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CONSIDERATIONS ON SPECIFICS OF CHANGE MANAGEMENT: A QUALITATIVE CONTENT ANALYSIS BASED ON CASE STUDIES WITH INSTRUCTIONAL PURPOSES

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Abstract: *The present paper reveals a qualitative exploratory study of change management processes in either reorganization measures or system changes in German companies. The empirical endeavor deals with the content analysis of four descriptive case studies in the field of change management, built with and promoted for instructional purposes. Our results may serve as incentives for change management practitioners (i.e., change agents, project managers, coaches, and trainers) and scholars aiming the change management field of study and its related disciplines. We thus, encourage firstly, (1) the use of instructional case studies while teaching and learning about change and secondly, (2) the intensification of qualitative research endeavors, which offer an in depth understanding of the organizational mechanisms and flows*

Keywords: change management; content analysis; case studies; organizational change.

1. Introduction

„It is not the strongest of the species that survive,
nor the most intelligent. It is the one
most adaptable to change. “
Charles Darwin

In today's world, it is extremely important to acknowledge the futility of resisting change. The European Union's socio-demographic, technological and economic realities are changing rapidly, so rapidly that it is sometimes difficult to keep track of transnational and multinational organizations' intentions, despite modern strategic early warning system.

In modern teaching as well as in business, educators and managers are always confronted with the challenge of planning a certain process, developing procedures in a better and more innovative way (Errida and Lotfi, 2021; Jafaar et al., 2019; Long, 2013). Change processes happen in digitalization of businesses (Bagga et al., 2023; Girrbach, 2018) and public services, i.e., education (Lozano et al., 2014; Mei Kin et al., 2017), for the optimization of the organization procedures and business processes or even for restructuring and turn around interventions (Holten et al., 2020).

Although the thread of literature dealing with change management processes and models within organizations is oversaturated (Burnes, 2020; Errida and Lotfi, 2021; Nielsen, 2020), the way change management is taught and understood from a didactical viewpoint, remains a considerable research gap (Harvey and Kamvounias, 2007; van der Heijden et al., 2015).

The aim of our research is to shed light on the use of case studies as an efficient tool to teach and learn about change management in a university setting. The specific objectives of our research endeavor are twofold: (1) a pedagogical-fundamental objective of proving the effectiveness and richness of case studies in teaching change management concepts and (2) a pedagogical-applied objective with the goal of identifying similarities and differences between important change management themes which bridge theory and practice.

We report as important results of our paper (1) practitioner (i.e., in teaching) oriented guidelines for the use of case studies as effective class materials in change management education, (2) the identification of recurrent themes of change management practice and theory (Phillips and Klein, 2023), grounding our research in a qualitative analysis of case studies with instructional purpose and finally (3) demonstrating that without an in depth practice-oriented curriculum, catalyzed through the (pro)active students' involvement (Pitic and Irimiaş, 2023), we cannot expect well prepared change agents in our private and public organizations in the future.

Specifically, our findings align with Phillips and Klein's (2023) and van der Heijden's et al. (2015) research which suggests some common strategies of organizational change implementation related to communication, stakeholder involvement, encouragement, organizational culture, vision, and mission. Thus, we show that teaching change management must derive from the organizational realities, meaning that the instructors have to be constantly anchored in the practicality and applicability of the class materials which they offer.

In the first section, information was provided about models of change management, change communication, barriers and success factors. The second section describes the research methodology used and the hypotheses put forward. The third section deals with the actual results analysis. First, the codes used during the analysis were defined. Then, after the category-based evaluation of the main categories and the comparative analysis of cases, the case studies were evaluated. This section also contains some visualizations and a critique of the methods. Finally, we discuss our findings against the background of previous research on change management practices and we draw some conclusions, bearing in mind that there is no research endeavor without any limitations; thus, we address them with the goal for further improvement of the future research agenda.

2. Review of Literature

2.1. Change processes in organizations

Change management is a generic term which encompasses a wide and eclectic palette of models and frameworks for organizational strategies (Phillips and Klein, 2023). There are many different approaches to change, for example lean management attempts to optimize processes (Holten et al., 2020), strategic management attempts (Kraus 2015; Zelesniack and Grolman 2022) to develop strategy through analyses (such as SWOT or portfolio methods).

Thus, change management is activated when companies need new strategies, structures, processes, or systems (Lauer, 2019; Wick, 2020).

A change agent must be aware of the human interrelationships, understand the interactions between people and processes and have a fundamental and overarching approach to these composite elements of the organization (Fleig 2019; Islam, 2023). It is often said that change is the only constant. When we hear the word "change", on the one hand we can assign a positive connotation to the word (it stands for modernity, progress, future). On the other hand, we can also assign it a negative connotation (stressful, enervating, or destructive). This means that it is extremely challenging to successfully shape change because of its antithetical impact of the human's perception. The solution is first in acknowledging this apparent paradox (i.e., change is at the same time positive and negative), thus, both possibilities should be addressed (Ferdman, 2017) when trying to foster change even if it would mean to simultaneously apply antithetical HRM procedures, like for example, encouraging the same treatment of employees and at the same time considering individual differences.

There is a consistent scholarly line of thought (Staehle, 1999, p. 934; Kostka and Mönch, 2002, p. 16; Lauer 2019, p. 8), agreeing that methods can be applied primarily at three points: (1) individuals (i.e., the smallest social elements), (2) corporate structures (including, formal organizational and operational structures as well as strategies and resources), and (3) corporate culture (i.e., permanent, more informal structures, which are responsible for attitudes, values and informal rules of conduct).

There are various discussions about which factors can really make a change process successful, but there is still no common position on this. Essentially, there are four success factors: (1) Leadership: all managers must be prepared to change themselves and support the change in the company; they must agree to this. It is extremely important to find a change manager as early as possible who already has the recommended expertise. The problem-solving skills of managers are truly called upon in a change process (Phillips and Klein, 2023; Schwarz and Cokbudak, 2007); (2) Goal definition: the desired goals should be understood and accepted by the employees so that the change processes do not fail. The company's vision should not be a secret from anyone. "This also enables employees to carry out their tasks better and in a more targeted manner" (Lauer 2019, p. 115-116); (3) Participation: change projects often go wrong due to a lack of employee participation. Unclear responsibilities and the lack of opportunities for co-determination cause demotivation. The employees affected should be actively involved and integrated in the change process. At the same time, the possibility of personal co-determination by employees is of great importance (Schiessler, 2013); and (4), Communication: the transfer of information before a change process should be credible, understandable, and convincing. People's needs and concerns should be listened to (Yue and Walden, 2023). It is also important to do this continuously, as employees can become unsettled during the process (Phillips and Klein, 2023). You can hardly communicate too much during the change process. It is also very important that managers communicate personally. This is still the most powerful medium. After all, you have to choose a language that suits the culture of the company (Schmidt, 2019).

2.2. Challenges of change

The most important task in any corporate change process is for employees to accept the changes that are going to happen. They should be prepared to see the project goals as an innovative change and find a common attitude with the management. Furthermore, it is crucial in a change process that the desired goal is clearly and precisely defined (Mast, 2014). The benefits must be just as clearly defined. There are two types of goals in this case (Maeck, 1990): (1) factual goals (the actual goals of the change project) (2) and personal goals (what do you want to learn from the project).

Change processes are usually very lengthy. The project team needs several months, sometimes several years, to complete the project (Wimmer, 2011). Throughout the entire process, it is important to be in constant contact with the employees affected and to communicate with them regularly. As a result, employees feel that they are truly part of the process and the team realizes that the project is a top priority (Geramanis and Hermann, 2016; Islam, 2023).

One persistent question is why the change projects fail sometimes. For the most part, the projects are not technically set up incorrectly, but they cannot be described as successful. Rather, the issue is that the interaction with those affected is not optimized (Bergmann and Garrecht, 2016). In any change process, it should be assumed that there will be resistance. Dealing with resistance is therefore crucial to the success of the process (Warrick, 2023). A distinction is made between three forms of resistance: rational, emotional, and personal resistance (Landes and Steiner, 2013).

In change projects, the company management also has clear tasks that they must carry out continuously. According to the distribution of tasks, management should not "leave the project alone". The change manager needs regular support from the company management. Otherwise, the change manager will desperately push ahead with the change without help. This can lead to the manager himself developing resistance to the project (Doppler, 2011).

Thus, resistance is the main problem with change because people tend to see change as a bad thing at first. Consequently, many change processes do not run as efficiently and effectively as they should (Lauer, 2019, p. 49).

While resistance is the most significant cause of failed change, there are other factors that can seriously complicate the life of a change process. A lack of direction during the change process and an unclear objective regarding the outcomes of the change can significantly slow down or completely ruin the change. Unclear objectives and visions are the cause of 56% of failed change projects (see Houben 2012, p. 7).

2.3. Leadership and communication in change management

The success of a company largely depends on the relationship between the people in an organization (Phillips and Klein, 2023). Namely, people should form a real team, build trust and empathy, and have common goals. Communication measures should be carried out efficiently by management, i.e., employees should not have any "gray areas" in their heads regarding project execution. Management should provide employees with all information and news in a timely manner (Schaff and Hojka, 2018). Not only the good news, but also the bad news should be shared with employees. One could say that a company can only be profitable if its internal environment is in perfect harmony. Sometimes different companies hire so-called communication trainers to help with different projects and new situations (Flachenäcker, 2019).

Change communication is an important area of change management. The true significance of this phenomenon has only become clear in recent years (Phillips and Klein, 2023; Yue and Walden, 2023). According to Lies (2011), communication during change is a "neglected success factor" that can and must contribute significantly to the management of soft factors. To organize the communication process optimally, management must act responsibly. The role of managers is enormously important in change processes, they should operate as a guide for the other stakeholders. It is essential to emphasize that emotions and motivation change over the course of the change project (Güttel and Link, 2014, p. 20). The task of change communication is to address and influence these changes at the right time. Change communication can be used to significantly influence the emotions of employees and managers. It is an instrument of leadership to support change.

A manager must have a good relationship with his employees; mutual honesty, responsiveness and understanding are hugely important in such an environment (Krüger, 2018).

Very often managers and employees are not willing to change. This is because people love stability and security, which is why they do not want to leave this state easily (Freyth, 2020). Leaving the comfort zone is a real challenge for many people. People do not want change in the company for the following reasons (Arora, 2023): no proper information transfer (if they do not understand the process and the effects), not being able to (if they are confronted with new systems and are afraid that they will not be able to cope with them), not wanting to (those who have a lot to lose certainly do not make the changes with a good heart). The change manager must understand how to overcome these barriers. He must provide support and help for every employee.

At the same time, employees are no longer able to precisely define the meaning of their work due to the change. They have left their previous working pattern and are dominated by a wave of uncertainty. Consequently, leadership should give the change a direction and explain the reasons why these actions are necessary (Phillips and Klein, 2023). In the further course of the change, the leadership should maintain this behavior to create a stable working environment (Güttel and Link, 2014, p. 21) in order not to condemn the project to failure for defective stakeholder engagement (Arora, 2023).

3. Material and Method

3.1. Motivation

A case study can help to link and analyze an individual case with a specific theory. The most common research questions are the "how questions" (Müller, 2021). The purpose of each case study is to provide new insights into the research topic. At the end of some case studies, there is still a need for solutions. Change management does not always produce the expected results, which is why further measures need to be taken. The conclusion of an ineffective change project often raises the question of what the participants can ultimately do, how they should behave to ultimately avoid the misfortune that has arisen.

A case study is therefore a qualitative research approach. This method is particularly suitable for the following fields of application: social sciences, political sciences, economics, media sciences, psychology, and linguistics (Müller, 2021). In relation to this paper, the phenomenon of "change management" from the field of economics is considered as a case. The use of case studies as a methodological approach has several advantages, such as: the investigated case can be analyzed from several perspectives, previously unknown problems can be identified, research is related to real life, detailed analysis of different cases.

3.2.Questioning

We selected five working hypotheses from the field of change management, vastly based on research by Lauer (2019), Doppler (2011), Zink (2015), and Phillips and Klein (2023) with the goal to unveil some overlapping procedural patterns dealing with inputs and outcomes of the change management process. The hypotheses are selected based on deductive work in the field of change management. They come from the observations and assumptions of other studies that have been carried out in this area. These hypotheses are then taken as the basis for the deductive work, where the aim is to find out whether these assumptions can also be observed in the case of this work. In addition, at the end of this analysis, new themes that can be used for further work are proposed.

The following hypotheses are formulated regarding this work:

H1. The change management measures are largely implemented after the emergence of financial difficulties.

H2. The top-down approach is preferred for change management.

H3. Change resistance appears where changes are not communicated correctly or in good time.

H4. Poor integration and the resulting work planning causes de-motivation among employees.

H5. Change managers who are chosen internally complete change processes more efficiently.

3.3. Method and tools

The four case studies stem from Nagel and Stolz' instructional work - "Shaping Organizational Change - Case Studies in Change Management": (1) "Just before Christmas", (2) "Software is easy", (3) "Mobile makes mobile", and (4) "Does the right hand know what the left hand is doing". The case study analysis attempts to gain a better understanding of the research, mostly by identifying (co)relations in the educational area of "change management". At the same time, this research is seen as multiple-case research, as the questions are observed through several case studies. Multiple-case research ensures that the results are more robust and reliable. The case studies are related to restructuring programs resulting from a re-location or a change in working methods. Emphasis was placed on the case studies being related to a restructuring program so that observations could be made through a predetermined variant of change.

There are various discussions about when it is more advantageous to work according to Kuckartz (2018) or, for example, Mayring (2008). With Mayring, one can observe a well-structured and theory-led approach. At the same time, there are many rules of interpretation, but it is very difficult to apply them to one's own project without experience. Most of Mayring's questions are not specified or explained in detail, which is why uncertainties can arise during the process. Kuckartz, on the other hand, gives a better idea of the facets of qualitative content analysis. This approach is more modern and is based more on the methods of qualitative procedures or the use of QDA software (computer-assisted qualitative data analysis software).

With the help of qualitative content analysis according to Kuckartz (2018), text materials are analyzed systematically and according to rules. In his work, Kuckartz distinguishes between three basic forms of qualitative content analysis: content-structuring, evaluative and type-forming forms. In this paper, the content-structuring variant is used to gain relevant insights from the analysis of the case studies. The content-structuring qualitative content analysis process is defined by Kuckartz as follows. There are a total of seven steps that must be followed precisely during the work: (1) initiating text work, (2) developing main thematic categories, (3) coding the material with the main categories, (4) compiling text passages according to the main category, (5) inductively determining subcategories, (6) coding the main category, (6) analyzing the main category, and (7) analyzing the subcategories. In the following section, we will follow the above-mentioned steps in our qualitative endeavor.

4. Results

In this part of the paper, the text analyses are carried out among the corpora (case studies) and the hypotheses are tested based on the analyses. The qualitative content analyses are completed with the MAXQDA2022 program. During the analysis, 4 case studies (in German language) related to change management measures were used. The text analyses were created after the case-oriented evaluation to create a valid investigation based on the whole picture. In the first subsection, the codes[17] are thoroughly presented. The second

[17] Coding has been done in German language in MAXQDA 2022 program and the themes, codes and sub-codes have then been translated into English for the reader.

subsection contains the most important aspects of the case studies. Parts of the case studies that are related to the hypotheses are extracted. This provides a descriptive answer to the hypotheses. The third subsection contains the actual content analysis of the case studies. With the help of deductive and inductive codes, the case studies are analyzed interpretatively. The analyses are often illustrated with visual tools in MAXQDA2022 to achieve a better representation.

4.1. Definition of codes and themes

The codes are the most important building blocks of this work, as it is through codes that the facts, most significant themes, and aspects of the texts can be learned. The analyses were carried out using both deductive codes and inductive codes. The most important difference between them is that the deductive codes can be applied to the material. They are pre-defined codes that function as a grid. In contrast, inductive codes are created from the material. By using inductive codes, new themes and aspects can be generalized and later confirmed or refuted. The work contains the interplay between inductive and deductive codes.

Five deductively formed and two inductively formed main codes were used in this work. Most of the main codes contain at least two sub-codes. There is an excess of inductively formed variants in the sub-codes, as the deductive sub-codes originate from the hypotheses. The hypotheses can only mention one topic in order to be specific and relevant. The main codes and their characteristics are presented in the following table:

Table 1 Main themes, codes and subcodes of the content analysis in relation to the relevant literature

Name of the main code	**Definition of the topic**	**Characteristics (Subcodes)**	**Explained Hypothesis**	**Relevant literature**
Reasons for change management (deductive)	This category contains information on why companies need change management processes.	The reasons for change management are "modernization"	H1	(Lauer, 2019) (Holten et al., 2020) (Islam, 2023)

	What factors can trigger change processes?	and "financial difficulties".		
Management approach (deductive)	There are various ways to lead during change management. This main code seeks the answer to the question: Which leadership method is most commonly used in change management?	Top-down" can be recognized as a management approach.	H2	(Lauer, 2019) (Errida and Lotfi, 2021) (Bagga et al., 2023)
Change resistance (deductive)	This category gives the possible reasons for the appearance of change resistance. Change resistance does not evade any company during the change process.	In the case of change resistance, a distinction is made between "due to lack of time", "due to decisive change" and "due to inadequate communication".	H3	(Lauer, 2019) (Errida and Lotfi, 2021) (Warrick, 2023)
Demotivation of employees (deductive)	This category includes the causes of employee demotivation. Why are employees demotivated during a change process?	"Progress of the change", "new ways of working" and "poor integration and work planning" can be identified as de-motivating for employees.	H4	(Zink et al., 2015) (Warrick, 2023)
Change manager (deductive)	This code provides information about the person of the change manager.	Change managers distinguish between "evaluation of the project", "attitude to change", "internally selected" and "experience".	H5	(Doppler, 2011) (Phillips and Klein, 2023)
Success of the change processes (inductive)	This code attempts to find an answer to the question: what factors contribute to the success of change management?	The "work culture", "change team" and "conviction to change" can be	H2 and H5	(Errida and Lotfi, 2021) (Bagga et al., 2023)

		recognized as the success of the change processes.		
Auxiliary means/Tools (inductive)	This category deals with the question: how can the project team better support the change processes?	A distinction is made between "Intranet" and "Information event" under the code "Tools/Auxiliary means ".	H3 and H4	(Errida and Lotfi, 2021) (Yue and Walden, 2023)

Once the case studies have been fully coded with the developed category system, we established regularities and comparisons between the codes. There are two options for the direction of the analyses. You can look at the analyses across a case (in this case a case study) (frequency of themes, appearance of codes). The other option would be to code the different text passages on a topic for different cases. This method can be used to work out which understandings of a topic are present in different case studies.

In the following evaluation, there are three major topics according to which the codes are categorized. The first theme is ***change management measures***, which includes the codes *reasons for change management*, *management approach* and *success of change processes*. The second major theme is ***employee perspective***, which contains the codes *change resistance* and *employee de-motivation*. The third theme is ***change team***, which includes the codes *change manager* and *tools*. The main aim of the category-based analysis is to obtain insights into the research questions by means of a descriptive presentation of results. The sub-codes aim to find answers to research questions or to address new research questions.

4.2. Comparative analysis of cases

This type of analysis is one of the most important techniques in qualitative research. The MAXQDA program has a "Compare Cases & Groups" function that makes it possible to compare the coded segments for cases easily and practically. Comparisons can be used to find out whether a certain phenomenon occurs in several cases. In addition to the frequency of the phenomenon, information can also be obtained about the form in which a particular phenomenon occurred. In the qualitative method of this analysis, a so-called interactive segment matrix is created. This matrix very practically shows the code system in the rows and the text passages from various documents in the columns (see, Figure 2 , consisting of the Figures 2 to 8). This makes it easy to obtain information about the distribution of the codes. In the code system, there is either a purple or a red memo next to the designation. The red memos mean that the codes have been recorded deductively and the purple memos mean that the codes have been recorded inductively.

The first main category "Reasons for change management" (Annexe 1, Figure 2) was deductively assigned a subcategory „Financial difficulty”. The analysis revealed that only one company introduced change management measures due to financial difficulties. However, a serious reason for the introduction of change management was the incentive to modernize. This observation was made inductively and occurred in all companies.

The second main category "leadership approach" (Annexe 1, Figure 3) was deductively assigned a sub-category "top-down". Only this one sub-category is needed for the analysis, as the change processes in all case studies were led from the top down.

The third main category "change resistance" (Annexe 1, Figure 4) has a deductively formed sub-category "due to inadequate communication". This statement was confirmed in the sense that inadequate communication was a major obstacle for all companies. New findings were also found inductively in this main category, as the resistance to change was caused both by a lack of time (in 2 cases) and by the decision to change (in 3 cases).

The fourth main category "employee de-motivation" (Annexe 1, Figure 5) was deductively assigned a sub-category "poor integration and work planning". The analysis revealed that integration problems within a company were the main reasons for employee de-motivation. In addition, other reasons for de-motivation frequently occurred, which were "due to the progress of the change" or "due to new working methods". The most segments occurred in the subcategory "due to new way of working" (9 in total) and the fewest segments in the subcategory "due to the progress of the change" (5 in total). For all codes, the phenomenon was only observed in three cases.

The fifth main category "change manager" (Annexe 1, Figure 6) was deductively assigned a sub-category "internally selected". The cases confirm the view that it is preferable to select change managers from within the company. This was observable in all cases. Further findings in this field were researched inductively. From the inductive code "evaluation", it emerged that the change managers naively describe the implemented change processes as "good" and "appropriate", although the other participants have problems and difficulties because of the changes. Another inductive code shows that the four change managers, minus one, have no experience in implementing change processes. It is also important to mention that the success of the change project was only effective in one case where the change manager could actually demonstrate previous experience. This significantly increases the relevance of actual experience in change management.

Two main inductive categories were then formed. The first category was named "Success of the change processes" (Annexe 1, Figure 7). As mentioned earlier, only one change process from the four cases was successful. After the content analysis, 3 subcategories were formed here. An answer was sought to the question: what factors influence the success of the change project? According to the analyses, the subcategory "Conviction to change" was found in all cases. There are various methods for persuading employees to change. In this analysis, examples included information emails, trial tests, company-wide events, attractive offers, exploratory trips and city tours.

The second inductive main category is called "Tools/Auxiliary means" (Annexe 1, Figure 8) and deals with the question: how can the project team better support the change processes and communication? Two sub-categories were formed here. It was emphasized that the change team informed employees about the course of the change processes primarily through information events and intranet news. In addition, the intranet page was used for the mutual expression of opinions between the change team and employees.

4.3. Visual tools

The Code Matrix Browser (see, Annex 2, Figure 9) can be used to visualize the coding frequencies performed in the documents. From the graphical representation, you can see whether you have coded many or few segments to a category in the case of a particular document. The structure of this graphical representation is very simple. The rows contain the codes and the columns show the analyzed case studies. The nodes provide information on how many codes are present in the respective document. From the graphical representation, you can see which codes were assigned in larger numbers to the given document. You only need to look at the size of the nodes in more detail. For example, it is easy to see from the figure that in the case of the "Software is easy" case study, there were many references to the reasons for change management due to modernization.

In addition to the presented visualization tools we made use of the "Typology Table: Cluster" function in order to evaluate the similarities of documents in a cluster (see, Annexe 2, Figure 10). The first column of the table contains the evaluated codes. In the case of this analysis, the table also contains two columns formed by the clusters. Since the evaluation mode was used here, i.e. emphasis was placed on the occurrence of the codes, the number of documents in which the codes occur was specified in the typology table.

The last proposed visualization method (see, Figure 1 - Document portrait of the four case studies) can be used to display the occurrence of codes in individual documents. When using this tool, only one document can be selected and the individual main categories are displayed as one image in different colors. The advantage of this method is that the location of the individual main categories in the document can be precisely categorized and interpreted. At the same time, it is possible to observe which main categories were more important in the individual documents. The generated image shows only the coded segments from the documents. The sentences that were not assigned to any category are displayed as a white area.

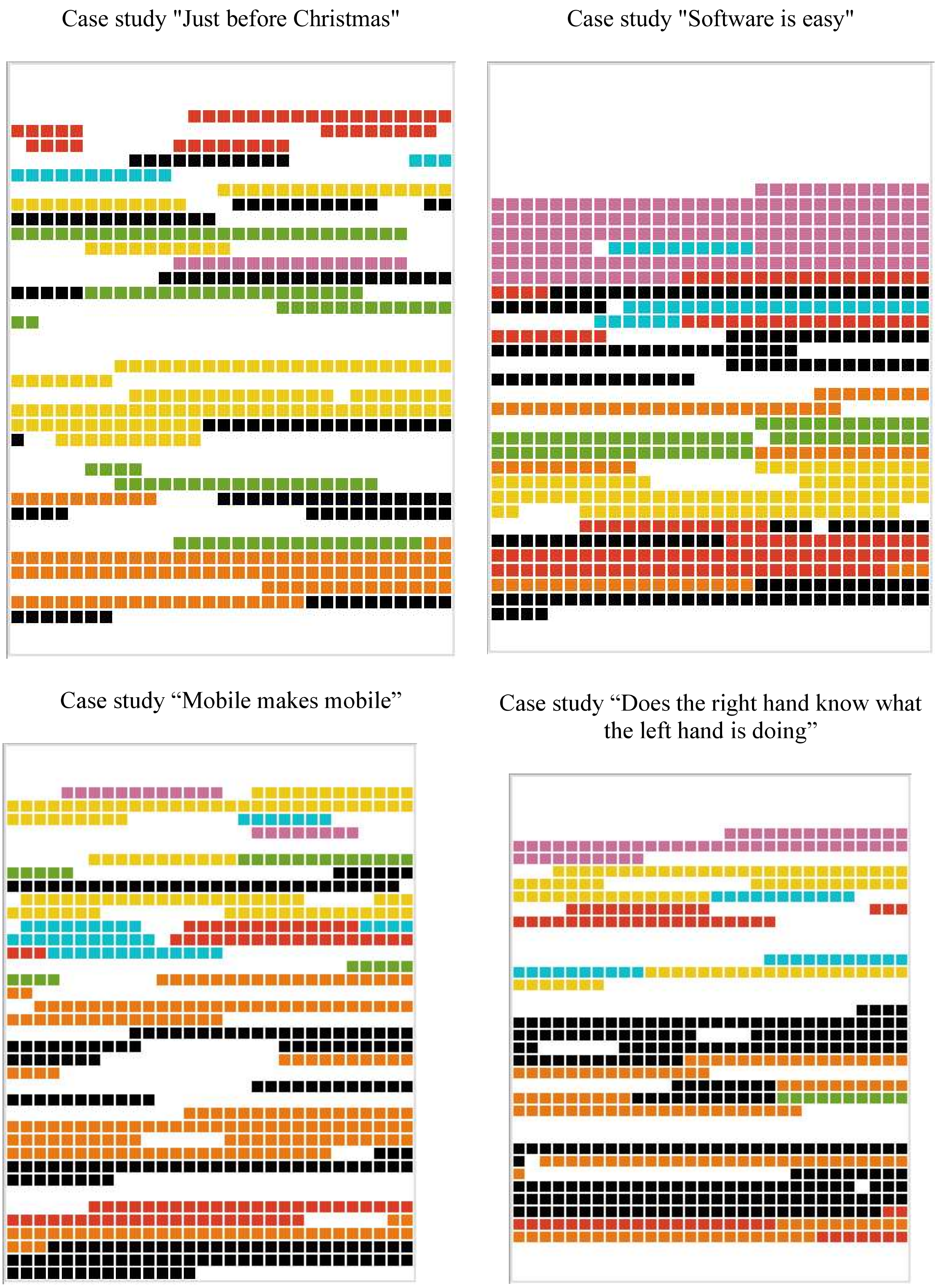

Figure 1 - Document portrait of the four case studies

From the image created for the "Software is easy" case study, for example, it can be observed that the reasons for change management (purple color) were communicated in great detail at the beginning of the document. Another example would be that the employees in the "Mobile makes mobile" case study were more affected by de-motivation (orange color) than the employees in other case studies.

By and large, the following conclusion can be drawn regarding the placement of individual main categories: the reasons for change management will generally appear at the beginning of the document. At the same time, the change team and the change manager are also introduced at the beginning. After the communication of the reasons for change management, the appearance of change resistance can be noted. In general, the change resistance will be present until the actual implementation of the change. After the introduction, employee de-motivation generally appears in all companies. At the end, evaluations of the success of the change project appear.

5. Discussion

The hypotheses were tested after the category-based evaluation of the main categories and after the comparative analysis of cases. The deductive hypotheses, which form the basis of this research, were measured using these two evaluation methods. In addition, the inductive codes were used to form new hypotheses to bring new findings to the surface in the area of change management.

The first hypothesis, according to which change management measures are largely implemented after financial difficulties have arisen, has been partially validated by our analyses. Out of the four case studies, there was only one case where the reason for change management could be related to loss generation. However, other factors also played an important role in this decision. In all case studies, the reason for the change process was the modernization of work processes. One could inductively formulate the following statement from this observation: change management measures are initiated because of modernization efforts (i.e., internal changes) and/or survival strategies. Our results align with Islam's (2023) research on effective change-supporting behavior.

The second hypothesis, according to which the top-down approach is the preferred leadership variant in change management, was fully confirmed by our analysis, as it was noticeable in all change processes that order flows from the top down. The highest decision-making bodies (such as boards of directors or top management) also have the final say in the composition of the change team.

The third hypothesis, according to which resistance to change appears where changes are not communicated properly or in good time, was confirmed in the sense that employees at all companies had problems with poor communication. There were cases where employees had difficulties with the poor timing of communication or with the actual communication.

During the analysis, other factors such as lack of time or unwillingness to change were also noted as contributing to resistance to change. At the same time, no new claims could be formulated from these observations because the phenomena had occurred in relatively small numbers. This conclusion results in the fact that the claims were not considered appropriate and relevant for the formation of a hypothesis. Taking the results which address our second and third hypothesis, we fully align our results to the meta-study of Errida and Lotfi (2021) on change management success, and Bagga's et al. (2023) transformational leadership approach, when taking into consideration, major strategic decisions which lead to fundamental changes in an organization. Moreover, we agree with Philips and Klein's (2023) recommendation for practitioners to provide employees with incentives to implement the change, underlining a considerable mismatch between practitioners' strategies and scholarly suggestions based theoretical models and frameworks. Thus, resistance to change and demotivation could be successfully overcome.

The fourth hypothesis, according to which poor integration and the resulting work planning causes demotivation among employees, was partially confirmed. In three companies, the reason for demotivation was that the integration measures and work planning were inappropriate from the employees' point of view. In the case study "Shortly before Christmas", the change agent had significant experience in change management, whereas the change agents from other case studies had almost none. For this reason, it is possible that in the case study "Shortly before Christmas" there was no complaint regarding integration and work planning. The demotivation there was due to the new ways of working, such as the introduction of status information in the workplace. This reason for demotivation also occurs in other companies. From this observation, it could be concluded that employees at the beginning of a change process also misjudge innovative future-oriented measures.

The fifth hypothesis, according to which change managers who are selected internally complete change processes more efficiently, was only partially confirmed. Although it is important that change managers also have an internal view of the company's activities, actual experience with change management is essential. During a change process, you need to be familiar with many areas. The company processes, human relations, human behavior, organizational talent etc. are some examples of what a change manager should be aware of. In the case studies, all change managers were chosen internally and only in one case were the change processes described as successful. The hypothesis could be fully confirmed if the change manager is both internally selected and has relevant experience in change management. The relevance of experience is significantly enhanced here.

An attempt was made to discover new concepts and findings from the inductively formed main categories. At the same time, not all subcategories could be used to form hypotheses because some only appeared in a limited number in the case studies. From the main category "Success of the change processes", the sub-code "Conviction to change" was relevant because it was noticeable in all case studies. The aim of this main category was to find possible answers to the research question - What factors influence the success of the change project? Based on the observations, it could be argued that the persuasion measures prior to the implementation of the change processes can significantly shorten the period of uncertainty, but these measures are not necessarily related to how successful the change management will be.

6. Conclusions

People (i.e., students and/or employees) can only be motivated if their goals are known. However, people's goals are only secondary from the company's point of view. The manager's task is to harmonize the goals of the company and the individual. The manager must uncover new perspectives of the projects for the employees (cf. Giernalczyk & Lohmer, 2012). It must be clear to the employees why they have to solve the problem that has arisen and what benefits result from it. Thus, we recommend case studies as a very insightful method of practicing change management processes in a safe educational setting, which promotes openness, teamwork and problem solving.

The conclusion of this work reinforces the significance of its findings in the realm of change management. The study unveils a consistent pattern where modernization efforts take precedence across all case studies. This shift in perspective is instrumental in shaping our understanding of the underlying motives for organizational change. Furthermore, the confirmation of the top-down leadership approach as the preferred variant in change management underscores the enduring influence of hierarchical structures. The final decision-making power held by top management in forming change teams highlights the critical role played by organizational leadership in steering transformative processes.

Furthermore, we demonstrate that acknowledgment of resistance to change is arising from poor communication, whereas all cases emphasize the pivotal role of effective communication in facilitating successful change initiatives. However, the limited occurrence of additional factors such as lack of time or unwillingness to change underscores the need for a nuanced approach to addressing resistance.

We show that poor integration and work planning are linked to employee demotivation. The nuanced observation that demotivation in certain cases is tied to the introduction of innovative measures suggests the importance of considering employees' perceptions during the early stages of change processes. The nuanced confirmation of the hypothesis regarding internally selected change managers adds a layer of complexity, emphasizing that success is not solely dependent on internal selection but significantly enhanced by relevant experience in change management.

The inductive exploration of the "Success of the change processes" category introduces the crucial concept of "Conviction to change." While persuasion measures are identified as reducing uncertainty, the nuanced relationship between these measures and overall success underscores the multifaceted nature of factors influencing the success of change initiatives.

We show, as a major outcome of this research, how and why case studies are appropriate and relevant for future research on educational endeavors in the field of change management. At the same time, the limitations and further development of this research are further addressed.

Although qualitative content analysis is very transparent due to the predetermined rules and steps, there are also some disadvantages to this method. With this method, the quality of the results depends largely on the materials analyzed (Flick, 2002). One could argue that our case studies may be cherry picket, through convenience sampling methodology, thus making generalization endeavors futile or at least questionable. In order to obtain more relevant and credible results, the number of corpora should be increased in any case. Furthermore, the method of qualitative content analysis provides an opportunity to analyze the observed regularities in groups. Accordingly, one could work in research groups in order to better maintain objectivity. We strongly recommend that future research on teaching change management should promote more qualitative analysis of case studies, focus groups but also interviews, to grasp the students' perceptions regarding the quality and effectiveness of the used class materials. Thus, future research should focus on measuring the outcomes of using case studies as class materials while teaching, training and mentoring in the area of change management.

In conclusion, this study provides a nuanced and comprehensive understanding of change dynamics, offering valuable insights that challenge and refine existing assumptions, both in teaching and practicing change management. By redefining the drivers of change, highlighting the enduring influence of top-down leadership, and emphasizing the multifactorial nature of success, this work contributes to the ongoing discourse in organizational change management while promoting and analyzing case studies as ideal tools for knowledge transfer in higher education.

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***Anexe 1** Interactive segment matrix of the coding scheme*

Figure 2 The illustration of the main category "Reasons for change management"

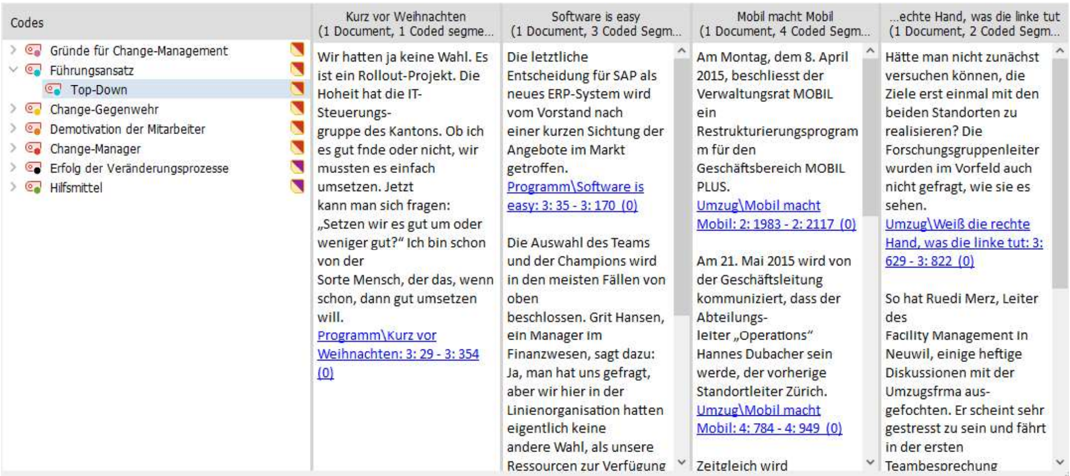

Figure 3 The illustration of the main category "Management approach"

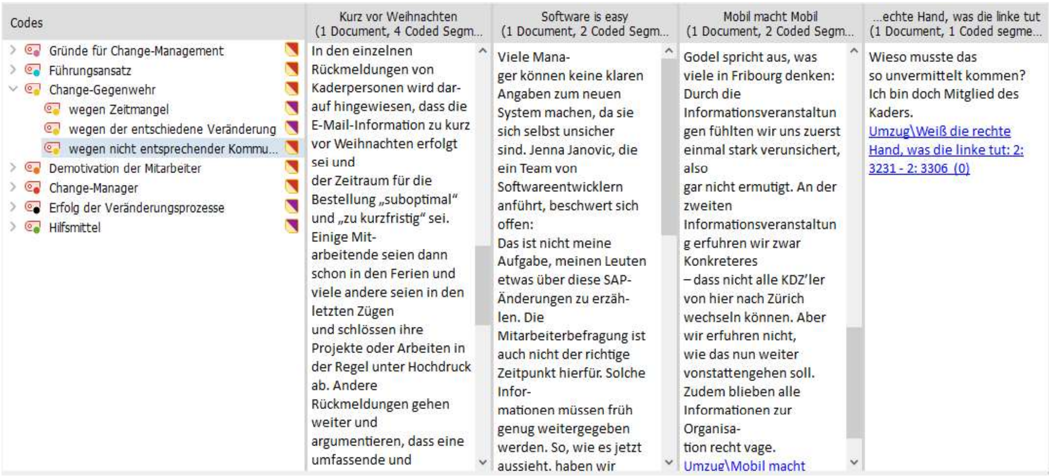

Figure 4 Illustration of the main category "Resistance to change"

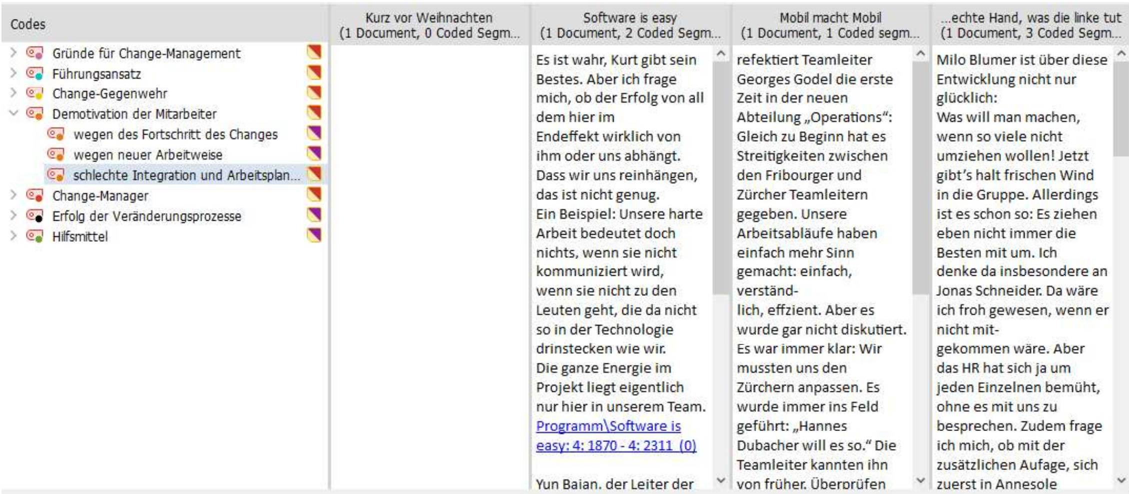

Figure 5 Illustration of the main category "Employee demotivation"

Figure 6 The illustration of the main category "Change Manager"

Figure 7 Illustration of the main category "Success of the change processes"

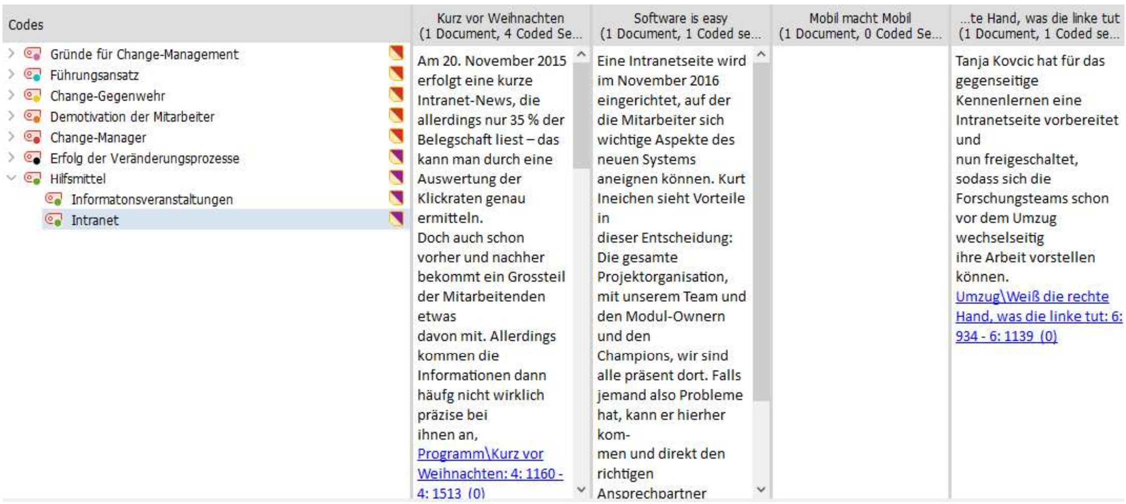

Figure 8 The illustration of the main category " Tools/Auxiliary means"

Anexe 2 *Code Matrix Browser*

Figure 9 Code Matrix Browser with the frequencees of the coded segments

	Cluster 1 (N=1)	Cluster 2 (N=3)
Code: Gründe für Change-Management, Nun	0 (0.0)	0 (0.0)
Code: wegen Modernisierung , Number (%)	1 (100.0)	3 (100.0)
Code: wegen Finanzschwierigkeiten, Number	0 (0.0)	1 (33.3)
Code: Führungsansatz, Number (%)	0 (0.0)	0 (0.0)
Code: Top-Down, Number (%)	1 (100.0)	3 (100.0)
Code: Erfolg der Veränderungsprozesse, Nun	1 (100.0)	3 (100.0)
Code: Arbeitskultur, Number (%)	1 (100.0)	1 (33.3)
Code: Veränderungsteam, Number (%)	1 (100.0)	3 (100.0)
Code: Überzeugung zum Wechsel, Number (	1 (100.0)	3 (100.0)
Code: Change-Gegenwehr, Number (%)	0 (0.0)	0 (0.0)
Code: wegen Zeitmangel, Number (%)	0 (0.0)	2 (66.7)
Code: wegen der entschiedene Veränderun	1 (100.0)	2 (66.7)
Code: wegen nicht entsprechender Kommur	1 (100.0)	3 (100.0)
Code: Demotivation der Mitarbeiter, Number	0 (0.0)	0 (0.0)
Code: wegen des Fortschritt des Changes, N	0 (0.0)	3 (100.0)
Code: wegen neuer Arbeitweise, Number (%	1 (100.0)	2 (66.7)
Code: schlechte Integration und Arbeitsplanı	0 (0.0)	3 (100.0)
Code: Change-Manager, Number (%)	0 (0.0)	0 (0.0)
Code: Auswertung, Number (%)	0 (0.0)	3 (100.0)
Code: Einstellung zum Change, Number (%)	1 (100.0)	3 (100.0)
Code: intern vs extern, Number (%)	1 (100.0)	3 (100.0)
Code: Erfahrung, Number (%)	1 (100.0)	0 (0.0)
Code: Hilfsmittel, Number (%)	0 (0.0)	0 (0.0)
Code: Zusätzliche Unterstützung der Mitarbe	1 (100.0)	0 (0.0)
Code: Informatonsveranstaltungen, Number	1 (100.0)	2 (66.7)
Code: Intranet, Number (%)	1 (100.0)	2 (66.7)
N = Documents	1 (25.0%)	3 (75.0%)

Figure 10 Visualization of the typology table