Implementation of a visual management system in a purchasing organization:
Analysis through a change management perspective

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Master's Thesis in International Project Management

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ABSTRACT

The thesis project was conducted in Mojo purchasing department, which is a pseudo name for a big organization in Sweden. Mojo implemented a new way of tracking its performance, which has resulted in a 'hockey stick-effect' and showing a stronger result in the third and fourth quarter. As a result of this effect, the profit and loss contribution of Mojo's purchasing department was uneven and did not match the financial calendar. This means that a lot of the savings for the organization is made in the third and fourth quarters. The current situation has prompted an increased focus on profit and loss to allow savings to be evenly distributed throughout the year. Furthermore, the department is not achieving its financial target because of unreliable forecast.

As a result of the above-mentioned challenges, Mojo's purchasing department has launched a visual management system where an online software known as iObeya is used to show a clear visibility of where the purchasing department stand compared to its target in order to improve its performance. The purpose of the thesis is to analyze the implementation of the visual management system at Mojo's purchasing department. It will examine it through the lens of organizational change. It will do so by attempting to uncover how several factors that have been shown to affect organizational change, has been considered by the change implementers at Mojo. Furthermore, it will examine how these factors were perceived to be taken into account by the employees affected by the change implementation.

The thesis finds that while most of the employees at Mojo are satisfied in seeing their activities visually, there are some areas of the change that could be improved to secure commitment from employees. It highlights the importance of change leaders to not only concentrate on the macro level perspective of change but also the micro level perspective such as employee's psychological factors which affect their commitment, openness and readiness for the change. Finally, based on the findings, the thesis will recommend improvement ideas that Mojo should consider when implementing a similar project in the future. These recommendations could also be adapted to the ongoing change process at Mojo.

Key words: change implementation, visual management, micro level perspective.

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Contents

1   Introduction

This chapter tells the background of a purchasing department in an organization Sweden. It also outlines the purpose of this thesis and present the designed research questions and delimitations of the thesis.

1.1   Background

In the purchasing department of a big organization in Sweden, here called Mojo because of anonymity, a new way of tracking performance was implemented in 2017. The focus on this performance tracking has resulted in a 'hockey stick-effect' showing in the organization's performance data, with a much stronger quarterly result in the fourth quarter compared to the rest of the year. As a result, it has been decided that a stronger focus on the profit and loss of the organization should be implemented, where business is moved to earlier quarters. Furthermore, the organization is not achieving its financial targets and has been underachieving for several years. Finally, the purchasing department's financial forecasts have proven unreliable, further compounding the problem of underachieving versus its financial target. As the financial targets are partly based on the forecasts.

This thesis examines the implementation of a visual management software aimed at rectifying the situation at Mojo as described above. The implementation is examined through the lens of several organizational change aspects such as the attitudinal constructs that have been shown to affect the outcome of change implementations.

Semi-structured interviews were held with employees affected by the implementation of the visual management project. Additionally, a questionnaire was distributed among all purchasing professionals at Mojo to gather and assess how they had experienced the implementation of the visual management project. Furthermore, data was analyzed in an attempt to see if the department is performing more in line with the goals set up by Mojo. The data was further analyzed using the interviews and first-hand experience by the authors of this thesis to see if any conclusions could be drawn as to whether any improvements could be attributed to the new visual management routine.

1.2   Aim of the thesis

The aim of this thesis is to examine the implementation of a visual management system at the purchasing division at Mojo. It will be examined through the lens of organizational change, where a visual management system can be considered a minor change to the way of working at Mojo. It will do so by attempting to uncover how several factors that have been shown to affect organizational change, has been considered by the change implementers. Furthermore, it will examine how these factors were perceived to be taken into account by the employees affected by the change implementation. Finally, the thesis will attempt to recommend what factors Mojo

should consider when implementing change projects such as the one studied, in the future.

1.3   Research questions

The following research questions are designed to help in order to achieve the aim of the thesis.

RQ1: How was the change process/ implementation perceived by affected employees?
RQ2: How has communication regarding the visual management project at Mojo been perceived by the employees affected by it?
RQ3: How in line was the change process with what is recommended in the literature?

1.4   Scientific problem

All research projects and the reports it provides, contains certain elements that are key to making the report "scientifically viable". The elements as mentioned by Hart (2000) are; Rationale – which explains the reasons for why the research was conducted. Examples could be gaps in knowledge, lack of empirical studies or finding the reasons of a real-life situation or problem in need of improvement. In addition, how the report contributes to the understanding of the problem researched, is also relevant in making a research scientifically viable. This research will add to the knowledge base of Mojo on how future change should be implemented and how to sustain and maintain ongoing change implementations.

1.5   Delimitations

As a result of the limited amount of available time, and the geographical dispersion of many of the buyers and managers, the authors of this project were only able to interview a few people out of the many. Additionally, the project only focuses on a purchasing department of a particular company. Although the strategies of change implementation may be similar, we do not claim that our findings, analysis and suggestions will fit to the purchasing department in other organizations.

1.6   Outline of the thesis

The thesis is designed and written in different chapters as given below.

Chapter 1: this chapter gives the background of Mojo's purchasing department, the aim of the thesis, research questions to help in achieving the aim, and the limitations of the thesis.

Chapter 2: it describes the research method used for the thesis and the process used in gathering and collecting data. It also presents the reliability, validity and ethical considerations of the research.

Chapter 3: this chapter presents a literature review of previous research that are relevant to the thesis project.

Chapter 4: this chapter presents the empirical material of the thesis and gives detailed information and background to the work of Mojo.

Chapter 5: presents interview results

Chapter 6: this chapter presents the findings and analysis of the research project. It discusses how the findings relate to previous findings identified in the literature review.

Chapter 7: this chapter presents the discussions, conclusions and recommendations, which is based on the findings of the thesis.

2   Methodology

This section will discuss the various methods used in gathering data, which includes the research approach, research design, how the thesis will be analyzed, ethical considerations, reliability and validity, among others.

2.1   Method

The interviews for this thesis project was conducted using a semi-structured interview technique. In Wilson's (2014) view, semi-structured interviews are most suitable when they are conducted by two people, "where one person conducts the interview and the other person takes notes, handles the recording equipment and acts as a memory aid when recording is not allowed" (2014, p.28). However, it could sometimes be intimidating to have two people interview a participant. In this project, the questions were asked by both authors. The semi-structured interview technique allows the interviewer to use an interview guide that highlights the questions to be asked during the interview session. Unlike a structured interview technique, questions in a semi-structured interview are not strictly followed as written.

The aim of using this form of technique is supported by Wilson's (2014) view, which he states helps to "gather systematic information about a set of central topics, while also allowing some exploration when new issues or topics emerge." (2014, p.24). Part of the theories used in this project touch on behavior change and adapting to a change process. Detailed knowledge on how, in our case, buyers perceive the change is important to our findings and later our analysis. As such, giving room for follow up questions during an interview and asking open-ended questions is key in obtaining a full understanding and raising new issues on how, for example, a buyer perceives change.

The strength of using a semi-structured interview technique is the flexibility it gives the interviewer and its ability to uncover previously unknown topic areas. Additionally, it requires less training time for the interviewer because there are sets of already prepared guiding questions to start with (Wilson, 2014). However, as Wilson (2014) puts it, "the findings of semi-structured interviews might be hard to generalize because different interviewers may ask some different questions." (2014, p.28).

2.2   Data analysis

This section describes the research approach, how the collected data was transcribed, and the method of analysis used.

2.2.1   Research approach

In this study, inductive reasoning is used to draw a relationship between the theoretical framework and the collected empirical material. Inductive reasoning is connected to qualitative research methods, where patterns are carefully observed in order to make

meaning of the collected data. It is a research approach that relies on formulated research questions to narrow the scope of the research while relying on different literature perspectives. The authors of this study, first of all, made observations on how buyers and managers worked and identified patterns in the observations. As the project at Mojo progressed, the authors found different observations based on what kind of change is implemented. In a situation like this, inductive method presents the flexibility to look for more theories anytime there are new observations. Similar to what Zalaghi and Khazaei (2016) have explained, our observations form the basis of how different theories are developed to explain the patterns in our observation. Feeney and Heit (2007) describe inductive reasoning as an "everyday reasoning" (2007, p.1). This method is suitable because "there is no necessity for any pre-fabricated framework or model" (Zalaghi and Khazaei, 2016, p. 25) and no theory is used at the start of the research. The method takes specific observation and broadly generalize it, however, Cargan (2007) argues that it is likely for researches to overgeneralize the observation.

2.2.2   Transcribing

The recorded interviews were uploaded online, with limited access to the authors of this study. Transcribing helps a researcher to familiarize himself or herself with the collected information. The recorded interviews were transcribed as written text soon after the interview, in an intelligent verbatim form. Transcribing in an intelligent verbatim form means that false starts as well as other spoken discourse are removed from the transcription in order to focus on the message that is conveyed (Hadley, 2017). It excludes repetitive words and fillers like 'erm, um, huh, hmm, yeah, and you know'. Hadley (2017) has described intelligent verbatim as a way to sanitize the words of the interviewee. Even though Hadley (2017) argues that the sanitation may involve minor alterations to the interview, he is firm that these alteration does not corrupt the data and that it still represents an accurate statement of the interviewee. Transcribing soon after the interview helps to remember how gestures were expressed. It is important that attention is given to different punctuations and tones in the participant's speech.

2.2.3   Thematic analysis

A theme in qualitative research is a pattern discovered in the information that describes and "interprets aspects of the phenomenon" (Boyatzis, 1998, p. 4). It captures relevant aspect of the data which relates to a given research question. Boyatzis (1998) has described thematic analysis as the way researchers use information in a "systematic manner that increases their accuracy or sensitivity in understanding and interpreting observations about people, events, situations, and organizations" (1998, p.5).

Thematic analysis goes beyond just summarizing data and describing what participants have said during interviews, but rather the data should be interpreted in a way that gives clear understanding to others. To effectively use thematic analysis, a researcher should be able to identify different but important verbal or visual patterns in the mist of random

information. The aim of thematic analysis is to recognize "patterns in the data that are important or interesting, and use […] it to address the research or say something about an issue" (Maguire and Delahunt, 2017, p. 3353). Maguire and Delahunt (2017) have discussed that a common risk in using thematic analysis is for a researcher to make themes out of the interview questions. In this research, an inductive thematic analysis is used. Braun and Clarke (2006) define inductive thematic analysis as "a process of coding the data without trying to fit it into a preexisting coding frame, or the researcher's analytic preconceptions" (2006, p. 83). This type of analysis is usually strongly connected to the data collected for the research.

Braun and Clarke (2006) outline a six-phase guideline, which is useful in conducting thematic analysis. The authors mention that the guidelines are not to be strictly followed as it is just a guideline, and that there should be room for flexibility, where the steps provided in the guideline can be interchanged to fit a particular research. Table 1 shows Braun & Clarke's six-phased guideline.

Table 1: Phases of thematic analysis (Braun and Clarke, 2006, p. 87)

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

The first phase requires that the collected data is repeatedly read in search for meanings and patterns in the data. The second phase is to generate initial code and as it's described by Braun and Clarke (2006), codes are created to "identify a feature of the data […] that appears interesting to the analyst, and refer to 'the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way'" (p. 88). In phase six, the report is meant to "tell the complicated story of your data in a way which convinces the reader of the merit and validity of your analysis" (Braun and Clarke, 2006, p. 93). As such, it should be written in a clear, concise, and understandable form.

In this paper, thematic analysis is used following the recommended guidelines of Braun and Clarke (2006). The transcribed interviews were read many times before coding and isolating them into main and sub-themes for further analysis.

2.3   Reliability and validity of the data

Bryman & Bell (2015) refer to reliability as the "consistency of a measure of a concept" (2015, p.169). Bryman & Bell outline three determining factors when considering the reliability of a research. These factors are stability, internal reliability and inter-rater reliability. Stability as a factor of reliability is about weighing the measure of the research to determine whether it will remain the same over a period of time "so that we can be confident that the results relating to that measure for a sample of respondents do not fluctuate." (2015, p. 169). One way to test stability is to administer a test to a group or sample on one occasion and then re-administer it to the same sample on another occasion (Bryman & Bell, 2015). A strong stability means that the correlation between the two tested samples is high, which indicates that the collected data can be relied on. Likewise, a low correlation means that the method is unstable and as a result unreliable. Bryman & Bell (2015) argue, that as a setback of this approach, the participants answer during the first sample may influence how they answer in the second sample. Additionally, they argue, that the result of the first and second samples may be affected by changes in the environment and in the way that participants work, especially if the time between sample 1 and 2 is too long.

Inter reliability measures the consistency of a method. The process "applies to multiple-indicator measures […] in which each respondent's answers to each question are aggregated to form an overall score" (Bryman & Bell, 2015, p. 168) and the scores should be consistent and relate to each other. An example of this process is sending a multiple-choice questionnaire to participants where they choose between 'strongly agree, agree and strongly disagree'. In order to gain a good internal consistency, the participants should answer the same for all questions. For inter-rater reliability, Bryman & Bell (2015) describe it as the extent to which two or more researchers or observers consistently agree to a decision, especially "when a great deal of subjective judgement is involved in such activities such as the recording of observations or the translation of data into categories (2015, p.169).

Bryman & Bell (2015) refer to validity as a way to measure whether an indicator "that is devised to gauge a concept really measures that concept" (2015, p. 170). Bryman & Bell highlight many means of establishing validity, such as face validity, predictive validity, concurrent validity, construct validity and convergent validity. Face validity is where expects in the field can determine by face value whether a measure reflects a concept in question. Convergent validity, on the other hand, is where the validity of a "measure ought to be gauged by comparing it to measures of the same concept developed through other methods" (Bryman & Bell, 2015, p. 171).

In the case of this paper, the authors take into consideration the concept of reliability and validity, meaning that the results of a different research conducted with the same people under the same condition, will have a strong correlation to the results of this paper. However, if the participants stop using iObeya as a visual management tool or if

their performance will be measured on P&L instead of MCL, then the results will be different from the results of this paper.

2.4   Ethical consideration

Ethical considerations in research relates to issues such as how to treat and relate to people who are involved in the research. It looks into whether the research participants are harmed, if there was a lack of informed consent, invasion of privacy, or whether any form of deception was involved (Bryman & Bell, 2015). Any of the above-mentioned ethical consideration is considered by many as unacceptable in business research. Another ethical code is the assumption of anonymity and maintaining or protecting the confidentiality of records or individuals. This should be discussed and agreed with the participant beforehand, on whether or not to keep the records confidential. Issues on breaking the confidentiality of participant's can for example occur when the researcher feeds participants information to top level management.

In this paper the participants and other individuals outside the scope of this paper were aware of our presence and knew our area of research. Even so, they were made aware by the fact that whatever we observe, or any activity we participate in which has a relation to our research, will be used to help us in our findings and further analysis. Throughout this research, no information was intentionally hidden to deceive the participants into doing something against their will. The paper follows McInroy's (2016) requirements that standard ethical approach is applied in every research. In the questionnaire that was sent out to participants, its purpose was clearly written on the questionnaire form and also stated in an email communication with the participants.

2.5   Research design

In order to successfully realize the objective of this paper, a qualitative research method is taken as a suitable choice for collecting data and gathering information. Qualitative research "consists of a set of interpretive, material practices that make the world visible" (Flick, 2007, p.2) through interviews, conversations, personal views and observations. Hennink et al. (2010) have defined qualitative research as an "approach that allows you to examine people's experiences in detail, by using specific research methods such as in-depth interviews, focus group discussions, […] and observation" (Flick, 2007, p.9).

One unique feature of qualitative research that Hennink et al. (2010) highlight is its interpretive approach. In the authors' view, this approach allows the researcher to identify issues from the study participant's own perspective in order to "understand the meaning and interpretations that they give to behavior, events or objects" (Hennink et al., 2010, p.9). The research method additionally allows the researcher to identify how the behavior of a participant is influenced by social, cultural and physical context

(Hennink et al, 2010), which is key in the findings, analysis and drawing of conclusion for this paper. This method is suitable to our study because it is difficult to gather information on how the buyers at Mojo perceive the change through visual management without taking their individual experience, the context in which they work and observe how they work. It gives us the opportunity to look at relevant information to support this study.

Unlike the quantitative method that deals with numbers and statistics, the qualitative method uses words as empirical data and it helps to understand everyday practices and knowledge (Flick, 2007). The method is also used when one wants to understand the thoughts and experiences of different individuals. Using qualitative research methods helps to answer the research questions designed for this thesis.

2.5.1   Data collection

For this thesis, theoretical data was collected from various literature from academic data sources, with most of them taken from Chalmers' library. Keywords used when searching for papers were 'organizational change', 'change management', 'organizational change literature review', 'readiness for change', 'resistance to change', 'commitment to change', 'openness to change', 'cynicism about organizational change', 'visual management', visual management literature review', and 'key performance indicator design'.

The choice of literature was based on its relation in answering the research questions of our thesis. For the empirical part of the thesis, data was collected through interviews, personal observation, questionnaires and informal discussions with both buyers and managers.

Merriam & Tisdell (2015) state, that a research observation should be systematic, answer specific research questions and it should be done in a way that tends to produce trustworthy results. It helps to understand the context of a routine behavior of a person or group of people. According to Merriam & Tisdell (2015) "observation makes it possible to record behavior as it is happening" (Merriam & Tisdell, 2015, p.139), especially in situations when people are not willing to be interviewed.

In all, six semi-structured interviews were conducted in-house with buyers and managers. The duration of each of the interviews was about 30 to 45 minutes. The first two interviews were used as a base to readjust and formulate our interview questions for the rest of the interviews. Interviews were recorded with the consent of the participants, and some notes were taken in addition. One author recorded the interviews and the other took notes, but the questions were prepared and asked by both authors of the thesis. The purpose of the recording was to capture all the inputs of the participants, since it is difficult to take detailed notes of the entire interview. Denscombe (2014) states that "the recordings offer a permanent record […] in terms of the speech that occurs" (Denscombe, 2014, p.196). For participants who are shy, recording an

interview could be intimidating and uncomfortable and might result is what some researchers call 'interview bias' (Catania et al., 1986). However, the participants of this interview were open, comfortable and willing to be recorded, which is partly because we have known them for some time and have gone to many meetings together, and also partly because we made it clear that the interviews would be confidential. During the interview sessions, observations were made to attempt to capture non-verbal communication and other contextual factors such as gestures and facial expressions.

2.5.2   Sample selection

The selection of the participants was based on nonprobability sampling. Etikan et al. (2016) have stressed the importance of a researcher to decide on which nonprobability sampling to use, based on the type and nature of the research. In our case, we used convenience and purposive sampling methods mainly because of the close geographical proximity of the participants and the knowledge they possess, which is relevant to the study. The sample population of this study are located in two different cities; Lyon in France and Gothenburg in Sweden. Since we were physically stationed in Gothenburg, it was much easier to know the schedule of the participants and to make an interview appointment to suit their free times. We could have used communication tools such as Skype for interviews with buyers that are in Lyon, however, the effect is that we will miss important cues like their non-verbal communication.

As captured in Etikan et al (2016), the willingness to participate plays a key role in sampling. Because of the nature of the sampling of this paper, it cannot be used to represent the entire sampling population. Patton & Cochran (2002) state that samples that are used in qualitative research are usually purposive, because the participants are likely to give useful information.

Using purposive sample was a deliberate choice to get participants who have enough knowledge and are most affected by the research area, which fits the explanation Etikan et al (2016) give, that "the researcher decides what needs to be known and sets out to find people who are […] willing to provide the information by virtue of knowledge or experience" (Etikan et al., 2016, p.2). Based on the purposive sampling method, we selected both senior buyers, experienced buyers and new buyers. Each of these categories perceive the ongoing change in a different way. By selecting them, the authors of this paper have an understanding of why certain practices that affect the change process are done. Participants who were excluded from the interview are project buyers, because they are least affected by the change and subsequently by this thesis project, and for that matter, the authors believe that interviewing them will not add any positive impact to the results of the project.

2.5.3   Questionnaires

Questionnaires are designed to gather data from respondents. It is similar to a structured interview, with the exception that no interviewer is involved. Respondents read and answer the questions by themselves. In Bryman & Bell (2015) view, self-completion questions should be easy to follow, easy to answer and void of ambiguity. Bryman &

Bell (2015) highlight that self-completion questionnaires often have closed ended questions and minimize the risk of respondents skipping some of the questions. It is cheaper to have self-completion questionnaire, in terms of time and money, especially when respondents are geographically dispersed. In this paper the questionnaire was sent as an online link, which is considered as the quickest way to reach out to respondents. In as much as the online questionnaire is faster, it is not guaranteed that respondents will answer it on time. They have the choice to answer at their own convenience. Bryman & Bell (2015) suggest that a researcher sends out follow-up information to remind those who fail to answer the initial questionnaire.

Some of the challenges in having a self-completion questionnaire are that respondents may not answer the questions if there are too many. Long and open-ended questions may stress respondents and therefore they may answer with short answers without giving deeper thought to its meaning. Knowing the busy schedule of the respondents, the authors of this paper made the questionnaire as easy, simple, and short as possible. The questionnaire has multiple-choice questions where the respondents select a suitable option on a likert scale. Responses range from for example 'I completely disagree' through to 'I completely agree'. This reduces any fatigue and stress that may result from giving much thought before answering the questions.

3 Theoretical framework

Literature review is a section that "provides the basis on which you justify your research questions and build your research design" (Bryman & Bell, 2015, p. 100). It helps to build an argument around a research and provides the reader with e.g. new insights on what is being studied and provide data collection methods. Two main areas of literature search are critical to the success of the research being conducted. Literature relevant to the subject being studied and "literature on research methodology and data collection techniques" needs to be collected and reviewed (Hart, p. 3, 2000).

The literature found during the literature search can be useful in all areas of the research report and will help giving the report consistency. Hart (2000) suggests that 12-18 weeks are devoted to literature search, but as this work and report is 'work based' we devoted less time to doing our literature search, opting instead to devote more time to gathering empirical data.

The section below looks into some literature that has relevance or related to this study.

3.1 Managing organizational change

One definition of change management is that it is "the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers" (Moran and Brightman, 2001, p. 66). Zorn et al. define change as "any alteration or modification of organizational structures or processes" (1999, p. 10) in order to serve both external and internal customer needs (By, 2005).

3.1.1 Change according to the 'white-water rapids' analogy

A white-water rapid is a very turbulent part of a river in which the water is never calm. Sometimes, large inflatable rafts are used to navigate the rapid, turning it into an amusement park like attraction. The analogy is that the organization is the raft constantly battling the waves and currents of the rapid, which plays the part of change. The analogy attempts to paint the picture that change is an ever-present part of today's business environment that organizations constantly have to battle in order to stay afloat. Indeed, according to By (2005) a high pace, ever-changing environment is one of the issues on which there is an agreement amongst many scholars (Balogun and Hope Hailey, 2004; Burnes, 2004; and Kotter, 1996).

According to Lewis (2011), it can be argued that organizations are always in motion and changing as organizational activities are made up of processes. Indeed, change has been described as an always present factor in today's business environment, a factor which organizations need to deal with (Burnes, 2004). Organizational change can therefore be described as periods of planned change where the change is purposefully introduced to change what is currently normal and routine within the company (Lewis,

2011). The importance of an organization's capability to identify where it is, where it wants to be, and how to get there is therefore of utmost significance (By, 2005).

Some scholars argue that the cultural and market pressures that demand constant change in competitive organizations can lead to undesired outcomes. These outcomes include adoption of changes that are not suited to the goals of the organization, that are implemented too early, exhaustion and employee disbelief from a continuous stream of change projects, and loss of benefits of organizational stability and consistency. It seems that falling victim to the change management fads can lead to poor decision-making and poor use of resources, as it may lead to change being preferred over other solutions due to an unwarranted eager to change (Lewis, 2011).

3.1.2   Change according to the 'calm-waters' analogy

One of the more famous theories on organizational change is Kurt Lewin's three phases of change. Lewin (1951) suggested that change is made up of the following phases; unfreezing, changing and refreezing. In this and other similar theories, the organization can be viewed as a large ship crossing a calm ocean. Change is viewed as an occasional storm, an abbreviation of what is otherwise normal and routine work.

However, this theory suggests e.g. that change is a linear process that is agreed upon by all involved stakeholders and has been widely criticized for oversimplifying organizational change (Lewis, 2011). Later theories claim that the frozen state in-between periods of change within the organization that Lewin (1951) suggested does not exist. In fact, organizations are constantly seen as in flux and never enter a true stable state. The organization's stakeholders all have, to varying degrees, different aims and goals that they want the organization to work towards and achieve. This means that the organization is always in some sort of movement and can never be truly regarded as frozen.

3.1.3   Reasons for change

There is much scientific consensus that change is triggered by internal and external factors (Balogun and Hope Hailey, 2004; Burnes, 2004; By, 2005 and Kotter 1996). Change is usually reactive, meaning that it is done as a result of some situation or development. This is due to the environment in which many organizations operate. It is unpredictable, highly competitive, and all the time changing (By. 2005). It can, once again, truly be likened to the white-water rapid, where organizations are finding themselves in a constant need to improve and innovate not to fall behind (Lewis, 2011).

Sometimes though, changes are not forced upon an organization by external factors, but rather something that the organization undertakes on their own initiative. This could be change initiated by employees or managers, such as ideas for new products or practices. It could also be serendipitous change, where the organization figures something that works out by chance and adopts it throughout the organization. Change

could also be initiated by an organization's stakeholders as they voice their opinions on what the organization should and should not do (Lewis, 2011). While it could be argued that organizations come up with e.g. ideas for new products because their business environment dictates that they need to be innovative to not face the innovator's dilemma (Christensen, 1997), we argue here that what is alluded is that (i) the change is not reactive and (ii) not initiated as a result of outside factors.

3.1.4 Risk of undertaking change

Undertaking change is a necessary yet risky endeavor. Although no statistics exist (Choi, 2011), it is estimated in papers by Beer & Nohria (2000a, 2000b) and Burke & Biggart (1997) that about two-thirds of all change projects fail. Other researchers, such as Burnes and Balogun and Hope Hailey (2004, 2004), claim the figures on failure are even higher than the claimed two-thirds. According to Meaney and Pung (2008), only one-third of organizational change efforts were considered successful by their leaders.

The high failure rate of change projects has led researchers to theorize that, in addition to the macro level perspective usually adopted when studying organizational change, a micro level perspective needs to be adopted as well (Devos et al, 2007 and Oreg et al., 2011). The macro level perspective involves organizational and system-level factors, whereas the micro level perspective involves psychological attributes or inclinations that affect the implementation of change. This will be further discussed in section 3.4.

In a highly competitive business world, different strategies are used to dominate existing markets and create new ones in order to increase profit and stay in competition. For this reason, organizations are under extreme pressure to constantly change. Change for change's sake has been glorified as fashionable for managers to constantly change their organization. 'If it isn't new, it cannot be good. If we don't have the latest, we must be falling behind. If we aren't improving, we must be inadequate.' This seems to have been the motto governing many decisions regarding change (Lewis, 2011).

3.1.5 Three categories of change

According to By (2005), three main categories that were identified by Senior (2002 in By, 2005) can be used to roughly divide different types of change by their characteristics. Following is a short listing of these.

Change characterized by its rate of occurrence

The main types of change is continuous, discontinuous, and incremental change. According to Luecke (2003), discontinuous change is characterized by large unique initiatives, such as changes in strategy or culture, which are followed by long periods of stillness. This approach to change is criticized by researchers, and its results are said to not last (By, 2005). This is due to the long periods of stillness in between change

which promotes behavior such as complacency and routine creation, which again will lead to major change having to be implemented (Luecke, 2003). Continuous change on the other hand is characterized by the organization monitoring and responding to the external and internal environment through small, incremental changes that occur often. This approach is seen as more appropriate as the rate of change better matches the pace of today's business environment (Luecke, 2003).

Incremental change is when the organization deals with one problem and one objective at a time. Change is implemented incrementally, that is through successive and limited steps such as phases (Burnes, 2004 and By, 2005). Luecke (2003) has suggested merging the continuous and incremental change categories, while Burnes (2004) maintains that the categories should remain separated as continuous change is occuring on the departmental level whereas incremental change is organization-wide.

Change characterized by how it is implemented
Many different approaches to change exist, but the two most common are planned and emergent change (By, 2005). The planned approach to change is perhaps best exemplified by Kurt Lewin's unfreeze, change, and refreeze model (Burnes, 2004). Furthermore, since Lewin's idea, several other frameworks and step-by-step models describing planned change have been developed (By, 2005). What most have in common is that they purport to provide a way to move an organization from one state, the current undesirable, to another future state. The planned approach has been around for a long time and is regarded as effective (Burnes, 2004). However, it has been the target of increasing criticism (By, 2005). The planned approach is regarded to not be suitable for situations in which change needs to have a high pace and be transformational (Burnes, 2004). As discussed in 3.1.2, the model(s) assume that organization's operate in a calm environment where change can be anticipated and planned for. This is questioned by many authors, who believe that today's environment in too volatile to be planned for in that manner (Burnes, 2004 and By, 2005). Organizational change is also seen as an open-ended process, for which every step cannot be planned. Instead, it is suggested that those who work with the change on a day-to-day basis should be more involved in the direction a change project should take, as the fear is otherwise that it will become too reliant on senior management (Wilson, 1992).

The emergent approach to change has come up as an alternative approach to implementing change. Unlike the planned approach which is a top-down way to implement change, change is implemented bottom up in the emergent approach. Proponents of the emergent approach believe change should be viewed as a continuous process for which the result is indeterminate (Burnes, 2004). Change is regarded as "unpredictable, often unintentional, can come from anywhere" and thus cannot be anticipated (Liebhart and Garcia-Lorenzo, 2010, p.7). In fact, according to some proponents of the emergent approach to change, it is the unpredictable and fast-paced environment that many organizations find themselves in today, which is one of the emergent approach's biggest advantages. It is further suggested that the emergent

approach is concerned with organizational readiness for change and facilitating change rather than providing step-by-step guides for each change effort (By, 2005).

One of the major criticisms of the emergent approach to change is that no clear definition of what it is exists in the literature. Researchers have not found consensus on how to define the emergent approach to change. Rather, emergent change seems to have become an umbrella term of sorts, one which attempts to describe change strategies that are based on the view that businesses need to constantly adapt to environments which are unpredictable and in flux (Burnes, 1996 and By, 2005). Building on this, Burnes (1996) argues that the emergent approach to change is applicable on all situations of organizational change, and that the validity of the emergent change model depends on whether one believes in the business environment being as previously described.

One model that can be seen as a description of the emergent approach to change is Kotter's eight-stage process for successful organizational transformation (Kotter, 1996 and By, 2005). Kotter's eight-stage process is further explained in section 3.8

Change characterized by its scale

Unlike previous categories of organizational change which are somewhat characterized by the ambiguity in their definitions, researchers are in relative agreement over how to divide change based on its scale (By, 2005). According to a framework developed by Dunphy and Stace (1993), change can be divided into four different categories based on their scale and scope; fine tuning, incremental adjustment, modular transformation, and corporate transformation. Furthermore, Dunphy and Stace (1993) have also divided change based on the overarching change management style used. The four management styles mentioned are, in increasing order of authority exhibited, collaborative, consultative, directive, and coercive. Together, the change categories and management styles constitute the Dunphy/Stace change matrix (Fig. 3.1) (Dunphy and Stace, 1993).

Following is a brief explanation of the four categories:
Fine tuning is organizational change which is characterized by smaller scale changes aimed at aligning "strategy, structure, people, and processes" (Dunphy and Stace, 1993 pg. 917). Examples of fine-tuning organizational change is refining methods and procedures, creating specialist units within the department (Dunphy and Stace, 1993).
Incremental adjustment is organizational change through incremental adjustments to e.g. the organization's strategy or structure. This change is not to be radical. An example would be a decision to enter a new sales market (Dunphy and Stace, 1993).
Modular transformation is organizational change through major realignment of an organization's department or division. The change is radical and could entail for example changes in departmental or divisional structure or assigning a new executive president (Dunphy and Stace, 1993).
Corporate transformation constitutes the most radical change. It is characterized by radical shifts in business strategy involving the entire organization. Examples could be

changed organizational mission or major restructuring/reorganization of the organization (Dunphy and Stace, 1993).

Figure 1: The Dunphy and Stace change matrix (1993, p. 908).

The four change management styles making up the vertical column in figure 1 can be applied to change projects of all scales. This does not necessarily mean however, that all change management styles are suitable for all sizes of change projects.

Generally, it can be said about the management styles that *collaborative* change management style is about allowing employees to participate in the change process and the decision making and goal setting associated with it. With a *consultative* management style, managers consult employees about how to implement the change. Employees are usually not part of the decisions made or goals set in relation to the change initiative. *Directive* management style involves management using its authority to make decisions, set goals for the organization, and produce a roadmap of how to get there. *Coercive* management style means that management forces the change on the organization and its employees (Dunphy and Stace, 1993).

3.2 Organization's readiness for change

Organizations need to be creative and innovative at all times and adapt the change process as the new way of working (Curtis *et al.,* 2018). Forsyth (2012), however,

argues that organizations should not only change because of competition but they should rather see change as the new norm for the future that will improve the way it operates or makes employees more efficient in their work.

Managing a successful change is challenging because change itself is often met with a majority of people who do not believe in it. It is usually accepted only by a few people who support it because of the perceived benefit they see in the change (Graetz et al. 2014). Garvin and Roberto (2005) claim that making a change requires effective strategic persuasion from those who are initiating the change. Unless it is inevitable that a change is the only way to the survival of an organization, it is difficult for employees to alter the way they work or the culture of the organization. The authors assert that managers should come up with a persuasion campaign to convince people to accept the need for change, before the actual change process starts. However, Franklin (2014) argues, that employees could not be forced to change no matter how persuasive managers are. He adds that a successful change requires commitment and collective effort of all teams.

The change campaign should start ahead of time before the change starts to be implemented, in order to create a welcoming atmosphere for the change. It is to alert employees and convince them to understand the choice of the direction of the change. As part of the campaign, change drivers should look for feedback from employees, based on the announcement of the change, before a final change plan is made. The feedback should be reviewed and integrated into the final plan if its needed. The campaign should as well be able to manage the mood and behavior of employees. Changes in organizations usually fail not because of the change itself, but it fails as a result of poor change management practices and the inability to manage human behaviors during the change (Palmer, 2004).

One of the things that can affect otherwise a successful change, is the lack of motivation from employees. The lack of motivation can be as a result of many past unsuccessful change attempts in the organization, which then make employees conclude that the current change will end up like the rest in the past (Graetz, Rimmer et al. 2014). This can result in employees resisting the change. Other issues that affect a change is the lack of commitment from people or the absence of a well-planned strategy from change drivers. Organizational change is "much better accepted if people feel that they have some control and understanding, and that the change has a good purpose: either their lives will be made easier or the business as a whole will benefit." (Palmer, 2004, p.41).

Graetz, Rimmer et al. (2014) propose that managers understand the full complexity surrounding change and the theories of change. Employees should be empowered to take charge of the change process rather than it being dictated to them by top management describing what and how things should be done. Empowerment brings forth innovative thinking (Forsyth, 2012).

3.3 Factors affecting organizational change

The outcome of organizational change projects is affected by many factors. The factors can roughly be divided into certain categories. Some of these categories are organizational factors, how the project is conducted and personnel/ employee factors.

3.3.1 Employee factors

Employee factors are those pertaining to how the change is perceived and supported by the employees of the organization affected by the change. The factors in this category can be seen as attitudinal constructs that attempt to explain the outcome of a change project. The attitudinal constructs are key variables and are important to the organization and to the success of the change because they can be used to predict and assess e.g. how dedicated employees are to support the change project. According to many researchers, a high number of change initiatives fail because the organization and change implementers fail to take into account or underestimate the role that individual employees have, and power that individual employees exert, in the change process (e.g. Armenakis et. al.; 1993; George and Jones, 2001).

While other factors/attitudinal constructs such as resistance to change have been theorized, their constructs are no longer being considered by academia as relevant. Resistance to change came under much attack (Jansen, 2000) by for example Kotter (1995) and Dent and Goldberg (1999). Kotter (1995) found actual resistance to change to be rather rare, and instead suggested that obstacles to change were inherent in an organization's structure or compensation system which did not fit with the new, changing environment. Dent and Goldberg (1999) suggested that individuals do not resist the change itself, but rather the loss of status, pay, or comfort that comes as a result of change. According to Jansen, many of the smaller factors affecting change and their remedy are lost when resistance to change is researched. Resistance to change is viewed as an umbrella construct, which houses the smaller factors that actually affect the change (Jansen, 2000). So, while resistance to change can certainly be found, it is usually due to some other reason than the change itself. For example, readiness for change is one of the antecedents of resistance to change. I.e., an employee might resist a change initiative if he or she does not believe in the organization's ability to successfully implement the change, regardless of whether the employee believes in the merits of the change itself.

In this paper, the focus will be on the four factors outlined by Choi (2011). The factors are: readiness for change, commitment to change, openness to change, and cynicism about organizational change. Readiness for change, commitment to change, and openness to change are positively related to the success of a change, while cynicism about organizational change is negatively related to the success of a change (Choi, 2011). In the following sections, these attitudinal constructs will be explained in detail. Some uses and antecedents of the constructs will also be reviewed.

3.3.2   Readiness for change

The definition of readiness for change is somewhat different depending on which researcher is quoted. Some have defined readiness for change as employees' beliefs that the organization needs to change in a specific way, and the organization's ability or capacity to implement the change in a successful manner (Armenakis et al., 1993 and Jansen, 2000). Others have included within the readiness for change construct, employees' belief in the benefits a change might bring, be it to themselves or to the organization as a whole (Jones et al., 2005 and Kwahk and Lee, 2008). Armenakis and Bedeian (1999), building on Armenakis et al. (1993), contended that employees' perception of the change as being appropriate and value-bringing also affects their readiness for change. There have been several factors, or antecedents, that affect individuals' readiness for change identified by researchers. Individuals' belief in the organization's ability to adapt to a changing environment, policies accommodating change, employees' trust in their colleagues and managers, and participation in the change process all have the possibility to either increase or decrease the readiness for change depending on whether the antecedent is positively or negatively related to readiness for change (Eby et al, 2000 and Jones et al. 2005).

3.3.3   Commitment to change

One definition of commitment is that it is a force that makes an individual stick to actions that lead towards a target or goal. Commitment to change is a mind-set that governs how an individual act to facilitate the successful implementation of an organizational change project/ initiative. Commitment to change has been shown to be important in determining employee support for change without which a change initiative is likely to fail (Herscovitch and Meyer, 2002 and Attaran, 2004).

Commitment to change can be divided into three types of commitment, namely affective commitment to change (ACC), normative commitment to change (NCC), and continuance commitment to change (CCC) (Herscovitch and Meyer, 2002). ACC explains employees support for a change due to them perceiving the change as bringing intrinsic benefits to the organization and themselves. NCC is a perceived obligation by employees to support the change because it is their responsibility to do so. CCC is showing commitment due to "a recognition that there are costs associated with failure to provide support for the change" Herscovitch and Meyer, 2002 p. 475).

All three mind-sets of commitment to change relates positively to compliance to the requirements of a change. However, only ACC and NCC promote behaviors such as cooperation and making personal sacrifices amongst employees. These behaviors are important to support the change, and in turn, to increase its likelihood of success (Herscovitch and Meyer, 2002 and Choi, 2011).

Even though commitment to change is generally regarded as one of the most important factors in predicting and affecting change and its outcomes, Herscovitch and Meyer (2002) found that even individuals who are uncommitted to change report a general

willingness to comply with it. Herscovitch and Meyer (2002) argues that employees might not resist change unless they believe it to have great negative consequences to themselves or the organization as a whole, giving further credence to resistance to change being somewhat of an irrelevant factor at least when discussed on its own or when not broken down into other constituents. Herscovitch and Meyer (2002) did note however, that uncommitted employees reported the lowest support of all sub-groups they studied.

According to Herscovitch and Meyer (2002, p.484), ACC is developed when employees are "involved in, recognize the value relevance of, or derive their identity from, association with an entity or pursuit of a course of action". Furthermore, CCC is developed when an individual is at risk of losing something they are invested in or when they do not see any other course of action but to accept and work for the change. Finally, NCC is developed e.g. through socialization or when an individual receives a benefit or an advantage which needs to be reciprocated.

3.3.4   Openness to change

Openness to change stems from the well documented trait of openness, characterized by behavioral flexibility when dealing with new situations (Choi, 2011). Openness to change is characterized by an individual's willingness to support, accommodate, and accept change (Wanberg and Banas, 2000 and Choi, 2011).

When the organization has an open information environment and employees are able to stay informed about the change, they are more likely to become and remain open to change. Likewise, if they feel included and involved in the change decision-making process, they are also more likely to be open to change (Miller et al., 1994 and Wanberg and Banas, 2000). Furthermore, previous exposure to change and a successful history of change within the organization can also contribute to openness to change (Devos et al., 2007).

3.3.5   Cynicism about organizational change

Cynicism about organizational change stems from the wider term 'organizational cynicism'. Organizational cynicism is characterized by beliefs that the organization is lacking integrity, dislike of the organization, and tendencies that employees act upon these feelings by sabotaging for the organization (Dean et. al., 1998).

Cynicism about organizational change is a narrower term incorporated under the wider organizational cynicism umbrella term (Choi, 2011). If the organization is viewed by its employees as lacking integrity and being insincere, then it is logical that employees will believe that change will not be implemented seriously and by extension, the employees are more likely to believe that the change effort will fail (Dean et al., 1998). Unfortunately, this can lead to a self-fulfilling prophecy where the organization's history of failed change implementation leads to cynicism about organizational change,

which in turn causes the current change effort to fail (Bommer et al., 2005 and Choi, 2011).

Cynicism about organizational change is usually seen as a loss of faith in those responsible for the change due to a history of change implementations that are perceived as unsuccessful (Reichers et al., 1997). It is characterized by a pessimistic outlook on change efforts and a belief that change is useless (Brown and Cregan, 2008). It has also been described as employees questioning the motives behind the change initiative (Stanley et al., 2005).

Worth noting is that cynicism about organizational change and skepticism about change are separate constructs, where skepticism about change is generated when an employee does not believe in the benefits of the change and cynicism about organizational change is more deeply rooted and connected to intentions to resist the change effort (Choi, 2011).

Once again, it has been shown that an environment where employee participation and opinion-voicing is actively encouraged and welcomed and employees are kept in the information loop regarding the change reduce the risk of cynicism about organizational change developing and festering within the organization (Brown and Cregan, 2008).

Furthermore, a history of successful change implementations has been shown to have a reducing effect on cynicism about organizational change (Wanous et al., 2000).

3.3.6 Choi's reconceptualization of the constructs as states

Choi (2011) proposed that the attitudinal constructs explained in 3.3.1 through 3.3.5 are better conceptualized as states rather than traits. "The four constructs represent different aspects of employees' attitudes toward organizational change, and the lack of one attitude does not simply represent the lack of another" (Choi, 2011 p. 489). While the traits are closely linked to the change context, some of them also relate to an employee's personality and experience (Wanberg and Banas, 2000). According to Choi (2011) however, "the relationship between personality variables and attitudes toward organizational change remains obscure" (p. 493). Choi (2011) contests that an employee's general attitude toward change is affected by their personality, but this factor can be rendered mute due to some change specific environmental/contextual factors. For example, an employee can be supportive of organizational change as a whole but depending on how the change at hand is perceived he or she might become critical or supportive of the change or remain indifferent towards it. This leads Choi (2011) to draw the conclusion that an employee's attitudes towards change are mostly affected by the situational variables present at the time change, hence the attitudinal constructs previously discussed can be better conceptualized as states than personal traits.

3.4   Managing behavior change among employees

One of the reasons why change efforts fail has been blamed on employees' attitude in resisting change (Burnes 2015). People usually put up a resistance to change, especially if they are able to achieve success with their current work pattern, unless they are clearly convinced that altering their old way of working will give them an added value (Palmer, 2004). Cameron and Green (2018) advocate that managers focus on using reward and punishment system in order to achieve the intended outcome of the change. Some of the reward system that the authors propose are; given incentives such as bonus payment and awarding of prizes, or by giving feedback that encourages effective behavior and helps to change ineffective employee behavior, in a manner that will motivate an employee to change. Other proposed reward system is by recognizing and complementing the work of an employee when they make any form of achievement during the time of change, or by using naming and shaming method.

To overcome employees' resistive behavior towards change, the behavior pattern of such people needs to be altered. Kinley and Ben-Hur (2015) explain that altering behavior change is helping and providing support for people in order to develop themselves, an action which is often taken by managers. Driving behavior change can be in the form of providing coaching or special training to employees, or altering employees working practices to improve the way they work or encouraging employees to unlearn certain practices (Kinley and Ben-Hur, 2015). The authors admit that altering the behavior of people could be quite challenging.

If people do not want to change, there is a high possibility that they won't change (Kinley and Ben-Hur, 2015). This explains why there are many coaching and training sessions in a modern-day organization. However, according to Kinley and Ben-Hur (2015), only 19 percent of human resource (HR) professionals believe that the ongoing coaching programs in their organizations is effective, despite about 99 percent of HR professionals integrating it to the organization's program. There are many different coaching models available to managers on how to change the behavior of employees. These models are built on the basic two-step method of behavior change, which is first to identify what needs to be changed and second, by providing information and training on how to resolve it (Kinley and Ben-Hur, 2015). Kinley and Ben-Hur (2015) argue that these models only provide information on behavior change processes without paying attention to the technique of how to actually apply the steps as stated in the processes.

Kinley and Ben-Hur (2015) highlight four models that can be used to influence and change employees' behavior. The first model is based on behaviorism, where the authors believe that introducing external factors such as incentives, rewards, and punishment will have a positive impact when a new behavior is introduced to employees. Rewards are likely to motivate individuals to continue providing good and accepted results and punishment has the tendency of making employees refrain from

what got them the punishment. Kinley and Ben-Hur (2015) believe that eventually these habits will be integrated into the behavior of employees.

The second model the authors mention is based on cognitive psychology, which looks into how actions are influenced by thoughts and intentions. The model encourages managers to help employees to realize, for example, the negative impact their actions have on a project and rather motivate them to see the benefit of changing their behavior. This can be done through development programs that instills confidence in employees (Kinley and Ben-Hur, 2015). Systematic psychotherapy is another model that looks at the current situation of employees and identify factors such as employees experience, organizational culture or organizational structure that affects employee's behavior. Unlike behaviorism and cognitive psychology, systematic psychology focuses on the relationship between employees and their environment rather than on individual behavior or processes (Kinley and Ben-Hur, 2015).

The final model that Kinley and Ben-Hur discuss is based on behavior economics. This model focuses on what informs the decision of individuals and how they make judgements, and whether their judgement was based on bias. Kinley and Ben-Hur (2015) argue that "if we know that people tend to make decisions in certain ways, we can use this knowledge to try to influence and improve the choices they make" (Kinley and Ben-Hur, p. 3). This model "takes the use of incentives from behaviorism, the focus on how we think from cognitive psychology, the emphasis on relationships and feedback loops from systemic psychotherapy" (Kinley and Ben-Hur, p.3). All the four models present different perspectives but Kinley and Ben-Hur suggest that understanding all these perspectives will enable managers to effectively select a suitable model at any given moment.

3.5 Implementing Agile within organizational change management

Agile is quite a popular methodology used in software design and development. It is flexible and it helps to provide successful delivery of change in an organization (Franklin, 2014). About 65 percent of software development end up failing to meet its timelines, and Agile methodology has been found to help deliver projects on time and within budget (Tawanda Blessing and Ernest, 2018). Agile methodology relies on feedback to develop a product that satisfies the customer (Al-Zewairi, *et al.*, 2018). Many organizations have used Agile as a way of working and implementing change due to the complexities surrounding the change itself. Agile focuses on the ability to deliver as quickly as possible and continuously improve the quality and features of a product, process or service (Franklin 2014).

Agile is best used when "change cannot be planned in detail in the beginning, but rather needs to emerge as more information or requirement becomes known of the situation that an organization tries to improve" (Franklin, 2014, p.7). Franklin (2014) advocates

that organizations, during change implementation, change one thing at a time. According to him, the time required to make such changes is shorter, since no detailed planning is needed and it is easier to assess the impact of each individual piece of the total change, than implementing a whole idea at once, after months of planning. Franklin (2014) argues, that, when a whole idea is implemented at a go, it makes it difficult to know which piece of the change triggered which effect. It is important that the development and implementation of change is iterative, which means "the creation of new ways of working as a series of versions is created sequentially, where each version builds on the content of the one before it." (Franklin, 2014, p.9). New versions of the change that is developed will be an improvement of the previous one, with new features that gives more added value to enhance the way employees work.

Franklin (2014) believes, that the quality of a change improves when organizations allow the details of the change to evolve and be defined along the way, based on the impact of certain changes. This makes detailed planning only necessary for parts of the change and not the entire change process. Agile calls for collaboration, where the views of all stakeholders concerning the change is needed to generate what needs to be changed and to create a shared understanding between the change driver and other employees. As part of Franklin's (2014) view in collaborating with others, he states that the change activities should appeal to everyone and it should be part of every agenda, to be discussed at all meetings. This could increase the awareness of the change and generate more interest and effort from all employees. Additionally, Agile relies on incremental development of ideas, until the best and suitable idea is developed. According to Hussey (2000), many changes that happen in organizations are more incremental and less fundamental. Incremental change gives enough room for employees to adapt to new changes one at a time, instead of been burdened with a lot of different changes at a go (Franklin, 2014).

Adapting Agile methodology should not only be about the process, but the people involved should be Agile as well. Javdani Gandomani, *et al.* (2015) state, that the people involved in Agile development "should be self-organized, hence, all team members should collaborate in decision-making" (2015, p.295). The authors, however, agree that it is sometimes difficult for a team to be Agile, since either the manager does not want to lose his or her authority or the team members lack the confidence to take full responsibility of the project or process.

Franklin (2014) calls for people who are part of the change to be actively involved during the entire change process. According to him, been active in an incremental change process allows people to test the process and give feedback on what is working and what other changes are required to be done in order to achieve certain goals.

3.6   Change implementing using Kotter's eight step model

An organization may have a well-planned change strategy with the needed systems and structures in place but without a good implementation plan, the change will fail (Graetz, Rimmer et al., 2014). Implementing a change requires commitment and collective effort of all actors involved in the change process (Weiner, 2009). Weiner asserts that the motivation level of employees in implementing a change is dependent on how much they value the change and whether or not they willingly support the change, or they were obliged to be part of the change (Weiner, 2009). The change implementation may be valued by employees for various reasons; either because of its expected results and the benefits of the change in solving some organizational problems, or the extensive support that management is providing towards the implementation of the change or even because it is aligned with their core belief system (Weiner, 2009).

In order for an organization to make changes to its way of doing things, it should go through change and transformation processes, which could take years depending on the type of change. Kotter (2007) argues that managers often try to skip some of these transformation processes and that often result in a failure. Elaborating more on the change processes, Kotter outlines eight transformation steps that should be followed to ensure a successful change.

The first step is to establish a sense of urgency. This often happens when an organization is faced with a highly competitive market, or there is no revenue growth, or their profit margins are dropping. There can be a sense of urgency even for a well performing organization, especially when it sees a timely opportunity to either improve its performance and improve its market share or gain competitive advantage of a market or even discover a new emerging market. These urgent issues are the key indicators that needs to be identified in order to trigger a change process. The identified challenges or opportunities should, as early as possible, be well and clearly communicated to other employees in order to get them on board from the beginning. A lot of motivation is required at this stage to get people to be at almost the same level of urgency as those instigating the change. This will allow other employees to freely commit to the change process. Kotter (2007) explains that although this initial stage may seem simple, many organizations fail, because managers underestimate the difficulty involved in rallying people along, especially when they feel satisfied in their current situation. Managers of organizations that fail at this stage become overwhelmed by the defensive attitude of some employees.

Kotter (2007) asserts that change processes are often triggered when there is a change in organizational leadership and the new 'boss' sees the need for change. Furthermore, he states that when there is no change in organization leadership, the person responsible for initiating the change, whether it is for an entire organization or a department within an organization, must show a strong leadership skill in order to succeed phase one. Kotter (2007) claims that in situations where no one wants to be the one to present the

'bad' news for change, top managers "often rely on outsiders to bring the unwanted information" of change (2007, p. 60). These outsiders are often consultants. To be successful in the first phase, Kotter (2007) suggests that the level of urgency must be high enough to convince about three fourth of the people to freely and willingly commit to the process.

Step two of the process, according to Kotter (2007), is to form a powerful guiding coalition. After mobilizing managers and employees to rally behind the change process, a coalition of managers and leaders should be formed to lead the organization through the change process. Change, is in the beginning, often implemented with few people, or a section of an entire organization, to pilot it before it is later extended to other departments, after a successful implementation in the pilot department (Kotter, 2007). Some level of achievement should be recognizable during this period, to motivate the pilot team and also other employees in other departments, which are not part of the pilot. It is important that the coalition team does not include only top management but also include team leaders and other employees who have a high tendency of thinking outside the boundaries of management, in coming up with ways to keep and sustain the change process. Kotter (2007) stresses the necessity of involving people outside of management. He explains that the change is only happening because "the current system is not working" and top management has failed in doing their work well (Kotter, 2007, p. 62).

Another point that Kotter (2007) stresses is having a reason and a vision for the change. The vision should outline the main purpose of the change and how it can be achieved, and it should be easily and clearly understood by everyone. It should provide the various steps necessary to achieve a successful change. Knowing the purpose and the steps necessary to achieve it will help to increase the performance of individuals and the team as a whole. Kotter (2007) explains that one key reason why some organizations fail at this stage is because the vision is buried and lost in the midst of a lot of information concerning the process and methods to be followed. Palmer (2004) explains that at this phase of the process, employees are already aware of why the change is happening and they should at this time see a clear picture of the vision. He claims that the vision of the change should be able to paint "a picture that appeals to both head and heart" to help employees focus on finding solutions to make the change successful (Palmer, 2004, p.31). Once the vision is clearly stated, it should be well communicated to other employees in the change program through all available communication formats and channels. The communication is usually done by the person driving the change, through different presentations in an effort to make the vision and the transformation process come alive, and to make the process exciting for everyone in order to get them to buy into the vision (Kotter 2007; Forsyth, 2012). It is important that whatever is promised during the presentation is provided in reality.

The full transformation process takes a long time depending on the kind of change, which makes it easy for the team to lose focus and stop believing in the process and

give up, if they do not see any positive short-term results. Kotter (2007) asserts, that there may be pressure in providing short-term wins, however, he states that the pressure could help in generating critical and analytical approach in the change process. Managers in a transformation process often reward short-term wins, either with a recognition or even a promotion (Kotter, 2007). Forsyth (2012) suggests that the recognition could be in a form of incentive for whoever deserves it. Incentive should not only be monetary, but it could also be just a recognition of a good job done, for example by just saying "well done" as often as possible. The short-term wins have the tendency to increase the motivation and commitment level of individuals and teams involved in the change process. The short-term wins could have a positive reflection, in for example the financial or sales record of the organization, and also attract people who were initially against the change process. Although the short-term wins are a good way to motivate people, it should not be seen as the final expected outcome of the transformation process otherwise the whole process will fail without achieving its purpose and everything has to be started again (Forsyth, 2012).

Another step in the model is to avoid declaring an early victory. In Kotter's (2007) view, when managers claim victory too early during a change process, they are likely to lose track of what is to be done thereby hindering the success of the change process. This is likely to happen especially when the performance of the organization has improved, or some short-term wins have been achieved. The short-term win should rather be seen as a motivation to even achieve more, and not an end to the change process. The change has to be fully and deeply integrated into the working culture, in a manner that it becomes the new way of working of the organization, before victory can be claimed. However, this could take many years to achieve. Additionally, it is important to let employees reflect retrospectively on how far they have come and to appreciate how the new way of working has resulted in obtaining high performance. In doing that, Forsyth (2012) advocates, that measures should be put in place to observe and track the progress of the change process.

3.7   Visual management

Visual management (VM) is a form of strategy often used by managers to remove anything that hinders the flow of information and presents otherwise complex information in a simple way, by the use of visual tools, in order to improve communication and the way of working in an organization (Tezel et al. 2016).

In large and medium organizations where an enormous amount of information is circulated and shared daily among different employees and departments, it is important for the information to be well managed before it is communicated to others. The most effective way to enhance communication and analysis of information is for it to be "visible, clear and simple in its presentation, without excluding any necessary detail" (Jaca et al., 2014). This makes the use of various visual management tools, which is widely used in lean management, an important element in organizations, in terms of

communicating progress of work, new models or new way of work to either managers or employees.

The sense of sight, out of the five senses, is believed to occupy 75% of the brains learning process, which indicates the importance of the extensive use of visuals in communication (Mestre et al, 2000). Mestre et al., outline four main advantages of using visual management as a tool. These are assimilation, exposure, evoking and unifying. (Mestre et al, 2000). In the authors' view, visual information such as graphs, charts, logos or text, which could be in the form of slogans, are easy to understand and memorize without the use of too much brain power, however it speaks more than a thousand written words. Furthermore, it has the tendency to increase the commitment level of employees and in creating awareness of the current and targeted future position of the organization.

When it comes to VM tools, one size does not fit all. Different organizations may use different tools for various reasons. When a more general tools are used, it should be customized to suit the specific needs of the organization and there should be room for modification to allow both the tool and the design to be changed when new and better ideas of working are discovered. Tezel et al (2016) argue that employees' involvement, participation and personal control in the use of VM tools, increases the motivation of the employees as they are able to claim ownership in how they work with the tools.

There are two important phases that facilitate an effective use of visual communication in an organization; the visual planning phase and the execution phase. The planning phase is done in the project team level where various activities to be executed are laid out on a board, similar to the Obeya system, and are frequently discussed by the team members during meetings. The Obeya is supposed to be a collaborative environment where the team members can draw on each other's knowledge and experience, empowering the individual members in their decision making (Jusko, 2016).

The number of members in the planning team can affect the process, as many people in a team consumes a lot of time before a decision can be made. The same method of visual planning in the project team level is adapted in a higher managerial level known as the "Pulse board", where "activities and project status are visualized in a matrix" (Lindlöf, 2014, p.30). On the pulse level, tasks and activity status are color-coded to reflect the urgency or position of the tasks. Tasks that are coded green means that it can be done, or it is successful. Yellow, is a signal that a task although challenging, can be done or then it is close to impossible. Red is a sign of how difficult or impossible a task is.

The color-codes are usually assigned to key performance indicators of the planned project. For example, a color-code can be used to represent the cost of a task or its duration. According to Tezel et al. (2016) color coding and the design of what is to be visualized are an important part of VM, and its simplicity and attractiveness have a high

tendency of contributing to employee's efficiency in the way work is done. Different organizations have their own standard colors for internal and external use and for marketing purposes. It is therefore necessary, for the sake of consistency and avoidance of confusion, that the colors that are used in a VM corresponds to the available organizational standard colors.

It is important that visual designs are well planned to include all the requirements necessary for the execution of tasks in the visual planning phase. At the end, the execution should accomplish the aim of the plan. Lindlöf (2014) asserts that during the execution of the plan, tasks should be assigned daily to the team members. The members should be responsible for the task assigned to them to ensure that the collective aim of the plan is achieved. Lindlöf proposes that all assigned tasks should be presented in a visual form to allow the team members to successfully communicate and coordinate well among themselves. The use of visuals, for example drawings and symbols as a means of communication, have been in existence since ancient times, and it has been developed over the years by the use of new technological tools.

Visual management as a form of communication tool in an organization allows managers to briefly know the position of the organization in terms of its performance. It assists employees to see the progress of work and help in making positive trade decisions. Visual information is designed to highlight relevant data needed to make fast and urgent decisions. Liker (2004) likens a good visual design to a traffic light where the meaning of the different lights is immediately known without a need to study them. Andersson and Bellgran (2009) see visual management as a useful way to present new knowledge and information. According to the authors, using visuals in communication allows people to have a clear awareness to reality.

Lurie and Mason (2007) assert that visual interactions improve the quality of decision making in the sense that it makes it easier for people to trace patterns and to differentiate between the importance of a shared information. However, they claim that visual representation has the tendency to reduce performance when it is intentionally designed to focus on a particular information while omitting other equally relevant ones. In this sense, the highlighted information will gain more strength, value, and recognition while the un-highlighted information will gradually be forgotten because of the little attention paid to it.

The use of visuals makes communication effective, in the sense that there is little room for ambiguity. The meaning of visual information is almost always understood by both the sender and receiver. Jaca et al., (2014) claim that using visual management tools helps to improve the performance of an organization since the tools presents all available information needed for employees to easily and quickly assess a situation in order to make quick and strategic decisions. The authors' advocate that visual designs and tool should be part of an organization's management system so that the steps taken to achieve, for example continues improvement, is visible to everyone. This has a high

tendency to increase enthusiasm among employees in the organization's way to achieving success.

In Bititci et al's. (2016) view, visuals images or tools, although mostly unambiguous, can sometimes be misinterpreted, therefore there is a need for managers to invest a lot more effort in the initial design of any visual communication tools. The focus of visual management is to improve performance and according to Bateman et al. (2016) it helps to correctly interpret the performance of an organization, to uncover hidden problems in a system and to help determine measures and methods of improvement. It is obvious that bigger organizations face much more complexity in its operations, in terms of dealing with different suppliers and customers across the globe. As a result of this challenges some managers uses visual displays to map the organization's current position and to highlight the key performance indicators (KPI's), as this is an effective way to communicate information to others (Parry and Turner 2006).

In measuring the performance of an organization, Meyer (1994) proposes four guiding principles. He likens the lack of guidelines to "driving a car without a dashboard" (p. 96). The proposed guidelines suggest that measurement systems should primarily aimed at helping teams, by allowing them to make appropriate decisions based on the measurement system, instead of given sole responsibility to top managers. It also suggests that the team together with senior managers, should be involved in designing any measurement system, so that the result will not only be what the team requires to improve their work but also a system that fits to the strategies of the entire organization.

3.8   Knowledge management

Stewart (1997), defines three forms of intellectual capital, namely human capital, structural capital, and customer capital. Structural capital is according to Stewart and Ruckdeschel (1998) the capturing of human capital in a structured manner which facilitates acting upon the knowledge. The results of this capturing of human capital, i.e. structural capital, can be viewed as an example of intellectual capital. Intellectual capital can be described as organized knowledge that can be used to produce wealth. Intellectual capital management (ICM) is the management of said intellectual capital and can be seen as the management of the know-how and know-why that employees possess. ICM content tends to consist of contextual information, opinions etc. which are actionable. The focus of ICM should be on learning through e.g. disseminating information and knowledge amongst employees (Dalkir, 2013).

4   Empirical

This chapter presents the structure of Mojo and the working practices in the use of the visual management system which has just been implemented. It highlights Mojo's KPIs and the reason for its use.

4.1   The structure of Mojo purchasing

Mojo has many business areas or brands. Some of them are in the transportation, construction and financial services. These brands are supported by various departments within Mojo. These departments are headed by the CEO and the executive board.

Mojo is headed by an executive vice president and is grouped into several regions each with its own senior vice president. There are different purchasing departments belonging to the different regions. The transportation sector has four different commodity departments. Each of the commodity departments has 3–4 purchasing teams. The total purchasing spend is about 51 BSEK per annum.

4.2   Knowledge management and its application to VM projects

The vast amount of human capital in the form of knowledge about all tags in the organization is stored in an online database but is due to its size unsuitable to work with. Raw data is extracting from Qlikview and manipulating it in Excel sheets. This makes it usable for the purposes intended by the organization. It does so by rendering the knowledge within the purchasing organization explicit which allows it to be disseminated within the organization. The visual management project and software, as well as the manipulation of the raw data feeding the graphs and tag lists displayed in the software, is an example of structural capital. By displaying the tags in a suitable and manageable way to the buyers and managers, the human capital of the employees and managers can be stored and further acted upon. For example, by escalating challenging and demanding tags to manager level for support. Therefore, the software and its designed templates help organize and store human capital knowledge in an easy-to-reach and concise manner.

Within the visual management program being used at Mojo, templates were created, and the inherent functionality of the software is used in such a way that it allows to manage the know-how and know-why of individual employees. It does this by having 'activity cards' for each tag. The activity card allows the buyer to list tag owners, tag actions, critical dates, and other knowledge relating to the tag. The activity card is then reviewed either with colleagues or together with their manager during the weekly meeting. This enables the knowledge of the individual buyer to be spread amongst colleagues in his or her team and enables colleagues to provide support or advice based on their specific know-how and know-why. In addition, it facilitates e.g. escalation to

management or top management levels by visualizing and structuring the information in a way that keeps management 'in the loop' regarding the current situation and issues concerning specific tags.

4.3   Mojo system for analyzing cost reduction or increases

At Mojo, a system called Cost Savings Data Base (CSDB) is used to assess or forecast cost increases or decreases relating to different items from different suppliers. Every cost increase or decrease is designated as a tag, which is connected to a responsible buyer, supplier name, item number and its effect on Mojo's costs. When a buyer predicts that a cost change to a purchased product will occur, he or she creates a tag in the cost savings data base. The tags also designate what status it has, i.e. whether a tag is forecasted, negotiation is ongoing or if a tag has been released. When the tag has been released, the affect/change on Mojo's costs are realized by triggering an order change in Mojo's Purchasing System.

The cost relating to one tag is a calculated estimate. For example, Mojo is currently purchasing 50000 screws yearly from a supplier at 0.05 euro per screw, which gives a total value of 2500 euros. Buyers are in charge of lowering their supplier costs so if a buyer e.g. is negotiating with the supplier and estimates that this price will be lowered to 0.048 euro per screw, it will represent a cost reduction of $2500 - 2400 = 100$ euro. Cost reductions can also be due to many other reasons such as volume effect or other business leverage. It can also be agreed upon and described in an LTA-contract (long-term agreement) with the supplier.

In addition, all cost changes have a multiplier in the form of a percentage. The multiplier can assume 5 different values, 0, 25, 50, 75 and 100%. This multiplier is an estimation of the probability that the cost change will occur. Practically, this means that the estimated cost change will be multiplied by the multiplier. Using the above example, the buyer might estimate that there is a 50% chance that the cost reduction will be realized (tag will be released). The tag value is then adjusted from 100 Euro to 100 Euro * 0.5 = 50 euro.

4.4   KPIs at Mojo

At Mojo, the most common KPI to measure the organization's and individual buyer's performance is called MCL, which is an abbreviation of Material Cost Level. This KPI estimates the past and future 12 months value of any tags, that is, cost increases or decreases. The tag contains a lot of information, but regarding the MCL KPI, the estimated cost change and its probability of occurring are most important. As previously described in section 4.3, the estimated cost is multiplied by its probability and the MCL tag value is adjusted accordingly. Therefore, in the example provided in section 4.3, the price reduction of 100 Euro does constitute a negative contribution to the organization's

entire MCL, but it would of course be very miniscule (100/35 BSEK for the entire region).

The MCL KPI provides a good overview of the cost changes that are likely to occur. However, MCL does not consider when a tag is released within the financial year and its cost effect materialized. This presents some challenges to the organization where, perhaps inadvertently, a plurality of tags is due for release in the 4th quarter of the financial year. The MCL contribution to the organization, when graphed chronologically, show strong signs of a 'hockey stick-effect'. In other words, the MCL contribution in Q1 and Q2 is significantly lower than that in the second half of the year, with MCL contribution increasing rapidly in Q4.

Mojo is not satisfied with the current situation. In an attempt to rectify the problem, the organization is increasingly focusing on a tag's contribution to the profit and loss (P&L) of the organization. While not a KPI in and of itself yet, a tag's contribution to the P&L of the organization is an important factor in Mojo's financial contribution.

Unlike the MCL KPI, the P&L contribution of a tag is dependent on when a tag is released within the financial year. The MCL of two hypothetically identical tags would be the same if one was released on the first of February and the second on the first of December. However, the tag's contribution to Mojo's P&L would be very different indeed. The tag released in February would be in effect during 11 months of the financial year, while the one released in December only would be in effect for one month.

Following is a simplified explanation of a tag's P&L contribution. If the total MCL value of a tag is divided by 12 (months), the tag can be given a hypothetical monthly value. This hypothetical value can then be used to assess a tag's P&L contribution by multiplying it with the number of months the tag is in effect during the financial year. If the two hypothetical tags described in the previous paragraph is given a monthly value of X, the P&L contribution of the first tag is 11X, while the second only contributes to the P&L with X. Therefore, generally the earlier a tag is released during the financial year, the greater its contribution to the organization's P&L.

To keen readers, this presents another challenge regarding how the MCL is distributed over the financial year. Not only is the contribution unevenly distributed, but when a plurality of tags is due for release in Q4 it effectively puts a cap on their maximal P&L contribution. For tags due for release in Q3 and Q4, their monthly values can maximally be multiplied by 6 months and 3 months, respectively.

4.5   Reasons for MCL distribution

The potential reasons for the MCL distribution being as it presently is are many. Following is a short summary of the main reasons identified:

1. Inherent limitation in the MCL KPI:
The MCL is not affected by when a tag is released during the financial year. This means that only the nominal value is measured and as a result, effort is invested into maximizing the tags nominal value.

2. Buyers measured mainly on KPI performance:
Similarly, to the first point, if a buyer's performance is measured in MCL contribution it is likely they work to maximize their MCL contribution.

3. Contracts that stipulate cost changes in Q3 and Q4:
Buyers have witnessed, in interviews we have conducted, that many contracts or LTAs with suppliers are constructed so that cost changes occur later in the financial year. This in turn affects the MCL distribution present today.

It would seem that the inherent limitation of the MCL KPI is its biggest weakness. While it is probably true that it is useful to maximize cost savings and minimize cost increases, its strength becomes counterproductive when a focus on P&L is implemented. It would seem that MCL's focus on a tag's nominal value has had the effect that tags are released later in the year. According to the financial director this is due to the fact that it is easier to get a larger nominal cost change later in the year. This could be due to suppliers being willing to agree to a larger cost decrease later in the year, as this impacts their P&L less than if the cost decrease came into effect earlier in the year.

4.6   Visual management at Mojo

Drawing on Lean management principles, Mojo launched a new project to implement visual management techniques to better track and govern the organization's tags.

Within Lean Management and the Toyota Production System (TPS), an Obeya is a large room, which is dedicated to coordination and problem solving. This is done through visual management which is facilitated by walls covered with charts, lists and tables which are used to analyze the organization's performance. The data displayed on the walls can be used by team members to discuss, review and act upon.

The project launched at Mojo involves 13 purchasing teams, four commodity meetings and one senior management meeting. The purchasing division is geographically located in both Sweden and France. Given the geographical dispersion in addition to 18 Obeya rooms that have to be prepared, Mojo had to find a different solution to a physical Obeya.

The solution was to use a software called iObeya, a third-party virtual visual management platform. The iObeya simulates the environment of a regular iObeya with different rooms and walls to which graphs and other visual representations of data can be added. This solution allows for meetings to be conducted by geographically dispersed teams, as the virtual iObeya room can be shared by either all the team members on their respective computers or through screen sharing in e.g. Skype.

Each of the 13 teams, the four commodities and senior management was provided with one room each. Need to describe the process through which the project was rolled out (the stages etc.).

The visual management started as a pilot project with one of the teams. The design used for the pilot team was adjusted a few times, sometimes based on the feedback from the team, to make the process and the tool more effective and efficient.

The meeting is held weekly on Tuesday where the team review the KPI's for the team and design an action plan on how to for example, make sure that a tag is released on time or what needs to be done in order to increase the level of probability of the tag from, let us say, 75 to 100 percent. There is additionally a preparatory meeting on Monday between the manager and the iObeya support team. The purpose of the preparatory meeting is to allow the manager to review the charts and data on the iObeya boards beforehand, and to develop a communication plan for the Tuesday meeting, which is done together with the buyers of the team. The rest of the 13 teams were group into step 1 and step 2. After months of continuous support to the pilot team, iObeya was rolled out to cover all teams within step 1 and later all teams in step 2. Before the roll out of step 1, we conducted interviews with some of the buyers in the pilot project to know their thoughts of the project and whether they think something could be added or deleted from the design and the process of the project, to allow for changes to be made before the step 1 roll out.

In all, five separate rooms are created to host all the four commodity departments. Each room is divided to contain all the teams within the commodity and also separate boards created only for weekly commodity meetings. The commodity meetings are between the team managers of the same department and their VP. These meetings are held to discuss among other things, tags that have a high value of for example above 500,000 SEK and how to for example move it from Q4 to say Q2. The fifth room is used for pulse meetings where all vice presidents from the four commodity departments meet with the president of the entire Mojo purchasing department to review their KPI's.

The rooms are the same for every team and consists of various boards that highlights e.g. tags that have been released for each quarter of the year, the weekly performance of each of the departments and an action board, where the buyers together with their managers create to identify the actions that need to be taken to make a certain implementation on a tag.

The iObeya room is updated weekly with data that is extracted from Mojo's system called 'QlikView'. This extract is based on the commercial performance of the entire transportation department. The necessary information needed for the buyers and managers to visualize their work and their contribution to the entire transportation department is put into charts and diagrams, which is later updated on iObeya on a weekly basis. Some of the boards highlights the total target value of the entire vehicle team per month, and the total contribution of each team in a commodity. The tags to be released in each quarter is placed on separate boards in the room.

The duration of the weekly meeting is 30 minutes, which makes it almost impossible to review all tags and KPI's. For this reason, a schedule showing a monthly agenda with a weekly focus is created. The schedule narrows the focus area and highlights one or two issues that the teams should focus on during the meetings. The weekly meetings are led by the managers, with support from the iObeya core team.

Concerning improving the P&L of the departments, all the tags to be released in Q3 and Q4 are created individually using a tool in iObeya called 'card'. The card has a functionality that allows it to be synchronized and shared with other users. With this function any change that is made to a card by a user in one room automatically changes the synchronized copy of the card in any other room. This function is especially used on tags with higher values of 1 MSEK, and a copy is synced and shared with the team manager and the VP of the commodity.

Continuous changes are being made to the iObeya rooms in search of a more simple, efficient and a better way of working. All views from the teams concerning the design and the information they would like to see are considered and later integrated to the design if needed. Most of the designs are color-coded to either differentiate between different teams or the probability level of a tag.

5 Findings

In this chapter, analysis and discussions are made based on the collected data in relation to the literature reviewed in this paper. Before the analysis is made, a brief background of the participants is outlined. The themes that are developed from the interviews are also presented. The themes are further analyze and discussions are drawn from it.

The findings are based on interviews conducted with selected participants for this thesis, which comprises of managers and buyers of different commodity teams. Participants for the face-to-face interview are based in Gothenburg. The questionnaire, however, was sent to respondents in both Lyon and Gothenburg.

For the report, we interviewed buyers and managers of different experience levels. We believe a mix of experience levels would provide us with the most representative view of the organization as a whole. Additionally, it would allow us to uncover how the views on the change differed between employees with different amounts of experience and whether the different views could be attributed to their respective experience levels.

5.1 Added value of the change to employees

In assessing the collected data in relation to the added value that this change brings to the organization and its employees affected by the change, the interviewees expressed various views which forms the themes under this section. The major themes of this section are presented below:

Theme 1: It is double work without any benefits
Theme 2: It has value for less experienced teams, not so much for experienced teams

Theme 1: It is double work without any benefits

Some interviewees expressed concerns on the amount of work it takes to update information on the visual management environment used in Volvo. They have mentioned during the interviews, that they already have regular morning meetings within the team where they discuss all their tasks and the necessary actions needed to execute their work. Buyers who, for example, want help in escalating their tags discuss that with the manager. So, for them, putting the same actions that have been discussed, in a visual environment is a repetition of work, which does not bring any added value to the team. One manager has mentioned that her team's everyday way of working during segment meetings are even more efficient than iObeya, even though they do not visualize it, in the sense that they know their work by heart from the CSDB system and they already make long term plans on what needs to be done. Whereas in the iObeya visual environment they have to sometimes struggle to understand the use of the tools.

The challenges in understanding how the tool works could be as a result of inadequate training in handling the tools. The frustration in doing repetitive work is highlighted in the words of one of the participants.

> *"We need to do the double job most of the time and it annoys me. Right now, we have all the tags in CSDB but we need to re-register it in iObeya and when we update iObeya then we need to come back to the CSDB to update it".*

One interviewee mentioned that the pace at Volvo is quite high, which makes buyers mostly busy, and to them, pushing buyers to do something which has less, or no benefit is not good. The participant wonders why the teams, or the department needs another platform to report the same things that are shown on CSDB. Some state that it does not add any value to their work. While the segment leader believes that the tool adds no value for more experienced buyers, she does contend that it can be useful for less experienced buyers as it helps them structure their work.

Theme 2: It has more value for less experienced teams

The senior buyer believes that she is not the target group for the change as she does not have many tags but believes that less experienced buyers or buyers with many tags and suppliers might be helped by using iObeya. In the view of another interviewee, iObeya will help new buyers to be more structured. According to one of the interviewees, who is also an experienced buyer, he is already used to downloading his tags in the beginning of each year to review and clean the tags from any scrap. He has created his personal file to manage and monitor his tags and what actions need to be taken. He does not see any change from the way he is working now and how iObeya is being used today. Even though he has a fair knowledge on why and how iObeya is used, he is yet to take part in the weekly iObeya team meetings because according to him, he already knows what time his tags will be released, which he sees as the basic requirement of every buyer. However, he agrees with other interviewees that the visual tools will assist new buyers in planning and guiding them on what actions and activities to take.

5.2 Interviews

During the interviews, we asked the participants about their view on the iObeya visual management software and about the change in general. Additionally, we asked for their views on how the change should be handled going forward and what they would like to see happening with the project. As before stated, the interviews were semi-structured and as a result the same questions were not asked to all of the interviewees.

5.2.1 Views on iObeya

As previously stated, iObeya is the software platform which Mojo chose for the visual management project. However, when the interviewees were asked about their views on

the iObeya software, it was evident that they also regarded the templates, Excel generated tag lists, and general structure in the iObeya rooms to be part of the iObeya experience. The latter were however created by Mojo and the authors of this thesis and were not per se inherent functions of iObeya. As such, the term 'iObeya' will henceforth relate to the software itself as well as the environment created within it.

All interviewees agreed that it was an improvement to have the information usually stored in Excel documents be presented visually. They agreed that the visual presentation provided a good overview of the work, both for the buyers and management. As the project buyer put it:

> *"I think it's a really good tool. You get a good overview of what everyone else is doing".*

This is a sentiment shared by the other interviewees. In the words of the senior buyer:

> *"the tool helps me get an overview of my work".*

She also added that iObeya provides a tactile dimension, as the user can move the action cards connected to the tags around within the environment:

> *"It's a good way of presenting it so that you can touch it and move it around".*

The senior buyer also believed that using the iObeya software was more interactive than the Excel sheets they had previously used to do this sort of work. She also said that the tool allows for "better and more agile communication between buyers and management".

Most of the interviewees stated that they believed the change to be more suited for, or aimed at, the management team. The project buyer said about the change that his initial impression was:
> *"Now management really wants to have control over us".*

This sentiment is further corroborated by e.g. the one buyer who calls iObeya a good tool for management to get the complete picture. The senior buyer also shares this sentiment, believing that iObeya helps managers know what to do with different tags. She also shares the views expressed by the project buyer, calling iObeya an MCL task force. She strongly feels that management is chasing the buyers for their MCL contribution, and that iObeya in essence is just another way for them to go about it. In fact, all interviewees agree on the opinion that iObeya is first and foremost a tool to aid management in getting an overview of the work and ensuring that tags are released on time.

In addition to what is stated above, a sentiment that is shared amongst the buyers is that they view iObeya primarily as another reporting tool, where they on a weekly basis report to their managers how their work is progressing. The segment leader states that:

> *"It is (iObeya) a different way of reporting, without adding any additional value on how we make savings".*

The senior buyer believes that iObeya is a better tool than what was previously used but contends that it is still mostly a reporting tool. The interviewees also state that buyers' current work is not affected by the introduction of the iObeya tool. More worryingly, they also state that iObeya brings no added value to their work.

When asked specifically about how collaborative and supportive they find the iObeya environment and weekly meetings, both the segment leader and the senior buyer expressed that they would like the meetings to be more like that rather than having a focus on reporting. The segment leader expressed that her team is very autonomous, and that she would rather have iObeya being a more interactive visual management experience and not so focused on reporting. The senior buyer wants the spirit of the iObeya meetings to be more collaborative than it is and suggests that there needs to be a mutual respect and trust between buyers and management. She expressed that the buyers feel as if they are not trusted by management when they provide reasons for e.g. why a tag cannot be implemented earlier in the year. Her reasoning is that every buyer wants to make savings, but if the reasons given by the buyers of why it cannot be implemented are overlooked or mistrusted by management then the collaborative and supportive environment does not exist which in turn means that the iObeya meetings become a reporting exercise. She exemplifies by saying that she thinks to herself, "What do you (manager/management) want me to say? Then I'll say that." to get rid of the argument. She feels that the argument is flawed from the beginning. When she is being pressured regarding a specific saving and management is not satisfied with her response, she believes that the dissonance is due to management not understanding the specifics of her situation. As a result, she believes there needs to be more humility on the part of management, and an acknowledgement that the buyers are the experts regarding their specific situations and suppliers.

5.2.2 How was the change implemented?

This section examines the views of participants on how the change was implemented, which includes the communication surrounding the introduction of the change. Below are the themes developed from the data received.

Theme 1: VM was introduced all of a sudden, we were not part of it

The communication surrounding the change was carried by the change leader before the pilot of the VM tool. After the pilot, various forms of communication were designed by the change leader and the authors of this paper, to roll out the project to the rest of the teams. The communication was done through powerpoint presentations and also sent through emails. Some of the interviewees have expressed that the communication about the change was very sudden, and that the change leader made a 30 minutes presentation about visual management and why they need to be on board for the new change, and also about cleaning up their work to improve accuracy in forecasting. According to the interviewees, none of them were involved in the design of the visual platforms or had a say in what type of KPI's to visualize. Even though one of them says that the design was handed down to them in a top-to-bottom manner, he feels it is good in its current state at the time of the interview. In his words he sees the current design as:

> "...quite clear and simple, that is what's most important. I think it shouldn't be bigger and I think it is enough".

Others believe that they will have more ideas on ways of improvement when they use the platform for a longer time. One manager expressed that it took a week from the time of communication to the time of implementing the change in her team.

> "In one week, they said we will use iObeya without any training or any kickoff meeting or whatever, so it was all of a sudden to be honest".

According to the manager, the pilot team may have had enough time and training, which is the reason why they seem to know their way around the tool and how to use it in an effective manner. She further mentions that it is difficult to digest it and that people had no idea or understanding of how the visual environment works.

The segment leader states that she first received information about the project through hearsay when a similar project was implemented in the powertrain department. She also recalls that the management started communicating their intentions of working differently with the MCL KPI in 2018, and that the information was disseminated to her team two months before they embarked on the change.

The senior buyer states an email was sent out a few months ago (at the time of interview) that contained information about iObeya and the roll-out plan. No further information was given until the first meeting was held where the change leader had an introduction about iObeya and the larger context of which the visual management change is a part of.

Two of the interviewees were part of the pilot launch of the visual management project. Regarding how the project was unveiled and launched for them, one of the buyers said that it was announced during a team meeting that her team had been chosen by

management to be the pilot team for the project. The project buyer stated that the project owner held a presentation to the team about visual management and what the purpose of the project was. He went on to explain how he had interpreted the purpose of changing to a visual way of working, that it highlighted left-over tags which made it easier to clean the portfolio and that the team's results were not where they should be.

Finally, regarding how the change was implemented, the senior buyer raised her concerns about how similar projects had previously been implemented at Mojo. According to her, Mojo has a history of implementing smaller and medium scale change projects that never gets fully adopted and eventually stops being used. She speculates as to why this is, and the reasons range from Mojo being an organization filled with people who like and want to implement new ideas and technology to the change projects being implemented to make someone in management look good for a while. She stressed however, that she did not consider the iObeya change project to be one of these, on the contrary, she believed the organization was very adamant to make the project successful.

5.3   Questionnaire

A questionnaire was sent out to the entire purchasing department of Mojo to gather a wider and quantitative perspectives on the change. The respondents of the questionnaire were 41 out of 130 employees. The questions covered their readiness and commitment to change, their view on the visual management, suggestion for improvement ideas, among others.
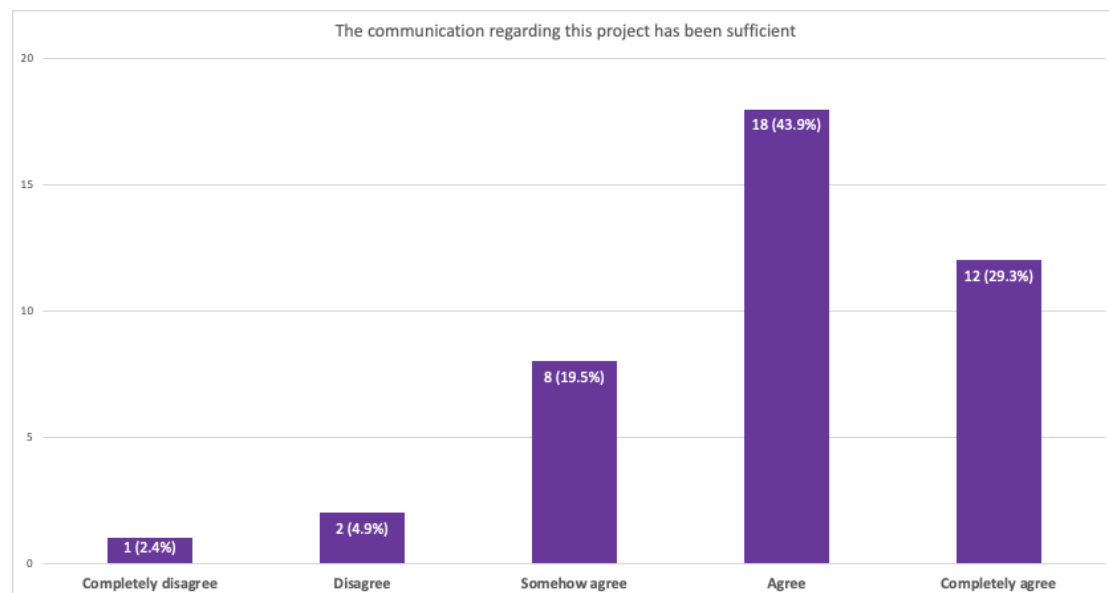

Figure 2: Communication regarding the project

As shown in figure 2, most of the respondents representing 43.9 % 'agree' that communication surrounding the change was sufficient enough before the implementation of the change. Additionally, 29.3% 'strongly agree' that the

communication of the change was sufficient whiles just 2.4% 'completely disagree' and 4.9% 'disagree' that the communication was sufficient.
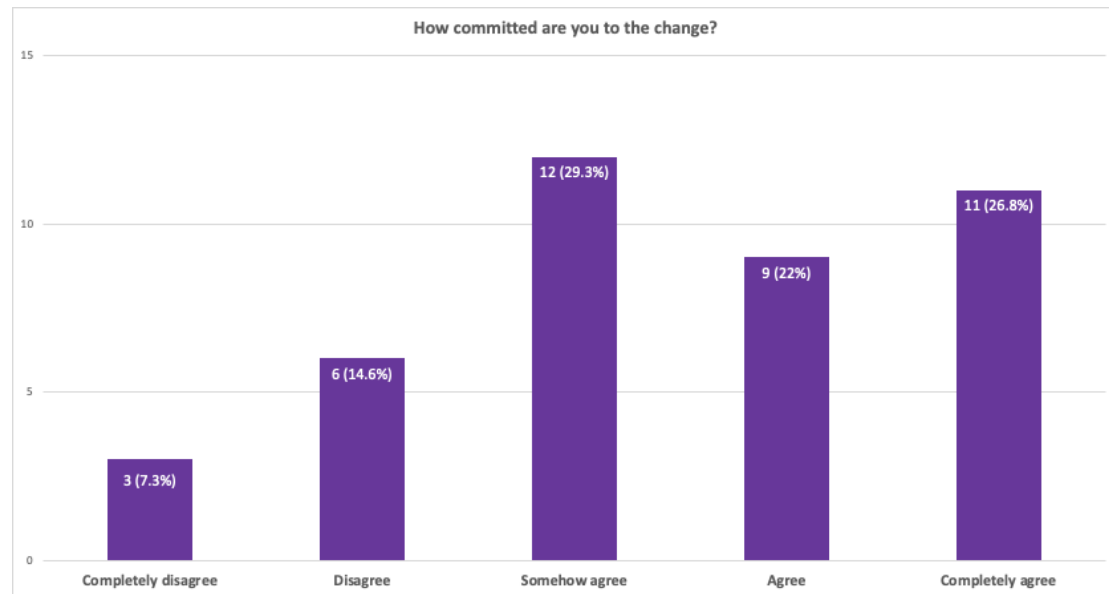

Figure 3: Commitment to the change

As shown in figure 3 regarding how committed employees are to the change at Mojo, the response of most of them is shifted towards the right ("very much committed"). Majority of them representing 29.3% is 'somehow committed' to the change while 26.8% is 'very much committed' and 22% is 'committed'. Those who are 'very less committed' to the change represent 7.3%, with 14.6% showing 'less commitment' to the change.
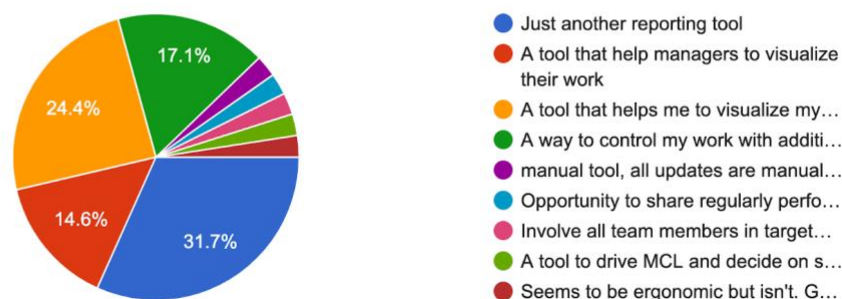

Figure 4: Views on Mojo's visual management system

Figure 4 shows employees' response on the views on "iObeya" visual management system used in Mojo. Majority of respondents representing 31.7% view iObeya as "just

another reporting tool", while 24.4% view iObeya as a tool that helps them to visualize their work and improve their performance. Furthermore, 17.1% view it as a way to control their work with additional workload, with the tool showing little results, while 14.6% see it as a "tool that helps managers to visualize their work. The remaining five groups of respondents representing 2.4% each sees iObeya as a manual communication tool with all updates done manually, or an opportunity to share personal performance to the team on a regular basis, or a tool that involves all team members in targeting their achievement, or a tool that drive MCL and decide on short-term actions in order to improve bottom line results and finally a tool that gives good visibility and follow up on Mojo's performance but not as effective as it seems.
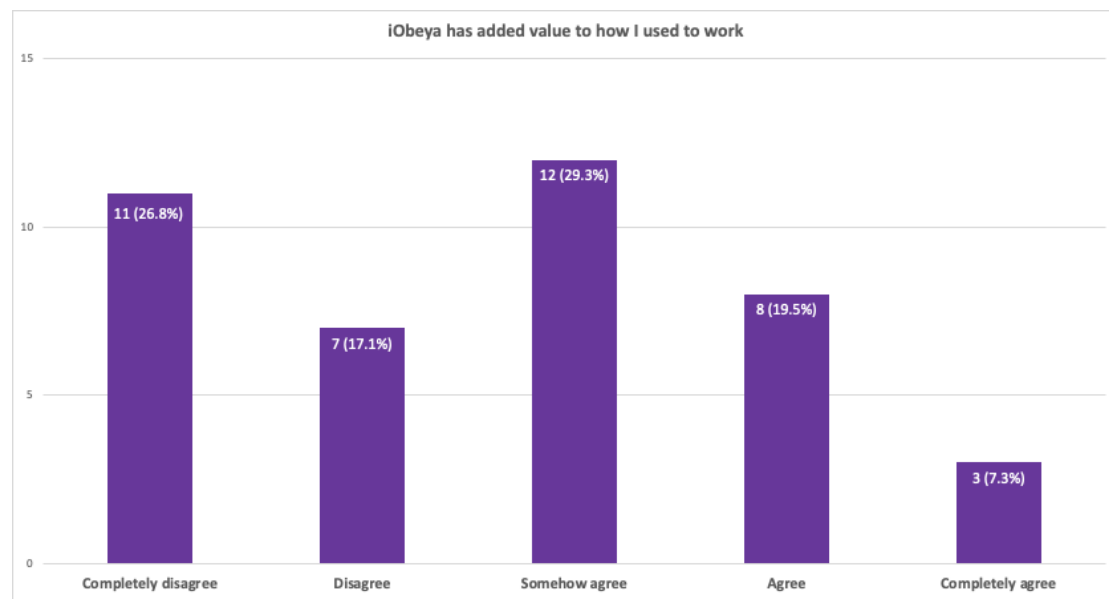

iObeya has added value to how I used to work

Figure 5: Added value of the change

As shown in figure 5 above, most of the respondents representing 29.3% 'somewhat agree' that iObeya has added value to the way they used to work whereas 26.8% 'completely disagree' that there is any added value to their work because of the use of iObeya. Those who 'disagree' that iObeya has added value represent 17.1% while those who 'agree' that it has added value to their work represent 19.5%. Just 7.3% 'completely agree' that iObeya has given them additional value to how they used to work.

5.4   Informal observation

Throughout the implementation of this project, the authors of this thesis have been involved in designing the change, communicating about the change and rolling the change out. This has involved us a lot in the day-to-day work of the purchasing teams, through which we have gathered some insight into how the change has been perceived by the employees of Mojo purchasing. In this section some of these observations will be listed, and they will be further analyzed in the analysis section.

Firstly, regarding the pilot launch of the visual management project we believe it should be mentioned that the project owner adopted a very hands-on approach. He held weekly preparatory meetings with the team manager to run through the figures and avoid misunderstandings and was present at most of the weekly team meetings.

Secondly, it should be mentioned that the visual management project was launched in three phases. The pilot phase, the first phase which involved one team from each of the commodities and the second phase during which the project was rolled-out to the remainder of the organization's purchasing teams. The reasons behind dividing the roll-out in such a way are many fold. By first rolling the change out to a pilot team, it allowed the organization to learn what procedures worked best and what procedures did not have the desired effect. It also allowed for lessons learned and best practice to be developed based on the inputs gathered from the pilot team. Another advantage of rolling it out in this manner was that it allowed for each team to have an introduction to the software and the purpose of the change. A third factor that influenced the decision to launch in phases was the hope that launching teams in each commodity would act as change champions.

Lastly, the observation is regarding the general state of the MCL KPI. As previously stated, two of the major purposes of changing the way of working with savings and increases at Mojo purchasing, was to even out the P&L contribution throughout the financial year, and to increase the accuracy of the savings and increases forecasts. The project would contribute to this by visualizing savings and increases and whether these could be preponed or postponed. This would even out the P&L contribution by preponing tags from the savings-heavy third and fourth quarters to the first and second quarters, alleviating the 'hockey stick-effect'. As a result, the accuracy of the financial forecasts would be improved.

However, there are other circumstances affecting the financial forecast accuracy. We have during our time at Mojo witnessed some discrepancy regarding how the MCL KPI is interpreted and treated by the buyers. Some buyers view the probability multiplier that is assigned to all tags merely as an indicator on the estimated probability of a tag, failing to consider that the value of the tag is adjusted according to the probability. In short, this means that if a buyer puts a tag at 50% probability, he or she also puts the value of the tag at its true 100% value. So, when the buyer re-adjusts the probability of the tag to 100% because he or she is sure it will be released, the value of the tag registered in the Qlikview system is effectively doubled, which in turn means that the buyer will have to manually adjust the value of the tag to its true value. As a result, the forecast becomes unreliable.

Another observation made is regarding how buyers book their tags in the system. One buyer witnessed during a meeting that he intentionally booked tags for release later in the year than its true estimated release date. The reasons for doing this was, according

to the buyer, that he would get praised for preponing a tag while at the same time avoiding getting scolded for postponing a tag. This introduces unreliability in the financial system and affects the reliability of forecasts negatively.

6 Analysis

In this chapter, the findings of the research from interviews, questionnaires and personal observations, are analyzed with respect to the literature used in this research.

6.1 The use of Agile and its effect on the change

The different kinds of change implementation approaches discussed by By (2005) and Burnes (2004) were used during Mojo's change implementation, which is good. Mojo had an initial plan of what they wanted to change, the main purpose of the change and how the design of the visual management environment should look like. That the change leader in Mojo may not have fully taken into account the kind of information the teams may really want. As a result, when the change was implemented, the design had to be changed many times to suit the work of the stakeholders in pursuit towards the aim of the change. It was good that the change leader allowed more room for flexibility for many ideas to continuously emerge during the change. The flexibility called for an adoption of Agile methodology as the change progressed. As highlighted by Franklin (2014), agile allows ideas to be developed without initial detail information, which helped Mojo in highlighting different KPI's and designing of different visual templates for the project. This helped to push the project forward.

Some of the strategies, even though good, were developed along the way when discussions were made with different stakeholders of the change. This made the adoption of both planned and emergent change implementation approach by Mojo really useful.

One good aspect of Mojo's agile methodology in this project was that there were always ongoing discussions with managers during management meetings with the change leader, on what information will help the teams to achieve the purpose of the change. Sometimes the discussions will require that an entirely new design is made, or few features are added to an existing design to highlight certain important information. Even though the ideas from the managers were good, the input of the buyers themselves were almost always missing. As mentioned by one of the interviewees, the visual platform allows the manager to have a complete overview of the team, but this cannot be achieved without the collective input from each buyer. Because the buyers did not contribute to ideas of the visual designs, they often question why certain things are done, or whether it is really necessary to do it. One of such instances is the creation of tag lifecycle, which will track all tags from the date it is created till the date it will be implemented. With this idea, buyers will have to manually create 'card' in iObeya for every tag they are responsible for. Even though this idea was good, the amount of time needed to input information for every tag made some of the buyers question its purpose. It is necessary to also mention that some of the buyers easily bought into the idea of tracking all the tags.

Using agile means that everyone is on board and contribute in decision making as Javdani Gandomani, *et al.,* (2015) point out. However, some of the buyers and even managers, although are of the view that there is no added value to their way of work, are also sometimes unable to make suggestions as to what they want. This makes it difficult to design any ideas that will suit them, knowing that agile relies on feedback as clearly stated by Al-Zewairi, et al. (2018).

The change was made one at a time as suggested by Franklin (2014), however contrary to the views of Franklin (2014), there was not enough time for the teams to adapt to a new change before an update is made or a new design come to replace the current design. The changes seemed a bit more often and that may have contributed to the low motivation levels and loss of interest among some of the teams, knowing that the current working design might soon change. Even for the designs that had incremental updates, the fast rate of the updates did not allow for a full adaptation of earlier versions.

6.2   Implementation of the change

In light of communicating the purpose of the change as Kotter (2007) has mentioned, it can be said that several communications were done through town hall meetings and emails to the teams. The results from the questionnaire has shown that the communication of the change was sufficient. The interviews, however, revealed that the teams outside the pilot program received information about the change in a week before they joined it. This is clearly not enough to secure commitment and it was evident from the way those teams used iObeya that they were not totally on board. Apart from that, the communication was meant to secure commitment from the teams involved in the change, as described by Weiner (2009), however the teams were not involved in the change process itself. This could be the reason why an interviewee mentioned that it seems "management definitely wanted to adapt the change no matter what".

Kotter's implementation steps were followed to some extent, where the change was first piloted before it was rolled out to other teams. However, the buyers were not involved in thinking around the best practices of keeping and sustaining the change as suggested by Kotter. This could explain why the motivation level of the pilot team dropped after they achieved a short-term success of cleaning their tags and they could not get more from the change process. Of course, the team was committed from the initial stage because they understood the urgency of the situation and was convinced that the proposed way of working will make them effective in improving their profit and loss and also help to achieve its target. Some of the other teams had heard testimonies from the pilot team about the usefulness of iObeya and were excited to join. The pilot team may have enjoyed more attention and given a lot of training before the roll out, which the other teams did not enjoy. Managers were supposed to take charge of the visual platforms and lead the teams in the weekly meetings. However, the

kick-off meeting or training was just 30 minutes for the teams. It had a lot of information on why Mojo is adapting visual management and what the teams need to do. They were just left to figure things out, as we provided them with assistance. This explains why some of the teams did not fully take ownership of the program.

Some of the teams witness short-term results and celebrated it, as suggested by Kotter, with 'fika'. However, it cannot conclusively be argued that those achievements were as a result of the change. Although ideas shared during the weekly meetings may have contributed to it, other factors may have had a causal effect on the achievements. It was good that the managers of the teams received daily on how they were performing, with highlights on what they have achieved and what is left to be done, just as Forsyth suggests in his book.

6.3 Analysis of the change through the lens of psychological constructs

This section presents the analysis of various factors that affects the change

6.3.1 Analysis of readiness for change

As was discussed in section 3.4.2, readiness for change has to do with employee's belief that the organization needs to change and the benefits the change will bring. Another important factor is the belief that the organization has the capacity or ability to implement the change (Armenakis et al., 1991 and Jansen, 2000).

Questions that need to be asked with regards to the iObeya change project are e.g. how do the buyers perceive the software and the visual management way of working? Do they believe that the change is appropriate (e.g. does it address the problems the organization is having? Does it rectify the problems?) and value-bringing (e.g. does it increase forecast accuracy? Is it improving the departments P&L contribution? Is it improving buyers' performance? Does it just take their valuable time without bringing any advantages/results?)

In the interviews we uncovered that the employees believed that the organization needed to change in some aspects, but not in others. Generally, it can be said that the employees believed that the organization needed to change its approach to the MCL KPI in order to improve the P&L performance. However, most buyers seemed to believe that their way of working did not change or was unaffected by the implementation of a visual management tool. Most interviewees did however contend that the visual management tool gives a good overview of the work and increases management's ability to control the work. The segment leader contends however that there have been very positive comments from the powertrain department which she

believes speaks to the potential of iObeya, "...we just need to find the right setup that makes it work for our team.".

This points to readiness for change being different depending on which part of change is discussed. The employees seem to have diametrically different views depending on what the purpose of the change is. They seem content with the overview of the work that the tool provides. Although some interviewees call it "just another reporting tool," they admit that this allows for better control, and by extension support, of the work by management.

For example, the buyers all agree that the organization needs an increased focus on P&L, but they do not agree that the way to bring about this change is through the visual management tool as currently implemented.

This points to a high readiness for change regarding the belief that the organization needs to change. The same is true for the overview the tool provides.

However, the fact that the buyers consider their work to be unaffected by the change other than the weekly iObeya meetings and preparations adding to their workload, points to a low readiness for change. This is as the employees interviewed do not believe in the benefits the change purports to provide. One of the main arguments for starting to use a visual management tool is that it will allow for a collaborative and communicative environment where the buyers would support each other in their daily work. None of the buyers interviewed believes this to be the case. They do not witness that the change has brought about any increased collaboration amongst themselves. Rather, collaboration takes place naturally on a day-to-day basis when they are conducting their regular work.

Furthermore, they believe that the change brings little value to the organization. They do not seem to believe that the P&L contribution and financial forecasts are improved as a result of this project, as their way of working continues to be the same after the change was implemented. Rather, any improvements seem to be the result of a new emphasis on P&L by top management which is being instilled in the entire purchasing organization.

6.3.2   Analysis of commitment to change

Commitment to change can be divided into affective commitment to change (ACC), normative commitment to change (NCC), and continuance commitment to change (CCC) (Herscovitch and Meyer, 2002). We will now attempt to compare the responses our interviewees provided and compare that to how the theory describes the different commitments to change.

ACC develops when employees perceive the change bringing benefits to the organization and themselves. When analyzing the interviews, it can be argued that most of the buyers see both benefits and lack thereof in the change. They agree that it

provides a good overview of the work and that management is provided with better control of the situation. However, at the same time they all witnessed that the change has brought little or no benefit to themselves. On the contrary, some of the interviewees witnessed that their workload had increased as a result of the change, effectively being detrimental to their situation. As a result, the outlook for ACC developing, at least amongst the interviewees, remains bleak. Certainly, the authors have witnessed other employees and managers exhibit ACC towards the change. Some have really taken the change to heart, developing upon the templates and guidelines they were provided with to better suit their specific situation and needs.

NCC is a perceived obligation by employees to support the change because it is their responsibility to do so. This is probably where most interviewees are found. They support the project and attend the weekly meetings, not because they believe the change brings benefits to themselves, but rather because they see it as their responsibility to Mojo to comply with the change.

CCC is showing commitment to a change due to "a recognition that there are costs associated with failure to provide support for the change" Herscovitch and Meyer, 2002 p. 475). It can be argued that many employees support the change because they are aware that the organization is performing poorly with regards to its targets and P&L contribution. They may be of the opinion that the change does not rectify this problem, but at the same time they recognize that something must be done. Therefore, they are inclined to give the change and the project their support. As one manager put it, "if Mojo wants us to continue with the project no matter what, we will of course comply. But if the buyers don't see any benefit in using the tool, they will consider it an additional reporting tool and will not embrace the change."

As mentioned earlier, there are certainly managers and employees who see more benefits to the change. In one team, where the manager and the majority of buyers seem mostly positive to the change, a more collaborative environment seems to foster. In this team, one buyer always exhibits some form of personal sacrifice and takes on the not very amusing responsibility of updating the iObeya environment during meetings. The authors have also witnessed that there are more discussions going on in this team. According to the literature, this would indicate that either ACC or NCC has developed for at least parts of that team, as the behavior exhibited is found only when ACC or NCC exists.

On the contrary, other groups seem plagued with CCC at best. The buyers show up, rather reluctantly and report what they need to report. No further discussions are had and the general mood in the meetings are rather gloomy. Even though the segment leader is not part of a team which exhibits these tendencies, she does witness that when it is time to do the weekly iObeya meeting, the buyers are not motivated to do so. In her own words, "I know that when it's time to go there, everybody is like 'ahh s*** do we really need to go to the iObeya thing? Aaaa... let's go there'. So obviously there's a

motivation problem." If these sorts of sentiments are expressed in a rather well-functioning team, what is being said in the teams which function poorly in regard to collaboration? The interviewed manager said that her team was dissatisfied with the change, and that they found it just another reporting exercise, all the while struggling with seeing the purpose or benefits of using iObeya.

Looking at the results of the questionnaire, it would seem that most employees are committed to the visual management change. One has to keep in mind though that it is a self-report questionnaire, and the term "committed to the change" can be interpreted differently. This means that it does not necessarily match the description of commitment to change that is used in academia. It does however point towards a general commitment to the visual management change from the employees, but it does not tell which 'type' of commitment that the employees feel.

6.3.3 Analysis of openness to change

As openness can be characterized broadly as a trait which contributes to behavioral flexibility, we analyzed the interviews and our informal observations for behavior which would indicate this. The narrower definition of openness to change, namely an individual's willingness to support, accommodate, and accept change, was also used when analyzing the interviews and informal observations made at Mojo Purchasing. Furthermore, some of the factors that contribute to increased openness to change an organization can consider when launching change efforts will be analyzed.

One of the factors contributing to openness to change is that employees can stay informed about the change. In the interviews, the participants witnessed that the change was implemented rapidly. According to the senior buyer, information about the visual management project was first communicated a few months before launch. The next bit of information received was when the project owner held the first introductory meeting. This sentiment is shared by the manager, who stated that the project implementation felt "sudden". The manager also stated that the buyers did not understand why they use iObeya or what benefits it is supposed to bring. The segment leader corroborates these statements, adding that general information regarding upcoming changes was given in different stages. Information specific to the visual management implementation was disseminated throughout the commodity group by the Vice President about two months before they started working with it.

The above points to a general feeling amongst the interviewees that, regarding the visual management project implementation, Mojo Purchasing had a less than ideal information environment. Perhaps the project was not deemed of enough importance to grant space in an internal information letter, or perhaps it was the case that it was not decided how the visual management system would be designed until it had been implemented and used in the pilot project group. Nevertheless, it could be said that a more open and frequent communicative environment with regards to the visual

management project would have been appreciated by the employees. In addition, it could perhaps have cemented a more thorough understanding amongst the employees regarding how to use iObeya, and what the purpose behind launching it was. The authors believe it is worthy to note however, that most interviewees seemed content with how the project related communication was handled once the project was launched. The previous comments related to the pre-launch and launch stages of the project.

A second factor contributing to openness to change is employee involvement in the decision-making process. It is the opinion of those interviewed that they had no say in how the project was implemented or how the iObeya templates were designed. This is supported by the observations of the authors, who together with the project owner made all project related decisions. We believe it should be noted however, that a couple of purchasing teams took the liberty to change and add upon the templates somewhat to better suit their needs. It should also be noted that in the later stages of the project, a more 'hands-off' approach was decided by the management team and project owner, allowing for and encouraging the purchasing teams to design their own approach to visual management.

Given time, more openness for the change should be created when the purchasing teams are allowed to make their own mark on the project. If the purchasing teams had been more involved in the earlier stages of the project implementation, the outset for creating openness to the change would have been greater.

Previous exposure to change and a history of successful change implementations within the organization can also contribute to openness to change. Since the senior buyer witnessed about a history within Mojo Manufacturing of insincere change implementations, perhaps putting more emphasis on actually implementing and cementing change within Mojo Manufacturing in the future will contribute to creating more openness to change. It should be noted though, that this factor could not be affected by the authors or project owner and as a result, any loss of openness to change due to this history is not the responsibility of the project implementers.

6.3.4   Analysis of cynicism about organizational change

In this section we will analyze the impact of the 'cynicism about organizational change' construct which we uncovered through interviews and informal observations at Mojo Purchasing. Generally, it can be said that we did find some instances of behavior or attitudes which could be construed as cynicism about organizational change linked to the visual management change effort. However, most of what was uncovered about cynicism about organizational change can be regarded as minor. No attempts to sabotage the project was uncovered, but there were definitely instances where the employee exhibited some of the attitudes which could lead to cynicism about organizational change.

The interviewed manager witnessed about a lack of belief in the project and the change among his/her employees. It was clear that she believed some of the changes that the visual management project brought were not implemented seriously and were ill-thought-out. The manager also witnessed that he/she believed the only way the project could be implemented successfully and used in its intended way, was if the Senior Vice President of the department ordered everyone to start using it seriously. This points to some loss of faith in those responsible for implementing the change. Furthermore, the manager witnessed that he/she believed the change was mostly useless and involved double work without bringing any benefits to the purchasing teams.

As cynicism about organizational change can be described as a self-fulfilling prophecy where employees' views and opinions about the change effort impacts their actions regarding it, the manager's statements are somewhat worrisome. It is clear from the manager's statements and the authors informal observations that the purchasing group were skeptical about the change from day one. This skepticism evolved over time and impacted the group negatively, leading to more cynicism about the change. In the literature, it has been shown that an open-communication environment and employee participation in a change reduces the risk of cynicism about organizational change developing. The manager also stated that if he/she and his/her team had been given more information regarding the change, the outcome in his/her group might have been different. The group had some ideas regarding how the software templates and meeting structure could be changed to better suit their needs and reduce the amount of double work. With a change environment encouraging employee participation, these opinions could have been voiced at an earlier stage which would likely have reduced the amount of cynicism about organizational change created in the purchasing team.

Other purchasing teams also exhibit some of the cynicism found in the aforementioned purchasing team, but through the interviews and our informal observations, these are deemed less severe. For example, the senior buyer questioned the motives of the visual management change, calling it "another MCL task force". It was clear from the interview that the senior buyer did not believe the primary reason for implementing the visual management system was to help the employees in their daily work by increasing cooperation and idea-sharing, but rather the main purpose was to increase MCL contribution by controlling the buyers' work with tags. In hindsight, the introductions should probably have put more emphasis on what environment the project wanted to mediate to the buyers, e.g. collaborative and supportive. The senior buyer also witnessed about Mojo Manufacturing's history of failed and insincere change implementations. However, as the senior buyer stated that this did not affect his/her views on the visual management project it did not lead to any cynicism in that particular case. As discussed previously though, it is not unlikely that these opinions about Mojo Manufacturing are harbored amongst other employees. As not much can be done about Mojo Manufacturing's history of change implementation on the part of the project owner or authors of this report, this antecedent will not be further discussed.

Worth noting is that most interviewees were satisfied with some of the changes the visual management system brought about, and less satisfied with others. None however were as critical as the interviewed manager, and their critique was mostly directed at some parts of the project implementation or the visual management system, and not towards the project/change as a whole. Most of the criticism could be rectified by having an increased focus on collecting and absorbing employees' wishes for the visual management system going forward. This could be obtained by having an environment where opinion-voicing is actively encouraged, e.g. through creating a visual management focus group/ task force consisting of one or two buyers from each purchasing team. The buyers would be tasked with gathering improvement ideas and other opinions from their colleagues and would present these to the management team and the project responsible. As was conceptualized by Choi (2011), the constructs can be viewed as states rather than fix constructs, and such an initiative as creating a focus group/ task force could help with reducing the amount of cynicism about organizational change as well as increasing the presence of the other constructs in regards to the visual management project.

7 Recommendations

This chapter suggests improvement ideas that Mojo could use when implementing a similar project or even in the current project, going forward, as it continues developing new ideas and ways of working with visual management.

The change studied at Mojo Purchasing was, according to Stace's (1993) framework, a 'Fine Tuning' change. The findings of this study have shown that buyers and managers were not part of planning the implementation process, which may have affected their readiness, commitment and openness to the change. It may have also contributed to how they see Mojo's visual management in its entirety and their lack of ownership to the system, leading to cynicism about organizational change.

In the future, we recommend that Mojo involve all employees affected by the change as early as possible, perhaps even before the implementation of the change. The employees should be made to understand the perception of the change and they should be motivated to be part of developing an implementation plan and process for the change. This could increase their commitment, readiness and openness for the change since the implementation plan is a result of collaborative ideas. Furthermore, during the change implementation, we recommend that Mojo Purchasing involve buyers to form a coalition team, as suggested by Kotter (2017). The team should be given the responsibility of driving the change process, so for example in this project, buyers from the pilot team at Mojo should have been responsible for coming up with and submitting improvement ideas to drive the change. This would inevitably lead to the project being implemented in a more bottom-up manner rather than how it was implemented now in a true top-down manner, and it will allow the teams to take full ownership of the change process. We believe that this sort of implementation would have paved way for a more collaborative and supportive environment, or at the very least an environment which is less focused on reporting and more focused on solving the actual issues Mojo Purchasing attempted to solve. This would have the benefit of not only reducing the risk of cynicism about organizational change occuring but would increase the likelihood of developing the other constructs discussed which are positively related to project success. In the future, Mojo Manufacturing should put a lot of emphasis on implementing change efforts fully, and not letting them fail or stop being used. This is as an organization's change history affect future change implementation and make it harder to gain employee support for a change.

More emphasis should also be put on communicating the change and its benefits, while at the same time encouraging employees and managers to weigh in on the change and come with viewpoints, concerns, and improvement ideas. This will not only make the project more suited for the purchasing teams' specific situations but will also have the added benefit of increasing readiness for change, commitment to change and openness to change while reducing cynicism about organizational change.

The agile model Mojo is currently using is good because of its flexibility to develop new incremental ideas during the implementation. We encourage them to continue using it and recommend that they do not only involve managers in collaborating ideas, but buyers as well, in decided what needs to be changed and what needs to be removed. In Mojo's current practice of designing visual templates, some of the old designs are often scraped and new designs are made. We recommend that a lot of effort and thought is put into the design of the template so that the changes that are made to it will be additional features and not an entirely new designed. This, we believe, will instill confidence in the teams in designing a lasting solution without fear of being scraped. Additionally, we recommend that the current rate at which changes are made to existing designs are reduced. This will give more room to the teams to adapt to an existing design before new features or versions are made.

We would also recommend Mojo Purchasing department to do a thorough analysis of how their MCL KPI is interpreted and treated by buyers. They would probably uncover a lot more occurrences of what we have seen, with wildly differing views on it and treatment of it.

8   Conclusion

The study shows an analysis of different change management processes in the implementation of a visual management system in a purchasing organization. It also focused on organizational change as a whole by analyzing the calm waters and white-water rapids analogies, where the former is used to visualize organizational development and it is viewed as a large ship crossing a calm ocean. The latter is viewed as a constantly ongoing change where the change process needs to be managed continuously. The study has again shown that with many internal and external factors influencing organizations to change, it is more suitable for change leaders to adapt both planned and emergent change strategies to allow for new ideas to develop along the change process.

Additionally, it is highlighted that in as much as macro level perspectives are important during change implementation, ignoring the micro level factors, such as employee's readiness to change, commitment to change, openness to change and cynicism about organizational change, may affect the success of the change. The paper has delved a bit deeper into employees' commitment to change by looking at affective, normative and continuance commitment to change to establish that employees may show signs of commitment to change for various reasons. The commitment level of the employees at Mojo have been found to vary somewhat between different purchasing teams, but most employees are to at least some degree committed to the visual management change.

It has also been shown that a more open-communication change environment where the employees affected by a change are an integral part in it could have led to a more favorable change outcome in this case.

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