Qualitative Analysis of Change Management Models

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Abstract

According to one of the definitions of the word, change aims to adapt or replace one thing or state with another. When we refer to organizations, the change process evolved once with the economy and technology. The need to understand how the change can be implemented without causing harm and to obtain the target results leads to the appearance of the models of organizational change. Some models are simple and explain how the change is made; some are more complex considering more factors that influence the outcomes of the change process. This article aims to find the level of similitude between the organizational change models. After the study of the literature, the following models of organizational change were identified: The Lewin three-step model, Kotter eight-step, Nadler and Tushman congruence model, Carnall change management model, Burke-Litwin model, The ADKAR model, McKinsey 7S model, Nudge theory, Bullock and Batten planned change, Gleicher the change formula.

Key words: change management, change management models
J.E.L. classification: L21, M10, M20

1. Introduction

Once with the evolution of the economy and technology the organizations, whether private or public, evolved too and had to adapt to survive. In the article "Only the strongest hive will survive" written by Angela Chuang in 2019 the author describes how "hive management" involves a strategy and the use of a few bee workers to work to ensure that they will be ready and survive the winter. The queen bee manages the entire activity and under her supervision and guidance, the hive will become a prosperous one and will survive the hard times. (Chuang, 2019) Just like a bee hive, the employees from organizations have to work together with their managers to ensure that they are ready for the changes and that they will survive the hard times. Managers have the "tool" of change management models that can be used to help them ensure that the organization led by them can adapt to future unknown situations. Change management has always come to package with multiple factors, depending on how the organization adapts. In the article "Influence of change management on modern organizational efficiency" the authors Ugo Chuks Okolie and Ndubuisi Jude Memeh concluded that some elements that determine successful change management in organizations should be included in a strategy plan for executing change and are related to communicating change plans for employee buy-in, strategic change agents, implementation costs, and maintenance of change instruments (Okolie & Memeh, 2022). It's important to be informed and the current times allow us fast access to information and multiple open databases have solutions presented by researchers from all domains.

2. Literature review

In the literature, numerous theoretical papers and research theses have approached the change management models topic over the years. At the first search on the open-source Google Scholar after tying "change management models" the number of results was enormous 6780000, a large number of books and articles that it would take more than a lifetime to study to obtain the perfect image and to give credit to those authors that with their work improved the literature and helped everyone to understand easily and be prepared for the challenges that come to once with the change. In the book "Making sense of change management: A complete guide to the models, tools and techniques of organizational change" the authors present a multitude of change management models and how they influence and can be used for different situations. The book quotes the authors Whelan-Berry and Gordon (2000) whose research presents a multi-level analysis and concludes that existing models of organizational change mainly focus on actions to take rather than explaining or predicting the change process itself. While most models recognize, either implicitly or explicitly, the group-level and individual-level change processes, they typically do not detail these processes. To truly understand how organizational change is implemented, we need to closely examine the changes at both the group and individual levels. This means analyzing how the overarching vision and desired outcomes of organizational change are translated and implemented into the specific meanings, frameworks, and behaviors of groups and individuals.(Cameron & Green, 2019).

After the study of the literature, the following change management models were mostly mentioned: The Lewin three-step model (Cummings, et al., 2016), Kotter eight-steps (Calder, 2013), Nadler and Tushman congruence model (Sabir, 2018), Carnall change management model (AlManei, et al., 2018), Burke-Litwin model (Olivier, 2018), The ADKAR model (Hiatt, 2006), McKinsey 7S model (Channon & Caldart, 2015), Nudge theory (Ebert & Freibichler, 2017), Bullock and Batten planned change (Rosenbaum, et al., 2018), Gleicher the change formula (Cady, et al., 2014). The table underneath presents models that are a theory, a formula or models that have steps, phases, assumptions, factors, characteristics or barriers.

Table no. 1 Models of Organizational Change

Model	The model steps, phases, assumptions, factors, characteristics or barriers			
Gleicher the change formula	$C = (ABD) > X$; C = Change, A = Level of dissatisfaction with the status quo, B = Clear or understood the desired state, D = Practical first steps toward a desired state, X = "Cost" of changing			
Nudge theory	Nudges are simple, mild cues that don't need workers to drastically alter their methods of operation. Digital tools and big data can be helpful, even though it's difficult for businesses to gauge how well these nudges and new regulations are working. It won't be long until businesses can determine which nudges are most effective for each employee by continuously collecting and evaluating data. This implies that they may design more customized cues and guidelines to fit the needs of every worker (Ebert & Freibichler, 2017).			
Burke-Litwin model	Transformational Factors (external environment, leadership, mission and strategy, organizational culture)	Transactional Factors (management practices, structure, system, work unit climate, task requirements, individual skills/abilities, individual needs, and values, motivation)		
The Lewin three-step model	Unfreeze		Change	Refreeze
Bullock and Batten planned change	Exploring	Planning	Action	Integration

Nadler and Tushman congruence model	Organizations are open social systems within a larger environment.		Organizations are dynamic entities (i.e., change is possible and occurs).		Organizational behavior occurs at the individual, group, and systems levels.		Interactions occur between the individual, group, and systems levels of organizational behavior.	
Carnall change management model	Denial stage		Defense stage		Discarding stage		Adaptation stage	Internalization phase
The ADKAR model	Awareness		Desire		Knowledge		Ability	Reinforcement
McKinsey 7S model	Strategy	Structure	System	Style	Staff		Skill	Shared values
Kotter eight-steps	Establish a sense of urgency	Create a powerful guiding coalition	Create a vision and a strategy	Communicate the change vision	Empower broad-based action.	Create short-term wins.	Consolidate gains and produce more change.	Anchor new approaches in the culture.

Source: (Cummings, et al., 2016), (Calder, 2013), (Sabir, 2018), (AlManei, et al., 2018), (Olivier, 2018), The ADKAR model (Hiatt, 2006), (Channon & Caldart, 2015), (Ebert & Freibichler, 2017), (Rosenbaum, et al., 2018), (Cady, et al., 2014)

The models presented in the table are the ones that were identified in the literature that was studied so far and for sure others weren't included. Multiple articles study each model's particularities and evolution over the years, this article didn't include the presentation of each model in extenso since they are available in open source databases and can be accessed only after a few clicks. It's easy to notice the differences or the similitude in the presented model's approach and how they point out the essential steps, phases, barriers, or characteristics that need to be taken into consideration by those who want to implement successful changes in their organizations.

3. Research methodology

This research employs a literature review and qualitative analysis to examine various organizational change models. A search was conducted on open-source databases, to identify relevant articles and books on organizational change models. Keywords such as "change management models" were used, resulting in an extensive collection of literature. The primary focus was on well-documented and widely recognized models, such as Lewin's three-step model, Kotter's eight-step model, Nadler and Tushman's congruence model, among others.

Selected literature was reviewed to extract information on each change model, including its steps, phases, assumptions, factors, characteristics, and barriers. Key models were identified based on frequency and depth of discussion in the literature. NVivo software was used to analyze the textual data. Word clouds, item clustering by word similarity, coding of text, and sentiment analysis were generated to visualize and interpret the data. The analysis focused on identifying common themes, similarities, and differences among the models.

4. Findings

This research offers a thorough analysis of word frequency, similarity grouping, coding patterns, and sentiment analysis using NVivo software for qualitative data analysis. The resulting visual representations provide information about the main ideas, connections between models, and general feelings associated with each model in the literature.

The findings are organized to direct attention to the major ideas and conclusions that emerged from the analysis, opening the door to a more thorough comprehension of the models for managing change.
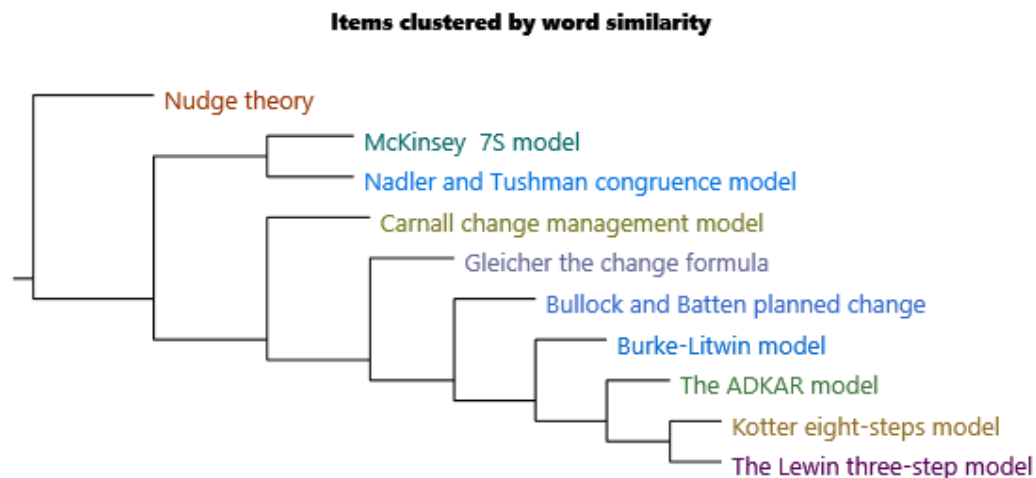
Figure no. 1. Words cloud generated in NVivo based on the change management models

Source: Generated by authors with NVivo

The word cloud in the figure above highlights the most frequently occurring terms in the analyzed literature on change management models. Larger words such as employees, process, culture and structure are the most used terms in the change models articles that were analyzed. Key terms such as vision, skills, knowledge, leadership, strategy, needs, performance, support, resistance and individual are also prominently displayed, indicating their centrality in discussions about change management models. Other terms that are used in the literature but aren't as frequently mentioned are technology, procedures, implementation, planning, and others. This might happen because they are typically portrayed as important steps and factors and are described in detail.
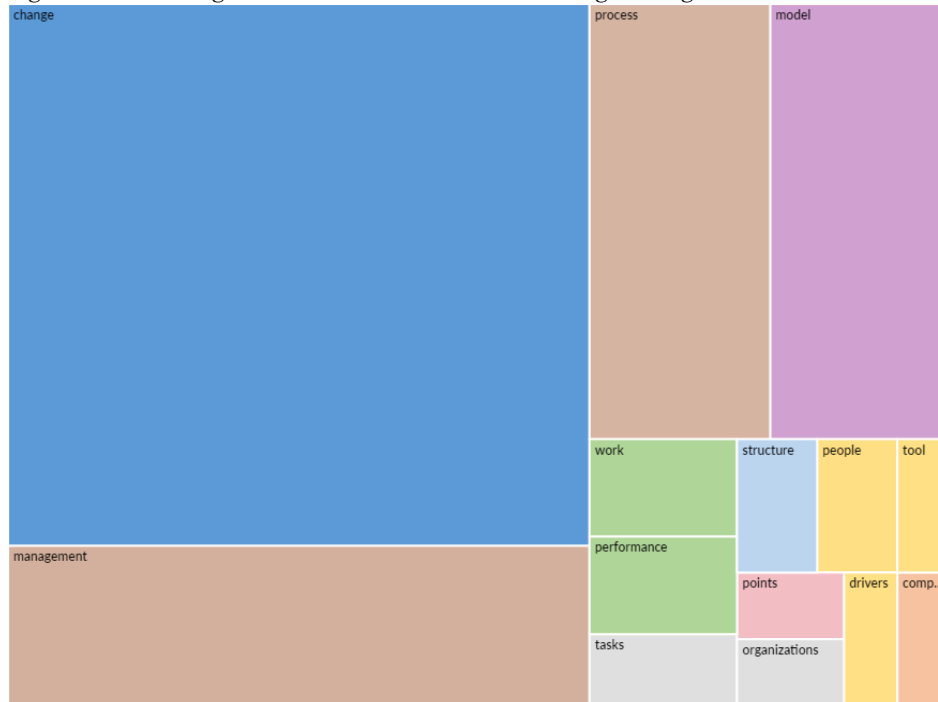
Figure no. 2. Items clustered by word similarity generated in NVivo based on the change management models before coding the text

Source: Generated by authors with NVivo

The similarity between different change management models based on the literature review data before coding is presented in the figure above. The results indicate that there are two pairs of nodes (1) the Lewin three-step model and Kotter eight steps model and (2) the McKinsey 7S Model and the Nadler and Tushman congruence model. This indicates that from the literature review analyzed on the change management models two pairs of nodes have a very strong connection.

Figure no. 3. Codes generated in NVivo based on the change management models

Source: Generated by authors with NVivo

Figure 3 presents the codes generated during the NVivo analysis. Coding involves categorizing text into meaningful groups, which helps in organizing and interpreting qualitative data. The codes likely represent different aspects of change management models, such as "implementation steps," "barriers," "success factors," and "outcomes." This figure provides a structured overview of the key elements identified in the literature, highlighting the diverse components that make up various change management models.

Figure no. 4. Items clustered by coding similarity generated in NVivo based on the change management models
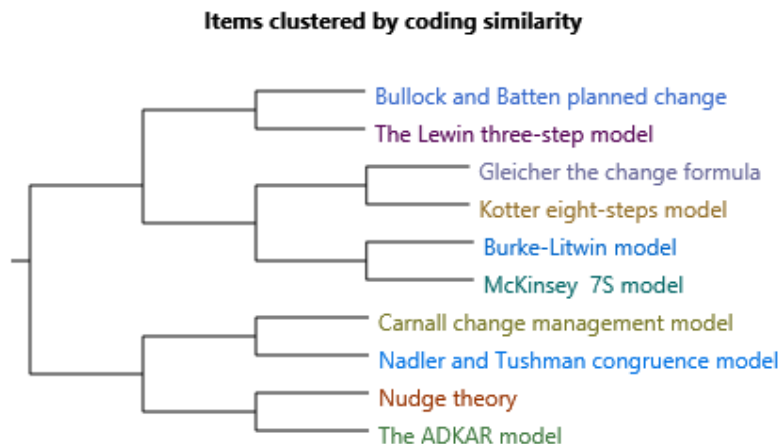
Source: *Generated by authors with NVivo*

The similarity between different change management models based on the literature review data after coding is presented in the figure above. The results indicate that there are five pairs of nodes (1) Bullock and Batten planned change and the Lewin three-step model, (2) Gleicher the change formula and Kotter eight-steps model, (3) Burke Litwin model and McKinsey 7S model, (4) Carnal and Tushman congruence model and Nadler and Tushman congruence model and (5) Nudge theory and the ADKAR model. This indicates that from the literature review analyzed on the change management models five pairs of nodes have a very strong connection.

Figure no. 4. Autocode Sentiment Results generated in NVivo based on the change management models
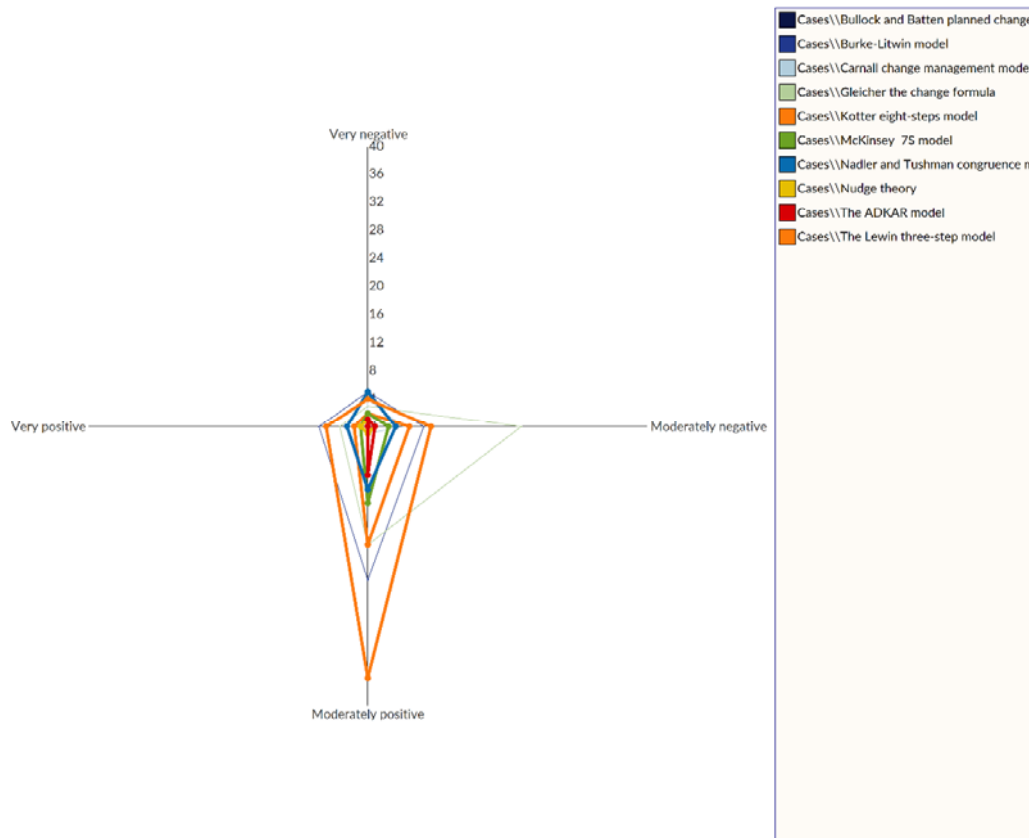
Source: Generated by authors with NVivo

This radar chart above presents the sentiment analysis, conducted using the NVivo autocode sentiment tool that categorizes sentiments into four distinct classes: very positive, moderately positive, moderately negative, and very negative. The majority of models are clustered around the moderately positive spectrum. This indicates a generally balanced perception with a tendency towards positive sentiment presented in the literature review analyzed. Lewin's Three-Step Model (orange) stands out for its higher moderately positive sentiment, which can suggest a broad acceptance and effectiveness in certain scenarios.

5. Conclusions

This research examines various organizational change models through a literature review and qualitative analysis. The findings highlight several key insights related to word frequency and central themes, similarity and connection among models and sentiment analysis.

The word cloud analysis revealed that terms like "employees," "process," "culture," and "structure" are most frequently mentioned in the literature. This underscores their critical role in change management models. Additional key terms such as "vision," "skills," "knowledge," "leadership," "strategy," "needs," "performance," "support," "resistance," and "individual" are also

prominently featured, indicating their importance in the discourse on change management.

The pre-coding similarity analysis identified strong connections between specific models: Lewin's Three-Step Model & Kotter's Eight-Step Model and McKinsey 7S Model & Nadler and Tushman's Congruence Model. Post-coding analysis revealed additional strong connections, forming five pairs of closely related models. This suggests that despite their unique approaches, many models share underlying principles and components.

The sentiment analysis shows a generally balanced perception with a tendency towards moderately positive sentiments for most models. Lewin's Three-Step Model is particularly noted for its higher moderately positive sentiment, which can suggest acceptance and perceived effectiveness.

Overall, this research enhances the understanding of organizational change models by identifying common themes, similarities, and differences. The analysis underscores the importance of core elements such as employee engagement, cultural adaptation, and strategic leadership in successful change management. The insights gained from this research can guide practitioners in selecting and implementing the most appropriate change management models for their specific needs, ultimately facilitating more effective organizational transformations.

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