

The Future of Organizational Change Management

Author: Maya Larissa Paul
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

Being able to handle organizational change effectively in practice can be seen as a key component of organizational survival. This especially holds true in an increasingly turbulent environment. Thus, this thesis aims to answer not only the question of what approaches to organizational change management look like in the current state but also what they will look like in the future state, namely in 2025. The focus hereby is on the three key elements of change management: process, people, principles. To come up with reasonable answers, a two-round Delphi survey with experts in the field has been conducted. The main findings are that organizational change appears to be a top-down approach which can be strategically planned and managed in the current state. In contrast to this, organizational change in 2025 will emerge in a more constant and natural way and hence will increasingly require the involvement of all stakeholders affected by the change initiative. When linking these results to already existing organizational metaphors, it appears that organizations currently work like a "Machine" in practice, whereas they will be a combination of the "Organism" and "Flux and Transformation" metaphor in the future. Consequently, Lewin's three-step-model (1951) as well as Bullock and Batten's planned change model (1985) describe best how organizational change is approached in the current state while Stacey and Shaw's complex-responsive-processes model (2001) could become the most important organizational change management model in 2025.

Supervisors:

Dr. Sjoerd van den Heuvel and Dr. Anna Bos-Nehles

Keywords

Change Management, Forecasting, Delphi Study, Organizational Metaphors, Process, People, Principles, Organizational Change Management Models

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

5th IBA Bachelor Thesis Conference, July 2nd, 2015, Enschede, The Netherlands.
Copyright 2015, University of Twente, Faculty of Management and Governance.

1. INTRODUCTION

"Change is the only thing that will never change so let's learn to adopt by change management" (Kansal & Chandani, 2014, p. 208).

Due to the constantly increasing speed of technological, political and regulatory changes that organizations, and especially multinational enterprises (MNEs), face, the ability to effectively manage organizational change is seen as a key factor for organizational survival as well as the establishment of a competitive advantage, as stated by Greenwood and Hinings (1996). They concluded that studying organizational reactions to change already became a central research topic in the 1990s, although the first studies on employee responses to organizational change even date back to the 1950s (Oreg, Vakola & Armenakis, 2011). Several models have been developed on the basis of conducted studies with the purpose of guiding companies to effectively manage their upcoming organizational change and thus "any adjustment or alteration in the organization that has the potential to influence the organization's stakeholders' physical or psychological experience" (Oreg, Todnem By & Michel, 2014, p. 4). Eminent models in this area are for example Kotter's "eight steps to transforming your organisation" (Kotter, 1995) or Lewin's "three-step-model" (Lewin, 1951). But even though there are already many existing models on this topic, almost 70% of all organizational changes fail in practice (McKinsey & Company, 2009; Kotter, 2008; Senturia, Flees & Maceda, 2008; Hughes, 2011). The reasons for this high failure rate are linked to employee attitudes and management behavior (McKinsey & Company, 2009). Both scholars and professionals indicate that the need for effective change management is growing but the ability to do so is decreasing (Guest, 2004; IBM, 2008). A main reason for this decreasing ability of organizations to effectively cope with change is that they still often use slow and inflexible processes to manage change even though the fast changing technological environment requires otherwise (Guest, 2004). Traditional change management models, for example Lewin's three-step-model (1951), treat organizational change as being planned and thus as "a process that moves from one 'fixed state' to another through a series of pre-planned steps" (Bamford & Forrester, 2003, p. 547). However, Herold, Fedor and Caldwell (1997) exemplify that it is not effective for companies to handle changes as independent events, as this does not allow for flexibility (Clark & Wheelwright, 1992) and thus a fast and successful change implementation is hindered. Further research is required to analyze whether present change management models like Kotter's eight-steps-model (1995) indeed may become obsolete in the future (Zand & Sorensen, 1975) and need to be replaced by more flexible approaches to change. Hence, following research question emerges: *What will approaches to organizational change management look like in 2025?*

As technological advances, which influence organizations and require them to change, take place in a rapidly manner (Westphal, 2002; Botha, Kourie & Snyman, 2014), looking 10 years into the future seems appropriate in this case. Through this, future insufficiencies could be prevented (Firby, 1978). In order to answer the central research question several sub-questions are posed. Hereby, three key elements of change management (Cameron & Green, 2014) are taken into account, namely:

- 1) Process → How is organizational change tackled?
 - 2) People → Who is responsible for organizational change?
 - 3) Principles → What are the guiding principles?
- Consequently, the sub questions are:
- 1) What do approaches to organizational change management currently look like?

2) What will the process of organizational change management look like in the future?

3) Who will be responsible for designing and implementing future organizational change approaches?

4) What will be the guiding principles for organizational change approaches in the future?

Cameron and Green (2014) argue that the three key elements process, people and principles are most relevant when analyzing organizational change management. In order to do so, they make use of four organizational metaphors to explain how organizational change works in practice. These four metaphors are mostly used by managers as well as consultants in practice and thus appear to offer the most relevant insights into organizational change management (Cameron & Green, 2014; Morgan, 2006). The first metaphor is "Organizations as Machines" which considers change as being planned and centralized. "Organizations as Political Systems" is the second metaphor mentioned by Cameron and Green (2014). Here the importance of finding support for organizational change from powerful individuals is stressed. "Organizations as Organisms" states that the whole organization needs to be aware of the need to change and should be involved in change actions. Finally, the "organizations as Flux and Transformation" metaphor argues that managers might not be able to control and manage change in an increasingly turbulent environment as it cannot be planned ahead. A summary of the four metaphors and their characteristics can be found in Table 1.

Table 1. Organizational Metaphors and their Characteristics
(Cameron & Green, 2014)

Organizational Metaphors	Characteristics
Machine	- Routine operations - Clearly defined job roles and standard procedures → Change can be planned and controlled
Political Systems	- Importance of power play and conflict in organization → Change needs to be supported by a powerful person
Organism	- Organizational structure depends on the environment - Individual as well as organizational happiness and health are crucial → Change is made only when responding to environmental changes (no internal focus used)
Flux and Transformation	- Organization is part of environment - Organization has ability to self-organize and change with the purpose of getting a desired identity → Change cannot be managed but it emerges

By analyzing the current and future state of these metaphors as well as several models to organizational change, which will all

be explained in greater detail later on, answers to the research and sub questions can be formulated.

The focus of the research will be on organizational changes within MNEs since these companies, due to their internationality, most of the times face more complex change than small and medium enterprises (SMEs) (Rosenzweig & Singh, 1991).

1.1 Academic and Practical Relevance

Conducting a study with the purpose of finding an answer to the presented research question of what approaches to organizational change management will look like in 2025, has both an academic as well as a practical relevance, as it will guide the development of future change management approaches. Although there is literature available which looks at the current state of organizational change management, these studies generally neglect the future aspect (Buchanan, Ketley, Gollop, Jones, Lamont, Sharpe & Whitby, 2005). Consequently, research on the future of organizational change management approaches is basically non-existent. Thus, conducting research on this topic will be a starting point to close a gap in literature. From a managerial perspective, performing research on the topic will also have high value. As previously mentioned, most change approaches fail in practice which is not only a waste of time and effort but consequently also of money. Furthermore, the budget made available for change management projects seems to decrease (Lehman, Greener & Simpson, 2002). Hence, less money and fewer people are assigned to change initiatives, even though the frequency and complexity of change that organizations have to deal with constantly increases (Maurer, 1996). Knowing who will drive organizational change management in the future and how these change approaches could be structured more effectively, thus has practical relevance as a considerable monetary loss can be avoided and the quality of change initiatives can be improved.

2. THEORY

2.1 Organizational Change Management Models

Cameron and Green (2014) mention in total nine models, developed by key authors in the field, which represent ways of examining organizational change and are thus helpful for answering the sub- and research questions. These models will each be explained in greater detail now.

One of the oldest models of organizational change is Lewin's three-step-model which was already developed in 1951. Lewin suggested that organizational change in general has three steps. In the first step, the current state of affairs is unfreezed. Hence, this step involves defining the current state, revealing driving as well as resisting forces to the change and envisioning a desired end-state. The second step involves moving to a new state of affairs. This is done through involvement and participation of individuals. In the last step new policies are set, success is rewarded and new standards are established. Consequently, the new state is stabilized and refreezed (Lewin, 1951; Burnes, 2004).

Another eminent model of organizational change is Kotter's eight-step-model (1995). Kotter came up with eight key steps for making change happen. These are: establishing a sense of urgency, forming a powerful guiding group of people, creating a vision, communicating this vision, empowering others to act on the vision, advertising short-term visible improvements, rewarding people who work towards the defined vision and finally making sure that the change sticks by ensuring everyone's understanding that their new behavior leads to success (Kotter, 1995). As Kotter's eight-step-model is a

straightforward process, it falls under the same category of organizational change management models as Lewin's three-step-model because they both treat change as being possible to plan.

Bullock and Batten's planned change model (1985) is also comparable to the two aforementioned models as it describes four stages of planned change. Firstly, there is exploration which means determining the need for change as well as acquiring necessary resources for the change (e.g. expertise). In the next stage of planning, key decision makers come up with a change plan depicting a sequence of needed actions. In the action stage, actions are completed according to the plan made. This stage also involves feedback mechanisms, allowing some sort of replanning in case things go wrong. Once the change plan has been completely actioned, the fourth and last stage of integration starts. Here, the change is aligned with other areas of the organization. Furthermore, the change is formalized through policies and rewards (Bullock & Batten, 1985).

A more dynamic model is the change formula of Beckhard and Harris (1987). This formula is a way of depicting the change process and identifying factors which need to be in place so that the change can actually happen:

$$C = (A \times B \times D) > X$$

Where

C = Change, A = Level of dissatisfaction with the current state, B = Desired end state, D = Practicality of change, X = Costs of change.

As it can be seen in the formula, the factors A, B and D have to outweigh the costs (X) in order for the change to happen. Thus, "if any person or group whose commitment is needed is not sufficiently dissatisfied with the present state of affairs (A), eager to achieve the proposed end state (B) and convinced of the feasibility of the change (D), then the cost (X) of changing is too high, and that person will resist the change" (Cameron and Green, 2012, p. 103). Moreover, through the multiplication in the formula it becomes clear, that if one of the factors A, B or D is zero, the end product C will also be zero and resistance to change cannot be overcome. Consequently, it can be said that A, B and D cannot compensate for each other but all factors need to have weight (Dannemiller & Jacobs, 1992).

Nadler and Tushman's congruence model (1997) aims to understand the dynamics within an organization when it changes. In this model internal and external inputs (resources, strategy and environment) are transformed into outputs (individual, team and organizational behavior). Hereby, the transformation process is analyzed according to the specific context of an organization. Four components make up an organization, namely the work (daily activities), the people (skills of people working in the organization), the formal organization (structures and policies of the organization) and the informal organization (unwritten activities like values and norms). These four components are dependent on each other and the higher the congruence is between them, the higher the organizational performance is. Consequently, the model emphasizes that it is crucial to pay attention to all four components at the same time since only then a change initiative will be successful (Nadler & Tushman, 1997).

In 1991, Bridges' managing-the-transition model was created. It does not focus on planned change but on the process of transition. Hereby, he defines transition as letting go of the past and adapting to new behavior. Hence, there is a separation of the mechanistic functional changes from the human emotional process of adapting to change. It is claimed that change can be planned, whereas transition is psychological and thus more complex. Bridges' model not only helps to understand the

emotions of individuals at each stage of the change process but also comes up with useful activities which should be performed in each phase. The transition process has three phases. The first one is called ending. It is needed to end what used to be before starting something new. Identifying who is losing what and acknowledging these losses openly is crucial for marking the endings. In the next phase, the neutral zone, motivation might fall as anxiety increases. Bridges states that managers need to ensure that people see the neutral zone as some sort of creative process and establish temporary structures. In the last phase, new beginnings should be made. Here, four key elements are important for people, namely: a purpose behind the change, a picture (vision) of what the new organization will look like, a step by step plan to get to this desired state and participation in the outcome. The new beginning is established as soon as people feel emotionally committed to doing something new. One important note is that endings are often longer for people further down in the organizational hierarchy which is why managers, who have already reached the new beginning, need to be patient with their employees' transition (Bridges, 2009).

Carnell's change management model (1990) also takes managers into account. It states that effective management of change depends on certain management skills. Managers should be able to manage transitions effectively by helping people to learn and by creating a risk-taking atmosphere. Furthermore, a manager should deal with organizational cultures by establishing a more adaptable culture through, e.g. more local autonomy. Finally, a manager should also be able to handle organizational politics effectively through an understanding and recognition of different agendas. Only managers with these three mentioned skills will be able to create an atmosphere where risk-taking, creativity and better performance can be implemented (Carnall, 2007).

Senge et. al (1999) came up with a systematic model dealing with sustainable change. Thus, this model is different from, e.g. Kotter's eight-steps-model, as it does not focus on the early phases of creating change but instead addresses the aspects sustainability and renewal of organizational change in the long-term. The authors' four key guidelines for this are: initiating (start small), sustaining (grow steadily), redesigning (do not plan the whole case ahead) and finally rethinking change (expect challenges) (Senge et al., 1999). Cameron and Green (2014) conclude from this that change goals should be kept realistic, managers should stay close to the change efforts at all stages as well as reward good actions.

Finally, another school of thought is represented by Stacey and Shaw's complex-responsive-processes model (2001). The most important notion of this model is that it sees complex change as uncontrollable. Consequently, the authors do not try to answer the traditional question of how to manage change but instead focus on the participation of managers in the change initiative (Stacey, 2001). Cameron and Green (2014) summarize this as three key roles of leaders in complex change: develop people's thinking on how to achieve goals, encourage feedback and information flow and finally focus people's attention on differences between the current and the desired state.

2.2 Linkage between Organizational Change Management Models and Organizational Metaphors

In order to come to a plausible conclusion answering the posed research and sub-questions, Morgan's (2006) as well as Cameron and Green's (2014) aforementioned four organizational metaphors will be taken into account, constituting a good starting point for understanding how

organizations really work in practice and for depicting different beliefs and assumptions about organizational change (Palmer & Dunford, 1996; Bolman & Deal, 2011). Each of these metaphors, which are mostly used by managers and consultants in practice, can be linked to several organizational change management models and thus show how organizations might approach change (Cameron & Green, 2014).

2.2.1 Organizations as Machines

The first metaphor mentioned by Cameron and Green (2014) is the "Organizations as Machines" metaphor. This metaphor is part of the classical management theory as it represents a rational organization, mechanistically structured to achieve predefined goals (Morgan, 2006). Thus, a machine organization is characterized through "a pattern of precisely defined jobs organized in a hierarchical manner through precisely defined lines of command or communication" (Morgan, 2006, p.18). Cameron and Green (2014) as well as Morgan (2006) summarize some of the key beliefs of this metaphor as: every employee should receive orders from only one line manager, division of labor into specific roles leads to most efficiency, the management should plan, organize and control. Taking these beliefs into account, several assumptions about organizational change come up for the machine metaphor. These are: people with authority can change the organization to a predetermined end, there will be employee resistance and this has to be managed, organizational change will be successful as long as it is well planned and controlled by the senior management (Cameron & Green, 2014).

Considering these mentioned characteristics and key beliefs of the machine metaphor, it can be linked to four of the organizational change management models, namely Lewin's three-step-model (1951), Bullock and Batten's planned change model (1985), Kotter's eight-step-model (1995) and Bridges' managing-the-transition model (1991).

This is because Lewin's model can be used by managers as a planning tool instead of an organizational development process. In this case, the three steps relate to planning, implementation and review (Cameron & Green, 2014). The assumption that change can be planned and moved towards a goal in a predefined way, also holds true for Bullock and Batten's planned change model, Kotter's eight-step-model and Bridges' model as they all make use of a straightforward process of predetermined steps treating change as stable and planned.

2.2.2 Organizations as Political Systems

As Cameron and Green (2014) state, the metaphor "Organizations as Political Systems" is quite useful because it demonstrates the important role that power and conflict have in an organization. Parallels between politics and organizational life can be drawn (Morgan, 2006). Hence, following key beliefs of the political system metaphor appear: coalitions between individual people are more important than between work teams, getting support for one's approach is crucial, relationships to powerful individuals should be built and maintained (Cameron & Green, 2014). Again, these key beliefs lead to several assumptions about organizational change, namely: change will only be successful if it is supported by a powerful individual, there will be winners and losers as a result of the change, change strategies should include the creation of new coalitions as well as the renegotiation of specific issues (Cameron & Green, 2014).

The political system metaphor can be linked to five organizational change management models, namely Kotter's eight-step-model (1995), Nadler and Tushman's congruence model (1997), Carnell's change management model (1990), Senge et. al's systematic model (1999) as well as Stacey and

Shaw's complex-responsive-processes model (2001). This is because Kotter's model emphasizes the importance of people feeling the need for change in an organization and also addresses the aspect of power for achieving change (Cameron & Green, 2014). The political aspect is also important in the model of Nadler and Tushman since it is represented as one of the sub-systems, namely the informal organization. As aforementioned this sub-system consists of all unplanned activities that come up over time, e.g. values, norms, influence and power (Cameron & Green, 2014). Managing organizational politics is illustrated in the change management model (Carnell, 1990) as one of the three most important management skills for making change happen. Hence, a manager should be able to "develop skills in utilizing and recognizing various political tactics such as building coalitions, using outside experts and controlling the agenda" (Cameron & Green, 2012, p. 111). Since Cameron and Green (2014) state that the political system metaphor considers change as requiring new negotiations and coalitions, one can also say that the models of both Senge et al. (1999) as well as Stacey and Shaw (2001) apply this kind of political aspect.

2.2.3 Organizations as Organisms

The metaphor "Organizations as Organisms" generally sees an organization as an adaptive system, changing according to different environments (Morgan, 2006). Thus, in a quite stable environment one could expect some sort of bureaucratic organization, whereas in a more changing environment a less structured organization will be able to survive. Moreover, individual, team and organizational happiness as well as health are an important aspect of this metaphor (Cameron & Green, 2014). Consequently, the following key beliefs emerge: the organization should be designed with regard to the environment, the information flow between different parts of the organization and the environment is highly important for organizational success and finally the fit between individual, group and organizational social needs should be maximized as only then the organization will function well. Resulting from these key beliefs, Cameron and Green (2014) as well as Morgan (2006) come up with assumptions of the organism metaphor about organizational change: change is made only in response to change in the environment (no internal focus) and people have to be aware of the need for change so that they can successfully adapt and participate.

Many of the organizational change management models make use of the organism metaphor. Lewin's three-step-model (1951) describes a tendency of the organization to adjust itself back to its original status quo, as it is also illustrated by the organism metaphor. Therefore, Lewin argues that change can only be sustainable if the organization intentionally moves to a new end-state which is then strongly established (Cameron & Green, 2014). Since Kotter's eight-step-model (1995) puts emphasis on communicating the change vision so that people can participate in the change initiative, this model is also applicable to the organism metaphor (Morgan, 2006). As Cameron and Green (2014) state, the change formula of Beckhard and Harris (1987) also comes from the organism metaphor. This is because it shows the importance of designing interventions which let the three aspects of A (dissatisfaction with status quo), B (eagerness to achieve proposed new equilibrium) and D (feasibility of change) surface in an organization. Hence, the formula should be shared with all people involved in the change initiative, so that participation is high and progress can be made. The congruence model (Nadler & Tushman, 1997) sees the organization as a set of interrelated sub-systems adapting to changes in the external environment, as it is also illustrated in the organism metaphor (Morgan, 2006). By putting emphasis

on the thoughts and feelings of employees and consequently on the fit between individual, team and organizational happiness, Bridges' managing-the-transition model (1991) applies one crucial aspect of the organism metaphor. This also holds true for Carnall's change management model (1990) since it demonstrates the need for managers to effectively deal with organizational cultures resulting in a better general organizational adeptness to change (Cameron & Green, 2014). Also Senge et al. (1999) state in their model that managers need to focus on both interrelated systems of business and human emotions in order to be able to solve deeper problems (Senge, 2014).

2.2.4 Organizations as Flux and Transformation

The last organizational metaphor mentioned by Cameron and Green (2014) is the "Organizations as Flux and Transformation" metaphor. This metaphor does not see the organization as distinct from the environment and then adapting to it, as it is the case in the organism metaphor, but instead views it as a part of the whole environment. Consequently, an organization has the ability to change and self-organize according to its wish to have a certain identity. Even though managers can shape the change progress to some extent, they can never fully control the change because it emerges naturally (Morgan, 2006). Cameron and Green (2014) formulate following key beliefs of the flux and transformation metaphor: organizations have the ability to self-renew, conflict is important for new beginnings and the formal organizational structure is only one dimension of organizational life. Consequently, several assumptions about change come up: change cannot be managed but it emerges naturally, managers are part of the whole environment, tensions are an important factor for the process of emerging change, managers need to enable people to exchange ideas.

Three organizational change management models apply to the flux and transformation metaphor. One of these models is Bridges' managing-the-transition model (1991) because it demonstrates that new beginnings cannot be planned but that they can be supported by managers through sharing a clear vision. Senge et al.'s systematic model (1999) also states that change cannot be predicted and planned ahead and instead focuses on sustaining change. The most important model of the flux and transformation metaphor is Stacey and Shaw's complex-responsive-processes model (2001). This is because it implies that change will emerge naturally from good communication but also from tensions and conflicts. Another implication of this model is that managers are not outside the system but are part of the whole environment. Consequently, they are not able to control and plan change. Thus, this model is best used in situations of a complex and unpredictable environment (Cameron & Green, 2014). Nevertheless, Stacey (2001) also states that the traditional models of organizations like Lewin's three-step-model (1951), are not useless but are helpful for designing repetitive actions to achieve some sort of performance which is known in advance.

As it can be seen from this theoretical analysis, the four organizational metaphors are a good tool for trying to understand the workings of an organization in practice. Linked to various organizational change management models, these metaphors can help managers or consultants to select an appropriate model for a specific situation and thus handle change initiatives more effectively (Cameron & Green, 2014). Table 2 shows a summary of the four metaphors linked to the corresponding organizational change management models.

Table 2. Linkage between Organizational Change Management Models and Organizational Metaphors
(Cameron & Green, 2014)

Model	Machine	Political System	Organism	Flux and Transformation
Three-step-model (Lewin, 1951)	✓		✓	
Planned change model (Bullock & Batten, 1985)	✓			
Eight-step-model (Kotter, 1995)	✓	✓	✓	
Change formula (Beckhard & Harris, 1987)			✓	
Congruence model (Nadler & Tushman, 1997)		✓	✓	
Managing-the-transition model (Bridges, 1991)	✓		✓	✓
Change management model (Carnall, 1990)		✓	✓	
Systematic Model (Senge et al., 1999)		✓	✓	✓
Complex-responsive-processes model (Stacey & Shaw, 2001)		✓		✓

3. METHODOLOGY

3.1 Delphi Method Process

Next to the mentioned theory on the current state of organizational change approaches, a study on the basis of the Delphi method is conducted. This research method can be seen as a judgment and forecasting tool (Rowe & Wright, 1999) and thus is appropriate for finding out more about possible future approaches to change initiatives. Powell (2003) describes the Delphi method as a series of questionnaires/rounds, aiming to get the most reliable consensus of expert opinions. Hence, it is a useful tool for combining individual judgments of experts in a certain field so that a gap in knowledge can be addressed (Delbecq, Van de Ven, Gustafson, 1975). Selected experts should have knowledge in the field examined, namely change as well as HR management, but should also have an interest in the research topic (Hasson, Keeney & McKenna, 2000) as this will help to increase the content validity of the research (Goodman, 1987). Gordon (1994) states that most Delphi panels use approximately 10 respondents, even though there are high variations between different conducted studies (see, for example Jansen 2007; De Vried 2008, etc.). However, "there is little actual empirical evidence on the effect of the number of participants on the reliability or validity of consensus processes" (Murphy, Black, Lamping, McKee, Sanderson and Askham, 1998, p.37). As the validity of the results will be ultimately determined by the number of responses from experts (Hasson et al., 2000), a response rate of 35 to 75 percent should generally be achieved (Gordon, 1994). As the number of rounds as well as the number of respondents are largely chosen according to the amount of time available (Hasson et al., 2000) as well as other pragmatic reasons (Jones, Sanderson & Black, 1992), two rounds of questionnaires seem to be realistic in this situation.

Concerning the structure of the questionnaires it has to be said that generally the first round in most existing Delphi studies is based on open questions. This allows experts to relatively freely elaborate on posed questions (Powell, 2003). The results of this first questionnaire are usually qualitatively analyzed by grouping similar responses together. This is done when "several different terms are used for what appears to be the same issue, the researcher groups them together in an attempt to provide one universal description" (Hasson et al., 2000, p. 1012). This sort of qualitative coding based on the grounded theory approach (Spencer, Ritchie & O'Connor, 2003) can be done manually or with digital support, depending on the time

available and the expertise of the researcher (Basit, 2003). Basit (2003) argues that using software programs as a supporting tool does not "eliminate the need to think and deliberate, generate codes, and reject and replace them with others" (p.152) but instead is more efficient. There are several electronic computer programs available, for example NVivo, Atlas or a free edition of QDA Miner Lite, which help coding the data. According to the grounded theory approach, categories of codes and their relationships are then compared and analyzed (Spencer, Ritchie & O'Connor, 2003; Glaser & Strauss, 2009). The qualitative comments collected from the first questionnaire are communicated to the respondents in a quantitative way with the help of a second questionnaire (Hasson et al., 2000). Here the experts are asked to rate or rank-order the categories which leads to priorities among the codes (Ludwig, 1994). As a result, fields of agreement and/or disagreement can be identified and a consensus is formed. After also having analyzed the responses of the second questionnaire, outcomes can be presented (Skulmoski, Hartman & Krahn, 2007) and a conclusion concerning posed research question can be drawn on the basis of the conducted Delphi study (Hsu & Sandford, 2007).

3.2 First Questionnaire Round

In this research, the first questionnaire only contains open ended questions as this makes it possible for experts to answer as freely and detailed as they wish (Powell, 2003). Two sets of three questions each make up this questionnaire; firstly questions about the current state of approaches to organizational change management and secondly questions about the future state, in the year 2025, of approaches to organizational change management. Both sets entail exactly the same three questions which are made up of the three key elements of the sub questions, namely process, people, principles of the current or future state respectively. Collecting and analyzing answers from experts in the fields of change management as well as human resources to these types of questions will be a starting point for formulating a conclusion to the posed research question later on. In total, the questionnaire is sent out to 32 people, because it can be expected that not all experts who have agreed to participate in the Delphi study will actually do so. Nevertheless, it is essential to have a response rate of approximately 35% to 75% (Gordon, 1994). The experts asked work at several large companies such as ABN Amro or Post NL as well as consulting companies like for example Johnson & Johnson.

3.3 Analysis and Coding of First Questionnaire Responses

After having received back the filled out first questionnaire from in total 11 experts, creating a response rate of approximately 35%, categories of codes are formed on the basis of these answers (Glaser & Strauss, 2009). The data from the first questionnaire is copied into a software program called QDA Miner Lite as this "is a way of organising data in order to search them" (Spencer, Ritchie & O'Connor, 2003, p.208). This sorting of data is the first step, called data management, in the qualitative data analysis process described by Spencer, Ritchie and O'Connor (2003). In the next two stages, descriptive and explanatory accounts are produced. Hereby meaning is assigned by summarizing the ordered data into categories/codes and explaining them. It is important to note that this process is not linear but instead categories and explanations can constantly be refined (Spencer, Ritchie & O'Connor, 2003). This descriptive and explanatory coding process is also divided into different stages. The first step is formed by deductive coding which means creating codes based on theory upfront. In the next stage, inductive coding, codes are added to this list based on the answers given by the experts. Lastly, some codes are grouped together so that one gets an overview of the most relevant codes (Fereday & Muir-Cochrane, 2008). In order to find answers to the posed sub questions, the overall three categories are formed by the current and future state of the three key elements process, people and principles. In the deductive coding stage Cameron and Green's work (2014) is used as a basis to come up with initial codes. After adding codes and grouping them together, 8 codes are formulated for the category process, 9 codes for the category people and finally 9 codes for the category principles. For full transparency, a list of these codes can be found in the appendices (see appendix section 8.1).

3.4 Second Questionnaire Construction

The second questionnaire consists again of two sets of questions, namely questions about the current state of approaches to organizational change management as well as questions about the future state, in the year 2025, of approaches to organizational change management. In both sets of questions, the same three questions as in the first questionnaire about the key elements of the sub questions, process, people, principles, are posed. However, this time the questionnaire is quantitative. In this second questionnaire experts are asked to distribute 10 points among the items mentioned below each of the questions, which were formed on the basis of all the answers given in the first questionnaire. It is for example possible to give two items each five points or to give five items two points. For the second question about the current as well as the future state of the roles and responsibilities of certain people in an organization, a special ranking scale has to be used. Here, experts are asked to choose the most appropriate responsibility for each category (CEO, project team etc.) when distributing the 10 points among the nine chosen categories.

For validity reasons it is crucial that experts who participated in the first questionnaire, also participate in the second questionnaire. Due to this, the second questionnaire is sent out only to the 11 experts who filled out the first questionnaire.

3.5 Second Questionnaire Analysis

The second questionnaire was returned by six experts which leads to a response rate of approximately 55%.

As the Delphi method is commonly used to gather expert opinions on future developments, consensus measurement plays an important role even though "the efficient structuring of a group communication process can be considered the primary

goal of a Delphi study" (Von der Gracht, 2012, p.1527). Consensus measurement in turn can be seen as a valuable tool of analyzing and interpreting collected data. Since the term consensus can have various understandings, many researchers have used different measures for determining the level of agreement among experts in previous Delphi studies (Von der Gracht, 2012). Consequently, there are no standards for consensus measurement and thus measurement criteria have to be individually defined for each Delphi study (Mitchell, 1991). In this research, Armstrong's definition of consensus from his forecasting dictionary will be used: "Agreement of opinions; the collective unanimous opinion of a number of persons. A feeling that the group's conclusion represents a fair summary of the conclusions reached by the individual members" (Armstrong, 2001, p.773).

Frequently used consensus measures in Delphi research are measures of central tendency, namely mean, mode and median. These three common measures give an indication of the average value for a distribution. The choice of which measure to use depends on the level of measurement (Argyrous, 2005). Since the second questionnaire contains a ratio scale, it is technically possible to use all three types of central tendency measures.

Next to measures of central tendency, measures of dispersion are also commonly used to give an indication about the spread of scores in a distribution. The most frequently used measures for interval/ratio data are the range, the standard deviation and the interquartile range (Von der Gracht, 2012). The range is often used as it is a simple measure of dispersion, calculating the difference between the highest and the lowest score in a distribution. However, it changes with extreme scores, so either the interquartile range or the standard deviation (SD) should be calculated to compensate for this effect (Argyrous, 2005). The interquartile range is the measure of dispersion for the median while the standard deviation is the measure of dispersion for the mean. The standard deviation "tries to capture the average distance each score is from the average" (Von der Gracht, 2012, p.1530) and in combination with the mean it represents the most common descriptive statistics used as a consensus criterion. It has to be said that there are some authors like Murphy et al. (1998) or Gordon (1994) who recommend to use the median and interquartile range rather than the mean and standard deviation in a Delphi research, as they appear to be more robust. Nevertheless, in this Delphi research the mean and standard deviation will be used as the most important consensus criterion since analyzing the median does not add much value. This is because the median is not useful when only having few values (Von der Gracht, 2012), namely in this research values from six experts. Moreover, many respondents have distributed only one point for each item, making it almost useless to interpret the median.

The coefficient of variation (CV) is calculated in addition to the mean and standard deviation since this type of measurement "eliminates the influence of absolute size on variability (...) by indexing the dispersion of a data set relative to its own mean" (Bedeian & Mossholder, 2000, p. 286). Hence, the CV makes it clear that even a low SD does not necessarily mean less variable data and so the standard deviation and the coefficient of variation are often used in combination to show the observations' homogeneity and consensus (Giannarou, & Zervas, 2014). As English and Keran (1976) as well as Von der Gracht (2012) state, a CV between 0 and 0,5 hereby means a good degree of consensus, a CV between 0,5 and 0,8 a less than satisfactory degree of consensus and a CV larger than 0,8 means a poor degree of consensus. Thus, answers with an acceptable mean and with an acceptable coefficient of variation (less than 50%) are identified as consensus (Sharma, Nair &

Balasubramanian, 2003). In order to make the results as transparent as possible, further tables have been constructed, showing the rank of each item based on the mean, the mean itself, the percentage of experts who have distributed points to this item (N%), the standard deviation (SD) and finally the coefficient of variation in percentages (CV%). Please find these tables also attached in the appendix (see section 8.2). It has to be said that many Delphi studies also use inferential statistics, for example Kendall's W, to analyze the variance between several rounds of quantitative questionnaire rounds (Schmidt, Lyytinen & Mark Keil, 2001; Schmidt, 1997; Cooper, Gallegos & Granof, 1995). However, due to time constraints, it was not possible to let experts answer more than one quantitative questionnaire for this research, which makes it unfeasible to use inferential statistics for the analysis of results.

4. RESULTS

4.1 Process

Taking the tables of section 8.2 (see appendix) as a basis, several results from the second questionnaire come up. For the concept *process* one can see that the item "Involving all stakeholders is an important step in the process of change" has the same mean (2,5) for the current as well as the future state and is placed at the first rank in both cases. However, the coefficient of variation (CV) decreases from 83%, indicating a poor degree of consensus, for the current state to 42% for the future state. Hence, there seems to be relatively high consensus among the experts that stakeholders need to be involved in the change process in 2025. The same holds true for the item "Translating a change vision to daily work and communicating this vision is essential in the process for the achievement of the end-state" (mean for current state: 2,33; mean for future state: 2,4) which is placed at rank two in both cases. The CV decreases from 65% to 23% respectively, suggesting a high consensus among respondents. "Change is a process embedded in the daily work of the staff" is the item at rank three for the future state. The mean for this item increased from 1,67 to 2,7 and thus moved from rank six to rank three. Interesting in this case is that N(%) doubled from 50% to 100%, demonstrating that all experts agree to at least some extent that the change process will be embedded in the daily work of the staff in 2025. Whereas 50% (mean: 2,33; CV: 25%) think that the change process consists of the steps designing, planning, implementing and see it generally as a top-down approach (mean: 2,33; CV: 49%) for the current state, none of the experts agree that these two items hold true for 2025. Instead, 83% would describe change as a fast and ongoing process in the future (mean: 2; CV: 41%). Consequently, some experts also think that the steps of the change process will only be possible to fulfill if the organization is flexible and agile (mean: 1,5; CV: 47%). There appears to be more disagreement about the importance of the item "Monitoring the effects that change has after it has been executed is a crucial part of the process as it leads to more sustainability of the change initiative" for the future than for the current state as the mean decreases from 2,2 to 1,6 and the CV increases from 20% to 34%, even though N(%) remains 83%.

4.2 People

When looking at the key concept *people* one can see that the role of line managers in change initiatives is currently already important (mean: 3,33; CV: 21%) but it will become even more important in the future. 67% of the experts (mean: 3,6; CV: 35%) see line managers as the owners of change in 2025. Consequently, they will also be increasingly responsible for giving direction for change (mean: 2,67; N: 33%; CV: 0%). Furthermore, the results show clearly that stakeholders affected by change will be more involved in designing change initiatives

(mean: 4,3; N: 100%; CV: 41%). Thus, also the steering committee will be slightly more involved in change as they represent all business groups (mean: 1,33; N: 33%; CV: 0%). In contrast to that, the responsibility of senior management for change seems to decrease as 83% of the experts (mean: 2,67; CV: 50%) state that they will only have a facilitating/coaching role in 2025. Furthermore, the CEO will be less responsible for thinking about the strategic direction of an organization (mean: 2; N: 50%; CV: 29%). 83% of the experts (mean: 2,67; CV: 21%) agree to at least some extent that the project team is currently involved in designing and implementing change. In 2025 however, none of the experts see the project team as being involved in change. Also HR managers, change managers and advisory boards appear to be less responsible for and involved in change initiatives in the future.

4.3 Principles

Concerning the concept *principles* the main result seems to be that change in 2025 emerges more naturally and hence cannot be managed (mean: 2,67; N: 50%; CV: 57%). This stands in stark contrast to the current state where 83% of the experts (mean: 1,8; CV: 46%) consider change as possible to plan strategically and thus also see SMART formulated targets as setting the direction for a change initiative (mean: 1,75; N: 67%; CV: 29%). This item is less important in 2025 which can also be related to the fact that experts estimate change as being constant in the future (mean: 1,6; N: 83%; CV: 35%). Especially interesting is that experts see an increasing need for change to be designed in collaboration with employees in 2025 (mean: 2,3; N: 100%; CV: 35%). Consequently, change will also require new coalitions and new negotiations (mean: 1,6; N: 83; CV: 39%) and moreover, transparency about change to all people affected appears to be more crucial for the success of change in the future (mean: 1,67; N: 100%; CV: 31%). As a result of this, experts seem to think that there will generally be less resistance to change in 2025 ("Resistance is valuable and must be managed" → current state: mean: 1,5; N: 67%; CV: 38% → future state: mean: 0; N: 0; CV: 0) and so the need for managers to take the emotional states of employees during the change into account decreases slightly (mean: 1,4; CV: 39%).

5. DISCUSSION

5.1 Conclusions

As it can be seen from the mentioned results, there appears to be mostly consensus among experts concerning the current as well as future state of approaches to organizational change management.

5.1.1 Current state of approaches to organizational change management

To come back to the first sub question, one can conclude from the given answers that approaches to organizational change management currently look like Cameron and Green's (2014) "Machine" metaphor. This is because organizational change processes in the current state mostly follow a top-down approach, mainly consisting of the steps designing, planning and implementing. The senior management determines the project plan and rolls out a change program. The change initiative is coordinated by change and HR managers. Line managers, often together with a project team, are then responsible for implementing the change. Thus, the main guiding principles for the current state of approaches to organizational change management seem to be that change can be strategically planned, that SMART formulated targets set the direction for the change initiative and finally that resistance is valuable but must be managed.

When linking these characteristics of the current state of the key concepts process, people, principles to the aforementioned organizational change management models, it can be seen that the models of Lewin (1951), Bullock and Batten (1985), Kotter (1995) and Bridges (1991) are currently most relevant as they all relate to the "Organizations as Machine" metaphor. Especially Lewin's three-step-model (1951) as well as Bullock and Batten's planned change model (1985) appear to be important. This is due to the fact that both of these models describe several stages of planned change which relate to designing, planning and implementing. Hence, these models best describe the underlying assumption of the current state of approaches to organizational change management, namely that change can be planned and moved towards a certain target in a predetermined way.

5.1.2 Future state of approaches to organizational change management

When looking at the results it becomes clear that there are several differences between the current and the future state of approaches to organizational change management in terms of the three key concepts process, people, principles.

In 2025, organizational change processes seem to follow Cameron and Green's (2014) "Organism" metaphor. Unlike in the current state, there will be more bottom-up approaches to organizational change, where stakeholders, especially employees, will be increasingly involved in designing a solution. Hence, change will also be a process that is embedded in the daily work of the staff, which creates a greater importance for translating a change vision to daily work. As change is considered to be a fast and ongoing process in the future which involves all stakeholders affected, implementing the actual change is likely to happen in a more organically and fluid fashion.

Also the roles and responsibilities for designing and implementing organizational change approaches will differ in the future. Generally, the concept "people" will follow the "Flux and Transformation" metaphor as people with the authority to act will have the responsibility for change initiatives (Cameron & Green, 2014). Line managers will be the owners of change and consequently will also give the direction for change. A project team will then be responsible for planning the change program. Contrary to the current state, the senior management will only have a facilitating/coaching role, whereas stakeholders affected by change will be increasingly involved in the design and implementation of change initiatives. This goes along with the aforementioned difference in the structure of organizational change processes as change will be approached in a more bottom-up manner than in a top-down way. Interesting to see is that the responsibilities of advisory boards, HR as well as change managers appear to decrease in 2025. Again, this can be ascribed to the structure of organizational change processes in the future, where change is constant and thus embedded in the daily work of the staff. Resulting from this, it could be concluded that traditional change managers in general will not be so important in the future as every employee will have to be, to at least some extent, a change manager themselves.

The most obvious difference between the guiding principles in the current and in the future state is that change will emerge in a more natural and constant way in 2025 and thus cannot be strategically planned and managed. Hence, the "Flux and Transformation" metaphor will become extremely important for organizational change in the future. But also the "Organism" metaphor shapes some guiding organizational change principles in 2025. This is because, it is assumed that there must be an awareness of the need for change as well as strong participation

among employees which is why change will be designed collaboratively with stakeholders in the future. Transparency about the change to all people affected will hereby be crucial for the success of a change program. A consequential effect of this may also be that resistance to change could slightly decrease in the future.

Considering all the aspects mentioned above, one can conclude that approaches to organizational change management in 2025 will be more flexible, organic and fluid, depicting a mixture of both the "Flux and Transformation" as well as the "Organism" metaphor.

Linking the characteristics of processes, people and principles of the future state to the organizational change management models, it can be seen that several models will be prevailing in 2025. This is firstly, Kotter's eight-step-model (1995) as it emphasizes the importance of communicating a good change vision to all stakeholders affected so that people can participate in the change program. The same holds true for the change formula of Beckhard and Harris (1987), Nadler and Tushman's congruence model (1997), Bridges' managing-the-transition model (1991) and Carnell's change management model (1990). This is mainly because all of these models stress the necessity of stakeholders being aware of the need for change, considering their thoughts and feelings during the change and involving them in the design and implementation of a change initiative. Only then can a more adaptable organizational culture be created, leading to a successful change. Combining this with the systematic model of Senge et. al (1999), which focuses on the period after a change implementation, facilitates the sustainability of organizational change in the long-term. Even though all of these models generally treat change as planned, they can still be useful for the achievement of a predetermined performance through repetitive actions.

However, as aforementioned, change will be constant, emerging naturally and thus will not be possible to strategically plan in 2025. Consequently, Stacey and Shaw's complex-responsive-processes model (2001) could become the most important organizational change management model in the future. The reason for this is the model's notion that change is complex and uncontrollable. Consequently, change will not be possible to manage but it can still be successfully implemented when following the model's guidelines of developing people's thinking on how to achieve goals, encouraging feedback and lastly focusing people's attention on differences between the current and the desired end- state.

5.2 Limitations

As with any research, this Delphi survey has some limitations.

Von der Gracht (2012) mentions four key characteristics of a good Delphi survey. These are anonymity, controlled feedback, iteration and statistical "group response".

When taking a look at this research, it can be seen that the first two points are fulfilled since the participants do not know each other and feedback from the first questionnaire was given back to them in a controlled way through a quantitative second questionnaire. The third point, iteration, however, is not completely fulfilled. Even though the Delphi survey is executed in a series of rounds, it was ended before stability was achieved. Group stability is defined as "the consistency of responses between successive rounds" (Dajani, Sincoff & Talley, 1979, p. 84). It is seen as a good stopping criterion since consensus could be meaningless, if stability has not been reached beforehand (Von der Gracht, 2012). In this research, the number of responses was not consistent between the rounds as it changed from 11 responses (out of 32 experts asked; response

rate= 34%) to 6 responses (out of 11 experts asked; response rate= 55%). Nevertheless, due to time constraints, the Delphi survey had to be terminated before stability could be established. As Wechsler (1978) states, this is, unfortunately, a problem occurring in many Delphi studies. These time constraints might also have been the reason for the relatively low response rates since many experts, who had actually agreed to fill out the questionnaires beforehand, were not able to do so. Furthermore, the quality of the answers from the respondents could have been negatively affected as they had to fill out the questionnaires within a narrow time frame.

The fourth characteristic, statistical "group response", has also only been partly fulfilled. Even though the statistical group response is presented through measures of central tendency (mean, median, mode) as well as measures of dispersion (standard deviation), it was, again due to time constraints, not possible to let the participants review these statistics. However, this is usually an important step in a Delphi survey as respondents can decide if they want to change their opinion after having seen the group statistics or if they want to stick to their initial answers. Thus, the analysis of data collected from this stage "allows for measuring not only the existence of consensus and its strength, but also the convergence of opinions" (Von der Gracht, 2012, p. 1527). As a consequence, it was also not possible to analyze the variance between successive rounds of quantitative questionnaires via inferential statistics like Kendall's W, even though this is an often used practice in consensus measurement (Schmidt, Lyytinen & Mark Keil, 2001; Schmidt, 1997; Cooper, Gallegos & Granof, 1995).

5.3 Implications

5.3.1 Practical Implications

The analysis of how approaches to organizational change management will look like in 2025 has several practical implications. Managers should take a look at their individual company and analyze firstly how their company works in practice, i.e. what organizational metaphor is used, and secondly how their company approaches organizational change in terms of process, people, principles, i.e. what organizational change management model is used

Only if there is a fit between the organizational metaphor and the organizational change management model used, can change be successfully implemented. Being aware that organizational changes are likely to emerge in a constant, natural manner and are not possible to strategically plan ahead in the future, allows managers to alternate the metaphor and model used in the current state to more appropriate ones for the future state. Consequently, the failure rate of change initiatives could be decreased, eliminating large time and monetary losses for a company.

5.3.2 Theoretical Implications and Instructions for Future Research

Since this research focuses on the future state instead of only the current state of organizational change management approaches, it is, as aforementioned, a good starting point for closing a gap in literature. Furthermore, it offers a general idea of how organizational change will look like in terms of process, people, principles and thus can help guiding the development of future organizational change management approaches.

Nevertheless, due to mentioned biases in this Delphi study, mostly originating from time constraints, the results towards consensus on the future state of approaches to organizational change management might be slightly distorted and thus leave room for instructions for future research.

Generally, it is advised to give experts more time to fill out the questionnaires which will hopefully lead to many qualified answers. Furthermore, Delphi surveys of future research should only be terminated after group stability has been established as this will create a higher validity. Using a combination of both descriptive as well as inferential statistics for analyzing data of successive rounds of quantitative questionnaires, could fabricate more profound results concerning consensus among experts about the future state of approaches to organizational change management.

6. ACKNOWLEDGEMENTS

I would like to thank my first supervisor Dr. Sjoerd van den Heuvel for all the help and feedback that he offered. Furthermore, I would like to thank all the respondents for filling out the first and second questionnaire of this Delphi-survey.

Finally, I want to say thank you to my family for their constant help and support.

7. REFERENCES

1. Argyrous, G. (2005). *Statistics for Research*. Sage Publications, London.
2. Armstrong, J. S. (2001). *Principles of forecasting: a handbook for researchers and practitioners*. Kluwer Academic Publishers, Boston.
3. Basit, T. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational research*, 45(2), 143-154.
4. Bedeian, A. G., & Mossholder, K. W. (2000). On the use of the coefficient of variation as a measure of diversity. *Organizational Research Methods*, 3(3), 285-297.
5. Bolman, L. G., & Deal, T. E. (2011). *Reframing organizations: Artistry, choice and leadership*. John Wiley & Sons.
6. Botha, A., Kourie, D., & Snyman, R. (2014). *Coping with continuous change in the business environment: knowledge management and knowledge management technology*. Elsevier.
7. Bridges, W. (2009). *Managing transitions: Making the most of change*. Da Capo Press.
8. Buchanan, D., Ketley, D., Gollop, R., Jones, J. L., Lamont, S. S., Sharpe, A., & Whitby, E. (2005). No going back: A review of the literature on sustaining organizational change. *International Journal of Management Reviews*, 7(3), 189-205.
9. Bullock, R. J., & Batten, D. (1985). It's just a phase we're going through: a review and synthesis of OD phase analysis. *Group & Organization Management*, 10(4), 383-412.
10. Burnes, B. (2004). Kurt Lewin and the planned approach to change: a re-appraisal. *Journal of Management studies*, 41(6), 977-1002.

11. Cameron, E., & Green, M. (2014). *Making sense of change management: a complete guide to the models tools and techniques of organizational change*. Kogan Page Publishers, London.
12. Carnall, C. A. (2007). *Managing change in organizations*. Pearson Education.
13. Clark, K. B., & Wheelwright, S. C. (1992). Organizing and leading "heavyweight" development teams. *California Management Review*, 9-28.
14. Cooper, W. W., Gallegos, A., & Granof, M. H. (1995). A Delphi study of goals and evaluation criteria of state and privately owned Latin American airlines. *Socio-Economic Planning Sciences*, 29(4), 273-285.
15. Dajani, J. S., Sincoff, M. Z., & Talley, W. K. (1979). Stability and agreement criteria for the termination of Delphi studies. *Technological forecasting and social change*, 13(1), 83-90.
16. Dannemiller, K. D., & Jacobs, R. W. (1992). Changing the way organizations change: A revolution of common sense. *The Journal of Applied Behavioral Science*, 28(4), 480-498.
17. Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes*. Glenview, IL: Scott, Foresman.
18. English, J. M., & Kernan, G. L. (1976). The prediction of air travel and aircraft technology to the year 2000 using the Delphi method. *Transportation research*, 10(1), 1-8.
19. Fereday, J., & Muir-Cochrane, E. (2008). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International journal of qualitative methods*, 5(1), 80-92.
20. Firby, R. J. (1987). An investigation into reactive planning in complex domains. *AAAI*, 87, 202-206.
21. Giannarou, L., & Zervas, E. (2014). Using Delphi technique to build consensus in practice. *Int. Journal of Business Science and Applied Management*, 9(2).
22. Glaser, B. G., & Strauss, A. L. (2009). *The discovery of grounded theory: Strategies for qualitative research*. Transaction Publishers.
23. Goodman, C. M. (1987). The Delphi technique: a critique. *Journal of advanced nursing*, 12(6), 729-734.
24. Gordon, T. J. (1994). The delphi method. *Futures research methodology*, 2.
25. Greenwood, R., & Hinings, C. R. (1996). Understanding radical organizational change: Bringing together the old and the new institutionalism. *Academy of management review*, 21(4), 1022-1054.
26. Guest, D. E. (2004). The psychology of the employment relationship: An analysis based on the psychological contract. *Applied psychology*, 53(4), 541-555.
27. Hanson Hunt, L. (2008, October 14). *IBM Global Study: Majority of Organizational Change Projects Fail - Changing Mindsets and Culture Continue to Be Major Obstacles*. Retrieved March 20, 2015, from <https://www-03.ibm.com/press/us/en/pressrelease/25492.wss>
28. Hasson, F., Keeney, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of advanced nursing*, 32(4), 1008-1015.
29. Herold, D. M., Fedor, D. B., & Caldwell, S. D. (2007). Beyond change management: a multilevel investigation of contextual and personal influences on employees' commitment to change. *Journal of Applied Psychology*, 92(4), 942-951.
30. Hsu, C. C., & Sandford, B. A. (2007). The Delphi technique: making sense of consensus. *Practical assessment, research & evaluation*, 12(10), 1-8.
31. Hughes, M. (2011). Do 70 percent of all organizational change initiatives really fail?. *Journal of Change Management*, 11(4), 451-464.
32. Jones, J.M.G., Sanderson, C.F.B., & Black, N.A. (1992) What will happen to the quality of care with fewer junior doctors? A Delphi study of consultant physicians' views. *Journal of the Royal College of Physicians*, 26, 36-40.
33. Kansal, S., & Chandani, A. (2014). Effective Management Of Change During Merger and Acquisition. *Procedia Economics and Finance*, 11, 208-217.

34. Keller, S., & Aiken, C. (2009). *The Inconvenient Truth About Change Management: Why it isn't working and what to do about it*. Retrieved March 20, 2015, from http://www.mckinsey.com/app_media/reports/financial_services/the_inconvenient_truth_about_change_management.pdf
35. Kotter, J. P. (1995). Leading change: Why transformation efforts fail. *Harvard business review*, 73(2), 59-67.
36. Kotter, J. P. (2008). *A sense of urgency*. Harvard Business Press.
37. Kritsonis, A. (2005). Comparison of change theories. *International journal of scholarly academic intellectual diversity*, 8(1), 1-7.
38. Kurt, L. (1951). *Field theory in social science*. New York, NY: Harper & Row.
39. Lehman, W. E., Greener, J. M., & Simpson, D. D. (2002). Assessing organizational readiness for change. *Journal of substance abuse treatment*, 22(4), 197-209.
40. Lewin, K. (1951). *Field theory in social science*.
41. Maurer, R. (1996). *Beyond the wall of resistance: Unconventional strategies that build support for change*. Austin, TX: Bard Books Inc.
42. McNamara, C. (2006). *Field guide to consulting and organizational development with nonprofits: a collaborative and systems approach to performance, change and learning*. Minneapolis, MN: Authenticity Consulting.
43. Mitchell, V. W. (1991). The Delphi technique: an exposition and application. *Technology Analysis & Strategic Management*, 3(4), 333-358.
44. Morgan, G. (2006). *Images of Organization*. Thousand Oaks, CA: Sage.
45. Murphy, M. K., Black, N. A., Lamping, D. L., McKee, C. M., Sanderson, C. F., Askham, J., & Marteau, T. (1998). Consensus development methods, and their use in clinical guideline development. *Health technology assessment*, 2(3), 1-88.
46. Nadler, D. A., & Tushman, M. L. (1997). A congruence model for organization problem solving. *Managing Strategic Innovation and Change: Organization, Architectures and Managing Innovation*, Oxford University Press, Nueva York, 159-171.
47. Oreg, S., Michel, A., Todnem By, R. (2014). *The psychology of organizational change: Viewing change from the Employee's Perspective*. New York: Cambridge University Press.
48. Oreg, S., Vakola, M., & Armenakis, A. (2011). Change recipients' reactions to organizational change A 60-year review of quantitative studies. *The Journal of Applied Behavioral Science*, 47(4), 461-524.
49. Palmer, I., & Dunford, R. (1996). Conflicting uses of metaphors: Reconceptualizing their use in the field of organizational change. *Academy of Management Review*, 21(3), 691-717.
50. Powell, C. (2003). The Delphi technique: myths and realities. *Journal of advanced nursing*, 41(4), 376-382.
51. Rosenzweig, P. M., & Singh, J. V. (1991). Organizational environments and the multinational enterprise. *Academy of Management Review*, 16(2), 340-361.
52. Rowe, G., & Wright, G. (1999). The Delphi technique as a forecasting tool: issues and analysis. *International journal of forecasting*, 15(4), 353-375.
53. Schmidt, R. C. (1997). Managing delphi surveys using nonparametric statistical techniques. *Decision Sciences*, 28(3), 763-774.
54. Schmidt, R., Lyytinen, K., & Mark Keil, P. C. (2001). Identifying software project risks: An international Delphi study. *Journal of management information systems*, 17(4), 5-36.
55. Senge, P., Kleiner, A., Roberts, C., Ross, R., Roth, G., Smith, B., & Guman, E. C. (1999). *The dance of change: The challenges to sustaining momentum in learning organizations*. London: Nicholas Brealey.
56. Senge, P. M. (2014). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. Crown Business.
57. Senturia, T., Flees, L., & Maceda, M. (2008). *Leading change management requires sticking to the PLOT*. London: Bain & Company.
58. Sharma, D. P., Nair, P. C., & Balasubramanian, R. (2003). Analytical search of problems and prospects of power sector through Delphi study: case study of Kerala State, India. *Energy policy*, 31(12), 1245-1255.
59. Skulmoski, G., Hartman, F., & Krahn, J. (2007). The Delphi method for graduate research. *Journal of Information Technology Education: Research*, 6(1), 1-21.

60. Spencer, L., Ritchie, J., & O'Connor, W. (2003). Analysis: practices, principles and processes. *Qualitative research practice: A guide for social science students and researchers*, 199-218.
61. Stacey, R. D. (2001). *Complex responsive processes in organizations: Learning and knowledge creation*. Psychology Press.
62. Tuecke, P.R. (2001). [Review of the book *The Dance of Change: The Challenges to Sustaining Momentum in Learning Organizations*, by P. Senge, A. Kleiner, C. Roberts, R. Ross, G. Roth & B. Smith]. *A Research & Applications Journal*, 3, 86-89.
63. Von der Gracht, H. A. (2012). Consensus measurement in Delphi studies: review and implications for future quality assurance. *Technological Forecasting and Social Change*, 79(8), 1525-1536.
64. Wechsler, W. (1978). *Delphi-Methode: Gestaltung und Potential für betriebliche Prognoseprozesse*. Munich: V Florentz GmbH.
65. Westphal, L. E. (2002). Technology strategies for economic development in a fast changing global economy. *Economics of Innovation and New Technology*, 11(4-5), 275-320.
66. Zand, D. E., & Sorensen, R. E. (1975). Theory of change and the effective use of management science. *Administrative Science Quarterly*, 20, 532-545.

8. APPENDICES

8.1 List of Categories and Codes

8.1.1 Process

1. Involving all stakeholders is an important step in the process of change.
2. The steps of a change process can only be fulfilled if the organization is flexible and agile.
3. Translating a change vision to daily work and communicating this vision is essential in the process for the achievement of the end-state.
4. The process of organizational change is generally a top-down approach.
5. Change is a fast and ongoing process
6. Change is a process embedded in the daily work of the staff.
7. Monitoring the effects that change has after it has been executed is a crucial part of the process as it leads to more sustainability of the change initiative.
8. The overall organizational change process consists of the steps designing, planning, implementing

8.1.2 People + their roles and responsibilities

1. CEO
is responsible for the assignment of the task
thinks about the strategic direction of an organization
provides information during change initiative
2. PROJECT TEAM
is responsible for change
is the executer of change
is involved in designing and implementing change
has only a supporting role
is responsible for planning the change
provides data and analyzes the change
3. STEERING COMMITTEE
is responsible for change
is involved in change because they represent all business groups
is responsible for policy and go/no go decision making
4. LINE MANAGERS
are sponsors of the change
have only a supporting role
are the owners of change
give direction for change
5. HR MANAGERS
give advice
coordinate everything related to people issues
6. CHANGE MANAGERS
coordinate change
are the owners of change
have only a supporting role
7. STAKEHOLDERS AFFECTED BY CHANGE
are involved in designing the change
8. ADVISORY BOARDS
give advice
reveal blind spots
offer suggestions for improvements
9. SENIOR MANAGEMENT
determines the project plan

gives the approval for change
has only a facilitating/coaching role

- a. employees
 - b. suppliers
 - c. clients
 - d. stakeholders
- } 7. Stakeholders affected by change

- a. advisors
 - b. advisory boards
 - c. works council
 - d. consultants
- } 8. Advisory boards

- a. management team
 - b. chairman
 - c. management board
 - d. senior management
 - e. managing directors
- } 9. Senior management

8.1.3 Principles

1. Change can be strategically planned.
2. Change emerges naturally and hence cannot be managed.
3. Resistance is valuable but must be managed.
4. SMART formulated targets set the direction for the change initiative.
5. Change requires new coalitions and new negotiations.
6. Change is constant.
7. Change should be designed collaboratively with employees.
8. Transparency about change to all people affected is crucial for the success of the change.
9. Managers should take the emotional states of employees during the change into account

8.2 Second-Round Delphi Results (in rank order based on mean)

8.2.1 Process - current state

ITEMS	RANK	MEAN	N(%)	SD	CV(%)
Involving all stakeholders is an important step in the process of change.	1	2,5	100%	2,07	83%
Translating a change vision to daily work and communicating this vision is essential in the process for the achievement of the end-state.	2	2,33	100%	1,51	65%
The process of organizational change is generally a top-down approach.	3	2,33	50%	1,15	49%
The overall organizational change process consists of the steps designing, planning, implementing.	4	2,33	50%	0,58	25%
Monitoring the effects that change has after it has been executed is a crucial part of the process as it leads to more sustainability of the change initiative.	5	2,2	83%	0,45	20%
Change is a process embedded in the daily work of the staff.	6	1,67	50%	0,58	35%
Change is a fast and ongoing process.	7	1,5	33%	0,71	47%
The steps of a change process can only be fulfilled if the organization is flexible and agile.	8	/	/	/	/

8.2.2 Process - future state

ITEMS	RANK	MEAN	N(%)	SD	CV(%)
Involving all stakeholders is an important step in the process of change.	1	2,5	100%	1,05	42%
Translating a change vision to daily work and communicating this vision is essential in the process for the achievement of the end-state.	2	2,4	83%	0,55	23%
Change is a process embedded in the daily work of the staff.	3	2,17	100%	0,75	35%
Change is a fast and ongoing process.	4	2	83%	0,82	41%
Monitoring the effects that change has after it has been executed is a crucial part of the process as it leads to more sustainability of the change initiative.	5	1,6	83%	0,55	34%
The steps of a change process can only be fulfilled if the organization is flexible and agile.	6	1,5	33%	0,71	47%
The overall organizational change process consists of the steps designing, planning, implementing.	7	1	17%	/	/
The process of organizational change is generally a top-down approach.	8	/	/	/	/

8.2.3 People - current state

ITEMS	RANK	MEAN	N(%)	SD	CV(%)
1. CEO					
thinks about the strategic direction of an organization	1	2,8	67%	0,5	18%
provides information during change initiative	2	1,33	33%	0	0
is responsible for the assignment of the task	3	/	/	/	/
2. PROJECT TEAM					
is involved in designing and implementing change	1	2,67	83%	0,55	21%
is the executer of change	2	1	17%	/	/
has only a supporting role	3	1	17%	/	/
provides data and analyzes the change	4	1	17%	/	/
is responsible for change	5	/	/	/	/
is responsible for planning the change	6	/	/	/	/
3. STEERING COMMITTEE					
is responsible for policy and go/no go decision making	1	2	33%	0,71	35%
is involved in change because they represent all business groups	2	1,33	33%	0	0%
is responsible for change	2	1	17%	/	/
4. LINE MANAGERS					
are the owners of change	1	3,33	33%	0,71	21%
are sponsors of the change	2	1,33	33%	0	0%
have only a supporting role	3	1	17%	/	/
give direction for change	4	1	17%	/	/
5. HR MANAGERS					
coordinate everything related to people issues	1	2	33%	0,71	35%
give advice	2	1	17%	/	/
6. CHANGE MANAGERS					
coordinate change	1	2,5	50%	0,58	23%
have only a supporting role	2	2	17%	/	/
are the owners of change	3	/	/	/	/
7. STAKEHOLDERS AFFECTED BY CHANGE					
are involved in designing the change	1	2	83%	0,45	22%

8. ADVISORY BOARDS					
give advice	1	1	17%	/	/
reveal blind spots	2	1	17%	/	/
offer suggestions for improvements	3	/	/	/	/
9. SENIOR MANAGEMENT					
determines the project plan	1	2	17%	/	/
gives the approval for change	2	1,6	67%	0	0%
has only a facilitating/coaching role	3	/	/	/	/

8.2.4 People - future state

ITEMS	RANK	MEAN	N(%)	SD	CV(%)
1. CEO		/			
thinks about the strategic direction of an organization	1	2	50%	0,58	29%
is responsible for the assignment of the task	2	1	17%	/	/
provides information during change initiative	3	1	17%	/	/
2. PROJECT TEAM					
is responsible for planning the change	1	2	17%	/	/
has only a supporting role	2	1,33	33%	0	0%
provides data and analyzes the change	3	1	17%	/	/
is responsible for change	4	0	/	/	/
is the executer of change	5	0	/	/	/
is involved in designing and implementing change	6	0	/	/	/
3. STEERING COMMITTEE					
is involved in change because they represent all business groups	1	1,33	33%	0	0%
is responsible for policy and go/no go decision making	2	1	17%	/	/
is responsible for change	3	0	0%	/	/
4. LINE MANAGERS					
are the owners of change	1	3,6	67%	1,26	35%
give direction for change	2	2,67	33%	0	0%
have only a supporting role	3	2	33%	/	/
are sponsors of the change	4	0	0%	/	/
5. HR MANAGERS					
give advice	1	1	17%	/	/
coordinate everything related to people issues	2	1	17%	/	/
6. CHANGE MANAGERS					
coordinate change	1	2	33%	0,71	35%
have only a supporting role	2	1,33	33%	0	0%
are the owners of change	3	0	0%	/	/
7. STAKEHOLDERS AFFECTED BY CHANGE					
are involved in designing the change	1	4,3	100%	1,77	41%
8. ADVISORY BOARDS					

give advice	1	0	0%	/	/
reveal blind spots	2	0	0%	/	/
offer suggestions for improvements	3	0	0%	/	/
9. SENIOR MANAGEMENT					
has only a facilitating/coaching role	1	2,67	83%	1,34	50%
gives the approval for change	2	1	17%	/	/
determines the project plan	3	0	0%	/	/

8.2.5 Principles - current state

ITEMS	RANK	MEAN	N(%)	SD	CV(%)
Change can be strategically planned.	1	1,8	83%	0,84	46%
SMART formulated targets set direction for the change initiative.	2	1,75	67%	0,5	29%
Managers should take the emotional states of employees during the change into account.	3	1,6	83%	0,55	34%
Resistance is valuable but must be managed.	4	1,5	67%	0,58	38%
Change should be designed collaboratively with employees.	5	1,5	67%	1	67%
Transparency about change to all people affected is crucial for the success of the change.	6	1,5	100%	0,55	37%
Change requires new coalitions and new negotiations.	7	1,4	83%	0,55	39%
Change is constant.	8	1,3	100%	0,52	39%
Change emerges naturally and hence cannot be managed.	9	/	/	/	/

8.2.6 Principles - future state

ITEMS	RANK	MEAN	N(%)	SD	CV(%)
Change emerges naturally and hence cannot be managed.	1	2,67	50%	1,5	57%
Change should be designed collaboratively with employees.	2	2,3	100%	0,81	35%
Change is constant.	3	1,6	83%	0,55	35%
Transparency about change to all people affected is crucial for the success of the change.	4	1,67	100%	0,51	31%
Change requires new coalitions and new negotiations.	5	1,6	83%	0,54	39%
Managers should take the emotional states of employees during the change into account.	6	1,4	83%	0,54	39%
Change can be strategically planned.	7	1,3	50%	0,58	43%
SMART formulated targets set direction for the change initiative.	9	1	17%	/	/
Resistance is valuable but must be managed.	8	/	/	/	/