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CHANGE READINESS IN INITIATION OF INFORMATION SYSTEM IMPLEMENTATION

Master thesis of technology

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FOREWORD

A case study was performed at ABB Energy Industries, Vaasa. I would like to thank everyone at ABB who participated in the interviews, as well as those who gave me the opportunity to follow this very interesting stage in the development of the organization.

I would also like to thank my supervisor Timo Vekara for the guidance given throughout the writing process.

To friends and family, thank you for the emotional support provided when it meant the most.

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ABSTRACT

Companies in the 21st century business environment have become readily accustomed to organizational change, but often fail to create the readiness needed to achieve desired outcomes. Suggestively, the issues might stem from change managers not acknowledging key factors for the context in which the change takes place; and thus, do not take appropriate actions. In this thesis, perceptions of individuals during the initiation of change is studied in order to determine change readiness. The aim is to gain knowledge from the perceptions individuals have early on in change when there is little information available.

Literature indicates that change readiness needs to be developed by change management interventions both on an organizational, as well as an individual level prior to change. Through analysis of the content, context, individuals, and change management actions, as well as assessment of participant perceptions, one can better understand which factors affect the change in either a favourable or detrimental manner. Qualitative research was used for this study with semi-structured interviews and participant observations.

A case study was performed at a global power and automation products company, where an information system implementation was intended to improve the company's operational performance. The aim was to perform a readiness assessment in the initiation of a global change project's local implementation, and based on the assessment, point out advantageous and detrimental aspects acting upon the change to aid change management decision making and eventually achieve successful change. Within the diverse participant group, individuality is palpable. Participants perceived the change differently particularly on the individual level. The major reasons were how the information system pertained to 1) job descriptions and 2) business characteristics. In initiation of change people do not seem to draw steadfast conclusions due to lack of information and knowledge; thus, change readiness is in a particularly variable state in initiation of change. Left out from the study was a competent assessment of the weight of each factor in the particular context. Therefore, the author suggests that further research needs to be performed on the quantification of factor-importance for change managers to further improve decision-making during change.

KEYWORDS: Change readiness, organizational change, information system, change management

1 INTRODUCTION

As a result of the 21st century business environment companies have over the last couple of decades have been forced to become readily accustomed to organizational change. There is a continuous push towards higher performance, higher profits and larger market share for companies. Change is often triggered by factors, such as mergers, leadership change, competition, legislations, stock market fluctuation, technological innovations and political pressure (Helms-Mills, Dye & Mills 2009: 4; Huse 1980: 55; Nadler & Tushman 1989: 194), and is often executed in a planned and managed way. Change capabilities are nowadays seen as essential to the survival of companies (Holt & Vardman 2010: 445; Holbeche 2006: 47). Henk Volberda (1992) states that flexibility, or company's ability to react to change (Appelbaum, St-Pierre & Glaves 1998: 291), should be a main determinant for measuring a company's efficiency. An organization's flexibility is largely influenced by their *readiness for change*, which in other words can be described as: "the extent to which an individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo" (Holt, Armenakis, Field & Harris 2007: 235). Change managers are tasked to intervene and achieve the desired outcome, often in an organization that is not ready for it.

Despite the extensive focus in the field (Weiner 2009), companies have difficulties in implementing change successfully (Burnes, By & Michel 2013: 761; Burnes 2017: 5; Beer & Nohria 2000; By 2007: 1). The issue has largely been attributed to a failure to develop sufficient change readiness, which has resulted in resistance and ultimately undesirable outcomes (Smith 2005: 408). In some of these cases, the failure to implement change has led to the demise of entire companies. While in many others, as demonstrated in surveys by Meaney & Pung (2008) and IBM Global Business Services (2009), the results are just *far less than optimal*.

The concept of change readiness largely stems from Kurt Lewin's (1948) theory on people's ability to change. He suggested that people need to be *unfrozen* prior to change, which means that people in initiation of change need to transition into a state where they become capable to change. The transition is not the responsibility of the person, rather

the transition needs to be facilitated by the surrounding with the change manager leading the way. While it is agreed upon that there is no one right way to achieve change readiness (Hiatt & Creasey 2003: 15; Helms-Mills et al. 2009; Michel et al. 2013), it can be argued that by understanding factors that act upon the change situation, change managers can improve their decision-making and better achieve successful change.

1.1 Purpose and objective of the study

The purpose of the study is to gain a deeper understanding of change management and the development of change readiness in the initiation of organizational change and information system implementation. The goal is to gain knowledge of factors that determine change readiness, and what actions the change manager must take to heighten it. The knowledge is used to solve the specific issue of the case organization that is going through change. Empirical evidence is gained from direct experience and observations, and analysis of change content, context, individuals attributes, change process, as well as the perceptions of change subjects in the case study. The aim is to bring forward evidence of underlying factors that might have advantageous or detrimental implications on change readiness of the change subjects in the case organization, in order to aid the decision-making of the change manager. Besides to explore readiness factors, the study brings forward the dynamics of organizational change readiness and its development.

The main research questions of the study are:

- What are factors that affect organizational and individual change readiness?

- What perceptions do individuals have in the initiation of organizational change?

- What change management interventions heightens change readiness in individuals and organizations?

The objective of the case study is:

- To identify advantageous and detrimental factors that affect the change readiness of the target group, for the local change manager to implement the change successfully.

1.2 Case study: Improvement of change readiness ahead of information system implementation

The case study is performed in a local unit of a global private sector company. Local business line Energy Industries in Vaasa, a part of the global ABB group, is a power and automation products company in the early stages of the implementation of a new information system (IS). From the case company's point of view, the objective of the study is to facilitate the development of change readiness within the organization to ensure the success of the upcoming IS implementation. The IS was to be rolled out to the entire local organization once a pilot had been carried out and deemed successful. The project progression schedule and the compilation a multifaceted participant group included participants with different tasks, roles, and business characteristics, and ultimately different interests, displayed an intriguing complexity within a relatively small system.

The initiation of the change project lasted between December 2017 and October 2018, from where-after active participation was required. The case study concludes an analysis of the environment as well as other contextual factors, the content of the change and how it implicates the organization, and the process and actions made to participants. Lastly, an assessment of the change readiness of the participants. Section 1.3 presents the research process and framework of this thesis.

1.3 Framework of the study

The research framework of this study concerns organizational change readiness with an inclination towards the private sector. An organization can be defined as a group of people who work together in the pursuit of a common goal, while a company is an owned entity comprised of an undefined number of people which engages in business. Most of the change management and change readiness literature concerns *organizational* change, without taking the degree of business engagement in to consideration. The reason is that change management literature is largely predicated around behavioural science and change processes, which largely is non-discriminatory in its nature.

The main literature is found using key words:

- organizational change
- change readiness
- organizational change readiness
- change management.

Further supporting literature can found in the field of organizational development.

The framework of the study mainly focuses on literature that concerns change management during planned change and the development of change readiness in stable business environments. The narrative idealistically presents a change manager that possess the skills required to perform interventions competently; but the project environment on the other hand is non-idealistic, and implicates the actions by the change manager and the change readiness of the organization. Important sub-areas for the study are: Communication, resistance, leadership, management, individuals during change, motivation, and business environment, as they are suggested to be crucial determinants of an organization's level of change readiness.

The study further revolves the implementation of an information system, which is a specific content of change with its own set of characteristics. However, the framework for this study focuses on general attributes of change, without going in to further depth in to specific information system attributes. The goal is only to gain a general understanding of implications of content on change management and change readiness.

1.4 The structure of the study

As Figure 1 presents, the research process goes through a number of steps. The process supports the resolution of the identified issues.

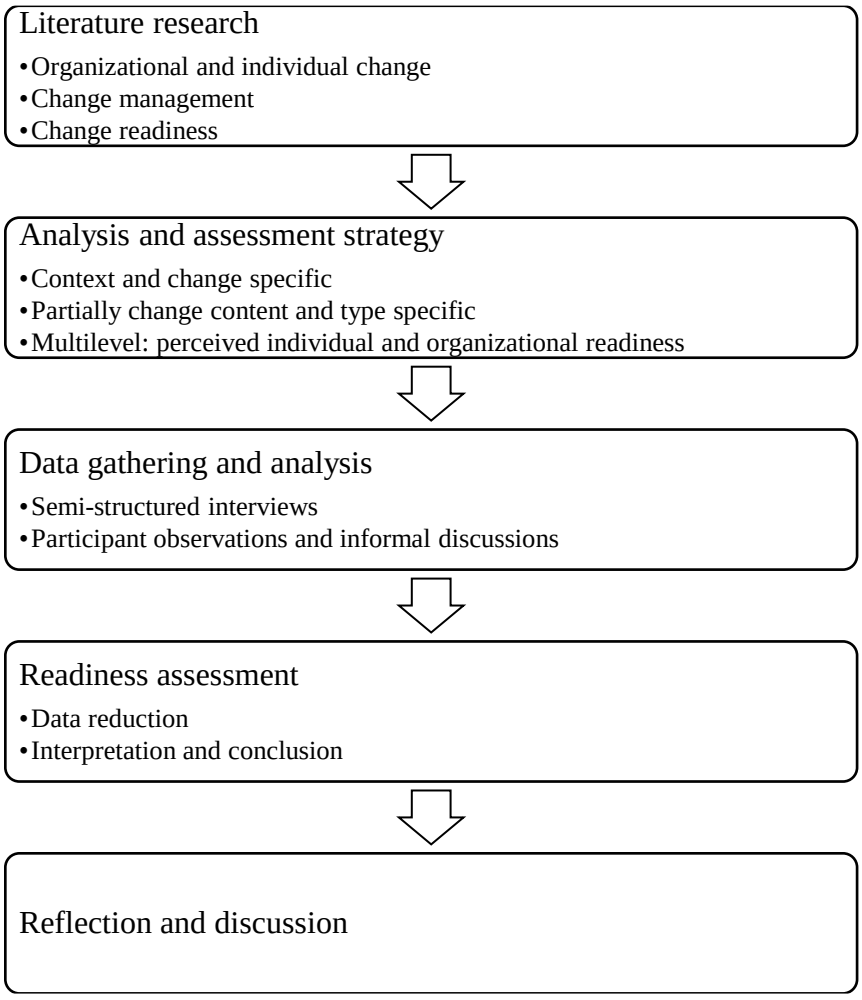

Figure 1. Visual representation of the research process is this thesis.

The study started with literature research (Chapters 2 and 3), where a greater insight of the issue subject is developed, and it lays the ground work for the design of the analysis and assessment strategy. There was not consensus found in literature on how to assess change readiness, so due to the context of the change, content and change type, a specific strategy is devised. Chapter 4 presents the research methodology of the study. In Chapter 5 data gathering and analysis are performed, by the use of semi-structured interviews, participant observations and informal discussions as methods of data acquisition. When the data is gathered and analysis of the situation completed, a readiness assessment is performed with the goal to reach the study objectives. The thesis ends with reflection and discussion of the study and subject.

2 ORGANIZATIONAL CHANGE

Organizational change can come about in various different ways. Change in itself can be divided and subdivided in to a number of types and categories, based on how the change was initiated, the extent of the change, management style, and content of change. In organizational development and change literature organizational change is often described as either *incremental (evolutionary)* or *quantum (revolutionary),* or *unplanned, emergent*, or *planned* (Helms-Mills 2009: 4). Every type of change has its own set of characteristics that decides and affects the process and how individuals, groups, and organizations react to the change. In order to successfully achieve the desired outcome and business objectives from organizational change, a change manager or group is often appointed to manage and lead change. Referring to change management, the person or group is tasked with the management of the people side of change (Hiatt & Creasey 2012: 1). Subsequently, to manage the different variables that surrounds organizational change which affects the people involved in it in order to create change readiness.

Incremental (evolutionary) change and **quantum (revolutionary) change** in the organizational change context has a double meaning. One way it is described is by involvement or size. Incremental changes are comparably small change efforts. They can be isolated changes that affect singular departments or teams (Helms-Mills et al. 2009), while quantum change would be radical and affect entire organizations (Miller & Friesen 1980: 268–299; De Wit and Meyer 2005: 81; Helms-Mills et al. 2009). The second view of incremental and quantum change stems from the discussion of evolutionary vs. revolutionary change, which is an argument about how change happens in organizations. The evolutionary school of thought steps from Quinn's (1980) theory that organizational change happens by continuous incremental changes, while Miller and Friesen (1980) proclaimed that change happens as occasional dramatic revolutions (Nasim & Sushil 2011: 188).

Unplanned change is very much a daily occurrence in our lives. It is the product of *unconscious* decision that lead to change (Woerkum, Aarts & Herzele 2011: 147; Mills et al. 2009: 32). In organizational contexts, unplanned change that would generate headlines

is most likely undesirable. An example would be if the CEO (Chief Executive Officer) of a company suddenly left. The situation would 'force the hand' of the organization and create a reactive response. A less radical example of either positive or negative unplanned change would be the unconscious behavioural change caused by one's environment.

Emergent change and planned change are at the moment the two dominant types of change and approaches in change management (Bamford & Forrester 2003). Emergent change is a rather modern view that in change management has become the prominent approach. One of the fundamentals of emergent change is that an organization can adapt to the requirements of the change in accordance to the situation (Burnes 2004: 289.), which argued by researchers is one of the primary faults of the planned change approach presented below. They argue that Kurt Lewin's *unfreezing, change, refreezing* model is no longer practically viable because of the rapid pace of the business environment (Burnes 2004: 985–986). Emergent change is continuous and unplanned and, is further defined by Weick (2000: 237) as "accommodations, adaptations and alterations". The approach leads to rudimentary change through a "bottoms up" methodology (Bamford & Forrester 2003), which means that unlike planned change that often stems from top-down initiation and implementation, emergent change stems from the level of the organization that needs to change. Further characteristics of emergent change is that it is open ended, which means that unlike planned change, change effort doesn't have a planned expiration date (By 2005: 374–375). The emergent approach subscribes to the idea that senior management is not able to keep up with the rapid pace of the changing environment (Kanter, Stein & Jick 1992), and that change is too nonlinear and unpredictable to effectively plan for (Blomme 2017: 16).

Planned change is the prominent type of change mentioned in combination with organizational development. With its roots in Kurt Lewin's (1948) *unfreeze – change – refreeze* model, the approach of planned change is one of systematic exploration, planning, implementation and institutionalization (see Figure 2).

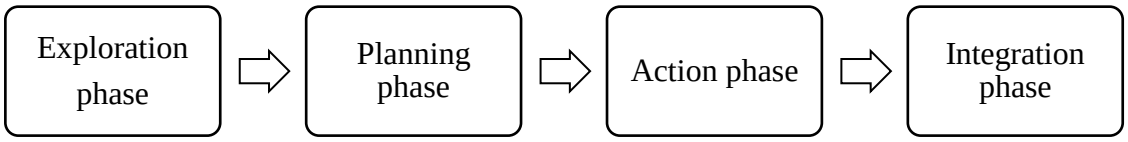

Figure 2. Four-phase model for planned change (Bullock & Batten 1985).

The four-phased model presented in Figure 2 is in a life-cycle mode, which means it develops through predetermined steps with a start and a finish. In practice though, the efforts often overlap and repeat on top of other simultaneous processes in the same change effort. This fact was acknowledged by Kurt Lewin and is the basis behind action research, where planning – action – evaluation and re-planning is done more on task level than the level of complete organizational change efforts. (Hayes 2014: 26–28, 201; Burnes 2017: 376).

The process presented in Figure 2 is one of many such models. Hayes (2014) presents a synthesis of critical steps that starts with recognition, and goes through diagnosis, planning, implementation and review, and lastly to sustain the change (Hayes 2014: 26). The change manager's role in planned change varies. But the role can be described as a facilitator that promotes individual insight and learning. This should be done through social interactions and by creating understanding through dialogue. These interactions in planned organizational change are often planned out beforehand, and are described as interventions designed to accomplish change in the perceptions of a target group and achieve a desirable behavioural outcome. (Burnes 2004: 279; Hayes 2014: 30–33).

The period prior to change being implemented, determines the reaction the people will have to the change itself (Hayes 2014: 27). Section 2.1 goes more in to detail in what goes on during that stage of the change process.

2.1 Initiation of planned organizational change

Initiation of planned organizational change generally refers to the period where there is the realization that something is wrong or can be improved. It is the work and interactions done prior to detailed planning and ultimately implementation, where a planned strategy is implemented (Hayes 2014: 26–27). From a technical point of view, implementation refers to the implementation of the content of change, after which something physically changes. This can be technological, structural, or something else. The period prior to the implementation would be the initiation period, where the people who will be required to change recognize the need, and need to become ready for the implementation of the change content.

The change manager needs to familiarize himself or herself with the issue, or in other words, an exploration is required. This is something that needs to be done prior to planning, as initial data is the preliminary determinant of the direction of the change. (Burnes 2004: 277–279; Hayes 2014: 26–27). Contextual factors play a large role in the choice of change participants, change group structure, necessary leadership style, effort, change process, need for resources, initial cause for resistance etc.

In the planning phase the change manager in detail examines the environment in which the change occurs. Hard and soft data are gathered as supporting material for the plan and may be used in the action phase itself. The change manager or group shall specify the purpose and goals and, design a process in order to achieve them. In the planning phase, actions for the mitigation of critical obstacles or sources for resistance is to be specified to such an extent that ensures that they can be carried out. Step-by-step action plans are often associated with planned change. But as can be argued, the previously mentioned circumstances shall also determine the degree of detail a plan is advisable. As such, an experienced change manager may need far less detailed planning than one with less experience. (Burnes 2004: 277–279; Hayes 2014: 28–31.)

In the action phase, the plan is set in motion. Participation and commitment is developed, the change message is communicated, and the organizational state transforms to the desired state. Actions are performed either by the initial change manager or group, or recruitments which's participation is the result of previous actions. Depending on the stage in the overall change effort, the action phase may refer to actions that initiate participation by key stakeholders, or in others, it refers to the actions that will bring about the ultimate change which remedies the original reasons for change. (Burnes 2004: 277–279; Hayes 2014: 30–32.)

2.2 The impact of content on organizational change

As established in Chapter 1, change is often triggered by events in the environment like mergers, leadership change, competition, legislations, stock market fluctuation, technological innovations, or political pressure. Additionally, the change content in planned change often emerges through the exploration of the problem. The content of the change, which can be referred to as the type of change, impacts the change process and the relevance of contextual aspects that surround the change. These types of change can be cultural, structural, procedural, processual, behavioural or technological. (Burnes 2004: 325; Holt et al. 2007: 234–235; Holbeche 2006: 47–48; Helms-Mills et al. 2009: 4.)

Generally, people behave differently when faced with change. Different types of change, or the content, have different ways to impact individuals and organizations from both an emotional and practical stand point. For one, some types of changes are more commonly associated with some type of individual or organizational affects. An example by Beer and Nohria (2000), economic-driven changes often are aimed at structural or system change often associated with downsizing. Non-threatening types of change have been shown to be directly correlated with the openness people have to it, and yet, contextual and process related factors have shown to alleviate the impact of this issue. This would have decisive importance for the strategy a change manager adopts in the implementation of change. (Devos, Buelens & Bouckenooghe 2007: 609–610.)

As mentioned in Chapter 2, changes can either be incremental or quantum in size. The relevance of the distinctions between incremental and quantum change can now be seen in approaches to change management. Burnes (2004), in his framework for change, uses the extent of change (incremental – transformative), along with the level (individual – organizational) and type of change, as a variable for the choice of change management approach. He argues, that the "one fits all" approach leaves unavoidable risks in different areas of the process (Burnes 2004: 324–331). This aspect is quite apparent in itself, as there are specific approaches to implement different types of change. Whether being cultural or technological or something else, each type of change has different key features and variables.

To take technological change as an example, there are numerous models created that depict variables determining behavioural intentions to use new technologies. Technology Acceptance Model (TAM1 to TAM3) and Unified Theory of Acceptance and Use of Technology (UTAUT) are examples of these models common with information system implementations. The TAM model display variables like 'Output quality', 'Result demonstrability' and 'Experience of use' as three determinants of perceived usefulness, which would not be relevant for structural organizational change. The TAM 2 and 3 models significantly present the affect that user experience has on 'Subjective norm' which directly affects a person's 'Intention to use' a new technology. (Bradley 2009: 277–285.) To take this in to consideration, the change manager proposedly needs to think of the state of the technology in to consideration prior to implementation as one example, for it not to undermine early development of change readiness. With that said, while variables change, there are some agreed-upon steps that are common for next to all planned change initiatives which are discussed in Section 3.3.

2.3 The business environment and its impact on organizational change

Change management largely concerns the 'people' side of change (Smith 2005: 408), that is greatly impacted by the environment where the change takes place (Weiner 2009). Just as a positive environment with high adaptability can favour change, a lesser favourable

environment can lead to the demise of change efforts. (Burnes 2004: 261–265; Cawsey & Deszca: 2007: 59; Waterman, Peters & Phillips 1980: 25–26)

The organizational business environment is comprised of a number of systems that represent different aspects of the organization and its environment. Research done by Harold Leavitt and his diamond model produced in 1965 (see Figure 3), many of the systems are proposed to be interconnected.

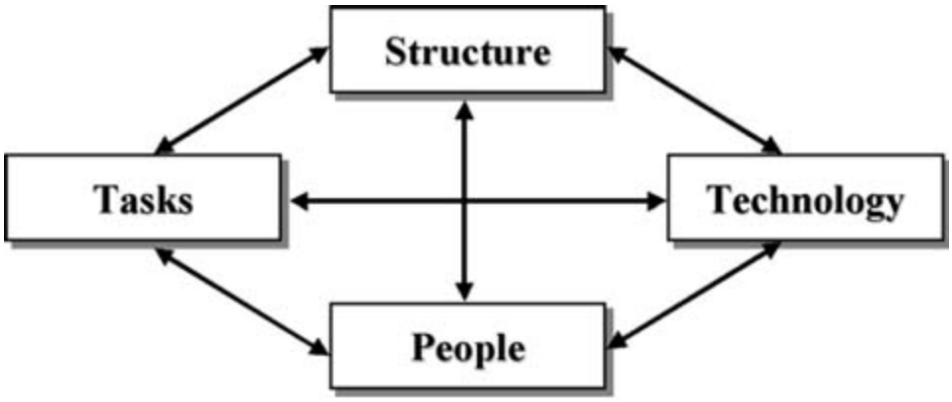

Figure 3. Harold Leavitt's environmental assessment model, Leavitt's diamond (Adapted from Leavitt 1965).

Different aspects of the organizational environment are directly affected by the others and, constitutes one dynamic system or the organizational environment. (Burnes 2004: 261–265; Holbeche 2006: 164–165.) As described by Nadler and Tushman, their modelled theory is… "a measure of how good pairs of components fit together (Nalder & Tushman 1980: 42). The degree to which the needs demands, goals, objectives and structures of one component meets the needs demands, goals, objectives and structures of another. Apart from the realization that systems are interconnected, the alignment of these systems in relation to each other, according to popular consensus, determines the effectiveness of the organization (Burnes 2004: 261–265; Waterman et al. 1980: 18–25). For change management, the components related to the business environments needs to be aligned towards the desired state to allow for effective implementation. Models help change managers understand what happens in the organization when change is attempted

(Nadler et al. 1980: 42; Burnes 2004: 265; Holbeche 2006: 169; Cameron et al. 2012: 130).

Over the years, multiple theories and visually representative models have been developed. The previously mentioned "Diamond model" by Leavitt, Nadler and Tushman's model, McKinsey 7S model, Burk-Litwin's model, just to name a few. Their structures are different and to varying degrees adopt different strategies, and yet there are many common denominators. The main components in Nadler and Tushman's theories (Burke 2011: 198; Nadler et al. 1980: 39) are:

- **Task.** The task and work that is to be done in the organization. What skills and knowledge are demanded? How is one rewarded for the tasks? Degree of uncertainty with the tasks?

- **Individual.** The characteristics of individuals. What skills does the individual possess? Individual needs and preferences? What perceptions and expectancies does the individual have? The background of the individual.

- **Formal organizational arrangements.** Structures, processes and methods that are intended to allow work to be done. What organizational design, structures, formal reward systems and control mechanisms exist?

- **Informal organizational arrangements.** Emerging arrangements and relationships. Examples of questions to pose: How is the leadership? How are the different group relationships and how do they interact? How are the working relationships? Organizational communication and person or group influence? (Nadler and Tushman 1980: 41)

McKinsey consulting group developed a theory that combines six environmental elements, the theory which has become one of the most recognized models available (Holbeche 2006: 241). The visually representative model called the McKinsey 7S model, is intended to facilitate organizational change, help implement strategy, identify future

change and facilitate mergers (Ravanfar 2015: 8). The consulting group identified the interconnectivity of the following variables: *strategy, structure, systems, staff (people), style, shared values* and *skill*. The balance between the different systems was also realized. The 7S model defines the components in hard elements (Strategy, structure and systems) and soft elements (skills, style, staff and in the middle, shared values). The distinction between the hard and soft elements are, that the hard elements are more tangible or easier to define. (Waterman et al. 1980: 18–25.)

The Burk-Litwin model (1992) and theories present more specific of organizational change, deviates the transformational and transactional parts of the change environment. The *mission and strategy, leadership* and *organizational culture* are transformational factors, while *management practices, structure, systems (policies and procedures), work unit climate, motivation, individual needs and values, tasks and individual skills* are transactional. This notion adds a new level to the analyzation of a changing business environment, since the type of change effort effects the weight of different components. (Burke 2011: 209–226.)

The main focus in change research and literature has been on the internal organizational environment and its systems. Nadler and Tushman (1977) and Burke and Litwin (1992) however, suggest that the external environment also affects the internal environment, an aspect which overall is perceived to be more prevalent in organizational development than in change management. An example of external components would be actions by the government or competitors. Other organizational aspects deemed to be important are organizational capability in terms of resources (funds, equipment, property, technology, human resources) and history (*employee behaviour, attraction of types of people, policy*), both of which are discussed further in Section 2.4.

Material aspects like, human resources, information, time, financial resources, affects organizational change readiness through *people's perceptions of an organization's ability* to successfully implement change (Weiner 2009). This concept which is not limited to materialistic perceptions has been described as *efficacy* and, is the perceived capability of the individual or organization to implement a change successfully (Armenakis & Harris

2002: 170). In other words, individuals that believe that they themselves and the organization have the capabilities to change successfully, will be more likely to apply themselves to the change.

Cultural influence have also shown to have deciding effects on individual change readiness. When organizational members share information between each other, they formulate joint judgements (Weiner 2009). To elaborate on the notion, cognitive and affections in individuals become shared through social interaction (Rafferty et al. 2013: 116). When an organization has a positive collective understanding of an organization's capabilities to put forwards resources, it strengthens the resolve that they can implement organizational change successfully (Weiner 2009).

The organization's change history has further shown to be indicative of organizational behaviour and attitudes towards change (Devos et al. 2007: 607). The organization's historical 'memory' can both improve reactions to change by the transfer of skills and knowledge, or through process-based learning, which means the appliance and absorption more efficiently (Stensaker et al. 2012: 109). It has further been shown that experienced employees often show loyal reactions to change and, generate an improved capability to cope with uncertainties. At the same time Thornhill and Saunders (2003) suggest that change experience can make individuals more resigned. It is important note that the quality of change experience also is a deciding factor to change reactions. Negative experiences have shown to breed cynicism towards change, that leads to resistance or lacklustre performances. (Stensaker et al. 2012: 121; Fuchs & Prouska 2014: 378–379.) In research done by Geert Devos et al. (2007), they further found that willingness to change was connected to the experience of past change, as well as the trust in executive management (Devos et al. 2007: 623–624).

From Section 2.3 one can deduce that there is a number of environmental components that suggestively is to be taken in to account when the goal is to create change readiness. Organization's purpose or mission, strategy, structure, systems (control, communication, rewards), individuals (skills, needs, values), culture (values, norms, roles), tasks, leadership, external environment (competition, resources, politics), technology, history (stories,

experience), formal and informal relationships and performance (adapted from: Cawsey & Deszca 2007: 60; Johnson et al. 2005: 203; Waterman et al. 1980: 18–25; Nadler & Tushman 1980: 36–42; Burk 2011: 209–226; Appelbaum et al. 1998: 299) all affect organizational change.

2.4 Individuals exposed to organizational change

Change and the threat of change create a plethora of feelings and emotions in people. These feelings often express themselves, and is interpreted as, resistance to organizational change. Fear, anxiety, anger and annoyance and lack of choice, to name a few, are common feelings that people face when confronted with change in general. (Burke 2011: 108; Cameron & Green 2009: 34; Pugh, 2007: 178.) Fear might arise from the knowledge they will lose the comfort of practicing a skill that they have developed (Armenakis, Bernerth, Pitts & Walker 2007: 483). Elizabeth Kluber-Ross (1969) came up with a model (Figure 4) that most management student are familiar with. It states the emotional process and adjustments that individuals go through in light of a terminal illness.

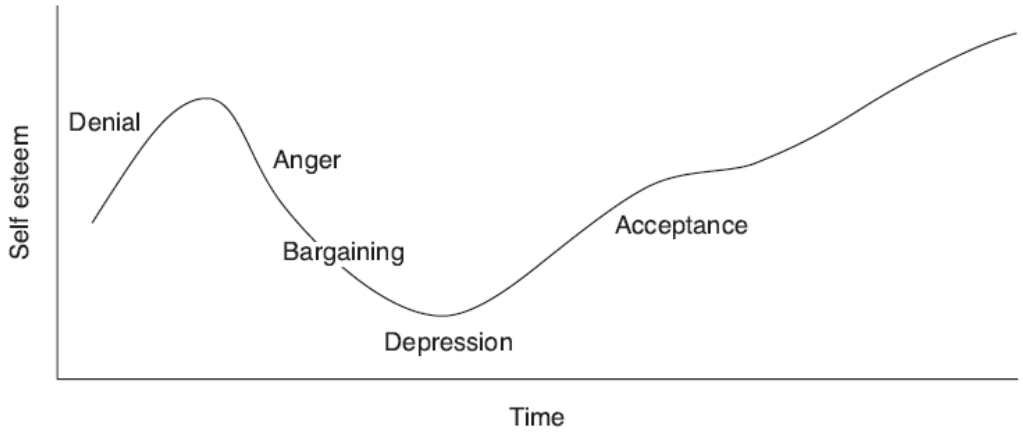

Figure 4. The process of change and adjustment (Kluber-Ross 1969, cited in Cameron et al. 2009: 34)

The emotions people feel during change, although not as radical nor linear, have been linked to the theory by Kluber-Ross. Some people never get passed denial, while others

move quickly over to anger and bargaining. To get past the denial phase can be very hard. Some individuals tend to dig their feet in to the ground while leaving rational thoughts behind (Burke 2011: 108). As such, some change readiness researchers claim that more attention needs to be allocated towards the emotional aspects of change (Rafferty et al. 2013: 110). Furthermore, that organizational change readiness should be measured on both a cognitive and affective level (Holt, Armenakis, Field & Harris 2007: 235).

A lack of organizational change readiness most often leads to resistance to change. Burke (2011) categorizes resistance by: *blind resistance*, *political resistance* and *ideological resistance*. Blind resistance (or dispositional resistance) is when people resist, just to resist. With blind resistance and denial, people resist change even when it is in their best interest. (Burke 2011: 108; Cameron et al. 2009: 32–34; Oreg, S. 2003: 690). A person's resistance disposition, according to Oreg (2003), is correlated to four reliable factors: *routine seeking*, *emotional reaction to imposed change*, *cognitive rigidity and short-term focus* (Oreg 2003: 680). Personality differences can be stated to play a role in people's resistance to change, but dispositional resistance does not necessarily mean *actual resistance* and cannot be used as the only resistance measurer due to other environmental factors. Rather they suggest that to measure an organization's resistance disposition would be beneficial prior to change planning as a method to establish ability to change. (Michel et al. 2013: 775–776.) The second category, political resistance, is when people fear losing something of value as a result of change. This category results in fear of the loss of status, benefits or one's job (Pugh 2007: 178; Burke 2011: 108; Helms-Mills et al. 2009: 133.), otherwise known as individual *valence* (Rafferty et al. 2013: 114). Ideological resistance is when people resist because they do not believe the change is beneficial. (Burke 2011: 108; Helms-Mills et al. 2009: 133).

Reactions, or behaviour that individuals present during change, present themselves in different ways for different individuals depending on the circumstances. The reactions people have to change can be categorized as: active, passive, constructive or destructive (Stensaker et al. 2012: 108). Stensker, Meyer, Falkenberg and Haueng (2002) suggests there to be six forms of reactions to organizational change:

1) to take active initiatives in the implementation of change

2) to implement suggestive changes while still attending to daily activities

3) to make minimum effort and to take distance to the proposed change

4) not to contribute to the change and not attending to daily activities

5) actively resist the change initiative by undermining the effort and people implementing it; and

6) to leave the organization due to the suggested change.

The definition of change readiness is different depending on the researcher, which may in some cases be due to discrepancies in the desired behavioural outcomes. Because of this, the outcomes of a lack of change readiness is portrayed in a variety of ways and reflects the researchers' expectations. Weiner (2009) suggests that organizational change readiness will lead to c*ommitment* and change *efficacy* in implementing change. As such, individuals would be "willing and able", both psychologically and behaviourally, to implement change (Weiner 2009). Commitment also comes in different levels. Hersovitch and Meyer (2002) suggests, commitment to implementing organizational change can be because 'they want to', 'they have to' or 'they ought to'. By that, to value the change reflects the highest level of commitment (Weiner 2009).

"Beliefs, attitudes, and intentions" regarding the needs of the particular change, and the organization's capacity to implement it, have been pointed out to be key aspects in developing change readiness (Armenkis, Harris, & Mossholder 1993: 681; Rafferty et al. (2013: 111). Rafferty et al. (2013) who are prominent researchers within the field, have specified the desired outcomes of successful development of change readiness to be: change capabilities, collective performance, change supportive behaviors and group attitudes on the organizational level. Meanwhile on the individual level they identify change supportive behaviour, job performance and job attitudes, as the result of individual change readiness (Rafferty et al. 2013: 113).

Based on this Section 2.4, individuals that undergo change have both emotionally and cognitively different reactions to change, as a function of multiple factors specific to that particular individual. The sum of it all reflects in the stance a person takes on the change, and the behavior he or she will reflect on to the change process. The individuals seemingly have un-controllable pre-dispositions to resistance, and manageable dispositions for resistance. By taking both emotional and cognitive aspects in to consideration when implementing change, one is better equipped to achieve the desired behaviour from the individual. The behaviour can either be behaviour of the individual as a singular unit, or behaviour as a group that indicates organizational change readiness as well as individual.

2.5 Discussion in regards to organizational change

The literature research on organizational change indicates that attitude and behaviour is influenced by four interconnected systems that surround organizational change: content, context, individuals and process. The balance between these four systems determines the change readiness, or how people will behave going forwards in the change. The research further presented a great number of factors that affect the above-mentioned systems, based on which one can conclude that concentrating on all would be very taxing, and frankly unrealistic. Therefore, great focus has been placed on the change management interventions intended to create that change readiness. In planned change, to achieve alignment is done through deliberate and systematic steps.

The following chapter presents change management actions interventions required for the establishment of change readiness in the early stages of the change process.

3 CHANGE MANAGEMENT AND INTERVENTIONS TO RAISE CHANGE READINESS

This chapter presents aspects, actions and interventions of change management that allows for individuals a part of an organization to become ready for change. We refer to the leadership and managerial aspects, as well as communication and individual motivation. Following that is a synthesis of managerial interventions intended for the development of organizational change readiness.

3.1 Introduction to change management from the manager's perspective

Hiatt and Creasey (2012: 1) state: "Change management enables employees to adopt a change, so that business objectives are realized"

Change management is field which has been studied extensively over multiple decades. Initiation strategies, intervention strategies, process models, participation and communication strategies, change leadership, just to name a few, are in themselves separate areas of management studies. Underlying those aspects of change management, is extensive research and theories from social science which often is discussed in unison with activities and interventions in change management literature. Change management is nowadays widely used as an umbrella term for both managerial and leadership activities performed with change in mind. From a change management perspective, the line that separates the two is rather blurred. Defined by John Kotter (1990), who is a professor at Harvard and highly respected within the change management community, management tasks can be defined as:

1. **"Planning and budgeting**. Setting targets or goals for the future, typically for the next month or year; establishing detailed steps for achieving those targets, steps that might include timetables and guidelines; then allocating resources to accomplishing those plans.

2. **Organizing and staffing**. Establishing an organizational structure and set of jobs for accomplishing plan requirements, staffing the jobs with qualified individuals, communicating the plan to those people, delegating responsibility for carrying out the plan, and establishing systems to monitor implementation.

3. **Controlling and problem solving**. Monitoring results versus plan in some detail, both formally and informally, by means of repots, meetings, etc.; identifying deviations, which are usually called "problems"; and then planning and organizing to solve the problems."

The task of a leader is defined by John Kotter (1990) as follows:

1. **"Establishing direction**. Developing a vision of the future, often the distant future, along with strategies for producing the changes needed to achieve that vision.

2. **Aligning people**. Communicating the direction to those whose cooperation may be needed so as to create coalitions that understand the vision and that are committed to its achievement.

3. **Motivating and inspiring**. Keeping people moving in the right direction despite major political, bureaucratic and resource barriers to change by appealing to very basic, but often untapped, human needs, values and emotions."

Change management theorists and literature greatly overlook the distinctions between the two, as it is widely concluded that both leadership and management is required for successful change. An example would be when change managers fail to address or *manage* negative influences. At the same time, the underlying issue may be the result of poor leadership. With that said, the distinction between the two makes a small practical difference. Change management from the change manager's perspective is about intervening actions aimed to facilitate the transition of an organization, group or individual from one

state to another. Interventions are actions intended to change the behaviours or perceptions of an individuals or groups (Dibella 2007: 240).

Change readiness is a term that is rather seldom used in change management literature, but has a firm place in the consultancy business when analysing and creating change. The term that is more prominent used in literature is 'ability', which often is approached more pragmatically through the management of resistance, removing of barriers, communication of information and knowledge, appropriate leadership and support, management of personalities and alignment of systems to name a few. The true definition of change readiness is in no way agreed upon (Rafferty et al. 2013: 115). Many definitions conclude that an individual's change readiness to some extent is the function of the environment, and the individual in that environment (Eby, Adams, Russell & Gaby 2000: 422; Jones, Jimmieson & Griffiths 2005: 362). Others conclude that an organization's change readiness refers to the behavioural, cognitive, emotional, state of individuals and groups, in relations to the change itself (Holt, Armenkis, Field & Harris 2007: 235; Weiner 2009: 68).

3.2 Major change management aspects in successful organizational change

Based on reviewed literature one can discern a couple of key aspects in change management and change readiness development vital for producing successful organizational change. This section presents a number of the most crucial aspects of organizational change, which is leadership, communication and participation, all of which are deemed to be determinants of change readiness and successful change management practices.

Leadership

Leadership during times of change is important as people are looking for directions and comforting. As organizational components shift and employees cognitively and emotionally react to those changes, good leaders create a sense of stability and guide people towards the desired state (Helms-Mills et al. 2009: 125; Holbeche 2006: 255). Not surprisingly, many of the crucial interventions that are recommended for organizational change

are associated with leadership (ie. To create a shared vision, communicate, praise, and create joint ownership). Great leaders are able to communicate the urgency and benefits of change effectively and, develop 'buy in' to the effort. In ideal circumstances, there is already a high degree of organizational trust in both the change agent, executive management, and peers (Fuchs et al. 2014: 378–379). This is seen a vital part of organizational change readiness. There needs be the trust that the leadership does what is mutually beneficial for the employees and the organization, as well as appropriate for the situation (Armenakis et al. 2007: 485; Burke 2011: 129). There needs to be a trust that they will provide the support that is necessary for employees to manage adversity (Rafferty et al. 2013: 114; Helms-Mills et al. 2007: 132–134). When leaders are perceived to be both fair and competent, people are more likely to react in a favourable manner towards it (Hayes 2014: 169). Such support will provide change participants with the belief that they individually are able to implement the change, as well as that the organization has the capability to do so.

Communication

Communication is one of the most important parts in management, in particular, the 'people aspect' of change. Communication is the tool used by the change manager, or leader, to get across the vision and need for change, as well as create participatory and understanding relationships with the target group and other stakeholders (Hayes 2014: 212; Cameron et al. 2009: 205). Communication in organizational change shall begin early on in the change process, and continue throughout planning, implementation, and institutionalization. By starting early, it allows the target group to overcome the initial spike of emotional disarray and uncertainty, and ultimately should improve on the willingness to contribute. (Smith 2005: 410; Holbeche 2006: 315–316.)

By using communication as a tool, the change manager can in most cases aspire for openness in order for opinions to be herd. Too often is communication during change a one-way, top-down, stream. While the one-way format is applicable for some sorts of communication, it is agreed that two-way communication brings essential benefits in creating change readiness. (Hayes 2014: 218–219; Patron & McCalman 2008: 50; Holbeche 2006:

305–306.) When people are allowed to voice their opinion, it gives them a sense of ownership (Holbeche 2006: 306)

Communication shall be done in a timely, systematic, and consistent manner that matches the communication methods with the way recipients are able to obtain the information (Patron et al. 2008: 50; Burke 2018: 371; Burnes 2017: 63). Communication that is clear, consistent and timely affects the attitude towards change strongly, and is proposed to be more effective in curbing attitude and affective commitment than participation early on (Rogiest, Segers & Witteloostuijin 2015: 1096, 1101–1102). However, more is not always better. More information can also provide the target group with further reasons to resist and create further negative attitudes towards the change. The message from communication shall be relatable, or customized to the audience, and reflect who the audience is and what they know. (Patron et al. 2008: 50; Oreg, Vakola & Armenakis 2011: 492).

Participation

To involve people in change and to invite people to participate is one of the fundamental principles adopted by change managers to create commitment and reduce resistance to change (Burnes 2004: 444; Rogiest et al. 2015: 1096; Smith 2005: 409–410). By involving others in decision making, one can increase value relevance from those individuals (Rogiest et al. 2015: 1096). The level of participation however is not always the same and, does not necessarily need to be. Different types of changes demand different amounts of participation to create the level of commitment needed, or to reduce the resistance sufficiently. For example, structural change is often radical in nature and can be implemented with low level of participation, while transformational changes will require greater participation. (Burnes 2004: 444–445.) The level of participation needed, already argued by Huse (1980), also depends of the "depth" of the implications from the change on the individuals themselves. Changes that strike greater on individual values for one, would also require greater participation to be accepted.

Participation helps individuals form a connection between the individual tasks and the substance of the change and how it affects them (Smith 2005: 410; Meyer & Stensaker

2006: 224). By involving people to participate in change efforts, they are given the opportunity to affect the outcome of the change. It gives them a chance to pose their questions directly, and thereby increase the openness of the communication. At the same time as participation in change brings great benefits, participation for the sake of participation may bring drawbacks as well. One of which is, to involve people in continuous meetings takes time from them that can become economically costly, and if value is not shown through respect of opinions and input, it can cause cynicism in current and upcoming change (Meyer et al. 2006: 224). Employee participation is greatly beneficial in cases where commitment is required and needs to be approached strategically by empowering the concerned and providing value to their time (Fuchs et al. 2014: 363–364).

3.3 Development of change readiness through interventions

Interventions are actions that are performed with the purpose of guiding a change effort in a desired direction. All actions affect the course of change can be seen as an intervention of some sort. Next, we list a synthesis of change management interventions that should be performed or taken in to consideration when leading and managing change. The execution and successfulness of each intervention will largely depend on the change manager's ability to use appropriate approaches, and further being successful in tailoring interventions to the specific situations described in Chapter 2.

A **s**ynthesis of interventions for the initiation of change are:

- define and communicate the problem and reason for change
- establish a sense of urgency
- form a guiding coalition and initiate active sponsorship
- clarify roles and responsibilities

- develop and communicate a shared vision
- empower others and remove barriers
- reward desired behaviour.

The synthesis is based on the planned change model presented in Figure 2 and described in Section 2.1. Change effort progresses step by step from the beginning to the end and every step is necessary for the success of the next one (Van De Ven & Poole 1995: 512). Depending on the model, some steps are often executed simultaneously. If this is wise or not is disputed between researchers and theorists. But what is advised by all is that steps shall not be skipped (Armenakis & Bedeian 1999: 303). Interventions may not only be performed simultaneously, but the context of the change itself may create the necessity to recognize steps between phases, or furthermore, repeat past interventions. A description of each intervention in the synthesis is presented next.

Define and communicate the problem and reasons for change

The strategic change process starts with the realization that there is a problem. The problem and the reason for change needs to be comprehensively understood in order to successfully initiate, plan and implement a change effort. The change manager needs to examine the context of the change, as well as how the change applies to different people and systems in the organization. (Holbeche 2006: 286.) When a definition of an issue, it is necessary to distinguish between cause and effect. The distinction between the two can be rather deceiving due to the manifestation of the problem or people's perceptions and subjective recollections of the symptoms. (Grieves 2010: 300–301.) When the reason for change is defined, its relevance to individuals and groups can be evaluated.

The reasons why change is required may not always be in the best interest of employees. Senior managers and business owners often have their own motivations for why they are interested in the change. Although Beer and Eisenstat (1996) argue that people tend to resist change unless it is vital for the organization's existence (Holbeche 2006: 209). The

individual's loyalty to the interests of the organization may be overvalued. An individualistic philosophy would suggest that motivational discrepancies between senior managers and lower levels of employees require individual or group based reframing of problem and reason definitions. This approach takes in to account the interest of the subjects, and it reduces the inclination for resistance. (Dibella 2007: 234–235.)

Establish a sense of urgency

Change efforts require that the people feel that the change is needed, and needed right now. The establishment of urgency in change is an attempt to "unfreeze" the situation, and create a feeling that change is urgent and necessary. (Burke 2011: 277; Smith 2005: 409; Kotter 1995: 60; Appelbaum et al. 1998: 294). Some change mangers manufacture or exaggerate the need for change when initiating change efforts in order to generate the desired level of urgency (Fiona 2000: 553; Kotter 1995: 60). It has been realized that to make the current status quo less desirable is much more effective than to promote a desirable future state (Burnes 2004: 476). For top down initiated strategical change efforts, the reason for change is not always as apparent for lower level managers and employees as it is for the initiators. In these instances, it is necessary to strategically develop a 'burning platform' in order to get people to buy in to the change effort (Holbech 2006: 289; Kotter 1995: 60; Tichy & Devanna 1990).

Form a powerful guiding coalition and initiate active sponsorship

Change efforts often start with a low number of people, but as the effort progresses, it is crucial to form a powerful guiding coalition to drive the change forwards and become ambassadors of change. This becomes important as people who have gone through change with negative experience may become unwilling to make an effort until such resolve have been shown (Armenakis et al. 2002: 170–171). The objective of creating a guiding coalition is mainly to aligne powerful individuals and stakeholders towards the change effort. According to Kotter (1995), more than 75% of the management needs to believe that the change is needed to avoid issues. Coalition formations, just as other participative activities, work as motivation and create commitment towards the objectives of

the group. Guiding coalitions lead individuals to believe that the organization will provide the necessary resources and information required for the success of the change effort. This is also known as *principal support* (Rafferty et al. 2013: 113; Armenakis et al. 2002: 170).

The guiding coalition often persist of senior managers but should additionally consist of unstructured based influence. Such might be people with: know-how, power and influence, and experience from change efforts (Rothwell, Stavros, Sullivan & Sullivan 2009: 253). To recruit individuals with high statuses within groups can be essential to the success of change efforts (Kotter 1995: 62). As the unknown change is presented to a group of people, individuals rely on the opinions and beliefs of others when formulating own opinions in regards to the matter in question (subjective norm). High status individuals often dictate the narrative of discussions, which is why it is important to develop such individuals to ambassadors for the change.

Clarify roles and responsibilities

In change efforts there is a need to define and communicate the responsibilities of the participants. To define roles and responsibilities in a group assigned with completing a common task creates obvious foreseeable benefits for the fluidity of the process. (Rothwell et al. 209: 258–259.) But it is important to define the desired, and possible undesirable, roles of the subject groups and individuals as well. The change manager needs to choose appropriate communication to facilitate the adoption of those roles.

Roles in change teams often consist of: change agents, change supporters, change managers, and in some cases separate change champions. The change team's task is to manage and champion the change forwards. The roles in the change team are of the dynamic fashion, which means they may change during the progression of the effort. (Rothwell et al. 2009: 258–259.) Similarly, is the case with the change subject group. The roles of people in subject groups largely vary based on what result is expected from them. An example of such a situation is when the subjects themselves need to participate in the development of content for the change effort. If the subjects originally are sceptical to the

change, it might be crucial for the success of the change effort to strategically develop them in to, change agents, change supporters or change managers, in order to further the reframing process in their colleagues. Reframing being the psychological process described by Linda Holbeche (2006) where people transitions from challenging the current 'how we do things', to preparing, generating, and lastly testing and taking a decision on using the new proposition.

Develop and communicate a shared vision

A vision can be defined as a desired future reality that an organization wishes to exist in. It is used as a way of to drive organizations and change forwards. (Burnes 2014: 462–465.) It is argued that change occurs as a result of the vision and people's desire to achieve it (Appelbaum et al. 1998: 294), and provides organizations with a direction and concretes goals (Kotter 1995: 63). Shared visions create pathways for employees and managers to judge and evaluate their own actions (Burke 2011: 280; Burnes 2004: 462–465). It is suggested that clear visions established by leaders creates shared beliefs and favourable interpretations of the changing events (Raffert et al. 2013: 119). Effective visions are often developed in unison between management and employees, and thereby work as great motivation for positive behaviour towards change (Oakland & Tanner 2007: 3; Burnes 2014: 462–465; Appelbaum et al. 1998: 294).

According to Cummings and Huse (1989), a successful vision consists of four parts: mission, valued outcomes, valued conditions and mid-point goals. *Mission* meaning the organization's purpose to exist. *Valued outcomes* refer to the human or organizational outcomes that are desired from change. *Valued conditions* refer to the desired state of the organizational environment. An aligned organizational environment facilitates the change towards valued outcomes. *Mid-point goals* (short-term goals) are clear and defined partial goals towards the final desired reality. The multistep vision formulation is meant to produce a future reality, but bridge the gap between the current and future state. (Burnes 2004: 462–463.) The vision statement, whether it be long-term or short-term, is expected to change and develop over time, but always needs to be clear and simple to understand.

Empower others and remove barriers

While strong leadership and communication is important, people will not perceive that they can participate in change, or stay motivated through change, if they and the environment does not facilitate participation and learning. Organizational structures that block cooperation and communication, performance measures not that does not encourage change participation, reward systems that incentivise the old way of working, high workload, low access to information, all work as barriers for people to participate in change. These factors lead people to question their ability to participate and change, and thereby reduce their change readiness. Change managers therefore need to create structures and frameworks to remove these barriers in order to allow change participants to achieve the desired purpose. (Hayes 2014: 176–177.) This is further achieved through empowerment of the individuals and group to create collective ownership of the change (Hayes 2014: 176–177; Cummings & Worley 2008: 166).

Reward and reinforce desired behaviour

The change manager can incentivise people to align with the strategy and direction of the change by reinforcing desired behaviour in those people (Burnes 2017: 476; Hayes 2014: 91). This can be done through organizational reward systems, financial incentives, career management, information, recognition and the display of trust and empowerment. Reward systems are more than just functional, they are symbolic. They heighten the status of individuals within an organization (Johnson, Scholes & Wittington 2008: 199). Existing reward systems can also work as a counterincentive to the new behaviour. To take a look at the current managerial subsystems is therefore necessary during the initiation of change. (Hayes 2014: 32.)

3.4 Discussion regarding change management and development of change readiness

Change readiness in the most prominent research focuses on the *perceptions* that individuals have regarding elements that surrounds change (Rafferty et al 2013: 122; Eby et al. 2000: 422). Positive perceptions of individual and organizational traits have been shown to work as antecedents for positive behaviour as a result of high change readiness. Change readiness and change management research seem to culminate at the result being the desired behaviour. While change readiness research focuses on the affective feelings and perceptions, change managerial literature focuses on how to strategically intervene in order to possibly achieve those perceptions (Dibella 2007: 240).

The research proves that both systems (content, context, individuals, and the process), perceptions, and what they amount to, are connected and determine the readiness that an individuals have for organizational change. The following categories of perception extensively sums up individual change readiness:

- **Efficacy**. In the context of change readiness, efficacy refers to the perceived capability of individuals or a group to implement change successfully.

- **Discrepancy**. Perception that a change is needed.

- **Valence**. Attractiveness of the change from an individual or organizational standpoint. It can stem from personal benefits in the form of job perks or similar, or the perceived outcome for the organization as a whole.

- **Principal support**. The perceived support that direct or indirect leaders show towards the change initiative.

- **Appropriateness**. The perception that the change is right for the situation and the needs of the organization. (Armenakis et al. 2007: 485–488; Rafferty et al. 2013: 114; Weiner 2009).

4 METHODOLOGY

A descriptive practice-oriented case study was performed during the initiation of a pilot change implementation at a multinational company. A qualitative research approach was chosen as it aligned with the objective of the research. Factors that affect the change readiness of change subjects is mapped out and analysed based on secondary data from participant observations and informal discussions. Semi-structured interviews are conducted as the main method for data collection in order to gain knowledge of weaknesses and strengths in the change process, that might have an effect on participant change readiness.

This chapter presents research philosophy and methods, methods of data collection used in the study, and an assessment of the reliability and validity of the research methods.

4.1 Research philosophy and methods

Case studies constitutes detailed analysis of phenomena in to the context of one or multiple organizations or groups. In management research, they have the purpose of describing either ‘why’ or ‘how’ something happens in the context of a real situation. Furthermore, the emphasis is on the case organization’s particular context (Tharenou, Donohue & Cooper 2007: 76–77; Saunders, Lewis & Thornhill 2012). Yin (2014) defines empirical case studies to have the following aspects:

- A situation is studied in detail in a real-life context.
- Variables are more than data points, as they are a part of greater context.
- Data needs to converge, which is why multiple sources of data is needed.
- Prior research guides data collection and analysis.

Dul and Hak (2008: 31) state: “Practice-oriented research is research where the objective is to contribute to the knowledge of one or more specified practitioners”. The findings of such research are often specific to the particular context and the aim is not necessarily to provide generalized results. Descriptive practice-oriented research done through case studies are performed with the goal to identify or discover, and to describe variables that affects a practitioner’s needs. The research is intended to solve a particular problem of the practitioner. (Dul & 2008: 30–32, 225–227.)

A qualitative approach is chosen as the main research methodology in the case study. It is commonly used in case studies, where the intention is to get a greater understanding of a situation with the help of inductive approaches. Prevalent in qualitative research and the often complex situations of case studies is to use multiple methods for data collection and thereby to allow for triangulation of data. Researcher observations, interviews, documents or other material, and attendance of meetings are examples of such data (Tharenou et al. 2007: 77–78).

Interviews as a data gathering method is used on people who have a particular connection to the phenomenon being studied. Interviews differ by their rigidity and can be either unstructured, semi-structured or structured. The type of interview form is chosen based on the type of information that is required. Semi-structure interviews just as unstructured interviews are suitable for exploration. With semi-structured interviews the questions guide the conversation, but the questions are open ended and may spontaneously be elaborated on when the situation presents itself. Semi-structured interview-questions have a topic or a theme that guides the interview and question structure. With the one-on-one interview method, the interviewer can set up an honest and confidential setting with the desired level of formality. The interviewer has the ability to read signs or reactions by the interviewee which can give valuable information about the answers provided, and provide further information on the questions posed during the interview. (Quinlan 2011: 289; Tharenou et al. 2007: 77; Brewerton & Millward 2001: 69–75).

Participant observations and informal discussions are often used as complementary data in qualitative research. The purpose of the participant observation is to gain direct experience of a situation. As an observer, the researcher participates in the unfolding event and observes the subjects and occurrences relevant to the study. However, the degree to which the researcher participates varies. In this study the researcher is an observer alone, where compared to the participant observer, the researcher is not a participant in the group which is being observed. Rather, the researcher is participant for the sake of observing. (Brewerton et al. 2001: 96–98; Symon & Cassell 2012: 297–299; Quinlan 2011: 221.)

The literature research was performed by reviewing material of planned organizational change, change management and individual and organizational change readiness. The material for the literature review is mainly sought out from popular literature and journals specific to the subject of change management, but is further extended to other fields of study on organizational change readiness. Journals we found using the study's key words presented in the abstract. The objective of the literature review is to bring forward current research on the subject, as well as to obtain a foundation to the research problem. The literature research then led to the philosophy behind the interview questions that ultimately would provide the final result.

4.2 Data collection in the case study

A qualitative approach was chosen for the collection of data in this descriptive practice-oriented case study. The main objective with the study was to assess the strengths and weaknesses in terms of factors that affect the change readiness of case participants. The goal was for the practitioner, who in this case was the change manager, to gain knowledge of these factors in order to better prepare the organization for the change that was to come. Semi-structured interviews were conducted as the main method of data collection in the study. The secondary data were collected through participant observations and informal discussions with key personnel surrounding the subject of study.

4.2.1 Semi-structured interviews

The semi-structured interviews were conducted during the second week after a key event that signalled the official initiation of the change project. The interviews were conducted face-to-face with seven (7) of the ten (10) participants that were to have some role in the pilot implementation. The participant group concluded of people with greatly differing relationships to both each other and the tool, which is further presented in Sections 5.2 and 5.3. Prior to any interview, the ten (10) question long interview program was sent to each of the participants. The questions were either in English or Swedish depending on their mother tongue. The interview questions were tested prior to finalization in order to reduce the likelihood of misunderstandings. In accordance with the format of semi-structured interviews, the main questions were used as a framework for the interview. Participants took the liberty of expanding their answers, which was perceived as successful as it further brought out their individual areas of interest.

The interview questions were specific to the context of the case project. For instance, many of the questions posed directly referred to the information system and the case project. The interview questions were formulated so that participants with some, but yet limited, knowledge would be able to grasp them. Excluded was direct questions in regards to received communication and the participants' change specific knowledge, as it would not have been beneficial based of the timing in reference to the project timeline.

In the interview interviewees were expected to consider past and current experiences when answering some of the questions. They had preliminary perceptions relevant to their individual change readiness, based on the low amount of information present to them. The interviews produced:

- Factors within each category that are important to the individuals
- A pattern of thought processes and perceptions, beliefs, feelings
- Varieties in the perceptions between different individuals within the group.

The duration of the interviews were around an hour (see Table 1). The results from the interviews were consolidated based on the interpretation of their meaning. Data reduction was done during the categorization of the interview-material, which was performed after all interviews had been completed. Both converging and non-converging results were processed in the study, as both aspects provides insight to the nature of individuals going through change and change management. Inductive interpretations or realizations from the face-to-face interviews were noted after each separate interview, and was used during the final processing and interpretation.

Table 1. Semi-structured interviews.

Interview	**Duration of interview (min)**
Interview 1 – Main user	66
Interview 2 – Main user	41
Interview 3 – Main user	51
Interview 4 – Main user	54
Interview 5 – Secondary user	59
Interview 6 – Secondary user	46
Interview 7 – Secondary user	70

The answers from the interview most often went through a process starting with a statement, then reflection, and ending with a conclusion. The statements and conclusions were often quite short and decisive and provided a low amount of information, while the reflections often took a direction of the interviewee's interests, and provided much more information on what his individual perceptions were. The results from the interviews indicated multiple factors where there was consensus between participants, but even more strongly indicated their individuality and how content, context and the process affects

them differently. As a summary, the interviews provided the researcher with both strengths, weaknesses and desires that should be taken in to account going forwards.

4.2.2 Participant observations and informal discussions

Secondary data collection methods are not uncommon in practice-oriented case studies. The study approach as well as the research question in this case prompted secondary methods. The participant observations and informal discussions were used for the purpose to map out the different systems that were indicated in the literature review. These systems were: change content, context, change process and individual attributes. The material was the input data for an analysis, which created an understanding of how different factors within those systems were likely to affect the participants, and ultimately their perceptions.

The mapping of the situation and analysis was necessary for three reasons. Firstly, in order to accomplish the formulation of questions in the interview portion, a decent understanding of the different systems that affect the change was required. Secondly, a great understanding of the situation was required in order to be able to interpret the answers in the interviews. Thirdly, the secondary data worked as a reference point during the processing and interpretation of the main data, which resulted in a deeper understanding of the situation.

Throughout the duration of the research, the author was employed by the company where the case study took place. This made it possible to conduct informal discussions with pilot participants and other personnel. The author had access and was present at next to all information sessions pertaining the change, and privileged to all organizational or pilot group specific communication. Being a participant in the environment provided additional insight that was taken in to account during the analysis.

4.3 Reliability and validity of the results

Reliability in case study research means to which extent the results of the study would be reproduced if it would be done once again. This in conjunction with the validity issue of interpretations, are two of the reasons why multi-source data collection methods like triangulation or cross-checking is used in such research. Multi-source data collection methods aim to gain data on the same construct from more than one source. This also aids in strengthening the validity, where the degree of correctness of cause-and-effect is determined. One issue common in case studies is that there are no limits on the number of variables in these types of studies. Additionally, in the complex environment there are no shortage of them either. Furthermore, researcher assumptions and interpretations are areas of concern. Qualitative research that uses interviews and observations as data collection methods runs the risk of being biased, or in other words, the researcher drawing farfetched conclusions or drawing from own values and experiences in interpreting the data gathered. Due to case studies often happening in real life situations where the situation is not systematically controlled, determining the between different events and factors are difficult. This issue can however be dampened through the use of the previously presented multi-source data collection methods. (Tharenou et al. 2007: 80–83.)

4.4 Discussion on the study methodology

The study methodology allows the author to gain a deep understanding of the situation surrounding the change. Qualitative research through the use of one-on-one semi-structured interviews not only brings forward aspects relevant to the change in general, but what is important and relevant to the individual in question. By the use of participant observations in combination with multiple semi-structured interviews, one is able to cross-reference data in order to form a conclusion.

5 RESULTS OF THE CASE STUDY

ABB (Asea Brown Boveri) is a global electrification and automation product company implementing a new information system (IS) in multiple locations around the world. The goal of the case study is to identify advantageous or detrimental factors that affect the change readiness of individuals who are subjected to the change. The objective is to facilitate the change manager's ability to perform informed decisions in order to achieve successful change.

ABB Energy Industries, Vaasa, is one of several locations where the implementation takes place. The IS implementation is initially piloted, as a first step in the larger global change project. Only eleven core individuals are participating as active member in the implementation, and they represent different functions in the organization. *Active* participation in the pilot is required by the participants (referring to the change subjects) in order to reap maximum benefits from its implementation. The type of participation that is needed includes technological development, but mostly adoption and development of new ways to work.

This chapter presents the global organization, and mainly focuses on the local business line where the case study is performed. The local change environment and the change project itself is presented in an attempt to define and assess the context of the change effort. This chapter presents the communication that is done in leading up to the moments after the formal initiation. Through observations in the change environment and conversations with pilot participants, conclusions are drawn on the readiness of the participants and factors affecting it.

5.1 Description of the case company

The case company acts in electrification and automation technologies producing and selling products and services to countries worldwide. In 2017 ABB employed approximately 136,000 employees, in more than 100 countries. The company's organizational structure

has five levels (Figure 5), starting from the CEO. Each level is further segmented in to multiple different divisions, business units (BU), hub business units and local business lines (LBL).

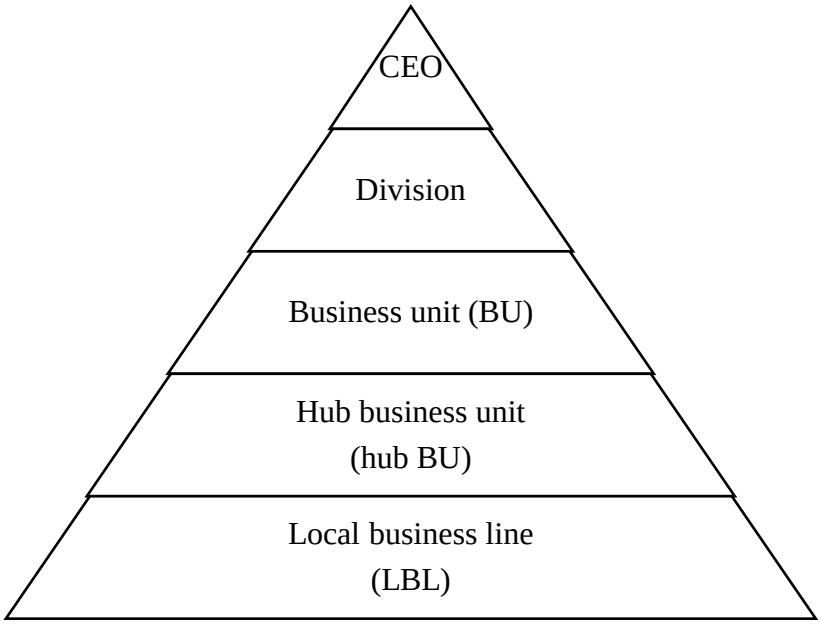

Figure 5. The case company's organizational structure.

Each level of the organization has its own segmentation criteria. The division level is the broadest business segmentation in the company and is segmented in to four parts. Each division has a very broad customer range from various industries. Below each division there are business units. The BUs are segmented partially by applications and in some cases also by industries. Each division's BUs are segmented differently depending on their division's product range. Below each BU are hub BUs. The difference between the BU's and hub BUs is that, hub BUs are segmented geographically while BU's are segmented by application or industry. The hub BUs are geographical subsets of BUs. Below the hub BUs are the local business lines. A local business line is a physical unit that produces products and sell services. As mentioned above, Energy Industries, Vaasa, is the LBL where the research in this study was performed.

ABB Energy Industries is a project-based unit which engineers and delivers control and monitoring systems for power plants. Services are offered in electrical and automation

engineering, instrumentation, system analyzation and maintenance. Worldwide ABB Energy Industries employ approximately 3000 people. Of them, approximately 80 are employed in Vaasa, Finland. The office in Vaasa is segmented in three main units, not counting support: Nuclear, Modular and Hydro. The segmentation is based on the different types of production systems. The nuclear segment produces customized systems for nuclear power plants and the hydro segment does the same for hydro power plants. The modular segment is slightly different. They produce largely standardized systems for diesel generators. The characteristics of each segment is rather different. Nuclear projects tend to range from 4 to 7 years, while modular projects often take a couple of weeks to complete. Hydro projects often range from 1 to 2 years.

5.2 The information system and its implications on the organization

The new IS is designed to improve the operational performance of the LBL by improving information accessibility, cross-functional cooperation, system connectivity, and improved user interfaces as the main benefits. The system is intended to benefit the global business by improving reporting and analyzation capabilities for business owners alike. But the greatest benefits is yielded in the local organizations, were the benefits are expected to directly affect project efficiency.

The main beneficiaries of the new IS are the project managers. At the moment project managers use vast number of different platforms to perform their daily tasks. The IS is designed to work as the main interface towards users, and will have inputs and outputs to supplementary systems. The IS is further intended to completely replace some of the previous systems, and reduce the usage rate of a couple of others. Many of the existing information systems will remain functioning to the same degree as before also after the implementation.

Each individual is in different ways important to the implementation. In case a person is inactive during the development process, the full potential of the IS may not be reached. It will likely directly affect that particular business and indirectly other business through

unutilized cross-functionalities. The pilot group is required to give active feedback on the system over approximately two and a half years. Their feedback will be used to further develop the tool prior to organization wide implementation. The feedback is not limited to technical issues alone, but also to overall work processes. The change to the new IS is a great opportunity to develop the work processes that surround the daily activities.

The people that participate in the change are required to attend development meetings, training, as well as ultimately implement the IS in to their daily work. This forces them to reallocate time towards training and development meetings, learn new skills, rewrite old habits, and initially work with an incomplete tool. On a local business line level, a requirement placed by higher management is that the change is not to affect business performances. However, the participation required during the initiation phase most likely has an initial negative effect on individual task specific performance.

The change ultimately requires people to change the norms they have in their work processes. Work processes related to the change can be dealt in to two groups: new processes and altered processes. This means that users in some cases need to choose to use the new system over the old, which may create additional demand on the buy-in to the new system. Different task groups are interconnected through the new system, which means that all users need to convert to the new processes in order for the whole process chain to work.

5.3 The project organization and context that surrounds the change

The context that surrounds the change shows to have a decisive effect on change management process. The dynamic nature of the environment surrounding the change project directly or indirectly affects the perceptions that participants ends up having to the change. Organizational (internal) and external factors set the initial starting point in the change process and requires different amounts of effort in order to overcome or to take advantage of. An analysis of the project environment and context is performed in order to get a better understanding of the different systems affecting the change project and its participants (Figure 6).

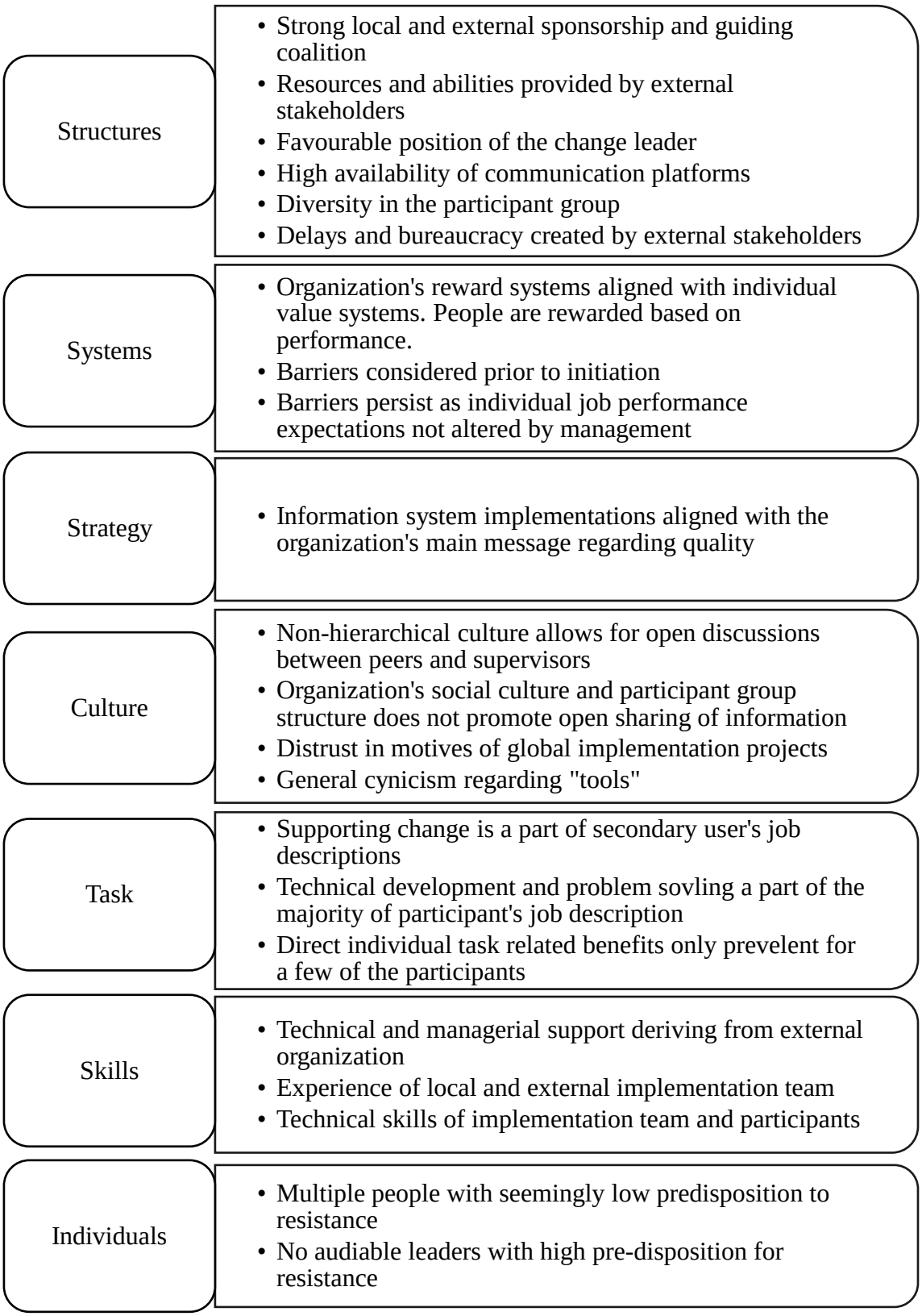

Figure 6. Summary of the analysis of contextual factors.

The mapping of the environment was done by: formal organizational arrangements (structures, systems, strategy), informal organizational arrangements (social systems, history or experience) and task (task descriptions, skills, task related needs). They are described in the following pages.

Formal organizational arrangements

The formal organizational arrangements in this context constitute the structures, systems and strategy pertaining the organizational environment that surrounds the change. It is evident how structures affect the change both positively and negatively. The most profound impacts derive from local and external stakeholders. The externals affect the change management process negatively by delaying the process and add to bureaucracy, and positively by adding to communication platform, sponsorship, resources and overall change management capabilities.

Figure 7 shows a simplified representation of the internal organization relevant to the change project, as well as the change manager's position in reference to the others. The change manager's main responsibility is that of a segment manager. Furthermore, the figure displays the main stakeholders within the internal organization. Figure 7 further shows how the pilot participants are linked to each other in the organizational structure, which also is connected to the geographical positioning and sociocultural structures. Segment Manager$_1$ represents the change manager.

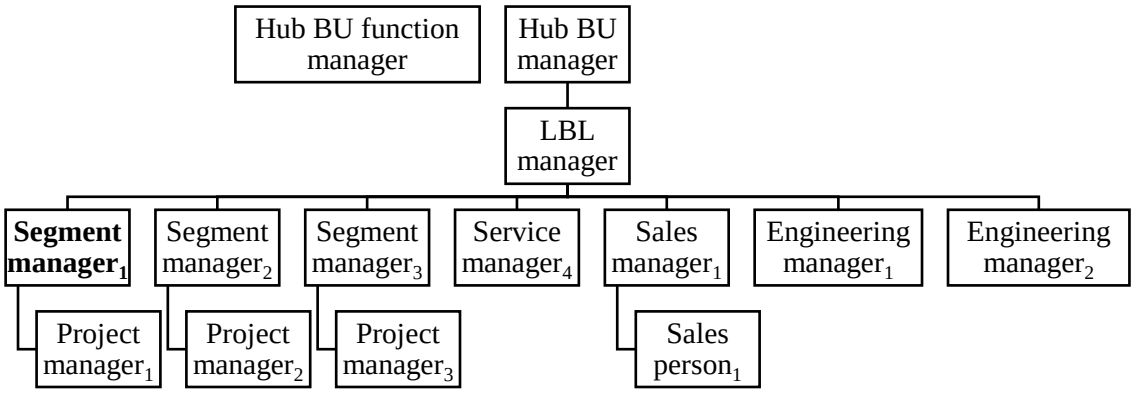

Figure 7. Pilot participants and simplified organizational structure.

The hub BU manager, hub BU function manager and LBL manager are the highest ranked managers locally. Below them are the change project participants. The hub BU manager and function manager are responsible for different regional aspects of the hub within the Nordic countries. They are responsible for the operational and business performance of the hub BU. The hub BU function manager is the initiator of the implementation in the local unit. He is the recruiter of the change manager and developed buy-in from other high-ranking people locally. During the change project the hub BU function manager, and ultimately the hub BU manager, transition to sponsors.

The project environment from a personnel standpoint can be segmented in to four groups based on the level of impact the new system is expected to have on individual work tasks, and their role in the implementation. The groups are: All functions, Main users, Secondary users and Change implementation team and high-level sponsors (Figure 8).

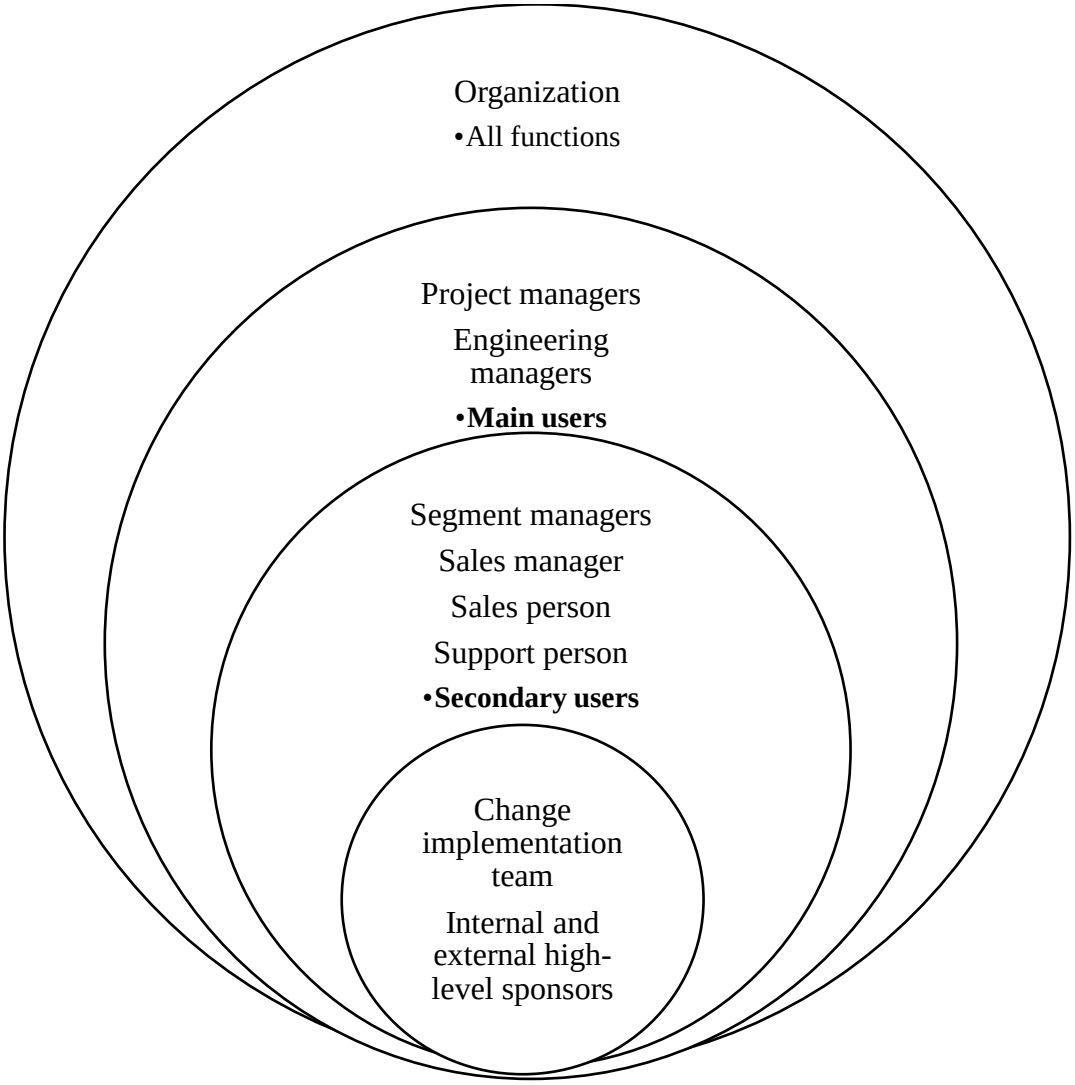

Figure 8. Segmentation of the internal organization's implementation pilot group.

The category called "All functions" consist of people in the organization that in the pilot phase are not participating in the project. They are expected to gain limited information regarding the project until later phases. The main users are those who will use the new system to the largest extent and, the group that are most affected by the change. It is desirable for them to be *active* in system and process development during the pilot phase, as their task groups will be the ones using it to the largest extent after the roll out. The main users group includes project managers and engineering managers. Secondary users will ultimately use the system to a lesser extent than main users, but have crucial roles in providing input and support to the project throughout both the pilot and roll out.

The most inner circle consists of the implementation team and internal and external high-level sponsors (Figure 8). The implementation team consists of the change manager and individuals active in the implementation process. Many of which are project owners, meaning they are responsible for the success of the project on a global scale. Besides the project owners and the change manager, there are numerous supporting functions. The supporting functions consist of Subject Matter Experts (SME), business owners, IS specialists, and consultants.

The external stakeholders noticeably affect the change both positively and negatively in multiple ways. Most notable are their decision-making ability on the schedule and resource availability of the pilot. The change project is delayed a fair amount from its original implementation schedule due to decisions made by external stakeholders. One of which is to await further technical development in another LBL's implementation in order to minimize risk that comes with technological implementations. This plays a large role in selecting the communication that is done by the change manager and sponsors, in particular leading up to the kick-off meeting. Because the initiation schedule is not in the hands of the local change manager, there is the risk of untimely communication and involvement of project participants which ultimately could lead to lack of motivation. Gradual development of participant knowledge is made difficult because the end date being out of sight. Although external influences has some seemingly negative implications on the management process, there are many benefits deriving from the link to external management structures. The benefits are: project funding, technological know-how, implementation experience, extended project planning, global IS support, SMEs, project ownership and supportive communication.

External stakeholders also affect the process by setting requirements on the results of the change project. Both the secondary and main users are expected not to jeopardize their business results in developing and learning to use the new information system. This is a decision made by external stakeholders, and communicated to the implementation team. This is an empowerment issue which may lead to a lack of ability to change, by lowering prioritizing towards the new system and creating low commitment levels.

The change manager's hierarchical position in the organizational structure has many clear benefits. Being in a superior position, he has the ability to choose participants within his own segment freely and have individual ability to remove some barriers for that person. His position also gives him a larger platform for communication. The support from external and internal sponsors however, provides the change manager with an even larger array of communication platforms which otherwise may not be available. With his senior position alone, the change manager would be able to use five out of eight of the instruments for communication presented in Figure 9.

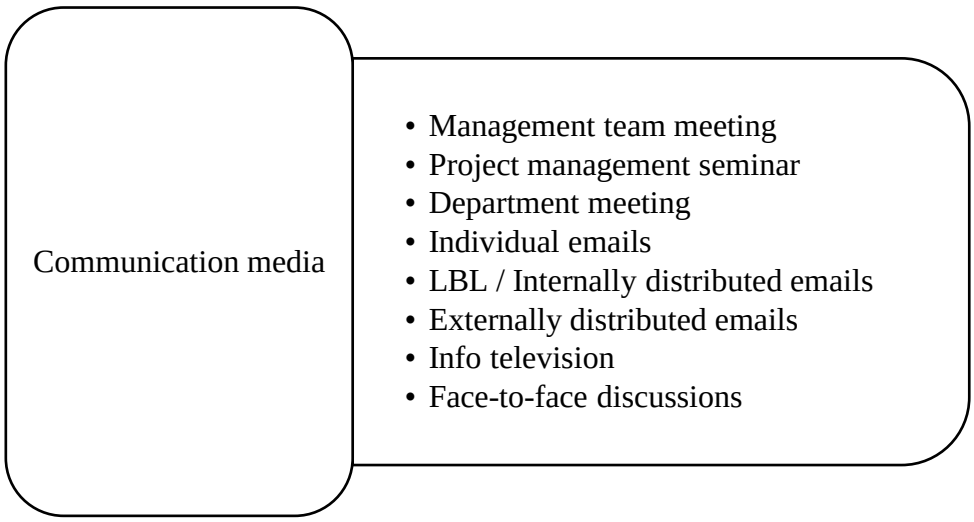

Figure 9. Instruments used for communication about the change.

Rewards, just as performance measurement systems, are one part of the case organization's managerial subsystem. Materialistic rewards are sparsely used for the display of gratitude for work performances within the organization. The first and most lucrative type of rewards are economical rewards. They are either yearly bonuses which are based on business performances or gift cards. Culinary rewards (dinners etc.) are quite common and are either ritualistic or moral boosting. Non-materialistic gratitude is shown by public or private displays of gratitude and promotions.

Among ABB's top global strategies is the concentration towards quality in their products and services, whether it concerns the end product or the process and tools to develop them. One way that quality is improved is through information system implementations.

The new information system is identified as one of the quality initiatives that is under way, and has been described in local and global internal communication to be one of the current main contributors to the organization's quality improvements. In terms of the message, the purpose of the new implementation is not only for it to be aligned with the global and local communication, but with that of other current changes that take place. Information system implementations are continuous part of the quality development within the company.

The main skills that are required for this particular change are technological and work process related. The core of the implementation team consists of experienced people who have worked at ABB for multiple years, and in the roles for which the new information system is intended. They should have an adept understanding of issues with previous tools and the way of working. However, only two persons in the implementation team are locally situated and are familiar with the way of working within the particular business unit. The rest of the implementation team that work as facilitators will need to rely on the locals to develop the tool for their needs. The majority, but not all, within the pilot group consists of people with long experience within their respective fields. This, along with workloads, was one of the criteria for the choice of participants. Many in the group have experience from implementations in the past.

Informal organizational arrangements and individuals

The informal organizational arrangements refer to the culture, personal relationships and leadership within the participant group. The social culture, or the way that people within the organization communicates, shows to have an effect on acquisition of information during the change process.

There are a couple of determinants that explain the social culture of the organization. Work task and hierarchical position seem to be the two main indicators. Project participants in different segments and hierarchical position attends different meetings and are geographically located in different locations in the office. This leads to personal relationships to be more common within own segments, which lead information sharing to be

low in the project participant group where there are one or two representatives from each discipline. Furthermore, the higher you get in the organizational structure, the less people attend common break time. Informal discussions that surround the change may be rather uncommon on the senior management level. The power distance in the country where the case study takes place is very low, meaning that the leadership style is coaching, and leaders are generally perceived to be accessible. This should reduce the barrier which participants otherwise might have for requesting further knowledge from the change manager. This is not likely the case in countries with higher power distance.

Implementations of information systems are not uncommon within the organization. Information systems overall have been implemented and renewed actively as a standard aspect of the digital era. Previous information system implementations have also affected the way of working, but the once made during the last couple of years have been short in time and more specific in comparison to the upcoming change. The length of the change effort is expected to range approximately two and a half years.

Task groups

The participants are comprised of six different task groups as presented above in Figure 7. These are: engineering manager, segment managers, sales managers, project managers, sales person and support person.

The segment managers are responsible for the business performance of their individual segments. Their daily tasks include governing of project performance through data analysis, and reporting towards both project managers and to the LBL manager directly or indirectly from a IS which will be substituted in the change. The data used by the manager is manually entered by project managers in to a common interface, which then is again manually processed in to reports by the segment manager. Currently segment and project managers use the same tool for this task.

The sales manager, sales person and support person will all use the new information system to very low extent once implemented. The sales manager and sales person use a system which will not be substituted during the change, but will be interconnected to the new information system, and is expected to ease the transition from the tendering phase to project initiation. They are required to adapt the new processes which come with the system implementation in the sales process, and further provide qualitative data in to the tool for the project managers and others to use. The support person will to some extent use the new system for administrative purposes, but should only affect his work to a minor extent.

The two engineering managers are, among other things, responsible for providing and coordinating resources for projects. Between each other they have different areas of responsibilities, but the way they conduct their tasks and use information systems are similar. The engineering managers will use the complete functionality of the system to a lesser extent than project managers, but the work rate inside the system will be similar. On top of the previously mentioned system, just as the rest of the participants, they also use the same common system as the segment and project managers. The new information system will replace that tool for the management of resources, and will thereby have a decisive impact on their work tasks.

The project managers are responsible for the management of either one or multiple projects at a time. They have continuous cooperation with the sales department, engineering managers and their segment manager. There are large differences between the work tasks of each of the three project managers. Modular projects are short, and have much shorter and simpler managerial processes than Hydro and Nuclear, which have longer and more detailed managerial processes. Project managers for Modular projects furthermore often have multiple project at once, compared to project managers in Nuclear who often have only one. The project descriptions have many other dissimilarities which may shape the values and needs of the project managers. Short projects are indicative of a focus on simplified, short, non-bureaucratic processes, with high-level time-schedules and reporting. With Hydro in the middle, Nuclear is on the other side of the spectrum with high detail in planning, tracking and reporting. The complete expansion of functionalities in the new information system may be mostly realized in projects with longer life-cycles.

5.4 Communication and its implications on the change readiness of participants

Communication on the IS implementation is dispersed over a time-period between December 2017 and October 2018, which is when a kick-off meeting took place. Figure 10 shows a visual representation of the time period studied.

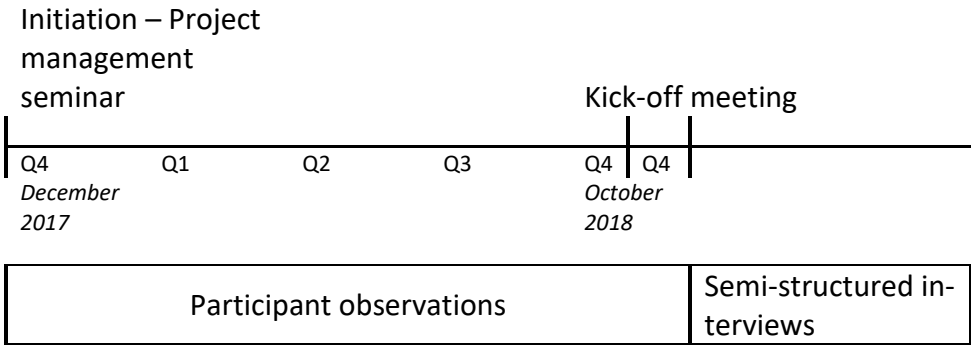

Figure 10. Timeline from initiation of communication to kick-off meeting**.**

This section presents the communication done to the change participants. Further, it presents how the communication seemed to have affected the change project participants in the case study.

5.4.1 Communication by the change manager and implementation team

This section presents the communication made by the change manager and implementation team during the relevant time period. Figure 11 presents a brief summary of the contents of each communication using the medias presented in Section 5.3 (Figure 9).

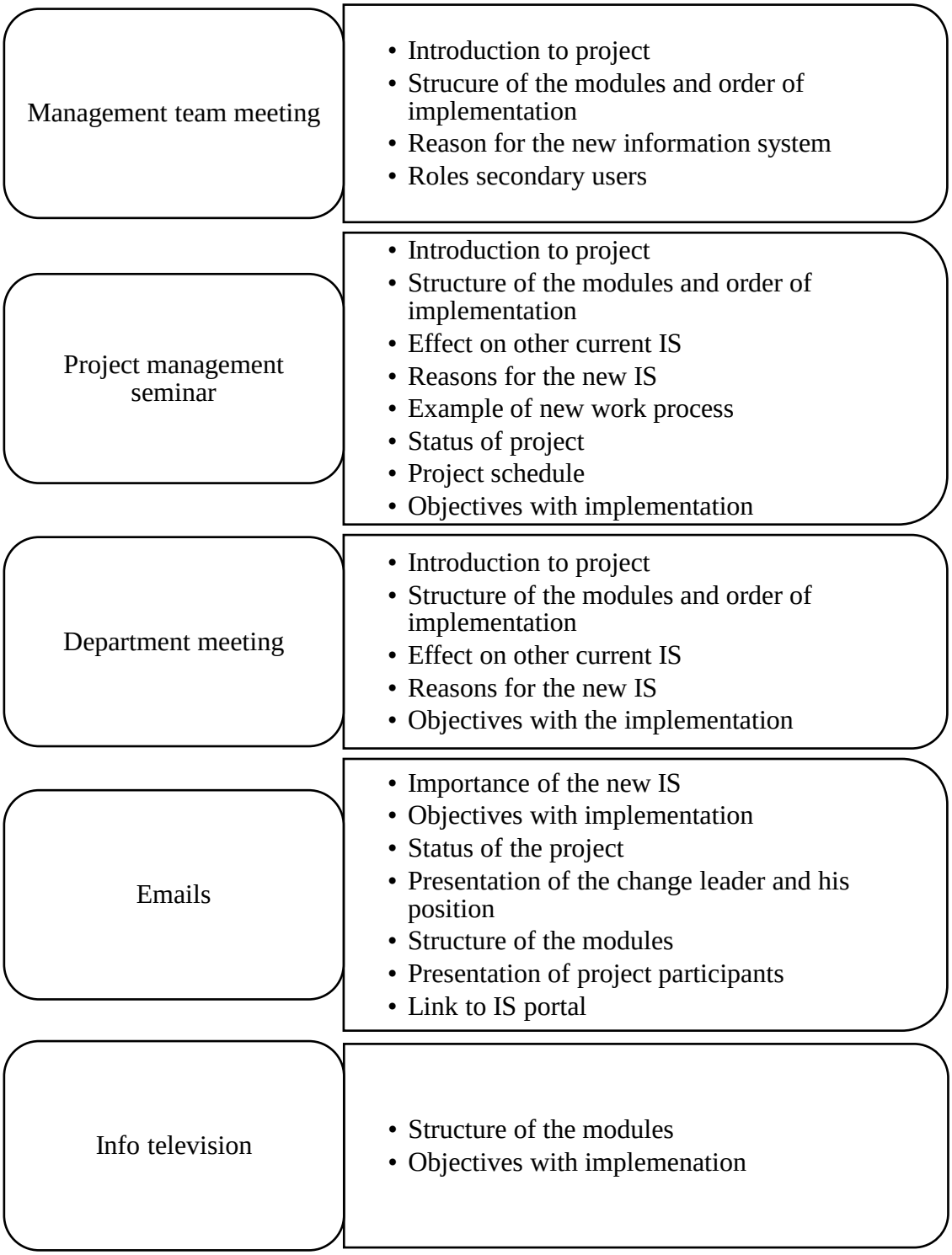

Figure 11. Communication instruments and message of the communication.

Prior to the kick-off, there were three public face-to-face communication platforms that were used to get the message of the change out there. The first communication is made

by the change manager to Segment and Engineering managers during a management team meeting. The presentation is a sort of ‘heads up’ introduction. The second time the implementation is presented is during a project management seminar where both main and secondary users are present. A fifteen-minute rudimentary introduction is given to almost all participants, along with other future potential users of the system.

The presentation is located in-between eight other presentations on the agenda that day. This type of presentation is given twice within two months of each other. The sessions are brief and provide limited details, and never intended as in-depth learning experiences; rather, they are intended to give all potential users knowledge of the system, so that when the change comes it is not new to them. The third type of face-to-face communication came through department meetings where the whole organization is present. The presentation is short and done by the change manager, and in large consist of the same material as the previous two face-to-face information instances.

The second type of communication is done indirectly through general organizational information medias. Such are monthly or bi-monthly emails containing organizational news (not specific for the unit in Vaasa), monthly emails from sponsors mentioning the new information system among other organizational news. Lastly, through info television located in the public office space, which presents one slide displaying the content of the change and key benefits.

The third type of communication is also indirectly distributed, but specific towards the change. These are emails sent by the change manager and hub BU function manager at separate occasions. The change manager presented the pilot group for the first time, and the hub BU function manager publicly informed the organization of the change manager’s role in the change.

One can proclaim that the communication overall has rather small impact on the crowd. The reactions to the early messaging regarding the change, or lack thereof, may partly be attributed to the organizational environment and the experience of participants. Changes to systems and structures are a part of daily life, not only for them as subjects but also for

them implementing changes in to their and their subordinates' work tasks. As such, the news of the change based on the most rudimentary information is received as completely non-threatening to the participants. It would not affect anyone's job security, and as far as they know at least prior to the kick-off, it is "sometime in the future". The information given prior to the kick-off is so limited, so that the grandness of the change and its implications was not completely realized at the time.

The most notable reaction prior to the kick-off came from when the participatory group is unveiled, which is done right before the first project management seminar by the previously and last-mentioned email by the change manager. There are questions regarding what the change is about, and some clear indications of an underlying distrust in information system implementations. The subject of discussion is quite prevalent for a couple of days, but after a while discussions die down and interests refocus on something else. Some unrest does however emerge during the in-between period. The activities of the external stakeholders and decision makers have caused internal communication to be sporadic and inconsistent. This combined with the non-transparency in the project is not particularly appreciated by some.

The pilot kick-off meeting held in October 2018 is a one-day event dealt in to two sections. Both main and secondary users are present during the first section (presentations 1–4, see Figure 12), and only main users are present for the second section (presentation 5, see Figure 12). The event is hosted by the change manager, but present are also representatives from the hub BU, BU and division level, who all hold their own presentations on the subject. The presentations are structured in a top-down manner. The division level representative first presents the change from a global perspective, and then the presentations continue with the BU and hub BU level representatives' presentations all the way down to user level. Not only the order of presenters is structured top-down, but so is the information. The information iterated from the global perspective down to local project and system and local business specific details. The key points for each presentation can be observed in Figure 12.

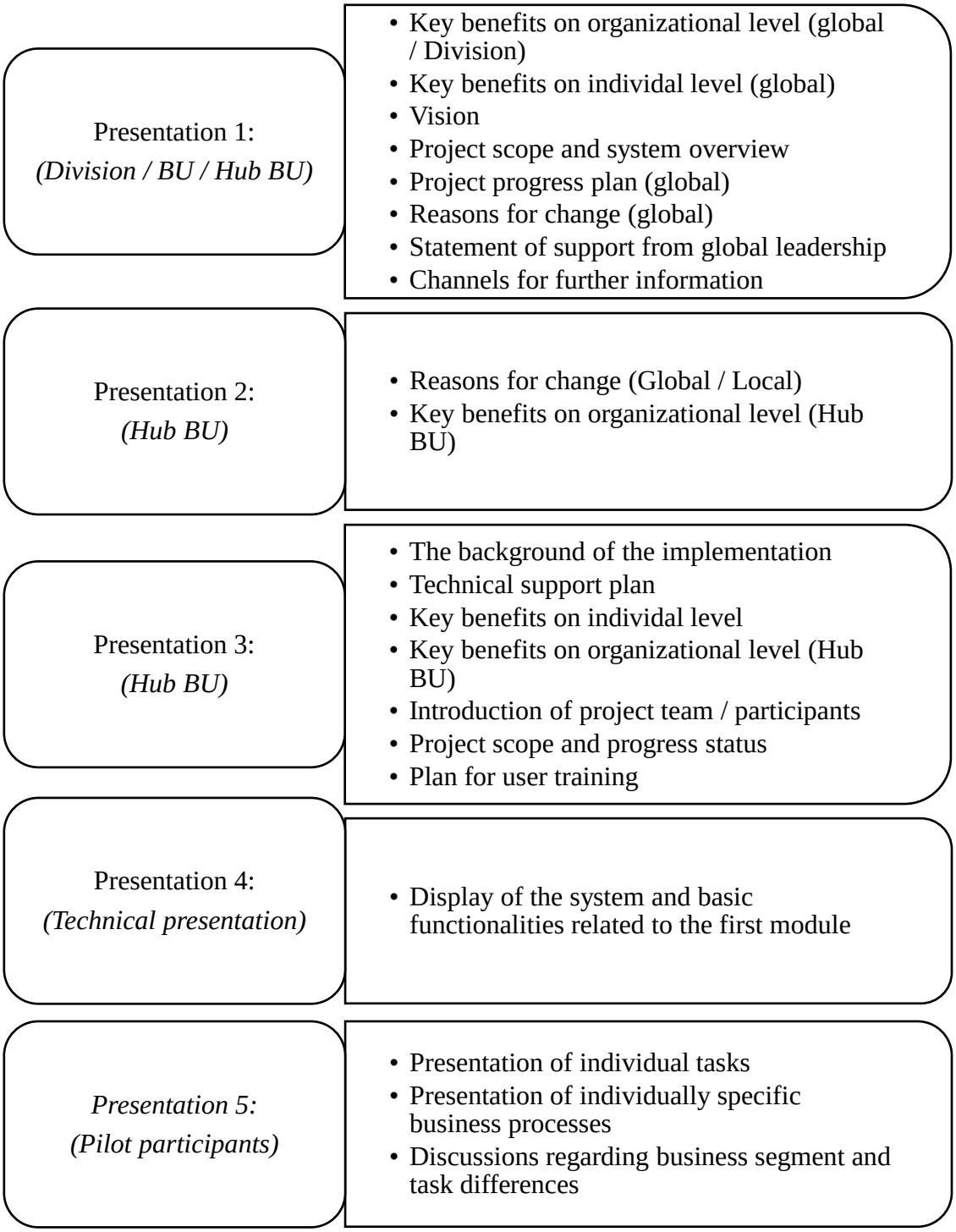

Figure 12. Kick-of meeting and message for project participants.

Much of the content of presentations 1–3 has already been presented in previously mentioned presentations. The kick-off is a compact and targeted event specifically organized to the change where the message of change is repeated throughout.

The kick-off meeting is the first time project participants see a demonstration of the information system. As such it is the first time they are able to formulate experience-based perceptions of the quality of the system. During presentations 3–5, as the presentations became more relevant to individual work, participants for the first time start asking questions in regards to aspects that seem important to them on an individual level. Most questions are about how specific aspects of the system that are familiar from the old system would be displayed or done in the new system. The communication done throughout the change covers individual, group (segment), and organizational benefits deriving from the change. This may prove to be important in a project where direct individual benefits seem to be greatly unbalanced. The participants also grab on to different benefits, whether it be organizational or individual, indicating the difference between the individual values. Figure 13 presents the content from the communication done during the kick-off.

Messages and symbols	**Knowledge**	**Understanding**
• Important to global and local organizations • Change supported by leadership • Support and training availability • Main user applicability • Resource availability • Input through participation is required • Empowerment	• Scope of the change • System overview • Project background and progress plan • Global and local project team • Channels for gaining further information • Plan for future training • Technical support plan	• Organizational benefits • Individual benefits • Reason for change • Vision • Role definition

Figure 13. Messages, symbols, knowledge and the development of understanding during the kick-off meeting.

During presentation 5 when participants from different businesses and disciplines present the way they work, participants got a better visualization of how the change concern their individual work task. The implementation team representatives communicate the message that each need is different, and that is why the input of each participant also is important. Furthermore, it is communicated that the goal is that the new work-processes and the way the tool should be used will be standardized as far as possible. However, discussion seemed to facilitate a thoughts process where individual benefits are compared to those of others. When comparing detailed individual benefits, some may seem to come up rather short compared to others.

5.4.2 Implications of communication on participant change readiness

This section presents the implications the communication had on the change project participants, based on observations and interviews.

The communication on reasons for the change is focused on two main areas, financial or the organization's operational performance and issues with the way of working. Afterword however, there is low traceability back to the communicated 'reasons for change' in the reasons given by participants. Only one participant directly states issues with the organization's operational performance. There is an overwhelming consensus regarding three other points by both main and secondary users:

- *"We currently have very many information systems."*
- *"Current tools are not created for project managers. This one finally seems to be."*
- *"We currently fill the same data in multiple locations, and the data is hard to process."*

Two of the three issues with the largest consensus between participants were not main points in any communication done during the project. The issues are pre-existing concerns that they could tie to the message communicated during the initiation period. The

resolving of the first point happens to be one of the bi-products of the implementation. If the implementation instead would have added an additional information system instead of reducing them, or in other words if the content in relations to the context would have been different, the view towards the implementation would with all certainty be different as well. The second point derives from a side-comment during the discussions section of the kick-off. Something presumably unplanned in terms of communication, bared resemblance to the thoughts and desires of a majority of the participant group. The third point however, seems to be a direct derivative of the communication, and bares great resemblance to the set goals and vision.

The role definitions were made quite clear during the kick-off based on the sectioning of the presentations. Secondary users were not participating in the second section during the kick-off. This was evident based on some of the perceptions participants have of their ability to influence the particular change. Based on the interviews, main users feel that they have the ability to affect the outcome of the change greater than secondary users. The sectioning was an effective way of communicating another point, the focus on the main users and their needs. Quoting one of the implementation team members, later quoted in the interviews by one of the project managers:

- *"We shall take back what was ours."*

There is an organizational distrust in the motives of implementations deriving from the global concern, as it is commonly felt that processes often serve executive managers rather than provide added value to the bottom line. The decision to section the group may have alienated part of the group, but it also communicated that the focus now was on the main users and their interests, which is appreciated by both main and secondary users.

Despite the segmentation, secondary users in leadership position are perceived to understand their role as sponsors to the main user, whether or not they are content with the amount of participation. A couple of senior managers said that among their tasks is to implement changes in to their segments.

- *"How I can affect the outcome of the change, is how it will be received by my team."*

If this is caused by the organization's basis for promoting individuals to these positions, or if this really is directly tied to work descriptions is unclear. Although the new information system is developed for the project managers and will provide low personal benefits in the secondary user's individual work tasks, they showed interest in benefits to their direct employees or the organization depending on the person.

- *"In my role in the organization, my first concern is the situation of the project managers."*

As presented in Figure 13 there were many messages with symbolistic intent displayed during the kick-off meeting. There was a large presence of high-level supporters, guiding coalition members, different nationalities who had got themselves there to participate, a statement of prioritization. There was a lavish serving of treats, long ranging sessions, out of office location, resource availability, and external technical and functional supporters. The communication style by the communicators was inclusive and empowering. The effects that the symbolic gestures has on the change readiness of the participant group is difficult to define. Participants claimed that management seemed positive towards the new system, and that the correct people were participating in the change.

5.5 Assessment of factors affecting participants' readiness for the new information system

In previous sections we have analysed:

- the information system (content) and how it is situated in the context

- the change environment during the initiation of the change (context)

- briefly, individual attributes and their behaviour during the initiation, and

- the change process and interventions visible to the change subjects.

In this section we evaluate the perceptions of the participants while using previous analysis as reference in order to determine the success off the operation and identify strengths and weaknesses in the process.

The interviews on which the assessment is based on was performed between one to two weeks after the kick-off meeting and just prior to the first training session. All quotations were captured from the interviews, and the interpretations are to the greatest extent supported by previous observations or discussions. The assessment is performed using a framework based on participant perceptions.

The content, context, and individual attributes directly or indirectly affect the attitude participants come in to the change with, as well as perceptions they end up having. The change readiness evaluation is structured by: Discrepancy, Appropriateness, Efficacy, Valence, and Principal support (see Table 2).

5.5.1 Discrepancy

The majority of participants indicate a high degree of discrepancy, or in other words, need for change. Their opinions regarding the main systems in use are largely unified regarding flaws not necessarily specific to individual work tasks, stating technically and practically flawed and outdated current systems. There are currently too many separate systems in use, of which several are not primarily created to benefit the main users. On the individual level, many but not all main and secondary users found a variety of needs in their individual work tasks. However, while one of the main system clearly has flaws, one system in particular used by a minority of the participants is perceived to be competent for the task as it is seen as both simple and flexible.

The previous experience that people had with change and new information systems, also led to a surprisingly common sarcastic statement among many of both main and secondary users:

- *"Here comes another system which will solve all our problems."*

The reaction does not seem as much as fatigue, as cynicism towards the implementation of new information systems. Based on the comment, it seems to be a function of the experience that people have from previous IS implementations. However, the reasons given for their reactions are rather scattered. The rate of information system implementations, organizational capability to implement change, the motive for the change and number of current systems, are all given as reasons. Many of which directly or indirectly culminated in dissatisfaction with the output qualities of the current systems. Some of the reasons for dissatisfaction are rather well aligned with the benefits that are expected to derive from the new system (presented in Section 5.2).

The group have varying focus towards either individual – group – organizational effects and benefits deriving from the change. There is particular contrast between the people who have their focus on individual or group (segment or task group) interests, and the people who show interest towards the organization-wide benefits of the change. Also, people that perceived that the change will not to provide them any individual task benefits, all identified the needs and benefits to colleagues or the organization.

The need for change communicated by participants stem from the project context and communication done by the implementation team. In the issues stated, there were both those that likely would be stated no matter the type or characteristics of information system, and then there was those issues that seemed to be triggered by the context of the change and the communication performed.

- *"We shall take back what was ours."*

This was stated at the kick-off by one of the implementation team members and later quoted during the interviews, signalling a strong resemblance to the message. Many of the issues important to participants are bi-products of actions in the strive for the set project goals, and were realized by participants from side-comments during the kick-off. The quote above was one of them.

5.5.2 Appropriateness

Participants perceive the proposed solution is appropriate to resolve some of the issues concerning current information systems on the organizational level. There is a general belief that it will resolve the organization's current needs, and to some extent hopefulness that it will provide resolutions to some individual needs as well. Concerns for some are in regards to the balance between the focus spent on the system or "tool", and the focus spent on processes and the way of using it. The thought process was, that the benefits can be be achievable if those are developed as well. One of the secondary users stated the following:

- *"We should not think that we can install a software and then we will save millions."*

Participants acknowledge that the organization has non-information system related needs as well, but none of the participants directly state another need that necessarily would trump this one, signalling that the type of change is appropriate for the situation. Participants state that change is a constant aspect of the organization's business environment and that change is in no way nerve-racking. Only one of the participants perceive there to be much change going on at the moment in time, yet all participants perceive the timing of the change being appropriate. Although there is some cynicism towards information system implementations, there is no signals of fatigue in the pilot group. In terms of information system specific appropriateness, many of the participants pointed out that either some or all aspects now being implemented in the new system is available in the old one already. But the reasons why they are not used is because people do not know how to use them. One of the main users stated:

- *"There is no time to find the features in our hectic world."*

Similar sentiments have been communicated by other main users in a previous context as well. The message throughout the change project has largely been 'participation in developing the tool and its features', and 'the implementation of the tool and features will provide these benefits', but little focus has been towards the 'joint development of the way we use it'. These which seem to be of great interest within the group. A secondary user stated with later affirmation from both main and secondary users:

- *"It's just a tool, nothing else."*

The communication overall made the system out to be appropriate based on common needs, desires and sentiments. Many of the features of the system would just on content or the type of change alone automatically resolve some of the needs or desires (such as modernization, extended features, reduced number of information system etc.), while other needs or desires are covered from the strategy of the implementation team (focus towards main users, taking business aspects in to account during development etc.).

The perceived appropriateness of the change in terms of bringing benefits in to individual work tasks varies greatly. This is largely due to the content of the change, as the information system by design brings greater benefit to a selected few of the main users, and less to the others. But it is further due to contextual aspects of the business environment where the businesses characteristics are different. A common perception by some is that changes implemented in the organization have been more appropriate for some businesses than others. Based on the performed content and environmental analysis, these perceptions may not be completely unfounded. One secondary user stated:

- *"Generally we have an issue of having greatly varying types of projects. Always when we come with new systems they are received very differently."*

Most perceived individual benefits are in regards to features present in the tool, but at the same time, perceptions seem to be that work will transfer from one location to to another.

This most noticeably can be seen in the work process of one minority group using another system which will be replaced, who based on discussions during and after the kick-off perceive that their work process may become more laboured in accommodating the process surrounding the tool.

Although only a few of the participants perceive the tool to be highly appropriate to their individual work tasks, all of the participants found features in the tool which they *hope* will be included and that may provide them individual benefits.

5.5.3 Efficacy

At the moments after the kick-off there are both positive and negative perceptions regarding organizational as well as individual efficacy. Efficacy defined as the participants' perceptions that they and the organization can implement the change successfully. None of the participants see it as an issue to implement the new system in to their individual work. The large majority of participants perceive the timing of the change to be favourable for multiple reasons, and there seem to be a general satisfaction and trust placed in the implementation team itself. There is however negative connotations regarding the organization's capability to implement change, which has been picked up on in initiation of the change. Paraphrasing one secondary user, confirmed by other secondary and main users, stated the following:

- *"An aspect which I see as negative regarding changes we do is that, after they have been initiated both follow-ups and informing remain inadequate."*

The interconnections between the project context, content, and actions is readily shown in the sum of perceptions regarding individual and organizational efficacy. The kick-off meeting which initiated the participation period in the project ended up in-between two significant change projects, after the summer holidays, and during a period when individual workloads in most cases were perceived to be manageable. This is perceived positively by participants, as some referenced previous change where a system was piloted just before the holidays. Yet, there was one comment by a main user:

- *"The timing could be questioned, whether we should make all changes at once."*

However, the majority perceived the timing to be mostly favourable. The timing of the change was a function of the content of the change, the global organization's previous experience with implementing the system, pilot finalization of the previous change effort, and lastly the deciding factor external stakeholder input. The favourable timing of the change was to some extent by chance, and it has an overall positive effect on the perceived organizational efficacy.

Although contextual factors played a large role in heightening individual efficacy, the change manager did also take actions to reduce barriers for individuals to participate. Superiors were consulted when choosing the project participants from each part of the organization, which indirectly more than likely had a positive effect on the perceived workloads. Only one person sees the timing in terms of workload as a significant inconvenience at that particular moment, which might affect his willingness to assert time towards the development of the system.

Status updates to project participants between the first information session and the kick-off meeting are something sought after by many participants. For those in the social circle of the implementation team members, this may have been less of an issue as the barrier to receive information was lesser for them. Some that were less eager to sought out information relied on their personal relationships to people who were close to the change to take their interests in to account.

The current and previously experienced lack of information combined with other previous experiences of low accountability may have a negative impact on commitment level. In particular if people perceive it continuing in the same manner. Also, while some perceived the participant group-size was optimal in size, again comparing it to a previous change effort, some others believed that some further input is needed from more members of the organization. Although there are some aspects concerning group-size and organizational involvement could be better, there is a joint belief that the rest of the organization will start using the system after the pilot. The reason given by a participant:

- *"We make them."*

In regards to individual tasks, participants perceive that task efficiency likely will momentarily be slowed down during early adoption, but there are no indications of worry at this point.

5.5.4 Valence

The project-specific valence was mostly positive. The culture of the organization strongly promotes active participation in organizational development and individual accomplishments. Most of the participants perceive it to be rewarding to participate in organizational change efforts for either task, personality, or career -related reasons. On an individual level, the majority thought it to be "fun" or "rewarding" to participate and happy to take, or wants a larger role in the current implementation. A low minority is indifferent of their role in the change.

Due to the type of change, the implementation has no implications on the pilot group in terms of job security or similar. Rather, the goal is to empower the users by providing greater oversight and operational functionality. Some see it as a direct advantage to their job to be a part of implementations, giving them an edge in the knowledge and learning. By being part of the development they would be able to provide input that is individually or group specific, and possibly to give them the opportunity to form the system according to their needs.

The individuality of the people participating in the change is shown by the broad varieties in their value systems regarding change. Their reasons for wanting to participate in change, benefits that would be received in their job or role, and their desired roles during change differed. All change participants believe it to be a positive experience to be a part in the development process. However, their reasons varies. Some of the reasons are:

- *Participating or being a part of something was perceived as "fun" or "exciting".*

- *Being a part of development and seeing something improve is rewarding.*

- *Important to participate in order to get individual advantages either from getting to provide input or by gaining experience with the new tool.*

- *Development and modernization of organization was a motivating factor of itself.*

It is further apparent that the degree to which individuals want to participate in change also varies. Within the group, there are people from all parts of the spectrum. A couple would likely get out of their way to gain further knowledge of an ongoing change and pursue involvement whatever the change was, while at least one would prefer less involvement if such an option was available. The majority of the participants are perceived to be somewhere in-between and can be swayed to either one direction or the other.

Participation in organizational change is perceived to be highly regarded in promotions, and gratitude of individual accomplishments are displayed by further invitations to participate. Other forms of displaying gratitude are seldom used, and perceived not a part of neither Finnish or company culture. One secondary user state that gratitude is shown by:

- *"Here is the following project."*

Although display of gratitude from good work is mostly displayed through further invitations to participate, it is stated that it is fun to hear someone say you did a good job although it is not the main thing.

5.5.5 Principle support

The information revealed in terms of participant perceptions on principal support was scares. Principal support refers to the managerial commitment and support in information and resources. Participants perceive that both their colleagues and management are positive towards the change. A couple further stated (referring to colleagues) that:

- *"[Name] said he was more positive after the kick-off."*

- *"I have not really heard anything negative about it after the kick-off".*

- *"I believe it was perceived positively."*

Most of the participants have a hard time foreseeing the resource availability of the change project. With a low level of consensus, the following was pointed out in regards to resource availability:

- *"The change manager is a superior to many of the project managers, so unless they are occupied then resources should be available."*

- *"I don't know. There are currently no restrictions to my knowledge".*

Further, favourable work description in terms of immediate task urgency is stated as a positive, as the participant group is excluded of engineers who are perceived to have more urgent tasks in terms of timeliness.

A summary of Section 5.5 is found in Table 2.

Table 2. Positive and negative perceptions regarding the IS implementation.

Perception and definition	**Positive**	**Negative**
Discrepancy. Change is needed.	Technical or practical flaws with current systems (multiple-point data entry, bad interface, poor data processing capabilities). Currently too many information systems. Tools not designed for the main users.	One of the systems that would be replaced was perceived to be competent. What is available in the new system is in large available in the current as well. For some systems are used to a low extent already

	Current tools are unmodern. Organization in need of the new tool to improve operational performance.	
Appropriateness. Appropriate response to the solve the need.	First tool that is focused towards main users and not on high-level management. The new tool will reduce the number of information systems. Hope or belief that a modern interface and functionality will lead to more effective work. Most could imagine it bringing some form of benefits to their tasks. Organization level benefits expected. Many functions that might be available and beneficial to users.	many do not see profound individual benefit to their tasks. New system might increase individual work rather than reduce it for some. Focus should not single-handedly be on developing the tool itself.
Efficacy. Belief that one can implement the change successfully.	Good ability to participate. Implementing the change into their work task would not be an issue.	Some wanted involvement from more people in the organization. If involvement is not increased for some,

	Favorable workloads for most of participants. Favorable timing of change. Low concern for technical issues. Might slow down work tasks during early adoption, but not seen as an issue.	system may end up incomplete. Amount of information has continuously been low.
Valence. Benefits or costs to one's job, status, or role.	Individually rewarding to participate in change. Beneficial for career to participate in organizational change. Many re-invited to participate after previous change efforts. Management encourages participation.	
Principal support. Managerial commitment and support of resources and information.	Belief that the change is supported by management. Flexibility in participant work descriptions. Positivity perceived to be heightened after kick-off.	No direct expectations on high resource availability. The level of transparency and information prior to the kick-off was low.

		People historically have not received enough information and answers are hard to come by. Support and ownership has been low in previous changes.

5.6 Summary of the findings

In the case study the author mapped out the change content and its implications on task groups, the context surrounding the change project, the change process from the eyes of the change subjects, and briefly the individuals participating in the change project. This ended up being crucial in interpreting the perceptions and feelings of the project participants and created a better understanding of the factors affecting the change and change readiness.

In Sections 5.2 and 5.3 we mapped the different systems surrounding the change and how they relate to the participant group and to the project outcome. In analysing the surroundings, it was realized that there was a highly diverse group with quite few similarities between each other, or how they related to the new information system. The high majority of participants differ in task description, social culture, business characteristics, and group work structures, and role in the change.

The interconnections between context, content and process are realized from the mapping process, in particular by the influence the context has on the change process, and in particularly from the perspective of the change manager. Somewhat unexpectedly, the decision-making ability of the change manager is to great extent affected by the external influences in the form of stakeholder interests and authority. Furthermore within the internal organization taking resource availability as an example, the formation of an implementation team has to do with timing, skills, *as well as* funding from top management.

The perceptual assessment confirms much of the work done during the mapping process. Majority consensus is hard to come by due to the diversity of the group, but there is consensus on organizational level issues, for example: perceptions of the high number of information systems being an issue, timing of the change for the organization being positive, positive workload status and issues with commonly used information systems. While there is low consensus regarding individual benefits. The results indicated the connection to *individual task description*, *business characteristics*, and *role in the change*. A brief summary of key strengths and weaknesses are listed below:

- **Discrepancy.** General agreement that there are issues with the current main information systems used in the organization and the way it is being used, while one lesser used system perceived competent. There are currently too many information systems in use.

- **Appropriateness.** Agreement that the new information system is the correct way to counter issues with current systems, but not necessarily solve underlying operational issue. Organizational level benefits perceived high, while individual benefits perceived low for the majority of people, as it is not expected to solve issues for the individual himself.

- **Efficacy.** Trust in the implementation leader, peer group members, and favourable timing of change, but some resentment towards the expected implementation strategies.

- **Valence.** Individually rewarding to participate in change projects. Rewards and verbal display of gratitude not in the culture of the organization, however gaining further invitations to participate valued.

- **Principal support.** Support by leadership and positivity among peers perceived high, but communication both previously and currently perceived inconsistent.

Regarding organizational capabilities, there is consensus that consistency in communication has been an issue. This is one issue that some perceive have been consistent with previous change performances. Others that were mentioned were in regards to strategy, availability of training, leadership, management of change, and the strategy of involving people, however these were mostly individual concerns and did not necessarily indicate there were consistent organizational issues on these points.

Establishing change readiness was not achieved in the case study, due to variability in answers and the issue of weighing those answers. However, both advantageous and detrimental factors affecting the change readiness of the change subjects were identified which can be used for further planning.

The semi-structured interviews were effective in bringing about individual concerns, and through participant observations we were able to get a good understanding of the organizational systems and how they were interconnected. However, the pilot group concluded of a great variety of individuals with completely different profiles, which resulted in a high number of non-converging responses to interview questions. The non-convergence exasperated the issue of determining importance, or the weight of individual concerns. This is not to say that answers did not converge at all. But in terms of using the results to drive actions, non-converging results depicting individual concerns may not be too reliable as they leave too much for individual interpretation.

The goal of the case study was to identify favourable and detrimental factors directly or indirectly acting upon the change readiness of the subject group in order to drive change management actions. This is perceived to have been accomplished more on the organizational level than on the individual due to the before mentioned diversity in the change subject group. To plan based on individual level perceptions might be a somewhat daunting proposition due to the complexity, and not an option in this particular study due to secrecy reasons. Rather, the results should be used to strengthen processes that previously have shown to be weak, to gain understanding in the diversity of perceptions in the change project subject group, and use the advantageous characteristics of the new system to counter the negative experiences people have had with existing systems.

6 DISCUSSION

This case study on improvement of change readiness in initiation of organizational change was approached with the belief that individual and organizational change readiness can be assessed through qualitative assessment of individual perceptions. Furthermore, that the produced results could be used to guide change management interventions during the initiation of change. Adequate results were not achieved in order to determine the change readiness of the change subjects, nor could we conclusively determine the success of the change management actions performed in the case. However, it brings forward both advantageous and detrimental aspects in the current situation, which is useful for the change manager planning further actions. Thoughts on interconnection between systems and their effect on the change manager, relevance of the content type of information systems, organizational change capabilities and flexibility, and how to approach change as a change manager further emerged from the study. The main research questions in the study are:

1) What are factors that affect organizational and individual change readiness?

2) What perceptions do individuals have in the initiation of organizational change?

3) What change management interventions heightens change readiness in individuals and organizations?

Change readiness factors and the impact of interconnected systems

The interconnections between content, context, process and individual attributes was one of the key realizations made, also proposed by Holt et al. (2007), not only bringing forwards factors affecting change readiness but the dynamics of change readiness and its impact on the change manager. Factors that are relevant to the determination of change readiness can to great extent be realized through this paradigm. Presented below is a brief compilation of how the interconnected systems affected the change in the case study:

- The context affected the perceived timing of the change, resource availability, previous experiences with information systems, outside influence on the change process. Due to participant job descriptions, business characteristics and roles in the implementation, their relation to the information system was greatly diverse.

- The content was a response to the need for change, but shaped the initial negative response to the news of a new information system due to the organization's previous experience. The content affected the context and change process by dictating the participant group in terms of skills and availability.

- Individuals varied greatly by their values in terms of either individual, group, or organizational benefits, their initial reaction to the news of change, their interest in participating and belief that change and participating in change is important.

- The change process was affected by the sum of the context and content in particular. External stakeholders dictated time frames, the characteristics of the information system dictated the need for skills, individuals and individual attributes came from resource availability. The tool availability of the change manager was enhanced by the global support and resources, as well as his position in the organization. On the other hand, reduced by restrictions to individual empowerment and barriers in terms of time to plan and execute change management.

The relevance of an organization's history, by Stensaker et al. (2012), varying emotions towards change, by Burke (2011) and many others, and the content's relevance in reactions people have to change, by Beer et al. (2000), are only a few validations realized from the case study. However, from a change management and planning perspective there are two aspects that in particular that stands out:

1) Job description and its relevance to information system characteristics, and

2) business characteristics and how it impacts usage of information systems.

In the case study, these two aspects in particular diversified the group in terms of individual benefits to own work, roles in the change and perceived need for the change. The situation that presented itself in the case was perceived non-beneficiary for some of the individuals' work task, and even regressive for others. Perceptions, that in part might not be completely unfounded. Specific to information system change is that people in many cases need to choose to adopt the new system in to their daily routine, which not necessarily is the case with other types of change. Fuchs et al. (2014) among countless others state the importance of communicating the benefits deriving from change. But in cases where the content individually may not be so attractive, this highlights the need to use other to heighten overall positive perceptions and change readiness.

Change management and the improvement of change readiness in initiation of change

It would be fair to say that change managers are bound to be reactive to the different aspects of the systems surrounding organizational change, whether it be positive or negative. However, organizations that have change capabilities to facilitate change, or in other words could be described as flexible, are likely to give change managers improved chances to be successful in their mission, acknowledging the statement by Appelbaum et al. (1998) on the importance of organizational flexibility.

The relevance of interventions by the change manager was overall hard to identify in the case study. However, both participation, communication and leadership was conclusively appreciated. Results converged with that of Burnes (2014) and Rogiest et al. (2015) on the importance of participation, Rogiest et al. (2015) on timely information, and Rafferty et al. (2013) on trust in leadership. The interviews further agreed with the statement by Smith (2015) that communication shall be continuous throughout the process. Although during the initiation period project participants had formed preliminary perceptions of the situation, it was noticeable that steadfast conclusions had not yet been made. Thereby, allowing the change manager to take learnings from this study and apply them in order to achieve successful change.

Limitations and future research

While the study identifies factors that affect the change readiness of individuals, the issue of complexity as well as the matter of weighing the implication of different factors are lingering by the end of the study. The purpose of the performed factor identification is to assess readiness in different categories, that ultimately will guide the actions of the change manager. To identify the individuals that are positively or negatively prawned to the change is made difficult due to the complexity of each system, both in terms of hard and soft elements. What is missing is reference points for importance, whether it be grouped by individual attributes, category, or sum of the group. In order then to more accurately evaluate change readiness, further research needs to be had on the weight of different factors affecting change. Furthermore, how change managers shall approach the issue of complexity within change management when taking organizational and individual perceptions in to account.

7 CONCLUSIONS

In the present study, the subject of investigation was the improvement of change readiness during the initiation of planned organizational change. It has been recognised that change efforts often fail due to sufficient change readiness of individuals is not achieved early on in the process. Suggestively, it may be due to change managers not considering key factors affecting change readiness. By understanding factors affecting the change situation, improved decision-making by the change manager can be achieved. The goal according to prominent research within the field is to form positive perceptions through interventions. The purpose of the study was to guide actions by the change manager in an information system implementation project at ABB Energy Industries, Vaasa.

Literature review on organizational change and change management

The literature review processed in Chapter 2 showed that individual change readiness is a function of factors that derive from the change context, individual attributes, content that is implemented, and the change process itself. The alignment between the interconnected systems determine people's attitudes and how they react to the change. The sum of the factors form the perceptions that in prominent research have shown to be relevant to change readiness. These are categorized by discrepancy, appropriateness, efficacy, principal support and valence. Perceptions concern the individual himself, as well as perceptions of the organization. Specific to information system implementations is that people must have the desire to adopt a new system in order to receive the full potential from the change, which brings with it its own set of factors.

In order to overcome resistance to change, the change manager is tasked with performing interventions to align the organizational systems and processes to facilitate implementation and overall change readiness (Section 3.3). To such includes formation of powerful guiding coalitions and removing barriers among other actions. Furthermore, communication, participation and leadership have been identified as three pillars for for successful change. The objective with these roles and interventions is to gain and uphold commitment from the change subjects and management.

Case study – Interviews and observations

The objective with the case study was to identify advantageous and detrimental factors that affect the change. Semi-structured interviews were conducted on seven (7) individuals subjected to the change, with the intention to bring forward perceptions individuals have of the situation surrounding the initiation of information system implementation.

In Sections 5.2 to 5.4 we applied the learnings from literature to map the systems and factors identified to be important for change readiness. From the interviews in Section 5.5 we found:

1) job description and its relevance to information system characteristics, and

2) business characteristics and how it impacts usage of information systems

to be key factors that diversified the group in terms of how the information system implementation was perceived to relate to the individuals. This is seen as problematic as it may reduce individual commitment. Shared positive and negative perceptions (Section 5.5, Table 2) were more recognizable on the organizational level:

- **Common perceptions.** Positive timing of change, positive workload situation, issues with commonly used systems, high number of currently used systems and positive benefits to the organization resulting from the change.

- **Varying perceptions.** Individual benefits deriving from change, individual ability affect the change outcome, perceived performance of individually used systems, relevance of the new system to the individual, organizational ability to implement change and individual motivations.

Findings from case study showed how people react and behave differently in the initiation of change. When people first were informed on the implementation there were few reactions. This may be because people had become accustomed to changes to information systems and had become numb to it. From the interviews however, we could see how

change readiness is in a particularly variable state in initiation of change due to a high level of uncertainty. People have a hard time making steadfast conclusions regarding different issues as they do not know how the change affects them.

The case study brought forward both advantageous and detrimental factors that affected the information system implementation. However, with the conflicting perceptions, there was difficulties determining actual change readiness. Furthermore, we were not successful in determining the relevance of interventions performed by the change manager. On the other hand we were able to establish the individual interests to participate, and importance of leadership and communication.

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APPENDIXES

Appendix 1. Questionnaire_English.

ABB Power Generations, Vaasa, is in the midst of implementing a new information system (IS) intended for the development of its operational performance. As designated members of the pilot team, your thoughts on the implementation gives valuable insight on the performance of the project.

This interview is intended for evaluation of perceptions surrounding the implementation of the new information system; perceptions, reflecting the implementation's effect on the person himself, and on the whole organization.

(Definition: Organization refers to ABB Power Generations, Vaasa, its structures, and its employees)

1) What are your initial thoughts on the different information systems that the organization has for managing aspects of the project lifecycle?

2) How have you perceived the general feeling have been by people who have heard about the new information system and its implementation?

3) Do you see the new information system resolving issues that you individually are dealing with in your work?

4) How would you describe your individual ability to affect the outcome of the change?

5) In what way is participating and implementing change rewarding for you individually?

6) Do you see the information system having an effect on operational issues that the organization is dealing with?

7) How would you describe the organization's capabilities for implementing change?

8) How would you say it is rewarding for members of the organization to participate in development projects?

9) Is there anything else regarding the implementation to which you would like to comment on?

Appendix 2. Questionnaire_Swedish.

ABB Power Generations, Vaasa, är I startgroparna av implementering av ett nytt informationssystem, med målet att utväckla organisationens operativa förmåga. Implementerings deltagarna har begärts delta I denna intervju, för att höra åsikter och tankar om ämnet i fråga.

Intervjuen är avsedd att evaluera uppfattningar runt implementeringen av det nya informationssystemet. Frågorna gäller individers uppfattning om implementeringens inverkan på en själv, och på organisationen som en helhet.

(Definition: Med 'organisation' menas ABB Power Generations, Vaasa, dess strukturer, och anställda)

1) Vad är dina första tankar gällande de informationssystem organisationen använder sig av för att hantera olika aspekter under projektens gång?

2) Hur har du uppfattat att andra har tagit emot informationen om det nya informationssystemet och dess implementering?

3) Förväntar du dig att det nya informations systemet ska lösa problem du själv upplever i ditt dagliga arbete?

4) Hur skulle du beskriva dina personliga möjligheter att påverka utkomsten av förändringen?

5) Vad ger det dig personligen att delta i implementering av förändringar?

6) Förväntar du dig att det nya informationssystemet kommer att ha en inverkan på de operativa problem som organisationen har?

7) Hur skulle du allmänt beskriva organisationens förmåga att implementera förändringar?

8) Hur skulle du säga att det är givande att delta i utvecklingsprojekt för människor i organisationen?

9) Är det någonting annat i anknytning till implementeringen som du vill kommentera?