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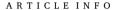


### Review

# Bridging change and project management: A review and future research directions

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The fundamental purpose of a project is to implement change, aiming for the transition from an existing state to a desired future state. However, project management studies primarily focus on the design and implementation of the project deliverable and rarely address the management of change needed to achieve the desired future state. This study conducted a systematic literature review to synthesize the existing research on change management within project studies and identify areas of contention and under-researched aspects before proposing an agenda for further research. It addresses the following research question: How is the management of change addressed in project studies? The analysis of prior research reveals six key themes: relationship between change management and project management, change process and factors and factors affecting the change process, change management as a success factor, change resistance, interface with permanent organizations, and change in project-based firms and industries/fields. However, this analysis also highlights the fragmented nature of prior research, emphasizing the need for more conceptual and empirical work to understand the integration of change and project management processes. Integrating change management concepts and tools into project management thinking and vice versa offers opportunities to advance both disciplines.

### 1. Introduction

Few concepts are more essential for managing projects than change. Projects are inherently designed to bring about planned changes in their respective environments. Change can take various forms in projects, such as delivering a unique hospital to customers and users, implementing an ERP system, developing a new product for the market, or even solving grand challenges (Huemann, 2022; Locatelli et al., 2023). Furthermore, there is a distinct class of projects, commonly known as business projects or change projects, that entail deliberate activities that move an organization from its current state to a desired future state, specifically targeting the implementation of organizational transformations such as changes in organizational structure, culture, or business processes (Pollack, 2017; Stouten et al., 2018; Turner and Cochrane, 1993).

Given the central role of the concept of change for projects and its practical importance, it is surprising that the field of project studies has paid limited attention to how to manage change resulting from a project. Currently, there is insufficient understanding of how the theoretical frameworks, ideas, and principles from the general change management

literature could be merged with the way change that the project delivers is approached and treated in the project management context (Pollack, 2017). Having identified this research gap, we set the following research question: how is the management of change addressed in project studies? We seek to review the existing research on change management within project studies; the aim of this SLR is not merely to look for gaps in the literature but to also pave the way for developing novel ideas and deeper theoretical engagement (Sandberg and Alvesson, 2011). Overall, in our view, the literature on the management of change in the context of projects appears highly fragmented, making it difficult for project practitioners to apply change management practices based on scientific evidence.

We believe that taking stock of previous research on planned change and its management is imperative for advancing discourse on managing change in the context of project management. Based on this analysis, a discussion of potential future research areas is provided. The study was implemented as a systematic literature review, analyzing articles from leading project management journals: International Journal of Project Management, International Journal of Managing Projects in Business, and Project Management Journal. The remainder of this paper is

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organized as follows: First, we describe our research method, and the materials used. Next, we introduce the results, followed by a discussion of our findings, suggestions for future research, and managerial implications. Finally, we conclude the paper with our research limitations.

### 2. Method

This study applies a systematic literature review method to take an overall view of project management studies that explore and discuss the management of change. Specifically, we conducted a systematic literature review to synthesize existing research to create new knowledge (Tranfield et al., 2003) and suggest future research directions (Torraco, 2005). This study was conducted in three stages, as suggested by Tranfield et al. (2003) and inspired by Xia et al. (2018). This approach can be applied and has been used in management science studies (Denyer and Tranfield, 2009; Williams et al., 2021; Hiebl, 2023).

Fig. 1 illustrates the stages and activities of the research process, and the following subsections further elaborate our approach on the literature review of the present study. The numbers connected with the arrows in Fig. 1 represent the number of research articles.

### 2.1. Planning the review

The first stage of this study was to plan a review. We discuss the research problem and formulate the research question: "How is the management of change addressed in project studies?" because our aim was to make sense of and synthesize prior research in selected journals. We decided to use the keywords "change management," "organizational change," "change project," or "change program" to search the article titles, abstracts, and authors' keywords. These keywords were defined based on our prior knowledge of change management concepts and terminology, and were agreed upon by all members of the research theme. To determine the keywords, we tested several combinations of keywords by searching and screening articles to ensure the relevance of our sample. We decided to explore three leading and highly influential project research journals: International Journal of Project Management (IJPM), International Journal of Managing Projects in Business (IJMPB), and Project Management Journal (PMJ).

We also discussed and agreed upon the exclusion and inclusion criteria for identifying the relevant research articles. We decided to include both conceptual and empirical research papers but excluded editorial papers and literature reviews. E-published research papers published in project management journals were also included.

### 2.2. Conducting the review

The second stage of the review began by deciding on a search string to identify relevant prior research within the scope of the study. The search string was "TITLE-ABS-KEY (organizational change" OR "change management" OR "change project" OR "change program") AND ISSN (nnnn-nnnn)", where the ISSN refers to the journal's International Standard Serial Number. We used the Scopus database because it provides access to our pre-selected target journals. Given that the scope of this study was to explore the literature on change management within selected leading project management journals, we conducted a search for papers within the following publication year ranges: IJPM (1983–2023), IJMPB (2008–2023), and PMJ (1998–2023). The first search yielded 126 articles, that were documented in detail for further assessment and analysis.

The journal articles were further analyzed by reviewing the titles and abstracts of the papers and, when necessary, reading the details of the findings and conclusions. We excluded research articles that focused on internal project change management processes and how to manage deviations in the project plan. We also excluded papers in which the aim and scope of the research was not the management of change resulting from a project. The first round of screening and filtering journal articles according to our refined exclusion and inclusion criteria narrowed the number of research articles to 59.

The purpose of the first data analysis phase was to identify and develop the first version of the themes and subthemes for article categorization and analysis purposes. All the authors independently read the 59 selected articles. We applied the qualitative content analysis method (Miles et al., 2014) to identify the key aspects of the articles to code and classify them into categories for thematic analysis. Categories were inductively derived from the data. As a result of this first content analysis phase, 12 more articles were excluded from the sample, as a joint decision by all authors. The removed articles addressed diverse topics regarding project management phenomena, such as complexity, communication, and leadership, where the research focus was not on change management and were therefore out of scope.

After the initial coding of the research articles, we continued the first content analysis round so that one of the authors classified all the

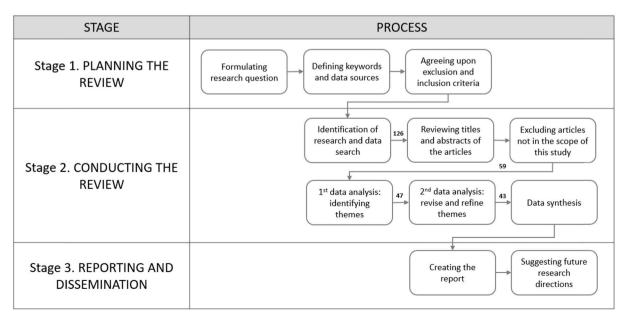


Fig. 1. Review process for the systematic literature review (adopted from Tranfield et al., 2003).

articles independently and suggested modified themes and subthemes to be applied to make sense of the research papers accordingly. Subsequently, two meetings were held to discuss and reach a consensus on the logic and names of the themes and subthemes. We identified five themes that the articles focused on exploring: 1) the concepts of change management, project management, and their relationship; 2) the change management process; 3) change management success/failure; 4) how change projects and programs are integrated with their parent organization; and 5) changes in project-based firms or in specific fields of industry. Our approach to identifying subthemes was data-driven; therefore, we had more than 30 subthemes after the first sample analysis.

We proceeded to the second data analysis phase by performing full-text screening to revise and refine the themes and subthemes. This was done to improve the clarity of our study and interpret our findings. We ended up with six themes, where we divided the earlier change management success/failure theme into two themes: 1) change management as a success factor and 2) change resistance. We carried out a theme division to emphasize the salience of change resistance as both positive and negative forces and phenomena in the change management processes. Simultaneously, we renamed and combined the subthemes with overlapping topics and removed four papers that were irrelevant to our study. After these content analysis phases, 43 papers were included in the final sample, as summarized in Table 1.

Data synthesis is the final phase of our review process, in which we systematically summarize and integrate our analyses to elucidate the evolution of the change management discourse within project management journals. Our research synthesis adopts a narrative review format, which we present as the principal finding of this study.

### 2.3. Reporting and dissemination

We report our findings using a two-stage process. First, we conducted a descriptive analysis of our sample articles to characterize the data frequency distribution by year and source of publication. Second, thematic analysis findings are reported to identify key emerging themes and justify the conclusions of this study. The systematic literature review concludes by suggesting directions for future research where potential areas for future investigation are identified and linked to overarching themes.

### 3. Findings

### 3.1. Descriptive analysis

The descriptive analysis describes the bibliographic details of the sample articles and sets the basis for the SLR. The descriptive analysis of our sample articles characterizes the data frequency distribution by year (Fig. 2) and publication source (Table 2).

Based on the descriptive analysis, there is stable but limited attention paid to the theme of how to manage change in project studies. The analysis of the connection between articles shows that existing research is fragmented, and that there is a limited connection between different

Table 1
Summary of the articles identified and included/excluded from our study.

Journal	Keyword hits in search	Articles excluded	Final sample of articles
International Journal of Project Management (IJPM)	81	52	29
International Journal of	29	23	6
Managing Projects in Business (IJMPB)			
Project Management Journal	16	8	8
(PMJ)			
Total	126	83	43

discourses on change. Fig. 1 in Appendix 1 illustrates the connections between the sample articles.

### 3.2. Themes and subthemes

Existing project studies have identified a specific group of projects, called change projects (or programs). These change projects take purposeful actions aimed at transitioning an organization from its present condition to a desired future state. Both project and change management methods must be applied to manage and lead change projects and programs in an efficient manner. Extant project studies have identified several factors that affect the success or failure of change projects. It is notable that projects other than change projects benefit from the use of change management processes and methods, because they are regarded as success factors. Change resistance has also been a research topic in several studies.

One significant and essential area/topic in change projects is the integration of temporary and permanent organizations to sustain change. These studies have focused on the integration and boundary management of temporary and permanent organizations. A few studies have focused on change management in the context of project-based firms or in the context of industry branches when the change itself is the phenomenon under study, utilizing the change management approach. There are many research articles exploring IT projects, such as ERP deployment or digitalization, but less is written about traditional projects, such as construction. These observations guided us to define categories and classify the articles according to themes and subthemes, as shown in Table 3.

### 3.2.1. Relationship of change management and project management

This discussion includes numerous papers that address the conceptual foundations of CM and PM and their boundaries, relationships, and integration. In this discussion, it is proposed that project and change management jointly contribute to the delivery of organizational changes (Pollack and Algeo, 2014, 2016). However, there is a lack of clarity regarding the boundaries and relationships between these two disciplines (Pollack and Algeo, 2016). Similarly, Gareis (2010) claims that the differences between changes, processes, programs, and projects are not clearly defined in the literature; therefore, change management is not appropriately related to process, project, and program management.

The core of this discussion is the identification of change projects and programs as a separate **new class of projects**. These projects cannot be effectively managed with traditional planning and control-oriented project management approaches; instead, they require contributions from other disciplines such as change management (Winter et al., 2006). A project focusing on implementing radical organizational change, such as business process re-engineering (BPR), requires a more flexible approach that recognizes the evolutionary nature of the scope of such projects. On a more detailed level, Levene and Braganza (1996) and Gareis (2010) introduced an operational categorization of change types, which allows the application of appropriate change management approaches for different types of change projects.

Project and change management are based on distinct bodies of knowledge and practitioners in these disciplines have disparate views on how to manage change. There is a lack of consensus on how these disciplines should work together to deliver organizational change projects, and there are fundamental differences in how practitioners of these disciplines view the practice of organizational change (Pollack and Algeo, 2014). A disciplinary discussion aims to understand the relationship between project and change management disciplines while taking a position that managing changes, as projects require finding theoretical linkages and meaningful bridges between both fields (Lehmann, 2010). To this end, Pollack and Algeo (2016) identified a set of critical success factors that are influenced by PM and/or CM to understand the ways in which these disciplines can work effectively together. Gareis (2010) provided structural clarity for the management

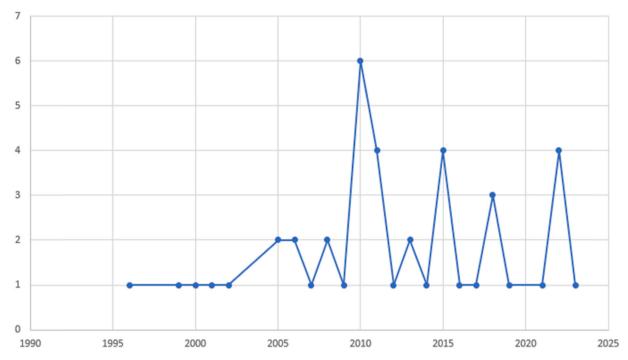


Fig. 2. Distribution of articles by the year of publication.

**Table 2** Distribution of articles as per their source of publication.

Journal	Final sample of articles	%
International Journal of Project Management (IJPM)	29	67
International Journal of Managing Projects in Business (IJMPB)	6	14
Project Management Journal (PMJ)	8	19
Total	43	100

of changes by describing the relationships between changes, processes, programs, and projects. Although researchers generally aim to understand how these two disciplines complement each other, Winch et al. (2012) discuss the project as a process of change that produces fundamental differences between organizational change and projects, suggesting the limited contribution of project management best practices in implementing organizational change.

Realizing major organizational change can be seen as a complex process influenced by the characteristics of the organization, the integrated project and change management framework, and the importance key leadership roles throughout the change process (Cowan-Sahadath, 2010). Research on integration practices focuses on how to integrate project and change management processes and approaches to better manage change. As many of the management needs of complex change projects go past the traditional domain of project management, practitioners of these projects often use change management in combination with project management. Gordon and Pollack (2018) studied the ways in which project managers responsible for merging and integrating healthcare services have used project management and change management approaches in combination when delivering these projects. They found that change management is particularly beneficial if used early in the project life cycle; however, the life cycles of these two disciplines do not align, causing practical complications. Consequently, practitioners have used an intuitive and improvisational approach to combine disciplines. Boddy and Macbeth (2000) provide empirical evidence that project management practices are useful for implementing change in the context of improving collaborative relationships between organizations, suggesting that several project management practices related to project goals, resources, structure, and control can influence project success. Gemino and Reich (2023) emphasize the importance and criticality of governance, benefit management, and change management for the success of digital transformation initiatives. The project form of organizing has also been suggested as the most appropriate form of organizing internal change projects within enterprises when various departments and a significant number of people are affected (Alsène, 1999).

The discussion on roles and competences in change projects and programs recognizes that managing change requires overlapping but partly different skill sets. Hornstein (2015) proposes that project management processes and the training of new project managers must consider the impact of organizational change on the success and failure of project implementations. He also encourages PM-certifying agencies such as PMI and IPMA to include OCM education in the certification process for new project managers. However, it is not always clear whether project managers should be in the position of leading change. Crawford and Nahmias (2010) discussed who should lead organizational change projects to determine the competencies required to effectively manage change initiatives identifying several potential candidates, such as program managers, project managers, change managers, corporate executives, and senior managers, who often see themselves as playing leading roles in managing major organizational changes and transformations. The relationship between change and project management roles in organizational change initiatives remains unclear. This is demonstrated in Stummer and Zuchi's (2010) analysis of different change roles, and the benefits and disadvantages of the application of multirole assignments in a case study of the transformation of public organizations.

### 3.2.2. Change process and factors affecting change process

Several studies have identified the factors that affect the success of change projects. As change projects aim for organizational change, they must deal with political and cultural complexity, power relationships in organizations, organizational identity, and the complex relationship between permanent and temporary project organizations.

The selection of change agents and middle and top management

**Table 3**Articles categorized according to themes and subthemes.

Theme	Subtheme
Relationship of change management and project management	New class of projects (Levene and Braganza, 1996; Winter et al., 2006) Disciplinary discussion (Gareis, 2010; Lehmann, 2010; Pollack and Algeo, 2014, 2016; Winch et al., 2012) Integration practices (Alsène, 1999; Boddy and Macbeth, 2000; Cowan-Sahadath, 2010; Gordon and Pollack, 2018; Gemino and Reich, 2023)
	Roles and competences (Crawford and Nahmias, 2010; Hornstein, 2015; Stummer and Zuchi, 2010)
Change process and factors affecting the change processes	Selection of change agents (Eskerod et al., 2017) Organizational identity (Harikkala-Laihinen, 2022) Leadership style (Wang et al., 2005) Communication (Saxena and McDonagh, 2022) Political and cultural complexity (Jemine et al., 2020; Small and Walker, 2011; Van Marrewijk and Van den Ende, 2022) Sensemaking (Lunkka et al., 2019) Control mechanisms (Nieminen and Lehtonen, 2008) Role of technology (Linderoth and Pellegrino, 2005)
Change management as a success factor	Critical success factors (Venugopal and Suryaprakasa Rao, 2011) Benefits management (Boonstra, 2006; Coombs, 2015) Postmerger integration (Maire and Collerette, 2011)
Change resistance	Productive resistance (Fiedler, 2010; Van Marrewijk, 2018) Overcoming change resistance (Lines et al., 2015) Stakeholders (Boonstra, 2006; Walley, 2013) Risk management (Fiedler, 2010)
Interface with permanent organizations	Value creation (Farid and Waldorff, 2022) Relationship (Johansson et al., 2007) Integration and boundary management ( Lehtonen and Martinsuo, 2008, 2009; Maire and Collerette, 2011; Pellegrinelli and Murray-Webster, 2011; Vuorinen and Martinsuo, 2018) The role of change agents (Eskerod et al., 2017; Lehtonen and Martinsuo, 2009; Pellegrinelli, 2002) Competences (Pellegrinelli, 2002)
Change in project-based firms and industries/fields	PMO transformation (Aubry, 2015) CMMI implementation (Shih et al., 2013) Project-based organization (Winch et al., 2012) Industry-level change (Al-Sedairy, 2001; Gordon and Pollack, 2018; Van Marrewijk and Van den Ende, 2022)

support are major determinants of success in change projects. Based on their research, Eskerod et al. (2017) suggest that selecting change agents that employees respect and can identify with, combined with top management prioritization, is important for a project organization. In addition, because organizational members perceive identity discontinuity during strategic change programs in many ways, they are influenced by both the organizational context and personal experience. In change projects and programs, change agents and leaders understand and acknowledge that the role of **identity** may improve organizational outcomes by enabling them to engage and motivate organizational members to implement change (Harikkala-Laihinen, 2022). This discussion is also related to **the role of leadership** in enabling change.

There is a limited amount of research on leadership or leadership style in the change project context, even though it is a highly established discourse in the "general" change management discourse. A notable exception is Wang et al. (2005), who identify leadership style as an important success factor in IT/IS projects involving significant organizational change. They conclude that a charismatic leadership style positively influences ERP implementation and suggest that leaders should demonstrate more charismatic behaviors to improve team performance in such projects.

Communication is a key success factor for any type of project. In the context of a change project, it is often reduced to an instrument that ensures employee buy-in and overcomes user resistance toward the end of the project. Communication breakdowns can be avoided by changing communication in relation to the context, process, and content of change at the macro-social, organizational, and work system levels (Saxena and McDonagh, 2022). The information/coordination focus perspective on communication also emphasizes the soft skills of change actors.

Political and cultural complexity discourse has approached change from both the individual/organization and interorganizational levels. Van Marrewijk and Van den Ende (2022) have devised a conceptual framework in which power relations, strategic practices, and an order and conflict view are integrated. The findings show how project actors' strategic practices in the context of their power relations enabled and constrained inter-organizational change projects. Jemine et al. (2020) examined the political tensions that occur during design processes in organizational transformation projects and their implications for project management. Understanding and accounting for cultural complexity is an important success factor. When change management is viewed in a multicultural context, greater emphasis will likely be placed on the complexity and uncertainty issues arising from the interplay of culture and political aspects of managing change in a more empathic way (Small and Walker, 2011). The complex nature of human interrelations and the challenge of making sense of such multiple realities and power relationships influence project outcomes.

The sensemaking perspective emphasizes the importance of understanding how people make sense of their experiences to seek plausibility for ambiguous, equivocal, or confusing issues or events. In the context of change, if related to the complex nature of human interrelations, the challenge of making sense of multiple realities and power relationships influences project outcomes. Lunkka et al. (2019) investigated project participants' sense-making of lived work experiences during periods of organizational change in Finnish public healthcare. They suggested that this understanding could be used to improve current project management practices in healthcare change projects. This is one of the few studies that has adopted a more interpretative approach.

Although **control** is an important element in project management, little research has been conducted on control mechanisms in the context of organizational change in projects and programs. A notable exception is Nieminen and Lehtonen (2008), who focus on the control relationship within a program team consisting of a program and project managers. They identified different control mechanisms that seem to be complementary rather than substitutes and found that the overall level of control in the case programs varied significantly.

Finally, we need to acknowledge that organizational change is often supported by technology or is part of the technology implementation that requires organizational change. Linderoth and Pellegrino (2005) show that the management of IT-dependent change projects is highly sensitive to the process of building technological frames and creating a framework for describing technology and its role in the process of IT-dependent change projects.

### 3.2.3. Change management as a success factor

In this categorization, research on change management as a success factor takes the perspective that the management of the change that a project is pursuing is an important success factor for any type of project.

This research has mainly focused on the IS/IT context, in which projects are often viewed as processes of organizational change. In their study of key critical success factors in EPR projects, Venugopal and Suryaprakasa Rao (2011) propose change management steps to support the implementation of such projects. In addition, a benefits management study by Coombs (2015) argues that organizational change is necessary for the delivery of IS/IT project benefits. However, existing IS/IT evaluation methods adopt a narrow quantitative focus on costs and benefits and fail to consider the organizational dimension. Research findings from Boonstra's (2006) study on underperforming IS/IT projects revealed that planned benefits have not been realized because of a lack of attention to technical and organizational facilitators and inhibitors associated with IT-enabled organizational change. From a stakeholder perspective, Boonstra (2006) shows how ERP implementation can impact the interests of stakeholders in the ERP system, and how these groups may alter the design and implementation in ways that are more consistent with their interests.

In the sample of studies, only one on change management as a success factor focused on a context not directly related to IT/IS. In their study of an international **post-merger integration** project in the private banking sector, Maire and Collerette (2011) highlight change management as a key factor leading to success. This finding highlights the importance of having an integration manager in charge of the change process. In particular, they suggest that integration managers' main roles are to set the pace of integration by applying pressure to speed up progress and provide a climate in which people are motivated to work together to achieve success.

### 3.2.4. Change resistance

Change resistance is a highly discussed topic in the literature. The change-resistance discourse adopts a holistic perspective on change and connects with more recent perspectives on change resistance as an enabler for successful change initiatives. For example, in their research on the organizational transformation of mobile operations companies, Fiedler (2010) suggests that resistance may also have a positive impact on change. The positive role of change resistance is also recognized by Van Marrewijk (2018), who studied how change and resistance are shaped in interorganizational projects; van Marrewijk describes four practices that both enable and constrain change while also introducing the notion of **productive resistance**.

The traditional view of changing resistance focuses on overcoming change resistance. This view is adopted in Lines et al.'s study on the implementation of a new product delivery system, in which they take the perspective that change resistance is a major reason for organizational change failure. They identified six change management factors that contribute to minimizing resistance to change: certain aspects of project scope, size, and duration; organizational expectations of change implementation speed; the establishment of formal change agents; and the level of change agent involvement with implementation activities. Resistance to change can be exerted by both internal and external environments. Walley (2013) focuses on a better understanding of the role of stakeholders in resisting change by studying approaches to managing stakeholders in projects that are likely to experience high degrees of resistance to change in complex situations.

Fiedler (2010) focuses on resistance from a **risk management** perspective and proposes a model to manage resistance. The model discusses the identification and evaluation of resistance potentials, planning for managing resistance, avoidance and promotion of resistance, preparation for resistance, resolution of resistance, and control of resistance measures and potentials.

### 3.2.5. Interface with permanent organizations

Most studies on the interface and tensions between temporary and permanent organizations in the field of project management come from the context of program management. The project management literature has traditionally examined projects and programs as isolated entities, whereas recent research has drawn attention to the contextual embeddedness of change programs (Lehtonen and Martinsuo, 2009). Change programs typically aim to change parent organizations (Johansson et al., 2007). The contextual embeddedness of change programs is a highly relevant research perspective (compared with delivery projects, where one delivers the project to the customer). In the context of change programs, temporary and permanent organizations often overlap, and the same actors may take roles in both organizations, thus being responsible for the change and object of a change. There is a need to understand complex programs as part of their uncertain and dynamic contexts (Lehtonen and Martinsuo, 2008).

From a value-creation perspective, the challenge of managing the interface between temporary and permanent organizations is related to the different logics through which temporary and permanent organizations evaluate value creation. Farid and Waldorff (2022) employ institutional logic to explore the change program-organizational context interface and discuss how program management actors navigate the interface to create value. Contributing to the theory of change program VC by identifying change programs and contexts as different logics, the findings show that perspectives on VC may conflict with each other. Johansson et al. (2007) address the same issue from a slightly different perspective. They aim to understand how the relationship between the project and the parent organization influences organizational development projects. Based on an analysis of case studies conducted in human service organizations, they concluded that implementation depends on how the distinction between the project and the permanent organization is originally defined. Thus, project managers face a dilemma when organizing development projects: they either organize to accomplish innovation or achieve successful implementation.

Change programs provide an excellent context for studying integration and boundary management. Change programs have challenging goals and project stakeholders often have conflicting interests. To achieve their goals, these programs must be integrated with the parent organization and between projects. Pellegrinelly and Murray-Webster (2011) focused on issues such as links to strategy and business plans, alignment of the proposed change in organizational culture and routines, and connections between the program and the standing organization. Lehtonen and Martinsuo (2008, 2009) investigate the integration of change programs with parent organizations, examine how change programs are integrated with their parent organizations, and how boundary management and contextual factors are associated with program-parent integration. According to these results, the emergence of a program requires several iterative cycles of integration with and isolation from the parent organization, which is facilitated by the skilled activities of defining and shaping the boundary, representing and legitimizing the program, information scouting and negotiation, guarding, and ensuring continuity. This line of research also highlights the importance of having an integration manager in charge of the process to set the pace of integration by applying pressure to speed up progress while also providing a climate where people are motivated to work together toward success (Maire and Collerette, 2011).

Project success requires effective and efficient cooperation between the project organization and the permanent organization in which the project takes place. The selection of **change agents** plays an important role in cooperation. Program managers play an important role as change agents. However, traditional project management **competencies are inadequate** for complex change programs. Pellegrinelli (2002) argues that program management takes on many of the characteristics and competencies of strategic change management and organizational development. Program directors and managers are often unprepared for the challenges of continually shaping internal and external contexts and frequently lack creativity, awareness, and sensitivity to such role demands. To overcome this challenge, Eskerod et al. (2017) discussed the potential pitfalls of enriching project organizations by appointing and training peers from the middle management of permanent organizations

as formal change agents. The findings suggest that the selection of change agents and middle and top management support are major determinants of the success of change projects. Selecting change agents that employees respect and can identify with, combined with top management prioritization, is important for the project organization to benefit from the additional role. This may also address the finding that many organizational change programs have problems or even fail to reach their goals, because they cannot sufficiently engage the personnel of the parent organization (Lehtonen and Martinsuo, 2009).

### 3.2.6. Change in project-based firms and industries/fields

The research papers classified under this theme have studied organizational change in the context of project-based organizations. They provide empirical studies on how change management and project management processes and practices are applied in parallel with the transition from a current state to a future state to achieve intended benefits

Aubry (2015) provides empirical evidence of organizational change management. Their study corroborates the role of organizational change as an evolutionary process that enhances project performance, maturity, and business performance. They suggest that performance resulting from a project management office (PMO) transformation is moderated by organizational context, change management, and changes in coordination mechanisms.

Shih et al. (2013) studied capability maturity model (CMMI) implementation to analyze organizational change in a software company as a way to emphasize the understanding of organizational change processes during CMMI adoption. They propose four important practical findings. First, at the change-planning stage, senior executives' commitment is vital for the success of organizational change because these executives play an important role in motivating change, reducing uncertainty, and communicating the change through their personal involvement. Second, at the initial stage of change, employees' clear recognition of change objectives and moral support from enterprise executives determine change effectiveness. Third, at the letting go stage, communication tools and rules within and outside the organization help realize positive change results and achieve actual benefits. Fourth, at the completion stage of change, performance is used as a measurement tool to help internalize the change into new capabilities.

One research paper studied an organizational change project in a case where the change toward managing projects in a **project-based organization** was not itself managed as a project (Winch et al., 2012). This study explores the dimensions of projects as the content of change, and projects as the process of change. The study concludes that the observed paradox of distinct managerial processes provides a good opportunity to stimulate novel lines of inquiry in research on change in project organizations.

Industry-level changes have been studied in a few research articles in our sample. Al-Sedairy (2001) study change in the context of the construction industry and how they should develop their project management practices, such as selecting contractors based mainly on the lowest price. They adopt a contextual definition and characterization of change as a process of realigning people, resources, and culture. They developed and proposed a new change-management model to analyze, manage, and optimize the productive performance of construction organizations.

In the healthcare field, organizational change has been explored in the context of integrating healthcare services (Gordon and Pollack, 2018). This study explores how project managers apply both project and change management approaches when delivering projects. This study addresses the misalignment of project management and change management processes and practices and suggests developing frameworks that combine these approaches by framing project management within a change management context.

The study of interorganizational change projects in the joint building of subsurface utilities and telecom networks addresses the research

question of how power relations and strategic practices shape interorganizational strategic change projects (Van Marrewijk and Van den Ende, 2022). The findings show how project actors' strategic practices, in the context of their power relations, can both enable and constrain inter-organizational change projects.

#### 4. Discussion

This study aimed to make sense of prior research on the management of change in the context of project studies. Currently, there is limited understanding of how the theoretical frameworks, ideas, and principles from the general literature on change management could be merged with project management. Specifically, the way change that the project delivery is approached and treated in the project management context remains underexplored (Pollack, 2017). This knowledge gap presents a significant opportunity to advance both the theoretical and practical applications in these domains. In addition, the connection analysis of the articles in the sample revealed relatively vague links between them (see Appendix 1). This notion highlights the fragmented nature of prior research, which has not been built on change management research in a systematic manner.

### 4.1. The classification conceptual framework and future research directions

Several potential research areas emerged from the current SLR. The framework consists of three main parts: research problems, research theme and research directions. In the literature review, we investigated how the management of change resulting from a project has been addressed in previous research. In Table 4, the persisting issues are identified as research problems, and the themes present approaches to look at the problems. Future research directions will present promising areas for advancing knowledge regarding the management of change in the project context.

### 4.1.1. Relationship of change management and project management

One overarching notion that can be made based on the analysis is that more conceptual and empirical work is needed to better understand the integration of change and project management processes and requirements, as well as related risks. The practice and theory of project management can be further developed by integrating ideas and tools of change management into project management thinking, and the same applies to the opposite. It is also important to develop new knowledge of how project management thinking contributes to the theory and practice of change management. Currently, the two disciplines are developed within their own siloes and do not engage in productive discussions or cross-disciplinary fertilization (Pollack and Algeo, 2016; Gareis, 2010). This can be understood for historical reasons because the origins of projects and change management are fundamentally different.

### 4.1.2. Change process and factors affecting the change processes

As many projects require significant organizational change, it is important to consider issues that enable successful change. Factors such as the need to deal with political and cultural complexity, power relationships in organizations, organizational identity, and the complex relationship between permanent and temporary project organizations are recognized as important factors that affect change processes (Nieminen and Lehtonen, 2008; Small and Walker, 2011; Van Marrewijk and Van den Ende, 2022; Harikkala-Laihinen, 2022). However, these factors are not well addressed in the project management discipline and research on project success factors, which brings up the issue of how to borrow concepts and practices from the change management discipline and how to challenge the degree to which practices in the project management discipline are relevant for managing change projects.

Table 4
Research problems, research themes and future research directions.

Research problem	Research theme	Future research directions
The lack of research addressing boundaries and the relationship between change management and project management discipline	Relationship of change management and project management	Conceptual and empirical work to better understand the integration of change and project management processes, and requirements
Project management discipline is not well suited for managing projects aiming at significant organizational change.	Change process and factors affecting the change processes	Applicability of project management processes and practices in change projects
Research on the importance of managing organization change required to meet project goals is limited mainly to IS/IT context.	Change management as a success factor	The role of change management processes and practices in the context of more traditional projects
The research on change resistance has mainly focused on how to overcome change resistance.	Change resistance	Utilization of stakeholder thinking on how to engage opposing stakeholders to improve project performance and value creation processes.  Dynamics of interaction between stakeholders having conflicting goals related to change.
Limited amount of research understanding the contextual embeddedness of organizational change projects or programs	Interface with permanent organizations	Empirical research on tensions between temporary and permanent organizations. Process oriented perspective towards understanding change processes and projects
Lack of research focusing on organizational or industry level change taking account specific characteristic of project- based organizations.	Change in project- based firms and industries/fields	Enablers and implications of societal change in the context of megaprojects.

### 4.1.3. Change management as a success factor

Change management, as a success factor, has been primarily discussed in the context of IT and software projects, such as ERP implementation (Boonstra, 2006; Coombs, 2015; Venugopal and Suryaprakasa Rao, 2011). The importance of considering change management processes in the context of more traditional projects, such as construction projects, has rarely been emphasized. This is extremely interesting because one might assume that, for example, building a new hospital is indeed an extensive change project, where the entire project's starting point should be changing the ways of operating and organizational processes introduced by the new building (Gordon and Pollack, 2018; Tampio et al., 2022). This suggests a clear research gap in understanding how change processes can be effectively applied in the context of more traditional projects. The ideas from service design and the roles of design thinking (Dorst, 2011) may be useful for further developing this stream of research.

### 4.1.4. Change resistance

The analysis also revealed a lack of utilization of different organizational theories when analyzing changes in project contexts. In contrast, general change management research has built extensively on organizational theories, and integrating these ideas into the project change discourse would be beneficial. There is clear potential for developing a theoretical grounding in various areas; however, research that utilizes stakeholder thinking and theory to better understand changes is especially welcomed. We believe that stakeholder research, for example, on stakeholders' influence behavior (Frooman, 1999),

would be promising for better understanding the nature of change resistance and how it can be overcome.

Research on the value-creating role of change resistance and how it can facilitate project performance is also lacking. Stakeholder research has identified the opportunity and need to engage various stakeholders in value creation processes (Eskerod et al., 2015; Lehtinen et al., 2019). However, this stream of research has only limited discussion on the means through which opposing stakeholders' knowledge and understanding can be utilized in the development of projects and how this kind of engagement can facilitate project performance and the creation of value. Change projects offer an excellent context for studying how they enfranchise a heterogeneous group of stakeholders with conflicting goals to create value (Gil, 2023; Gil and Fu, 2022). Overall, we also believe that change projects would provide an excellent context for advancing our understanding of complex stakeholder landscapes and the processes inherent in them (Aaltonen and Kujala, 2016).

### 4.1.5. Interface with permanent organizations

It is also clear that theorizing about the temporary–permanent organizational relationship has mainly been advanced in project studies in the context of change projects and programs (Lehtonen and Martinsuo, 2008, 2009; Vuorinen and Martinsuo, 2018). Indeed, the theme of discussing interfaces with permanent organizations has mostly utilized established organizational theories and perspectives when analyzing change (Johansson et al., 2007; Lehtonen and Martinsuo, 2009; Maire and Collerette, 2011; Pellegrinelli and Murray-Webster, 2011). Examples of this include theories related to control and boundary management. In our view, theorizing within program management research that addresses change is a good starting point for advancing our understanding of change and projects in other contexts. Furthermore, studies on the theme of interfaces with permanent organizations have advanced the contingency perspective on change and understanding it in its context.

Regarding research on the relationship between temporary change projects and permanent organizations, there is the potential to analyze the actual tensions between temporary and permanent organizations more deeply (Eskerod et al., 2017; Maire and Collerette, 2011; Vuorinen and Martinsuo, 2018). Prior research has mostly considered tensions as a starting point but not as a research focus.

There is also room for a more process-oriented perspective to understand the temporal change processes and projects. For example, one could discuss linear versus sequential change models, advanced thinking on punctuated equilibrium, and iterative and radical change models discussed in the established change theories. Here, we see great potential for further theorizing the temporal dynamics of projects.

### 4.1.6. Change in project-based firms and industries/fields

Finally, the majority of the literature has focused on intraorganizational change contexts, whereas research on interorganizational change transformations or field-level changes and transformations

have not been addressed until recently (Gordon and Pollack, 2018; Van Marrewijk and Van den Ende, 2022). Addressing changes in the level of project networks and institutional fields clearly deserves more research attention. In our view, research focusing on societal change implications and enablers for societal change in the context of megaprojects would be particularly fruitful (Grabher and Thiel, 2015).

To conclude, bridging disciplinary boundaries can support further theorizing of change, its inherent nature, and its projectized nature. This kind of research would also be promising for better understanding and conceptualizing change projects as a separate project class as well as the features of change related to them. One may ask whether change projects are more like organizations in the state of becoming, instead of projects with a clear beginning and end (Tsoukas and Chia, 2002). Analyzing change projects may advance our understanding of the very nature of temporary organizations in different contexts; it may be possible that change projects are a type of enduring and fluid project,

having some kind of clear beginning but an indeterminate ending date. In addition, research on change projects typically emphasizes their ambiguous goals (Turner and Cochrane, 1993) and undefined outcomes, highlighting their flexibility and adaptability and making them an excellent context for the study of goal evolution in projects (Gil and Pinto, 2018). To better understand the reasons, drivers, and processes of this change, a better understanding of the specific nature and characteristics of change projects and their management is required. Furthermore, recent research on change has embraced the concept of agile change management. Insights from agile and collaborative project management may also be useful in developing practices and novel models for systematic management of change.

#### 5. Conclusions

This study aimed to make sense of and synthesize prior research on organizational change management in the context of project studies, identify under-researched aspects, and propose potential future research directions. The starting point was the notion that the management of change has been discussed in a limited manner within the field of project management. Accordingly, a systematic literature review was conducted, and 43 peer-reviewed journal papers from three leading project management journals (published between 1983 and 2023) were shortlisted for descriptive and content analyses. Descriptive content analysis shows a limited interest in the management of change in projects. The content analysis of prior research within the field of project management identified six distinct key themes: the relationship between change management and project management, the change process and factors and factors affecting the change process, change management as a success factor, change resistance, interface with permanent organizations, and change in project-based firms and industries/fields. Each theme highlights and addresses different dimensions and broad themes related to change and project management. The connection analysis of the articles in the sample revealed only relatively vague links between them (see Appendix 1). This notion highlights the fragmented nature of prior research, which has not been built on previous change management research in a systematic and profound manner. In addition, the contextual aspects of the management of change - that is, the implications of contextual project factors - have been addressed in a very limited manner. The synthesis of prior literature and identification of the different discourses is a theoretical key contribution of the paper, as a comprehensive understanding of the orientations, key concepts, and researched phenomena in previous research is a starting point for taking the research on the management of change forward. The suggested future research directions also provide ideas for scholars regarding under-researched themes and areas that require further exploration. This research also contributes significantly to practice and provides recommendations for managers.

The validity of the research was ensured by establishing a clear research question and protocol for the systematic literature review. We follow the approach proposed by Tranfield et al. (2003), defining the inclusion and exclusion strategies, search strategy, and process through which data were extracted and analyzed. These are also reported in detail to ensure the reproducibility of this research. Our sample consists of articles in three leading journals on project management, ensuring that the studies are relevant to the research question and applicable to the context of project studies.

### 5.1. Managerial implications

Managing an organization often requires introducing changes that should take place in a controlled manner. Thus, from a business manager's perspective, it is imperative to understand how to manage change projects successfully. The key takeaways for managers in this study are as follows.

Recognizing the interdisciplinary nature of change projects

underscores the importance of collaborative efforts between project and change management disciplines for holistic project management. Managers should leverage toolsets from both disciplines to successfully introduce controlled changes to their organizations. Tailoring management practices in industry-specific contexts, such as healthcare or construction, improves project performance and organizational resilience. Currently, the change project literature seems to have focused on the IT industry; therefore, managers should critically view which practices may apply to their industry.

Resistance to change is common to all managers who have brought change to an organization. However, viewing change resistance as both a challenge and opportunity can help create strategies for effectively managing resistance, leveraging it as a catalyst for successful change initiatives. One concrete strategy is to involve people who resist changes in the collection, analysis, and presentation of change information. This may direct their energy into activities where they feel meaningful and empowered with a sense of control and support the creation of a shared perception of the change situation. Identifying the factors that affect the success of change projects, such as the selection of change agents, organizational identity, leadership style, and communication strategies, provides valuable insights for improving management practices and enhancing project outcomes.

Value creation, a constant concern for managers, is facilitated by understanding the interface between temporary and permanent organizations. Thus, effective coordination between temporary project teams and permanent organizations is vital. Integration managers play a crucial role in facilitating collaboration and navigating organizational boundaries.

Insights from agile and collaborative project management may be useful for managers to develop practices and novel models for systematic management of change. In addition, leveraging technology and adopting flexible approaches can enhance project success.

### 5.2. Limitations

The present study has some limitations. Because the main objective of the present research was to gain a better understanding of how change management is discussed in the project management literature and to provide avenues for future research, our research provides only a limited view of how to manage change. We acknowledge that many issues brought up here, such as change resistance, are central to discussions in the change management literature. Further research should be conducted outside the project management discipline. When analyzing and categorizing the research articles, we focused on the main research objectives and contributions of each paper in the sample. Therefore, some nuances or contributions with less attention in the research articles may have been missed. We also intentionally focused on investigating only three project management journals, which can be considered leading journals, but excluded journals with fewer than ten hits as a result of database searches with selected keywords. This is a clear limitation of our method, and future research agendas could benefit from including more project management journals and literature, such as book chapters, in their samples. Journals with a specific focus on management and change management should be covered to create a more versatile, rigorous, and multidisciplinary view of the existing research.

### CRediT authorship contribution statement

Elina Jääskä: Writing – review & editing, Writing – original draft, Visualization, Methodology, Data curation. Kirsi Aaltonen: Writing – review & editing, Writing – original draft, Supervision, Conceptualization. Liina Hellens: Writing – review & editing, Project administration. Jaakko Kujala: Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

## Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used Paperpal to improve the language. After using this tool, the authors reviewed and edited the content as needed, and took full responsibility for the content

of the publication.

### **Declaration of Competing interest**

none

### Appendix 1

The connections between the sample articles are shown in Fig. 3. The figure supports the impression of subtle fragmentation of change management research in project studies, which was conveyed in the article abstracts of the sample. Only some of the research articles are interconnected, and many of the articles seem to be disconnected from other papers in the sample.

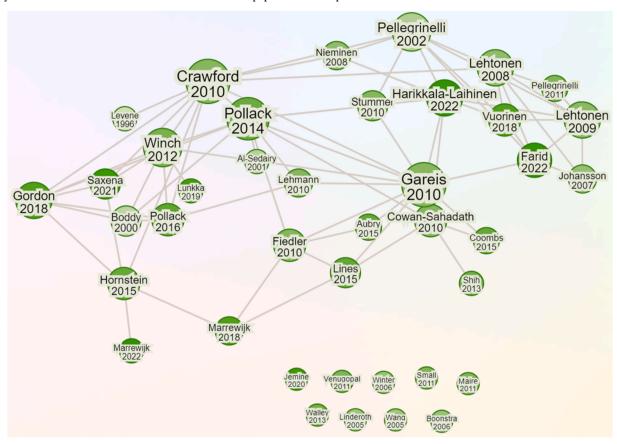


Fig. 3. Connections between sample articles.

### Data availability

Data will be made available on request.

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