



Norwegian School of Economics

Bergen, Fall 2015



# **What makes employees trust forecasted numbers?**

**A case study on how employees make sense of the rolling forecasting process and its effect on trust**

**Malene Austrheim & Sonja Lee Solheim**

**Supervisor: Katarina Kaarbøe**

Master thesis in Business Analysis and Performance Management (BUS) and  
Financial Economics (FIE)

NORWEGIAN SCHOOL OF ECONOMICS

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

## Abstract

Volatile and changing market conditions have made financial planning tools of increasing importance for managers and practitioners. In recent years, the use of traditional budgets has been criticised as a management control tool. New management tools such as rolling forecasts have arisen. The purpose of this study is to explore how the rolling forecasting process affects trust in an organization. According to Bergstrand (2009) it is important for managers to trust each other in order to get the rolling forecast process to work efficiently. This is in line with Starovic & Jackson (2004) who argue that trust needs to be present in an organization for the systems to work effectively.

This thesis is a case study exploring the practice of rolling forecasts within an organization – namely DNV GL. Through qualitative research method, the study aims to get an in-depth understanding of how the rolling forecasting process is understood and how that influences trust. Specifically we investigate: a) How employees make sense of the new financial planning process after introducing rolling forecasts, b) how employees experience that the rolling forecasting process facilitates trust between levels, c) if employees perceive any factors as challenging trust in the forecasting process.

Our main findings show that rolling forecasting process influence trust in an organization. Trust is both facilitated and challenged as a consequence of the use of this management tool. By looking at trust through the concepts of ability, benevolence and integrity we are able to identify more specifically what aspects of trust that are influenced. Rolling forecasting process is understood as facilitating ability at all levels in the organization. On the other hand, trust in relation to integrity is only found facilitated at the higher levels in the organization. We explain these findings by looking at the lower level's understanding of the rolling forecasting process, which differs from the other levels. Rolling forecasting process challenges trust in terms of integrity and benevolence. Integrity is found challenged only at the higher levels. Benevolence is challenged at the lower levels as a result of gaming related behaviour. The thesis finds that the facilitation or challenge of trust is important as it influences how the employees use the forecasted numbers.

## Acknowledgement

This thesis is written as a part of the Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH), and our majors in Business Analysis and Performance Management (BUS) and Financial Economics (FIN). The thesis is written as a part of the research program, FOCUS at NHH. We are both grateful for, and humbled by, being selected to be a part of this research program. It has given us valuable insight in conducting research and in writing this master thesis. The work on this research has been both interesting and educational, and we have acquired new valuable knowledge.

We would like to thank DNV GL for the good cooperation and facilitating for the conduction of this thesis, by letting us have access to the organization. It has given valuable insights to how trust in an organization can be facilitated or challenged through management tools. A special thanks goes to the Tim Ward, we would not be able to have such valuable insight in the organization without his help.

We would like to express our sincere gratitude to our supervisor Katarina Kaarbøe, for great discussions, constructive meetings and guidance. The meetings organized with fellow students to share ideas and enhance learning were also highly valued. We are thankful for Kaarbøe's positive view on this journey and how she has transferred that feeling to us throughout this semester. Kaarbøe has taught us how to increase value of our study and how to improve our academic potential. We greatly appreciate her help.

Last, but not least, we offer our warmest thanks for our families, friends and fellow students for their continuous assistance and support.

Oppegård, 20<sup>th</sup> December

Malene Austrheim

Sonja Lee Solheim

## Content

<b>ABSTRACT .....</b>	<b>2</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>3</b>
<b>1. INTRODUCTION.....</b>	<b>6</b>
1.1 REPORT BACKGROUND .....	6
1.2 PROBLEM STATEMENT .....	7
1.3 RELEVANCE AND PURPOSE .....	7
1.4 EMPIRICS .....	8
1.5 SHORTCOMINGS AND LIMITATIONS .....	9
1.6 STRUCTURE .....	11
<b>2. THEORETICAL PERSPECTIVE .....</b>	<b>11</b>
2.1 MANAGEMENT CONTROL .....	11
2.2 TRADITIONAL MANAGEMENT AND BUDGETING .....	12
2.2.1 <i>Budgets as a Management Control System</i> .....	13
2.2.2 <i>The Relevance Lost Debate</i> .....	14
2.2.3 <i>Criticisms of the budget</i> .....	15
2.3 DYNAMIC MANAGEMENT CONTROL.....	16
2.3.1 <i>Beyond Budgeting</i> .....	16
2.4 ROLLING FORECASTS .....	18
2.4.1 <i>What is rolling forecasts?</i> .....	18
2.4.2 <i>Developing rolling forecast</i> .....	19
2.4.3 <i>Strengths and Weaknesses with Rolling Forecasts</i> .....	21
2.5 TRUST.....	25
2.5.1 <i>Ability</i> .....	27
2.5.2 <i>Benevolence</i> .....	28
2.5.3 <i>Integrity</i> .....	29
2.6 THEORETICAL FRAMEWORK – SENSEMAKING THEORY .....	33
2.7 CONCEPTUAL MODEL.....	34
<b>3. METHODOLOGY .....</b>	<b>36</b>
3.1 DNV GL AS A STUDY OBJECT .....	37
3.2 RESEARCH PHILOSOPHY, DESIGN AND APPROACH .....	38
3.2.1 <i>Research philosophy</i> .....	38
3.2.2 <i>Research design</i> .....	40
3.2.3 <i>Research approach</i> .....	41
3.3 RESEARCH STRATEGY.....	42
3.3.1 <i>Data collection</i> .....	43
3.3.2 <i>Interviews</i> .....	46
3.3.3 <i>Analysing the data</i> .....	49
3.4 EVALUATION OF THE CHOSEN METHODOLOGY.....	49
3.4.1 <i>Reliability</i> .....	50
3.4.2 <i>Validity</i> .....	52
3.5 ETHICAL ISSUES.....	54
<b>4. EMPIRICAL SETTINGS .....</b>	<b>56</b>
4.1 EMPIRICAL BACKGROUND.....	56
4.2 EMPIRICAL FINDINGS.....	61
4.2.1 <i>Rolling forecasts in action</i> .....	61
4.2.2 <i>Perceived advantages with rolling forecasts</i> .....	69
4.2.3 <i>Perceived weaknesses with rolling forecasts</i> .....	73
<b>5. ANALYSIS .....</b>	<b>77</b>

1. HOW DO EMPLOYEES MAKE SENSE OF THE NEW FINANCIAL PLANNING PROCESS AFTER INTRODUCING ROLLING FORECASTS? .....	77
2. DO EMPLOYEES EXPERIENCE THAT THE ROLLING FORECASTING PROCESS FACILITATES TRUST BETWEEN LEVELS? .....	85
3. DO EMPLOYEES PERCEIVE ANY FACTORS AS CHALLENGING TRUST IN THE ROLLING FORECASTING PROCESS? .....	90
HOW DO EMPLOYEES MAKE SENSE OF THE ROLLING FORECASTING PROCESS AND HOW DOES THAT INFLUENCE TRUST IN THE FORECASTED NUMBERS? .....	97
<b>6. CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH .....</b>	<b>102</b>
<i>How do employees make sense of the new financial planning process after introducing rolling forecasts? .....</i>	<i>102</i>
<i>Do employees experience that the rolling forecasting process facilitates trust between levels? .....</i>	<i>103</i>
<i>Do employees perceive any factors as challenging trust in the forecasting process? .....</i>	<i>103</i>
<i>How do employees make sense of the rolling forecasting process and how do that influence trust in forecasted numbers? .....</i>	<i>104</i>
6.2 IMPLICATIONS FOR DNV GL .....	105
6.3 FURTHER RESEARCH .....	106
<b>7. APPENDIX INTERVIEW GUIDE .....</b>	<b>108</b>
<b>8. REFERENCES .....</b>	<b>113</b>
EDMONDSON, AMY. (1999). PSYCHOLOGICAL SAFETY AND LEARNING BEHAVIOR IN WORK TEAMS. <i>ADMINISTRATIVE SCIENCE QUARTERLY</i> , 44(2), 350-383. ....	116
<b>9. LIST OF FIGURES AND TABLES: .....</b>	<b>125</b>
LIST OF FIGURES: .....	125
LIST OF TABLES: .....	125

## **1. INTRODUCTION**

The introduction aims to present the background for the study and introduce the problem statement as well as the purposes and the relevance of the study. Thereafter follows a brief introduction of empirics, shortages and limitations and a description of the structure of the thesis.

### **1.1 Report background**

Budgeting is described as a cornerstone of management control processes, and the most common accounting tool (Ekholm & Wallin, 2000; Tanlu, 2007). Volatile and changing market conditions have made financial planning tools of increasing importance for managers and practitioners. In recent years, the use of traditional budgets has been criticised as a management control tool. According to Hope and Fraser (2003) one of the main problems with budgets and fixed performance contracts is that they assume an absence of trust. The literature suggests a number of new tools to make organization's management accounting and control functions forward looking, such as: Activity Based Costing, Rolling Forecasts and Beyond Budgeting (Bergstrand, 2009; Bogsnes, 2009). Bergstrand (2009) defines rolling forecasts as projections of a small number of key variables that are updated on a rolling basis. There is an increased numbers of companies adopting rolling forecasts as a part of the Beyond Budgeting model (Bogsnes, 2009), and the main reason is to become more adaptive and hence can better support company planning and control processes.

According to Bergstrand (2009) it is important for managers to trust each other in order to get the rolling forecast process to work efficiently (Bergstrand, 2009). This is in line with Starovic & Jackson (2004) who argue that trust needs to be present in an organization for the systems to work effectively. McAllister (1995) defines trust as the "extent to which a person is confident in and willing to act on the basis of the words, actions and decisions of another".

The background for this thesis is that research has provided little knowledge on the relationship between rolling forecasts, as a management tool, and the trust between individuals in the organizations, beyond the fact that trust is a prerequisite. What happens if the management tool does not work efficiently, does that affect trust? There is little research on how a management control system itself affects and influences the trust in an organization. We wanted to understand if a change in financial planning system influences how

management rely on the forecasted numbers and process. Sensemaking theory will be applied in this thesis to see how different perceptions affect employees' thoughts and actions (Stensaker, 2002). In order to rely on these numbers you have to perceive the people and the process involved as trustworthy. Trustworthy will be characterized by benevolence, integrity and ability (Mayer, Davis & Schoorman, 1995).

## 1.2 Problem statement

In cooperation with the Future-Oriented Corporate Solutions program (FOCUS) at NHH this thesis will attempt to answer the following overarching research question:

***How do employees make sense of the rolling forecasting process and how does that influence trust in forecasted numbers?***

More specifically the thesis will explain how employees responsible for the rolling forecasting process for their unit perceive the financial planning process, and how that affects the usage. Further we will explore how the management tool influence the employees' trust in the forecasted numbers.

In order to answer this overarching research question we aim to answer the following questions:

- 1) How do employees make sense of the new financial planning process after introducing rolling forecasts?
- 2) Do employees experience that the rolling forecasting process facilitates trust between levels?
- 3) Do employees perceive any factors as challenging trust in the forecasting process?

## 1.3 Relevance and purpose

The purpose of this study is to explore how the rolling forecasting process affects trust in an organization. Trust is considered essential for employees to act upon the forecasted numbers. This is in line with theory of Mayer and Davis (1999) who argues that only when an employee perceives another employee as trustworthy, he will perceive the information from that employee as relevant and act accordingly upon the basis of the information. We therefore

find it necessary to understand what makes employees responsible for the financial planning process have trust in numbers and information given by the level below. It is also important to consider what makes a subordinate trust a superior, in order to avoid incentives for dysfunctional behaviour. By understanding what facilitates and challenges trust in the organization, the value of the management tool can be increased.

According to theory, rolling forecasts should empower front-line managers by giving them the responsibility to collect data first-hand and forecast for their unit (Bergstrand, 2009). These numbers are reported to the level above, which aggregates several forecasts and reports an aggregated forecast to the level further above. This process is carried out until it reaches top-management (Hope & Fraser, 2003). According to theory, these forecasted numbers are valuable the people who have created them are closest to the business at every level. If distrusts exists between the employees involved at different levels, it may lead to gaming behaviour, employees creating their own numbers instead of cooperating or reverting to old management control practises. All of this would decrease the efficiency and deteriorate the perceived advantages of the rolling forecasting process.

The purpose of this thesis is not to highlight the differences between traditional budgets and rolling forecasts. Instead, we use a sense-making perspective with the aim of identifying the aspects which employees themselves find facilitating or challenging trust in this process. Some aspects may prove to be more challenged at higher levels, and we will suggest explanations and solutions for this. These findings might be relevant for organizations that are looking into implementing rolling forecasts, by providing information of possible formal and in-formal consequences the findings might have on the process and the outcome of it. This will further be of value in understanding how an organization can succeed with rolling forecasts.

## 1.4 Empirics

This thesis builds upon a qualitative case study conducted within one single organization. It is set in the context of a large international company within the maritime, oil and gas and energy industries, DNV GL. The fall of 2013, DNV GL implemented a new business performance management model inspired by Beyond Budgeting practices. It is named Dynamic Forecasting and the organization defines it as; “A forward looking forecasting model that



separates the traditional budgeting elements of target setting, forecasting and resource allocation, while extending the planning horizon beyond the conventional 12 month budget cycle”. The more recent implementation of the process gave us the ability to ask questions regarding the earlier financial planning processes in order to see how the employees understand the differences between the traditional budget and the use of rolling forecasts. Qualitative interviews have been conducted with employees responsible for the rolling forecast process at different levels in different business areas in DNV GL. The respondents represent the Business Area level, Regional level and Area level, where Business Area level is the closest to Corporate level. This has enabled us to explore how the rolling forecast process is made sense of at the different levels, in order to see if that has an effect on the trust in the process and the forecasted numbers.

### **1.5 Shortcomings and limitations**

There are shortcomings and limitations to this research that concerns its generalizability, the variation in data and the time perspective.

Generalizability and applicability to other organizations are problematic because the research is based upon one single case study of DNV GL. Even within an industry, the management control systems and planning processes are highly dependent on contextual and situational factors. However, the purpose of this research is to understand the particular case in depth. This study looks closer at what facilitates and challenges trust in the forecasted numbers, and thus the employees’ willingness to make use of the forecasts as a management tool. By analysing how different employees make sense of aspects as facilitating or challenging trust, it may lead to conclusions that can be of value to other companies trying to succeed in the use of rolling forecasts.

This study is based upon interviews with representatives in four different business areas in DNV GL. The four business areas are within different industries with clearly differences in business characteristics, which will be further described in chapter 4.1. Despite the different characteristics, we do not find any clear differences between the business areas in what facilitates and challenges trust. This finding may suggest that the aspects of the process that influence trust can be of similar nature across industries. As the study finds factors that are particularly facilitating and challenging to trust, it might be reasonable to assume, that the conclusions emerging from this thesis, will be relevant and beneficial to other organizations

that have implemented, or are in the process of implementing rolling forecasts as a management tool.

DNV and GL merged to DNV GL in 2013 and this integration process may have had great impact on managerial processes in the organisation. However the effect of the merger was discussed in the interviews, and our finding did not show that consequences of the merger had an impact on challenging or facilitating trust in the rolling forecasting process.

We find that there are still several challenges related to the use of rolling forecasts in DNV GL. If the rolling forecast process was implemented more successfully, there are reasons to believe that some of the aspects facilitating and challenging trust would have been different. However, we still find it relevant to study these aspects, as many organizations that introduce rolling forecasts do not succeed (Hope, 2010). It will thus be important to recognize how a less successful implementation may influence the employees' trust in the forecasted numbers and the process in total.

The analysis is based upon interviews from three levels in the organization. Out of the twelve interviews, the Area level is represented by only one respondent. This is a limitation to our data material as the findings could have been different if the sample consisted of more respondents from this level. The reader should therefore keep in mind that the conclusions drawn at Area level are greatly affected by this one respondent. However, the research seek to gain an understanding of how employees make sense of the rolling forecasts and the perceived effect on trust, and each employee's perceptions are therefore considered valuable.

The time perspective of this research may cause limitations to our findings. Conducting the study at a different point in time, or over a longer period, might have provided different findings. Rolling forecast was introduced to the organization the fall of 2013, and the organization are still working on improving the process and the usage of rolling forecasts as a management tool. In 2013 DNV and GL were merged into one single organization, DNV GL, and some its units are still in the process of consolidating. Some units are still working in two financial systems, which makes the use of rolling forecast harder than if the consolidating activities were finished. There is also a possibility that the introduction of rolling forecasts in favour of traditional budgets, has affected the employees to be more critical to budgets than employees in other organizations. In addition, the thesis is limited to looking at respondent's own experiences through a sensemaking perspective and not financial data.

## **1.6 Structure**

This thesis is structured into six chapters. The first chapter serves as an introduction by describing topic and background. In addition, the problem statement is presented, as well as shortcoming and limitations and how the thesis is structured. The second chapter presents the theoretical perspective this thesis is built upon. The third chapter outlines the methodology used in the thesis, with the validity and reliability of the study discussed in this context.

The empirical settings are described in chapter four. This includes empirical background and empirical findings. The fifth chapter is analysis and discussions of the findings. It is analysed how the employees in DNV GL make sense of the rolling forecasting process. Several aspects that facilitate and challenges trust are discussed in order to answer the three research questions. Finally, the sixth chapter serves a summary of the main findings. This chapter also includes concluding remarks, as well as suggestions for future research.

## **2. Theoretical perspective**

The purpose of this chapter is to present the theoretical framework for this thesis, which together with central concepts and definitions will form the basis for the analysis. The chapter starts with an introduction of traditional management systems, focusing on traditional budgeting, followed by criticism in connection to this. Next is an introduction of more dynamic management systems, introducing Beyond Budgeting and focusing on rolling forecasts as a management tool. Finally, the concept of trust will be presented.

### **2.1 Management Control**

Management control systems provide information that is intended to be useful to managers in performing their jobs and to assist organizations in developing and maintaining viable patterns of behaviour (Otley, 1999). Management control systems aims to influence the

behaviour of organizational actors in order to ensure that the strategies of the organization can be fulfilled (Merchant & Van der Stede, 2012; Anthony & Govindarajan, 2007). Thus, the purpose of a management control system is helping managers leading large organizations to provide efficient processes (Bergstrand, 2009). It involves a variety of activities including planning, coordinating activities, communicating information, evaluating information, deciding which actions should be taken and at last influencing people to change their behaviour (Anthony & Govindarajan, 2007). It has been argued that definitions considering management control systems need to be revised in order to accommodate the changed business environment in recent years. The discussions concerning traditional management and dynamic management control will distinguish this further in the thesis. (Langfield-Smith, 1997)

## **2.2 Traditional management and budgeting**

Under traditional management control systems, top management determines the mission, vision, values and strategic goals for the organization (Cohen & Haney, 1994). Traditional management is often related to strict hierarchy structures, where managers exercise top-down “command and control” to maximize the profit of the organization through efficient and standardize processes (Daft, Murphy, & Willmott, 2010). The reason for this exercise of control is that top management expects managers and workers to have their own agenda, instead of following the policies, values and goals of the organization (Cohen & Haney, 1994). These control systems are based on formalized information-based activities, where budgets are often considered the core activity for managing costs, activities, and control (Daft et al., 2010). Accounting information in traditional management systems is developed on the basis of the historic cost principle, which is also the foundation for decisions in the organization (Kaplan, 1984).

Budgeting has traditionally been organizations’ most central control mechanism, as it is one of the few techniques capable of integrating the whole scope of organizational activity into a single coherent summary (Otley, 1999). Target setting has long been seen as an important part of budgeting with both the process (e.g. participation) and the outcome (e.g. target difficulty) being the subject of behavioural accounting research. Clearly, much of the influence of performance evaluation is driven by the desire of managers to please their superiors and thus gain some form of reward (Otley, 1999).

### 2.2.1 Budgets as a Management Control System

Empirical studies indicate that budgeting is still the dominant method of profit planning and control (Libby & Lindsey, 2010; Sandalgaard, 2012). Some researchers argue that budgets are useful for organizations (Ekholm & Wallin, 2000; Libby & Lindsey, 2010), while other argues budgets leads to dysfunctional behaviour (Wallander, 1999; Hope & Fraser, 2003).

Budgets are traditionally defined as a short-term business plan, and they are typically expressed in financial terms (Bourmistrov & Kaarbøe, 2013). Budgets usually have set targets for profit centres and are created for a specific period, usually covering twelve months (Bergstrand, 2009). Theory shows numerous of reasons to budget, one of them being assigning responsibility (Anthony & Govindarajan, 2006). Budgets also serve the important task of coordinating activities among departments (Bourmistrov & Kaarbøe, 2013). Budgets will further help for other purposes, as for operational planning, strategy formation, communication of goals and performance evaluation (Hansen & Van der Stede, 2004). Tanlu (2007) suggests that the most essential purpose of budgeting is expressing top managers' strategy and goals through target setting, planning, and resource allocation.

Drury (2012) argues that the annual budget should be set within the context of longer-term plans, in order for the organization to be able to reach their strategic goals. The annual budget will be concerned with the detailed implementation of the long-term plan for the upcoming year (Drury, 2012). The process of making budgets will vary in level of detail, time spent, format and number of employees included, across organizations (Bergstrand, 2009; Hope & Fraser, 2003). Research shows that the information-gathering process can be bottom-up, top-down or a combination of those, depending on the organizational structure (Anthony & Govindarajan, 2004; Tanlu, 2007). The organizational level for confirming the budget could be a budgeting committee, the board or the CEO (Bergstrand, 2009).

According to Rachlin (1999) budgets provides the ability to control current performance. This is achieved through periodic monitoring of actual performance versus budgeted outcome, which enables an organization to adjust to changes from the budget by shifting resources when needed (Rachlin, 1999). Managers are typically measured by actual outcomes versus budget. Thus, the budget has an incentive role, as it is used for compensation and performance evaluation (Tanlu, 2007). The budget informs the managers of how well they are performing in meeting targets that they have previously been participating in setting (Drury, 2012).

Rachlin (1999) suggests that a consensus on strategies, ideas and directions are developed through the budgeting process. It is important to understand the goals set by the organization, and budgets provide a total plan for the upcoming activities in an organization for the following period. This enables top managers with sufficient information to make sure the organization is moving in the right direction (Bergstrand, 2009; Rachlin, 1999).

Organizations are searching for more flexible management tools in order to cope with the increased environmental uncertainty. In a constantly changing business environment, the traditional budget meet criticism related to the cost of preparing budgets and the gaming associated with the budgeting process, among others.

### **2.2.2 The Relevance Lost Debate**

In the late 80s the American professors Thomas H. Johnson and Robert S. Kaplan initiated the so-called Relevance Lost Debate. The essence of the debate was that private corporations did not produce relevant management data for decision makers. According to Johnson and Kaplan (1978) management accounting information was produced too late, too aggregated and too distorted to be relevant for managers' planning and control decisions. Management accounting reports were of little help to operating managers attempting to reduce costs and improve productivity. Frequently, the reports decreased productivity because they required operating managers to spend time trying to understand and explain reported variances that had little to do with the economic and technological reality of their operations. In addition, the systems were unsuitable to communicate what should be emphasised to evaluate business performance (Bjørnenak, 2009).

One of the central issues in the first part of the Relevance Lost Debate was the lack of knowledge on where money was made. Thus followed several management accounting innovations such as Activity Based Accounting (ABC), Target Costing and Economic Value Added (EVA). The central focus of the second part of the Relevance Lost debate is the criticism of traditional budgeting. Reviews of budgets actually started before Johnson and Kaplan's initiation of the Relevance Lost Debate, but have not received the same attention until the last five to ten years (Bjørnenak, 2010). When Jan Wallander became CEO of Svenska Handelsbanken in 1970, the first thing he did was to remove the budgets. He stated

that the budget was “an unnecessary evil”, and paved the way for Beyond Budgeting (Wallander, 1999; Bergstrand, 2009). He was inspired by his work with forecasts after realising how little accurate they were. His main criticism was that the budgets prevented the management from handling changes and gaps in the market trends. Svenska Handelsbanken chose to focus on relative performance measurements and a long-term bonus scheme for employees (Wallander, 1999). The bank achieved extremely good results with this system, and has had a return on equity well above the industry average (Bjørnenak, 2009).

### 2.2.3 Criticisms of the budget

Budgets have become a criticised management tool (Bergstrand, 2009). The purpose of this section is to explain what consequences the use of budgets can have for an organization, in order to put it in the context of reliability and trust later in the thesis.

Budgets can be perceived as a yearly ritual (Wallander, 1999). Critics of budgets claim it is not sufficient enough to plan once a year, as the world moves so fast. The input and related assumptions will quickly become out-dated (Hope & Fraser, 2003; Libby & Lindsey, 2010). This will affect the reliability of the data. It is difficult for managers to predict and make plans in September one year, that should still be valid for September next year (Bergstrand, 2009; Hope and Fraser, 2003). Dysfunctional behaviour can arise from this as employees feel the pressure to show good results and focus on finishing a lot of projects in December the current year, even though this might make it harder to start in January next year (Bergstrand, 2012; Hope and Fraser, 2003).

In their research Hope and Fraser (2003) found many examples of dysfunctional behaviours driven by the budgets as fixed performance contracts. The nature of a fixed performance contracts drives managers to negotiate lowest possible targets, in order to have comfortable targets with rewards connected to it. Managers also find incentives to ask for more resources than needed in order to secure what they need as they always expect superiors to cut their resources. Another common behaviour is always spending the budget in order to be granted the same resources the next year.

Critics also argue that budgets lead to a command and control structure, where decisions are being centralised. This can make managers feel frustrated because they are unable to share their concerns and suggestions due to a complex and bureaucratic process (Hope & Fraser,

2003). As a result, budgets can be seen as not facilitating a shared understanding of the future across all levels in the organization. Budgets are also being criticised for focusing too much on cost rather than on value creation, in addition to suppressing initiatives (Hope & Fraser 2003; Wallander, 1999). Bergstrand (2012) argues that this resistance to changing the budget is most powerful when the board has approved the budget.

In addition, the budgets has also been criticised for being a time consuming process (Hope & Fraser, 2003). Critics argue that the high level of details makes the process cumbersome. As a result, budgets easily develop beyond the point where it starts losing efficiency (Bergstrand, 2009). Critics also suggest that budgets lead to dysfunctional behaviour. This is related to employees who believe money granted in the budget must be spent, in order to avoid reductions next year (Bergstrand, 2009).

## **2.3 Dynamic Management Control**

In a constantly changing business environment that can be characterized as increasingly complex and dynamic, companies are searching for more flexible management accounting tools (Bogsnes, 2009). Numerous companies have replaced traditional management systems as annual budgets with a more dynamic management cope with these challenges (Kaarbøe, Gooderham, & Nørreklit, 2013). Dynamic management control systems are known to be responsive, flexible and up-to-date in relation to the changing business environment (Bogsnes, 2009). When technology, data, and analytics are leveraged to plan for the future and react to changing business climates, an organization can achieve better economic results for their customers, employees, and shareholders (De Leon, Rafferty & Herschel, 2012)

Bogsnes (2009) emphasize that many organizations have responded to the changing markets, but in very different ways. The literature suggests a number of new tools to make organization's management accounting and control functions forward looking, such as: Balance Scorecard, Activity Based Costing, Rolling Forecasts and Beyond Budgeting (Bergstrand, 2009; Bogsnes, 2009).

### **2.3.1 Beyond Budgeting**

The Beyond Budgeting model has emerged as an alternative model in recent years as a consequence of budget criticism. Hope and Fraser present Beyond Budgeting as an integrated



management model, where the aim is to abandon the budget-constrained style of management control, without putting an end to financial planning.

One of the problems Beyond Budgeting seeks to solve is the problem with budgets and its conflicting purposes. Most companies make budgets and business plans for at least three different purposes. They shall at the same time provide good targets, reliable forecasts and an effective resource allocation. However, trying to force them into one process that produces one number often hurts the quality of all three purposes (Bogsnes, 2009). According to Bogsnes (2009) it is not possible to achieve any real quality improvement in target setting, forecasting or resource allocation without first separating the three purposes.

Rolling Forecasts are seen as a tool and a key feature of adaptive processes. Rolling forecasts can be done to support on-going strategies and resource management decisions. Rolling forecasts are more likely to support key decision makers at the front line if the system is designed to be open, fast and transparent. Problems related to employees trying to make the numbers look better than they are can then be avoided. (Hope & Fraser, 2003)

According to Beyond Budgeting theory, a forecast should be the best guess on the future, whether we like what we see, or not (Bogsnes, 2009). A good forecast can enhance our understanding of expected production, manning and cost levels. But if we introduce one of the other purposes, like target setting, the number will most likely start to lower. Everyone wants to reach target, and an incentive to reduce the forecasted number is thus introduced. With a lower forecast, the target number will also most probably be lower. Forecasts should be good and reliable, while targets need to have an element of stretch and ambition.

According to Hope and Fraser (2003) one of the main problems with budgets and fixed performance contracts, is that they assume an absence of trust. As an opposite variant, the Beyond Budgeting model encourages trust. Bogsnes (2009) describes trust as “Perhaps the most important word in the Beyond Budgeting vocabulary”. He says that no one should consider leaving existing practices before being clear about where they stand on this one. Traditional management fears transparency because it threatens control. But as Jeremy Hope, cofounder of the Beyond Budgeting Round Table puts it, Transparency is the new

control system.” When everybody can see what everybody spends and how everybody performs, it does something no formal control system is able to deliver.

Even though Beyond Budgeting appears to be more closely connected to firm strategy, there is some lack of about how it is used in practice and new potential challenges (Østergren & Stensaker, 2010).

## **2.4 Rolling forecasts**

### **2.4.1 What is rolling forecasts?**

Rolling forecasts are increasingly being adopted by companies following beyond budgeting, since they are more adaptive and hence can better support company planning and control processes. Forecasting has existed for a long time, but original forecasts did not have a rolling nature and covered only the remainder of a budget year, disrupting planning and investment decisions when they come to an end. Rolling forecasts have appeared from the need for more frequently updated information about the end of the planning period (Hope & Fraser, 2003).

Bergstrand (2009) defines rolling forecasts as projections of a small number of key variables that are updated on a rolling basis. Rolling forecasts describe future activities monthly and quarterly and are an alternative way of planning, which covers more than the remainder of the budget year. This is reached by including a part of each period in the following period. This process then solves the year-end problem (Bergstrand, 2009). As opposed to budgets, the purpose with rolling forecast is to use the frequently updated data to make more flexible and adaptable organizations that are able to cope with changing environments (Lorain, 2010).

Rolling forecasts seems to be the most practical and most visible way of implementing Beyond Budgeting mind-set in an organization (Hope & Fraser, 2003). Trust inside the organization is expected for the system to work effectively (Starovic & Jackson, 2004; Bergstrand, 2009). There is also no reason for someone to manipulate the numbers because there are no fixed profit targets or penalties for missing them. Organizations that use rolling forecasts rely on information and control systems that allow everyone in the company to see the same information at the same time (Hope & Fraser, 2003).

### 2.4.2 Developing rolling forecast

Bergstrand (2009) describes rolling forecasts as being able to serve the same purpose as a budget as long as the variables are chosen carefully, although it would not be a budget in the traditional sense. The chosen number of variables is of high importance, and the numbers should be reduced from when making budgets. By reducing the numbers there will be time for building a forecast several times in a year, without necessarily increasing the total burden of work (Morlidge & Player, 2010). These variables can be determined by looking at drivers related to the seasonality of their business and the stability of their industry (Institute of Finance & Management, 2014). There should be given some comments together with these forecasted numbers to explain assumptions and supply further insight (Bergstrand, 2009)

Forecasts can be consolidated for the company as one, or it can be done as individual forecast per region, unit, product line etc. (Institute of Finance & Management, 2014). Bergstrand (2009) notes that forecasts can be done regardless of whether the unit is a profit centre, a cost centre, a revenue centre or a complete subsidiary (Bergstrand, 2009).

The most common approach is to create a new forecast every quarter, but there are no definite rules on how to organize the rolling forecasts (Bergstrand, 2009). Forecasts will usually cover a period of four quarters. Some companies also choose to create a longer forecast in October that cover five full quarters instead of four. This gives the company an opportunity to assess the upcoming calendar year in full. This may help the transition from budgeting to forecasting. Another approach may be to forecast for a period of five quarters throughout the year instead. (Bergstrand, 2009; Tanlu, 2007). The time period of the forecast should be suitable to the characteristics of your business and business environment (Institute of Finance & Management, 2014). The process can be illustrated by looking at an example where the forecasting routine covers four periods. Each new forecast will include a revision of the forecasts for the three remaining quarters and a new forecast for the final quarter of the period. In this way, the forecasts overlap each other and will always be looking twelve months ahead. (Bergstrand, 2009) This should lead to more timely allocation of resources as the rolling forecast do not rely on obsolete figures (Gurton, 1999; Hope & Fraser, 2003; Bergstrand, 2009)

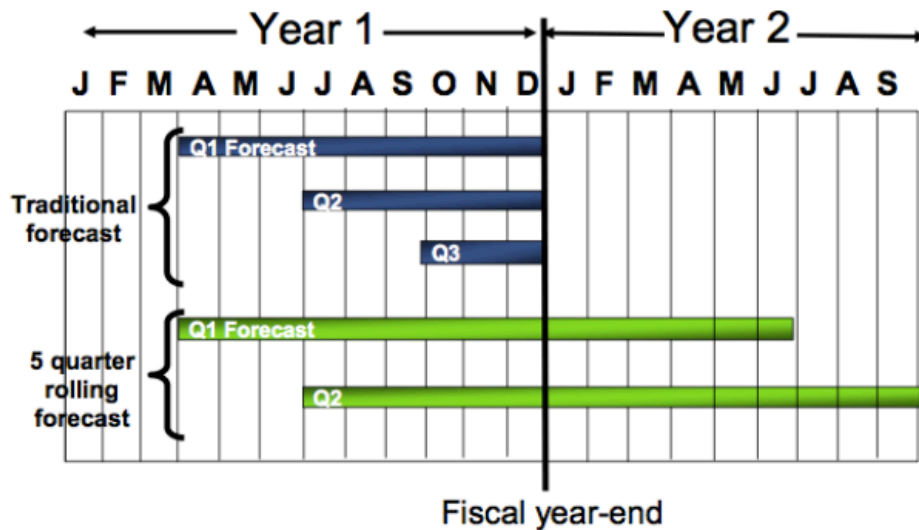


Figure 1: Traditional forecasts compared to rolling forecasts (Hope, 2010)

The managers on the lowest level will hand in their forecast to their immediate superiors as the first step in the forecasting process. Preferably, the managers on the next level already know that to expect. These managers review the material they have received from the lower levels. Next, they form an opinion and send their own forecast to the next level. There is not time for long discussions if the parts are disagreeing, because the forecasts have to be passed on. If there is no agreement, the higher management will decide what to pass on to the next level and the process will continue from there. Then the discussions and negotiations have to be done at another point of time, preferably in time for the next forecasting process. Every manager is fully responsible for the forecast he delivers (Bergstrand, 2009).

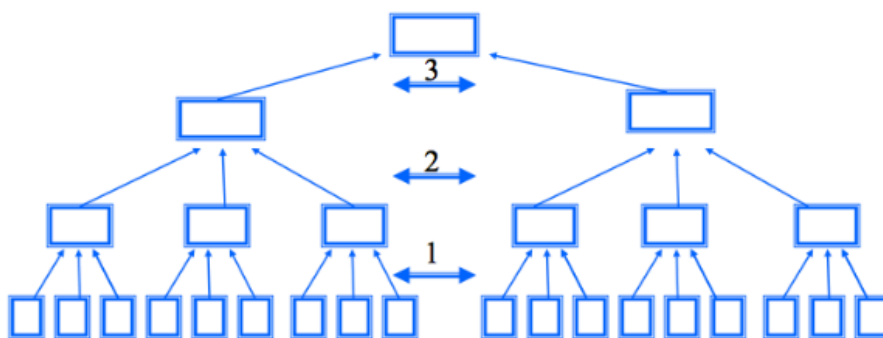


Figure 2: Forecasting process (Bergstrand, 2009)

Rolling forecasting results should not be related to performance evaluation and rewards, as this might have an effect on the willingness to report honest information. The information

retrieved from the forecast could then be used against the managers, and they would not be free from biases anymore. Forecasts should not be used for control purposes according to Hope and Fraser (2003). Rolling forecasts should instead be used to improve strategic management within an organization and to empower employees (Hope & Fraser, 2003).

When actuals are derived, they should be compared to the forecasts. The unit has done a good job in forecasting if the numbers match or are close. If there are big deviations, this should be analysed to understand where the numbers differed and why this happened. (Institute of Finance & Management, 2014)

### 2.4.3 Strengths and Weaknesses with Rolling Forecasts

#### **Summarize the advantages:**

- Speeds up the planning process
- Updated and valuable data
- Quicker adjustment to changes in the environment
- Better foresight to the end of the year
- Weaker incentives to sandbag

#### **Speed up the process**

One advantage with the rolling forecasts is that due to the small number of key variables the speed of the planning process has sped up significantly. The forecasting process has to be organized quickly and efficiently to be manageable at all. Every forecast is compiled at the beginning of the period that it covers. Time for development of a forecast is normally very short, taking a week instead of several months (Bergstrand, 2009; Bergstrand, 2012; Hope & Fraser, 2003).

According to Bergstrand (2009) there shouldn't be much disagreement in the process when it has become more established in an organization, so this advantage might become larger over time. The reason behind this is that managers have already produced these forecasts several times, and most of the material has been through the different levels for almost a year. There should have been enough time to discuss these numbers already, either in daily discussions or in more organized sessions regarding the forecasting process. This eliminates the time consuming budgeting meetings where negotiations for funding were discussed when doing

budgets.

### **Valuable data**

Gathering of information continually throughout the organization helps the employees to reveal likely outcomes, in addition to the potential opportunities and risks. Organizations often focus more on what has happened instead of the reason why things has happened. This information should be used for looking into future scenarios (Bogsnes, 2009). The problem regarding out-dated data for managerial decisions might be overcome with rolling forecasts, as the planning is done several times a year instead of just one (Bergstrand, 2009). Research suggests that the adjusting of plans will have a direct effect on preserving and protecting bottom line (Institute of Finance & Management, 2014).

### **Better foresight**

The rolling forecasts process requires managers to look forward as opposed to looking at historical data in a budgeting process. This empowers the managers as it enables them to respond quickly if new business opportunities arise or the environment changes in other ways (De Leon et al., 2012). Make better strategic decisions and allows the company to alter course if there is a sudden change in circumstances (Institute of Finance & Management, 2014).

The planning discussions will focus on changes for future quarters. The focus will be on dealing with the future rather than looking back and having to defend previous mistakes as with traditional budgeting. Bergstrand (2012) argues that this is one of the most important innovations in rolling forecasts, to change regular follow-up conversations with focus on what happened to discussions of what to do about future plans. (Bergstrand, 2012).

### **Weaker incentives to sandbag**

Managers have a much weaker incentive to sandbag forecasts relative to when these forecasts were used explicitly for performance evaluation, as with traditional budgets (Tanlu, 2007). According to Morlidge and Player (2010) it is unrealistic to expect zero errors in any forecasts. However, we can demand that errors be evenly balanced, that is, there should be approximately as many positive errors as negative errors. Therefore, on average, the error is zero and we will have the right information on which to base a decision. He further goes on to say that not only are biased forecasts tolerated, but often encouraged. People may be praised for coming in above revenue forecast or below an expense forecast. Few companies explicitly

define what a good forecast is. Bogsnes (2009) described making a good forecast as a science in itself. In accounting there are thick manuals, well-documented procedures and detailed audits to check the quality. In forecasting there is next to nothing. Morlidge and Player (2010) go on to talk about how a continuous stream of feedback is crucial to the successful accomplishment of even the simplest task. He thereby states, *“we stand very little chance of forecasting successfully unless we measure our performance continuously and correct our forecasts accordingly”* (p. 128). Yet, it is found that very few businesses routinely measure the quality of their forecast process with the rigor needed to guarantee acceptable forecasting performance. Therefore, according to Morlidge and Player (2010) failure to close the feedback loop is the single most important reason why business forecasting is so poor. The lack of feedback does also decrease the potential learning.

#### **Summarize the challenges:**

- Total workload may increase
- Follow up of managers can become more difficult
- Demand on managers will increase

#### **Total workload**

The total workload of planning is likely to increase as it is done several times a year instead of only during the budgeting period (Bergstrand, 2012). This happens as the total workload increases. Lorain further points to the cost-dimension related rolling forecasts. The process can be costly if it involves many numbers, are very detailed or not automated, as the forecasts are discussed, reviewed and updated several times per year. (Lorain, 2010)

#### **Biased behaviour**

Many organizations that introduce rolling forecasts do not succeed according to Hope (2010). The reasons for this are described as “gaming” and “micro-management”. The gaming problem occurs when managers are asked by their supervisors for their expected numbers, and deliberately deliver wrong forecasts. Micro-manage from supervisors happens when the forecasts are used for control instead of planning, which leads to evaporation of trust in the organization (Hope, 2010). According to Hope forecasting will only work efficiently in a culture underpinned by trust and transparency (Hope, 2010). The problems related to gaming behaviour, trust issues and micro-management can be reduced by ensuring that the forecasting process is impartial, quick and look a year or more ahead (Hope, 2010; Tanlu, 2007). The

process is impartial when it is not connected to performance evaluation, targets and rewards. Quick means that the process only involves a small number of people and that they only focus on a set of few variables. When the process looks more than a year ahead it gives the managers time to influence the outcome, and therefore reduces some of the incentives for gaming (Hope, 2010).

Another problem with rolling forecasts is that some managers might be overoptimistic in making their forecasts. Tanlu (2007) suggests that this is because the forecasts are not tied to compensation. The managers may then have incentives to overstate the forecasts for the next quarter to secure more resources. Research shows that managers tend to overreact to positive news and underreact to negative news when doing forecasts (Tanlu, 2007). The tendency of producing individual forecast is another cause for bias. By doing this, managers are mistrusting forecasts from other levels, and therefore the forecasts and the following assumptions may differ within the organization (Hope, 2010). Clearly separating targets and forecasts help. Hope separates targets and forecasts in the following way: Targets are what you hope for, while forecasts should represent the reality. The distinction is important, as the forecasts may be prone by bias if this seems unclear (Hope, 2010).

### **Demand on individual managers**

One challenge regarding Rolling Forecasts is that the constant change can introduce a feeling of uncertainty amongst the managers (Ekholm & Wallin, 2000; Gurton, 1999). Another related challenge is that the demands on individual managers will increase, possibly beyond their capacity. Managers will have to trust each other for a rolling system to work well.

Demands on personalities will increase, as you have to trust each other both ways. Need to trust that your superior really studies your forecast before passing it on, and you have to trust your subordinates not to exploit the possibilities with many small adjustments, so that he deviates from the agreed goal (Bergstrand, 2009). According to Sivabalan (2011), successful implementation of rolling forecast requires skilled accountants who understand the environment where a company operates fairly well, technical systems that allow saving time on the preparation process, and the ability of employees to analyse the forecast information and predict future trends.

The follow up of management decisions is another challenge. It can be difficult to discover that certain plans deteriorate over time as the situation changes every quarter. If a manager



actually tries to avoid responsibility, the checks and balances of rolling forecasts may not be strong enough to enforce it. Weak managers may fool us for a period of time. If a manager wants to cheat his superior little by little, he may actually get away with it – at least for a certain period of time. As a consequence of these challenges, Bergstrand stresses the importance for managers to trust each other in order to get the rolling system work efficiently (Bergstrand, 2009).

### **Time horizon**

The rolling forecasting process is criticised by Bogsnes for still having a “fixed” time horizon (Bogsnes, 2013). The forecasting scope might be too long for some organizations, and happen too often, and the opposite for others, depending on the characteristics of their business.

## **2.5 Trust**

Research has shown that trust becomes even more vital and critical during periods of uncertainty due to organizational crisis (Mishra, 1996). Lewis and Weigert (1985) called trust a highly complex and multi-dimensional phenomenon. McKnight and Chervany (1996) has written a thesis named “The Meanings of Trust” with the aim of finding a common meaning of the word “Trust”, and argues that trust is difficult to define narrowly. Consensus on the definition has not been reached, and Williamson (1993) describes trust as a term with many meanings. Some definitions emphasize the calculative and strategic dimensions of trust in organizational settings. One of these is made by Burt & Knez (1996), who defines trust as “anticipated cooperation”. This is elaborated further by their following quote “the issue isn’t moral... It is office politics”. Other definitions take a broader view and sees trust as a more general expectancy about other people and the social systems in which they are embedded (Luhmann, 1988). Barber (1983) demonstrates this view by characterising trust as a set of “socially learned and socially confirmed expectations that people have of each other, of the organizations and institutions in which they live, and of the natural and moral social orders that set the fundamental understanding for their lives (Barber, 1983).

Research on trust has often focused on examining the trustee’s attributes in order to answer the question of when people trust others. The influence of attributes varies between systems, individuals, organizations and length of the relationship (Mayer et.al, 1995; Hirsch & Nitzl, 2014). Researchers therefore argue that trust depends on its specific context and that various

aspects of trust are more or less relevant in different context (Baldvinsdottir, Hagberg, Johansson, Jonäll & Marton, 2011). Robinson and Rousseau (1994) argue that organizations violate what the employees believe are the employees obligations, and as a consequence there is seen a general erosion of trust for employers. Porter (1995) argues that trust between people has been replaced by trust in systems. Examples of such systems can be accounting or management control systems.

Research provides evidence that the level of trust for another specific party in an organization affects important processes and outcomes in an organization (Mayer & Davis, 1999). According to Kanter's (1993) theory of empowerment, organizations that provide supportive and encouraging workplaces, in which employees perceive access to resources and information foster a climate of trust (Laschinger, Finegan & Shamian, 2001; Whitener, Brodt, Korsgaard & Werner, 1998).

Rossau et al. (1998) argues that the degree of vulnerability plays a central role in the type of trust relations that develop. A manager's willingness to let employees lower in the hierarchy participate in organizational decision making can be considered risky by the manager. Taking this risk by trusting the employee means making oneself vulnerable (Mayer et.al, 1995).

McAllister (1995) defines trust as the "extent to which a person is confident in and willing to act on the basis of the words, actions and decisions of another". This illustrates why trust between employees is crucial to the functionality of the rolling forecasting process. According to Mayer et.al (1999) only when an employee perceives another employee as benevolent, skilled and having integrity and therefore trustworthy, will he perceive the information from the employee as relevant and act accordingly based on this information. Further research concur that ability, benevolence and integrity of the trustee cover most attributes, and therefore can be used to describes and measure trust (McKnight & Chervany, 1996). The three characteristics that trustee's must obtain to appear trustworthy, may vary for every firm. They are maybe not dependent on each other, but certainly not unrelated (Mayer et al., 1995).

In line with Mayer, Davis and Schoorman (1995; 2007), we have chosen to take the view that trust and distrust are the opposite ends of the same continuums. This is consistent with dictionary definitions where for example Merriam-Webster defines distrust as *lack of trust or confidence*, and the Oxford dictionaries defines it as *the feeling of not being able to trust*

*somebody/something*. Mayer et al. (1995; 2007) defines trust as the willingness to take risk (i.e. be vulnerable) in a relationship, which means that with the lowest level of trust one would take no risks at all.

Parts of the existing literature distinguish between trust propensity and trustworthiness. A high propensity means that someone is more inclined to trust someone, irrespective of how trustworthy this person is (Colquitt, Scott & LePine, 2007). Trust propensity depends on the individual's personality, experiences and cultural background (Mayer et al., 1995). Propensity is mostly a predictor of trust before parties are familiar with each other (Mayer et al., 1995). Since this research is about employees that people already know, propensity to trust is not considered relevant for this study.

In short, there are many different definitions and operationalization of trust and trustworthiness. In this study, we will use the three dimensions of trustworthiness suggested by Mayer et al. (1995); ability, integrity and benevolence. The definitions of these concepts, along with synonyms used by other researchers in their studies follow.

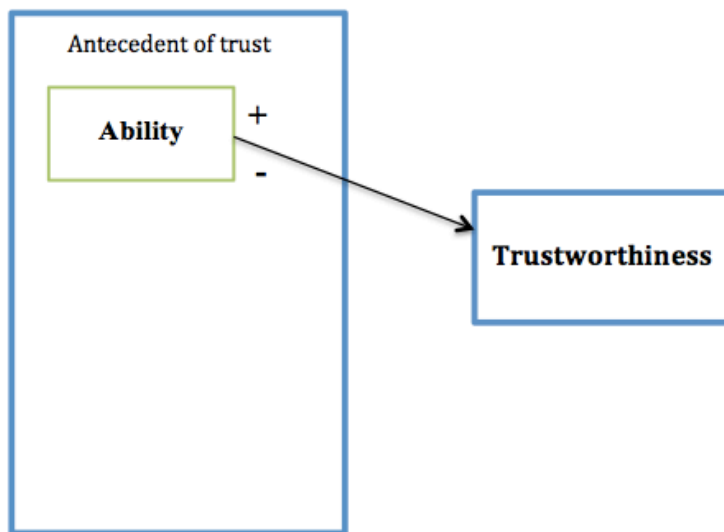
### **2.5.1 Ability**

Ability represents the “can-do” component of trustworthiness (Mayer et al., 1995). Ability is that group of skills, competencies, and characteristics that allow a party to have influence within some domain. For a member of management, ability covers both the formal and informal influence they are perceived to have in the organization, as well as their perceived competence and skills (Mayer & Davis, 1999). McKnight and Chervany (1996) define ability as the capability to produce a desired outcome. Gabarro (1978) elaborates by saying that ability “.. captures the and skills needed to do a specific job along with the interpersonal skills and general wisdom needed to succeed in an organization”. This is in line with research by Tan & Lim (2009) who describes trust as increasing when people are perceived as competent.

Synonyms for ability are competence, perceived expertise and capability (Øpstad, 2013). Zand (1972) and Mayer, Davis and Schoorman (2006) argue that a person's ability depends on the specific domain. The reasoning is that one person may be very competent in a certain technical area, and therefore is able to earn trust due to the perceived ability in that area. This person may be trusted to do analytical tasks, but can lack management experience training in interpersonal communication. The same person that was trusted to do analytical tasks may

then not be trusted to initiate contact with a new and important customer or for having the responsibility for on-the-job training for a group of new employees (Zand, 1972).

Based on this weight of evidence, ability is considered an antecedent of our trustworthiness, in line with Mayer et al. (1995).



*Figure 3: Ability as antecedent of trust*

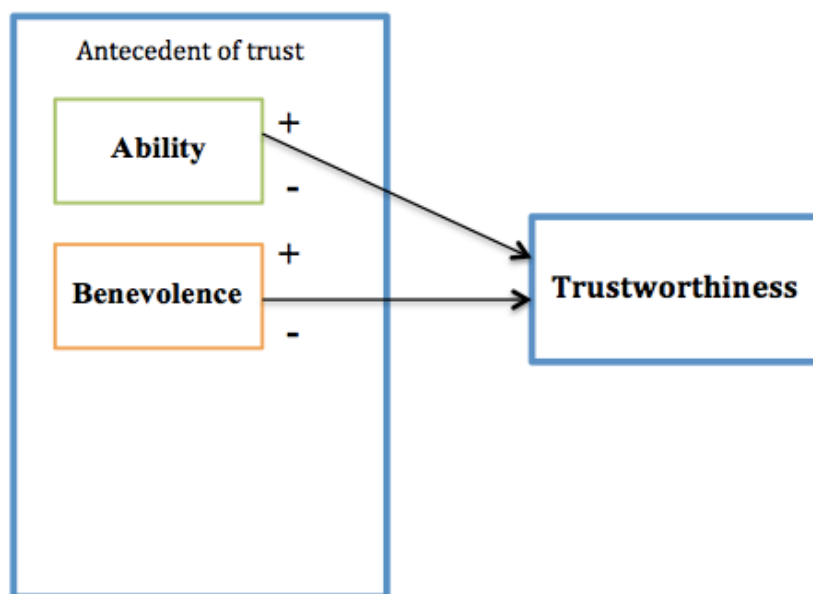
### 2.5.2. Benevolence

Benevolence is the trustor's perception that the trustee cares about the trustor (Dietz & Den Hartog, 2006). Mayer et al. (2006) support this definition stating that benevolence is the extent to which a trustee is believed to want to do good to the trustor, and that it is the perception of a positive orientation of the trustee toward the trustor. According to Dietz and Den Hartog (2006) benevolence reflects benign motives and a personal degree of kindness towards the other party, and a genuine concern for their welfare. Nooteboom (2002) sees it as the opposite of opportunism. Organizational stakeholders perceive benevolence when organizations express concern, care and interest (Mayer et al., 1995; Edmondson, 1999).

Synonyms for benevolence are loyalty, caring, openness, availability and receptivity (Øpstad, 2013). Persons of high benevolence will experience loyalty by supporting, protecting and

encouraging others (Butler Jr., 1991). Burke et al. (2007) found that the result of being perceived more benevolent as a leader is that employees are more likely to persist longer and work harder. According to Mayer et al. (2006), perceived levels of benevolence are also influenced by context. For example, if an employee perceives that a new supervisor has attitudes and preferences similar to his or hers, the employee will perceive higher levels of benevolence from that supervisor (Bersheid & Walster, 1978; Newcomb, 1956).

Together with Ability, Benevolence is considered an antecedent of our intention to trust (Mayer et al., 1995).



*Figure 4: Ability and benevolence as antecedents of trust*

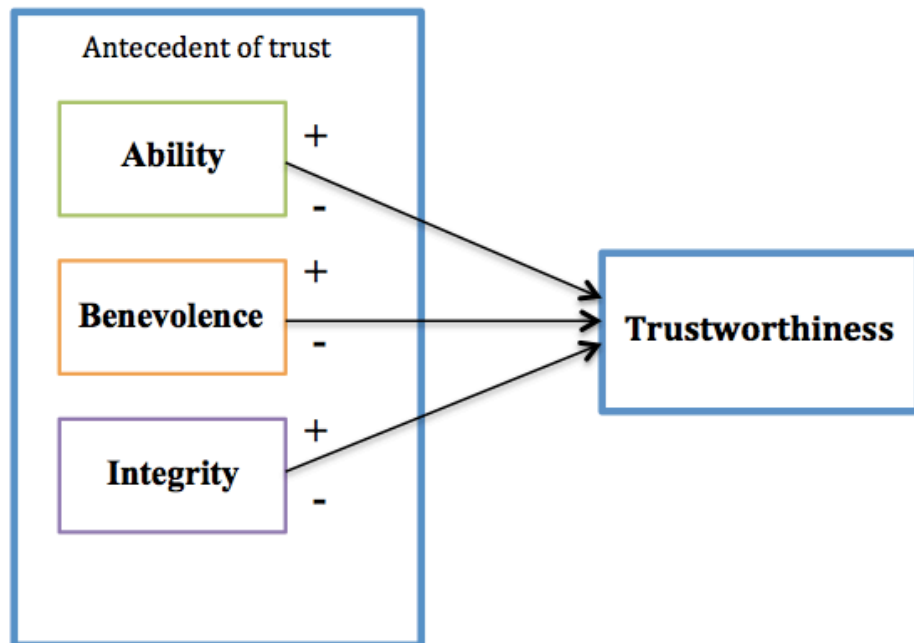
### 2.5.3 Integrity

Integrity involves adherence to a set of principles that the other party finds acceptable, encompassing honesty and fair treatment (Mayer et al., 2006). A person who is known to keep his promises and abide by the rules is considered to have integrity (Gabarro, 1978; Dietz & Den Hartog, 2006). People having integrity are believed to have a strong sense of justice, and there is a low probability that their deeds will harm us (Mayer et al., 1995). We optimally perceive others to be possessive of integrity when we share congruent principles, values and

beliefs (Gabarro & Athos, 1976). Integrity can also refer to an organizations tendency to act ethically and fairly (Whitener et al. 1998).

Synonyms of integrity are justice, reliability, promise fulfilment, fairness and consistency (Colquitt et al., 2007; Øpstad, 2013). High levels of integrity are perceived as a positive attribute in an individual and an asset to a business (Audi & Murphy, 2006; Koehn, 2005). This is in line with research by Gill, Boies, Finegan and McNally (2005) who found that integrity was positively correlated with our intention to trust.

Together with ability and benevolence, integrity is considered the third antecedent of trust (Mayer et al., 1995).



*Figure 5: Ability, benevolence and integrity as antecedents of trust*

### **Research on these concepts in relation to each other**

Research demonstrate that the three trustworthiness dimensions are of different importance, however it is argued that all of them should appear in order for trust to be formed (Mayer et al., 1995). In the re-visitation of their 1995 article, Mayer, Davis and Schoorman (2007) ac “the relative importance of ability, benevolence, and integrity across cultures”. This is in line

with the research of Noteboom (2002), who found that the influence of benevolence, ability and integrity on trustworthiness depends on the specific context (Noteboom, 2002).

Several articles have studied the effects of trustworthiness dimensions, making it clear that it varies. Mayer and Davis (1999) found that integrity might have a greater impact on trust in situations composed of tasks that are more politically sensitive and less technical, as it is important that the manager acts in a way that is consistent with the promoted values.

Researchers argue that consideration of time is important in connection to relationships and trust (Mayer et. al, 1995; Hirsch & Nitzl, 2014). Lewicki & Bunker (1996) find that influence of trust drivers on work relationship changes over time. Ability and integrity can be created rapidly in a new trust relationship. Ability should be more important in the beginning of the relationship than in the later stages. Benevolence on the contrary needs more time to be developed (Mayer et. al, 1995).

Developments or events can occur that changes the perceived trustworthiness, as it is affected by the three factors benevolence, ability and integrity. Mayer and Davis illustrate this by an example of a trustee's action reflecting movement up a learning curve on an important issue. This will then lead to the trustee's ability to rise. This movement up the learning curve is not necessarily tied to any prior vulnerability on the part of the trustor, and thus is not caused by the feedback loop from outcomes of vulnerability to trustworthiness (Mayer and Davis, 1999).

Mayer et al.'s (1995) has been applied by many researchers to look at trust in different organizational settings. Hirsch and Nitzl (2014) explored the trust relationship between management accountants and managers over time. This quantitative study differentiated between perceived trustworthiness, specific context factors and the manager's trust disposition. Findings show that the trust disposition plays a minor role and is fully mediated by the perceived trustworthiness and the organizational setting. Findings showed that management accountant's abilities were the most important factor contributing to perceptions of his trustworthiness. Integrity and benevolence followed, but benevolence showed a relatively small effect. The influence of benevolence changed over time, to have a small positive effect (Hirsch & Nitzl, 2014). Ability loses relevance over time, but remains an important factor for trustworthiness. Growing relevance of benevolence substitutes for the loss in importance of ability. This is shown as managers develop "good will" toward accountants. Integrity is a stable factor to perceived trustworthiness (Hirsch & Nitzl, 2014).

This is in contrast with Mayer and Davis (1999) who find that abilities are much less important. Integrity plays the most important role to trust in work relationships (Mayer & Davis, 1999; Davis, Schoorman, Mayer & Tan, 2000).

### **Trusting the superior**

Several articles have studied the effects of trust towards the superior represented by the three trustworthiness dimensions. Researchers have argued that the relative importance of the antecedents of trustworthiness might vary across referents, depending on the nature of the “vulnerability” or dependency in the relationship (Colquitt et al., 2007; Lapidot et al., 2007; Mayer et al., 1995; Werbel and Henriques, 2009). When trusting a superior employees feel vulnerable because supervisors have substantial influence over resource allocation and thus are in a position to make decisions that have a considerable impact on subordinates. As a result it is anticipated that when trusting a superior, employees might be particularly concerned with whether or not their superior is friendly, caring and helpful, and thus high in benevolence, and consistent, credible and true to their word and thus high in integrity (Knoll & Gill, 2011). Colquitt et al. (2007) found that integrity was particularly important antecedent of trust in superior. Knoll and Gill (2011) further found that benevolence and integrity are more important predictors of trust in superiors than ability. Lapidot et al. (2007) found that employees mentioned incidents of benevolence and integrity more often than ability in explaining trust in the supervisor. Mayer et al. (1995) also argued that even if employees strongly believe in the benevolence of a manager, if the manager lacks integrity, the employee cannot help but wonder how long it will be before the manager betrays them. Therefore affective based trustworthiness like benevolence alone may not be sufficient for employees to trust their supervisor fully.

### **Trusting the subordinate**

Several articles have studied the effects of trust towards the subordinates represented by the three trustworthiness dimensions. Researchers have argued that superiors are vulnerable to their subordinates because they rely on them to complete work tasks (Dirks and Ferrin, 2002; Mayer et al., 1995; Werbel and Henriques, 2009). A subordinate’s failure to complete a task could adversely impact the supervisor’s own performance, have an economic impact on the superior, or affect the reputation of the superior (Schoorman et al., 1996). Given that the superiors are reliant on the quality of work performed by their subordinates, it is expected that a subordinate’s ability to complete the job tasks will be particularly important in the



establishment of trust. In support to this rationale, Schoorman et al. (1996) found that the extent to which a superior delegated authority to a subordinate, was determined by ability more than any other factor. Similarly, Wells and Kipnis (2001) found that ability was the most important antecedent of trust in subordinates.

## **2.6 Theoretical Framework – Sensemaking Theory**

A sensemaking approach will be applied in the analysis of this thesis. Sensemaking will be used for interpreting data to make meaning out of the interviews.

“Sensemaking is what it says it is, namely, making something sensible” (Weick, 1995). Gioia & Chittipeddi (1991) elaborates by describing Sensemaking as “the meaning construction and reconstruction by the involved parties as they attempt to develop a meaningful framework for understanding the nature of the intended strategic change”. It provides insight into how individuals make sense of ambiguous and novel situations (Gioia & Chittipeddi, 1991; Weick, 1995). A more compact definition of sensemaking is Waterman’s (1990) statement that sensemaking is a way to “structure the unknown”

Karl E. Weick (1995) clarifies the difference between sensemaking and interpretation by stating: “The key distinction is that sensemaking is about the ways people generate what they interpret“. He elaborates: “Sensemaking is clearly about an activity or a process, whereas interpretation can be a process but it is just as likely to describe a product”. Literature shows that sensemaking focuses on process, whereas this is less true with interpretation (Weick, 1995).

Weick proposes another approach, which sees two types of sensemaking occasions common to organizations, situations characterised by uncertainty and ambiguity (Weick, 1995). In the case of uncertainty, people engage in sensemaking because they are ignorant of any interpretations. In the situation of ambiguity, they do so because they are confused by too many interpretations. Organizational members often use sensemaking processes in order to solve the uncertainty and ambiguity related to new ideas (Balogun & Johnson, 2004).

An expectation with sensemaking theory is that people at various levels of the organization have different perceptions of the reality. This can happen even if the organization has

extensive information, communication and involvement processes (Balogun, 2001; Gioia & Chittipeddi, 1991; Weick, 1995). How people make sense of processes and situations will affect their future actions. Different perceptions of reality can be a direct cause for unsuccessful implementations. The following example illustrates this. The management have a common perception of what the problem is and how it should be solved. The employees are the ones who should carry out these changes, so it will also be important how they make sense of the situation. If they have different perceptions of the problem the actions may differ from the original plans. Karl E. Weick highlights commitment and manipulation as to processes where sensemaking starts with action. Commitment makes sense by asking the question, “why did the action occur?” Manipulation makes sense by focusing on the question, “what did occur?” Karl E. Weick elaborates this by writing: “Sensemaking starts either with the action or the outcome, but in both cases, beliefs are altered to create a sensible explanation for the action or the outcome.” (Stensaker, 2002).

Sensemaking theory is useful to see how different perceptions affect employees’ thoughts and actions (Stensaker, 2002). Sensemaking perspective makes it possible to understand why organizational change often experience adjustments throughout the decision- and implementation phase (Stensaker, 2002). Perception and how this change over time is central when looking at implementation through a sensemaking perspective (Isabella, 1990; Bartunek, 1984). Sensemaking perspective allows members to create rational ideas of what, why and how to change, which then leads to action.

This approach can be challenging and Weick (1995) states: “Criteria” for good sensemaking are not obvious”.

## **2.7 Conceptual model**

The conceptual model is designed on the basis of theory and illustrates the theoretical linkage between the rolling forecasting process as a contextual factor and how that may affect trust in the forecasted numbers. The background for this thesis is that research has provided little on the relationship between rolling forecasts as a management tool and the trust in an organization beyond the fact that it is a prerequisite.

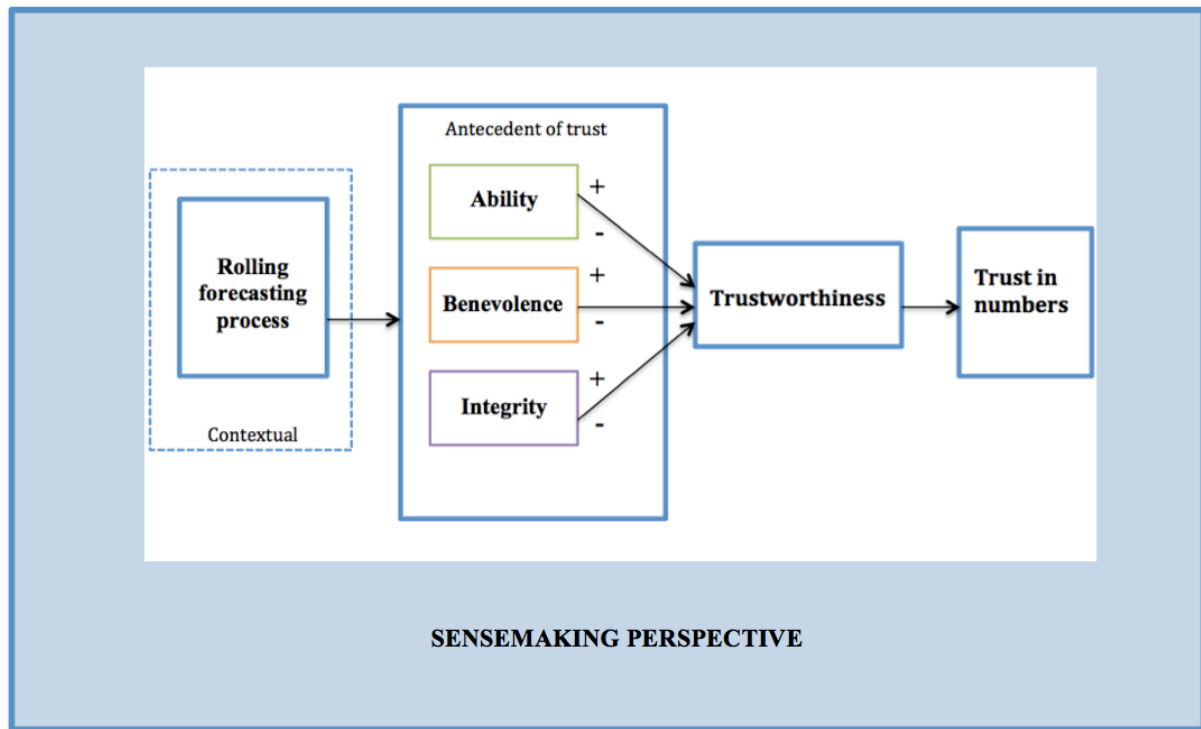


Figure 6: Conceptual model

Researchers argue that trust depends on its specific context and that various aspects of trust are more or less relevant in different context (Baldvinsdottir et al., 2011). The rolling forecasting process is here the specific contextual factor that is seen as affecting trust.

Trust is defined by the definition of McAllister (1995) in this thesis. McAllister (1995) defines trust as the “extent to which a person is confident in and willing to act on the basis of the words, actions and decisions of another”. This illustrates why trust between employees is crucial to the functionality of the rolling forecasting process. According to Meyer et.al, only when an employee perceives another employee as benevolent, skilled and having integrity and therefore trustworthy, will he perceive the information from the employee as relevant and act accordingly on the basis of this information (Mayer et.al 1999).

In line with Mayer et al. (1995; 2007), we have chosen to take the view that trust and distrust are the opposite ends of the same continuums. The thesis further seeks to understand what aspects about the rolling forecasting process that facilitates and challenges trust in terms of ability, benevolence and integrity. This is illustrated in our model by “plus” and “minus”.

Research provides evidence that the level of trust for another specific party in an organization affects important processes and outcomes in an organization (Mayer & Davis, 1999).

According to Meyer et.al (1999), only when an employee perceives another employee as benevolent, skilled and having integrity and therefore trustworthy, will he perceive the information from the employee as relevant and act accordingly on the basis of this information. The two latter boxes in the model illustrate this.

As illustrated in the model, a sensemaking approach will be applied in the analysis of this thesis. This is to understand how people make sense of processes and situations, as this will affect their future actions (Weick, 1995). Sensemaking theory is useful to see how different perceptions affect employees' thoughts and actions (Stensaker, 2002). This theoretical framework will be valuable as we seek to understand what makes employees trust in the numbers and in the information given by the level below, so that they can act upon this number by forecasting on the basis of it

### **3. Methodology**

The purpose of this chapter is to describe the methodological approach used to explore the problem statement: *How do employees make sense of the rolling forecasting process and how does that influence trust in the forecasted numbers?*

Methodology concerns techniques and procedures used to gather, analyse and interpret data (Saunders, Lewis & Thornhill, 2012). It is important that methodological choices are carefully

considered in order to provide research that reflects the reality in the best possible way. This chapter will explain the reason for the choices taken in this thesis.

### **3.1 DNV GL as a study object**

The main goal of this thesis is to explore how employees are making sense of the new financial planning tool, and how factors regarding the new tool may facilitate or challenge trust in the outcome of the process. We therefore wanted to look into an organization that has recently adopted rolling forecasts. The more recent adoption of the process gives us the ability to ask questions regarding the earlier financial planning processes used by the organization, in order to see if there are any perceived differences we find interesting. DNV GL was therefore chosen. In 2013 a new business performance management model was introduced to the group controllership in DNV. They named it Dynamic Forecasting, and defines it as; “A forward looking forecasting model that separates the traditional budgeting elements of target setting, forecasting and resource allocation, while extending the planning time horizon beyond the conventional twelve month budget cycle.”

Driven by their purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. DNV GL provides classification, technical assurance, software and independent expert advisory services to the maritime, oil & gas and energy industries. They also provide certification services to customers across a wide range of industries. The newly formed DNV GL Group became operational on September 12<sup>th</sup>, 2013. DNV GL group is a direct continuation of the two legacies, the DNV group and the GL group. The two legacies DNV group and GL group were merged through a combination agreement in September 2013 and now combined form the DNV GL group headquartered at Høvik, Norway. The DNV GL group comprises approximately 16,000 employees operating in 100 countries.

#### **Organizational structure**

DNV GL is structured into four business areas being Maritime, Oil & Gas, Energy and Business Assurance. DNV GL also consists of two independent Business Units serving more than one industry, DNV GL – Software and Marine Cybernetics. Group Centre and Global shared services serves the entire organization.

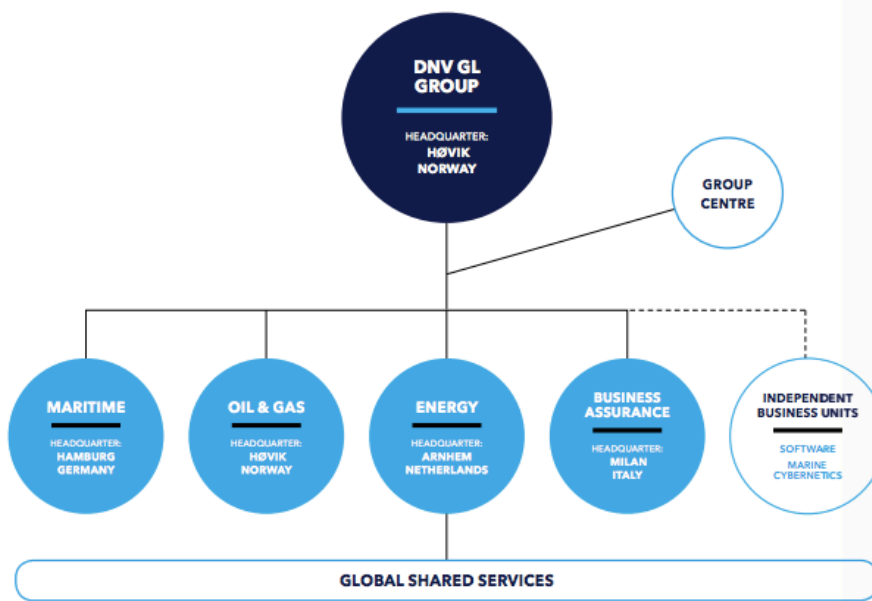


Figure 7: Demonstration of business areas in DNV GL (Annual report DNV GL, 2014)

In the maritime industry, DNV GL is present as the world's leading classification society and a recognized advisor for the maritime industry. DNV GL is the leading technical advisor to the global oil and gas industry. In the energy industry DNV GL delivers world-renowned testing and advisory services to the energy value chain including renewables and energy efficiency. For business assurance, DNV GL is one of the world's leading certification bodies.

All four business areas are supported by global shared services, which supports them in activities that are not business related. Global shared services take care of amongst other accounting, human resource, administrative and legal activities.

### 3.2 Research philosophy, design and approach

Several choices regarding the research need to be taken before looking into the research strategy applied in this thesis.

#### 3.2.1. Research philosophy

The research philosophy relates to the development of and the nature of that. The research philosophy we chose to adopt can be thought of as our assumptions about the way in which we view the world, and these assumptions will underpin our research strategy and the

methods we choose as part of that strategy (Saunders et al., 2012). The choice of research philosophy thus depends on the research questions we seek to answer.

According to Saunders et al. (2012), two major ways of thinking about research philosophy are ontology and epistemology. Ontology is concerned with the nature of reality, which raises questions of the assumptions researchers have about the way the world operates and the commitment to particular views (Saunders et al., 2012). Two aspects of ontology that are likely to be accepted as producing valid by many researchers are objectivism and subjectivism (Saunders et. al., 2012). Objectivism portrays the position that things, such as social entities, exist as a meaningful reality external to those social actors concerned with their existence (Crotty, 1998). While subjectivism holds that social phenomena are created through the perceptions and consequent actions of affected social actors (Saunders et. al., 2012).

Epistemology concerns what constitutes acceptable in a field of study (Saunders et. al., 2012). Epistemology may be distinguished in three different aspects; positivism, realism and interpretivism. If your research reflects the philosophy of positivism, you will prefer collecting data about an observable reality and search for regularities and causal relationships in your data to create law-like generalisations like those produced by scientists (Gill and Johnson, 2010). The essence of realism is that what we sense is reality: that objects have an existence independent of the human mind (Saunders et. al., 2012). Like positivism, realism has a scientific approach and focus only on what is observable. Interpretivism advocates that it is necessary for the researcher to understand differences between humans in our role as social actors (Saunders et. al., 2012). We interpret our everyday social roles in accordance with the meaning we give to these roles, and we interpret the social roles of others in accordance with our own set of meanings (Saunders et. al., 2012).

**Our research:** The research philosophy applied in this thesis will be subjective ontology. We perceive the financial planning process' effect on trust as a social phenomena created through the perceptions and consequent actions of affected social actors. The objective aspects of the financial planning process are of less importance, but what we find important is how social actors perceive and experience this process. Regarding epistemology this thesis will take on an interpretivism approach. We are of the perception that it is how the affected social actors perceive and experience the financial planning process that will have an effect on the actor's trust in this process and the outcome of the process. We will apply sensemaking theory as a

tool to understand how the employees in an organization make sense of the financial planning process and the numbers created in the process. It enables us to discover how employees make sense of what has changed or not changed, how that impact them and how further changes should be carried out. By the use of sensemaking theory it will enable us to enter the social world of our research subjects and thus understand their point of view.

### **3.2.2. Research design**

One choice that has to be taken is whether the research will be based on quantitative or qualitative research. According to Saunders et al. (2012) and Cooper and Schindler (2014), a way of differentiating quantitative research from qualitative research is to distinguish between numeric data and non-numeric data. Quantitative research examines relationships between variables, which are measured numerically and analysed using a range of statistical techniques. It is the precise count of some behaviour, , opinion or attitude. Qualitative research is designed to tell the researcher how (process) and why (meaning) things happen as they do. Qualitative research studies participants' meanings and the relationships between them, using a variety of data collection techniques and analytical procedures, to develop a conceptual framework. It is a non-quantitative data collection used to increase understanding of a topic.

Based on the structure of the research problem, there are three main classes of research design to distinguish: exploratory, descriptive and explanatory (causal). An exploratory study is a valuable means to ask open questions to discover what is happening and gain insights about a topic of interest (Saunders et. al, 2012). Exploratory research has the advantage that it is flexible and adaptable to change. If you are conducting exploratory research you must be willing to change your direction as a result of new data that appear and new insights that occur to you. Exploratory research may commence with a broad focus but this will become narrower as the research progresses (Saunders et. al, 2012).

In descriptive research the problem is structured and well understood (Ghauri & Grønhaug, 2005). The object with conducting descriptive research is to gain an accurate profile of events, persons or situations. It is necessary to have a clear picture of the phenomenon on which you wish to collect data prior to the collection of the data (Saunders et. al, 2012). Explanatory



research seeks to establish causal relationships between variables. The main task in such research is to isolate causes, and tell whether and to what extent causes result in effects.

**Our research:** Due to the nature of the problem statement, this thesis is based on qualitative research. Qualitative research is often associated with interpretive philosophy (Denzin & Lincoln, 2005), and is thus in line with the philosophy and approach taken in this thesis. We wish to understand how the employees experience and make use of rolling forecasts in their planning function, and we wish to understand how that influence trust between different levels. The thesis seeks to extract the employees' feelings and perceptions, and it thus aims to achieve an in-depth understanding of the phenomena. The study is exploratory as open questions are asked to gain insights about the topic of interest. The flexible nature of an exploratory study is seen as an advantage, as it gives us the possibility to change the direction of our questions if new and surprising insights occur during the process.

### 3.2.3. Research approach

Three research approaches, deductive, inductive and abductive, are often portrayed based upon the reasoning adopted in a research (Saunders et. al, 2012). Deductive reasoning occurs when the conclusion is derived logically from a set of premises, the conclusion being true when all the premises are true (Ketokivi & Mantere, 2010). If the research starts with theory, often developed from our reading on the academic literature, and we design a research strategy to test the theory, we are using a deductive approach (Saunders et. al, 2012).

With inductive reasoning we draw general conclusions from our empirical observations (Ghauri & Grønhaug, 2005). If the research starts by collecting data to explore a phenomenon and we generate or build theory, often in the form of a conceptual framework, then we are using an inductive approach (Saunders et. al, 2012). In this type of research, theory is thus the outcome of research (Bryman & Bell, 2003).

An abductive approach can be seen as a combination of an inductive and a deductive approach. Data is collected to explore a phenomenon, identify themes and explain patterns, to generate a new or modify an existing theory that is subsequently tested through additional data collection (Saunders et. al, 2012).

**Our research:** This master thesis will be based upon an abductive approach. Instead of moving from theory to data or data to theory, an abductive approach moves back and forth, in effect combining deduction and induction (Suddaby, 2006 see Saunders et al., 2012). The importance of trust in an organization attempting to implement rolling forecasting is clearly stated. According to Starovic and Jackson (2004) and Bergstrand (2009) trust inside the organization is expected for the use of rolling forecasts to work effectively. There is however little research to be found on the relationship between rolling forecasts and trust in the organization. This thesis therefore seeks to elaborate this relationship, identifying themes and explaining patterns, with the intention of modifying or adding new dimensions to existing theory.

### 3.3 Research strategy

A research strategy may be defined as a plan of how a researcher will go about answering the research question. It is the methodological link between your philosophy and the subsequent choice of methods to collect and analyse data (Denzin & Lincoln, 2005). There are several strategies associated with qualitative research, some of them being case studies, ethnography and grounded theory. Other qualitative approaches will not be explained more in detail, as the characteristics of the methods do not apply to the problem statement in this thesis.

Saunders et al. (2012) define case studies as a way to explore a research topic or phenomenon within its context, or within a number of real-life contexts. Case studies can be conducted by focusing on a single case or on multiple cases (Yin, 2009). A case study can further be holistic or embedded in the approach regarding the unit of the analysis. A holistic approach involves treating an organization as a whole. Conversely, embedded approach involves several units of analysis within one organization.

Ethnography is used to study people in groups who share the same space and interact with each other (Saunders et al., 2012). As the earliest qualitative research strategy, it was developed to study cultures in so-called “primitive societies” (Saunders et al., 2012).

Grounded Theory is used to develop theoretical explanations in order to explain a phenomenon. This phenomenon can include social interactions and processes in different contexts. In other words, to generate theory grounded in your data. A concern with this

approach can be that little of significance will emerge at the end of the research process or that what emerged is only descriptive.

**Our research:** We have chosen to take a case study approach in this thesis, as it is relevant to gain a rich understanding of the context of the research and the new management tool that has been implemented (Eisenhardt and Graebner, 2007). The thesis is done as a single case study due to the nature of our problem statement, where we want to analyse and observe how the financial planning system influences trust in forecasted numbers. Single case studies can further be used to analyse and observe a phenomenon that few have reflected upon before.

### 3.3.1 Data collection

#### 3.3.1.1 Time horizon

Saunders et al. (2012) distinguishes between cross-sectional and longitudinal studies. Cross-sectional studies represent a “snapshot” taken at a particular time, while longitudinal studies shows a series of snapshots over time. This thesis will be done as a cross-sectional study, where we study a particular phenomenon at a particular time. The research is based on interviews conducted over a short period of time, in order to explore how employees understand the adoption of rolling forecasts as a new management tool, and how aspects regarding this management tool may affect trust in the forecasted numbers.

#### 3.3.1.2 Selecting samples

##### **Defining the population**

The situation when it is possible to collect and analyse data from every possible case or group member is referred to as census (Saunders et al., 2012). Access, time and money often make this difficult and sampling techniques in order to reduce the amount of data becomes important. Another possibility is to collect information from a portion of the population by taking a sample of elements from the larger group. This sample can then infer something about the larger group (Ghauri & Grønhaug, 2010).

The objective with qualitative research is to gain insights, create explanations and achieve a higher understanding of a phenomenon. Choosing the relevant population is not always easy, but the focus should be on knowing who or what one wants information about (Ghauri &

Grønhaug, 2010). The objective of this thesis is to understand how rolling forecasts as a management tool affects trust in the process and the forecasted numbers. The relevant population for this thesis is therefore defined as organizations that have introduced rolling forecasts. Sampling is chosen, as it would be impractical to survey the entire population. Relevant sampling issues regarding this is who should be included in the study and how many.

### **Non-probability versus probability sampling**

Sampling can be divided into two types, probability and non-probability samples (Saunders et al., 2012). Probability sampling is when the chance, or probability, of each case being selected from the population is known and equal for all cases (Saunders et al., 2012). This allows for statistic inference (Ghauri & Grønhaug, 2010). A sampling frame for any probability sample is a complete list of all the cases in the population from which your sample will be drawn. Probability studies cannot be chosen without a sampling frame, as the population then will be unknown (Saunders et al., 2012). On the contrary, with non-probability sampling it is not possible to make valid inference about the population. This implies that these samples are not representative, in the way that the findings that are found in these studies is valid for the population, but within certain limits (Ghauri & Grønhaug, 2010).

**Our research:** This thesis is based upon non-probability sampling. The purpose of the study is to gain insight to the phenomenon of how the use of rolling forecasts influences trust in the forecasted numbers. The goal is to get in-depth understanding of a specific phenomenon, and not to draw statistical generalisations to the population. It may however still be possible to generalise from non-probability samples about the population, but not on statistical grounds (Saunders et al., 2012). These challenges will be further elaborated upon in the discussion around the study's external validity.

### **Sample size**

According to Saunders et al. (2012), with non-probability sampling there are no rules regarding sample size unlike probability sampling. Instead it is important to focus on the relationship between the sample selection, technique and the purpose of the research. This is essential when doing semi- or unstructured interviews in order to ensure that there are enough interviews to draw inferences. Patton (2002) emphasizes that the sample size should reflect the research question, but that available resources will limit it.

Guest (2006 see Saunders et al., 2012) suggests that 12 in-depth interview should suffice in order to understand commonalities within a fairly homogenous group. Saunders et al. (2012) on the other hand describes the minimum sample size for semi structured/in-depth interviews as 5-25 people. Saunders et al. (2012) further states that considering a heterogeneous population 12-30 should be minimum sample size.

### **Sampling technique**

In this research the sample has been chosen through purposive sampling. This can also be referred to as judgement sampling (Ghauri & Grønhaug, 2010). The goal of purposive sampling is to sample cases or participants in a strategic way, so that those sampled are relevant to the research questions that are being posed (Bryman, 2012). According to Saunders et al. (2012) and Ghauri and Grønhaug (2005) the researchers must use their judgement to select cases that will answer the research question in the best way possible. Judgment is used to try to get a sample that is representative of the population. This approach is useful when working with a case study approach where the samples can be very small. In addition it is useful when choosing a case that is particularly informative.

**Our study:** The contact with our case study object DNV GL was initiated by our supervisor Katarina Kaarbøe, who then provided us with a contact person. The process began with two meetings with our contact person, a principal analyst at Group level who was a part of introducing dynamic forecasts in the organization. Our contact person then provided us with one contact at Business Area level in each of the four business areas that then provided us with two more that we would like to speak to within the respective areas.

It was important to us that the respondents were responsible for the rolling forecasting process, either as a manager or a controller. Some of our respondents were responsible for driving the process, even though a manager in the end needed to agree to the forecasts because he or she eventually was responsible for the numbers. We would prefer if the respondents had been with DNV GL before the introduction of rolling forecasts, but that was not possible in all cases. However all respondents had at least experienced one quarterly reporting. In addition we wanted the respondents to be located at different levels in the organization in order to explore differences in the perception of the use of rolling forecasts related to where in the organization the respondents are located.

Our sample consists of six respondents at the Business Area level, five respondents at the Regional level and one respondent at the Area level. The twelve respondents represents all four business areas, three respondents from each.

### 3.3.2 Interviews

It is usual to differentiate between two types of data sources, primary and secondary sources. Primary sources consider data collected directly from the source, and specifically for this research project. Secondary data entails data that were originally collected for some other purpose (Saunders et al., 2012). This research will be based upon both primary and secondary data. Secondary data will be used in the form of internal documents provided to us by our contact person. These documents are used to understand how DNV GL intended to implement the dynamic forecasting model. Our main sources for this research are primary sources in the form of interviews.

According to Yin (2014), interviews are one of the most important sources of information in case studies. Saunders et al. (2012) categorizes different types of interviews as structured, semi-structured and unstructured or in-depth interviews. This relates to the extent of guidance implied by the researcher.

Structured interviews can also be referred to as interviewer-administered questionnaires and allows for little social interaction (Saunders et al., 2012). Structured interviews are often used in quantitative research. A semi-structured interview does not apply the same standardisation. The researcher will have a list of themes and questions to be covered when applying this approach. The order of the questions and the usage of the different questions may vary from interview to interview depending on the responses. Questions may not follow on exactly in the way outlined in the schedule, and questions that are not included in the guide may be asked as the interviewer picks up on things said by the interviewees (Bryman, 2012).

Unstructured interviews can be characterised as informal and is used to explore a general area in depth. The researcher will have a clear idea of what to explore within the research area, but there is no predominant list of questions. Instead the interviewee is encouraged to talk freely about the relevant topic and behaviour, feelings and events related to this (Saunders et al., 2012).

**Our research:** The data collection for this research has been based on semi-structured interviews. This approach matched the purpose of our research, as the nature of the interviews enabled us to focus on how and why our respondents perceive aspects of the rolling forecasting process as they do. Before the interviews we prepared an interview guide, which is a somewhat structured list of issues to be addressed or questions to be asked during the interview (Saunders et al., 2012). The interview guide was a useful tool to make sure we got through all topics of interest. A semi-structured interview enabled us to ask follow-up questions when we wanted the interviewee to explain or elaborate on their responses. This helped avoiding bias, by giving the interviewees and us the opportunity to ask again if something was not clear.

#### 3.3.2.1 Conducting the interviews

As mentioned the process started with several meetings with our contact person in DNV GL. The goal of this phase was to create an understanding of the situation in the organization today regarding the financial planning system, problems that existed and also to create an understanding of how we could create something of value for both DNV GL and for the purpose of our thesis. This also gave us insight on how the organization is organized and what we could expect to meet during the following interviews.

Before conducting the interviews we studied relevant theory and previous research related to our topic of interest. We also studied our case object through their web site and documents about the introduction of their new financial planning system provided by our contact person. We thus obtained an adequate level of on the topics so we would be able to demonstrate competence and credibility in order to gain the confidence of our interviewees later on during the interviews. Based on our theoretical framework we developed an interview guide. Our interview guide included an introduction of ourselves, the purpose of the study and what we hoped to give back of value to DNV GL. We also spoke about the Informed Consent Form to assure the interviewees about confidentiality and anonymity. We also informed them that we wanted to audio-record the interview and gained consent from everyone, by agreeing to send them the transcribed material when ready. Having in mind that trust might be a sensitive topic, we built the questions around the concepts of ability, benevolence and integrity. We

were of the perception that asking questions around the concepts would make it easier for our respondents to elaborate around the topic.

DNV GL is an international organization and due to geographical locations of our respondents, several of the interviews were conducted using the organization's videoconference facilities. Six interviews were conducted in person, five interviews were conducted by videoconference and one interview was conducted by phone. The down side of not conducting the interview in person is that you may lose body language or facial impressions that may be important for the overall impression in the interview (Johannessen, Kristoffersen and Tufte, 2011). However the videoconference facilities were good and we did not experience any differences in the conduction of data or the quality of the data conducted related to the nature of the interviews. We also experienced that the one interviewee who we spoke to by phone spoke freely. All interviews were audio recorded so that we did not have to take too many notes during the interviews, and could focus on asking good questions. The interviews lasted about an hour.

We soon discovered that some of our original questions included too many theoretical concepts. Easterby-Smith, Thorpe and Jackson (2008) state that the interviewer and the interviewee must clarify that they share a common understanding when specific terminology or theoretical concepts need to be used. The wording of some questions was thus changed, as we experienced that the change made it easier for the interviewees to understand what we meant to ask for.

One of the interviews took a surprising turn when we realised that our interviewee saw more value of another tool and thought of rolling forecasts as excess, when this tool was in place. However by that time we had already conducted several interviews, and we therefore had no problems asking relevant questions that were of value for our study. Before conducting the interviews with our respondents in the same business area we prepared some additional questions in case that they had the same perception of the value of rolling forecasts, however they did make use of rolling forecasts and the original interview guide was thus used.

We were anxious to see how open the respondents would be regarding our questions related to trust in the forecasted numbers, thereby also asking about their experiences with trust towards their colleagues at other levels. We were pleased to experience that the respondents spoke freely both about trust and distrust, and we believe the structure of our interview guide



was an important factor. By introducing the interview with information about ourselves, our research and what value we were hoping to bring to DNV GL, we experienced that we were able to generate credibility. The first half of the interviews were mostly about the forecasting process in the company, and the interviewees thus became comfortable with the interview situation before we started asking the questions regarding trust.

### **3.3.3 Analysing the data**

After conducting the interviews, all interviews were transcribed in order to ensure data were not lost and to make the data easier to work with during our analysis. For the analysis we made use of a template analysis, where we created and developed a template of categories representing themes revealed in the data collected and the relationships between these. Some codes like perceived value of the process, perceived ability, trust and integrity were predetermined, and then more were amended or added as data were analysed. The data from the interviews and the secondary sources provided by our contact person were repeatedly analysed, categorised and compared until we reached a conclusion.

### **3.4 Evaluation of the chosen methodology**

Generally accepted and well-established criteria for assessing quantitative research are the concepts of reliability and validity (Flick, 2011). They are based more or less on the standardization of the research situation. It has been suggested that classical criteria of empirical research; reliability, validity and objectivity, may also be applied to qualitative research (Yin, 2003; Kirk & Miller, 1986). While others like Guba and Lincoln (1985) and Glaser and Strauss (1965) raise doubts as to the applicability of the criteria for judging the credibility of substantive theory based on qualitative research. They suggest other criteria must be applied, Glaser and Strauss (1965) suggesting rather that criteria of judgement be based on generic elements of qualitative methods for collecting, analysing and presenting data and for the way in which people read qualitative analyses. Guba and Lincoln (1985) posit that trustworthiness of a research study is important to evaluating its worth. According to them trustworthiness involves establishing credibility, transferability, dependability and conformability. In this thesis we choose to assess the quality of the research and avoid deriving erroneous conclusions based on the research, by focusing on reliability and validity.

### 3.4.1 Reliability

Bryman (2012) defines reliability as the degree to which a measure of a concept is stable. It refers to the extent to which the data collection techniques or analysis procedures will yield consistent findings. The data is reliable if similar observations will be reached by other researchers, and if there is transparency in the interpretation of the raw data (Saunders et al., 2012). This criterion is, however, less suitable for qualitative than quantitative research for several reasons. First, structured data collection techniques are not used, and the dialogue in the interviews may affect the data collection. Secondly observations are highly context dependent, which can make it difficult for other researchers to achieve the same result. Finally the interpretation of observations is closely related to the researcher, largely because it may be influenced by the researcher's background and experience (Johannessen et al., 2011). However, according to Lincoln and Guba (1985) reliability in a qualitative research is not based on outsiders getting the same results, but that outsiders concur that, given the data collected, the results make sense. In other words, the results must be dependable and consistent. Saunders et al. (2012) point out that there may be four threats to reliability, which are participant error, participant bias, researcher error and researcher bias.

#### **Participant error**

One of these threats refers to any factor that adversely alters the way in which a participant performs, thus it is named participant error (Saunders et al., 2012). The interviews conducted in this study were all voluntary and scheduled at the interviewees' convenience and at the interviewees' preferred location. Thus, even though the interviews were conducted during a hectic period, the flexibility of the interviews minimized the interference with the interviewees' normal work duties. Participant error should therefore be low. However some of the business areas are still in a merging process between DNV and GL and the findings in this thesis may therefore be subject to change when the process is done. The comments, tone or non-verbal behaviour of the interviewer may create bias in the way that interviewees respond to the questions being asked, and the researchers therefore had in mind not to reveal our personal opinions regarding the topics discussed.

#### **Participant bias**

Another threat toward reliability is participant bias. This takes into account any factor that induces a false response. The interviewee may be willing to participate in an interview but may nevertheless be sensitive to the exploration of certain themes, choosing not to reveal and

discuss an aspect of the topic that the interviewer wishes to explore. The outcome of this may be that the interviewee provides a partial picture of the situation that casts him or herself in a socially desirable role, or the organization for which they work in a positive or negative fashion. By ensuring anonymity participation bias may be reduced (Saunders et al., 2012). Since a manager provided us with the names of the interview subjects the participants may have been affected by this. However all organization of the interviews was done by the researchers and all participants were informed that participation was voluntary and that answers would be treated with full anonymity. It also seemed to the interviewers that participants were not afraid to answer truthfully, but rather wanted to get their opinions out so that this research might also benefit them. The geographical distance between levels may also have made it easier to answer truthfully about their feeling of trust to a superior or manager on the level underneath.

In addition the interviews were conducted in a private setting, to reduce influences from external factors. Bias may also result from the nature of the individuals or organizational participants who agreed to be interviewed, labelled as participation bias. However we received several points of views, and is therefore not under the perception that the participants who agreed to be interviewed only represented one dimension of the subjects under discussion. We both had respondents that perceived themselves as advocates of the use of rolling forecasts, and respondents who did not find as much value in using rolling forecasts.

### **Researcher error**

The threat concerning errors made by the researchers in gathering, interpreting or analysing data is known as researcher error (Robson, 2002). Researcher error may be reduced by a high degree of structure and recording of the data (Saunders et al., 2012). In this research all interviews were recorded and transcribed before the analysis, to ensure that everything that was said was taken into account in the analysis. The transcriptions of the interviews were then sent to the interviewees for confirmation in order to prevent misunderstanding from the recordings. Both the audio-files and the transcriptions, together with notes taken during the interviews were used during the analysis. The interviews were conducted face-to-face, by videoconference equipment and one interview was conducted by phone. Complementary observations such as facial and other non-verbal expressions used to strengthen the interpretation of data thus might have varied in the interviews, but the due to the high quality

of the videoconference equipment used the researchers did not find the complementary observations any less of value. Finally, both researchers conducted all interviews.

### **Researcher bias**

The last threat is known as researcher bias, and is related to the researchers themselves and if they are accurately analysing and interpreting the data (Saunders et al., 2012). A researcher may allow his or her own subjective view or disposition get in the way of fairly analysing and interpreting participants' responses. None of the researchers in this thesis have any affiliations with DNV GL outside of this research project, which entailed an impartial approach towards the research object. However the interpretations of the qualitative interviews are subjective by nature. To limit researcher bias thoughts have been shared and findings discussed between the two researchers during the research project. In order to strengthen the reliability of the study it is attempted to provide a detailed description of the chosen methods and procedures used in this thesis as well as to distinguish between the data, the analytical framework applied and interpretations. Direct quotes from the interviews are also used. Direct quotes taken out of a larger context may cause the meanings behind it to change, and the researchers have therefore been careful with how quotes are presented in the empirical findings.

### **3.4.2 Validity**

Veal (2006) defines validity as the extent to which information collected by the researcher truly reflects the phenomenon being studied. This is in accordance with Easterby-Smith et al. (1999) who argue that validity is granting full access to the and meaning of informants. Johannesen et al. (2011) divides validity into three different groups being construct, internal and external validity.

#### **Internal validity**

This form for validity considers the extent to which the researcher has gained access to a participant's and experience, and is able to infer meanings that the participant intends from the language used by him/her (Saunders et al., 2012). Zaltman, Florio and Sirkorski (1977) define construct validity as the extent to which an operationalization measures the concept that it purports to measure. Construct validity is thus in this research looked up on as a form of internal validity, where the definitions used are in accordance with what is studied in this research (Jacobsen, 2005). Internal validity is less of a problem in this research as a

qualitative approach minimizes the risk for misunderstandings regarding the questions. Qualitative research gives us the opportunity to explore and explain the different terms, and the interviewee may provide definitions herself/himself. To establish validity we will send the transcribed data to the interviewee, so he or she can give feedback on the interview. The research is also based upon several interviews, theory and internal documents from the organization, and we thus achieve triangulation in our research. By triangulation we refer to the use of different data collection techniques within one study, in order to ensure that the data is telling us what we think they are

### **External validity**

This form for validity is concerned with the question of whether the results of a study can be generalized beyond the specific research context (Bryman, 2012). In this context the issue of how people are selected to participate in the research becomes crucial. With the non-probability purposive sampling we have chosen in this study, we simply try to select units we think are representative of the population in subject. However they are unrepresentative of the population and external validity in this research is thus problematic because it is based upon a single case study of DNV GL. However for a qualitative research a single case or small non-random sample is selected precisely because the researcher wishes to understand the particular in depth, not to find out what is generally true for many (Merriam, 1998). Information that is extracted from the interviews may be transferred to more general conclusions; if we succeed in establishing descriptions, concepts, interpretations and explanations which may also be useful in other contexts (Johannessen et al., 2005).

This study looks closer at what facilitates and challenges trust in the forecasted numbers and thus the employees' willingness to make use of the forecasts as a management tool. By analysing how different employees make sense of aspects as facilitating or challenging trust, it may lead to conclusions that can be of value to other companies trying to succeed in the use of rolling forecasts. This study is based upon interviews from four different business areas, and if the study does not find any clear differences in the facilitating and challenging factors it may suggest that aspects of the process related to trust is of similar nature across different types of companies. Thus the interviews conducted in DNV GL can provide a good picture of how the situation is at the different levels in this organization, but it cannot necessarily be transferred to other levels in the organization or in other companies. It is on the other reasonable to assume that the conclusions emerging from this thesis will be relevant and

beneficial to others who have implemented, or are in the process of implementing rolling forecasts as a management tool. If the study finds factors that are particularly facilitating or challenging to trust, these are factors that can be further explored and factors that companies may take into account in their attempt to adopt rolling forecasts.

### **3.5 Ethical issues**

In the context of research, ethics refer to the standards of behaviour that guide your conduct in relation to the rights of those who become the subject of your work, or are affected by it (Saunders et al., 2012). Reporting your results objectively and honestly are the most important aspect of ethics (Ghauri & Grønhaug, 2005). More over they must not be distorted to fit your purpose, harm a particular participant/target group or presented so that they do not reflect reality. Any misinterpretation of data will lead to misleading results and is ethically wrong. Diener and Crandall (1978) have broken issues regarding ethical principles down to four main areas: 1. Whether there is harm to participants, 2. Whether there is a lack of informed consent, 3. Whether there is an invasion of privacy and 4. Whether there is deception involved.

#### **Harm to participants**

The issue of harm to participants is addressed in ethical codes by advocating care over maintaining the confidentiality of records, meaning that the identities and records of individuals should be maintained confidential (Bryman, 2012). In our process we have consistently made use of aliases for our interview objects. DNV GL is with 16 000 employees a large company and any outsiders that have not been a part of this process will not be able to identify any of the respondents. As mentioned earlier one contact person provided us with four of our interview subjects who then again provided us with two each. The contact persons naturally know who has been involved in the process. We have done our best to not use characteristics that will make the interviewees recognisable for these contact persons, but especially one business area will be recognisable. However the information is not something s/he would not like his or her superior to know.

#### **Informed consent**

The research participants in this study have signed informed consent forms, giving them the opportunity to be fully informed of the nature of the research and the implications of their participation at the outset. We have given them as much information as might be needed to

make an informed decision, we have been open about whom we are and what we are researching and the participants have had the opportunity to ask us questions and withdraw from the study at any time.

### **Invasion of privacy**

The third ethical concern related to whether there is an invasion of privacy is very much linked to the notion of informed consent. By signing the informed consent form they have in a sense accepted that the right to privacy has been surrendered for that limited domain (Bryman, 2012). However the research participants in this study are free to refuse to answer, and some resistance to answer questions regarding trust being a sensitive topic was expected. But as we did not experience any hesitations to answer, we assume that the research participant did not perceive the interviewing process as an infringing their privacy.

### **Deception**

This occurs when researchers intentionally present their research or its objective as other than what they are (Ghauri & Grønhaug, 2005). Deception is probably quite widespread when researchers want to limit participants' understanding of what the research is about so that they respond more naturally to the experimental treatment, or when for example a researcher is doing a research for one company but while studying competing firms does not reveal that. Deception was not an issue with this study, as we had no interest in presenting our study to be something else than what it is. It was of our highest interest that the research participants understood what the subject of interest was.

## 4. Empirical Settings

### 4.1 Empirical background

The following information on the empirical background of this thesis is retrieved from DNV GL's official web site, internal documents on Dynamic Forecasting in DNV GL, meetings with a project coordinator and through interviews with employees.

Before the introduction of Dynamic Forecasting, DNV used a traditional budgeting and forecasting process. This involved target setting, forecasting and resource allocation being combined in one process. They operated with a twelve-month planning horizon based on year-end targets. DNV was usually in budget mode from September – December. It was continuously forecasted against year-end, the forecasts thus decreasing in length as the year-end approached.

#### **The introduction of Dynamic Forecasting**

In 2013 a new business performance management model was introduced to the group controllership in DNV. They named it Dynamic Forecasting, and defines it as: “A forward looking forecasting model that separates the traditional budgeting elements of target setting, forecasting and resource allocation, while extending the planning time horizon beyond the conventional twelve month budget cycle.” The separation of the traditional budgeting elements is supposed to allow for each element to be developed independently and not be influenced by the others.

The Dynamic Forecasting model contains ambitious targets aimed at maximising short- and medium term profit potential at every level of the business. It should be a combination of a fixed number and relative performance targets based on competitors, peers or prior financial periods. The Dynamic Forecasting model use rolling forecasts for continuous planning. The forecasts should be business driven and not calendar driven, to provide early warnings for upcoming changes. The forecast is prepared each quarter to cover the upcoming five quarters. DNV GL depends on dynamic resource allocation rather than pre-allocation of resources. Allocation should be based on project needs and criteria, where managers are held accountable.



## **Dynamic forecasting in DNV**

The benefits of the Dynamic Forecasting model that were presented to the group controllership in DNV at the point of introduction are many, some of them being an extended planning horizon, continuous rolling forecasts and forward looking.

The dynamic forecasting in DNV GL is a process consisting of four elements, where four questions are asked. “How are we performing? What adjustments need to be made? What does the future look like? How can we impact tomorrow today?” The four elements related to these questions are check, plan, forecast and act.

### **Check (monthly/quarterly reporting)**

The monthly and quarterly reporting should be a check of current performance against target to see where the business is now. How are we doing against our goals, last year, peers and best practices? What do we need to change? Relative improvement targets are encouraged. It should be based upon continuous performance improvement, and set against specified benchmarks such as competitors, peers or prior financial periods.

### **Plan**

A plan for eliminating any deviations between current performance and targets should be made. The employees need to assess what their best options are, what resources they need, what the risks are and whom they need to coordinate with.

Frequent business performance review meetings are encouraged with a forward looking and action-oriented follow-up. The business performance review should be based 50-50 on future and historical numbers. The future is assessed by looking forward, comparing performance to rolling forecasts, and historical by comparing performance to actuals.

### **Forecasts**

Forecasts should be made on a rolling 15-month time horizon. The forecasting should be honest and unbiased, and be viewed as a management process, not an accounting process. Operational managers are responsible for making decisions and holding their teams accountable for performance. It should be actionable forecasts that are prepared for each operational unit's specific goals, used to foresee potential issues early enough to be able to take corrective action.

## **Act**

It should be implemented initiatives for maximizing performance, and identified needs for additional funding to meet initiatives. The business should adapt by revising forecast or allocating resources in a different way. Adjusted KPIs or other performance measurement goals if needed and communicate actions to relevant stakeholders.

## **Quarterly review process and reporting**

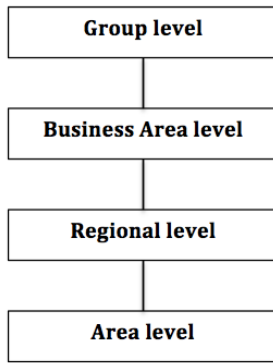
The quarterly review process and content is owned by each company, but a more forward looking approach with emphasis on utilising forecast data and the action log from previous flash reports is recommended. Reviews should take into consideration targets, historical performance and forward looking forecast data. Risk mitigation and action plans should be developed to reduce any variances.

## **Flash reports – monthly**

Flash reports are provided the months where there is no quarterly reporting. The flash report includes monthly performance with a short summary of current performance. It also highlights key business opportunities in the coming month, and the implications of these opportunities. Green flags identify significant achievements and goals, related to either key financial performance or individual KPI achievements. Red flags identify significant risk areas towards either key financial performance or KPIs. The flash report also includes an action log with mitigation plans towards risks and red flag areas, dates and responsibility.

## **Organization of the business areas**

The figure below presents the structure of the various business areas.



*Figure 8: Illustration of business levels in DNV GL*

There are some variations in the organization of the different business areas, but they are all organized in levels with the Business Area level on top, which is reporting to the Group level. Group level is the corporate level in DNV GL, and is top management across the different business areas. Below the Business Area level they all have regions, except Oil and Gas that are organized into divisions before it is divided into regions. Energy and Maritime do also have units that are operated as a global business which isn't geographical and therefore do not have the same division into regions. Each region consists of a number of geographical areas or countries, and then below the area/country level you find another level referred to as departments/sections/stations depending on the business area in question. Although there are some variations, the model above illustrates the general organizational structure across business areas.

### **The financial planning process**

DNV GL operates with a planning cycle where a very detailed strategic planning process is performed every five years. It's a top-down, market driven Group process. Within each business area, the CFO is responsible for ensuring that relevant processes and tools are aligned with Group's requirements regarding the dynamic forecasting process. All business areas have to forecast external revenue and EBITA according to a fifteen month rolling horizon, the next three months isolated plus the next four quarters. Each business area is required to produce a Flash Report in the months where there are no quarterly reports, and engages in a quarterly review process that takes place after closing in December, March, June

and September. The business areas do also submit a Quarterly Review Report to the DNV Group.

All Business Area levels ask for forecasts from the Regional level. How the forecasting process is done on the Regional level depends on the regional manager and the regional controller at each region. Some choose to have the area/country manager report forecasts to them, while others make their own forecasts based on input gathered from area/country managers. The area/country manager also choose how they make their forecast if they are required to report forecasts to the region.

During the fall all business areas have a more detailed annual planning. When quarter three forecasts are finished, the business areas have a full twelve months set of data for 2016. These data are then also used as input to make an annual reporting plan and a tactical plan. Targets are then set on the basis of these numbers.

Maritime and Business Assurance have a tool that is used by the entire business area for forecasting purposes. In Oil and Gas and Energy the regional managers make their own tools that they distribute to the area/country managers, or put in input themselves if they do not gather forecasted numbers from the lower level. Group has its own tool where the Business Area level reports the consolidated forecasts for the entire business area.

## 4.2 Empirical Findings

### 4.2.1 Rolling forecasts in action

We find variations in practices between the different levels in the organization and between business areas. The respondents explain this differences as a consequence of the mandate, in adapting the practises to the best fit for the business unit, given by Group. Therefore there are also variations in the tools being used and the time spent on the process. This will be discussed further in the analysis. However in most cases there is a common perception of the financial planning process, and unless the respondents attach their experience to the characteristics of the business area they are in, the findings presented will not distinguish the different business areas.

#### **Developing rolling forecast**

The respondents understand the rolling forecasting process as a quarterly process made to provide relevant and updated information for the upcoming five quarters. The respondents make sense of the process as a guideline to show how the future will look like, saying that it leads to better-informed decisions in the organization. Some say that if they see a trend, they would expect it to relate to the forecasts. Some carry out the forecasting process in very clear stages, where it is set aside a specific amount of time for preparing, collecting data, making forecasts and the following discussions. Others do it on a more continuous basis, making the forecasting process a part of the day-to-day business. One of the respondents who choose to do it on a more continuous basis says the whole process is carried out through continuous discussions. The respondent describes it as a natural way to follow up the business, where s/he gathers input from the managers on the level below and then makes the forecasts him or herself. The respondent sees the discussions as the most important and says that some of the managers on the level below him or her might not even be aware that the organization actually applies rolling forecasts. The respondent gathers the input needed for making the forecast through regular conversations about how business is going, and is not sure if the managers s/he speaks to read the reports containing this forecast information.

*“Well yeah, they receive the forecast as part of the report, but then again if they actually read it and if they understand what all of it is, that’s a good question. I would like to say yes, but I wouldn’t be surprised if you were to interview a manager and one of them or two of them would say that no, they don’t know about the forecasting.”*

While most of the respondents we spoke with choose to consolidate forecasts given by the level below, others make their own based on input given by the level below. The choice of gathering forecasts or only input is entirely up to the manager, and it thus varies in the organization. However every regional manager/regional controller provides forecasts to the Business Area level, which reports forecasted numbers to Group.

The forecast in quarter three is understood as the most important one by the respondents. At this point the forecasting period will cover the next annual year and they clearly see a connection between targets and forecasts. The forecast for this period is understood as the basis of the target for the upcoming calendar year, which the bonus is related to. Respondents therefore describes this period as more intense as the work is perceived of higher importance, and therefore requires more discussions and has to be done more thoroughly at every level.

*“And what you actually see now, we still have a target process, we don’t call it budgets, but a target process. This is actually quite the same. We still go and do all the details, all the cost-elements all that cause the movements. So basically, we still do that. And not just we, but the whole group.”*

Some see the difference between forecasts and targets as quite clear, while others understand them more as blending into each other. How this is perceived affects how the process is carried out.

### **Year-end focus**

Some respondents believe the year-end focus is the reason why parts of the organization are still confused about the difference between targets and budgets. These respondents perceive a focus on year-end from the management reports that Group provides, which measure results by comparing them to year-end targets. The incentive schemes for the target are also based on a calendar year. The respondents understand this as a desire from the top to keep an annual focus. One respondent describes this as a reason for why it is difficult to prioritise the future, over the near future limited by the calendar year. This makes today's processes resemble the old budgeting process.

*“Because if we talk about rolling forecasts we talk very much about long term, not forecasting towards 31 December. But if you look at the management report of DNV they only focus on the year-end target, and what is behind that. Okay, they sometimes say a bit about it, but not very much in focus. At least in the management reports that I see. I think there should be a bit more focus on what happens after the 31 December, the first quarter, the second quarter now. So there could be some more focus from Group there.”*

There is a mix of perceptions among the respondents on Group's practice of rolling forecasts. Some respondents are unsure if Group is really doing rolling forecasts, or unsure about where they want to go with it.

*I don't think the Group is really doing rolling forecasting.*

*I don't really know where they want to be.*

In order to make changes in the organization happen they believe that Group has to make the changes more visible themselves. According to a respondent rolling forecasting is talking long term, not forecasting towards the end of the year. As mentioned, DNV GL management reports focus on the year-end target, which makes respondents perceive the Group as having a year-end focus as well. With more focus on what happens after the 31<sup>st</sup> of December, the respondents believe the Group would be perceived as having a more long-term focus. It is also believed that the board, which Group has to answer to, is not ready to let go of the comparison against budgets.

*I also think we are very much sometimes limited by group, because group has to answer to the board and as far as I've understood the board is not 100 %, I mean they have kind of said yes to this forecasting process, but I don't think they have embraced it. For instance the first time we delivered the targets instead of a budget, I think it was one of the board members who made us write budget equals target in the column and have that included in the report, and to me that says a lot. That you're not letting the budgeting go.*

Respondents believe that a clearer focus on where the organization is heading given by Group and the top management in each of the business areas, would make it easier for them to make sense of the process.

*If they don't manage to show to the organization where they want to go, then they might not get there.*

*It's more the passion and the belief of your senior management, they have to drive it.*

### **Involvement of levels**

The data in the forecasting process is collected bottom up, meaning that it is gathered from lower levels in the organization and passed upwards to their superior level by level. There exist different opinions among the respondents on how many levels that should be involved in the forecasting process. Some respondents see little value in including the lowest levels of the organization, because it will increase the total time it takes to finish one round of forecasting without adding enough perceived value. The data that is collected at the lowest levels are perceived as less reliable. This is due to great variations in the market where the levels operate.

*"And we push that far too down into the organization, and the amount of time that I think you should spend on a process is correlated to the quality of your inputs. So if you know that your order book is quite variable, why spend hours and hours and hours on a forecast process knowing that what fundamentally drives your forecasts is quite inaccurate to start with."*

While others believe it is valuable the further down into the organization the process is done, as it forces managers at all levels to be more on top of their business, and more aware of how different events will have an effect on their business.

*"I think as we introduced such structure process (the quarterly forecasts), where they are forced to deliver something, and we are following up on the achievement of what they expected, it's more focus. Because whenever you introduce a duty, nobody is in the end following up. It's gonna fade out and in a certain period just simply stop doing things. Because other things become more important. So I think it's more a remainder and, whether or if sections are doing what they are supposed to do in thinking advance and reacting not after the fact but before things happen and also escalating issues they see quickly enough so they can base decisions on that.*



*“I think that it makes the business aware of what it actually means. So if three resources in a critical business area leave, what does that actually mean for the line managers business? (...) Because the fact that we in our region have this down at department level makes at least the head of departments aware of the financial impact of what happens in their business.”*

### **Level of details**

Although Group mainly asks for only two forecasted key numbers, we find that much more details are gathered throughout the organization in the forecasting process. Respondents seem to agree that the two numbers required from Group provide too little information for them to act upon. They perceive a higher need for details in the lower levels of the organization. The employees on the lower levels in the organization agree that a few key numbers can be enough for Group to get an overview of the future, while they themselves believe they need more details in order to keep up with the business on a day-to-day basis.

*“And the results for the dynamic forecast is uploaded into what the group provides, but group has much less data than we have.”*

*“I collect everything possible today. It’s sort of a bottom-up process.”*

Some make sense of the high detail level to be due to what type of manager you are. While some are more comfortable with running their business knowing all the details, others find the same value in having a more high level focus. The amount of questions asked regarding the forecasts are also mentioned as a reason for the gathering of all the details. Everyone wants to be able to answer when their superior raises a question about their numbers.

*The reason people want to do that is because people in higher financial positions, will ask them very detailed questions. And our reporting, whether we like it or not, is always against a budget. So when you constantly compare some of this actual performance with a budget, they want to be able to explain to you what the difference is and what has caused the difference. And if they don’t have a detailed budget, they’re not really in a position, or they don’t think they’re in a position to be able to do that.*

*Business Area management basically just expect a very big picture, but if they have a question, then I have to explain how we actually did our numbers and what we have included in the numbers.*

Another understanding of the level of details is that the employees need to consider all the different elements anyways to build a forecast. A suggestion from a respondent is to provide a tool for building the forecast, while holding that separate from the actual report so they would not be held responsible for all the details.

*Well we discussed this. If we could simplify the forecasting process by taking some elements out, but at the end of the day you have to build your forecast somehow so you have to consider all the different elements, and basically all the different elements that's your profit and loss. (...) Maybe you could provide a tool for them to kind of build their forecast, but then hold that separate from what they actually report, right? So they wouldn't be held responsible for all the details, but the details would be there for their own use.*

### **Time spent**

The level of details has an effect on the time used. Respondents that believe the process still holds too much details says that the forecasting now has become very time consuming. It is said to be basically budgeting four times a year, because all the details makes the forecasting resemble a budgeting process. Instead of having a period of 2,5-3 months on doing budgets, it is very intense work for a short period of time several times a year. These respondents believe it would benefit employees at all levels if the forecasting was much simpler and contained less details. They believe it is more important to understand the key variables rather than getting into details.

*"While budgeting was done only once a year, but it was like 2,5 – 3 months long process, with a lot of intense working days, while now it is more like very intense working days for a short period of time, but it is done four times a year. So I guess it is kind of equal, but that is also because what we are doing now is basically budgeting four times a year, because it is so detailed."*

The variations in the process also apply to the time spent on making the forecast and on the following discussions. Some respondents perceive the discussions to be the most important in

the process, and therefore describe the forecasting itself as a rather quick process. The following discussions are on the other hand more time consuming. As a result the rolling forecasting process is believed to have added value, but also added time to the financial planning process over all.

### **Accuracy**

There are different beliefs on whether the accuracy of the forecasts or the process itself is the most important aspect of the forecasting process. Some attributes the value of the process to the discussions and the process itself, and for them the exact number itself does not matter that much. How employees are forced to think ahead is considered of more importance. Being able to build a strategy around the forecasting process is also understood as important amongst these respondents.

*“I think that is, the process around it that is very important then, because it’s coming back after you every quarter. So it should not be, it’s not a kind of mathematical assignment, it’s more the process around that. And yeah how you then discuss that in your review meetings between the senior management and the regional management and also within the regions.”*

Others are of the opinion that the forecast should be as accurate as possible to evoke the right actions. Some of these respondents give feedback to managers on their development of the accuracy in their forecasts. Several respondents receive reports where this evaluation also consists details about the accuracy. This can also be a part of the discussions regarding the forecasts, to see and understand why they did or did not foresee events that occurred. If the following discussion does not evolve around earlier forecast, it is often left up to each person to check whether they hit the forecasts or not. Some expect the employees to look up how they did, in order to develop and enhance the value of the forecasting process by becoming better at forecasting themselves. On the other hand there are few of the employees that actively engage in this self-evaluation process of the forecasting accuracy.

In sum, both accuracy of forecasts and the process of making the forecasts are considered important and giving value to the organization.

### **Budgets and forecasts: a never-ending relationship?**

The respondents understand the financial process in DNV GL as a combination of rolling forecasts and targets to different degrees. Some of the respondents explain that the target was

introduced as a replacement of the budget, while rolling forecasts was introduced later the same year. Many respondents therefore see the rolling forecasts as an addition to the financial process instead of a replacement of some of the functions that the business already had. While others do perceive the purpose of separating the three elements as introduced at the same time, making more sense of the rolling forecasts as a replacement of budgets instead of something in addition.

The majority of the respondents describe targets as another name for budgets. The same goes for AOP, which stands for Annual Operating Plan. They understand it as a fixed annual process where they are trying to combine information from the market with the plan for the next year for the business. One of the respondents states that while the name changes with time, the process (budgeting) stays the same.

*“We are making a joke with our colleagues now: “we are not allowed to say budgets””*

*“What you actually see now, we still have a target process, we don’t call it budgets, but a target process. This is actually quite the same. We still go and do all the details, all the cost-elements all that cause the movements. So basically, we still do that.”*

*“We are trying to figure out what we will get next year or in dynamic forecasting in fifteen months, so whatever word you use... In different languages it is a different word, it is not popular anymore to use the word budgets, but it is basically the same thing. Don’t ask me why this terminology changes, probably somebody globally is changing the fashion for the wording of the same thing. But it is the same thing. You can call it target or budgets, it’s a bit different from dynamic forecast. Target is fixed more or less for 2016, but we are allowed through dynamic forecasting to adjust it on a quarterly basis. So one goes with the other.”*

The respondents believe the level of details is what sets today's target process apart from the former traditional budget process in DNV GL. There seems to be a common perception that traditional budgets are not the right tool when used in the way it was before with the extremely high level of details. The process included specific details for each individual, and the practice was highly time consuming. Although the majority do not miss the old budgets, there are many employees that perceive it as unbearable to manage without a budget at all. This is attributed to the opportunities it provides in sense of controlling and reporting the

business at lower levels. Many employees perceive the need for control as higher and more detail-required the further down in the hierarchy you are.

*“I think any business need to have targets. So we have an annual planning process, just as we always had. It’s not that different from a traditional budgeting process. So that is one part of the financial planning process.”*

*“But I think there is no way to live without a budget. The question is, do you collect it at the top level, this might be okay not to have all the details. So I’m also not in favour of having the amount of pencils you’re going to buy next year budgeted, that doesn’t make sense. But the big level, for me the key element is all around personnel. That’s 50% of our costs. This is our producing work force, where we get the chargeable hours out of, so I’m doing that on a very detailed level, on top of just what you see at corporate level. So everything is around individual head count, who is leaving, when do we want to replace, what’s that individual’s chargeability, where does he spend his time on training and whatsoever. So this is basically my foundation. So I think at least for my operational steering logic, a budget is mandatory.”*

There is a common understanding that there is no turning back to the traditional budget amongst the respondents. Many of the respondents do not believe that what they now call target is very different from what they used to call budgets, but still believe that the financial planning process has been improved because forecasting and targetting used today give them more freedom. They now perceive it as their choice to have forecasts on 15 numbers if they like, which will keep it away from the individual level the old budget demanded. There is an observed difference between what is collected and what is required for reporting. Therefore it makes sense to them that it now depends more on what the individual controller or manager decides, so the financial planning process has in a sense become less standardized for them.

#### **4.2.2 Perceived advantages with rolling forecasts**

##### **Better foresee the future**

There is a common belief amongst the respondents that rolling forecasts has made employees focus more on the future than they did before. It is said that people are being forced to face the reality and the upcoming events. The rolling forecasts is therefore understood as solving

one of the problems that were in DNV GL with budgets before, mainly that the data became out-dated as the world moved too fast for the annual planning tool. Respondents explain that they could not find these answers in historic data, but that there was a need for looking forward. Rolling forecast reflects this change better as the quarterly updates makes it more suitable for a changing environment. Some respondents say that the organization now has the opportunity to be more strategic in their outlook and they refer this partly to the rolling forecasting process.

### **Frequent and valuable discussions**

From the interviews we find that the discussions that come with the forecasting process is something the employees perceive as highly valuable. One of the employees states that the rolling forecast is a good tool, but without the discussions it does not help the financial planning process.

*“It’s a good tool you can use to have that discussion, but if you don’t want to have that discussion, the tool doesn’t help.”*

The quarterly forecasting process is perceived as forcing the organization into thinking about which direction the business is heading, and thus fostering valuable discussions that otherwise might have been given less priority when you are busy with daily business. By having a deadline for the financial planning process four times a year, rather than once a year as with traditional budgets, a valuable assessment of the business is taken frequently.

*“To start these discussions really, cause otherwise you’re so busy on the daily business, and you always say “aah I should think about it, maybe next week.” And then suddenly something else starts burning and you focus on that one. So if you have that kind of deadline on a quarterly basis you’re forced to deliver something so you have to make it happen. And this is an enabler to actually make the process of thinking in advance happen.”*

The type of discussions taken is also considered important, where discussions regarding factors driving the key numbers are those that create confidence in the numbers discussed. By discussing drivers in the market it fosters a perception of a common understanding, and the belief that the employees have the same assumptions behind the numbers resulting from the

discussions. Discussing the numbers by themselves and if it is a good number or not, is perceived as giving little value to the process.

*“And when I would say, you know we more discuss the numbers, and is it a good number or not, than the reason behind the numbers. We need to get away from that, as we keep talking about, the number, if it’s good or bad, then we will not spend enough time on what is driving the number.”*

The frequency of the discussion and the fact that you need to discuss all five quarters being forecasted creates a sense of more transparency in the financial planning process in the organization. With the year-end focus that was with the traditional budgets, less concern was taken regarding the coming year. The focus was on performing well the year you are in, and employees might have been tempted to report next year’s January revenue in December, to make this year look great. However with the long-term forecasting and more frequent discussions, it makes it more difficult to make this kind of adjustment to achieve this type of short-term gains because you still have to discuss the upcoming quarter.

### **More market understanding makes better forecasts**

Both people with financial and technical backgrounds are involved in the forecasting process. Respondents describe the process often driven by people of financial background, making the forecasts from Regional level and up, and technicians having responsibility from Area level and down. There is no formal and structured training regarding the forecasting process in DNV GL, and employees are therefore learning by doing, getting more experienced with time

Some respondents see the need for more training in order to succeed with the forecasting. There was some formal introductory training when the rolling forecasting process was introduced, but now it is up to the employees to train the ones that are newly hired themselves. Some errors are discovered during discussions, and the feedback from these discussions can also serve for improvement and more individual practicing.

*“Oh, they don’t get much training. I hate to say this. You know we don’t have any structured training for this. We did have the training in forecasting and how to go about it when we introduced it, the rolling forecast concept. Going from there, I think we are guilty, as many other companies, to you know expecting that everyone then knows, when we have*

*implemented it. I think the training for managers, and especially for new managers is basically on-the-job-training. And trial and error.”*

Other respondents do not see the need for more training when referring to the forecasting tools. They describe the forecasting process as easy by saying it is not “rocket science”.

*“Off course we have some training, none of us in Production have any kind of economy diploma or anything related to business, but with some experience and in that level we are in now, it is not rocket science.”*

Respondents experience errors that they refer to as “screwboard errors”. One example of such an error is an employee that forgot Chinese holiday and forecasted full operation that period. The respondents understand these errors as something that can and should be avoided over time. More experience and on-the-job training is understood as the solution for these kinds of mistakes.

*“We made easy mistakes, for example in China they have big holidays that lasts for a week, use actually 10 days on holiday. This was not in our forecasts, and we forecasted that we would be working every day. Embarrassing going back to your manager and say that the forecast is wrong, because actually they have holidays.”*

However, while there are different perceptions regarding the forecasting tools, there is a common understanding of the importance of more market understanding. More market understanding is seen as important to understand actuals and also understand implications of future actions. The belief is that the more you know, the more suited you are to be making forecasts.

Another thing the respondents agree on is that more experience will increase the accuracy and thus the value of the forecasts. Time combined with more market understanding will make employees more equipped in terms of understanding the business. This is made sense in the way that every time we forecast we get more experience about how it went. Some respondents argue that it requires that you take time to look at what you have done before, and that your work was thorough enough so that you understand and remember what you were thinking.



This experience is also understood as something that will lead to employees building a common understanding of the business and the development over time.

#### 4.2.3 Perceived weaknesses with rolling forecasts

##### **Dysfunctional behaviour**

Most of the respondents' initial thoughts when asked, were that they believe everyone in the organization have a genuine interest in reporting forecasts as accurately as possible. When the interviewees on the other hand were asked to elaborate on what could be gained on forecasting wrong, most of them admitted that they thought there might be some motives behind the forecasts as well. Forecasts are perceived as sending a signal, and forecasting too high or too low with underlying intentions is therefore believed to be a part of the story. The forecasts are seen as a two-way communication, where forecasts may be holding extra growth in order to secure resources. Then it is up to the ones receiving the forecasts, to challenge the forecasts, asking questions about where the growth will come from. When making sense of the reported forecasts at the higher level, they thought it was very much around the assumptions behind them. If the forecast has an element of growth in it and the cost bases to support that growth, then it is fine. However when the forecast held only the growth element, without the supporting costs, then the numbers would be challenged.

*Definitely it is (forecasts reflecting political reasons). But I think that's part of the story, because you want to send a message and it is always a two-way communication. So for example if I put in growth for next year to get resources on board now, it is off course nice to have and everybody is happy. But then it is up to the higher level to challenge: "Guys, okay please explain me where should the growth come from?"*

*"Yeah absolutely, and that's where it's very much around assumptions. So if we understand that the forecast got an element of growth into that, and cost bases got costs to support that growth, then that's fine. Where you quite often get a disconnect is in the revenue line you'll get an assumption around, well we're going to extend this service into this market where we've not been before. And then you come back and you ask the questions, well whose going to provide the work, have you put the costs into your plan about recruiting more people? No we're going to get that from region Norway. Well, does region Norway know? No, we didn't speak to them about that. So you get lots of disconnects like that."*

Many of the respondents made sense of this behaviour as a wish to buy more time to change the picture, and deliver the result they initially were aiming at.

*“There’s nothing ultimately to gain. I think some managers will rather try to buy more time. For them to change the picture, thinking that they still have time to do things. When the reality is if they were going to change the picture they needed to have done some things differently quite some time ago. But your question is a really good one. Because the answer is no, there’s nothing to be gained.”*

While most respondents explained the motivation behind a too high forecast to be the securing of resources, a person argued against this saying that forecasting too high to secure resources might turn against you. The respondent justified this with the fact that having people generates responsibility. For every person the organization has, the organization needs to invest a lot of money, and this person then need to work. If you forecasted too high and it turns out that there is not enough work for this person, you just cost the company a lot of money.

*“By doing the wrong forecast deliberately. We would basically be fooling ourselves, we don’t have anybody else to fool. (...) If you are too optimistic in forecasting that means that you will get more money than for example now or the plan, and that means we need to have people. And then we have to be careful because having people generates responsibility, we do not have people in excess, we have people we need. Because every person we have we need to invest a lot of money, so that person is eventually able to work in our company. If we hire a fresh graduate, or a naval architect, it takes two years minimum, until he or she is able to work independently, and that costs a lot of money. So to be too optimistic can turn against you.”*

### **Too high vs. Too low**

Given that the accuracy of the forecasts is what is of importance too serve as a reliable management tool, some say that over- and underachieving the forecasts are to be treated the same.

*“I think people in our business largely believe that we don’t have a blame culture. So if you miss your forecast, you miss your forecast. It’s as bad, and I use bad, it’s as bad to overachieve, as it is to underachieve. And we treat them in the exactly same way. Why didn’t we see this? What we don’t do is, we don’t pat anybody on the back for overachievement.”*

Others mentions that feedback on forecasts is not received unless you deliver something below forecast, which again creates the need for explanations that not all are very comfortable with giving. Some believe people are reluctant to reduce forecasts in order to avoid difficult discussions with their superiors. There is little feedback given if the forecasts are accurate or overshoot the forecast. Even though no positive feedback is given on overachievement, people seem to be quite satisfied when overachieving the forecast.

*“There is a tendency to take higher risk in the forecast that comes in from the lower levels than we would like them to take, to avoid discussion.”*

*“But if it happens that you overshoot your forecast, and I would say 99 % of the times we’ll see in the reports that they’re extremely happy. So they comment that, you know we overshoot the forecast.”*

### **Translating information**

The operational versus the financial language is something both the respondents with and without a standardised tool elaborate upon when talking about forecasting. The respondents believe it is the managers on the lower levels in the organization that know what is going on, they know their customers and how the situation is. Then the challenge is to translate this information into forecasts and reports for the superiors to see. The controllers are thought to be good with details while the managers know their market. It is thus seen that forecast accuracy is most successful where the manager and the controller have a good cooperation.

*“Well, we see that those that have the best-hit rate to put it that way, are maybe those that knows the business well. Rather than those who have the most details. So in those units, where the head of department and the controller have a good cooperation and where the head of department knows his business and his people, he can give enough information to the controller to quantify things.”*

The most important thing with forecasting thus becomes the information from the business to finance. When speaking to a controller, the respondent supports this by saying that s/he considers it the controller's job to translate the inputs received to financial terms. S/he makes sense of the controller's job as not being a coordinator, but it is taking the input and translating it into something that can actually be reported.

*"I think the information, the most important thing in my opinion is that it has to be information from the business to the finance. Either it's a controller or department controller, regional controller whoever is doing it, the finance person has to be in dialogue with the business. Because the business knows what contracts we have won, what the values of those contracts are, they know if anybody is leaving, they know if they're recruiting people, so they know and they should know their business and the information to come across there."*

## 5. Analysis

We have described how rolling forecasts introduced by the corporate level have been put into practice in the organization through our findings. As expected, there are individual differences in the sensemaking (Weick, 1995). Our findings suggest that it exists several understandings of the rolling forecasting process, hereunder the purpose and potential value of the rolling forecasts as a management tool.

When speaking of a superior, we refer to the person on the level above that is receiving the forecasts. When speaking of an employee we refer to the person reporting the forecasts. The Group level will be referred to as corporate level.

### 1. How do employees make sense of the new financial planning process after introducing rolling forecasts?

To further understand how individuals' understandings have developed and what they mean in practice, we have looked closer at the findings by organizing the answers regarding to different levels in the organization, see table. We find that there are two main differences in how the employees at different levels make sense of the rolling forecasting process. This affects the usage of rolling forecasts, and thus the value retrieved. The first finding is that there is a different degree of budget mind-set related to levels in the organization. Our second finding is that rolling forecasts are perceived more valuable to higher levels.

The following table is organized into three columns, each representing each one of the three levels in the organization that we have looked at. Each row represents characteristics and perceptions that are relevant to each level.

	<b>Area level</b>	<b>Region level</b>	<b>Business Area level</b>
Characteristics of the level	<ul style="list-style-type: none"> <li>• Closest to operational business of the three levels</li> <li>• Less finance people per unit than at other levels</li> </ul>	<ul style="list-style-type: none"> <li>• In between Area and Business Area level, not closest to business nor to Corporate level</li> </ul>	<ul style="list-style-type: none"> <li>• Closest to Corporate level of the three levels</li> <li>• Some employees who introduced RF in their own Business Area are here today</li> </ul>
General perception on rolling forecasts	<ul style="list-style-type: none"> <li>• Use RF to get better basis for budgets, as this number can be adjusted</li> </ul>	<ul style="list-style-type: none"> <li>• Use RF to get better understanding of the business and the future market</li> <li>• RF enables important discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Use RF to create discussions to get better understanding of the business and the future market</li> </ul>
Making sense of the relationship between target, forecasts and resource allocation	<ul style="list-style-type: none"> <li>• RF is a part of budgets, can't separate that</li> <li>• Budget is the same as target</li> <li>• Necessary with details, but local units have even more</li> </ul>	<ul style="list-style-type: none"> <li>• Still do budgets, call them targets</li> <li>• Partly separated and partly integrated process</li> <li>• Need details to understand numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Somewhat separate process</li> <li>• Do targets, not the same as budgets</li> <li>• Recognize that there are too many details, but still collects them</li> </ul>
Perceived value	<ul style="list-style-type: none"> <li>• RF helps avoid big deviations as it can be adjusted</li> <li>• RF is more accurate on Corporate level</li> </ul>	<ul style="list-style-type: none"> <li>• RF helps foresee future</li> <li>• RF has more value for higher levels, specially Corporate level</li> <li>• RF is of low value for lower levels</li> </ul>	<ul style="list-style-type: none"> <li>• RF helps foresee future and facilitate discussions</li> <li>• As introduced RF is of highest value to Corporate level</li> <li>• RF is of value for all levels</li> </ul>

*Table 1: Summary of similar and different perceptions of rolling forecasts according to levels*

### **A different degree of budget mind-set related to levels**

Our findings show that the three levels studied in the organization have different understandings of the purpose of rolling forecasts, which lead to different use of rolling forecasts as a management tool. In line with sensemaking theory, how people make sense of processes will further affect their future actions (Weick, 1995). Different understandings of the purpose of the rolling forecasts do in this case lead to a different degree of budget mind-set being present at the levels in the organization.

#### **Area level**

The lowest level, Area level, understands rolling forecasts as a tool to improve the quality of their budgets, what they now call targets. Researchers argue that in order to solve a serious conflict with traditional budgets, the budget should be divided into three separate numbers (Bogsnes, 2009). Bogsnes (2009) argues that in order to avoid having one number with conflicting purposes, target setting, forecasting and resource allocation need to be separated. Although our respondent makes sense of these three as different tools, a complete separation is not perceived. The three tools are understood as closely linked together.

Rolling forecasts are understood as a helpful tool to avoid big and sudden deviations. However, forecasts are not perceived highly valuable as a separate tool by itself. Rather than creating value by the use of only rolling forecasts, the forecasts are seen as a good basis for adjusting the budget quarter to quarter. There is no distinct difference perceived between the old budget and target, which in this case then also prevents the separation of target and rolling forecasts. Our respondents are of the perception that while the word budget has been abandoned in favour for the word target, the process is basically the same as before. According to theory forecast should be our best guess on the future, whether we like what we see or not (Bogsnes, 2009). While the target should represent where they want to be, including a stretch in order to motivate better performance (Tanlu, 2007). With no separation of the two purposes, it hurts the quality of both.

As there is no clear separation between the three elements, we draw the conclusion that a budget mind-set still exists at Area level. It is found that resource allocation is not perceived as decoupled from rolling forecasts, because the respondent believes future manning to be affected by it. According to Morlidge and Player (2010) people often come at forecasting with a budgeting mind-set, although forecasting and budgeting have completely different purposes.

While the forecast is made in order to be able to take actions if we do not like the future that we see, the purpose with the budget is to plan for a desired future we would like to realise. This is consistent with the situation we see at Area level, where the forecasts are used as updates to the budget, in order to reach the budgeted numbers.

### **Regional level**

Regional level is found between the Area level and the Business Area level, and is represented by column three in table 1. The respondents at Regional level believe the purpose of rolling forecasts is to get a better understanding of the business and the future market, and their understanding for the process is thus in line with theory (Bergstrand, 2012).

The respondents at Regional level make sense of targets and rolling forecasts as two separate elements that serve different purposes. However, there is an exception with the quarter three forecast, where there is a great connection between the two. All respondents at Regional level experience the quarter three forecast as a much more thorough process because the forecasts include the full next year, and is therefore used as a basis for targets. The employees perceive this forecast as the most important one during the year, and this is visible through the time and resources spent. According to theory the forecasting process should be organized quickly and efficiently (Bergstrand, 2009; Bergstrand, 2012; Hope & Fraser, 2003). Bergstrand (2009) also argues that there shouldn't be much disagreement in the process when it has become more established in an organization, because there should have been enough time to discuss the numbers already. Even though the third quarter forecast takes less time than the traditional budgeting process did, the more thorough and time-consuming process during the quarter three forecast, drives the perception of still having a budgeting process. This is further supported by resource allocation being connected to forecasts.

The perceived difference between the earlier budget and what they now call target is the level of details. While they previously reported on each person in the company, there is a much more high-level approach to details which is believed to reduce the time used on planning each fall. However, we find variations amongst the respondents in how they understand the need for details. While some prefer managing the business with much less details, others have a clear need for details in order to feel comfortable and understand the assumptions behind key drivers. These respondents describe the level of details as back-up needed for their organization. According to Morlidge and Player (2010), a reduction of numbers will make it



possible to build a forecast several times a year without necessarily increasing the total burden of work. For some employees this is not the case as they continue to collect a great number of details. This is not only caused by the employees desire for details, but the respondents also experience that Business Area level continues to ask for more details than what was first reported. The respondents make sense of the demands as a need for more details also at the Business Area level.

### **Business Area level**

The top management at each business area is located at the Business Area level, and it is the closest level to Corporate. This is shown in the fourth column in table 1. Employees at Business Area level have the perception that the rolling forecasting process enables valuable discussions that creates better understanding of the business and the future market. The common understanding facilitated through these discussions is emphasized as the most important outcome of the rolling forecasting process. The respondents at Business Area level do not seem to perceive the same connection between target and budget as the respondents at both Regional and Area level do. Further, they do not put much emphasis on resource allocation in the interviews.

The respondents at Business Area level express dissatisfaction with being too attached to a yearly cycle. According to Bergstrand (2009) rolling forecasts should cover more than the remainder of the budget year, which solves the year-end problem. Even though the forecasts are done on a continuous 15-month period, the Business Area level perceive the yearly focus in the management reports provided by Corporate level to create the perception of being attached to a yearly cycle. They therefore make sense of it as a desired focus from the highest level in the organization.

The respondents do also believe that the forecasting process should be done simpler. Even though there has been a great reduction of details, some respondents believe that there can be even fewer. In line with Montgomery (2002), they believe the level of details should be enough to understand the key variables, but not get too detailed in terms of the range of assumptions you try to work with. Although the respondents strive at collecting a low number of variables, the level of details is still higher than several of them would like. However, the respondents at Business Area level do also admit that they are paying too much attention to details and asking a lot of questions as they are used to from the traditional budget.

### **Rolling forecasts perceived more valuable for the higher levels**

We find that employees in general believe that the value of the process is of greater value to levels above their own. This is in conflict to De Leon et al. (2012) who argue that rolling forecasts should be of great value to lower levels through increased empowerment. They state that rolling forecast is a more flexible tool to identify new risks and opportunities and to respond to the unpredictable economic environment more effectively and efficiently by empowerment.

#### **Area level**

Employees at Area level perceive the rolling forecasting process to be of greater value for the higher levels in the organization. Rolling forecast is understood as providing the higher levels with information to make better strategic decisions and allow the company to alter course according to this. This is in line with the attributes of the rolling forecasting theory (Institute of Finance & Management, 2014). What is contrasting is that Area level do not perceive this strategic value for their own business, but instead use it for technical adjustments to the budget.

Forecasting the business and market is challenging (Ekholm & Wallin, 2000; Bergstrand, 2009). The characteristics at Area level are perceived as very changing with many parameters that are out of their control. We find that Area level perceive the rolling forecasts as valuable for other reasons than intended by corporate level. This is in line with the sensemaking perspective who argues that employees who develop their own sense of a change, can create an understanding that may deviate from top managers in a dramatic way (Bartunek, Rosseau, Rudolph & DePalma, 2006) While corporate level intended to separate the three purposes of target setting, resource allocation and rolling forecasts, the Area level uses rolling forecasts in order to adjust the budget, which they now call target.

#### **Regional level**

Employees at Regional level also perceive the rolling forecasting process to be of greater value for the higher levels in the organization. From our findings, we see that the Regional level have a clearer understanding than Area level of the intention with the introduction of rolling forecasts from Corporate level. According to literature drivers that are relevant to

analysis and decision making, rather than detailed numbers, should be emphasized by managers when preparing rolling forecasts (Hope et. al, 2011). However, the respondents at Regional level believe that they have a higher need for details in order to achieve value from the forecasting process, and do therefore take into account much more details than the two numbers (EBITA and External revenue) that Corporate level asks for. Only with more details do they believe that they are able to create a more thorough and reliable understanding of the future. According to literature this will challenge the responsiveness rolling forecasts can provide (De Leon et al., 2012).

There are different perceptions on how valuable the respondents at Regional level believe the rolling forecasts are to the levels below. The Regional managers are free to choose how they will make the forecasts they report to the Business Area level. The respondents, who choose to collect forecasts from the lower levels, believe the process is of value for all employees involved as the quarterly forecasts forces them to think in advance (Bergstrand, 2009). They also believe the forecasts enable managers to see future trends, which gives the managers important information at a much earlier time giving them the opportunity to act before issues escalate (Morlidge & Player, 2010). There are also managers who do not believe that rolling forecasts are of any value to the employees at Area level and below. This is explained by lack of interest at lower levels, which makes the employees place less value of the inputs and data retrieved from the process. Our findings show that these do not collect the numbers from the level below. This is in contrast to Hope, Bunce and Rööslä (2011) argue that the rolling forecasts should be bottom-up. The ownership of the forecasts should be transferred to the front-line team from the corporate level. Hence we don't see the effect of empowerment at lower levels as a result of introducing rolling forecast.

### **Business Area level**

Employees at Business Area level also perceive the rolling forecasting process to be of higher value for the higher levels in the organization. The respondents at Business Area level believe that the valuable outcome the Corporate level gains from the rolling forecasts, is knowing the future trends for the organization as a whole (Lorain, 2010). The process as it was introduced is therefore perceived as adequate for the Corporate level's purpose. Because the Business Area level feel a higher need of details than only two numbers, they have adopted the process as they find valuable to their respective areas.

At the Business Area level, there is a common perception amongst the respondents that the rolling forecasts provide value for the levels below. They believe the process to involve managers at the levels more than what was the case with budgets. One even says that it probably is of the same priority for the area managers as for managers higher in the organization. There is however one outlier who firmly questions if the forecasting process is pushed too far down in the organization. Because the order book is so variable, the respondent believes the output you get is quite inaccurate to begin with, and therefore would spend less time on forecasting and more on improving the managers' market. This is in sharp contrast to literature that argues every manager should be involved in the forecasting process and be empowered to take any actions to achieve stretched goals (Clarke, 2007). This perception challenges the whole forecasting process, as the regional employees have mandate to collect numbers themselves instead of facilitating rolling forecast process on the level below.

## Summary

Our findings show that there are two main differences in how employees at different levels perceive the new financial planning process. These differences are related to the degree of budget mind-set present at different levels and the perceived value of the rolling forecasting process.

The lowest level, Area level, understands rolling forecasts as a tool to improve the quality of their budgets, which they now call targets. Target setting, forecasting and resource allocation are understood as closely linked together, hence a budget mind-set still exists at Area level. The respondents at Regional level understand the purpose of rolling forecasts as to get a better understanding of the business situation and the future market. The respondents at Regional level make sense of targets and rolling forecasts as two separate elements that serve different purposes. However, there is an exception with the quarter three forecast, where they see a clear connection between the two. Findings also show variations amongst the respondents at Regional level in how they understand the need for details.

Employees at Business Area level perceive that the rolling forecasting process enables valuable discussions that create a better understanding of the business and the future market. The respondents at Business Area level do not seem to perceive the same connection between target and budget as the respondents at both Regional and Area level do. At Business Area

level the respondents understand it as challenging being so closely attached to a yearly cycle. This yearly focus derives from management reports, which focuses on year-end target, and this is perceived as in conflict with the fifteen-month planning horizon in the forecasts.

We find that employees in general believe that the value of the process is greater to levels above their own. There are different explanations for this at the different levels. Employees at Area level perceive the rolling forecasting process to be of greater value for the levels above, as it provides the higher levels with information to make better decisions. This is not perceived as possible for Area level due to very changing business characteristics with parameters out of their control. Employees at Regional level also perceive the rolling forecasting process to be of greater value for the higher levels, as the employees at Regional level are in need for more details. Business Area level also perceive a need for more details than the corporate level. There are different perceptions on how valuable the respondents at Regional level believe the rolling forecasts are to the levels below. Some understands the process to enable managers at lower levels, while others don't see the value it can provide. At the Business Area level, there is a common perception amongst the respondents that the rolling forecasts provide value for the levels below, as the employees is forced to be more involved and forward looking.

## **2. Do employees experience that the rolling forecasting process facilitates trust between levels?**

We have described how the employees have understood the introduction of rolling forecasts in their planning function. The thesis will now discuss how particular factors regarding the forecasting process facilitate trust between levels in the organization, and thus elaborate upon our proposed research question.

### **Assessing your business every quarter facilitates trust**

Assessing the business more often facilitates trust in regards to ability. We find that the ability of the employees is perceived higher as the managers in DNV GL become more “on-top” of their business due to rolling forecasts and its continuous assessment. These assessments provide more relevant and updated information than what was the case with budgets. Information from budgets become rapidly out-dated during the course of a budget year, as the

budgeting process takes too long compared to the movements in the environment (Otley, Hansen & Van der Stede, 2003; Bergstrand, 2009).

The forecasting deadline every quarter is perceived as forcing employees into thinking about where their business is heading. Knowing that the employee look into all available information makes the superiors believe s/he acquires the needed to do his or her job, which in turn increases perceived ability which fosters trust in the numbers the employee reports (Gabarro, 1978). As a result, the employees are perceived to become more aware of trends, problems and opportunities at an earlier stage than with the traditional budget. Employees at lower levels are also understood as becoming more “on-top” of their business, than what was the case with budgets. Hence, the rolling forecasting process facilitates ability at all levels. This is in line with beliefs that the continuous assessment of the business and information at an earlier stage is perceived to increase the managers’ capability to produce a desired outcome (Mc Knight & Chervany, 1996). On the contrary, the fixed annual budget does not allow for the identification of new risks and opportunities due to its fixed and unchanging representation of the business plan at the time the budget is set (De Leon et al., 2012).

### **Better market knowledge and experience facilitates trust**

Our findings show that the rolling forecasting process increases the managers’ market knowledge and experience, which facilitates trust in terms of ability.

More knowledge about the business and the current market is seen as important to be able to understand actuals and implications of future actions. In line with Hirsch and Nitzl (2014) we find that one of the factors that influence the perception of manager’s ability is having strong business knowledge. Our findings show that increased market knowledge also leads to increased ability. The respondents perceive both understanding the forecasting tool (if there is one) and market knowledge as important to be able to make good forecasts. However, the forecasting tool in the different business areas is often referred to as not being “rocket science”, meaning the tool is easy enough for anyone to use. While training may enhance the managers’ abilities in using the tool, according to our respondents market knowledge is possible to increase only by experience. With the frequency that the managers now need to assess their market in order to produce the quarterly reports, they are through experience able to move up the learning curve and their forecasting ability is perceived to rise (Mayer &

Davis, 1999). The frequent assessments of the market contribute to enhancing the managers' market knowledge and their understanding of their own business.

The managers' continuous experiences in forecasting foster the superior's trust in the numbers they report. Our findings show that respondents perceive the forecasted numbers to increase in quality over just a couple of quarters. This is particularly evident at the lower levels. The managers at the lower levels in DNV GL are mostly engineers with a technical background, and in our findings, we see that respondents used to question operational managers' ability to report forecasts because it is looked upon as a financial tool. There may therefore be lack of ability in the translation from technical to financial language. However, we find that the frequent assessments increase their competencies, and it is believed to increase the managers' ability in using financial numbers. Zand (1972) and Mayer et al. (2006) argue that a person's ability depends on the specific domain, however through experience it is perceived that operational managers increase their ability beyond their specific domain.

### **Frequent discussions facilitates trust**

In line with Gabarro (1978) and Dietz and Hartog (2006) we define a person who is known to keep his promises and abide by the rules, as someone having integrity. We find that frequent discussions with rolling forecasts facilitate trust in terms of integrity. There are two explanations for this, one being that it assures managers that the forecasted number will be used for the right purpose. The other explanation is that these discussions create a common understanding.

We find frequent discussions to have a facilitating effect on trust in terms of integrity, as it reassures employees that the superiors will use the forecasted numbers for the intended purpose. The Regional level and Business Area level's integrity is perceived as high, as the managers reporting forecasts from the level below believe they will abide by the rules regarding the forecasted numbers' intended purpose (Gabarro, 1978; Dietz & Den Hartog, 2006). This effect on trust that frequent discussions and the information it provides, is in line with the research of Thomas, Zolin & Hartman (2009), who found that in relationships between employees and superiors, the quality of information is important to trust.

The frequent discussions involved in the forecasting process also create a common understanding amongst the employees reporting forecasts and the ones receiving the forecasts. A common understanding regarding the assumptions behind the forecasts makes it easier for the ones receiving the forecasts to trust what the numbers portray. This is in line with the research of Gabarro & Athos (1976) who found that integrity is facilitated when principles and beliefs are shared. The discussions have taken a turn towards the drivers behind the numbers rather than discussing if it is a good number or not, which has both facilitated the creation of a common understanding along with a better understanding for drivers in the market. According to Rousseau, Sitkin, Burt and Camerer (1998), trust is developed on the basis of shared experiences with the party to be trusted. It seems as if it is the creation of a common understanding, together with shared experiences in the process and a better familiarity of each other that seems to increase both trust in the forecasted numbers and trust in that the numbers, which you report, is of value to your superior. Our findings suggest that integrity is facilitated more at the higher levels in the organization, as the discussions are more valued here. From research question number one, we see that the respondents at Business Area level are the respondents that value the discussions during the rolling forecasting process the most. This indicates that discussions have a higher impact on trust at the Business Area level, than at other levels. Because Business Area level is the level that experience more value from the forecasting process, the findings suggest that a higher focus on discussions also at other levels may increase the value of the forecasting process.

### **Sense of transparency facilitates trust**

The rolling forecasting process is understood as increasing transparency in the organization. Transparency fosters trust in the forecasted numbers, because it is perceived by the respondents to make it harder for managers to engage in dysfunctional behaviour than with traditional budgets. According to Bogsnes (2009), lack of trust often goes hand in hand with lack of transparency, and therefore the presence of transparency will also increase trust in the organization.

Superiors are vulnerable to their managers as they rely on them to complete work tasks (Dirks and Ferrin, 2002; Mayer et al., 1995). If the managers fail to complete this task, this could adversely affect the superior's own performance (Schoorman et. al, 1996). We find that the sense of transparency enhances trust, as the superiors believe managers to follow the principles of forecasting encompassing honesty, if they do not detect gaming behaviour. As



the perception of employees abiding the rules has increased, integrity is therefore facilitated. Integrity is facilitated as it is seen more challenging for employees to disobey the rules and justify a false story, as it has to be told so often with rolling forecasts (Gabarro, 1978; Dietz & Den Hartog, 2006).

One of the respondents explains how a constant 15-month horizon eliminates room to pull revenue from a later month in order to make this year look better and achieve budgetary targets. According to Hope (2010), the process of looking more than a year ahead also gives managers time to influence the outcome, and thereby reduces some of the incentives for gaming. While the earlier year-end focus did not force the managers to think about the consequences for the next year, the constant 15 months horizon creates transparency in that the managers must always provide a coherent story not being able to hide some aspects of the story. In comparison with the budgets, the room for gaming behaviour has thus decreased due to the higher transparency that the frequent discussions and the longer outlook creates. The continuous discussions also enable the managers and their superiors to detect errors in the forecasts, where simple things such as a forgotten holiday may have big effects on the reported forecasts.

## Summary

This thesis finds four aspects of the rolling forecasting process as facilitating the employee's trust in the numbers reported between levels. These aspects are related to frequent assessment of the business, increased market knowledge and experience, frequent discussions and a perception of transparency.

The frequent assessments of the business facilitate the employees' trust in the forecasted numbers they receive in terms of ability. The frequent assessments make employees believe that those reporting forecasts are on top of their business. Knowing that the employees reporting to you continuously strive to provide quality in their input, creates an increased perception of ability, which in turn increases trust in the numbers received. Increased market knowledge and experience do also facilitate trust in the forecasted numbers, due to the perception of a higher level of ability. Market knowledge and an understanding of your own business, are seen as the most important factors to produce quality forecasts. The rolling

forecasts, with its frequent processes, enhances these abilities, which in turn makes employees receiving forecasts trust them more.

The frequent discussions foster a common understanding between the employees reporting and employees receiving the forecasts. These discussions make it easier to understand the assumptions behind and thus trust the numbers. It also assures the employees that their superiors will use the forecasted numbers for the intended purpose. This facilitates trust in terms of integrity. At last, frequent discussion and a constant 15-month horizon create a sense of transparency in the process, which increases the employees' trust in the numbers. The perception of transparency is believed to reduce room for dysfunctional behaviour, which in turn makes the employees believe that they would know if the numbers were holding elements of gaming. The perception of employees abiding the rules has increased, and integrity is therefore facilitated.

### **3. Do employees perceive any factors as challenging trust in the rolling forecasting process?**

The thesis will now discuss if some of the aspects of the rolling forecasting process are found to be challenging trust. The findings show that the employees' perception of a budget still being present causes some challenges related to budget to persist. As mentioned in chapter one, these challenges may have not been present to the same extent if DNV GL had more successfully adopted the rolling forecasting process. However research show that many companies are unsuccessful in the implementation of rolling forecasts, and being aware of these challenges may therefore be useful.

#### **Forecasting too low numbers challenges trust**

We find that superiors perceive managers to be forecasting too low numbers on purpose. This challenges the perception of employees' integrity, as they are not abiding by the rules or principles in the organization as described by Gabarro (1978) and Dietz & Den Hartog (2006). This again, challenges the superiors' trust in the numbers that the employees forecast.

One of the explanations for forecasting too low is believed to be the managers' desire to avoid difficult and uncomfortable discussions. When actuals are lower than forecasted, the

managers have to explain or defend the deviation. The resistance towards these uncomfortable discussions is believed by the superiors to be the reason for why such a dysfunctional behaviour arise, which challenges the superiors' trust in the forecasted numbers. This challenge to trust is not related to a perception of managers lacking ability, as the managers are perceived to be sufficiently skilled in this context (Gabarro, 1978). Because the superiors believe managers are reporting too low forecasts deliberately, it is a challenge to trust in terms of integrity (Mayer et al., 2006). Without the perception of integrity being in place, it challenges the trust in the manager's work even if the manager is perceived to be highly skilled.

According to Bergstrand (2009) discussions around the rolling forecasts should take place after they are made. On the contrary, in DNV GL they often take place before and during the making of forecasts. Our findings show that when discussions are held afterwards the employees relate it to negative feedback and uncomfortable discussions. This derives from the perception of no feedback given on the forecasts unless the managers deliver actuals below forecasts. The superiors' intention, when having these discussions after actuals are ready and deviations known, is that the employees can explain what happened and learn from that experience. The intention is not to give a sense of punishment, but learn how to react to this on the next occasion. The intention from the superior is according to theory, which states that actuals when derived should be compared to forecasts (Morlidge & Player, 2010). A unit has done a good job in forecasting if the numbers match or are close. If there are big deviations this should be analysed to understand where the numbers differed and why it happened (Institute of Finance & Management, 2014). The superiors' intention seems to be according to theory, however it is how the intentions are perceived that seems to lead managers to forecasting too low. Knowing that managers find incentives to report lower forecasts than what they actually believe, challenges superiors' perception of managers' integrity. This again challenges the trust in the forecasted numbers, which again aggravates the rolling forecasting process.

The second reason why superiors believe managers are forecasting too low is in order to easier overachieve their forecasts and receive praise. By overachieving, we refer to delivering actuals higher than forecasted. As the managers are believed to forecast too low deliberately in order to overachieve, it challenges the superiors' perception of their benevolence because their behaviour is seen as being based on opportunistic motives (Dietz & Den Hartog, 2006).

Managers perceive overachieving their forecasts as something positive. This is not in line with the rolling forecasting theory, which states that forecasts should not be used for performance evaluation nor be connected to rewards (Hope & Fraser, 2003). Hope and Fraser (2003) emphasize that rolling forecasts should not be targeted for control purposes. They argue that managers do not tend to report honest information if information can be used against them, and rolling forecasts should thus not be related to performance evaluation. In line with theory, our respondents at Business Area level do not have the intention of using the forecasts for performance evaluation (Hope & Fraser, 2003). The respondents at Business Area level emphasize that accuracy in the forecasts is what is of value. They understand it as accurate forecasts serve as a more reliable management tool for the organization. Therefore, surprises in the actual numbers compared to the forecasted numbers are not wanted whether they are positive or negative. However the managers at Business Area level's intention is not communicated well enough, nor shared by everyone in the organization.

Our findings indicate that managers view actuals above forecasts as a great achievement. This is in line with the research of Morlidge and Player (2010), who state that not only are biased forecasts tolerated, but often also encouraged by praising people for delivering above a revenue forecast or below an expense forecast. While especially at Business Area level there is great emphasis on treating actuals above forecasts the same as actuals below forecast, this treatment is not as neutral down in the organization. Some respondents at Regional level admit that overachievement is preferred over underachievement of the forecasts. The persisting differentiation of deliveries above or below forecasts seems to foster the behaviour of forecasting too low, and seems to be more evident at Regional and Area level. The consequence is that superiors believe and experience the forecasts are biased, and will therefore not fully trust them. We therefore find an indication that a clearer communication of and behaviour according to the intention of treating too high and too low forecasts the same, is thus needed in order to reduce a building of slack into the forecasts.

The consequence of a perception of low integrity and/or benevolence is that the superiors who believe managers to forecast too low on purpose, change the forecasted numbers more than they would if they had higher trust in them. This is consistent with theory of Mayer and Davis (1999) who says that only when a superior perceives an employee as benevolent, skilled and having integrity, will he perceive the information from the employee as relevant and act accordingly on the basis of this information.

One way of improving the challenges related to employees forecasting too low, is to focus on feedback given on forecasts at different levels. Some of the respondents would appreciate more feedback on their reported forecasts, in order to know the quality of their forecasts. If the employees are given feedback also when they achieve their forecasts, discussion after actuals might not be perceived as uncomfortable as they are today. According to Morlidge and Player (2010) failure to close the feedback loop is the single most important why business forecasting is so poor. A continuous stream of feedback is crucial to successful accomplishment of even the simplest task, but yet it is found that very few businesses routinely measure the quality of their forecast process with the rigor needed to guarantee acceptable forecasting performance (Morlidge & Player, 2010).

While some respondents say they would appreciate more feedback on the forecasts, others believe the employees need to assess their forecasts themselves when actuals are ready. Only by looking at their forecasts and what assumptions they made, will they learn what they need to do. That requires taking the time to look at what they have done before, and that their work was thorough enough, so that they understand what they actually were thinking. It is perceived that this is not always done by the managers, resulting in the learning potential not being exploited to its fullest. This could improve the challenges related to distrust caused by dysfunctional behaviour in forecasting too low on purpose.

### **Forecasting too high challenges trust**

Our findings show that another aspect that challenges trust in the forecasted numbers is that superiors believe that employees are forecasting too high by purpose. It is perceived by superiors that employees are forecasting too high in order to secure more resources, and the forecasts are therefore believed to include opportunistic motives, which challenges the superiors' perception of the employees' benevolence. Rolling forecasts should be prepared honestly, taking into account actual trends and without number gaming in order to be effective (Hope, 2007). The forecasts should reduce gaming behaviours that are associated with traditional annual budgets (Narayanan and Davila, 1998; Jensen, 2001). The superiors are of the perception that because employees still believe there is a connection between forecasts and resources, there are still gaming behaviours present in the organization.

The presence of this gaming behaviour is consistent with Tanlu's (2007) findings. When studying how the adoption of rolling forecasts is supposed to reduce sandbagging, Tanlu (2007) did find some indication that the bias may have swung the other way. Because employees' forecasts are no longer explicitly tied to compensation, Tanlu (2007) finds that particularly for the most immediate quarter, they may have incentive to overstate their forecasts for the next quarter in order to potentially secure more resources.

One of the regional employees saw the forecasting as a two-way communication where s/he reported extra growth, and it was up to his or her superior to challenge the numbers. If not challenged on these numbers, s/he won a political battle, thus securing extra resources. The statement shows that s/he perceives the forecasting to be connected to resource allocation, and this motivates her or him to forecast higher numbers in order to make sure to get the resources needed. One of the great challenges with traditional budgeting are still evident in the organization, although rolling forecasts were introduced to prevent it (Bergstrand, 2009). Because superiors know of the possibility of this behaviour in the organization, initial trust to forecasted numbers seems to be lower.

One way of improving this challenge is to be aware of how and when the discussions are carried out at different levels. Too much discussions when making the forecasts can lead to a feeling of negotiation where numbers are often revised down, and when this happens every quarter, this makes room for managers dysfunctional behaviour in forecasting for more resources (Bergstrand, 2009). The discussions should take place in organized meetings or in shorter chats whenever they meet in their daily work in order to distinguish it from traditional budgeting meetings, thus eliminating the resemblance in negotiating for funds as it was before (Bergstrand, 2009). This will also have a positive effect on the time spent in the forecasting process.

### **Demanding details in need for control challenges trust**

A third finding that challenges trust in the forecasting process is the level of details demanded from superiors. The rolling forecasting process should only focus on key variables (Bergstrand, 2009; Bogsnes, 2009), and superiors have decided which variables the process includes. However, superiors continue to ask for more details than agreed upon, which challenges the employees' perception of the superiors' integrity.

Critics of the budget argue that the high level of details makes the budgeting process cumbersome, to the point where budgets start losing efficiency (Hope & Fraser, 2003; Bergstrand, 2009). DNV GL adopted rolling forecasts in order to limit the level of details by only focusing on key variables. However findings show that employees on a continuous basis are asked to provide more details and reasoning behind their forecasted numbers. The process is supposed to involve fewer details, where employees are not held responsible for every profit and loss line that was the case with budgets (Tanlu, 2007). The continuous demand for details from the superiors, thus challenges the employees' perception of their integrity as the superiors are not abiding by the rules and principles they have agreed upon beforehand (Gabarro, 1978).

This perceived challenge of trust is in line with Mayer et al. (2006) that suggest the context of trustee's actions affect the perception of integrity as well. The idea behind rolling forecasts is that you should not have to defend your forecasts on a detail-level (Bergstrand, 2009), and the employees reporting forecasts in the organization therefore have a different expectation to the process than what is the case with budgets. When the superiors' behaviours are not in line with the employees' expectations to the process, the trust is challenged.

There seems to exist several drivers of the detailed level that several of our respondents experience in the forecasting process. Due to all the detailed questions, employees wish to gather details in order to be able to answer everything their superior asks for. It seems as if the questioning from the level above keeps two of the myths that Bogsnes (2009) describes in his book alive, where "I can explain = I have control" and "More details = more quality". It is the superiors demand for details that fosters this challenge. The perceived resistance against the guidelines for rolling forecasts locks the whole system and makes it impossible to succeed with the management control system (Morlidge & Player, 2010). It further challenges the integrity of the supervisors (Knoll & Gill, 2011). This can be exemplified by looking at how the advantages of being a quick and efficient planning process are broken down (Tanlu, 2007).

A solution to this challenge might be to follow up practices and demands from superiors more closely. Our findings further show that, whether the questions are perceived as facilitating or challenging trust, depends on the level of details demanded. When asked only about the key

drivers in the forecasting process, employees perceive superiors as expressing concern, care and interest. In line with theory, we find that questions to a certain extent can have a positive effect and signal a sign of interest (Edmondson, 1999; Mayer et al., 1995). These questions facilitate trust in regards to benevolence, instead of a challenge trust. It is up to the highest level (Business Area level) how the rolling forecasting practices should be practised in each Business Area. This finding shows that the combination of this mandate and a still prevalent budget mind-set leads to challenges, which further leads to a spill-over-effect in the rest of the organization. Some stricter guidelines should be provided by corporate level in order to assure that the value of the process is perceived correctly further down in the organization as well.

## Summary

The thesis finds three aspects as challenging trust between levels in the forecasting process and the numbers reported. These aspects are related to perceptions of employees forecasting too low or too high by purpose, and superiors demanding a high level of details.

We find that employees believe that those reporting forecasts to them have incentives to forecast too low numbers. This decreases the employees' trust in the forecasted numbers. They believe that the employees forecast too low numbers in order to make sure that they reach or over perform the forecast. There are two explanations for this. Employees find the discussions that arise if they do not hit their forecasts as uncomfortable, and they find a satisfaction in over performing their forecast. This behaviour leads to challenging trust in terms of integrity and benevolence.

The second finding challenging trust in the forecasted numbers, is that the employees believe that forecasts are reported too high in order to secure resources. This challenges trust in terms of benevolence, as this behaviour can be characterized as opportunistic. There is not a clear separation of the purpose of forecasting and resource allocation, which creates such behaviour.

The third factor, which is perceived as challenging trust in the forecasting process, is the level of details demanded from the level above. This challenges the whole idea of rolling forecasts, and creates a sense of the same control level as what was the case with budgets. Even though the rolling forecasts are supposed to hold fewer details, employees continue to collect many



details in order to be able to answer every question when employees at the level above ask. This challenges trust in terms of integrity.

### How do employees make sense of the rolling forecasting process and how does that influence trust in the forecasted numbers?

The thesis has so far discussed the supporting research questions on how employees make sense of the rolling forecasting process and what facilitates and challenges trust in the numbers and process. This subchapter seeks to draw lines between the three previous subchapters in order to answer the thesis' overarching research question; *How do employees make sense of the rolling forecasting process and how do that influence trust in the forecasted numbers?*

The following table shows that the rolling forecasting process is found to have greatest impact on perception of ability. Ability is facilitated at all three levels studied in this thesis. We also find perceived integrity to be facilitated at the two highest levels, while we did not find any facilitating influence on perception of benevolence.

The rolling forecasting process is found to challenge trust in terms of perceived benevolence and integrity. While benevolence is challenged at the two lower levels, integrity is challenged at the two higher levels. The process does not challenge the perception of ability.

	Ability		Benevolence		Integrity	
Level	Is facilitated	Is challenged	Is facilitated	Is challenged	Is facilitated	Is challenged
Business Area level	✓				✓	✓
Regional level	✓			✓	✓	✓
Area level	✓			✓		

*Table 2: Summary of where ability, integrity and benevolence are facilitated and challenged in relation to levels*

While most research focus either on the superior or the subordinate, this thesis has, like Knoll and Gill's (2011) research, chosen to explore both directions (trust in superior and trust in the employee reporting to the superior) because both are found to be important for the success of rolling forecasting process. Knoll and Gill (2011) note that the majority of past research on interpersonal trust has examined trust in superior and rarely have researchers examined superior's trust in their subordinates. For the rolling forecasting process we find the superior's trust in their subordinates particularly important, because superiors are in the position where they may change the reported forecasts or make their own without taking the input into consideration. On the other hand, if the employee does not have trust in his or her superior, it may be the source to dysfunctional behaviour, which will also aggravate the rolling forecasting process.

Our findings indicate that integrity is the most important predictor of trust in the superior, and ability is the most important predictor of trust in the employee. These findings are consistent with Knoll and Gill's (2011) research, which found benevolence and integrity to be the most important predictors of trust in superiors and indications of ability being the most important predictor of trust in the employee.

### **Ability**

Hirsch and Nitzl (2014) found the management accountant's abilities to be the most important factor contributing to perception of trustworthiness, which is also consistent with the findings in this thesis.

Overall we find that the perceived ability of the employee reporting forecasts is the most important factor contributing to trust in the work that s/he produces. Amongst the aspects found to be facilitating trust in the numbers and process, two are seen as particularly increasing perceived ability of the subordinate. The first being the thorough assessment of the business four times a year, as it increases the perceived ability of the employee. The second aspect of rolling forecasts, which facilitates trust in terms of ability, is related to market knowledge. In line with Hirsch and Nitzl (2014), we find that one of the factors that influence the perception of employee's ability is having strong market knowledge. The continuous experience with the process reflects a movement up the learning curve, which increases the perception of the employee's ability (Mayer et al., 1995). These findings relates to all three

levels that have been studied. While financial employees are responsible for the rolling forecasting process at Business Area and Regional level, operational managers have the responsibility at Area level and below. Operational employees' abilities are considered to be domain specific (Zand, 1972; Mayer et al., 2006), but continuous experience causes the perceived ability to increase beyond their initial domain.

Our findings did not show that trust was challenged in terms of a lack of ability at any levels as a result of the forecasting process. Due to the budget mind-set still being present at Area level, we expected to find the process challenging trust in terms of ability at lower levels. However our findings showed that ability was not challenged. This may suggest that the Area level is providing the required forecast input with required quality, even though they are not using it as intended by corporate level.

The perceived ability of the superior has not been of focus in this analysis, as there was nothing in the process that seemed to facilitate nor challenge the employees' trust in this area. The respondents did not evaluate their superiors negatively based on perception of ability as all respondents described them as highly competent people, all expecting them to possess the ability needed to perform their work. One respondent however mentioned the superior's knowledge about operations. S/he described the Region level as the highest level where value was created, and without the necessary understanding for operations, the superior receiving forecasts at Business Area level might not understand the forecasts as intended.

### **Benevolence**

Our findings show that the benevolence of employees is challenged, as they are perceived to report forecasts that hold opportunistic motives (Nooteboom, 2002). The problems related to opportunistic behaviours are more evident at the lower levels in the organization, which suggest that it can be related to the degree of budget mind-set still being present. This relates to employees forecasting too high in order to secure resources and forecasting too low in order to overachieve forecasts.

Area level perceives that the organization is still working with budgets. The decoupling of resource allocation, rolling forecasts and target setting that corporate level intended for, has not materialized at this level. The connection between the rolling forecasts and resource allocation drives the employees to forecast too high in order to secure resources. The

Regional level has a better understanding of the separation of the numbers, however the quarter three forecast creates a budget mind-set, which causes the dysfunctional behaviour to persist.

The rolling forecasts should not be connected to performance evaluation (Bogsnes, 2009). Hope and Fraser (2003) found examples of dysfunctional behaviours driven by the budget as a fixed performance contract. Because the Area level has not fully understood the purpose of the rolling forecasts other than as an adjustment to their budgets, they are still of the perception that overachieving the forecasts is considered a great achievement. While Regional level believes the rolling forecasting process to be valuable, it is still perceived that the employees at this level also are satisfied when overachieving a forecast. Business Area level emphasise that overachievement and underachievement of forecasts are to be treated the same, however this is not communicated well enough to the lower levels as they are perceived to continuously forecast too low in order to overachieve.

### **Integrity**

It is not found that rolling forecasts facilitate nor challenge the perceived integrity at Area level. It can be assumed that it is related to the degree of budget mind-set being present, and thus the use of the forecasting tool. The Area level understands the rolling forecasts as a technical tool used to update their budgets. The employee does not understand the success of this tool to be depended on the superior's behaviour and intentions, as the tool is more used for internal purposes. The higher levels in the organization have a different perception regarding the value of the rolling forecasting process, and the perceived integrity therefore becomes more important in order to make the rolling forecasting process efficient. The Regional and Business Area level have understood the purpose of the rolling forecasts as a management tool, and it thus becomes important to employees that superiors are perceived as consistent, credible and true to their word, thus high in integrity (Knoll & Gill, 2011). This is in line with Mayer and Davis (1999) who found that integrity might have a greater impact on trust in situations composed of tasks that are more politically sensitive and less technical, as it is important that the manager acts in a way that is consistent with the promoted values.

The rolling forecasting process is found to both facilitate and challenge integrity on the Regional and Business Area level. Integrity is facilitated as the aspects of the rolling forecasting process enhance valuable discussions and increase the perception of transparency.

As described in research question one, it is found that the respondents perceive the rolling forecasts to be of greater value to the higher levels of the organization. Given that employees believe the forecasts they report are of higher value to levels above, it is important to the employees that their superiors make use of the forecasts they report. This can be done by basing their forecasts on the numbers received. It is important that the superior at the higher level show integrity by abiding to the rules of rolling forecasts (Gabarro, 1978; Dietz & Den Hartog, 2006), which increases the subordinates' trust in that their work is of importance. The discussions that the rolling forecasting process enable, therefore facilitate trust at the Regional and Business Area level by making the integrity of their superiors visible to the employees.

### **Summary**

We find that the rolling forecasting process' influence on trust is clearly related to the three levels studied in the organization, as presented in table 2. This again is related to the differences in perceived purpose and perceived value of the process, and will now be elaborated upon.

For Area level we see that the rolling forecasting process facilitates ability and challenges benevolence. Their degree of budget mind-set still being present seems to drive the dysfunctional behaviours related to the traditional budgeting process. The findings suggest that companies that want to implement rolling forecasts, should be aware of the consequences that arise if the purpose of rolling forecasts is not fully understood.

We see that the rolling forecasting process at the Regional level facilitates ability and integrity, however we also find benevolence and integrity to be challenged by the process. Implications for organizations that are considering implementing rolling forecasts is the importance of the superior following the guidelines of the process. We see that if the superiors do not adhere to these guidelines, it challenges the employees' trust in the process.

At the Business Area level we find the process to facilitate ability and integrity, while the process at the same time challenges integrity. In our case study, the Business Area level is the level that practices rolling forecasts more closely to theory, and it is also the level where trust is challenged the least. It thereby indicates that the rolling forecasting process itself may facilitate trust in the organization compared to the traditional budgets.

## **6. Conclusion and suggestions for further research**

This chapter presents the conclusion of the thesis and elaborates upon the conclusion's practical implications for DNV GL. Suggestions for further research will then be presented.

### **6.1 Conclusion**

The purpose of this thesis has been to explore how employees in an organization make sense of the new management tool the organization has adopted, namely rolling forecasts. The study then seeks to find aspects with the rolling forecasting process that may facilitate or challenge the perceived trust in forecasted numbers. The study has been done as a case study of a single organization, DNV GL, where twelve employees have been interviewed in order to get an in-depth understanding of their perceptions of how the financial planning process affects trust. This chapter will now start by answering the three research questions proposed in the thesis, before answering the overarching research question.

#### **How do employees make sense of the new financial planning process after introducing rolling forecasts?**

We find that there are two main differences in how employees at different levels perceive the new financial planning process. These differences are related to the degree of budget mind-set present at different levels and the perceived value of the rolling forecasting process.

We find a budget mind-set still to be present at Area level, as target setting, forecasting and resource allocation are understood as closely linked together. Rolling forecasts are understood as a tool to improve the quality of their budgets, which they now call targets. We find a budget mind-set to be present to some extent at Regional level. Although they have a clearer understanding of the process and make sense of the target and forecasts as two separate elements, they have a perception of doing a budgeting process each fall. This is caused by a more thorough process, as the numbers will be used as a basis for target in quarter three. We find the employees at Business Area level to have the best knowledge on the forecasting process. They have a clearer understanding for the separation of the three purposes of resource allocation, rolling forecasts and target as intended by corporate level.

We find that employees in general believe that the process is of greater value to levels above their own. This is evident for all levels. One of the explanations for this perception, is that the

employees believe they have a higher need for details than what the process provides as introduced by corporate level. The other explanation is that the outcome of the process is understood as more useful when making strategic decision at higher organizational levels.

### **Do employees experience that the rolling forecasting process facilitates trust between levels?**

We find four aspects with rolling forecasts as a management tool to be facilitating trust in the numbers and the process. These are related to the frequent assessments of business, better market knowledge and experience, frequent discussions and a perception of transparency.

The frequent assessment of business and better market knowledge facilitates trust as it increases the perceived ability of the employee. The frequent assessments of business makes superiors believe the employees are more on top of their business. Market knowledge and experience are considered the most important aspects when producing quality forecasts, and these aspects are also enhanced with the quarterly processes.

Frequent discussions and the perception of transparency in the organization facilitate trust in terms of an increased perception of integrity. The frequent discussions foster a common understanding, which makes it easier to understand the assumptions behind the forecasts. This understanding makes the superiors trust that the numbers reported is a correct representation of what the employees believe. The discussions do also assure the employees that their forecast will be used for the intended purpose. A perception of transparency facilitates integrity, because the superiors believe it reduces the room for dysfunctional behaviour, which in turn makes the superiors believe they would know if the numbers were holding elements of gaming.

### **Do employees perceive any factors as challenging trust in the forecasting process?**

The thesis identifies three aspects of the rolling forecasting process to challenge the trust in numbers and process. These are related to forecasting too low, forecasting too high and the demand for details.

There are two explanations to why employees are perceived to forecast too low. The first explanation is that employees want to avoid uncomfortable discussions that are perceived to

arise as the result of missing the forecast. This challenges trust in terms of integrity. The second explanation is that it provides an opportunity to easier overachieve the forecasts. This is found to challenges trust in terms of benevolence, as the forecast is based on opportunistic behaviour. The perception of employees forecasting too high in order to secure more resources, is also a challenge to trust in terms of benevolence.

The demand for details from the levels above is challenging trust in terms of integrity. The need for details challenges the whole idea of rolling forecasts, and creates a sense of the same control level as what was the case with budgets. Even though the rolling forecasts are supposed to hold fewer details, employees continue to collect many details in order to be able to answer every question their superiors will ask.

### **How do employees make sense of the rolling forecasting process and how do that influence trust in forecasted numbers?**

The thesis concludes that how employees make sense of the rolling forecasting process do have an influence on trust. It is concluded that the rolling forecasting process facilitates trust in some aspects and challenges trust in other aspects. This is demonstrated through research question two and three. The way the rolling forecasting process influences trust in forecasted numbers is related to the three levels studied in the organization, as the understanding of the process differs amongst the levels.

The aspects of the rolling forecasting process facilitate the perceived ability of employees at all levels. The increased perception of the employees' abilities further facilitates superiors' trust in the forecasted numbers that they report. The rolling forecasting process' influence on perceived benevolence and integrity of the employees differs between the levels.

Perceived benevolence at Area level is challenged because of the persisting budget mind-set at this level. The budget mind-set drives dysfunctional behaviours related to the traditional budgeting process, and the forecasts are therefore also perceived to hold opportunistic motives. A better understanding for the rolling forecasting process and its decoupling from budget is therefore needed in order to avoid these challenges to trust.

At Regional level, the rolling forecasting process facilitates perceived integrity of the employees in addition to ability. The employees have a better understanding for the purpose



of rolling forecasts, and aspects of the process facilitate perceived integrity because of the valuable discussions and transparency it drives. It is however also found that a budget mindset is still present to some extent because of the quarter three forecast, which drives some dysfunctional behaviour related to the traditional budget and thus challenges perceived benevolence and integrity. Because the employees have a better understanding for the process, it also becomes important that their superiors follow the guidelines as introduced to Regional level.

At the Business Area level we find the process to facilitate integrity in addition to ability. The respondents at the Business Area level have a great understanding for the purpose of rolling forecasts, and are the level found to follow the principles of rolling forecasts the closest. The rolling forecasting process is found to be more facilitating than challenging to trust at this level, which indicates that the aspects of the rolling forecasting process itself may facilitate trust in the organization.

## **6.2 Implications for DNV GL**

As the study serves to answer how employees make sense of the rolling forecasting process, our findings are related to how the purpose of the process is understood and also what value it is perceived as providing. By following the numbers our findings revealed how the forecasted numbers were produced. It showed that there are many differences related to how the process is carried out, and this implies that DNV GL may introduce stricter guidelines.

The thesis further looked into what facilitates and challenges trust. For DNV GL the value will be to see how trust differs at different levels and how the knowledge on what makes it succeed at one level can be retrieved for another level. We find trust to be facilitated in terms of integrity on higher levels, however not on the lowest level.

Challenges according to the understanding of the process were revealed, in addition to how those affected trust in the organisation. Findings showed that the rolling forecasting process challenged trust at all levels. This was in connection to how the process still experienced problems that were present with traditional budgets. The problems were more related to the lower levels in the organisation. This may imply that DNV GL should focus more on information and knowledge transfer from the higher levels to the lower levels in the

organisation. They need to find a way to communicate their vision of Dynamic Forecasting model, thus getting the whole organization on the same path - regardless of levels and localization. As a result there could be enhanced performance and increased business understanding throughout the organization. Best practices in relation to the forecasting process may prove useful in this connection.

Through interviews we discovered that respondents would like to discuss opportunities and challenges more often in relation to the process. It was expressed as difficult due to the different business characteristics across business areas in DNV GL. However, our findings find that there are many commonalities across business areas that are not related to the characteristics. This may imply that DNV GL can enhance the value of the rolling forecasting process and enhance trust in the organization by focusing on similarities and sharing experience at the same levels, but across business areas.

### **6.3 Further research**

Several interesting issues have emerged while working with this thesis. Some of these may be the source for further research.

The thesis showed that there were certain aspects of the rolling forecasting process in DNV GL that facilitated and challenged trust. The business areas in DNV GL were quite diverse in business characteristics, but our respondents did not make sense of any differences related to these differences. The business culture might be understood as common for the entire organization. It would be interesting to conduct the same type of research in several organizations to see if there were some business characteristics that especially facilitated trust or challenged it. This can especially be related to implementation or business culture, as context is proved to be important in relation to trust.

The research is based on interviews conducted over a short period of time in order to explore how employees understand the facilitators and challenges to trust. An interesting theme for further research would be to explore if this understanding changes over time, from when the management tool is newly introduced and to the point where it has been fully implemented

over a long period of time. Longitudinal studies could then bring new insights into trust and the changes over time.

A qualitative research method was seen as a valuable approach, as the link between the rolling forecasting process and trust had not been a source for extensive research. The objective was to gain insights, create explanations and achieve a higher understanding of a phenomenon. The shortcoming of this approach is that it is not suitable to generalize the results or to find causal cause-effect relationships. An opportunity for further research is to use the findings retrieved through interviews in this thesis, and then conduct a quantitative study.

## **7. Appendix Interview guide**

### **Introduction**

1. Introduction of interviewers, the purpose of this thesis and value for DNV GL
2. Information about formalities, anonymity, confidentiality form etc.
3. Introduction of the interviewee role in the financial planning process, current and former positions, number of years in the position/company

### **Part 1:**

**Questions in order to understand how the financial planning process is carried out in their business area and at their level**

#### **1. A description of the organizational structure**

- A. How is the business area organized?
  - a. Structure, sections, regions

#### **2. A description of the financial planning system today**

- A. How is the financial planning process in your business area carried out today?
- B. When did your business area introduce rolling forecasts?
  - a. Before/after you started?

#### **3. A comparison with the old financial planning system (alt.1 – S/he has been there the whole time)**

- A. When you think about the time before the rolling forecast was introduced, how was the financial planning process then carried out?
  - a. Tools, budgets, resource allocation, forecasting
  - b. Involvement, controllers, time spent
  - c. Span of your responsibility, authority
- B. How do you experience the rolling forecasts compared to a traditional budget?
  - a. Tools, budgets, resource allocation, forecasting
  - b. Involvement, controllers, responsibility
  - c. How do you perceive the advantages of using budgets?
  - d. How do you perceive the challenges of using budgets?

**4. A comparison with the old financial planning system (alt.2 – S/he has only experienced rolling forecast)**

- A. Do you know how the financial process was before the rolling forecast was introduced?
  - a. Is there a common perception of how it was earlier amongst the employees?
  - b. Tools, budgets, resource allocation, forecasting
  - c. Involvement, controllers, responsibility
  - d. Do you know if the time used on the process for other managers in the organization has changed?
- B. Have you worked with traditional budgeting before?
  - a. How do you experience the rolling forecasts compared to a traditional budget?
  - b. Tools, budgets, resource allocation, forecasting
  - c. Involvement, controllers, responsibility
  - d. How do you perceive the advantages of using budgets?
  - e. How do you perceive the challenges of using budgets?

**5. The perceived purpose and value of the financial planning system**

- A. How do you understand the purpose of Dynamic Forecasting?
- B. What do you believe is the most important thing when it comes to forecasting?  
Why?
  - a. Position, organizational structure, value for business
  - b. Personal level, personal qualities, skills, knowledge
- C. What do you believe is the most difficult thing when it comes to forecasting?  
Why?
  - a. Position, organizational structure, value for business
  - b. Personal level, personal qualities, skills, knowledge
  - c. Could these challenges been avoided when implementing rolling forecasts in DNV GL?
  - d. How can these challenges be improved?
- D. How do you perceive the advantages of using rolling forecasts?
  - a. Information, decision making, management control
- E. How would you assess the efficiency of the forecasts?

- a. Accuracy, time spent on forecasting.
- F. What do you believe could be better regarding this process?
  - a. Information, decision making, management control
- G. Given the short time span of your journey, where is the business area now compared to where it wants to be regarding financial planning?

**Part 2:**

**Questions to find out if and how they perceive the financial planning system facilitating or challenging trust.**

**1. Do employees have enough skills and competencies to succeed with RF? (Theory of ability)**

- A. How is the training related to making and using rolling forecasts?
  - a. Newly hired, experienced employee
  - b. Informal, formal form for training
  - c. In the tool, business, market
- B. How does this relate to the quality of the forecasts?
  - a. Experience, development
  - b. Differences between people, levels, areas
- C. Could the training become improved?
  - a. Participants, substance, application
- D. Do you believe that the people, who report forecasts to you, have the necessary skills and competence for this?
  - a. Related to training, experience, years of employment, education
- E. Do you think that your superiors have the necessary skills to make use of the forecast you report correctly? Able to make use of it?
  - a. Related to training, experience, years of employment, education
  - b. In the tool, business, market
- F. Do you perceive any differences in the knowledge amongst the people reporting forecasts to you?
  - a. Related to training or other factors
  - b. Related to the quality of the forecasts
  - c. Related to if the person is suitable for performing her/his job successfully

**2. Do other employees express concern, care and interest in the work related to financial planning system? (Theory of benevolence)**

- A. Do you think most people in the organization have a genuine interest in making the rolling forecasts as accurate as possible?
- B. How much time is used on the forecasting process? Do you think some people may want to use less time on the process, which in turn may affect the quality of the forecasts?
- C. In what way do you believe that your managers care about the forecasts being reported from you level?
  - a. Purpose, goals, wishes
- D. In what way do you believe that the people reporting forecasts to you have an interest in doing this the correct way?
  - a. Why? Why not?
  - b. Does it depend on what is important to you?
- E. Do you believe the forecasted numbers being reported to you sometimes reflects somewhat less benign motives?
- F. Is there any thing to be gained from reporting wrong forecasts deliberately?

**3. Do employees keep their promises and act in accordance to principles in relation to the financial planning tool? (Theory of integrity)**

- A. Do you believe that your managers use the forecasts you produce for the intended purpose?
- B. Do you believe that the numbers being reported to you represents the accurate situation?
  - a. Why? Why not?
  - b. Do you experience some employees being unfair?
- C. Do you believe that the numbers being reported to you is produced in the way they say they are?
  - a. Related to principles?
  - b. Related to the employees having a strong sense of justice?

**4. Concluding remarks on trust**

- A. What makes/or would make you trust the rolling forecasting process?

- B. Have your trust in the forecasted numbers changed from when the rolling forecasting process was first implemented?
- a. If so, how has this affected your actions?

**Closing remarks**

1. Asking if there is anything important we forget to discuss
2. Thanking for taking time
3. Asking for possibility to ask follow-up questions if necessary
4. Information about further actions, approval of transcriptions, finished thesis



## 8. References

Anthony, R.N. & Govindarajan, V. (2006). *Management Control Systems*. Boston, MA: McGraw-Hill

Anthony, R. N., & Govindarajan, V. (2007). *Management Control Systems 12<sup>th</sup> ed.* NY: McGraw-Hill/Irwin

Audi, R., & Murphy, P. E. (2006). The many faces of integrity. *Business Ethics Quarterly*, 16(1), 3-21.

Baldvinsdottir, G., Hagberg, A., Johansson, I., Jonäll, K., & Marton, J. (2011). Accounting Research and Trust: A Literature Review. *Qualitative Research in Accounting & Management*, 8(4), 382-424

Balogun, J. (2001). *From Intended Strategies to Unintended Outcomes: The impact of Change Recipient Sensemaking*. Presented at the Academy of Management Meetings in Washington D.C.

Balogun, J., & Johnson, G. (2004). Organizational restructuring and middle manager sensemaking. *Academy of Management Journal*, 47, 523-549.

Barber, B. (1983). *The Logic and Limits of Trust*, New Brunswick, NJ: Rutgers University Press

Bartunek, J. (1984). Changing Interpretive Schemes and Organizational Restructuring: The Example of a Religious Order. *Administrative Science Quarterly*, 29(3), 355-372.

Bartunek, J. M., Rosseau, D. M., Rudolph, J. W., & DePalma, J. A. (2006). On the receiving end: Sensemaking, emotion and assessments of an organizational change initiated by others. *The Journal of Applied Behavioral Science*, 42(2), 182-206.

Bergstrand, J. (2009). *Accounting for Management Control*. Hungary: Studentlitteratur AB

Bergstrand, J. (2012). *Management Accounting: A Cases Approach*. Harlow: Pearson.

Berscheid, E., & Walster, E. H., (1978). *Interpersonal attraction (2<sup>nd</sup> ed.)*. MA: Addison-Wesley

Bjørnenak, T. (2009). Økonomistyringens tapte relevans, del 1 og 2. Fra ABC til Beyond Budgeting på 20 år. *Magma*, 12(10), pp. 49-54.

Bogsnes, Bjarte. (2009). *Implementing Beyond Budgeting - Unlocking the Performance Potential*. Published by John Wiley & Sons, Inc.

Bogness, B. (2013). Taking reality seriously - towards a more self-regulating management model in Statoil. P. Gooderham, K. Kaarbøe, & H. Nørreklit (Ed.), *Managing in Dynamic Business Environments: Between autonomy and control* (p. 11-33). Cheltenham, UK:Edward Elgar Publishing Ltd.

Bourmistrov, A. & Kaarbøe, K. (2013). The planning-regime concept and its application to three examples of organizational budgeting. In Kaarbøe, K., Gooderham, P., Nørreklit, H. (Ed.), *Managing in Dynamic Business Environments Between Control and Autonomy* (163-184). Cheltenham, UK: Edward Elgar Publishing Limited

Bryman, A. (2012). *Social research methods*. New York: Oxford University Press Inc

Bryman, A. & Bell, E. (2003). *Business research Methods*. Oxford: Oxford University Press.

Burke, C.S., Sims, D.E., Lazzara, E.H. and Salas, E. (2007). Trust in leadership: a multi-level review and integration. *The Leadership Quarterly*, 18(6), 606-632.

Burt, R. & Knez, M. (1995). Kinds of Third-Party Effects on Trust. *Rationality and Society*, 7(3), 255-292.

Butler Jr., J. K. (1991). Toward understanding and measuring conditions of trust: evolution of a conditions of trust inventory. *Journal of Management*, 17(3), 643.

Clarke, P. (2007). The Rolling Forecast As a Catalyst for Change. *Accountancy Ireland*, 39(5), 22-24.

Cohen, M. & Haney, R.M. (1994). *A Comparison of Traditional and Non-traditional Management Control Systems*. (Master thesis, Naval Postgraduate School) Retrieved from [http://faculty.nps.edu/pcchu/web\\_paper/thesis/03Dec\\_Whisenhant\\_PhD.pdf](http://faculty.nps.edu/pcchu/web_paper/thesis/03Dec_Whisenhant_PhD.pdf)

Colquitt, J.A., Scott, B.A. and LePine, J.A. (2007). Trust, trustworthiness, and propensity to trust: a meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, 92(4), 909-27.

Cooper, D. & Schindler, P. (2014). *Business Research Methods*. New York: McGraw-Hill/Irwin

Crotty, M. (1998) *The Foundations of Social Research: meaning and perspective in the research process*. London: Sage Publications

Daft, R.L., Murphy J., & Willmott, H. (2010). *Organization theory and design*. Andover: South-Western Cengage Learning

Davis, J.H., Schoorman, F.D., Mayer, R.C. and Tan, H.H. (2000), "The trusted general manager and business unit performance: empirical evidence of a competitive advantage", *Strategic Management Journal*, 21(5), 563-576.

De Leon, L., Rafferty, P. D. & Herschel, R. (2012). Replacing the Annual Budget with Business Intelligence Driver-Based Forecasts. *Intelligent Information Management*, 4(1), 6-12.

Denzin, N. K. & Lincoln, Y. S. (2005). *The Sage handbook of qualitative research*. Thousand Oaks, Calif: Sage

Diener, E. & Crandall, R. (1978). *Ethics in social and behavioral research*. Chicago: University of Chicago Press.

Dietz, G. & Den Hartog, D. N. (2006). Measuring Trust Inside Organisations. *Personnel Review*, 35(5), 557-588

Dirks, K.T. and Ferrin, D.L. (2002). Trust in leadership: meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, 87(4), 611-28.

- Drury, C. (2012). *Management and cost accounting*. Hampshire: Cengage Learning
- Easterby-Smith, M., Thorpe, R. and Lowe, A. (1999) *Management Research, an introduction*. London: SAGE Publications
- Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2008). *Management research (3rd ed.)*. London: Sage.
- Edmondson, Amy. (1999). Psychological Safety and Learning Behavior in Work Teams. *Administrative Science Quarterly*, 44(2), 350-383.
- Eisenhardt, K. M. & Graebner, M. E. (2007). Theory Building from Cases: Opportunities and Challenges. *The Academy of Management Journal*, 50(1), 25-32.
- Ekholm. B & Wallin J. (2000). Is the annual budget really dead?, *The European Accounting Review*, 9(4), 519-539
- Flick, U. (2011). *Introducing Research Methodology: A Beginner's Guide to Doing a Research Project*. Los Angeles, Calif: SAGE
- Gabarro, J.J., & Athos, J. (1976). *Interpersonal Relations and Communications*. Englewood Cliffs, NJ:Prentice-Hall
- Gabarro, J. J. and Athos, A. G. (1978). *The development of trust, influence and expectations*. Englewood Cliffs, NJ: Prentice Hall
- Ghauri, P. & Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*. Harlow: Financial Times Prentice Hall
- Gill, H., Boies, K., Finegan, J.E. and McNally, J. (2005). Antecedents of trust: establishing a boundary condition for the relation between propensity to trust and intention to trust, *Journal of Business and Psychology*, 19(3), 287-302.
- Gill, J. & Johnson, P. (2010). *Research Methods for Managers*. London: Sage Publications

Gioia, D.A. & Chittipeddi, K., (1991). Sensemaking and Sensegiving in Strategic Change Initiation, *Strategic Management Journal*, 12(6), 443-448.

Gooderham P., Kaarbøe K., & Nørreklit H. (2013). Control and autonomy – management challenges and tensions. P. Gooderham, K. Kaarbøe, & H. Nørreklit (Ed.), *Managing in Dynamic Business Environments: Between autonomy and control* (p. 11-33). Cheltenham, UK:Edward Elgar Publishing Ltd.

Guba, E. & Lincoln, Y. S. (1985). *Naturalistic inquiry*. Beverly Hills, Calif: Sage

Gurton, A. (1999). ‘Bye bye budget . . . the annual budget is dead’, *Accountancy*, 123(1267), 61.

Hansen, S.C. & Van der Stede, W.A. (2004). Multiple facets of Budgeting: An exploratory analysis. *Management Accounting Research*, 15(4), 415-439

Nitzl, C. & Hirsch, B. (2014). *When Do Managers Trust Their Management Accountants?* Available at: <http://ssrn.com/abstract=2127701>

Hope, J. & Fraser, R. (2003) *Beyond Budgeting: How Managers Can Break Free from the Annual Performance Trap*, Boston, MA: Harvard Business School Press

Hope, J. (2007). Why rolling forecasts should be at the centre of the management process. *Performance Management Insights Research Series*, 21

Hope, J. (2007). Why rolling forecasts should be at the centre of the management process. *Performance Management Insights Research Series*, 21, BBRT

Hope, J. (2010). Rolling Forecasts. *BBRT. Performance management tools. Research series - a critical review*.

HOPE, J. D., BUNCE, P. G. & RÖÖSLI, F. (2011). *The leader's dilemma: How to build an empowered and adaptive organization without losing control*, London, Jossey Bass.

Institute of Finance & Management, Controller's report. (2014) *The Rolling Forecast: A Tool for More Accurate Budgeting and Planning*. Retrieved 16.11.2015 from [http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=1&sid=7837ce61-488a-4faf-a799-1640c3eeal1c9%40sessionmgr4002&hid=4204]

Isabella, L.A. (1990). Evolving Interpretations as a Change Unfolds: How Managers Construe Key Organizational Events. *Academy of Management Journal*, 33(1), 7-41.

Jacobsen, D. I. (2005). *Hvordan gjennomføre undersøkelser? Innføring samfunnsvitenskapelig metode*. Kristiansand: Høyskoleforl.

Jensen, M. C. (2001). Corporate budgeting is broken—Let's fix it. *Harvard Business Review*, 79(10), 94-101

Johannessen, A., Kristoffersen, L. & Tufte, P. A. (2011). *Forskningsmetode for økonomisk-administrative fag*, Oslo:Abstrakt forlag.

Kanter, R.M. (1993). *Men and women of the corporation* (2<sup>nd</sup> ed.). New York: Basic Books.

Kaplan, R. S. (1984). The Evolution of Management Accounting. *The Accounting Review*, 24(1), 103-133.

Ketokivi, M. & Mantere, S. (2010). Two Strategies for Inductive Reasoning in Organizational Research. *Academy of Management Review*, 35(2), 315–333.

Kirk, J., & Miller, M. L. (1986). *Reliability and validity in qualitative research*. Beverly Hills: Sage Publications.

Knoll, D. L. & Gill, H. (2011). Antecedents of trust in supervisors, subordinates, and peers. *Journal of Managerial Psychology*, 26(4), 313-330.

Koehn, D. (2005). Integrity as a business asset. *Journal of Business Ethics*, 58(1-3), 125- 136.

Laschinger, H.K.S., Finegan, J. & Shamian, J. (2001). The impact of workplace empowerment, organizational trust on staff nurses' work satisfaction and organizational commitment. *Health Care Management Review*, 26(3), 59-85.

Langfield-Smith, K. (1997). Management Control Systems and Strategy; A Critical Review. *Accounting, Organizations and Society*, 22(2), 207-232

Lapidot, Y., Kark, R. and Shamir, B. (2007). The impact of situational vulnerability on the development and erosion of followers' trust in their leader. *The Leadership Quarterly*, 35(1), 16-34.

Lewicki, R. J., & Bunker, B.B. (1996). Developing and Maintaining Trust in Work Relationships. In *Trust in Organisations: Frontiers of Theory a Research*, edited by R. M. Kramer and T. R. Tyler. Thousand Oaks: Sage.

Libby, T. & Lindsey R.M. (2010). Beyond Budgeting or budgeting reconsidered: A survey of North American budgeting practice. *Journal of Accounting Research*, 21(1), 56-75.

Lewis, J. D. & Weigert, A. (1985). Trust as a Social Reality. *Social Forces*, 63(4), 967-985.

Lorain, M. (2010). "Should rolling forecasts replace budgets in uncertain environments?" Epstein, M., Manzoni, J. & Davila, A. (Ed.), *Volume 20 - Performance Measurement and Management Control: Innovative Concepts and Practices* (177-208). Published online: Emerald

Luhmann N. 1988. Familiarity, confidence, trust: problems and alternatives. In *Trust: Making and Breaking Cooperative Relations*, ed. D Gambetta, pp. 94–108. Cambridge, MA: Oxford Univ. Press

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management*, 20(3), 709-734

Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84(1), 123–136.

Mayer, R.C, J. H. Davis, & F. D. Schoorman. (2006). A Integrative Model of Organizational Trust. R. M. Kramer. (Ed.), *Organizational Trust* (p. 82-108). New York: Oxford University Press

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (2007). An integrative model of organizational trust: Past, Present and Future. *Academy of Management Review*, 32(2), 344-354

McAllister, Daniel J. (1995). Affect- and Cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38(1), 24-59.

Mcknight, H. & Chervany, N. L. (1996). The meanings of trust.  
Retrieved from [http://misrc.umn.edu/workingpapers/fullpapers/1996/9604\\_040100.pdf](http://misrc.umn.edu/workingpapers/fullpapers/1996/9604_040100.pdf)

Merchant, K.A. & Van Der Stede, W.A. (2012). *Management control systems: Performance measurements, evaluation and incentives*. Harlow: Pearson Education

Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education*. San Fransisco: Joessey-Bass

Mishra, A. K. (1996). Organizational responses to crisis: The centrality of trust. In R. M. Kramer & T. R. Tyler Eds. *Trust in Organizations: Frontiers of Theory and Research* (pp. 261-287). Thousand Oaks, CA: Sage

Montgomery, P. (2002). Effective Rolling Forecasts. *Strategic Finance*, 83(8), 41-44.

Morlidge, S. & Player, S. (2010). *Future Ready: How to Master Business Forecasting*. John Wiley & Sons

Narayanan, V. G., and Davila, A. (1998). Using delegation and control systems to mitigate the trade-off between the performance-evaluation and belief-revision uses of accounting singals. *Journal of Accounting and Economics*, 25(3), 255-282.



- Newcomb, T. M. (1956). The prediction of interpersonal attraction. *American Psychologist*, 11, 575-586.
- Nooteboom, B. (2002). *Trust: Forms, Foundations, Functions, Failures and Figures*. Cheltenham/Northampton: Edward Elgar
- Otley, D. (1999). Performance management: a framework for management control systems research. *Management Accounting Research*, 10(4), 363-382.
- Otley, D. (2008): Did Kaplan and Johnson get it right? *Accounting, Auditing & Accountability Journal*. 21(2), 229-239.
- Otley, D., Hansen, S. C. & Van der Stede, W. A. (2003). Practice Development in Budgeting: an Overview and Research Perspective. *Journal of Management Accounting Research*, 15(1), 95-116.
- Patton, M. (1990). *Qualitative evaluation and research methods*. Beverly Hills, CA: Sage Publications
- Porter, T. M. (1995). Information Cultures: A Review Essay. *Accounting, Organizations and Society*, 20(1), 83-92.
- Rachlin, R. (1999). *Total Business Budgeting: A Step-by-Step GuidForms*. New York: John Wiley & Sons, Inc.
- Robinson, S. L., Kraatz, M., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*, 37(1), 137-152.
- Robson, C. (2002). *Real world research*. Blackwell Publishing.
- Rousseau, D., Sitkin, S., Burt, R., & Camerer, C. (1998). Not so Different after all: A Cross Discipline View of Trust, *Academy of Management Review*, 23(3), 393-404.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students*. Edinburgh: Pearson Education Limited
- Sandalgaard, N. (2012). Uncertainty and budgets: An empirical investigation. *Baltic Journal of Management*, 7(4), 397-415.

- Schoorman, F. D., Mayer, R. C., & Davis, J. H. (1996). Organizational trust: Philosophical perspectives and conceptual definitions. *Academy of Management Review*, 21(2), 337–340.
- Sivabalan, P. (2011). Start rolling. *Charter*, 82(8), 46-47.
- Starovic, D., & Jackson, C. (2004). Better Budgeting: A report on the Better Budgeting forum from CIMA and ICAEW. Chartered Institute of Management Accountants & Faculty of Finance and Management, ICAEW
- Stensaker, I. (2002). *A change in plans: a sensemaking perspective on strategy implementation*. (Doctoral thesis), NHH
- Tan, H. & Lim, A., 2009. Trust in co-workers and trust in organizations. *The Journal of Psychology*, 143(1), 45-66.
- Tanlu, L. (2007). *Does the Adoption of Rolling Forecasts Improve Planning? An Empirical Investigation of the Consequences of Rolling Forecasts*. Boston: Harvard Business School
- Thomas, G. F., Zolin, R. & Hartman, J. L. (2009) The Central Role Of Communication In Developing Trust And Its Effect On Employee Involvement. *Journal of Business Communication*, 46, 287-310.
- Veal, A. J. (2006). *Research methods for leisure and tourism: A Practical guide*. Edinburgh: Pearson Education Limited.
- Wallander, J. (1999). Budgeting – an unnecessary evil. *Scandinavian Journal of Management*, 15(4), 405-421
- Wasti, S.A., Tan, H.H. and Eser, S.E. (2011). Antecedents of trust across foci: a comparative study of Turkey and China, *Management and Organizational Review* (in press).
- Waterman, R. H. Jr., (1990). *Adhocracy: The power to change*. Memphis: Whittle Direct Books.
- Weick, K. E. (1995). *Sensemaking in Organizations*. California: Sage Publications

Wells, C.V. and Kipnis, D. (2001). Trust, dependency, and control in the contemporary organization. *Journal of Business Psychology*, 15(4), 593-603.

Werbel, J.D. and Henriques, P.L. (2009). Different views of trust and relational leadership: supervisor and subordinate perspectives. *Journal of Managerial Psychology*, 24(8), 780-96.

Whitener, E.M., Brodt, S.E., Korsgaard, M.A. & Werner, J.M. (1998). Managers as initiators of trust: an exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23(3), 513-30.

Williamson, O. E. (1993). Calculativeness, trust, and economic organization. *Journal of Law and Economics*, 36(1), 453-486

Yin, R. K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, Calif: Sage

Yin, R. K. (2014). *Case Study Research: design and methods*. Los Angeles: SAGE Publications Inc.

Zaltman, G., Florio, D., & Sikorski, L. (1977). Dynamic educational change: Models, strategies, tactics and management. New York: The Free Press.

Zand, D. E. (1972). Trust and Managerial Problem Solving. *Administrative Science Quarterly*, 17(2), 229-239.

Øpstad, D. (2013). *Relative Effects of Trustworthiness Dimensions on Retailer Loyalty in a Subsistence Market*. (Master thesis, NHH), Retrieved from [http://brage.bibsys.no/xmlui/bitstream/handle/11250/170134/Opstad\\_2013.pdf?sequence=1&isAllowed=y](http://brage.bibsys.no/xmlui/bitstream/handle/11250/170134/Opstad_2013.pdf?sequence=1&isAllowed=y)

Østergren, K. & Stensaker, I. (2010). Management Control without Budgets: A Field Study of 'Beyond Budgeting' in Practice. *European Accounting Review*, 1-33.



## 9. List of figures and tables:

### List of figures:

Figure 1: Traditional forecasts compared to rolling forecasts (Hope, 2010).....	20
Figure 2: Forecasting process (Bergstrand, 2009).....	20
Figure 3: Ability as antecedent of trust.....	28
Figure 4: Ability and integrity as antecedents of trust.....	29
Figure 5: Ability, integrity and benevolence as antecedents of trust.....	30
Figure 6: Conceptual model.....	35
Figure 7: Demonstration of business areas in DNV GL.....	38
Figure 8: Illustration of business levels in DNV GL.....	59

### List of tables:

Table 1: Summary of similar and different perceptions of rolling forecasts according to levels.....	78
Table 2: Summary of where ability, integrity and benevolence are facilitated and challenged in relation to levels.....	97