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| MASTER'S THESIS | | | | | |
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| TITLE: Remote Management: Increased Management Personnel | | to Increased Con | nmitment in Remote Field | | |
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Preface

This thesis is written as a part of my Master Program within Economics and Business

Administration at the University of Stavanger, with specialization in Strategy and

Management. The focus of the thesis is increased management efficiency as a means to

increased commitment in remote field personnel. Writing this thesis has been challenging,

educational and rewarding.

I started my studies three years ago, and since then I have combined studying with either

maternity leave or full time work. At times, it has been extremely busy, but also very

rewarding. I feel like I have grown both personally and professionally during my time as a

master student at UIS.

Completing my studies and completing this thesis would not have been possible without the

flexibility and support my manager, Glen Houghton, has given me. I would like to thank you

for allowing me to use Baker Hughes Norway as my case in this thesis. You are a textbook

example of a great manager and I feel very fortunate to have a manager who always inspires

in both actions and words.

I would also like to thank my family for all their love and support, and especially my husband,

who has taken more than his fair share of family responsibilities so I could finish this thesis.

Thank you for pushing me when I need it, and for supporting me when it is all just a bit too

much. I am a better version of myself because of you.

Thank you also to my supervisor, Jan Frick, for valuable insight, support and encouragement

through this process.

Hommersåk, 15.06.2017

Anette T. Sirevåg

Abstract

In Norway, there are thousands of offshore employees working in service companies and relying on remote management (Blomgren, Harstad & Hause-Reve, 2012). Due to current downturn in the petroleum industry, many of these employees are affected by organizational efficiency initiatives. Often connected to downsizing, organizational change and uncertainty, these initiatives can have a negative effect on commitment (De Cuyper, 2009). Strong commitment ensures remote employees' motivation, productivity and reliability (Connaughton and Daly, 2004). Studies indicate an enhanced need for fostering remote employees' commitment to their organization, but the very nature of their work situation potentially raises the bar for achieving it (Depickere, 1999; Hoeffing, 2001).

This thesis is an exploratory case study of the Drilling Services product line in Baker Hughes Norway. The purpose of the thesis was to create a framework for evaluating efficiency initiatives in onshore management in terms of effect on remote field personnel's commitment level. To investigate this issue, a problem statement and two corresponding research questions was defined. **Problem Statement: How can efficiency initiatives in onshore management increase remote filed personnel's commitment level?**

Data was collected through in-depth interviews and analyzed based on a theoretical framework constructed by existing research on commitment and operational efficiency. First, the current commitment level was analyzed, revealing that it was high, but to offshore teams rather than to the organization. Next, organizational factors influencing commitment level was identified and sorted into categories and themes, before evaluating efficiency initiatives based on lean principles. The efficiency initiatives were then linked to the organizational factors that effected commitment level.

For Drilling Services in Baker Hughes Norway, breaking the departments into smaller groups, implementing software for onshore management and improve communication systems internally in onshore management and externally to offshore employees were identified as the efficiency initiatives that would have the strongest effect on remote employees commitment level.

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Definitions and Abbreviations

Definitions

Offshore – In this paper, the term "working offshore" or "offshore work" refers to working on oil rigs or platforms located off shore. It is not connected to the strategic term "offshoring".

Abbreviations

BHI – Baker Hughes Incorporated

DS – Drilling Systems

FPS - Field Personnel Supervisor

FS – Field Specialist

DD –Directional Drilling

MWD – Measurement While Drilling

SLS – Surface Logging Systems

PL – Project Leader

PP –Personnel Planner

PLT – Personnel Logistics Team

CMP – Competency Management Program

PDP – Personal Development Plan

1. Introduction

For the last five years, I have had the pleasure of working for Baker Hughes Norway in different roles concerned with the management of offshore employees. This has given me a unique insight into how remote management works and how remote employees respond to this process. There is no doubt that not being face to face with the people you manage on a regular basis creates a challenging situation. With offshore personnel, there is the extra challenge of work tasks, work shift and work environment being drastically different from the onshore operation. In conversations with offshore employees, I have been told about an "us vs. them" attitude between offshore and onshore operations and a feeling of alienation from the company. The challenges of remote management has therefor been in the forefront of my mind during my studies of strategic management and I knew early on that I wanted my master thesis to investigate some of these issues. This chapter will start with an introduction to the theme of the thesis, before explaining the aim or objective of the thesis. It will then present the problem statement and the subsequent research questions before it ends with a structural overview of the thesis.

1.1 Theme of Thesis

In Norway, there are thousands of offshore employees working in service companies and relying on remote management (Blomgren, Harstad & Hause-Reve, 2012). One of these service companies is Baker Hughes Norway. This thesis will be a case study of the Drilling Services product line, which has approx. 240 offshore employees managed by four Field Personnel Supervisors (FPS). Due to the large number of offshore employees, the FPS shares the managerial tasks with other roles in the company, such as Project Leaders (PL) and Personnel Logistics Teams (PLT). Because of the challenging market situation in the petroleum industry, Baker Hughes has announced that they need to work more efficiently to reduce cost and stay competitive (BHI, 2016). Downsizing has been the most prominent cost saving initiative towards a more efficient organization. In Norway, they have reduced personnel on several occasions over the last three years, and in March 2017 all employees where offered the possibility of severance packages to reduce further and prepare for the upcoming merger with GE Oil and Gas (Hovland, 2017). In addition to downsizing, there have been structural changes, leadership changes (BHI, 2016) and uncertainty connected to

first the merger with Halliburton, the termination of this agreement and then the new merger with GE.

Uncertainty correlates negatively with job satisfaction and affective commitment (De Cuyper, 2009). Personnel with a high degree of affective commitment are, according to Allen and Meyer (1990), willing to make an extra effort to invest in every aspect of their job. Several studies on remote working complements this notion, showing that a strong bond with the organization is essential to securing remote employees' motivation, productivity and reliability (Connaughton and Daly, 2004; Hertel, 2004; Mirchandani, 1999). Commitment is also perceived as the foundation for, and generator of, trust, which knowledge sharing and collaboration are vitally dependent on (Jarvenpaa and Leidner, 1998; Lipnack and Stamps, 1997).

There has been an increase in academic research on remote management over the last two decades (Jacobs, 2006). However, many studies do not differentiate between types of remote workers and include participants whose remote work context vary greatly in terms of environment, work tasks and part/full time status (Johnson, 2001). Alternatively, they focus on the "elite" – managers and project specialists working from home while using advanced information and communication technologies to participate equally in collaborative and decision-making relationships with virtual or office based employees (Sims & Galpin, 1998). One particularly neglected group of remote workers are "field-based" mobile service technicians or engineers. These employees' technical service skills and expertise are core to the productivity of the organization, but they are nevertheless not part of the management "elite" (Jacobs, 2006). Offshore employees in the petroleum industry fit under the same categorization.



FIGURE 1: THE INTERSECTION BETWEEN INCREASED MANAGEMENT EFFICIENCY AND INCREASED EMPLOYEE COMMITMENT.

On the surface there seems to be a tension between efficiency initiatives in remote management and the commitment level of the remote field employees. In an industry facing a severe downturn, both efficiency and commitment ought to be high to ensure success. Identifying efficiency initiatives that can increase commitment would be beneficial for Baker Hughes.

1.2 Aim of Thesis

Due to limited research on management of remote field personnel and the apparent tension between efficiency and commitment, this issue needs to be investigated further. Identifying organizational factors that not only increases efficiency in remote management, but also increases the commitment level of the remote employees, can according to theory increase productivity and thus be a source of competitive advantage. The aim of this thesis is therefor to map the current management processes between onshore and offshore in Drilling Services in Baker Hughes Norway, and identify and analyze improvement opportunities in terms of increased efficiency in onshore management and increased commitment in remote field personnel.

1.3 Problem Statement and Research Questions

After reviewing exiting theory on the subjects and discussions with the Field Service Manager for Drilling Services the problem statement has been defined as:

How can efficiency initiatives in onshore management increase remote filed personnel's commitment level?

Complementary to this, two research questions were developed to give a substantial answer to the problem statement:

RQ1: How is the current commitment level of offshore employees in Drilling Services in Baker Hughes Norway?

RQ2: What efficiency initiatives in onshore management can positively influence these employees commitment level?

To give an answer to the problem statement and the corresponding research questions, a theoretical framework based on Meyer and Allen's (1900) there-component commitment model and Jacobs (2008) commitment model for remote employees will be applied, in addition to Bicheno and Holweg's (2009) seven wastes of Lean services and Carlborg, Kindström & Kowalkowski (2013) model based on the six lean principles.

1.4 Structure of Thesis

In order to provide a high-quality research, the thesis will be divided into eight chapters. Together these chapters will give relevant background information, present the theoretical framework and methodology, the empirical data and the analytical review. It will also discuss the findings based on the framework and present a conclusion at the end.

The first chapter introduces the theme of the thesis, its relevance and its objective. It also presents the problem statement and the corresponding research questions. The second chapter provides an industry and organizational background. Chapter 3 presents the theoretical framework for the research. The theories presented here will form the foundation of the analysis. Chapter four's purpose is to establish the methodological framework of the thesis. This includes defining the research philosophy underlying the thesis, develop the appropriate research design and methods, and lastly argue the validity and reliability of the research. Chapter 5 is empirical in the form of a mapping of the current management process. This chapter will create a foundation for the analysis. In the sixth chapter, the data obtained will be analyzed and connected to the theoretical framework. Chapter 7 will provide a discussion of the findings in the analysis, and thus answer the problem statement and corresponding research questions. Strengths and weaknesses of the study will be highlighted, and areas of future research will be proposed. Chapter 8 will be the concluding chapter, which will summarize the research and the findings

2. Background

In 2012, there were 24 000 offshore employees in Norway, and about 2/3 of these belonged to service companies (Blomgren, Harstad & Hause-Reve, 2012). The petroleum industry was hit hard by a severe downturn in the latter half of 2014 and has yet to recover (C. Krauss, 2017). Oil service companies all over the world have had to downsize in order to cut cost and Norway has not been an exception (Barstad, 2016). However, there are still thousands of offshore employees in service companies in Norway relying on remote management. One of these service companies is Baker Hughes Norway. This thesis will be a case study on their Drilling Services product line. In this chapter an introduction to Baker Hughes and Drilling Services in Norway will be given.

2.1 Introduction to Baker Hughes

Baker Hughes is a leading supplier of oilfield services, products, technology and systems to the worldwide oil and natural gas industry. The company's 33 000 employees work in more than 80 countries, helping customers find, evaluate, drill, produce, transport and process hydrocarbon resources (Baker Hughes [BHI]). At the company's core, you find the offshore employees who are out in the field executing the jobs and getting the results promised to the customers. Managing these employees can be extra challenging as they work in remote locations and face-to-face contact happens rarely.

2.1.1 History

The Baker Hughes we know today was formed in 1987 when Baker International merged with Hughes Tool Company (BHI). At the time both companies already had more than 100 years of experience with helping oil companies extract oil and gas from their reservoirs, and they were both in the forefront of petroleum innovations. For example, in 1907, Reuben C. Baker developed a casing shoe that modernized cable tool drilling and in 1909, Howard R. Hughes, Sr. introduced the first roller cutter bit that dramatically improved the rotary drilling process (BHI). Over the ensuing eight decades, Baker International and Hughes Tool Company

continued to lead the industry with innovative products in well completions, drilling tools and related services (BHI).

After the 1987-merger, Baker Hughes has continued to acquire and integrate numerous oilfield pioneers such as Brown Oil Tools, Milchem, EXLOG, Drilex, Teleco and BJ Services (BHI). Their ambition is to develop integrated solutions for oil field operators that are designed to help manage operating expenses, maximize reserve recovery and boost overall return on investment throughout the life of an oil or gas asset (BHI).

Baker Hughes is headquartered in Houston, Texas and the company is divided into nine geomarkets to cater to local customers' needs.; North America – North, North America – South, North Sea, Europe/Russia Caspian, Asia Pacific, Saudi Arabia, Middle East, Africa and Latin America. Their global operations are divided into three business segments covering nine product lines groups that develop, manufacture and support industry-leading technologies (BHI).

2.1.2 Core Values

BHI has five core values: Integrity, Teamwork, Performance, Learning and Courage. These values define what kind of company they strive to be and are the basis for a common company culture (BHI).

2.1.3 Baker Hughes today

Financial Performance

Over the last two and a half years, the oil industry has experienced its deepest downturn since at least the 1990s (C. Krauss, 2017). Like many other oil companies and oil service companies, Baker Hughes has been hit hard by the current market condition. Their total rig count for June 2014 was 3437. In January 2017, the number was down to 1918. Revenue for 2014 was a record \$24.6 billion, up 10% compared to \$22.4 billion for 2013 (BHI, 2015). Revenue 2015 was \$15.7 billion; down \$8.8 billion compared to 2014. Revenue for 2016 was \$9.8 billion, down \$5.9 billion compared to 2015 and down \$12.6 compared to 2014. In two years, revenue has been reduced with more than 60 %. This reduction has resulted from

the steep decline in activity, global pricing pressures, and sharply reduced revenue in onshore pressure pumping as they strived to maintain cash flow positive operations (BHI, 2016). In order to improve financial performance they focus on reducing operational costs, optimizing their capital structure and strengthening their commercial strategy (BHI, 2016).

Halliburton Merger

In November 2014, Halliburton and Baker Hughes announced an agreement under which Halliburton would acquire all the outstanding shares of Baker Hughes in a stock and cash transaction. The transaction was valued at \$78.62 per Baker Hughes share, representing an equity value of \$34.6 billion and enterprise value of \$38.0 billion (BHI, 2014). Halliburton expected that the merger would yield nearly \$2 billion of operating synergies annually and would help the company increase its offerings to customers, while also boosting returns of capital to shareholders. If completed, the deal would create the oil services industry's secondlargest company to Schlumberger with \$51.8 billion in annual revenue on a pro-forma basis (Gara, 2014). Although Baker Hughes would fill in gaps Halliburton had in its artificial lifts and production chemicals businesses, the two companies were rivals in several business areas. This created concerns in several antitrust regulations around the globe, including the European Commission and the U.S. Department of Justice. They feared that the merger would create a duopoly that would reduce competition and innovation (Stone, 2016). In April 2016, the DOI filed a lawsuit to stop the merger, arguing it would leave only two dominant suppliers in 20 business lines in the global well drilling and oil construction services industry, with Schlumberger being the other (Stone, 2016). Consequently, in May 2016 Halliburton and Baker Hughes announced the termination of the merger and Halliburton paid Baker Hughes a 3.5. Billion break-up fee (Stone, 2016).

BHI Way Forward and GE Acquisition

After the termination of the merger with Halliburton, Baker Hughes quickly outlined a new path for the future, and actions included improving operational efficiency and effectiveness by removing significant costs that was retained in compliance with the former merger agreement and evaluating broader structural changes to further significantly reduce costs and improve efficiency (BHI, 2016). The initial phase of the cost reduction efforts was expected to result in \$500 million of annualized savings by the end of 2016. The company also planned to

optimize its capital structure by buying back \$1.5 billion of shares and \$1 billion of debt with \$3.5 billion merger breakup fee (BHI, 2016).

On the 31st of Ocober 2016 Baker Hughes and GE announced that the companies had entered into an agreement to combine GE Oil & Gas and Baker Hughes to create a world-leading oilfield technology provider with a unique mix of service and equipment capabilities (BHI 2016). The "New" Baker Hughes will be a leading equipment, technology and services provider in the oil and gas industry with \$32 billion of combined revenue and operations in more than 120 countries. By drawing from GE technology expertise and Baker Hughes capabilities in oilfield services, the new company will provide best-in-class physical and digital technology solutions for customer productivity. GE will own 62.5 percent of the merged entity, which will be named Baker Hughes, a GE Company (BHI, 2016). The deal is expected to close in mid-2017 and as the two companies are mostly complementary to each other, they do not expect the same anti-trust scrutiny as the Halliburton-deal created (Crough, 2016).

2.2 Drilling Services in Norway

Baker Hughes Norway employs approximately 1000 people and the main office is located in Tananger. The largest product line in Norway is Drilling Services, employing around 400 people of the total work stock. This includes offshore employees, technical support through BEACON, workshop personnel, project leaders and other support functions.

DS Norway's biggest client is Statoil. In 2012 they awarded Baker Hughes in Norway with a DS contract worth 3 billion dollars (oilinfo, 2012) and in 2015 it was announced that Baker Hughes won the integrated services-contract for Johan Sverdrup, worth 1.5 billion. The services included were DS, Cementing, Pressure Pumping, Fluids and Completions (Klingenberg, 2015). Currently DS Norway have 16 rigs in operation for Statoil. In addition, they have three rigs for Lundin, two for Aker BP and one for Total.

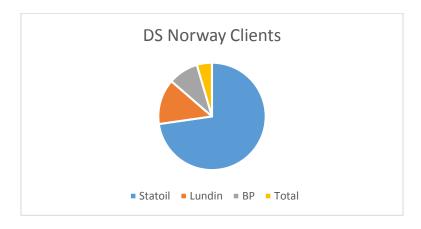


FIGURE 2: DS NORWAY CLIENT OVERVIEW

SOURCE: BHI, INTERNAL DOCUMENT

DS in Norway employ approximately 240 offshore employees called Field Specialists (FSs). They are divided between three departments: Directional Drilling (DD), Measurement While Drilling (MWD) and Surface Logging Services (SLS). Each department has a Field Personnel Supervisor (FPS) whom has the managerial responsibilities for the employees. The FPS's report to the DS Field Service Manager who in turn reports to the DS Product Line Manager. The product Line Manager reports directly to the Managing Director for the North Sea region.

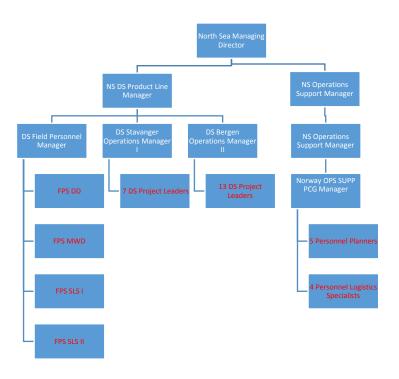


FIGURE 3: - ORGANIZATIONAL CHART, DS NORWAY

SOURCE: BHI, INTERNAL DOCUMENT

The FS's work on offshore rotations and can either be dedicated to one rig/platform or they can work ad hoc, meaning they are sent to different rigs depending on their schedule and current operations. The majority of the FSs live in Norway, but a few live in other European countries.

DS in Norway is also very much affected by the current downturn in the petroleum industry, and according to Glen Houghton, DS field Service Manager, they have been through several cuts in both onshore and offshore personnel over the last two years. Clients are constantly looking to save cost and demand "more for less" which strains the capacity of the offshore employees. Houghton reports that several years of uncertainty, structural and organizational changes and cuts in benefits has affected the work environment and commitment level of the offshore employees in a negative manner.

2.2.1 The Directional Drilling Department

The DD department consist of 66 offshore employees led by one FPS. The DD's have the highest average age and average seniority off the offshore departments in DS. This reflects the amount of experience needed to become a DD. It is the DD's task to intentionally drill a well along a predetermined path in three-dimensional space. This usually involves deviating the well from vertical and directing it in a specific compass direction or heading (slb oilfield dictionary). He needs to simultaneously consider several parameters, such as rotary speed, weight on bit and when to stop and take surveys to accomplish this. Being a DD also comes with the added responsibility of being the DS team leader offshore and being the contact person for clients.

Most DD's have been promoted internally from either MWD or ARTE, and can thus step into other positions if or when it is necessary. The DD's have a 19/23 schedule, meaning that they are available for offshore work for a 19-day period before they have a 23-day off period.

2.2.2 The Measurement While Drilling Department

The MWD department have 34 engineers and it is led by one FPS. The MWD Engineer uses MWD tools to evaluate physical properties, usually including pressure, temperature and

wellbore trajectory in three-dimensional space, while extending a wellbore (slb oilfield dictionary). Put very simple, they measure relevant conditions in the well while drilling and these data are stored in the drilling tools and transmitted to computers on the rig. This gives a real time image of the well.

Some MWD tools contain radioactive sources. Special training is required to be allowed to handle these sources, and an engineer with this training is called an RPS. RPSs are promoted from MWD and cross-use is possible if or when necessary. Both MWDs and RPSs work a 19/23 schedule

2.2.3 The Surface Logging Services Department

The SLS department is the largest offshore department in DS consisting of 137 employees divided between three positions: ARTE, DO/DOE and LG. Because of its size, this department has two FPSs sharing the managerial responsibilities for the employees.

The LG, or Logging Geologist, creates a detailed well log for the client by examining cuttings (of rock) from the well. These cuttings are brought to the surface by the drilling mud that circulates in the well while drilling. Examining cuttings provides information about the lithology and fluid content of the borehole while drilling (Wikipedia). Many new-hires start as LGs to get familiar with working offshore, and then move on to DO, ARTE or MWD. This explains why both the average age and average seniority is quite low in this group. The LG work a 19/16 schedule.

The DO's, or Data Operator's, main task is well control. Sudden and unwanted pressure changes in the well can break the formation, make the well collapse or in worst case, create a blowout. The DO therefor continuously monitor real-time data from the well to keep the well integrity intact. This monitoring is at all times when the well is active, so rigs have a fixed DO crew consisting of six members who works two weeks on and four weeks off. This ensures that there is one DO on dayshift and one DO on nightshift continually. DOs starts as LGs, so cross-use is possible.

The ARTE concept was developed by BHI for Statoil to minimize personnel needed on the rig. The ARTE, Advanced Real-Time Engineer, combines the responsibilities of the DO and the MWD. To make this possible, engineers in BEACON are handling some of the tasks the DO/MWD traditionally has. BEACON is a BHI onshore operation center connected to the rigs via high-speed internet connection and radio. The concept was launched in 2006 and is in

use on all Statoil rigs where BHI is responsible for the SLS work. Due to well control responsibilities, the ARTE is also required at all times and has a crew and rotation like the DO. The ARTE is the most flexible position in DS as cross-use as LG, DO and MWD is possible if and when necessary.

| Department | # of | # of | Positions | Rotation |
|------------|-------|------|-----------|----------|
| | Empl. | FPSs | in Dep. | (days |
| | | | | on/off) |
| DD | 66 | 1 | DD | 19/23 |
| MWD | 34 | 1 | MWD | 19/23 |
| | | | RPS | 19/23 |
| SLS | 137 | 2 | ARTE | 2 weeks/ |
| | | | | 4 weeks |
| | | | DO | 2 weeks/ |
| | | | | 4 weeks |
| | | | LG | 19/16 |

TABLE 1: DS OFFSHORE DEPARTMENT OVERVIEW

SOURCE: BHI, INTERNAL DATABASE

3. Theory

The aim of the theoretical chapter is to present the theoretical framework that will be the foundation for the analysis in Chapter 6. The chapter starts with defining management in term of this thesis, before zeroing in on remote management. It then continues with an overview of relevant theories of organizational commitment. Theory on remote management and employee commitment are then discussed, before turning the attention to management efficiency and Lean operations.

3.1 Defining Management

There are numerous definitions of management. According to F.W. Taylor, who had a productivity-oriented approach, management is the art of "knowing what you want to do and then seeing it is done in the best and cheapest way" (1948, p. 36). Henry Fayol treated management as a process and stated that to manage is "to forecast and to plan, to organize, to command, to coordinate and to control" (1949, p. 5). Ralph C. Davis took a functional approach and emphasized on the mangers responsibility of directing the activities of others with his definition "Management is the function of executive leadership anywhere" (1951, p. 6). These definitions, and countless more, are all relevant and true because they reflect different aspects of management (Prasad & Gulshan, 2011). In this thesis, Fayol's definition of management as a process is applied.

The job of managing has become increasingly complex due to pressure from both internal and external environments (Prasad & Gulshan, 2011). The demands of technology, employees, shareholders, customers and government exert vaying degrees of pressure on mangers and thus management becomes a function of the four Ps (Prasad & Gulshan, 2011, p. 9-10):

- **Productivity**. Transforming inputs into outputs
- **People**. Meeting peoples physiological and psychological needs.
- **Profit**. Efficient operation and achievement of goals.
- Public Responsibility. The organization must work within the framework provided by society and state.

The "management process" approach is integrated in the four Ps as the results are obtained through the process of planning, organizing, directing and controlling. These functions are

performed continuously, simultaneously and not necessarily in any serial order (Prasad & Gulshan, 2011)

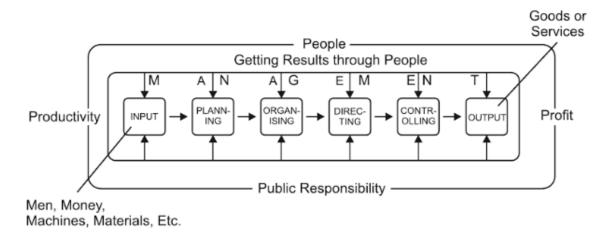


FIGURE 4: MANAGEMENT AS A FUNCTION OF THE FOUR PS SOURCE: PRASAD & GULSHAN, 2011, p.10

Management is a social process that involved group effort. Rather than being a reference to an individual, it can be used for the utilization of group effort in the pursuit of common goals or objectives (Prasad & Gulshan, 2011). There are several level of management, illustrated in the figure below. The FPS, PP, PL and PLT belong in the Deal-category as they are directly involved with the organizing of the FSs, which belong to the Do-category. DS Field Service Manager, DS Product Line Manager and Managing Director for North Sea is in the Direct-category.

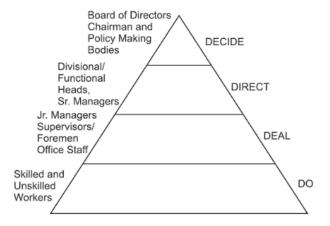


FIGURE 5: FOUR DS OF ORGANIZATIONAL LAYERS
SOURCE: SOURCE: PRASAD & GULSHAN, 2011, p.15

3.1.1 Remote Management

In this day and age of globalization and technical advancements, remote working – that is, being geographically separated from colleagues and/or a central office (Jacobs, 2006) – is more common than ever. Already in 2003, 75 percent of the Global 2000 (the largest 2000 companies worldwide) had policies in place to accommodate work-at-home employees (Meta Group, 2004). The past two decades have seen an exponential uptake in various remote working and this development has drawn the attention of both industry and academic research (Jacobs, 2006). However, many studies do not differentiate between types of remote workers and include participants whose remote work context vary greatly in terms of environment, work tasks and part/full time status (Johnson, 2001). Alternatively, they focus on the "elite" – managers and project specialists working from home while using advanced information and communication technologies to participate equally in collaborative and decision-making relationships with virtual or office based employees (Sims & Galpin, 1998). One particularly neglected group of remote workers are "field-based" mobile service technicians or engineers. These employees' technical service skills and expertise are core to the productivity of the organization, but they are nevertheless not part of the management "elite" (Jacobs, 2006). Offshore employees in the petroleum industry fit under the same categorization.

3.2 Organizational Commitment

Organizational commitment has received significant attention in research due to the general recognition that it enhances organizational performance (Angle, 1981; Riketta, 2002, Irefin & Mechanic, 2014) and effectiveness (Laschinger, 2001; Miller, 1978) and decreases voluntary turnover (Benkhoff, 1997; Irefin & Mechanic, 2014). In addition, Lo (2009) concluded that employees with a strong sense of commitment are less likely to engage in withdrawal behavior and are more willing to accept change. In today's rapidly changing and highly competitive oil service industry, employee commitment can be a crucial factor for organizational success.

Referred to as a state or process of employee-organization attachment, the importance of organizational commitment is frequently described as employee's willingness to stay with the organization and their willingness to promote and act in the interest of the organization (Meyer & Allen, 1997; Postmes, Tanis & De Wit, 2001; Tourish & Hargie, 2004). Sometimes the focus is on the first description (Cheney and Tompkins, 1987; Scott and Corman, 1998;

Barker and Camarata, 1998; Staples, 2001) and sometimes on both (Mowday, Steers & Porter, 1979; Scholl, 1981). However, frequently discussion occurs without a perceived need to distinguish between the two or to explain why one rather than the other is being discussed in the context of that study (Postmes, Tanis & De Wit., 2001; Staples, 2001; McCloskey, 2001). Meyer and Allen (1990) developed a three-component model of commitment distinguishing between affective commitment, continuance commitment and normative commitment. Affective commitment connects to the employee's want to stay with the organization; continuance commitment is concerned with the cost of leaving and normative commitment deals with the obligation to stay with the organization. The three are distinguishable, but can occur simultaneously (Dunham, Grube, & Castenada, 1994; Hackett, Bycio, & Hausdorf, 1994; Meyer, Allen, & Gellatly, 1990).

Meyer, Stanley, Herscovitch & Topolnytsky (2002) conducted a meta-analysis of the antecedents, correlates and consequences in the original three-component model and found strong correlations between affective commitment and the "correlates" (job satisfaction, job involvement, and occupational commitment) with affective commitment and overall job satisfaction having the strongest correlation. Results pertaining to antecedents confirmed Mathieu and Zajac's (1990) findings demonstrating that demographics play a relatively minor role in development of organizational commitment. However, work experiences had much stronger relations, especially to affective commitment. Of the work experience variables tested, perceived organizational support had the strongest positive correlation with affective commitment. This confirms Eisenberger, Huntington, Hutchison, and Sowa's (1986) argument that if an organization wants affectively committed employees the organization must demonstrate commitment to a supportive work environment. Actions suggested are to treat employees fairly and provide strong leadership. With regards to the consequences of commitment, the analysis demonstrated that all forms of commitment correlated negatively with turnover, and that affective commitment had the strongest positive correlation with desirable work behaviors and employee health and well-being.

Affective commitment is thus arguably the form of commitment organizations is most likely to want to instill in their employees (Meyer & Allen, 1997; Meyer, Stanley, Herscovitch & Topolnytsky, 2002), and it is dependent on employees understanding of and identification with the organizations goals and values (Tourish & Hargie, 2004).

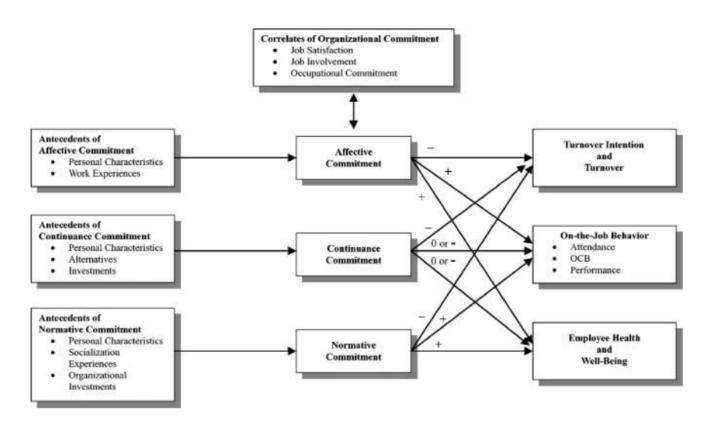


FIGURE 6: A THREE-COMPONENT MODEL OF ORGANIZATIONAL COMMITMENT.

Source: Meyer, Stanley, Herscovitch & Topolnytsky (2002) p. 22

3.2.1 Remote Management and Organizational Commitment

Analysis of remote working circumstances reveals the likelihood of an enhanced need for fostering employees' commitment to their organization, but these very circumstances potentially raises the bar for achieving it (Depickere, 1999; Hoeffing, 2001; Staples, 2001; Wiesenfield, 1998; Postmes, Tanis & De Wit, 2001). To reinforce and maintain organizational identification, remote workers must be exposed to physically and spatially shared structures and systems. If not, they may come to view themselves as independent contractors, operating autonomously and without consideration or motivation to pursue the goals and values of their employer (Wiesenfield, 1998). Studies also show that a strong bond with their organization is essential for securing remote workers' motivation, productivity and reliability (Mirchandani, 1999; Connaughton & Daly, 2004; Hertel, 2004). For remote workers, knowledge sharing, collaboration and indirect forms of control are vitally dependent on trust, which also springs from a sense of belonging (Lipnack & Stamps, 1997; Nilles, 1998; Jarvenpaa & Leidner, 1998).

Several examples of strategies fostering commitment in remote workers have been identified through research. These include regular opportunities for face-to-face meetings and information sharing; work opportunities requiring team interdependence and collaboration; recognition and reward systems that emphasizes collaboration; information and communication systems technologies facilitating group work and organized virtual meetings in addition to informal, online communication arenas (Applegate, 1999; Mirchandani, 1999; Staples, 2001; Jackson, 1999). All of these strategies focus on the remote worker identifying him- or herself as part of a group despite being physically separated from other team members (Jacobs, 2008). Postmes, Tanis & De Wit (2001) also add that identification with and loyalty to the organization, as oppose to work teams, is dependent on vertical communication with management. Jacobs (2008) notes that this is relatively unproblematic if the remote worker works from home, however remote field engineers' communication options are limited by distance and reduced frequency, in addition to wide variations in work schedules, job locations and client environments. For example, face-to-face meetings are problematic due to the engineer working shifts, getting called out to remote locations unpredictably and/or have customer demands to meet in inelastic time frames. In addition, their working condition can limit the access to commonly used digital communication like e-mail (Jacobs, 2008). Remote workers such as sales personnel are part of a team, and generally enjoy considerable independence and flexibility as long as they meet their targets, while remote field engineers, although perhaps administratively belonging to a team, do not perform "group tasks" and are relied upon for their independent, problem-solving and self-reliant nature (Jacobs, 2008). They also have no choice in work location; supervision and surveillance is tight; and reporting routines are stringent and time-consuming (Jacobs, 2008).

Remote field engineers is a neglected group in the study of remote working (Jacobs, 2006), and there is very little research on constructing commitment related to this group. The only identified paper on this subject was Glenda Jacobs' *Constructing corporate commitment amongst remote employees* (2008). In addition to the commitment typologies perspective by Meyer and Alllen (1990), she also included the behavioral perspective of commitment in her model. In this perspective commitment is defines and examined as a process conditioned by obligation to past choices and behavior patterns, and reinforced by present action (Linstead, Fulop & Lilley., 2004; Mowday, Porter & Steers., 1982; Scholl, 1981). Her findings indicate that remote field engineers identify commitment to the organization as involving acting in the organization's interests and it was not connected to their intent to remain with the organization (Jacobs, 2008). Distinguishing between the two accepted interpretations of organizational commitment therefore emerged as particularly significant in remote work environments as evidence of the one did not appear necessarily to constitute evidence of the other (Jacobs, 2008).

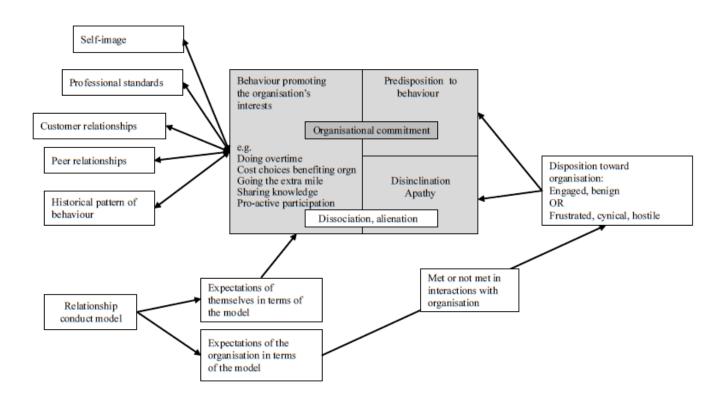


FIGURE 7: INFLUENCES ON THE CONSTRUCTION OF ORGANIZATIONAL COMMITMENT

SOURCE: JACOBS (2008), p. 49

Subjects in Jacobs (2008) study illustrated committed behavior as for example doing the job well, going the extra mile, compliance with policies or doing overtime at the expense of their personal lives. However, these types of behaviors could also be accounted for in terms of the engineers' sense of professionalism, their self-image or collegial or customer relationships. The study was not able to differentiate between types of commitment behavior in terms of Meyer and Allens (1990) three-components model of organizational behavior. The subjects describes different mental paradigms or models such as partnerships amongst equal, members of a community or dispassionately functional arrangement, when explaining their relationship with the organization and their expectation of their relationship with it. If the expectations were met, this created a positive disposition towards the organization, which contributed to organizational commitment in form of committed behaviors.

Policies and practices observed in the study that enhanced the subjects perceptions of their relationship model being met included practices that:

- Proactively modeled and rewarded learning
- Established self-evaluation, change and improvement as norms enacted at all levels of the organization.
- Engage and elicit contribution from the FSEs in wider organizational knowledge sharing and problem-solving activity.
- Demonstrate organizational readiness to invest the required management time and effort demanded in a remote work environment
- Model and reinforce discourse norms that establish mutual support and service as the essence of honoring organizational relationships
- Incorporate, service, and in so doing, legitimize, alternate and potentially competing relationships (customers, suppliers, family)

3.3 Organizational Efficiency

The concept of organizational and management efficiency has been investigated by different authors from various angles (Lin & Orvis, 2016). Often, the terms efficiency and effectiveness are used as synonyms, however it is important to distinguish between the two. Effectiveness means doing the right thing, completing activities and achieving goals (Heizer & Render, 2014). This thesis is concerned with *efficiency*, which means doing the job well, with a minimum of resources and waste (Heizer & Render, 2014). In other words, efficiency

is about doing things in an optimal way. Lean is perhaps one of the most influential theories on organizational and management efficiency, and thus will be a part of the theoretical framework for this thesis.

3.3.1 History of Lean

Womack, Jones and Roos (1990) established the term "Lean" in the 1980s, describing its main objectives as increasing efficiency through minimizing costly, non-value-adding activities while retaining customer-perceived value. Lean operations supply the customer with exactly what the customer wants, when the customer wants it, without waste, through continuous improvement (Heizer & Render, 2014). Lean Operations, Just-in-Time (JIT) and Toyota Production System (TPS) have little differences in practice and the terms are often used interchangeably (Heizer & Render, 2014). When implemented as a comprehensive operations strategy, Lean, JIT and TPS sustain competitive advantage and result in increased overall returns. Lean producers set their sight on perfection, meaning *no* bad parts, *no* inventory, *only* value-adding activities and *no* waste. Any activity that does not add value in the eyes of the customer is a waste (Heizer & Render, 2014; Womack & Jones, 2003).

| | Lean Operations | JIT | TPS |
|----------------------|------------------------|-------------------|----------------------|
| Emphasis | Understanding the | Forced problem | Employee learning |
| | customer | solving | and empowerment in |
| | | | an assembly-line |
| | | | environment |
| Main Elements | - Eliminate waste | - JIT partnership | - Continuous |
| | - Remove Variability | - JIT Inventory | improvement |
| | - Improve Throughput | - JIT scheduling | - Respect for people |
| | | | - Standard Work |
| | | | Practice |

TABLE 2: DISTINCTIONS BETWEEN LEAN, JIT AND TPS

SOURCE: HEIZER & RENDER (2014), p. 662-675

The lean literature (e.g. Pettersen, 2009; Shah and Ward, 2007; Womack and Jones, 2003) defines six lean principles: define value, define value stream, flow, pull, standardization and perfection. All these principles are derived from a manufacturing context (Pettersen,

2009; Shah and Ward, 2007; Womack and Jones, 2003). Table 3.2 summarizes the meaning and implications of these principles as described in literature.

| Lean principle | Literature | Meaning | Implications |
|------------------------|--|---|---|
| Define value | Womack and Jones (2003), Pettersen (2009), Shah and Ward (2007) | Value is always created by the provider, even though value is defined by the customer | What is not adding value – waste – must be reduced by minimizing resources that do not contribute to customer value |
| Define value stream | Womack and Jones (2003), Pettersen (2009), Shah and Ward (2007) | Mapping every step involved in the production process | Actions are mapped into different categories – those that create value, as perceived by the customer, and those that do not |
| Flow | Womack and Jones (2003), Shah and Ward (2007) | Focuses on the object (such as a product, a customer, or information) running through the value stream | Instead of looking at the resources available and how to use them efficiently, flow focuses on the process and how to optimize the flow of elements through the process |
| Pull | Womack and Jones (2003), Pettersen (2009), Shah and Ward (2007) | Not producing prior to an order | Capacity becomes a critical issue |
| Standardization | Pettersen (2009) | Setting standards to achieve platforms that enable improvements | The functionality from different units can be controlled and compared with different measures |
| Perfection | Womack and Jones (2003), Pettersen (2009), Shah and Ward (2007) | The absolute goal of lean | The outcome of lean if all other lean principles are fulfilled |

Table 3: The Lean Priciples in Litterature and their Key Characteristics and Implications

Source: Carlborg, Kindström & Kowalkowski (2013), p. 293

The meaning of lean has developed through the years, with shifts in the focus of interest (Hines, Holweg & Rich, 2004). JIT and cost focus dominated in the 1980s and Total Quality Management (TQM) was included in the first half of the 1990s. From 1990 to 200 the focus was on quality costs and delivery, while after 2000 shifted focus from cost to value issues, which denoted a more strategic rather than tactical approach. This strategic development illustrates a shift from a specific to a more generic lean definition, from a low abstraction level focused on tools and methods to a more abstract concept focused on strategy and philosophy (Carlborg, Kindström & Kowalkowski, 2013). This more abstract concept of lean enables its application to other sectors and fields, such as services (Carlborg, Kindström & Kowalkowski, 2013).

3.3.2 Lean Services

As the focus of lean changed, studies on Lean Services started to emerge in the late 1990s/early 2000s (Gupta, Sharma & Sunder 2016). Bicheno and Holweg (2009), inspired by Taiichi Ohno's original seven wastes from TPS, created seven wastes for service operations:

- 1. **Delay** (customers waiting for service, for delivery, in queues, for response, not arriving as promised)
- 2. **Duplication** (Having to re-enter data, repeat details on forms, copy information across, answer queries from several sources within the same organization)
- 3. **Unnecessary Movement** (Queuing several times, lack of one-stop, poor ergonomics in the service encounter)
- 4. **Unclear Communication** (seeking clarification, confusion over product or service use, wasting time finding a location that may result in misuse or duplication)
- 5. **Incorrect Inventory** (Being out-of-stock, unable to get exactly what was required, substitute products or services)
- 6. **An opportunity lost to retain or win customers** (failure to establish rapport, ignoring customers, unfriendliness, and rudeness)
- 7. **Errors in the service transaction** (product defects in the product-service bundle, lost or damaged goods)
- 8. **Service Quality Errors** (lack of quality in service processes)

The service industry include characteristics such as intangibility, heterogeneity, inseparability, simultaneity and perishability (Lovelock & Gummesson, 2004) and service production can be challenging because it often includes both efficiency and customer satisfaction parameters (Maroto-Sa´nchez, 2012). This has led to a lack of standards and methodology for lean implementation in services; however, a study by dos Leite & Vieira (2015) concluded that despite of this, lean services could generate large economic and financial results, as well as improvements in workers' behavior. Carlborg, Kindström & Kowalkowski (2013) conclude that an appropriate lean approach can improve both efficiency and customer satisfaction. They combined Larsson & Bowen's (1989) service framework with the six lean principles defined in Table 3.2. to illustrate how lean principles influenced service productivity in different service designs.

| Diversity in demand | Customer disposition to participate Low High | | | |
|---------------------|--|--|--|--|
| Low | Pooled service design (PSD) Allows for standardization routines and economies of scale. Examples of PSD include banking and insurance services | Sequential standardized service design (SSSD) The customers are given a high workload. Examples of SSSD include online services and car rentals. | | |
| High | Sequential customized service design (SCSD) Offers customers a convenient solution. Therefore, the workload remains with the provider's employees. Examples of SCSD include car repair and craftwork | Reciprocal service design (RSD) Requires interplay between service providers and customers during the service production. Examples of RSD include psychotherapy and higher education | | |

TABLE 4: SERVICE TYPOLOGY

Source: Larsson & Bowen (1989)

Carlborg, Kindström & Kowalkowski (2013) conclude that defining value, defining value stream, pull and perfection could increase both efficiency and customer satisfaction regardless of diversity in demand and the level of participation by the customer. For example, defining value requires a thorough understanding of the firm and the customer processes to determine whether an activity is value adding. In standardized sequential services, customers are typically price sensitive since they forgo customization and contribute with their own labor (Larsson and Bowen, 1989). With this awareness, the provider can adapt service production to reduce costs and standardize customer interfaces. For reciprocal services, on the other hand, other aspects are important for creating customer value. Here, the customer values expertise and solutions to specific – often customer unique – problems. Therefore, these services can be designed to better fit the customer's need, thereby increasing both efficiency and customer satisfaction.

Flow can be useful to increase efficiency and customer satisfaction for pooled services, however for services with high diversity in demand and high customer participation, efficiency improvement will be at the expense of customer satisfaction. Difficulties in achieving flow are inherent with an active customer and more customer involvement also increases input uncertainty (Larsson & Bowen, 1989).

| Lean principle | Pooled service design | Sequential standardized service design | Sequential customized service design | Reciprocal service design |
|---|-----------------------------|---|---|---------------------------------|
| Define value Define value stream Flow Pull Standardization Perfection | 000000 | | | |
| Notes: Increases bo of customer satisfaction | | l customer satisfaction | ; O increases efficienc | cy at the expense |

TABLE 5: LEAN PRINCIPLES IN SERVICES

SOURCE: CARLBORG, KINDSTRÖM & KOWALKOWSKI (2013), P. 295

The pull principle means that the services are not produced before the order is placed. Most services respond to customer needs because they generally are not produced prior to an existing customer request. Therefore, the pull principle is an inherent characteristic of services, although services also may be produced in anticipation of demand (Carlborg, Kindström & Kowalkowski, 2013). The pull principle can be applicable for services regardless of whether diversity is low or high or whether the customer's disposition to participate is low or high. The pull principle can have positive effects on both efficiency and customer satisfaction as long as the provider's capacity is adequate (and available). If capacity is low and demand is high, customer satisfaction may be negatively affected because the customer may not receive the service in time (Carlborg, Kindström & Kowalkowski, 2013).

Standardization can potentially increase efficiency as the provider's input can be optimized in terms of technology, production processes, and time. Such standardization should not negatively affect customer satisfaction for services with low diversity in demand, such as banking, insurance or car rental. However, for a range of services, especially services with high diversity in demand such as for example psychotherapy, this lean principle misses the target because customer satisfaction will decrease.

4. Methodology

According to Jacobsen (2000) methodology is an approach to collect empirical data. In this study, collection of empirical data is significant and in combination with the selected theories forms the base for the analysis. This charter will present the chosen research strategy and research design, the data collection and research sample. The analytical approach will be explained before the chapter concludes with a review of the quality of the research.

4.1 Research Strategy

The objective of this study is to gain insight and knowledge into how efficiency initiatives in onshore management affects remote field personnel's' commitment level. An appropriate research strategy would ensure a substantial answer to the problem statement. Research strategy refers to the approach selected for the study (Jelstad, 2007). Depending on the subject under investigation, one can use either qualitative or quantitative methods, or a combination of these. Qualitative methods are used when a phenomenon is unknown, and the goal is increased understanding rather than quantifying data. The aim is an increased insight into the phenomenon and techniques that are often used include gathering of secondary data, in-depth interviews or focus groups (Iacobucci & Churchill, 2010). Quantitative methods are used when there exists well-established theories and one want to quantify a result. Quantitative techniques include surveys and experiments (Iacobucci & Churchill, 2010).

Given the problem area, it seemed appropriate to select a research strategy based on a single case study. Case study, sometimes called *monograph*, means studying only one event, process, person, organization unit or object (Routio, 2007). Targets in case studies usually are describing the object or phenomenon; explaining the reason why the object is as it is; predicting the future of the object and/or planning improvements on the object or similar objects (Routio, 2007). Because the area of research was influenced by my work at BHI, the company was selected as the case to be studied. Due to my relationship with the company, I would have in-depth understanding of the current operations and a unique access to data necessary to answer the problem statement. Selecting a case that I was professionally involved with, implied that the research strategy would include element of action research. Action research belong to the group of *self-directed* methodologies of improving an existing activity. In these methods, the active group itself initiates and carries out the investigation and

creates the proposals for necessary improvements. Depending on the structure of the organization that the group belongs to, these proposals can be submitted to management or other concerned parties for acceptance (or modification) (Routio, 2007). For the purpose of this study, I would have the role as "active group". The advantages of action research is that the active group has knowledge about the object or phenomenon that would be difficult for an outsider to obtain, it has a unique access to data and the research is solution-driven (Coghlan & Brydon-Miller, 2014). However, this kind of research is often difficult to write up into a report because data is often in the form of stories or observations and personal over-involvement of the researcher may bias the results (McNiff, 2014). The challenges of personal bias is elaborated in Chapter 7.

Since little pre-existing theory on research subject existed an inductive research approach was selected. Inductive research refer to collecting data and facts, and thereby develop a theory as a result of the analysis. This is opposed to deductive research, which refer to develop a theory and build hypotheses for empirical testing, and lastly design a research strategy to test the hypothesis (Saunders, Lewis, & Thornhill, 2009). Data was collected through qualitative methods such as gathering secondary data, casual conversation with management and indepth interviews with offshore employees and management.

4.2 Research Design

A research design is the framework or plan for a study, used as a guide to collect and analyze data. Selecting the appropriate research design ensures that the study will be relevant to the problem and will use economical procedures (Iacobucci & Churchill, 2010). There are three main types of research design: exploratory, descriptive and causal/explanatory (Ghauri and Grønhaug, 2005).

An exploratory design emphasizes the discovery of ideas and insight (Iacobucci & Churchill, 2010). Qualitative data is often used for this type of design, and the methods applied are very flexible (Saunders, Lewis & Thornhill, 2007). A descriptive approach aims at gathering knowledge about the object of study (Routio, 2007) and answers the questions who, what, when, where, why and how (Iacobucci & Churchill, 2010). A casual research design is concerned with determining cause-and-effect relationships and these are studied via experiments (Iacobucci & Churchill, 2010).

For this study, an exploratory design was appropriate as it aimed at gaining knowledge into an unknown phenomenon. Qualitative data was obtained through secondary sources such as company documents and printed publications, casual conversation with management and indepth interviews with offshore employees and onshore management. A descriptive design has also been used to describe the current management process. The purpose of combining research designs was to answers the problem statement and the corresponding research question in a comprehensive way.

4.3 Data Collection

In research, two general approaches to gather and report data exist – the qualitative approach and the quantitative approach. These approaches were briefly described in the Research Strategy section. Furthermore, data can be classified as either primary data or secondary data. An exploratory research design begins with a review of secondary data such as published data or trade literature that discusses similar cases (Iacobucci & Churchill, 2010). Secondary data can therefore be defined as data collected and/or analyzed by others for another purpose. Primary data is data that is specifically collected for the purpose of the investigation at hand (Iacobucci & Churchill, 2010). It can be in the form of interviews, observations, surveys and experiments. In this study, both secondary and primary data has been collected to give a substantial answer to the problem statement.

4.3.1 Secondary Data

To create a framework for the analysis, secondary data was obtained by searching for existing information on the problem area in literature, academic articles, scientific journals and internal company resources. Because the secondary data was not created for the purpose of this study, the reliability of the data must be addressed. Articles used in the theoretical framework are published in scientific journals, meaning that they have been through a comprehensive review on subject experts prior to publishing. In addition to articles, curriculum from operations management and other relevant courses in the master study at UIS has been used. The curriculum has been chosen by professors with expert knowledge in the different subjects. The reliability of both articles and curriculum sources can thus be assumed very high. The internal company resources consist of data from their HR system, procedures and processes found in BHOS and internal articles and documents found at the BHI intranet.

All of these sources are in daily use by BHI employees and management and thus must be assumed reliable.

4.3.2 Primary Data

To get a greater understanding for the specific case study, primary data were collected through semi-structured interviews with 14 offshore employees and 7 onshore employees involved in managing the offshore employees. The primary data collection has required substantial time and resources, but was absolutely essential to answer the problem statement. Interview was the chosen method of data collection because of the exploratory nature of this study and the fact that it provides in-depth information pertaining to participants' experience and viewpoints of a particular topic (Turner, 2010).

Exploratory research requires open questions and the possibility of adding new questions based on the answers received (Routio, 2007). A semi-constructed interview guide, one for offshore and one for onshore, was therefore created. This ensured that all participants were interview on the same subjects, but allowed for spontaneous follow-up questions based on what the participants told. McNamara (2009) recommendations for creating effective research questions was used: (a) wording should be open-ended (respondents should be able to choose their own terms when answering questions); (b) questions should be as neutral as possible (avoid wording that might influence answers, e.g., evocative, judgmental wording); (c) questions should be asked one at a time; (d) questions should be worded clearly (this includes knowing any terms particular to the program or the respondents' culture); and (e) be careful asking "why" questions

For the offshore employee, the purpose of the interview was to map the current commitment level and identify organizational factors that affected the commitment level. An interview guide with commitment and efficiency as the two main themes was created. It consisted of Open-ended questions regarding the following sub-themes: 1) definition of commitment 2) commitment level, 3) company goals & values, 4) personal goals & values, 5) trust, 6) empowerment, 7) positive and negative influences, 8) onshore/offshore communication, 9) consistency in management and 10) efficiency in onshore management. For the full interview guide, see Appendix A.

For onshore management, the main purpose of the interview was to identify efficiency initiatives in the onshore management. Since the participants was involved in this work on a daily basis, they were considered experts in the subject. However, due to high personal

involvement in the subject discussed, there was a risk of receiving biased answers. Thus, the initiative identified from the interviews will be according to the theoretical framework for the study to ensure that they are reliable. The interview guide for onshore management also had commitment and efficiency as the main themes, and the sub-themes were: 1) definition of commitment, 2) offshore employee commitment level, 3) positive and negative influences, 4) efficiency in onshore management and 5) efficiency suggestions. For the full interview guide, see Appendix A.

The interviews were recorded by hand, and immediately following the interview a summary was made and sent to the participant for approval. This was done to ensure that the opinions and stories given by the participant was interpreted correctly.

4.4 Research Sample

The population for this study is the 237 offshore employees in DS Services in BHI and the approx. 30 onshore employees involved in the managing of these employees. Interviewing the entire population would not be possible due to time and resource constraints. The number of participant can be reduced by using the method of sampling. Sampling means deliberately limiting the number of cases in the study. It involves a risk of the study findings being not true for some of the left-out cases, but this risk can often be calculated and restricted on a tolerable level (Routio, 2007).

Samples can be either random or non-random. Random sampling means that the participants are selected by chance, while no-random sampling means that a particular criterion selects the participants. It is also possible that the researcher deliberately selects participants (Routio, 2007). Types of non-random samples include convenience sample, sample of volunteers, snowball samples and sample that consist of all available participants. Originally, a convenience sample was intended for the offshore employees as the interview were to be conducted during the Continuous Coaching Sessions in the interview period. However, the courses were postponed due to cost saving and thus a sample of volunteers was created instead. A sample of volunteers means that all the member of the population have equal opportunity to participate and all volunteers are accepted. In this kind of sample, it is difficult to assess the presence of bias, meaning that the opinion of the volunteers deviate from those of the sample (Routio, 2007). This risks was minimized by ensuring that all member of the

population had equal chance to participate and there was no reason detected why the opinion of the volunteers should differ from the population (Routio, 2007)

In qualitative research, it is common to enlarge the sample gradually and analyze the reults as they come. When new cases no longer yields new information the sample is saturated (Routio, 2007). Fourteen interviews with offshore employees and seven interviews with onshore management was conducted before the samples was deemed saturated. All volunteers were included in the sample.

4.5. Data Analysis

The goal of analysis is to arrange the collected material so that the answer to the initial problem of the project reveals itself (Routio, 2007). The data obtained on the subject of commitment will be analyzed using thematic analysis. Thematic analysis is one of the most common forms of analysis in qualitative research (Guest, 2012). It is a method for identifying, analyzing and reporting patterns or themes within data. It is a suitable method of analysis for exploratory research because it is not wed to any pre-existing theoretical framework (Braun & Clarke, 2006). The data obtained on the subject of efficiency will be analyzed using principles from lean services introduced in the theoretical chapter. To complete the analysis, finding from the two subjects will be compared to identify initiatives that both increases efficiency in onshore management and the commitment level of the remote field personnel.

4.5.1 Concepts in Thematic Coding

When applying thematic coding, it is necessary to have a thorough understanding of the concepts used in the analysis. The unit of analysis refers to a great variety of objects of study, for example, a person, a program, an organization, a classroom or a clinic (Mertens, 1998), or a community, state or nation (Patton, 1987). Graneheim and Lundman (2004) define the unit of analysis as whole interviews or observational protocols that are large enough to be considered a whole and small enough to be possible to keep in mind as a context for the meaning unit, during the analysis process.

A meaning unit is words, sentences or paragraphs containing aspects related to each other through their content and context. A condensed meaning unit is the condensation, or

shortening, of the meaning unit while still preserving the core of the information (Graneheim & Lundman, 2004).

The label of meaning unit has been referred to as a code. A code can be assigned to for example, discrete objects, events or other phenomenon (Graneheim & Lundman, 2004).

Creating categories is the core feature of thematic coding. A category is a group of content that shares a commonality and answers the question "what?" (Krippendorf, 1980). Krippendorff (1980) emphasizes that categories must be exhaustive and mutually exclusive. This means that no data related to the purpose should be excluded due to lack of a suitable category. Furthermore, no data should fall between two categories or fit into more than one category. A category can be thought of as a thread through the codes.

The concept of theme has multiple meanings and creating themes is a way to link the underlying meanings together in categories. Polit and Hungler (1999) describe a theme as a recurring regularity developed within categories or cutting across categories. A theme answers the question "How?" Graneheim and Lundman (2004) consider a theme to be a thread of an underlying meaning through condensed meaning units, codes or categories, on an interpretative level. A theme can be seen as an expression of the latent content of the text. Since all data have multiple meanings (Krippendorff,1980; Downe-Wamboldt, 1992), themes are not necessarily mutually exclusive. A condensed meaning unit, a code or a category can fit into more than one theme.

4.6 Evaluation of Quality

The credibility of research is influenced by reliability and validity. Reliability can be defined as the extent to which the data collection techniques will generate consistent finding, while validity refers to whether the findings actually measure what the study refers to (Saunders, Lewis & Thornhill, 2009).

Reliability

Reliability, while crucial in quantitative research, is less applicable in qualitative research because it often uses unstructured methods for data collection and focuses on understanding context (Johannesen & Tufter 2005). This study has an exploratory and inductive research

approach and the research design is based on a case study, indicating an overweight of qualitative data.

As already mentioned, the reliability of the secondary data can be considered strong as it consists of published research articles, curriculum from the master study and approved internal company documents. The primary data has been collected using Turner's (2010) Qualitative Interview Design: A Practical Guide for Novice Investigators and Cassell & Symon's (2004) Essential Guide to Qualitative Methods in Organizational Research as guidance. Immediately after the interview, a summary was made and sent to the participants for approval. This ensured that their opinions and stories were captured correctly and increased the reliability of the data.

Validity

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Joppe, 2000). In qualitative research researchers often relate this to "trustworthiness" (Golafshani, 2003). Trustworthiness can be achieved by applying a strategy called triangulation. Triangulation is defined to be "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell & Miller, 2000, p. 126). In this study both several reliable secondary data sources has been used, in addition to interviews. This strengthens the trustworthiness of the research.

5. Empirics

In this chapter, the current management process will be presented. This will create a foundation for the analysis presented in the next chapter.

5.1 The Current Management Process

To map the current management process for offshore employees, a combination of conversations with managers, my own existing knowledge and data from BHI internal documents, procedures and processes were used.

5.1.1 Roles of Management

There are several roles involved in the daily management of the offshore employees. These are presented below:

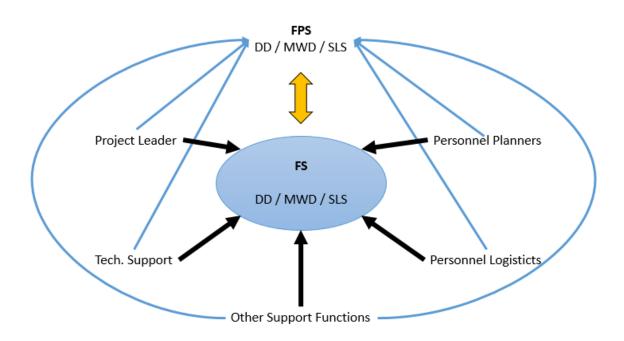


FIGURE 8: CONTACT POINTS BETWEEN FS AND ONSHORE MANAGEMENT.

SOURCE: BHI, INTERNAL DOCUMENT. COPYRIGHT: KTS

The Field Personnel Supervisors

The FPS is the personnel manager for his/her department. This implies that the FPS must ensure that the company has the right amount of personnel with the right competencies to cover the departments' current and future workload. He must take care of the employees in a way that facilitates growth and learning, communicate clearly to ensure commitment and lead by example to help reach both personal and company goals (Fisher & Fisher, 2001). In short, he has all the responsibilities of a regular manager in addition to the extra challenge of not being face to face with his employees on a regular basis. For more information about the responsibilities of the FPS, see work description listed below.

Main responsibilities

FSE resource owner

- · Hiring of new personnel
- · Forecasting personnel needs
- · Communication to FSEs (newsletters, tech. updates etc)

Competency Responsibility for Field Service Engineers

- · The Field Service coordinator will map and record all performance and discipline related competency.
- Define x-training requirements
- . The FCS will be responsible for Competency Development Program inputs and assessments
- . The FSC will define and request all relevant training requirements.

Performance management and personnel responsibility for Field Service Engineers

- "Achieve" responsibility for FSE's
- Communicate feedback from internal and external customers
- · Promotion evaluation and career development
- Case worker on FSE related HSSE&Q issues
- · Address all performance related issues with the FSE
- · Sickness absence follow up

Training (booking and facilitation)

Evaluate, facilitate and communicate all professional training needs and training

Operational responsibility for FSCs operational performance

- Advice PCG in personnel selection when needed.
- Advice PCG in setting up personnel schedule to ensure that available competency is constant during the schedule rotation.
- Evaluate if X-trained personnel can be utilized

Personnel utilization

- · Support PCG in every effort to obtain full utilization of FSEs
- · Select FSEs for cross training and cross product line utilization

FIGURE 9: WORK DESCRIPTION FPS

SOURCE: BHI INTERNAL DOCUMENT.

Due to the large number of people in each department, the main mean of communication with the FSs is e-mail, while phone, video conference and in-house meetings are also used if and when necessary.

Other Relevant Roles and Departments

Although the FSP's has the managerial responsibility for the offshore employees, the number of employees in each department is so high that several other people are involved in the daily managing of these groups.

The Personnel Coordinator Group consist of Personnel Planners and Personnel Logistic Teams. The Personnel Planner (PP) generate work schedules, create crews and assign work hitches to available FSs. The personnel requirements changes due to changes in operations or due to weather conditions, and the PP must change the personnel plans accordingly to cover all current jobs while maximizing normal utilization and minimizing use of overtime. They track utilization, approve timesheets and facilitate vacation and other leaves. They also inform the FS about the planned work and any changes to this plan. The planning is done in excel sheets which shows active rigs/jobs, available personnel and utilization. All updating of this sheet is done manually. Communication with FSs is done via e-mail and phone. Several ways of organizing the planners have been tested over the last few years, but currently there is one planner for the DDs and MWD, one who has the ARTE and DO in addition to another department in another product line, and one who has the responsibility for LG in addition to another department in another product line.

The Personnel Logistics Teams (PLT) in Norway consists of two teams with two members respectively, and one team is dedicated to DS. PLT is responsible for arranging travels, booking helicopter seats and informing the FSs about the hitch. They are also responsible for checking that all required training and documentation is in order before the FSs travels. The PLT receive call-outs for personnel from the clients, and inform the PP about this. They then use the PP's excel sheet to create lists of personnel movements each week. This list, called "Flagreliste", is also an excel sheets which display all callouts and crew changes for each week and the name of the FSs and according travel arrangements. All updates are done manually. The Logistics team also track all personnel that are offshore in an HR program called OCS. Communication with FSs is done via e-mail and phone.

DS also have a Project Leaders (PL) for each rig, which is responsible for the planning and execution of the DS work on that rig. They work closely with the client to sell the services and tools required to fulfill the client's needs. They are in contact with the assigned FSs prior to and during offshore hitches to give and get feedback, check progress, inform about special circumstances and more. They send an operation update by e-mail three times per week to the

PP and PLT amongst others to keep them in the loop about current and future operations and according personnel requirements.

Once offshore the FSs also have frequent contact with Technical Support located in BEACON.

5.1.2 Available Resources

The current headcount in Drilling system is 237 whom cover the work on 22 rigs. Headcount is continuously monitored to make sure that is matches both current and future workload. If there are significant, lasting changes in activity in fields that Baker Hughes work on or they win/lose contracts, headcount is evaluated and adjusted accordingly. In addition to having the right amount of FSs in each department, it is also vital that these employees have the competencies necessary to do the job and comply with Baker Hughes contractual agreements.

As already mentioned, DS has four FPSs, three planners and one PLT that is involved in the planning and logistics of offshore hitches of FSs. The actual booking of travel arrangements is outsourced to HRG.

5.1.3 FS Training

BHI uses a combination of theoretical and practical training to ensure that the FSs have the right level of competency for his or her position. Achieve Learning and the Competency Management Program is used to track employee competency.

Theoretical training

All three departments within DS have their own development programs, which are assigned to each employee individually by the FPSs in Achieve Learning. Achieve Learning is part of Achieve, BHI Learning Management System.

All FS development programs have five levels, from FS I to FS IV. At each level, a set of courses and certifications needs to be completed before advancing to the next level. A course can be either internet based or instructor led. A certification consists of at least one course and a workplace assessment. The assessment form validates that the

FS has completed the theoretical course(s) and is able translate this knowledge into physical work.

In addition to Development plans, Achieve Learning holds all HSE, Legal, Compliance and Business courses. These courses are internet based and automatically assigned according to position, and must be completed within a given date. Some courses requires re-certifications.

Once all courses and certifications for a given level of the development plan are completed; all HSE, Legal, Compliance and Business courses assigned are completed; and the FS has a current rating of min. 3 in Achieve Performance, he or she is eligible for promotion. The FPS recommends employees for promotions, but HR together with the Field Service Manager for the product line makes the actual decision. Once a promotion is granted, the FS is assigned the next level's development plan by the FPS. Progressing through the development levels is voluntary and there is no time limit for when it must be completed. The only exception is FSI, which is a trainee-level that must be completed within twelve months.

Practical Training

In addition to theoretical training, The FSs need hands-on experience to be able to translate the theory into practical use. This training is done on the rigs or platforms. It is the responsibility of the Personnel Planner to secure trainee-itches for their personnel. Trainees are non-paid workers, but since they raise the number of personnel on board the rig, it is up to the client to accept or decline a request for a trainee-hitch. Once a hitch is confirmed, PLT makes all necessary arrangements as they would for an ordinary hitch.

The regular crewmembers on the rig are responsible for training the trainee. They report the progress to the FPS, and it is up to the FPS to decide when the trainee is ready to work independently. A completed workplace assessment is necessary to document that the trainee has he required skills to perform is or her work tasks.

X-Use and X-Training

Ad hoc positions such as MWD or LG are only required during certain parts of the offshore operation. It can be difficult to maximize the utilization of these groups because changes or delays in operations will consequently delay the need for these personnel. It is up to the personnel planner to allocate personnel to jobs in the most efficient way. To maximize utilization and ensure even distribution of work among the employees, it is beneficial with cross-use. Cross-use means that the employee can work in other position in addition to his current one. Their cross-competence needs to be validated with a workplace assessment form. DS is a highly integrated product line, and cross-use is possible for several positions. For example, all ARTE have a background as LG and can thus work as LG, DO and MWD with cross training and the required CMPs acquired. Most DDs are promoted within from either ARTE or MWD and can thus work in these positions as well with proper training and CMPs in place.



FIGURE 10: EXAMPLES OF CROSS-USE IN DS.

SOURCE: BHI INTERNAL

5.1.4 The CMP program

The Competency Management program was launched in 2010 and the objective was to improve safety, ensure regulatory and contractual compliance, enhance performance and career development, incorporate competence with quality and reliability and to exceed customer expectations (Gaucher, 2014). The program is accredited by IOSC and in addition to field personnel, it covers application engineers, lab personnel, repair & maintenance personnel and HSE & Quality personnel. Instead of relying on proof of training, the CMP

program ensures proof of skills, knowledge and behavior through the completion of workplace assessments (Gaucher, 2014).

Once an employee has completed the required theoretical and practical training for a work process, an approved assessor can assess him. They go through the workplace assessment together, and the assessor observed the employees skills at the worksite. If satisfactory, employee and assessor signs the form and hands it over to an approver. The approver validates that the assessment has been conducted correctly and uploads the workplace for approval from the regions Competence Assurance Manager. If the assessment is filled out correctly, he approves and the assessment is uploaded into Achieve.

The Personnel Planner is responsible for checking that the planned personnel has the required competence for the job. If there is no qualified personnel, it is the FPS's responsibility to ensure that personnel gets qualified. If there is no time for that prior to the call out, a waiver form can be used to allow personnel without the workplace assessment in place to do the job. However, this is not possible for processes that are identified as C1 (related to well control) or LC (Life Critical).

A workplace assessment is valid for three years before a re-qualification form is required. If the employee has performed the work task less than twice since the last assessment, he or she is required to go through the basic workplace assessment again.

5.1.5 Rules and Regulations

The onshore management team has laws, agreements, processes, and procedures they need to comply with in relations to managing offshore employees.

The Norwegian Work Environment Act (AML)

When the petroleum industry in Norway started to blossom in the 1960s, it was decided that the offshore employees were industrial workers and not seamen, and thus they were protected by the Norwegian Work Environment Act (Sande, 2016). The purpose of AML is to ensure safe working conditions and equal treatment among workers, and to ensure that the working environment forms a basis for a health-promoting and meaningful work situation (Government, 2003). However, working on offshore installations differs quite a lot from onshore work, especially when it comes to working hours. Chapter 10 of AML defines maximum work hours per day and per

week, but there has been made an exception for the petroleum industry, often referred to as "nordsjøturnus" or "oljeturnus" (Bergsli, 2013). The exception allows for longer working hours per day for a limited period, followed by a work free period.

The Oil Service Agreement (OSA)

OSA is the major oil service companies' tariff agreement, signed by Baker Hughes Norway and 31 other oil service companies. The agreement is between Norsk Olje og Gass and the service companies on one side and Industi og Energi (Union) on the other. It is divided into 6 chapters, where the third chapter deals with offshore employees. It defines important concepts, work hours, work schedules and requirements for rest and off periods. It also defines work arrangements for offshore employees when they work onshore and includes rules regarding pay and the pay matrix. Rules on vacation, leaves and temporary layoffs are also included.

The wording in some of the paragraphs in OSA can be interpreted in different ways. This has led to some tension between the offshore employees and onshore management. On occasion, HR must contact Norsk Olje og Gas for clarifications.

Local Offshore Agreement

OSA dictates that local agreement is only valid if it has the same or better conditions, than OSA. Baker Hughes Norway has a local one local offshore agreement valid for all offshore employees. Some main point covered by the agreement are:

- Compensation for courses
- Compensation when temporary change of work location/project work
- Compensation for work abroad

BHI Processes and Procedures

The Baker Hughes Operating System (BHOS) is an online archive consisting of all approved BHI procedures and processes. BHOS is an enterprise-wide, integrated management system that drives the consistency of and conformance to Baker Hughes policies, processes and procedures to enable flawless execution and satisfy customers' needs. There are more than 30 000 documents stored in BHOS.

5.1.6 Communication

Because of the high number of FSs and the relative low number of people managing them, most communication is done by e-mail and phone. However, all FSs are required to attend an annual Continuous Coaching Session, which focuses on communicating new information on topics such as finance, HSE, technical and organizational changes. There is also set aside time for meet-and-greet with office personnel. In addition to e-mail and phone, tele/video conferencing and face-to-face meetings are also used when appropriate.

Communication processes related to offshore travels

Prior to hitch

Once a callout or crew change is confirmed for an FS, the Personnel Logistics group sends an e-mail containing information about rig and check-in time and place in addition to other relevant information for the hitch. The FS must confirm the e-mail and if this is not done within an appropriate time, they call the FS to make sure they have received the e-mail and are ready to travel.

For urgent callouts with short timeframe, this arrangement is reversed and the FS is called first so that he or she can book necessary travel arrangements as soon as possible.

The FS is also required to call the project leader prior to any offshore hitch to get an update on operations, any special requirements, etc.

During Hitch

Once offshore, the main onshore contact person is the project leader. They are in daily contact regarding operation progress, changes to operational plans, feedback to and from clients and more.

If there are changes to the operations that affect the duration of the hitch, the FS contacts either personnel logistics or the personnel planner so that necessary alterations are made. The FS is also in contact with technical support if and when needed. All contact is either via e-mail or phone.

In addition to this sporadic contact, the FS have several formal reports and updates that is sent to onshore employees and departments at fixed times. Examples include morning reports, logs and twice weekly-updates.

After hitch

If the FS is sent to shore without relief, that is there is no crew change, he or she is required to inform the logistics group about the inbound travel. If this happens outside office hours, they inform the 24/7 duty line. This is to ensure that the offshore list is correct at all times in case of emergencies.

The FS may also have contact with the project leader after the hitch, but this is not a formal requirement.

5.1.7 Other Communication Systems and Processes

Formal BHI Communication Systems

Achieve Performance

Achieve Performance is a part of Achieve, BHI performance and learning system. A success plan including business- and personal goals is made for each employee annually, and the FPS and the FS can add and adjust goals throughout the year. The FPS uses this plan in addition to other feedback to create a yearly Performance Review where the employee is given a rating between 1 (significantly below expectations) and 5 (significantly above expectations). The employee must also give a self-rating and accept the final Performance Review each year.

Energize

Energize is BHI rewards system, and is used to give positive feedback on standout performances. All employees can nominate colleagues for Energize-awards in categories such as Teamwork, Learning and HSE. The award must be approved by the recipient's manager and the type of award depends on the significance of the performance. The award can be public or personal, and the recipient earns points that can be traded in for gifts or gift cards.

SOS Cards

SOS cards are used to track both positive and negative HSE observations. All DS FSs must deliver minimum three SOS cards per week when they are offshore. All HSE observations should be recorded in the program SOS Observations, but this is not available offshore so the FSs use excel sheets to record observations. These sheets are sent to the office weekly and office personnel add the observations into SOS Observations manually.

Mass Communication

E-mail is the main channel for mass communication. All BHI employees have a BHI e-mail account that can be accessed both inside and outside the BHI network. This means that all FS have access to their e-mail account from home, from offshore and from the office. The FPSs sends sporadic updates when needed to either all of DS FSs or only the relevant department(s). In addition to this, there are common e-mails sent out at fixed intervals. Social media is not much used, but each department has a Facebook group that the FPS administrates.

DS Weekly Operations Update

The FPSs for Drilling Services send out a common weekly update each Friday, which include an overview of all active rigs, current and future operations on those rigs, current crews and contact information for both rigs and the project leaders. In addition, the e-mail includes important information such as technical updates, HSE news, success stories, reminders about important deadlines for administrative tasks and more. This e-mail is sent to all DS offshore employees, all rig e-mail, DS project leaders, Technical Support/BEACON, DS office personnel and other office support like Personnel Planners and Personnel Logistics. The total recipient number is 900. The FPSs report that this e-mail is well received by the offshore employees and that the majority of the FSs are familiar with the content of these e-mails.

Bi-Weekly Department Updates

In addition to the weekly operations update, ach FPS sends out a bi-weekly update to his/her department. This update is meant to include the offshore employees more in

the business and includes organizational/office changes that affects them, updates on tenders and workload, financial updates, reminders about administrative tasks, people coming and going in the department, anniversary celebrations and more.

This e-mail has a more informal tone and is less structured than the Weekly Operations Update. Each FPS decides the content for his department, but all the FPSs share their e-mail with each other so they typically include some of the same information. The FPSs report that most employees are very positive to this update, but that it is not as commonly read as the weekly operations update.

Social Media

Each department has a Facebook group, which can be used to share non-sensitive information. Because the majority of the FSs have a Facebook account this is a quick and easy way to get in touch and it also facilitates two-way communication. It is up to each FPS if and how they use the Facebook group.

Continuous Coaching Sessions

DDs, MWDs and ARTEs combine a government required Radiation Worker course with a Continuous Coaching Session each year. LGs and DOs do not work with radioactive sources, but instead have a company required two-day Continuous Coaching Session yearly. This means that all FSs in DS are required to come to the offices in Tanager at least once a year. The agenda for the CC Session changes yearly to keep t relevant, but it always includes a manager update, HSE, technical update and coaching in administrative tasks. This session is an important channel of communication as it is the only one guaranteed to be face-to-face.

Individual Communication

When individual communication is needed, it can either be by phone, e-mail or face-to-face. Due to time and cost issues, phone and e-mail is most common. Situations that require individual communication are for example performance appraisals, general feedback on performance, coaching or personal issues.

6. Analysis

This chapter will start with a description on how data for the analysis was collected. Then the sample is describes before moving on to the analysis. The analysis will based on the theoretical framework presented in Chapter 3, the current management process presented in Chapter 5 and data collected through semi-constructed interview with both offshore employees and onshore management personnel. The interview data will be analyzed using thematic coding.

6.1 Data Collection

Primary data was collected through semi-constructed in-depth interviews with fourteen offshore employees and seven employees in onshore management.

6.1.1 Offshore Employees

The intention with the offshore employees was to do individual interviews during the Continuous Coaching sessions scheduled in the interview period. Since the course is mandatory for all DS employees, this would ensure a mix in both gender, position, age, seniority and residence. Unfortunately, the course was put on hold during the interview period due to cost savings and a different approach had to be used. An e-mail was created that explained the theme and purpose of the thesis, and asked for volunteers for the interviews. It also contained practical information about the conduction of the interviews. Interested subjects were asked to contact the researcher to set up a suitable day and time for the interview. The e-mail was distributed to all DS department by the respective FPS. The downside of asking for volunteers rather than subjects being assigned to the interview is that the people who choose to participate can be bias (Routio, 2007). The volunteers may have different or stronger opinions than those who choose not to participate. However, all the members of the target population had equal chances to be included in the sample and there was not detected any particular reasons why the volunteers should differ from the rest of the population and thus the sample was deemed acceptable (Routio, 2007).

The interviews were conducted by phone at the time and date that best suited the subjects. Four of the subjects were offshore while being interviewed and the rest were in their off period. Each interview took between 45 - 65 minutes. Doing the interviews by phone meant

that it was not possible to interpret body language and the risk of misunderstanding due to lack of face-to-face contact increased. However, it was a way of communicating that the offshore employees were familiar with and since the interviews were only semi-constructed, it was easy to ask for clarifications and follow-up questions.

The interviews were recorded by hand, and immediately following the interview a summary was computed and sent to the subject for approval. All subjects approved the interview summary without revision. Writing notes by hand increases the focus on what the subject is actually saying and facilitates asking follow-up questions and clarification. The downside is that it is difficult to capture details such as change in tone or voice, pauses, eagerness or hesitation. In addition, it is not possible to go back and re-listen to the actual interview if needed. To minimize the negative effects of hand written notes, essential changes in way of speaking were noted in parentheses and the summary was sent to the subject immediately following the interview to ensure that his or hers opinion was captured correctly.

6.1.2 Onshore Management

The department managers identified subject candidates from onshore management. These candidates were asked to participate in the interviews in person. A time and date that suited the subject was set for the conduction of the interview.

The interviews were personal and individual, and were all conducted at the Baker Hughes office during working hours. The interview was held either in a meeting room or in a neutral office. Each interview took between 25 – 45 minutes. Again, handwritten notes were used to record the interview, and clarifications and follow-up questions were asked when needed. A summary was made immediately after the interview and sent to the subject. All subjects approved the summary without revision.

Because candidates were selected by department managers, all members of the target population did not have equal chance to be included in the sample. However, candidates from all departments were represented, and there was not detected any reasons why the selected candidates should differ from the rest of the population and thus the sample was deemed acceptable (Routio, 2007).

6.2 Sample

Choosing an optimal sample is important for both validity and reliability of the findings. Random sampling (Ghauri and Grønhaug, 2005) is the best for getting a more accurate representation of a population, however, it is very difficult to conduct. Thus, for this study, a sample of volunteers was the chosen method as all members had equal chance to participate in the interview.

6.2.1 Offshore employees

Fourteen offshore employees volunteered for the interview, seven from the SLS department, three from MWD and four from DD. The subjects were three females and eleven males, which may seem like am overrepresentation of males, but the offshore industry is male dominated (Blomgren, Harstad & Hause-Reve, 2012) and only 12,5 % of DS offshore employees are women. Therefore, although the gender distribution is not even, it does represent the current reality. The average age of the subjects were 42 years and the average seniority was 13,4 years.

| Subject | Sex | Position | Age | Seniority | Residence |
|---------|--------|----------|-----|-----------|--------------|
| no. | | | | | |
| 1 | Male | ARTE | 26 | 4 | Oslo |
| 2 | Male | ARTE | 47 | 10 | Stavanger |
| 3 | Male | LG | 29 | 4 | Oslo |
| 4 | Male | RPS/MWD | 53 | 19 | UK |
| 5 | Female | ARTE | 32 | 4,5 | Stavanger |
| 6 | Male | RPS/MWD | 36 | 11 | Kristiansand |
| 7 | Male | RPS/MWD | 57 | 21 | Stavanger |
| 8 | Male | DD | 49 | 20 | Stavanger |
| 9 | Female | ARTE | 31 | 6 | Bergen |
| 10 | Male | DD | 53 | 31 | Stavanger |
| 11 | Male | ARTE | 42 | 9 | Harstad |
| 12 | Male | DD | 59 | 27 | Netherlands |
| 13 | Male | DD | 45 | 16 | UK |
| 14 | Female | LG | 33 | 5 | Bergen |

TABLE 6: SAMPLE OVERVIEW, OFFSHORE EMPLOYEES

6.2.2 Onshore employees

The department managers identified subject candidates from onshore management. These candidates were asked to participate in the interview and they all volunteered to do so. The sample included one Field Service Manager, two Field Personnel Supervisors (where one as a former ARTE), one Personnel Logistics Specialist, two Personnel Planners and one Project Leader. The average age of the sample was XX years and the average seniority was X years.

| Subject no. | Sex | Position | Age | Seniority | Residence |
|-------------|--------|-----------------------------|-----|-----------|-----------|
| 15 | Male | FPS | 51 | 23 | Stavanger |
| 16 | Female | PP | 30 | 4 | Stavanger |
| 17 | Male | Field Service Manager | 34 | 10 | Stavanger |
| 18 | Female | Pers. Logistics Specialist | 29 | 4,5 | Stavanger |
| 19 | Male | FPS | 33 | 6 | Stavanger |
| 20 | Male | PL | 54 | 20 | Stavanger |
| 21 | Female | PP | 51 | 19 | Stavanger |

TABLE 7: SAMPLE OVERVIEW, ONSHORE MANAGEMENT

6.3 Analysis

The goal of analysis is to arrange the collected material so that the answer to the initial problem of the project reveals itself (Routio, 2007). The commitment data collected through interview with offshore personnel will be analyzed using thematic coding and the efficiency data will be analyzed by applying principles from lean services. The two themes will then be compared to identify initiatives that both increases efficiency in onshore management and the commitment level if the remote personnel. The chapter concludes with a presentation and discussion of the main results.

6.3.1. Defining Commitment

The first step in the analysis was to define commitment according to the participants in the study. The unit of analysis where the interview with the offshore personnel. Initial codes prior to the interview process where based on Meyer and Allen's (1990) three-component commitment model, and were "want", "need" and "ought to". Later, the code "performance" was added based on Jacobs (2008) commitment model for remote field engineers. During the interview process the codes were altered and new ones was were added several times. The final codes were much more nuanced than first had anticipated.

| Question : | 1: What does the word "commitment" mean t | o you? | |
|------------|---|---|--|
| D | Meaning Unit | Condensated Meaning Unit | Code |
| 1 | (pause) I think, for me, it means to execute my tasks and responsibilities well and independently of personal preferences. (pause) And to act with integrity. | To execute the job well and independently of personal prefrences, to act with integrity | Execute job well, Fulfill obligation despite personal opinion, integrity |
| 4 | Oh, that is a hard one (small pause). Well, I believe it is partly a contract that you form and partly your moral or personal dedication to your job. | Partly contract and partly moral/personal dedication | need, moral, dedication |
| 5 | Oh, ehm, hmm (pause). Commitment is the loyalty I have to the company, ehm, and I guess the extra that I put into my job (pause). It is hard to express, because it's just there, you know? Feeling committed (small pause), it is feeling like you're a part of something. | Loyalty to company, the extra that I put into my job, feeling part of something | extra effort, loyalty |

TABLE 8: EXAMPLES OF MEANING UNIT, CONDENSATE MEANING UNIT AND CODES WHEN DEFINING EMPLOYEE COMMITMENT.

Based on the final codes, six categories where identified, which were related to three overarching themes. The themes were Behaviour, Continuance Commitment and Normative Commitment. The themes, categories and codes are listed in table 6.4. with the number of occurrences of the codes in parentheses. Traces of Meyer and Allen's three-component commitment theory was therefore identified, but the behavioural component of commitment was by far the most significant, indicating that the participants identified commitment as promoting and acting in the organization's interest. This supports Jacobs (2008) finding, that a distinction between the employee's willingness to stay with the organization and their willingness to promote and act in the interest of the organization must be applied for remote field personnel.

| | | Components | of Commitment | | |
|----------|------------------|---|----------------------------|---------------------------|----------------------------|
| Theme | | Behavior | | Continuance | Normative |
| Category | Performance | Loyalty | Dedication | Morale | Need |
| | Execute job well | To be loyal to a | | Act with | Partly |
| Code | (1) | cause (2) | To be dutiful (2) | integrity (1) | contract,(1) |
| | Do your best (7) | Act in company's interest (1) Feeling part of | Personal dedication (3) | Form a moral contract (1) | need to be flexible (1) |
| | Give 100% (1) | something (1) | | Partly morale (1) | |
| | Extra effort (1) | Fulfill obligation despite personal opinion (2) | | | |

TABLE 9: CODING OF COMMITMENT DEFINITION

6.3.2 Types of Commitment

When asked to describe their commitment level to the organization, all participants answered "High" or "Very high". However, when asked to elaborate, twelve of the fourteen explained that their primary commitment was to their offshore team, meaning colleagues from both BHI, other service companies, rig crews and client. Two of the participants expressed their commitment as primary to BHI, while three of the participants added the organization as a secondary recipient of their commitment. Eight of the participant also indicated that their committed behaviour was linked to their own professional standard. This finding is also consistent with Jacobs (2008) commitment model.

The fact that the majority expressed their commitment to their offshore team is no issue if the interest of the organization correspond with the interest of the other parties. However, if there were a conflict of interest, the organization would want to be certain that the remote field personnel priorities its interest ahead of the other parties. An example of this, which brought forward in the interview by participant number two, was when he used Stop Work during drilling because internal BHI HSE procedures were breached, but the client pushed to keep

drilling anyway. Stop Work is an HSE initiative were one can order to stop work because of concern for health, safety or environment. Stop Work will always be supported by management. The SLS FS explained that he felt divided between company procedures and the client's request, resulting in the work continuing unchanged. Luckily, in this example, the DD reported the same concerns later on, and necessary changes were made before drilling continued.

Several in the onshore management explained in their interviews that they felt that the offshore employees where committed while at work (offshore/in on-period), but not in offperiods when they had to do administrative tasks like expenses, internet courses and mandatory training. This behaviour can be explained, at least in part, by the finding in this section. Commitment is linked to productivity and reliability (Mirchandani, 1999; Connaughton & Daly, 2004; Hertel, 2004), and while offshore, these behaviours are strong because of their commitment to the team. The task that need to be completed while onshore/in off-period, does not affect the team and presumably productivity and reliability can become lower.

This finding indicates that although the participants' commitment level is high, a change in the type of commitment would be beneficial to ensure that the remote field personnel promoted and acted in the organizations interest even when the interest conflicted with other parties.

| Question 2: I | How would you describe your commitment level to Baker Hugh | es? | |
|---------------|---|---|--|
| Subjetc No | Meaning Unit | Condensated Meaning Unit | Code |
| 2 | (laughs, then small pause) I want to say sinking because of the current situation, but the commitment to my colleagues is high. And with colleagues I mean the people I work with offshore, even from other companies. My work affects them so I make sure it is 100% and thus I am also committed to the company by default. | High, but to offshore colleagues, not company | team comm |
| 5 | My commitment level is high. It means a lot to me to work at Baker Hughes. However, I feel most committed to my department and colleagues offshore. I don't have any strong connections to, you know, the corporate, to Houston and those guys. But I am definitely very committed to my rig and crew. And the SLS Department. | High. It means a lot for me to work at BHI. Most committed to department and colleagues offshore. | team comm |
| 7 | I have a very high commitment level. I make sure I always do a good job and I promote Baker in action and word. Can you give any examples of promotion? Sure, I promote Baker in the way I talk about the company as a good place to work and share our success stories. And I believe I promote Baker in action through my work. I am dedicated, proactive and build good relationships with the other comapnies and the client. | Very high. I always do a good job and promote Baker in act | do a good job promote BHI in actiona dn words |

TABLE 10: EXAMPLES OF MEANING UNIT, CONDENSATE MEANING UNIT AND CODES FOR TYPES OF COMMITMENT.

| | | Commitment type | |
|----------|------------------------------------|------------------------------------|--------------------------------------|
| Category | Team Commitment | Organizational Commitment | Behavioral Commitment |
| | Commited to offshore colleagues | | |
| Code | (4) | Proud to work for BHI (2) | Do a good job (5) |
| | Perform well due to colleagues (2) | Flexibility for the company (1) | Put 100% effort into job (1) |
| | Committed to dep (1) | Dedicated to work (2) | Work contributes to good results (1) |
| | Commited to rig/crew (1) | Promote BHI in action and word (1) | Do job well (1) |
| | Dedicated to offshore team (2) | | |
| | Committed to offshore team (2) | | |

TABLE 11: COMMITMENT TYPES

6.3.3 Organizational and Personal Goals and Values

Affective commitment is dependent on identification with, understanding of and involvement in the organizations goals and values (Jacobs, 2006). The participants in this study mainly identified cost saving and profit as the main goals of the organization. The values were mainly identified as either the core values (performance, integrity, learning, teamwork and courage) in general or performance and teamwork specifically.

When asked about their personal goals, nine of the participants answered development or advancement as the primary goal. High performance was the primary goal for five of the participants. When it came to personal values, honesty and teamwork was the mentioned the most. Sharing knowledge, integrity, communication, openness and performance was also mentioned

| Company Goals | No of Occurrences | Company Values | No of Occurrences |
|---|--------------------|---|---------------------|
| Cost Saving | 8 | Core Values (PILTC) | 4 |
| Profit | 6 | Teamwork | 4 |
| Tecnology | 3 | Performance | 6 |
| Quality | 3 | HSE | 1 |
| HSE | 4 | Horizontal structure | 2 |
| Customer | 3 | | |
| | | | |
| Personal Goals | No of Occurrences | Personal Values | No of Occurrences |
| | ito oi occurrences | - Citocitan Fanores | THE ST COUNTERINGES |
| Develop/advance | 9 | Performance | 2 |
| | | | |
| Develop/advance | 9 | Performance | 2 |
| Develop/advance Performance | 9 6 | Performance Honesty | 2 8 |
| Develop/advance Performance Sharing knowledge | 9 6 1 | Performance Honesty Integrity | 2 8 4 |
| Develop/advance Performance Sharing knowledge | 9 6 1 | Performance Honesty Integrity Teamwork | 2 8 4 6 |

TABLE 12: COMPANY GOALS AND VALUES VS. PERSONAL GAOLS AND VALUES

Perceived organizational values and personal values shared many common characteristics, but the perceived goals of the organization did not match well with personal values. This may help explain why the participants expressed commitment towards their team rather than the organization. This also highlights the importance of effective communication systems and of opportunities for employees to learn and contribute to the organizational culture and identity (Tourish & Hargie, 2004).

6.3.4 Trust and Empowerment

I think we all trust you guys (middle management); however, there is an us vs. them attitude with higher management. There is a feeling like we are very expendable these days.

Field Specialist SLS

Between us and middle management it is all good, but there is no trust between us and top management.

Field Specialist MWD

High levels of trust and empowerment correlates with organizational commitment (Jacobs, 2008). When asked about the level of trust between the offshore employees and onshore management, the majority of the participants used expressions such as "it is fine" or "or it is ok", indicating that it was adequate, but that there were room for improvements. Four of the participants distinguished higher levels of management and expressed a low level of trust towards them.

Between myself and colleagues and onshore management, I feel like my opinions matter and I can make decision for my work. Towards the client, I have no authority. I tried to Stop Work during my last hitch, but was ignored. They listened to the DD, though, in the end.

Field Specialist SLS

When asked about the degree of empowerment, most indicated that their job was bound up in routines and processes, which lowered the degree of autonomy possible to have. Nine of the participants elaborated that their opinions and input was valued by BHI, and five of the participants stated that their opinions and inputs were also valued by the client. Two of the

participants indicated that they felt powerless with regards to the client. The client was identified as the main decision maker.

6.3.5 Organizational factors influencing commitment level

To increase the current commitment level, one can either add positive influences or remove negative influences, thus the participants were asked what organizational factors influenced their commitment level positively and negatively. The distinction of *organizational* factors was important, because the aim was to identify factors that the organization controls and thus has the ability to change. In this section, input from onshore management was also included as the unit of analysis. As expected, the data from this segment was rich and varied and again thematic coding was used to identify categories and themes that would make the data more manageable without losing its context.

The organizational factors that was identified which had a positive influence on commitment were categorized into nine categories with four overarching themes: Communication, Advancement Opportunities, Leadership Behaviour and Work Environment. The full coding can be seen in table 6.10.

When evaluating organizational factor that had a negative influence on commitment, nine categories were identified. These were covered by three overarching themes: Improper Cost Saving (in the eyes of the participant), Leadership Behaviour and Work Environment . The full coding can be seen in table 6.11.

| Question 7: | What organizational factors influence your commitment level in a positive mar | nner? | |
|-------------|--|--|--|
| Subject No | Meaning Unit | Condensated Meaning Unit | Code |
| 2 | People need a carrot, so giving promotions will influence positively. But, Baker will not make any changes that cost money. They only worry about finance and not people. They should also arrange for offshore people to meet the onshore management so that they have a face to the voice on the phone and the e-mail signature. Social events are crucial for commitment I think. | Giving promotions will influence positively. Social events crucial for commitemnt | promotion, social events |
| 5 | For me it is very positive that personal circumstances are taken into consideration because of my personal situation. When there is mutual trust and we form mutually beneficial relationship everyone wins. I like that we can have a two-way dialogue and I can give input and have flexibility about schedule. That makes me give back even more in return. | Personal circumstances are taken into consideration. Mutual trust and beneficial relationship. Twoway dialogue. Input and flexibility about schedule | Ind. follow-up, mutual trust, flexibility in mngt |
| 10 | I think good teamwork always helps on commitment (pause). For me persononally, having challengeable, but attainable goals, is also important. That motivates me! Another thing is including us (offshore employees) in decisions that affect ut. Like with the whole travel-by-bus e-mail, if some of us where included from the start maybe the whole thing would have gone down better. Or maybe not (laughs). | Good teamwork, having challanging but attainable goals, Being included in decsions that affect us | teamwork, challenges, inclusion in decisions |

TABLE 13: EXAMPLES OF MEANING UNIT, CONDENSATE MEANING UNIT AND CODES FOR ORGANIZATIONAL FACTORS POSITIVELY INFLUENCING COMMITMENT.

| Question 8 | : What organizational factors influence your commitment level in a negative manner? | | |
|------------|---|--|---|
| Subject No | Meaning Unit | Condenstated Meaning Unit | Code |
| 1 | Removal of rewards and benefits such as insurance and instructor pay. I mean, we understand the need to save cost, but there is no consistency when you read about the CEO getting a 40 million golden parachute the same day (that the e-mail about cost-saving was sent). (pause) Also lack of communication. And when we are treated as a group instead of individuals. For example, the goals we have in Achieve doesn't take into consideration the person or his/her seniority. It is all streamlined and the only personal goal are the ones we make our self. Then it just becomes something we have to do, another tick in the box. | Removal of rewards and benefits (when CEO gets 40 mill golden parachute), lack of communication, treated as group rather than individual | removal rewards, removal benefits, inconsistency, lack of comm, no ind. Follow-up |
| 4 | Cost saving initiatives that questions the value of the employees. For example with the travel arrangements and taking the bus to the heliport. When we travel all day to get to the heliport, and then go straight on night shift you just don't tell people to take the bus instead of a taxi. With two offshore bags and all to carry. And when they fire people and ask the remaining ones for overtime, that is just bad. Also, IT systems that are overcomplicated and not user-friendly, especially if they are not accessible outside the BHI network. For example with Citibank/T&E card. It is ironic that we have such bad IT systems since we are a tech company, but you get what you pay for, and when I talked to Citibank to sort out some trouble with my card they told me that they had many support functions available, but Baker has not paid for them so we cannot use them. Instead I and my manger has to spend hour trying to sort this thing out and we get nowhere. I don't think anyone has considered these costs when they took the cheapest package. I also think that it is an issue that there is nobody to contact for non-technical issues, such as tax or pension questions. HR, don't know, the coordinators and planners don't know. If you are interested in those things, you need to figure it out on your own, or ask colleagues who have been through the same themselves. | Cost saving initiatives that question the value of the employee (travel by bus, fire people and ask for overtime), (Non-tech) IT systems are overcomplicated, not user-friendly and not accecible (e.g. Citibank), Nobody to contact for non.tech issues | travel by bus, fire people and ask for overtime, accecibility of non- tech IT, quality of non-tech IT, |
| 5 | Well, emh, when there is lack of positive feedback. Or the only time you get feedback is when something is wrong. I feel like I do a lot of thing beyond what is expected but this is never noticed, not to my knowledge at least. However, if I am late with one expense I get a sour e-mail about it the day after. It's disproportionate, really. | Lack of positive feedback, only feedback when negative | lack of feedback |

Table 14: Examples of Meaning Unit, Condensate Meaning Unit and Codes for Organizational Factors NEGATIVELY INFLUENCING COMMITMENT.

| | | Organ | Organizational factors positively influencing corporate commitment | sitively influencin | g corporate comn | nitment | | | |
|----------|----------------------------------|-------------------|--|---------------------|------------------|----------------------|-------------------|-------------------|------------------|
| | | | | | | | | | |
| Theme | Commi | Communication | Advancement Opportunities | Opportunities | Leade | Leadership Behaviour | | Work En | Work Environment |
| | | | Proffesional | Climbing the | | | | | |
| Category | Non-tech comm | Tech comm | growth | ladder | Trust | Recognition | Inclusion Culture | Culture | Support |
| | | | | | | | Social | | |
| Code | State of the Union Weekly Update | | Projects | Promotion | Mutual trust | Ind follow-uo | events | Social events | Tech Supp |
| | | | | | | | Inclusion | | |
| | | | | | Flexibility in | Feedback on | .⊑ | | |
| | Open comm | Other Tech Comm | Challanges | Adavcement opp mngt | mngt | performance | decisons | decisons Teamwork | Non-tech supp |
| | | | | | | Regular | | | |
| | Two-way comm | Dep spesific comm | | | | feedback | | | |
| | | | | | | | | | |
| | | | | | | | | | |

TABLE 15: CODING OF POSITIVE INFLUENCES ON COMMITMENT

| | | Organ | Organizational factors negatively influencing corporate commitment | zatively influencin | ig corporate comm | itment | | | |
|----------|------------------|----------------------|--|-------------------------------|----------------------------|-----------------|------------------|--------------------------------------|-------------|
| Theme | | Improper Cost saving | | อา | Leadership behaviour | ır | | Work environment | nent |
| | Initiatives | | | | | | Non- | | |
| | questioning empl | | No advancement | | | | technical | | |
| Category | value | Reduce benefits | opportunities | Communication Attitude | | Focus | issues | Culture | Work tasks |
| | | | | | | | accecibili | | non-value |
| | travel by bus | | | lack of | finance over | Only focus on | ty of non- | ty of non-negavtive work adding work | adding work |
| | initiative | reducing pension | no promotions | communication people attitude | | the negatives | tech IT | tech IT environment | tasks |
| | | | | | | | quality of | | |
| | down sizing, but | reducing insurance | | lack of | American | over-focus on | non-tech | non-tech negative culture | |
| | ask for overtime | coverage | no training | feeddback | leadership style adm tasks | adm tasks | <u></u> | change | |
| Code | | reducing instructor | lack of | Only feedback | | No ind. follow- | lack of American | American | |
| | | рау | promotions | when negative | inconsistency | dn | non-tech culture | culture | |
| | | | | | | | | | |
| | | taking away social | lack of | | | No focus on | | | |
| | | events | advancement opp | | | individual | | lack of trust | |
| | | | No training | | | | | | |
| | | | allowed | | | | | | |

TABLE 16: CODING OF NEGATIVE INFLUENCES ON COMMITMENT

Many of the organizational factors identified had a two-way relationship with regards to influence on commitment. For example, the lack of promotions was identified as having a negative impact on commitment, while promotion opportunities was identified as having a positive impact. Lack of communication and feedback had a negative effect, while good communication and regular feedback had a positive effect.

6.3.6 Efficiency in onshore management

The unit of analysis when evaluating the efficiency data is both the interview with offshore employees and onshore management, as both were asked if they had any suggestions for efficiency improvement in the onshore management. Many suggestions were the same or similar, so they were sorted and group together. The results can be seen in table 6.12. The suggestions are assumed to be relevant because they come from personnel who are either a part of, or highly involved with, the onshore management.

| Efficiency Initiatives |
|---|
| Suggestions by offhsore personnel |
| Smaller groups/departments |
| Reinstate PDP program |
| Improve performance monitoring |
| Improve non-tech support |
| Change travel policy |
| Suggestions by onshore personnel |
| Better IT system for onshore management |
| Personnel Planner in product line |
| Stabilize onshore mangement |
| App for easy communication |
| Self-booking for fix crews |
| More resources (personnel) in PCG |
| Remove administrative roles and tasks from PCG |
| Improve communication internally and externally |

TABLE 17: EFFICIENCY INITIATIVES SUGGESTED BY OFFSHORE AND ONSHORE PERSONNEL.

In the theoretical chapter, leans was presented as a theory concerned with increasing efficiency through eliminating non-value adding activities, also called or waste (Womack, Jones and Roos, 1990). Any activity that does not add value in the eyes of the customer is a waste (Heizer & Render, 2014; Womack & Jones, 2003). Becoming a Lean organization is a difficult and time-consuming journey that requires top management support, significant resources and a cultural change throughout the organization (Bahsin, 2012). It is beyond the

scope of this study to evaluate a complete lean transformation for the organization, but based on the theory previously presented it seems reasonably to suggest elements of lean to increase efficiency. There is not enough time and resources to evaluate all activities in onshore management, however the suggestions presented above will be analyzed using lean theory. First, as a measure to see if the suggestions add to efficiency, they will be evaluated using the seven wastes of services (Bicheno and Holweg, 2009)

Smaller groups/departments

Breaking down the departments to smaller groups of people was suggested as a way to improve individual follow-up and feedback on performance. This would add cost, since it would require resources in the form of more personnel to manage the smaller groups.

Assuming that a reduction of workload would lead to better follow-up and more feedback, this could help develop the groups' competencies. Improved competencies can eliminate errors in the service transaction and errors in service quality. It could also improve inventory, as it would minimize the risk of being "out-of-stock" of suitable personnel (meaning that no personnel with the right competencies are in their on-period) when the customer needs it.

Reinstate PDP program

PDP is short for Personal Development Plan, and it was a program where the departments were divided into groups off approximately ten people led by a PSP Supervisor. The supervisor's responsibilities included help and support with development plans, performance appraisals and yearly performance ratings. The supervisor was paid a monthly bonus in addition to a yearly bonus if he or she reached the goals set for the PDP supervisors by their manager. The programs do add some cost in the form of pay and training, and it requires administration and follow-up by the FPS. This would be offset by the fact that the FPSs overall workload would decrease as tasks and responsibilities would be moved to the PDP Supervisor.

The PDP program facilitates further development of the offshore employees, increasing competence. This would eliminate the same kind of wastes as breaking down the departments into smaller groups, but arguably at a lower cost for the company.

Improve performance monitoring

Improve performance monitoring systems could eliminate errors in the service transaction and service quality errors

Improve non-technical support

While improving non-technical support would be beneficial for the offshore employees, no direct elimination of waste has been identified.

Change travel policy to include round trips

BHI is covers the cost of getting the personnel to the job site, so while changing the travel policy may result in cost saving for BHI, there seem to be no elimination of waste from a customer perspective.

Implement software for onshore management

An Enterprise Resource Planning system (ERP) is software that allows companies to automate and integrate many of their business processes, share a common database and business practices throughout the enterprise and produce information in real time. The cost of such a program is high, as it requires resources for implementing, maintenance and training of personnel to use it. Still, implementing a program that communicated across departments would ensure that everyone in the onshore manage had the same information once it was ready. This could eliminate delay for the customer in that they need not wait for responses, duplication in the form that repeating details and copying information is unnecessary, unclear communication and service quality errors.

Move Personnel Planner to the product line

Organizing the structure so that the personnel planner belonged to a product line rather than in a separate support function would mean that DS would not have to share resources with other product lines. Allowing the personnel planner to focus on one product line could create more synergies between with both the FPS and the Project Leasers. The personnel planner would be more involved in the operations, ensuring better information and better communication. This could eliminate delay for the customer in that they need not wait for responses, duplication in the form that repeating details and copying information, unclear communication and service quality errors.

App for easy communication with offshore employees

An app for easy communication with the offshore employees could be time efficient for the onshore management, as they for example could reach everyone and ask for overtime with just pushing a few button rather than using hours trying to call all potential overtime-

candidates. This is assuming that the offshore employees actually used the app. As many reported they were not happy with the quality and accessibility on non-technical IT, a likely scenario would be that the onshore management would use the app, then doing a calling round in addition to that. Also, even though it has potential to reduce workload for onshore management, no direct elimination of waste has been identified.

More resources to PCG

More resources to PCG was suggested because the workload of the department was deemed excessive. Being over-worked and stressed could result in delays, errors in the service transaction and service quality errors by the PCG group. Allocating extra resources to this group could therefor eliminate waste.

Remove administrative roles and tasks from PLT

The personal logistics teams perform tasks that are not related to their work and they are not experts in. This includes for example tax reporting of foreign personnel. This increases their workload, increasing the chance for delays, errors in the service transaction and service quality errors. Removing these tasks from PLT could eliminate waste.

Improve communication internally in offshore management and externally to offshore employees

Improve communication systems so that information flows better both internally in onshore management and externally to the offshore employees could eliminate delay for the customer in that they need not wait for responses, duplication in the form that repeating details and copying information is unnecessary, unclear communication and service quality errors.

Based on the above evaluation, creating smaller groups/departments, reinstate the PDP program, improving performance monitoring, implementing software for onshore management, moving the personnel planner to the product line, allocating more resources to PCG, removing administrative roles and tasks from PLT, improving communication systems internally in offshore management and externally to offshore employees, could all have a positive effect on waste elimination. It is important to mention that although other aspects of implementing these initiatives may have been mentioned in the evaluation, they have not been addressed. This evaluation is purely to identify if the if the suggestions either add value or eliminate waste from a customer perspective.

Another way of evaluation the suggestions from table 6.12. is to use Carlborg, Kindström & Kowalkowski (2013) model based on the six lean principles. To use this model, the DS services must be evaluated using Larsson & Bowen's (1989) service typology framework.

Based on the introduction to BHI, drilling and evaluating wells can be defined as service production for DS in Norway. This indicates a high diversity in demand as each well is different with its own characteristics and challenges. Drilling a well is also a dynamic process, because information is not perfect to start with, and many factors outside the client and BHI's control can affect the operation, for example weather or formation pressure. To provide optimal service, interplay between the client and the service providers is necessary. These conditions places DS services in the reciprocal service design (RDS) category of Larsson & Bowen's (1989) framework. From the theoretical chapter we know that this kind of service offering can increase efficiency and customer satisfaction through the lean principles defining value, defining value stream, pull and perfection (Carlborg, Kindström & Kowalkowski, 2013). However, increasing efficiency in flow and standardization will be at the expense of the customer satisfaction.

All the suggestions left after the first evaluation were deemed to be able to increase both efficiency and customer satisfaction, as including them into the management process can help design solutions based on the customer's needs. Based on the first evaluation, the remaining suggestions all created value as perceived by the customer. None of the suggestions would affect flow of service, thus avoiding affecting customer satisfaction negatively. Creating smaller groups reinstate PDP program, implementing IT software for onshore management and improving communication could have a positive effect on the inventory. Creating smaller group or reinstating the PDP program could increase competencies. Higher competence and increased cross training will ensure that the right employees with the right competence are available at the right time. For RDS services, standardization can decrease customer satisfaction. None of the suggestions above would contribute to standardization of services. Perfection is the outcome of lean if all other lean principles are fulfilled. Since all the suggestions in table 6.13. add value or eliminate waste based on the evaluation, they would contribute to this outcome.

| | Define Value | Define Value Stream | Flow | Pull | Stand- ardi- zation | Perfect- |
|--|-----------------|---------------------------|------|------|---------------------------|----------|
| Creating smaller groups/departments | X | X | | X | | X |
| Reinstate the PDP program | X | X | | X | | Х |
| Improving performance monitoring | X | X | | | | х |
| Implementing software for onshore management | X | X | | X | | X |
| Moving the personnel planner to the product line | X | X | | X | | X |
| Allocating more resources to PCG | X | X | | | | X |
| Removing administrative roles and tasks from PLT | X | X | | | | Х |
| Improving communication systems internally in offshore management and externally to offshore employees | х | х | | х | | Х |

TABLE 18: EFFICIENCY SUGGESTIONS EVALUATED BY THE SIX LEAN PRINCIPLES

6.3.7 Efficiency Initiatives Effect on Commitment

Creating smaller groups and reinstating the PDP program are two means to the same end:

Breaking up the department into smaller groups. Smaller groups could improve communication, which would have a positive effect on commitment in terms of negative leadership behavior being reduced and communication improved. This initiative could also increase positive leadership behavior, as it would facilitate increasing feedback on performance and trust in management. It would have a positive effect on work environment in terms of increased support. Smaller groups and closer follow-up could also facilitate professional growth, which would to an extent reduce the impact of improper cost savings.

Improved performance monitoring would have a positive effect on commitment in terms of professional growth and promotion opportunities. It would also have a positive effect in term of reduced negative leadership behavior.

Implementing a software for onshore management have the possibility to increase commitment through improved communication, positive leadership behavior, and improved work environment. The effects of perceived negative leadership behavior and negative work environment could be reduced by such an implementation.

Moving the personnel planner to the product line and allocating more resources to PCG would have similar effects. Reduction of workload could lead to improved communication and increase positive leadership behavior in addition to reducing negative leadership behavior.

Removing administrative tasks from PCG would also reduce workload and thus have the potential to improve communication.

Improving communication systems both internally in onshore management and externally to offshore employees has the potential to improve communication, increase positive leadership behavior, and add positively to the work environment, while also reducing negative leadership behavior and negative work environment.

| | | Positive I | nfluences | Negative Influences | | | |
|--------------------------------|---------------|---------------|------------|---------------------|---------------|------------|---------------|
| | | | Positive | | | Negative | |
| | | Advancement | Leadership | Positive Work | Improper Cost | Leadership | Negative Work |
| | Communication | Opportunities | Behaviour | Environment | Saving | Behaviour | Environment |
| Creating smaller | + | + | + | + | _ | _ | _ |
| groups/departments | Т | Т | Т | Т | - | | _ |
| Reinstate the PDP program | + | + | + | + | - | - | - |
| Improving performance | | | | | | | |
| monitoring | | т | т | | | - | |
| Implementing software for | + | | | + | | _ | _ |
| onshore management | Т. | | Т | Т. | | _ | _ |
| Moving the personnel planner | + | | + | | | _ | |
| to the product line | _ + | | Т | | | _ | |
| Allocating more resources to | + | | + | | | _ | |
| PCG | Т | | Т | | | _ | |
| Removing administrative roles | + | | | | | | |
| and tasks from PLT | | | | | | | |
| Improving communication | | | | | | | |
| systems internally in offshore | l <u> </u> | | | | | | |
| management and externally to | + | | + | + | | _ | _ |
| offshore employees | | | | | | | |

TABELL 18: EFFICIENCY INITIATIVES EFFECT ON COMMITMENT

6.4. Results

When analysing the participants' definition of commitment, Traces of Meyer and Allen's three-component commitment theory was identified, but the behavioural component of commitment was by far the most significant, indicating that the participants identified commitment as promoting and acting in the organization's interest. This supports Jacobs (2008) finding, that a distinction between the employee's willingness to stay with the organization and their willingness to promote and act in the interest of the organization must be applied for remote field personnel. Further analysis reviled that twelve out of fourteen participants were primarily committed to their offshore team rather than the organization. This finding indicates that although the participants' commitment level is high, a change in the type of commitment would be beneficial to ensure that the remote field personnel promoted and acted in the organizations interest even when the interest conflicted with other parties.

When comparing the perceived organizations goals and values to the personal goals and values of the participants, it was revealed that the values were mostly compatible. The goals however, varied very much. The participants identified cost saving and profit and the important organizational goals, while their personal goals where mostly linked to development and performance. This may help explain why the participants expressed commitment towards their team rather than the organization. This also highlights the importance of effective communication systems and of opportunities for employees to learn and contribute to the organizational culture and identity (Tourish & Hargie, 2004).

The data on organizational factor that influenced commitment level was rich and varied. Positive influences were coded, and arranged in the following categories: Good technical communication, good non-technical communication, professional growth, climbing the ladder, trust in management, recognition by management, inclusion in decisions, culture and support. The categories were sorted into four overarching themes: Communication, advancement opportunities, positive leadership behaviour and positive work environment Negative influences were coded and arranged in the following categories: Initiatives questioning employee value, reduce benefits, no advancement opportunities, communication, attitude, focus, non-technical issues, culture and work tasks. The categories where sorted into three overarching themes: Improper cost savings, negative leadership behaviour, negative work environment. Many of the organizational factors identified had a two-way relationship

with regards to influence on commitment. For example, the lack of promotions was identified as having a negative impact on commitment, while promotion opportunities was identified as having a positive impact. Lack of communication and feedback had a negative effect, while good communication and regular feedback had a positive effect.

| Organizational factors that positive remote emplyees | ly influences the commitment level of |
|--|--|
| Theme | Category |
| Communication | Good Non-Tech Communication |
| | Good Technical Communication |
| | Proffessional Growth |
| Advancement Opportunities | Climbing the Ladder |
| Positive Leadership Behaviour | Trust in Management |
| | Recognition by Management |
| | Inclusion in Decisions |
| Positive Work Environment | Culture |
| | Support |
| Organizational factors that negative | ely infleunces the commitment level of |
| Theme | Category |
| Improper Cost Saving | Initiatives questioning employee value |
| | Reduce benefits |
| | No adavcement opportunities |
| Negative Leadership Beahviour | Communication |
| | Attitude |
| | Focus |
| | Non-Technical Issues |
| Negative Work Environment | Culture |

TABLE 19: POSITIVE AND NEGATIVE INFLUENCES ON COMMITMENT

Work tasks

Efficiency initiatives were sorted into thirteen suggestions. These were then evaluated using the six lean principles (Womack, Jones and Roos, 1990) and Bicheno and Holweg's (2009) seven wastes of lean services. Of the thirteen original suggestions, eight were deemed efficient according to lean theory. These suggestions were: Creating smaller groups/departments, reinstate the PDP program, improving performance monitoring, implementing software for onshore management, moving the personnel planner to the product line, allocating more resources to PCG, removing administrative roles and tasks from

PLT, improving communication systems internally in offshore management and externally to offshore employees.

| Efficiency initiatives identified using Lean principles | |
|---|--|
| Creating smaller groups/departments | |
| Reinstate the PDP program | |
| Improving performance monitoring | |
| Implementing software for onshore management | |
| Moving the personnel planner to the product line | |
| Allocating more resources to PCG | |
| Removing administrative roles and tasks from PLT | |
| Improving communication systems internally in offshore | |
| management and externally to offshore employees | |

TABLE 20: EFFICIENCY INITIATIVES

Table 19 above summarizes efficiency initiatives effect on commitment. The initiatives with most potential to increase commitment were creating smaller group/reinstate PDP program, implementing software for onshore management and improve communication systems internally in onshore management and externally to offshore employees. The initiatives with the least potential to increase commitment was removing administrative tasks for PLT. None of the suggestions was evaluated to have a negative effect on the commitment level.

7. Discussion

7.1 Discussion of results

The purpose of the thesis was to create a framework for evaluating efficiency initiatives in onshore management in terms effect on remote field personnel's commitment level. The study started out with the following problem statement:

How can efficiency initiatives in onshore management increase remote filed personnel's commitment level?

Complementary to this, two research questions were developed to give a substantial answer to the problem statement. The research question are addressed below.

RQ1: How is the current commitment level of offshore employees in Drilling Services in Baker Hughes Norway?

Commitment was defined as promoting and acting in the organization's interest, which is consistent with Jacobs (2008) finding, that a distinction between the employee's willingness to stay with the organization and their willingness to promote and act in the interest of the organization must be applied for remote field personnel. Furthermore, the analysis revealed that the offshore employees have a high commitment level, but the majority of the participants in the study felt more committed to their offshore team than to the organization. The offshore team consist of for example BHI colleagues, employees from other service companies, rig crews and clients. The high team commitment could be problematic if there was a conflict of interest between BHI and other parties in the offshore team. BHI would want to ensure that in such instances, remote employees acted in interest of the organization and not prioritize the interest of other parties in the offshore team. According to Jacobs (2006), organizational commitment can be secured by ensuring that the employees identify with, understand and are involved in the organizations goals and values. The offshore employees identified with the perceived values of the organization, but not the perceived goals. This highlights the importance of effective communication systems and of opportunities for employees to learn and contribute to the organizational culture and identity (Tourish & Hargie, 2004). High

levels of trust and empowerment also increases organizational commitment. The results of the analysis indicated room for improvement in both areas.

RQ2: What efficiency initiatives in onshore management can positively influence these employees commitment level?

Increased commitment level can be achieved by increasing positive influences or decreasing negative influences. Analytical coding reviled that positive influences could be categorized under the themes communication, advancement opportunities, positive leadership behavior and positive work environment. Negative influences could be categorized under the themes improper cost saving, negative leadership behavior and negative work environment.

After confirming the efficiency of initiatives suggested by both onshore and offshore employees by evaluating them in terms of Bicheno and Holweg's (2009) seven wastes of Lean services and Carlborg, Kindström & Kowalkowski (2013) model based on the six lean principles, the remaining initiatives were linked to the organizational factors influencing commitment level. None of the initiatives were evaluated to have a negative impact on commitment. The efficiency initiatives that were evaluated to have the most positive impact on were creating smaller group/reinstate PDP program, implementing software for onshore management and improve communication systems internally in onshore management and externally to offshore employees. The initiatives with the least potential to increase commitment was removing administrative tasks for PLT.

Analysis of remote working circumstances reveals the likelihood of an enhanced need for fostering employees' commitment to their organization, but these very circumstances potentially raises the bar for achieving it (Depickere, 1999; Hoeffing, 2001; Staples, 2001; Wiesenfield, 1998; Postmes, Tanis & De Wit, 2001). Thus, when applying efficiency initiative it is imperative to have the commitment level of these worker in mind. Several examples of strategies fostering commitment in remote workers have been identified through research. These include regular opportunities for face-to-face meetings and information sharing; work opportunities requiring team interdependence and collaboration; recognition and reward systems that emphasizes collaboration; information and communication systems technologies facilitating group work and organized virtual meetings in addition to informal, online communication arenas (Applegate, 1999; Mirchandani, 1999; Staples, 2001; Jackson,

1999). These studies have however not taken into consideration the wide variations in work schedules, job locations and client environments remote field engineers face. In addition to the factor mentioned above, engineers in this study also identified positive leadership behavior and work environment as having an increasing effect on commitment.

Correspondingly, negative leadership behavior and work environment decreased commitment level, in addition to improper cost saving. Improper cost savings included initiatives that questioned the value of the employee, reduced benefits and gave no opportunities for advancement. If management takes these organizational factor into consideration when evaluating efficiency initiatives, and identify initiatives that can enhance positive influences or decrease negative influences, implementing these initiatives can become a means to increased commitment in remote field personnel as well.

7.2 Strengths and Weaknesses

The biggest strength of this study is arguably also its biggest weakness. Due to the my working relationship with the case under investigation, the research design included action research. Action research is probably the most effective known method for handling complicated problems in the arrangement of work (Routio, 2007). The tension between efficiency and commitment is indeed a complex issue and thus it is an appropriate design to use in the investigation. Action research also gives access to data that could otherwise have been unobtainable. However, action research can also be heavily biased because of the researcher involvement in the work environment (Coghlan & Brydon-Miller, 2014). I have tried to minimize or eliminate any bias by selecting reliable sources of secondary data and using reliable sources as guidance when planning and executing the data collection for primary data. The method of triangulation has also been applied to increase the trustworthiness of the research. This study is an individual work, but it would have benefitted from another researcher coding and comparing results.

Another weakness relates to the research process, and does not affect the result presented here per se, but it did display a poor use of time and resources. Originally, the theme of this study was only related to commitment, efficiency was added as a second theme after the research process had started to add depth and impact in the study. Adding a second theme late in the process gave less time to gain insight into the theme before the interview guides were constructed. This resulted in an unstructured guide that gave a lot of data about the theme, but little that was applicable to this study.

7.3 Areas for Future Research

This study contributes to the sparse research on remote field engineers and factors influencing their commitment level. Since this study only involved one case, it would be beneficial to conduct more case studies to see if the results obtained here can be generalized.

8. Conclusion

This study set out to answer the following problem statement: How can efficiency initiatives in onshore management increase remote filed personnel's commitment level? Relevant theory included Meyer and Allen's (1900) there-component commitment model and Jacobs (2008) commitment model for remote employees, in addition to Bicheno and Holweg's (2009) seven wastes of Lean services and Carlborg, Kindström & Kowalkowski (2013) productivity model based on the six lean principles. Primary data was collected through semi-constructed indepth interview with offshore employees and onshore management employed in the DS product line in Baker Hughes Norway. The commitment data was analyzed using thematic coding. Analysis showed that although the commitment level was high, it was high towards the employees' offshore team and not the organization. Improving the organizational commitment could be done through increasing the level of trust and empowerment and strengthen the employees' identification with and understanding of the organizations goals.

Organizational factors that increased commitment were categorized under the themes communication, advancement opportunities, positive leadership behavior and positive work environment. The organizational factors that influenced commitment level negatively were categorized under the themes improper cost saving, negative leadership behavior and negative work environment.

The efficiency data was analyzed using Lean principles. The data was then linked together, identifying efficiency initiatives that had a positive effect on commitment either by adding positive influence or removing negative influence. For DS in BHI, the efficiency initiatives

that had the strongest effect on increased commitment level where creating smaller group/reinstate PDP program, implementing software for onshore management and improve communication systems internally in onshore management and externally to offshore employees. By taking the need for fostering remote employees' commitment to their organization into consideration when implementing efficiency initiatives and evaluating these initiatives based on the commitment level of the employees, efficiency initiatives can be a mean to increased commitment for remote field personnel.

Appendix A – Interview Summaries

Interview Summary, 03.05.17 at 08:00. Approved by subject.

Subject no 1:

Position: Field Specialist II ARTE

Sex: Male

Age: 26 years

Seniority: 4 years

Commitment:

1. What does the word "Commitment" mean to you?

(pause) I think, for me, it means to execute my tasks and responsibilities well and independently of personal preferences (pause). And to act with integrity.

2. How would you describe your commitment level to Baker Hughes?

My commitment level is high. I think a high commitment level is necessary in an offshore position because of the lack of daily management/leadership that you have in an onshore position. If you commitment level is low is will affect your offshore colleagues.

Probe: Whom do you consider your offshore colleagues?

It is the Baker team out here, obviously, but also the other people we work with, like the rig crew, the other service companies, and the client off course.

Probe: Are your commitment more to the offshore team or Baker Hughes?

I believe I am equally committed to colleagues and the company.

3. In your opinion, what are Baker Hughes most important goals and values?

(pause). I think their goals are related to technology. It all comes down to maximize the utilization of the client's reservoir.

About their values, I don't really know (pause). Well, I guess it is the core values. (pause) I don't remember all of them right now, but I know they include teamwork and performance (pause) and leaning.

4. What are your personal most important goals and values?

My goals are to develop my skills and knowledge. I want to move forward and not be at a standstill. My values are to execute the job well, to be conscientious (dutiful) and to share my knowledge and experience with colleagues.

5. How would you describe the level of trust between onshore management and offshore?

Well, it depends. If you contact onshore it is good, but a lot of the time, we only get a part of the story or some of the information. This leads to a lot of rumors offshore (small pause). I assume this is easier if the operation isn't remote. We miss the talk around the watercooler and we don't have the opportunity to attend meetings. For example, we have the opportunity to call in for Town Halls, but if operations are busy, this is not really a viable option (sigh).

6. To what degree do you feel empowered in your work?

What do you mean by empowered?

To what degree do you feel like you have authority, to make decision regarding your area of expertise?

Ah, okay (pause). Well, to a good degree, but much of what we do it routine work/processes which we cannot really influence.

Probe: What about non-routine situations?

Well, if something out of the ordinary happens or if there are non-routine situations I give my opinion or feedback to the project leader and I feel that my contributions are taken into consideration.

7. What organizational factors influence your commitment level in a positive manner?

Definitely good communication that is specific to department/position. The State of the Union

e-mail is a good initiative, but I would also like more technical information to be

communicated. If you divide it up more, and don't send everything to everyone, I think

people would be more interested in what they actually received. It would be nice to be in the

loop about technical updates relevant to my position.

The PL does a good job of keeping of informed at least about what goes on at his rig. I think

good support and follow-up from him is important for commitment as he is the technical

liaison. It is also very positive when you have a PL who is accessible and available since we

work around the clock out here.

8. What organizational factors influence your commitment level in a negative

manner?

Removal of rewards and benefits such as insurance and instructor pay. I mean, we understand

the need to save cost, but there is no consistency when you read about the CEO getting a 40

million golden parachute the same day (that the e-mail about cost-saving was sent).

(pause) Also lack of communication. And when we are treated as a group instead of

individuals. For example, the goals we have in Achieve doesn't take into consideration the

person or his/her seniority. It is all streamlined and the only personal goal are the ones we

make our self. Then it just becomes something we have to do, another tick in the box.

Efficiency:

9. What roles/position in onshore management are you in regular contact with and

how do you communicate? (phone/e-mail/face-to-face)

The Application Engineers via IT systems during hitch, and The Project Leader via mail and

telephone prior to and during hitch. If needed I am aslo in contact with the Personal Planner

via mail or telephone before I go out.

Probe: What about PCG?

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I don't have any contact with PCG (Logistics) anymore because we book our own tickets now.

Probe: And how do you feel about that?

I think it is working well. It is quick and easy, we get the route we want every time and save PCG some work.

10. How would you describe the communication between onshore and offshore? What is working well? Are there any improvement opportunities?

Operational communication is good via Weekly Update and Operational Updates. We receive the common e-mails with organizational news and changes, but specific information relevant to our position is not communicated to us.

11. To what degree do you feel that there is consistency in onshore management?

Well, it varies. I feel like it is consistent most of the time, and if I contact for example Marc he will either give an answer right away or he says he will look into it and gets back to me later. But then you have the promotions. We have not had promotions for some years due to cost saving, but then we heard that BEACON is getting promotions this year. This kind of inconsistency creates a bad atmosphere.

12. How would you describe the efficiency level of onshore management? Are there any improvement opportunities?

It is difficult to say since I do not know their routines, but if we were divided into smaller groups, the communication would perhaps improve and we would get more information that is relevant to us. When we had the PDPs, we had a better follow-up with performance appraisals and someone to discuss with when necessary.

Interview Summary, 10.05.17 at 15:00. Approved by subject.

Subject no 4:

Position: RPS

Sex: Male

Age: 53 years

Seniority: 19 years

Commitment:

1. What does the word "Commitment" mean to you?

Oh, that is a hard one (small pause). Well, I believe it is partly a contract that you form and partly your moral... or personal dedication to your job.

2. How would you describe your commitment level to Baker Hughes?

I consider myself completely committed. I am very happy with the job and my colleagues and enjoy my work very much. The things I am unhappy with are outside Norwegian management's control.

Probe: And what's that?

Well, there has been a change over the last few year, and we now have the American "Just fire people" culture. Earlier we did what we could to save people, but now you're redundant before you know it. Finance always wins these days (pause). They look at numbers over there (*Houston*), see our cost and *poof* you're out. They don't look at our contributions, they're just concerned that we cost too much. And compared to other countries I guess we do. But, compared to other countries we make a lot more money too. And the conditions we work in are so much tougher and require so much more expertise than drilling on a field in Texas. Nobody thinks about that over there.

3. In your opinion, what are Baker Hughes most important goals and values?

Well the goal right now would have to be survival under the current conditions. We also have a quality focus. And like everyone else we need to get more work, win more contracts.

Probe: And the values?

Well, I think teamwork and family atmosphere. You can still go to however you need to and give them your opinion, and that's fine.

4. What are your personal most important goals and values?

Well, professionally I would like to progress to DD. And one of my most important values is teamwork as well. I also think good communication is important and acting like your part of the family by pulling your weight.

5. How would you describe the level of trust between onshore management and offshore?

I think it's fine. There is even communication back and forth (small pause). I believe trust is built on individual levels, for example with project leader. We all pull in the same direction.

6. To what degree do you feel empowered in your work?

Well, offshore you don't really make decisions on your own. Most decisions are group decisions, and I feel that my opinion is valued in the discussions we have, though a bit less with the client compared to with Baker colleagues.

7. What organizational factors influences your commitment level in a positive manner?

Good technical communication

8. What organizational factors influence your commitment level in a negative manner?

Cost saving initiatives that questions the value of the employees. For example with the travel arrangements and taking the bus to the heliport. When we travel all day to get to the

heliport, and then go straight on night shift you just don't tell people to take the bus instead of a taxi. With two offshore bags and all to carry. And when they fire people and ask the remaining ones for overtime, that is just bad.

Also, IT systems that are overcomplicated and not user-friendly, especially if they are not accessible outside the BHI network. For example with Citibank/T&E card. It is ironic that we have such bad IT systems since we are a tech company, but you get what you pay for, and when I talked to Citibank to sort out some trouble with my card they told me that they had many support functions available, but Baker has not paid for them so we cannot use them. Instead I and my manger has to spend hour trying to sort this thing out and we get nowhere. I don't think anyone has considered these costs when they took the cheapest package.

I also think that it is an issue that there is nobody to contact for non-technical issues, such as tax or pension questions. HR, don't know, the coordinators and planners don't know. If you are interested in those things, you need to figure it out on your own, or ask colleagues who have been through the same themselves.

Efficiency:

9. How would you describe the communication between onshore and offshore? What is working well? Are there any improvement opportunities?

It works very well, I think. Most of communication offshore is non face-to-face. There is no difference between phoning the driller and phoning onshore.

Tech Support is absolutely brilliant; they are always available to help.

The Weekly Update is good, but missing more information that is specific to position. For example new developments, updates, etc.

10. To what degree do you feel that there is consistency in onshore management?

It comes down to the individual really. There was one PL who was bad, but he is gone now. I feel we are all pulling in the same direction. But then again, we are a service company and if the client says jump, we have to jump whether we want to or not. That must be especially difficult for the PLs.

11. How would you describe the efficiency level of onshore management? Are there any improvement opportunities?

Again I think is comes down to the individual, and most people do a good job. All the technical is great, but there is no answers to non-technical issues. Everyone is overworked and when Baker has outsourced they have paid for the cheapest options so there is no help there either (like the Citibank help-line). This creates trouble for the employee and for onshore management whom has to sort it out. Another example is the change is travel policy that we are to only book one-way ticket to save cost on change fees. A round ticket for me is normally ca. 5800 kr. I now have a one-way ticket for the same price and we will get a booking fee for my return ticket. If that can be booked at all, with my problems with the T&E card.

Interview Summary, 19.05.17 at 10:00, approved by subject.

Subject no 19:

Position: Logistics Specialist

Sex: Female

Age: 29

Seniority: 4,5 years

1. What does the word "Commitment" mean to you?

To be conscientious/dutiful, to show engagement, to guide and be guided when needed. To

complete your tasks from A-Z.

2. How would you describe the offshore employee's commitment level to BHI?

It varies from person to person. Some people understand and accept the changes that are

needed, while other do not and can work against them. Still, it is mostly high. I think the older

ones (with long seniority) struggle more with all the recent changes related to cost savings.

They have been in the game for ages, have experienced the "golden age", and have a hard

time accepting changes. The younger ones may complain, but they accept more easily.

3. In your opinion, what organizational factors influences the offshore employee's

commitment? Positively and/or negatively.

Negative:

Top management implements changes above the FS's heads. They implement

changes without involving offshore employees or us that work with the offshore

employees, and they do not listen when either of us give feedback.

The accident rate offshore has increased as a consequence of the downsizing and

cost savings initiatives.

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There has been a cultural change over the last few years. We are being over-ruled and not listened to by top management. It is more like an American culture now.

Positive:

Involving offshore employees in decisions that affect them, like travel arrangement (ref. bus e-mail). This will give them ownership over the changes that are being made.

Give credit to the ones who are leaving us due to severance packages. Now it is like they work here one day, and are gone the next. People who have been your colleagues for years are suddenly just gone. We need an opportunity to thank good friends and colleagues for their efforts.

4. How would you describe the efficiency level in the onshore management of offshore employees?

I think it is relatively ok. There are probably things we can do better, but we all work *for* the offshore employees, trying to make their work lives as easy as possible.

5. In your opinion, what organizational changes could be made to improve efficiency?

Improve communication both between onshore and offshore, and internally onshore. This will require changes in both processes, structure and activities.

Stability in onshore management. There have been a lot of changes, some necessary due to people leaving and sick leaves, but also a lot of back and forth for "no reason". This confuses the offshore people and negatively affects our effectiveness and efficiency.

An IT system that stores all necessary information and "talks" across departments. We have too many excel sheets, and the number is just increasing. It would alo ensure that everyone is working in the same way. Now we are very dependent on individuals because everyone has their own way of working. This would also reduce pressure on us and eliminate human errors in for example reporting. I mean, we are all human; we all make mistakes even if we do not want to.

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