can be described as the project life cycle. This means that a life cycle refers to the stages in a project's development and helps companies to develop plans for carrying out the project as well as to demonstrate the logic that governs a project. (Lock 2013, 9; Pinto 2010, 32.) The life cycle can be described as a collection of project phases whose name and number are usually determined by the management, the nature of the project and control needs of the organization or organizations involved in the project. The life cycle provides the basic framework for managing the project, regardless of the specific work involved. (PMI 2008, 15.)

Many projects are like building a house. The building process usually starts slowly with a lot of planning and discussion and continues to the construction phase which is a faster phase. When the exterior of the house is completed, the progress appears to slow down and the building will be finished slowly inside. The progress is slow-fast-slow as typically a project life cycle also is. (Mantel & al. 2008, 8.) The project life cycle can be described in different ways, but the main theme is usually the same in all of these. For example, Pinto (2010, 31-32) subdivides life cycle into four different phases: conceptualization, planning, execution and termination. In the conceptualization phase the scope of the work is determined, important organizational stakeholders or contributions signed on and all necessary resources such as people and money identified. In turn, in the planning phase all detailed specifications, schedules and other plans are developed and the process for the project's completion is clearly delineated. Execution is the stage in which the actual "work" of the

project is performed, the product is created or the system is developed. The termination phase starts when the completed project is handed to the customer and formally closed out.

In turn, Lock (2013, 9-10) describes project life cycles with the following six-phase figure:

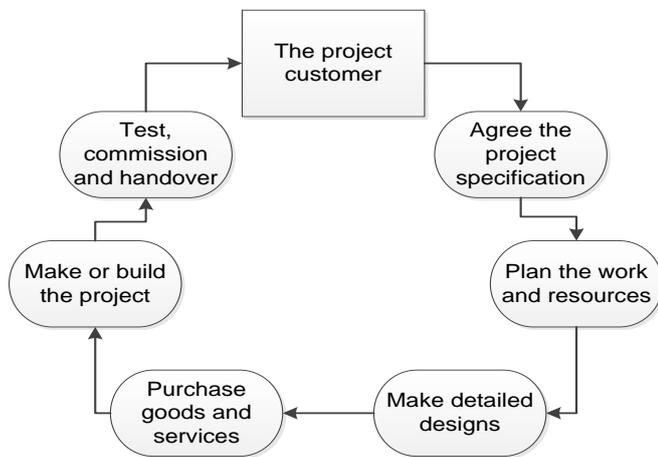


Figure 3. A project life cycle (Lock 2013, 10)

Lock's vision of a project's life cycle applies mainly to small-size projects. Typically these projects do not involve large amounts of capital expenditure and have a short duration. Figure 3 shows that all project activities form a true cycle, because they begin and end with the customer. This figure is only a simplistic example and normally the boundaries between different phases are blurred, and the figure also excludes everything that happens before the project has been started and after the project has been delivered to the customer. The figure starts with the project definition, where the customer and provider of the project agree all the necessary specifications of the project. In the preparation and planning phase all resources and work of the project will be planned and in the third phase, design, all detailed designs will be made. In phase four, purchasing, all needed goods and services for the project will be purchased and in the fifth phase, fulfilment, the actual project will be made or built. The last phase of the figure is completion and handover, which includes testing, commissioning and finally handing over the project to the customer.

Also some Company X's Americas region's typical projects can follow the Lock's vision of a project life cycle. Figure 4 introduces compressed example of a thickener's life cycle.

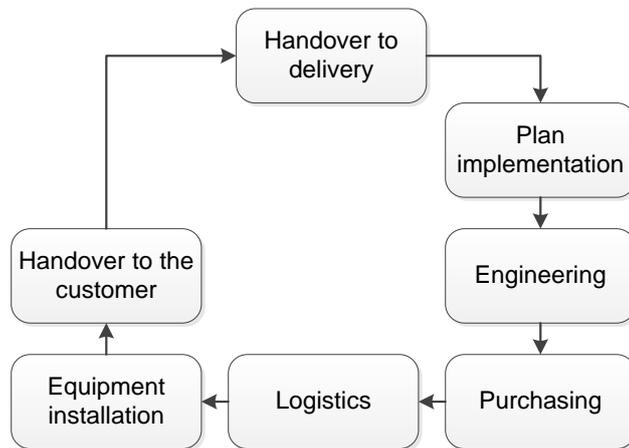


Figure 4. A thickener's life cycle (Company X 2014g)

The process starts when the sales department first identifies the customer, develop sales case, negotiate with the customer and finally close the deal with the customer. Next phases after handover are planning, engineering, purchasing, logistics, installation and finally handover to the customer. (Company X 2014g.)

4.4 Project management

The main challenge of all projects is to meet given expectations, goals and requirements. Usually social, technical and financial issues have a major impact on the project success, but after all project management is in the pivotal position. Project management is using one's knowledge, skills, tools and techniques to achieve the project requirements. When managing a project it is important to follow required processes, identify requirements, address the various needs, concerns, and expectations of various stakeholders during the project's lifetime, and to balance with the project's scope, schedule, quality, budget, resources and risk to produce the specified product, service or result. However, the main purpose of project management is to manage the project and its activities during the project's whole life cycle. (PMI 2008, 37; Artto, Martinsuo & Kujala 2006, 35.)

According to Mantel & al. (2008, 6), project management differs considerably from general management. Projects are normally planned, budgeted, scheduled and controlled as unique tasks and might cross departmental boundaries for personnel, resources, technologies and information. Artto & al. (2006, 37-38) propose that project management should consist and cover the following nine project management knowledge areas which are demonstrated below:

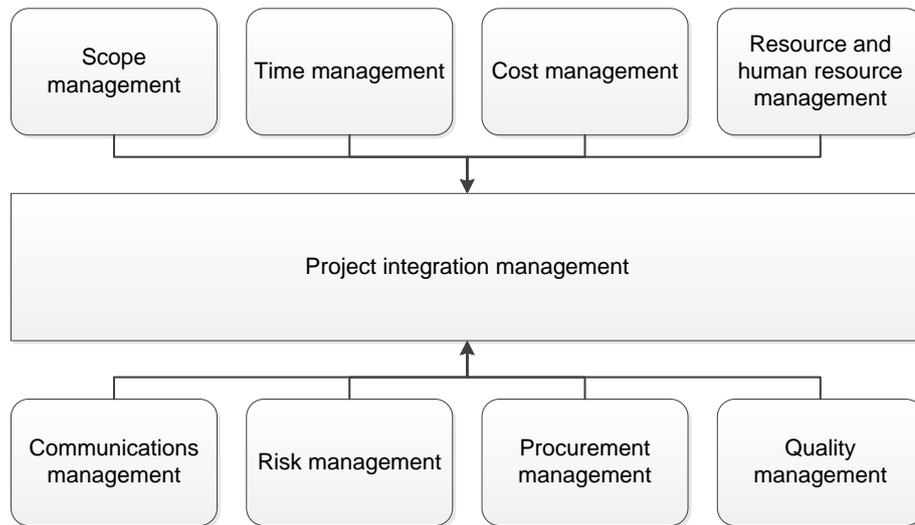


Figure 5. Project management knowledge areas (Artto & al. 2006, 37-38)

Project integration management is the glue which integrates and coordinates all of the other eight knowledge areas so that the project can be executed successfully in accordance with its objectives. The purpose of scope management is to verify that the project meets the objectives set by the customer and the project is executed as efficiently as possible, without any unnecessary and extra work. Time management ensures that the project is implemented and will be completed time-wise within schedule. In turn, cost management controls that the project is executed profitably and cost-effectively. It includes operations related to cost management budgeting and controlling. Resource and human resource management ensures that the project has sufficient resources, which are available at the right time and are effectively used during the whole project. Communications management includes the information transformation between all project members and stakeholders. Through risk management all risks related to the project are identified and analyzed and measures are taken to prevent these. With procurement management you seek, select and use outside resources related to the project and follow the purchases and deliveries related to the project. Quality management comprises quality design, manufacturing and control which ensures that the project meets the requirements it is given. (Artto & al. 2006, 37-38.)

4.5 Project controlling and reporting

Managing a project typically includes continuous checking on the project's current progress, comparing the progress with planning and making necessary re-planning if necessary (Mantel & al. 2008, 238). The purpose of project controlling is to ensure that the project is implemented successfully during each stage of its life cycle, stays on the planned budget and schedule and achieves set objectives. (Pelin 2011, 293-294.) In order for a

company to manage its ongoing projects management needs the means for continuous updated and real-time information on the project's current situation, the use of resources and results. They must also have the possibility to compare those to the project objectives originally set. For this purpose companies need effective project reporting, which is a part of project controlling. (Artto & al. 2006, 248-249.)

Project reporting in companies is usually regulated and confined to the project's different milestones, deviances and schedule. Moreover, reporting can cover all the project management knowledge areas or just part of them. Reporting is intended to provide the company and especially its project management with information on how the project's scheduled part is being executed, how project costs have accumulated and what the current status of the project is. (Artto & al. 2006, 249-250.) According to Pelin (2011, 298), project reports typically consist of the following six elements:

1. Brief verbal description of the overall status
2. Updated schedule and reached contractual milestones
3. Financial status (current budget, financial ratios and forecasts)
4. Quality updates (technical deviations and scope extensions)
5. Risks (realized risks and potential risks)
6. Suggested decisions

The reported information of a project can be from a distinct time period or from the whole time of the project. Continuous project reporting assists the company to evaluate how much the current state of the project deviates from the planned state. Deviance reporting is usually valued very highly because deviations points out how much extra work needs to be done. Effective project reporting also provides the management with real and justifiable information to help decision-making. (Artto & al. 2006, 249-250.)

Executive project reporting in the company varies depending on how big the project is. Reporting conducted on smaller projects is usually very informal and frequent whereas reporting on major and risky projects are more structured and continuous. In addition, project reporting can also be made on all levels of the organization and thus the information gathered into the project reports has to be as automated and frequent as possible. Project reports can also entail describing and/or numerical information on projects. Descriptive information is usually gathered from different members involved in the project, whereas numerical information is obtained more from resource management, time management, material acquisition and accounts from inside the organization. (Artto & al. 2006, 252.)

Project reporting is also done based on the company's external needs. This study, however, focuses on Company X's internal reporting so external reporting is not reviewed in the study. All in all, project reports made for internal use contain very specific information on, for example, how different tasks are handled, resource usage, cost accumulation, quality control, current status of acquisitions, distribution of labour and other matters related to the project. Projects can also be reported in different ways. Reporting made for the management is by nature more of a summary which utilizes internal information from singular reports. (Artto & al. 253-254.)

5 Research methodology

The purpose of this thesis is to explore Company X's Americas region project reporting, and to evaluate the collected data with a qualitative research method. This chapter outlines the research methodology of the study and focuses on the data collection process as well as the trustworthiness of the study. The thesis uses a case study method as a research strategy. This method provides a deep understanding of the phenomenon, group, event or organization and it is also a traditional and commonly used qualitative research type. (Berg 2009, 319; Hirsjärvi, Remes & Sajavaara 2009, 191.)

The first section of the chapter justifies the theory of qualitative research and case study and presents the data collection methods applied in the study. The second section describes the study data collection process and introduces interviewees in more detail. The third section focuses on the reliability and validity of the thesis.

5.1 Research method and strategy

Hirsjärvi & al. (2009, 134-135) divide commonly used research strategies into three different categories: experimental research, quantitative research (survey research) and qualitative research (case study). Although all these three research strategies do not exclude each other, this study uses a qualitative research method approach. The background for the choice is described below.

5.1.1 Qualitative research

According to Hirsjärvi & al. (2009, 161-164), a qualitative research method is used when the research is by nature a comprehensive information acquisition which favors people as a data collection instrument, and aims to reveal unexpected issues. The goal of the qualitative research is to describe the real life and the aim is to examine the study's case company, in this thesis Company X, in detail. Silverman (2008, 10) states that the qualitative research method can also provide a deeper understanding of the social phenomena when compared with information obtained from purely quantitative data. The quantitative research method prefers more the use of inquiries in the research data collection which was not viewed as a good alternative choice to execute the study.

The qualitative research method relies on the researcher's notes and conversations with the people he/she is researching. The qualitative research prefers research data gathering methods which bring forth the persons' own opinions and views better. (Hirsjärvi & al. 2009, 164.) According to Tuomi and Sarajärvi (2009, 71), this kind of research data collec-

tion methods are, for example, different types of interviews, active perception, and exploration of various documents. In addition, all of these methods may also be used either individually or combined together. The implementation of the study by qualitative method is favored by the fact that project reporting is better evaluated when the people who are interviewed are able to express their own opinions and views from their perspective.

As mentioned previously, the study is done as a case study. The case study is an empirical inquiry that studies the case in depth in its real-world context, and the analysed units can vary from single individuals to large corporations and businesses. (Berg 2009, 317; Yin 2014, 15.) Yin (2014, 2) considers case study as the preferred method when the study's research questions are "how" and "why" questions, as three of the additional questions in this study are. The case study is also a particularly suitable method as the focus of the study is a contemporary phenomenon, i.e. the state of Company X's Americas region's current project reporting.

5.1.2 Thematic interview

In qualitative research, interviewing is considered as a key method for data collection and can be considered a very unique and flexible method. In this study interviews were chosen as the main source for research data collection, because the interviewer has the possibility to be in direct interaction with the interviewee and see the informant's facial expressions and gestures. Moreover, the interviewer can repeat questions asked, correct possible misunderstandings and elaborate with the interviewee on certain topics. In addition, the interviewer has the opportunity to ask additional questions if needed and all the questions asked can also be presented in the order which the interviewer sees appropriate. The questions can also motivate the interviewee to become involved to the research which, in turn, might make it easier to meet later again with the interviewee if there is a need for more information. Overall, the advantage of interviews is that the researcher has the opportunity to select people having the best experience of the phenomenon under scrutiny or holding information related to subject. (Berg 2009, 116; Hirsjärvi & al. 2009, 204-206; Tuomi & Sarajärvi 2009, 73-74.) The research data used in this thesis was collected by interviewing the case company's employees in Burlington (Canada) and in Espoo (Finland) and by analyzing the company's internal and external materials.

According to Hirsjärvi & al. (2009, 208-209), the interview can be performed as a structured interview, thematic interview or open interview. Generally, the choice of type depends largely on how structured and formal the interview situation is and therefore this study uses thematic interviews as a main source for research data collection. Tuomi and

Sarajärvi (2009, 75) find that in thematic interviews all the themes of the discussion are known and are based on the theoretical framework connected to the research, but the exact form and presentation order are missing. A thematic interview can also be called a semi-structured interview and can be categorized somewhere in between open and structured interviews.

This study applies the thematic interview method because the researcher has no knowledge beforehand of what kind of answers to expect from the interviewees and how the interviewees will report from their point of view. The study's interviews will be partly done in Company X Canada and the client considers thematic interview method as the best way – thanks to its flexibility – to portray in as much detail as possible from the region's project reporting procedures. The first three interviews of the study were done using the questions from appendix 1. Questions are divided into four themes in order to find out the main and most critical reason why the Americas region executes project reporting, how the project reporting process works in practice, how the project reports and summary reports are prepared as well as how the actual project reporting differs from the planned reporting. The fourth interview is in turn done using the questions from appendix 2 which are meant to help the researcher to find out the current status of the group's project reporting and what will be done in the future.

5.2 Research process

The study's research process started in the middle of September 2014 when Company X's Americas region's project management commissioned the researcher to study the present state of project reporting in Company X's Americas region. Prior to this study, during spring 2014, the researcher worked five months as an intern in the company's Shanghai office in China in the project financial reporting team which gave the background for receiving the research topic. The purpose of this section is to describe the study's research process conducted in autumn 2014. In addition, all four interviewees are presented in detail and the study's strict and detailed writing schedule is described in appendix 3.

At the beginning of the study (weeks 38-39), the researcher first aimed to explore and understand literature on management reporting and project management in order to give an understanding of the study's empirical part. During the first two weeks the researcher sent e-mails and had phone calls with the client as to find out which persons would be eligible to partake in the study. Based on these conversations the client proposed the researcher three employees from the Americas region to interview and gave their contact

information to use in the request for the interview. In week 39 the researcher contacted the employees by e-mail and set up interviews for October 2014. Company X's Canada entity was set as the location for the interviews. The researcher started the actual writing of the theory of the study also in week 39 when he also devised the interview questions for the theme interviews (appendix1).

At the beginning of week 40 the researcher sent out interview questions to all three of the interviewees upfront so each of them could look at the questions beforehand and thus produce comprehensive answers for the empirical part of the study. The study's first three interviews were held in week 42 in Company X Canada at the Burlington office. The researcher stayed in Canada for some two weeks in which time the interviews were done. Each interview lasted from an hour up to an hour and a half. The interviews were conducted in the office of the interviewee, transcribed and finally analysed carefully. The interviews were also recorded on the permission of the interviewees so the transcribing would be easier.

The researcher made a brief summary of the results of the interviews in week 43 for the client after which the client proposed an extra interview in their head office in Espoo. In week 43 the researcher contacted by e-mail the fourth interviewee and inquired on his willingness to participate in the study. The study's fourth theme interview was decided to be held in Espoo at the end of November 2014. In week 45 the researcher drafted and sent out the questions for the interview which were based on the information of the first three interviews. The fourth interview was conducted in week 48 at the head office of Company X in Espoo and the interview lasted for about an hour and a half. The interview was recorded and held in the person's own office. It was also transcribed to help with the analyzing. After the interviews the researcher focused on analyzing the results from the interviews from week 49 and finished the theory an empirical part by week 4 of 2015. During the whole research process, the researcher was also supported by three thesis seminars held by the university and constant communication with the supervisor of the thesis.

Table 3 (appendix 4) presents all the four interviewees in detail, including their work experience in the organization in number of years, the current job title as well as the exact date, time and duration of each conducted interview. All these four interviewees were carefully selected company employees who all had a thorough experience and were familiar with the research subject. All interviewees work in managerial positions, three of them in the Americas region and one in Finland, in the EMEA region.

The researcher chose to select interviewees representing different departments and positions in the Company X's Americas region in order to obtain a correct and realistic picture of the region's project reporting. Due to this, interviewees in managerial positions in the Americas region with knowledge related to the region's project reporting were selected. In addition, the aim with these four interviews was to find answers to the study's main research question and three additional questions.

Interviewee A is the head of project implementation and engineering in the Americas region and is currently responsible for the whole region's project reporting. The interviewee has worked for 25 years in the organization and has a good understanding of how the project reporting process is executed in the region. Interviewee B is the head of finance and control of the North & Central America market area. He has worked 3 years in the company and provides the financial perspective to the study. Interviewee C is the head of project controlling of Company X's Canada entity. This interviewee in particular provides an understanding of how the actual project reports and summary reports are made in the region. Interviewee D is the head of project controlling in Finland and belongs to the company's delivery excellence program where they are currently trying to harmonize and automate the group's project reporting. The goal of the interview was to find answers to questions arisen from the first three interviews, and to better understand what the company is currently doing to further improve the project reporting.

5.3 Trustworthiness of the study

As in all research, and naturally in qualitative research too, the researcher tries to avoid making mistakes, and in individual research it is important to assess the reliability of the research. The reliability of the study is usually handled with the terms validity and reliability. (Tuomi & Sarajärvi 2009, 134-136.)

Validity of the research means in practice the methods capability of measuring those things which the study is meant to measure. Reliability means the repeatability of the results. This means the study's capability of giving non-random results. In a qualitative study both of the terms have different interpretations because in a qualitative study all descriptions of humans and culture are unique so there are no two similar cases. This is why reviewing reliability and validity with traditional methods can be challenging. (Hirsjärvi & al. 2009, 231-233.)

The study's validity and reliability in a qualitative study can be enhanced by the researcher's detailed coverage of how he/she has done the study. This includes for example de-

cribing the accurate and truthful nature of the circumstances of the material produced by the study. The study's validity can also be explained by using different kinds of information gathering methods in the study (triangulation). (Hirsjärvi & al. 2009, 231-233.)

For improving the reliability and validity of the study results, the researcher sent out the interview questions to each interviewee two weeks before the interviews. The aim was to give them possibility to familiarize themselves with the interview questions in advance in order to receive more comprehensive answers to the study. Each interview was reserved with enough time as each interview lasted from one hour to an hour and a half. Each interview was also recorded and transcribed. After each interview the obtained material was organized thematically, and subsequently analysed by the researcher. All the interviews were held on Company X's premises and the results of the interviews were supplemented with e-mail conversations to ensure the accuracy of the collected research data. The goal of the data triangulation is to obtain the most comprehensive and reliable description of the Company X's Americas region project reporting process.

6 Project reporting at Company X's Americas region

The sixth chapter includes the empirical part of the thesis and presents the findings conducted through four thematic interviews and the research of Company X's internal and external material. The aim of the chapter is to compare literature sources used in the theoretical framework of the study to the empirical findings, and to answer study's main research question and three additional questions.

This chapter is divided into three sections. The first section focuses to understand the most critical and important reasons why the Americas region executes project reporting to their project management. The second section presents the region's and company's current situation within its project reporting and describes how the project reporting process is executed in the region, and how project reports are made. The last section concludes the chapter by introducing the Americas regions project reporting challenges and the researcher's suggestion for future improvements.

All the interviewed persons represent different positions in the group and their involvement in the reporting procedures varies. This allows the researcher to view reporting from different aspects. Sections 6.1 and 6.2 will be looked at from the viewpoint of interviewees A, B and C and, based on the findings of these interviewees, chapter 6.3 add interviewee D's view on the research.

6.1 Need for project reporting

The aim of this section is to answer the study's first additional research question: Why does Americas region need project reporting? The section provides an employee perspective to understand the most critical and important reasons why the Americas region does project reporting and the benefits which reporting gives to the region.

Based on information given by the interviewees, the need for project reporting is growing all the time in the Americas region as the company is globalizing continuously. Increasing changes in the region's reporting systems and organizational structure provides the need for successful project reporting. Even though the needs of each interviewee vary slightly, interviewee C summarizes well the main purpose why the company and the Americas region executes project reporting: "The most important reason why we do project reporting is because projects are the most important source of the group's income revenue and to execute projects, we need proper project reporting". Each interviewee highlights the fact that project reporting is an important management and decision-making tool for the re-

gion's management and especially necessary to region's all project managers and project's steering groups. The importance of project reporting as a part of decision-making has also been identified by Jyrkkiö and Riistama (2006, 276) as described earlier.

Alhola and Lauslahti (2002, 316) point out that the goal of reporting is to analyze, react to and anticipate the company's operations, and it is thus an important part of the company's controlling system. This affects also the Americas region while both, interviewees A and C emphasize that the region and its three market areas utilize project reporting mainly to control all its ongoing projects which are executed in North, Central, and South American areas. In addition Interviewee B reminds that "through reporting region wants to follow all the time what happens in the project and see how many people are involved into the project during its whole life cycle". Moreover, interviewee A points out that with project reporting, the Americas region's project management is also able to follow and analyze all ongoing projects and their profitability. He also explains how the management can control and monitor possible deviations in the project's profitability and mostly important to see the reasons which causes the deviations as well as react on negative deviations.

According to interviewee C, most of Company X's projects are normally long term projects and may take several calendar years to be completed. This is why reports include different kinds of contractual milestones which express the progress of the project. Through project reporting project management is then able to see the estimated time when the customer will make payments. Interviewee B adds that reporting is needed mainly to control all project related costs and manage project risks. Project reporting also works as a learning tool for future projects as any deviation and risk is analyzed and documented in the report, which makes it possible to avoid making similar mistakes in the future.

Among project reporting objectives stated earlier, interviewee A notes that through project reporting, the Americas region aims to make the regions and the whole group's actions more transparent and visible. For instance, one ongoing project may include several legal country entities from any of three regions or two business areas. Through project reports, the region can eliminate all company-internal purchases. This enables for end-to-end reports including complete scope and fully comprehensive project profitability.

In addition, interviewee A points out that the purpose of project reporting is also to generate necessary background information to the group's sales department, pricing development as well as providing information to the company's different product development units. According to him, for example, cost information on the product at hand can be inter-

nally gathered on a global scale. Overall, providing of background information is to help the company's price competitiveness.

6.2 The current state of project reporting

This section will address the study's second and third additional questions: How is the project reporting process executed in the region? How are project reports and summary reports prepared in the region? The first sub-section provides the background for both additional questions.

6.2.1 Recent changes affecting project reporting

Over the last few years, Company X's Americas region has endured many changes in its operations. Firstly, the group changed its corporate operating model and the organization structure in July 2013. The company's business structure changed into two business areas (Metals, Energy & Water and Minerals Processing) and three geographical regions (Americas, EMEA and APAC). Secondly, the Americas region updated its market area structure in October 2014 from five market areas to three: North & Central America, The Andes and Brazil. (Company X 2014a.)

When analyzing the interviews it became clear that the Americas region's project reporting is currently in a developmental phase. Changes have occurred a lot and in addition to these mentioned above, interviewee C adds that the group has also over the past years implemented a new ERP system (Enterprise Resource Planning system), provided by SAP, globally in the whole organization. According to her, the implementation process is still under deployment in all the company's three regions as well as in the Americas region.

Interviewee A explains that at present, in the Americas region, North & Central America and The Andes market area already have the SAP system implemented. Anyhow, the version will be soon the same in all locations. He specifies that even though the SAP version will be soon the same, there will always be some parts of it tailored to various countries' legal and other needs. Furthermore, the SAP will be implemented on the Brazilian market area during 2015 and in the future also the entire group will use the same SAP version. According to interviewee A, "this will make executing our project reporting a lot more easier and besides allow the possibility to compare activities made by different country entities and market areas of the regions". Moreover, he mentions that also general guidelines for using SAP as well as the way how and what kind of project data should be added into SAP are being unifying globally in the organization. Interviewee A hopes that

“in the future every region within its market areas and entities should then put all the collected project data and information to our SAP the same way as well as collect same type of data and information from every our ongoing project”. He clarifies that after all this aims to make the group’s project reporting process globally more fluent and allows the possibility to compare collected project data and information between entities, market areas and regions as well as business areas.

Among the changes in the group’s and the regions operation and systems, interviewee C acknowledges that lately there have been changes in the region’s actual project reporting. She explains how the whole region has previously used two different kinds of project report Excel templates for executing the project reporting from individual projects. Both templates used before included partly different information and had different layouts and contents, which made project comparing more difficult. According to interviewee A, in August 2014, the Americas region began a piloting process where these two excel report templates were replaced with a new template (appendix 5). He clarifies how the new Excel template is now being used for project reporting executed in the whole Americas region’s market areas for every project, with a contract value of more than one million euros. In the future, the same template will be used globally in the whole organization in 2015 in every project. Overall, interviewee A notices that “currently our region’s implementation process begins to be in a situation where we can finally start to compare executed project reporting between our three market areas and all entities”.

6.2.2 Regions project reporting process

Axson (2007, 139) emphasizes that it is highly important to define who in the organization needs what kind of information and how the information should be organized in the company. Moreover, Alhola and Lauslahti (2002, 319-320) illustrate the example of the organization structure with three different organization levels which describe what kind of reporting each level receives. According to all three interviewees A, B and C, Company X’s Americas region’s project reporting process follows the idea, by dividing their project reporting into a three-step process which is illustrated in figure 6 below.

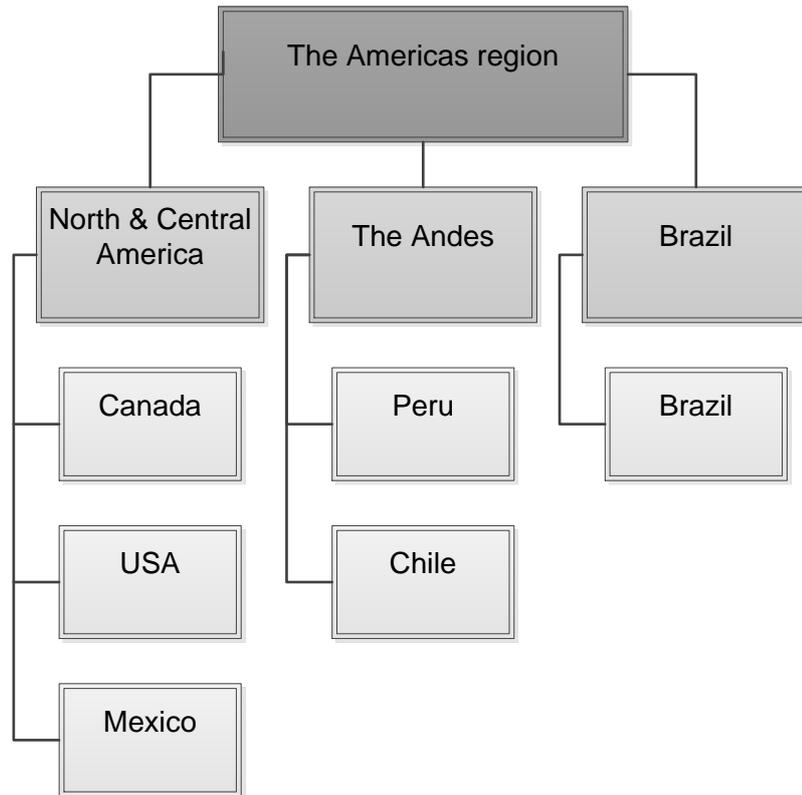


Figure 6. Project reporting levels of Company X's Americas region

Interviewee A explains the regions reporting process as follows: The region consists of three market areas, which in turn are formed of individual legal country entities. The three-step process starts on the region's bottom which can be describes as the first level, where all of these six individual country entities report on all of their ongoing projects once a month to their market area, which is the second level. Hereafter, the market area prepares a market area summary report, which includes all projects conducted in their own entities. Finally, all three market areas' summary reports are collected to the region level summary report, which includes all the executed projects in the whole Americas region. The region level summary report will then be forwarded to the region's own management team, the group's top management, business area managers and controllers and so forth. However, interviewee A stresses that reports only include projects whose contract value is more than one million euros into summary reports. Less than one-million-euro projects are also reported but only in an entity level.

Moreover, interviewee C specifies the first level reporting in the following way: "The actual project reporting after all happens in these legal country entities. Each market area is responsible for all of their own entities projects and reporting. Every individual project has its own named project manager, who is responsible together with the named project controller of the project's actual project reporting and reports correctives".

Company X's reporting process follows Alhola's and Lauslahti's (2002, 324) idea that the company's top management needs to know about company activities and results, but not in a too detailed way. In addition, Jyrkkiö and Riistama (2006, 278) argue that reporting to upper levels normally includes more summaries, something that can be noted also in the Americas region's reporting.

6.2.3 Project reports

Axson (2007, 132) states that the challenge for the project reporting process is to unite and structure all the data into relevant information and then deliver it to the right person at the right time. Furthermore, Axson (2007, 132-133) presents the five steps example on how companies are able to translate their data into useful management information through collection, structuring, storing, transforming and using. This section demonstrates how individual project reports are made in Company X's Canada entity, where the interviews were made. According to interviewee C, the preparing process works mostly the same way in the region's other market areas and entities.

Interviewee C explains Company X Canada's project preparation process as follows: the Canada entity has currently three different business lines with two project controllers in charge. Each of these business lines executes different kind of projects and all these individual projects have a named project manager who is in charge of the whole project. In order to execute proper project reporting, both of these project controllers have to meet their own named project managers from these business lines at least once a month in a meeting, where they together review the current situation with each project.

She highlights that "the main reason why we have these meetings is because project managers can provide then the latest project data and information to the controller who in turn adds all those to the SAP, where all project related information is always stored". The SAP can be described as a data warehouse where both the controller and the manager add and control all the project related information. She explains that "these meetings are necessary because project managers meet the project's customer often and due to this they can then provide continuously updated and correct information about the progress of the project. Our whole project reporting is based on these meetings because controllers have to know all the time what is going on in their each project which they are responsible for". According to interviewee C, steering committee meetings are held once a month, where they all together approve possible bigger changes that will happen in the ongoing projects. Every Company X Canada project manager and controller will participate in the meeting together with the entity's other departments, which have a direct involvement to

the handled project, such as Supply, Legal, Service and Sales departments and the head of the market area.

Interviewee C explains that the project controller is responsible together with the project manager for the project's monthly reporting. Together they prepare a project report of each project using a Bex Analyzer reporting tool. Bex Analyzer is linked directly into SAP, which is the data warehouse of all project information. Through the analyzer all the needed project data can be then transferred into the used Excel template form (appendix 5). When all individual project reports are made, are those all collected by hand together into a market area report, which the head of market areas project controlling and head of project management also prepares once a month. All market area reports are then forwarded to the head of project implementation of the Americas region who in turn collects all these into a region level summary report by hand.

6.3 Project reporting challenges

The purpose of this section is to answer the study's main research question: What are the project reporting challenges in Company X's Americas region? The first sub-section includes the opinions of the first three interviewees about how the project reporting currently works and what kinds of practical problems they face monthly in project reporting. On the basis of these answers, interviewee D was interviewed in order to gain an expert insight into how the organization is currently reacting to the problems and what will be done in the future. The third sub-chapter includes the thesis researcher's own suggestions for future improvements.

6.3.1 Current challenges

Axson (2007, 145) states that it is highly important that the recipient of reports clearly understands what to do with the reports and due to this, reports should always answer the following four questions: What has happened? Why did it happen? What was the impact? What can we do about it? In addition, Alhola and Lauslahti (2002, 325) explain how provided reports must always be easy to read and understandable for their recipients.

Overall, interviewees A, B and C were all quite satisfied with the region's current situation with the project reporting. The reporting process which ends to the region's management works well. Both individual project reports and summary reports include all the necessary information management needs for the decision-making. According to interviewee A, there is at the moment no need for any kind of major changes. There is always the SAP system where entire project related data and information is stored, if a need for additional infor-

mation arises. However, he specifies that “of course there is always room for some kind of improvement and we cannot have an attitude that everything is ready in the reporting process itself and with project reports”.

Furthermore, interviewee C mentions that the SAP is an excellent data warehouse to keep accurate financial information of the projects. It is also an easy and user-friendly system to use when you are familiar with it. All three interviewees were satisfied with the report layouts and contents. According to interviewee B, there is currently no need to add any kind of tables or diagrams to the reports to observe better provided project data and also the structure of reports works well. Moreover, all three interviewees emphasize that reports are usually done on time and the schedules work properly. Therefore it can be concluded that the project reports of Company X meet the key requirements identified for project reports in academic literature.

On the other hand, all three interviewees argue that even though the reporting process works smoothly and the reports include all the necessary information, they have faced challenges in the project report’s preparing process. Reporting is currently very manual and slow. Interviewee C explains how the preparing process is frustrating to the project managers and controllers as the process should be done more automatically. Now they have to fill all the project data from the SAP through Bex Analyzer manually to the project report template which takes a lot of valuable working time. In addition, she states that “currently we have to fill manually every project report field manually using different Excel formulas and macros which is very time-consuming for us.” According to her, the situation is the same in the region’s other market areas and entities. Interviewee B adds that this increases the risk of possible mistakes in reports.”

Interviewee C proposes that the headquarters in Finland should aim to find an answer to how all the needed project data in SAP system could be transferred through Bex Analyzer automatically to the project report Excel template instead of typing all the data to the template step by step. Thus, even though all the interviewees are pleased with the contents and level of depth in the project reports, the actual filling of the project reports raises concerns. There is a clear difference with the perceived quality of the project reporting. From the standpoint of the person analysing the data the reports are well structured and informative, but the person responsible for filling the actual reports face challenges with the template.

6.3.2 Company X's solution to problems in project reporting

According to interviewee D, identified challenges in the Americas regions project preparing process are currently familiar to Company X's headquarters project management in Espoo, Finland. In recent years, the same kind of problems have been encountered also in the company's other two regions and in their market areas. Due to this, Company X has recently started a delivery excellence program in Espoo, of which one purpose is to harmonize and automate the company's project reporting globally in the future.

Interviewee D explains that the program has currently 10 people from different parts of the organization working on the harmonization and automation. In addition, he says that the report preparing process is at the moment very manual and time consuming, and many different project report formats have been used globally over the years. Also the figures reported from projects are not always in balance with the finance figures. He states how in the future, one of the programs targets will be to harmonize the whole organization's project reporting procedures as well as try to automate the projects preparing process as extensively as possible. Interviewee D specifies that with automation they mean that project reports should be done more automatically, directly from the SAP system or from reporting tools to the excel template including as little as possible manual phases with copy pasting from file to file.

Interviewee D explains that the background for these observed challenges is the lack of use for similar reporting standards and systems in the whole organization over the years. He emphasizes that "currently it is a huge problem that different market areas and entities over the world report and has reported before in a bit different ways and therefore the quality of the reported data has varied a lot". He says that it is even a bit frightening to know that some of the entities do not even know what kind of data they need to include into their project reports or add to the SAP system at all. He highlights that this is one of the main reasons why the company wants to develop its project reporting standards and systems.

Interviewee D also explains that this affects the project preparing process which project controllers and project managers execute. Project reports have to be prepared mostly manually because the quality of the added project data in the SAP system is not good enough and there are not all the needed data necessary available. He mentions that, for example, some project data has been stored even in the wrong cost centres, which makes the automation process difficult. In addition, challenges always come up in the project during its life cycle and those changes have to be updated into project reports by hand.

Some of the Company X's projects are also long term and the collected project data from the various years might vary a lot. This affects for example the summary reports because it is difficult to prepare automatically those when some projects includes different kind of information than other ones.

According to interviewee D, in order to make project reporting preparing process more automatic in the future, all the company's employees involved in projects should add correct project data into the system, control and update it correctively during the whole project's life cycle and report in the same way for all projects. He states that this means that every region within market areas should then have the same reporting procedures in use.

Interviewee D emphasizes that they have decided in the delivery excellence program that a global head of project controlling will be named, who will be responsible for the whole project reporting in the organization. The aim is to provide the same project reporting procedures and knowhow to each region and their market areas over the world. In addition project controller roles will be established soon to every entity. Currently some entities do not have any project controllers at all. In the future also all three regions will have the SAP system and will use the same project report excel templates to execute project reporting.

Interviewee D argues that despite of these coming changes, there might occur challenges in the future to find enough qualified people to fill project controllers roles and to be sure that there are enough resources available. In addition, it might be challenging to train company's own employees to use the system in a corrective way. Company X is currently implementing the SAP in the whole organization and the system is completely new for some of the employees. In the beginning it takes some time to get first familiarized with the system.

All in all, in the future it will be extremely important to define what kind of project data and information project controllers and project managers should add to the SAP system and how to control and update the collected project data during the whole projects life cycle. It is clear that the leadership of Company X is well aware of the issues pointed out by the first interviewees.

6.3.3 Researcher's solutions in project reporting

Following the interviews made in Company X's Canada and Finland entities, the challenges related to the Americas regions and the group's project reporting process are clearly identified in the organization. As interviewee D clarifies, the observed challenges are

mainly technical ones which cause the need for manual work in the preparation of reports. Issues are caused by addition of data during the life cycle of the project and the need to modify the data in the SAP system.

From the researcher's point of view the biggest problem is not transferring the data to the project reporting templates but the quality of project data in the SAP system. As stated before, currently a lot of the data is filled into wrong cost centres in SAP and the practices of inputting data are not unified which causes the SAP data to be unreliable and the current status in some entities was describes as "frightening". Therefore Company X should put more emphasis on the underlying cause of the problem, the quality of the data, compared to the problems related with the transfer of data to the project report templates. No matter how easily the data can be extracted from SAP to the project reporting templates, if the quality of the data is poor, then the project reports lose their value.

As projects are by nature long term, incorrectly added project data can influence the reliability of the project reports for many years. Therefore it is paramount to harmonize project reporting procedures in all three regions and create common rules to all project managers and project controllers on how to use the SAP system, add project data as well as control and update all the existing data during the project's life cycle.

The conductor of this study proposes that Company X and the Americas region should divide its future developmental objectives into short and long term objectives. In the short term category, employees training and initiation is in an important aspect and the Americas region should make the project controllers and project managers understand the underlying reasons which cause the reporting to be done manually. In the long term category, on the other hand, the Americas region and the company need to ensure that there will be enough resources available to execute all upcoming changes. In addition, it is important to define what kind of data they want to include in the project reports in the future.

In both the short and long term the organization and the Americas region need to be fully committed to the ongoing change process. Furthermore, Company X have to define a clear vision and strategy on how it can execute the set goals and ensure the resources needed for it. This requires successful change management and open communication from the operative and project management. Efficient change management is especially important when new business models are driven into the organization. The company must involve the employees into the change and get them to understand the reasons behind the changes are being made and how they will further improve the organizations project reporting in the future.

The researcher sees the approach taken by Company X to be too much focused on fixing the need for manual filling of project reports and more emphasis should be put into the quality of data. Automating the project report filling process does not remove the underlying cause related to the varying data input practices around the region. Unreliability of the project data and financial figures in project reports diminishes the benefits of analyzing the project reports. Even though interviewee D makes excellent points regarding data management the approach of the delivery excellence program seems to be too focused on process automation.

7 Discussion

The need for proper project reporting is clearly growing all the time in the Americas region as the company is globalizing continuously. Over the last years, the region and the group has endured from many major structural changes made in the organization's operating culture and in unifying enterprise resource planning systems. Region's project reporting has been considered very manual and therefore time consuming for the employees, especially to all project controllers and project managers. Furthermore, many market areas and country entities have used their own project reporting formats, and the figures reported from projects worldwide have not been necessary directly linked to the company's income statement and balance sheet figures.

The purpose of this bachelor's thesis was to research how project reporting is executed in Company X's Americas region and how the results of the reporting process end up to the directors responsible for the whole region's project management. The aim was to give a holistic and detailed picture of the reporting process with its challenges and to utilize available literature about management reporting and project management to support the thesis making. To reach all these objectives, the main research question of the study and three additional questions were devised.

As presented, the Americas region executes project reporting mainly to control and follow all of its ongoing projects and it is considered as an important management and decision-making tool for the regions management. It also works as a learning tool for future projects and aims to make the regions actions more transparent and visible. The reporting process is conducted in three steps. Each region's country entities report on all of their ongoing projects once a month to their market areas. Hereafter, the market area prepares a market area summary report, which includes all projects conducted in their own entities. Thereafter, all summary reports are collected to the region level summary report, which includes all the executed projects in the whole Americas region. The region level summary report will then be forwarded to the region's own management team, the group's top management, business area managers and controllers. Each country entities have their own project controllers who are responsible together with the project managers of the projects' monthly reporting. Each individual project report is prepared using a Bex Analyzer reporting tool which is linked directly into SAP, which is the data warehouse of all project information. Through the analyzer all the needed project data can be transferred into the project report Excel template.

The key findings of the study declare that Company X's Americas region's project reporting is currently in a development phase. Even though the reporting process works well and the reports include all the necessary information for the decision-making, the Americas region's management has observed challenges in the project report's preparing process. Challenges were mostly technical as the actual filling of the project data to the project reports was illustrated to be too manual and time-consuming as the process should be done more automatically. At the moment, project managers and project controllers have to fill all the project data from the SAP through Bex Analyzer manually to the project report template using different Excel formulas and macros, which increases the risk of possible mistakes in the reports.

The interview in Finland declared that project reports have to be prepared mostly manually because the quality of the added project data in the SAP system is not good enough. There are not all the needed data necessary available and some project data has been stored even in the wrong cost center, which makes the automation process challenging. The background for these challenges is the lack of use of similar reporting standards and systems worldwide over the years in every region. In order to make project report preparing process more automatic, all the employees involved in projects should add correct project data into the system, control and update it correctively during the whole project's life cycle and report the same way for all projects. Due to this, Company X has recently started a delivery excellence program, of which one purpose is to globally harmonize and automate the company's project reporting in the future.

The researcher's own opinion was that the approach taken by Company X is currently attended too much on fixing the need for manual filling of project reports and more emphasis should be put into the quality of project data in SAP system. Automating the project report filling process does not remove the underlying cause related to the varying data input practices around the region. Unreliability of the project data and financial figures in project reports diminishes the benefits of analyzing the project reports and the approach of the delivery excellence program seems to be too focused on process automation.

Based on the interviewees it can be clearly observed that the Americas region is satisfied with the performance of its project reporting process in a general level. Moreover, project reports' contents and layouts meet the needs set by the region's management. In practice, the region's management sees the challenges merely in the preparation process of project reports. The causes for these problems are regarded as being out of the region's control and therefore the development process should be done more in the group's headquarters than inside the region itself.

Researcher's opinion is that the Americas region is not necessary aware that the reasons which cause the manual filling are resulted from the added project data in SAP system. However, the company's headquarters have clearly identified the challenges as well as the reasons which cause the problems and they have already taken further action. Based on the results of the research it can be observed that the project reporting in the Americas region and in the other two regions might not function as well as the group believes it does. In the future it will be extremely important, that the reasons behind all these challenges are being informed to the regions and their project employees. The Americas region and other regions need to focus to the quality of added project data instead focusing too much to the process automation. Incorrect project data can otherwise cause lack of confidence in the future between project controllers and project management and may cause the management to make incorrect decisions based on inadequate information.

The results of the study are extremely significant to the Americas region as well as to the whole group to assist in developing company's future activities. The development of project reporting is an extremely current topic for the whole organization due to the recent and future changes in the organization. The transitional period is also an excellent time for developing the reporting process. Improving the quality of the project data will further improve the automation.

The study's researcher tried to research the case as objectively as possible in order to give reliable results to the Company X Americas region's project management. However, the trustworthiness of the study has been weakened by the low number of interviewees' compared to the size of the Americas region. Because of the large distance and scheduling problems it was only possible to interview three persons in the Americas region. In addition, the headquarters perspective was represented only through one interviewee. It would have benefitted the study to perform a few additional interviews in Finland if it would have been possible.

The interviewees have not necessarily told everything about the current status of project reporting because of the sample size of the study. Each individual's subjective views on the project reporting have influenced the results of the study greatly. The reliability of the study has been tried to improve by asking questions that are as objective as possible and by asking good and critical questions. This has been possible because of the flexibility of the thematic interview. Two interviews that were performed in the Americas region were made in English which was not the native tongue for the interviewer or the interviewee. Reliability has been tried to be improved by sending summaries of the results of the interview to the interviewees afterwards. The client has also read the empirical part of the

study after it was finished to account for its reliability and accountability. The researcher also tried to improve on the reliability of the study by describing in detail how the work has been done and enriched the empirical part by direct quotes from the interviewees. The researcher has also used triangulation in collecting the research data. The researcher also had full access to the company's intranet for getting up-to-date information to support the study results. The researcher has also worked with project reporting which has founded a base for understanding the reporting of Company X. The theory part of the study has also improved on the academic knowledge of the subject and thus helped the researcher understand what was worth studying.

The researcher also sees future development possibilities for the research subject. Project reporting and its harmonizing is a very current topic at the organization and in the Americas region. The current state of reporting would be a very important thing to study by interviewing project managers on a great volume which would give the study a different perspective than the management's perspective. Project reporting should also be studied in the other two regions of the company so that the problems could be confirmed to exist also elsewhere. In the future the delivery excellence program could also be studied and examined, especially the question of how it has or has not reached its wanted results.

The researcher himself has developed tremendously on the subject of studies and research programs and executing project reporting in a large global corporation. The study process has been arduous and time consuming because of among other things the subject's challenging nature and the distance to the actual research subject. The researcher has undergone a substantial change in the actual research process at the beginning part of the study. The original goal of the study was to dig deeper into the actual project reports and their contents. The researcher soon found out that the original goal of the researcher wasn't so meaningful to the client because problems were occurring during the process of making the reports, not so much in the contents of the reports.

The process went almost on schedule that was made in August 2014. The original planned time to complete the study was at the end of January, but was stretched for about a month because of the researcher's own work. The stretching of the schedule was not viewed as problematic because the availability of the results was not viewed as critical. The researcher thinks he has done well in selecting the subject for the study and the study has been challenging enough. The goals were met despite being a bit late on the deadline and the client has been pleased with the results.

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Appendices

Appendix 1. Interview questions (Canada)

1. Can you in short explain what do you do at Company X? How long have you worked for the organization?
2. Why Company X Americas region executes project reporting? What kind of benefits the region achieves?
3. Describe with your own words how the region's project reporting process works in practice.
 - a. Who in the region participates to the reporting process?
 - b. What is the current situation with the region's project reporting?
 - c. How the changes in the organization structure have affected to the project reporting?
4. Describe how project reports and project summary reports are prepared in the Americas region.
 - a. Who are responsible for the project reporting?
 - b. What kind of systems and tools do you use to execute project reporting?
 - c. What do you think about report layouts and contents? Comprehensive and easy to read? If yes, why? If not, why? What should be improving upon?
 - d. Where the reporting data is gathered from?
 - e. Is project reporting done often enough?
5. How does actual project reporting differ from the planned project reporting?
 - a. What kind of challenges are typically faced in the project reporting?
 - b. Is there a particular area which needs improvement?

Appendix 2. Interview questions (Finland)

1. Can you in short explain what do you do at Company X? How long have you worked for the organization?

2. Can you describe the current situation with the group's project reporting?
 - a. Are the challenges faced with project reporting in the Americas region familiar to you?
 - b. Are these challenges similar with the challenge in the other two regions?

3. What is Company X currently doing to improve the current situation with the project reporting? Project reporting in the Americas region was viewed as very manual and time-consuming.

4. What kind of challenges will Company X face in the future within its project reporting? How the company will avoid possible challenges?

Appendix 3. Thesis schedule

Year	Week(s)	Topic
2014	37	- Commissioning from Company X's Americas region's project management
	38	- Contacting the client - Familiarizing with the study subject
	39	- Communicating with the client - Interview requests by e-mail - Preparation of the interview questions - Starting the theoretical part of the study (chapter 2)
	40	- Sending of the interview questions - Theory (chapter 3)
	41	- Theory (chapter 3)
	42	- Interviews (Canada) - Analysing and transcribing the results
	43	- Summary for the client - Interview request by e-mail
	44	- Analysing the results - Theory (chapter 3-4)
	45	- Preparation of the interview questions - Sending of the interview questions - Theory (chapter 4)
	46-47	- Theory (chapter 4)
	48	- Conducting the interview in Finland - Analyzing and transcribing the results - Summary for the client
	49	- Analysing the results
2015	50-4	- Theory (chapter 5) - Empirical part (chapter 6)
	5-7	- Finishing the study and returning it

Appendix 4. Interview details

Inter- viewee	Title	Date & Lo- cation	Form of inter- view & Dura- tion	Years in the or- ganiza- tion	Interview language
A	Head of Project implementation and Engineering – Americas region	Burlington – Canada (14.10.2014)	Thematic inter- view – (1:20h)	25	Finnish
B	Head of Finance and Control – North and Central Ameri- ca	Burlington – Canada (14.10.2014)	Thematic inter- view – (1:07h)	3	English
C	Head of Project Controlling - Cana- da	Burlington – Canada (14.10.2014)	Thematic inter- view – (1:30h)	12	English
D	Head of Project Controlling – Fin- land	Espoo - Fin- land (24.11.2014)	Thematic inter- view – (1:30h)	6,5	Finnish

Appendix 5. Project report template of an individual project

This appendix is concealed.