Uluslararası İktisadi ve İdari Bilimler Dergisi

IDEAS

ASSESSING ORGANIZATIONAL CHANGE CAPABILITY THROUGH A MULTISECTORAL STUDY: DEVELOPMENT AND PSYCHOMETRIC VALIDATION OF THE "CHANGE MANAGEMENT SCALE"

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ABSTRACT: In today's dynamic organizational environments, the capability to manage change effectively has become a critical determinant of institutional success and sustainability. This study aims to develop and validate the Change Management Scale (CMS), a multidimensional tool designed to assess organizations' ability to plan, implement, and institutionalize change. The research employed a quantitative design and collected data from three sectors—education, healthcare, and energy/renewable energy—where change processes are both rapid and deeply impactful. To establish the structural validity of the CMS, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted on data obtained from three independent sample groups. Criterion-related validity was examined through correlations between the CMS and the Openness to Organizational Change Scale, demonstrating a positive and significant relationship. The EFA and CFA results supported a three-factor structure—Strategic Decision and Leadership, Preparation and Planning, and Implementation, Monitoring, and Institutionalization—with satisfactory model fit indices. Reliability analyses revealed Cronbach's alpha coefficients above .70 for all dimensions, indicating high internal consistency. The findings confirm that the CMS is a valid and reliable instrument for measuring change management practices across diverse organizational settings. Its concise structure and sector-neutral design make it suitable for application in various industries and cultural contexts. The CMS contributes to both theory and practice by providing researchers and practitioners with a practical framework for assessing, monitoring, and enhancing organizational change capability. **The scale items are presented in both English and Turkish at the end of the study.**

Key Words: Change management, organizational change capability, scale development, validity, reliability,

Article type: Research article

Jel Classification: M10, M12

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ÇOK SEKTÖRLÜ BİR ÇALIŞMAYLA ÖRGÜTSEL DEĞİŞİM KAPASİTESİNİN DEĞERLENDİRİLMESİ: "DEĞİŞİM YÖNETİMİ ÖLÇEĞİ" NİN GELİŞTİRİLMESİ VE PSİKOMETRİK GEÇERLİLİĞİNİN DOĞRULANMASI

ÖZ: Günümüzün dinamik örgütsel ortamlarında değişimi etkili bir şekilde yönetebilme yetkinliği, kurumsal başarının ve sürdürülebilirliğin kritik bir belirleyicisi haline gelmiştir. Bu çalışma, örgütlerin değişim süreçlerini planlama, uygulama ve kurumsallaştırma kapasitesini ölçmek amacıyla tasarlanan Değişim Yönetimi Ölçeği (DYÖ)'nün geliştirilmesini ve geçerliliğinin test edilmesini amaçlamaktadır. Araştırma nicel bir desenle yürütülmüş ve değişimin hızlı ve derin biçimde hissedildiği eğitim, sağlık ve enerji/yenilenebilir enerji sektörlerinde görev yapan çalışanlardan veriler toplanmıştır. Ölçeğin yapısal geçerliliğini belirlemek amacıyla üç bağımsız örneklem grubundan elde edilen veriler üzerinde Keşfedici Faktör Analizi (KFA) ve Doğrulayıcı Faktör Analizi (DFA) uygulanmıştır. Ayrıca, ölçüt bağımlı geçerlilik kapsamında, DYÖ ile Örgütsel Değişime Açıklık Ölçeği arasındaki korelasyon incelenmiş ve anlamlı pozitif ilişkiler tespit edilmiştir. KFA ve DFA sonuçları, ölçeğin "Stratejik Karar ve Liderlik", "Hazırlık ve Planlama" ile "Uygulama, İzleme ve Kurumsallaştırma" olmak üzere üç boyutlu bir yapıya sahip olduğunu göstermiştir. Tüm boyutlarda Cronbach Alfa katsayılarının .70'in üzerinde bulunması, ölçeğin yüksek düzeyde güvenilir olduğunu ortaya koymuştur. Elde edilen bulgular, DYÖ'nün farklı örgütsel ortamlarda değişim yönetimi uygulamalarını değerlendirmek için geçerli ve güvenilir bir ölçme aracı olduğunu kanıtlamaktadır. Ölçeğin özlü ve sektörler arası uygulanabilir yapısı, araştırmacı ve uygulayıcılara örgütsel değişim yetkinliğini değerlendirme, izleme ve geliştirme konusunda pratik bir çerçeve sunmaktadır. **Ölçek maddeleri çalışmanın sonunda hem İngilizce hem de Türkçe olarak sunulmaktadır.**

Anahtar Kelimeler: Değişim yönetimi, örgütsel değişim yetkinliği, ölçek geliştirme, geçerlilik, güvenilirlik,

Makale Türü: Araştırma makalesi

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INTRODUCTION

In today's world, rapid developments in economic, technological, social, and cultural domains profoundly affect organizational operations. In particular, advances in information and communication technologies, the acceleration of globalization, and intense competition in markets have continuously exposed organizations to change (Al-Haddad & Kotnour, 2015; Todnem, 2020). As a natural outcome of these developments, business practices, organizational structures, strategies, and processes may undergo significant transformation within short periods. Consequently, change management has become a strategic necessity for organizations striving to survive and achieve a competitive advantage. Change is no longer viewed as a temporary obligation but as a fundamental element ensuring the continuity of organizational life (By, 2021; Ferede et al., 2024).

In recent years, economic fluctuations, global crises, technological transformations, environmental threats, and rapidly changing social expectations have heightened the level of uncertainty organizations face. In this context, the distinction between organizations that successfully adapt to change and those that fail to do so has become increasingly apparent (Worley & Mohrman, 2021; Purnomo et al., 2024). Organizations capable of adapting to environmental change can transform crises into opportunities, whereas those unable to adapt often lose their competitive edge or are forced to cease operations entirely. Thus, change is not merely a matter of preference but an imperative for organizational survival (Appelbaum et al., 2017; Bielienkova et al., 2024).

The environmental, economic, socio-cultural, and legal factors within which organizations operate are among the primary sources of change. Particularly, the rapid advancement of technology has reshaped many areas ranging from production processes to marketing strategies. Likewise, the expansion of global trade networks has increased organizational interactions with diverse cultures, making changes in organizational values, communication styles, and management approaches inevitable (Klaus, 2020; Al Qwad et al., 2025). These transformations, increasingly evident in recent years, have had the greatest impact on institutions lacking the capacity to manage change effectively. When such organizations resist change or fail to manage it efficiently, they lose their competitive advantage and gradually experience a decline in organizational performance (Cameron & Green, 2020; Ademola, 2024).

Under the highly competitive conditions of today's business environment, the survival of organizations is directly linked to their ability to adapt to changing circumstances. This adaptation effort represents one of the most critical managerial challenges organizations face. Adaptation not only involves responding to environmental shifts but also requires anticipating change and developing proactive strategies (Hornstein, 2015; Jinga et al., 2024). In other words, change management should be viewed not as a reactive approach but as a process of strategic planning and direction for organizations.

In the literature, change management is defined as the planned and systematic process through which organizations transition from their current state to a desired future state (By, Kuipers & Procter, 2018; Jaaska et al., 2025). This process encompasses multiple dimensions such as human resources, technological infrastructure, business processes, and cultural values. Effective change management not only transforms organizational structures but also enhances employee participation and commitment throughout the change process

(Stouten et al., 2018). Therefore, the success of change management largely depends on leadership competencies, communication strategies, employee attitudes toward change, and the extent to which organizational culture supports change.

In today's competitive landscape, the capacity to change is recognized as one of the most critical sources of sustainable competitive advantage for future organizations (Worley & Mohrman, 2021; Harrison et al., 2024). Organizations that demonstrate flexibility in the face of change, generate innovative solutions, and make strategic decisions amid uncertainty can secure a strong position even in highly competitive environments. At this point, change management should not be regarded as a temporary measure applied during crises but as a sustainable managerial approach that guarantees long-term success (Cameron & Green, 2020).

However, for change processes to be managed effectively, organizations must first identify their existing capacity for change along with their strengths and weaknesses in this regard. To meet this need, there is a growing requirement for reliable and valid measurement tools that can assess and evaluate the change management process. Particularly in the academic literature and practical applications, the availability of scales capable of assessing organizational performance across different dimensions of change management is of great importance (Stouten et al., 2018; By, 2021). Such tools not only facilitate the analysis of the current situation but also guide organizations in their strategic planning for the future.

In the international literature, several attempts have been made to develop scales related to change management. For instance, Armenakis and Bedeian (1999) explored scales measuring perceptions of the change process, while Holt, Armenakis, Feild, and Harris (2007) developed the Readiness for Change Scale. These instruments provide valuable means for assessing the success level of change processes, identifying deficiencies, and determining areas for improvement. However, most existing scales are limited to specific sectors or cultural contexts, underscoring the need for reliable and valid measurement tools that can be applied across various organizational and cultural settings. In this regard, it is essential that newly developed scales contribute both theoretically and practically, filling the measurement gap in the field of change management.

Accordingly, this study aims to develop a meaningful and comprehensive scale designed to assess how organizations manage the process of change. First, the concepts of change and change management will be examined within a theoretical framework, including a review of existing approaches, definitions, and models in the literature. Subsequently, the newly developed scale will be introduced, and details of the methodological process—such as sample group, validity, and reliability analyses—will be presented. Through this approach, the study seeks to contribute to both academic literature and organizational practice by enhancing understanding and evaluation of the change management process.

1. CONCEPTUAL FRAMEWORK

1.1. The Consept of Change and Change Management

Change, in its broadest sense, refers to the process of transitioning from an existing state to a different one. In the literature, change is regarded as an inevitable phenomenon that occurs at both individual and organizational levels, shaped by environmental, technological, economic, and socio-cultural factors (Burnes, 2017). Particularly in the last

three decades, with the acceleration of globalization and technological advancement, the concept of change has come to be defined as a continuous and dynamic process. It is now perceived not as a periodic necessity but as an ongoing reality to which organizations must adapt almost constantly (Todnem By, 2005; Errida & Lotfi, 2021).

In the international literature, change is typically analyzed under two main categories: incremental (gradual) change and radical (transformational) change (Nadler & Tushman, 1990). Incremental change refers to minor adjustments in processes and practices without fundamentally altering the existing organizational structure, whereas radical change involves profound strategic transformations and organizational restructuring. Both types of change are essential for the sustainability of modern organizations (Laig & Abocejo, 2021).

Change management, including the human factor, can be defined as the entire process of utilizing the talent, knowledge and personality traits of people at all levels during the efforts to develop all managerial and organizational attitudes that play a role in integrating an organization with its environment and gaining flexibility to adapt quickly to changes occurring in its environment (Çalışkan, 2007). In today's uncertain, volatile, complex, and ambiguous business environment, change management is considered not merely an operational necessity but also a strategic source of competitive advantage (Bennett & Lemoine, 2014; Rousseau & Ten Have, 2022). Global market dynamics, technological innovations, evolving customer expectations, and shifts in regulatory frameworks all test organizations' adaptive capacities. Research shows that organizations failing in change management often lose competitiveness due to factors such as lack of leadership, employee resistance, insufficient communication, and poor timing (Beer & Nohria, 2000; Sancak, 2023). Conversely, organizations that adopt proactive change management practices are more likely to turn crises into opportunities and achieve long-term sustainability (Bagga et al., 2023).

1.2. Organizational Theories Associated with Change Management

Organizational theories provide an essential foundation for understanding the theoretical underpinnings of change management. Developed across different eras, these theories explain how organizations perceive and manage change through various dimensions (Rachmad, 2022).

Classical Organization Theories: The classical approach views organizations as rational and mechanical systems. Taylor's Scientific Management Theory and Fayol's Administrative Theory approached change from the perspectives of planning, division of labor, and efficiency improvement (Taylor, 1911; Fayol, 1949). Weber's Bureaucratic Theory, while emphasizing stability and order, also highlighted that rigid rules could generate resistance to change (Weber, 1947).

Neoclassical and Human Relations Theories: Developed as a reaction to the mechanistic perspective of classical theory, the neoclassical approach emphasizes employees' social and psychological needs. Elton Mayo's Hawthorne Studies demonstrated that employee participation and communication play a critical role in successful change processes (Mayo, 1933). This approach stresses that change encompasses not only structural adjustments but also the human dimension of organizations.

Contingency Theory: The contingency approach asserts that there is no single best way to manage an organization and that organizational structures and processes should adapt to environmental conditions (Burns & Stalker, 1961; Lawrence & Lorsch, 1967). Within this

framework, change is seen as a natural outcome of environmental adaptation, and change management is explained as the organization's ability to align with contextual factors.

Systems Theory: The systems approach views organizations as open systems that constantly interact with their external environment (Katz & Kahn, 1978). Change affects not only internal processes but also the organization's external relationships. Therefore, effective change management requires a holistic approach encompassing all subsystems—people, technology, culture, and processes.

Institutional Theory: According to institutional theory, organizations change not only for rational or efficiency-based reasons but also to conform to societal norms, cultural values, and legitimacy expectations (DiMaggio & Powell, 1983; Scott, 2001). From this perspective, change serves as a mechanism for social acceptance and legitimacy rather than solely for competitive advantage.

Resource Dependence Theory: This theory posits that organizations depend on external resources such as capital, knowledge, technology, and labor for survival (Pfeffer & Salancik, 1978). Since environmental changes affect access to these resources, organizations are compelled to adapt. Consequently, change management becomes part of a strategic effort to reduce external dependency and enhance competitive advantage.

Resource-Based View (RBV) and Dynamic Capabilities: The resource-based view argues that sustainable competitive advantage stems from valuable, rare, and inimitable organizational resources (Barney, 1991). The dynamic capabilities approach extends this by emphasizing adaptability, learning, and innovation in response to changing environments (Teece, Pisano & Shuen, 1997). Effective change management, therefore, depends on an organization's ability to leverage these dynamic capabilities.

Learning Organization Approach: Senge's (1990) learning organization concept regards change as a continuous learning process. It emphasizes the importance of flexibility, innovation, and knowledge-driven action in responding to change. In this context, change management should be supported by continuous organizational learning and knowledge sharing.

Complexity and Chaos Theories: These theories argue that organizations are dynamic systems characterized by uncertainty and unpredictability (Stacey, 1996). Within this framework, small changes can lead to large-scale consequences, and change management cannot be fully controlled. Flexibility, adaptability, and rapid response capacity thus become essential.

Digital Transformation Approach: Since the early 2000s, digital technologies such as artificial intelligence, big data, cloud computing, and the Internet of Things (IoT) have driven profound organizational change. Digital transformation entails not only technological innovation but also restructuring of business models, customer relations, and organizational culture (Bharadwaj et al., 2013). This perspective necessitates that change management be integrated with digital competencies, agility, and innovation.

Agile and Lean Management Approaches: Another prominent post-2000 trend is the emergence of Agile and Lean management philosophies. Originating from software development practices, these approaches prioritize flexibility, speed, customer focus, and continuous improvement (Rigby et al., 2016). From a change management standpoint, Agile

and Lean methodologies are valuable for promoting rapid adaptation, enhancing employee engagement, and meeting customer needs effectively (Franklin, 2021; Çalışkan et al., 2025).

The timeline of organizational theories related to change management is presented in Figure 1.

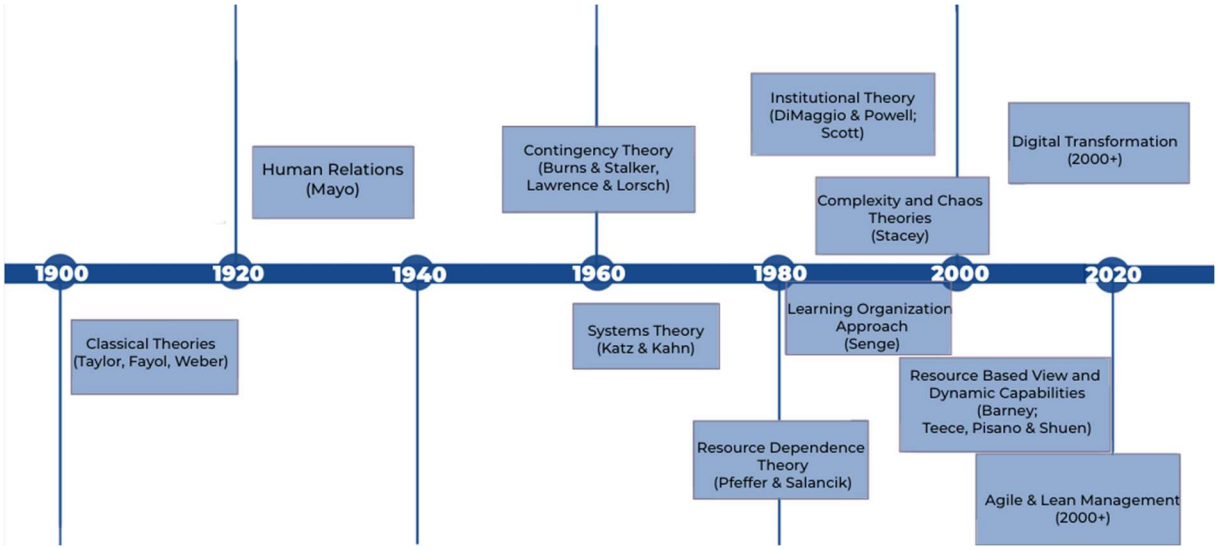

Figure 1. Timeline of Organizational Theories Related to Change Management

1.3. Theoretical Infrastructure of Change Management

Change management is an interdisciplinary approach that enables organizations to adapt to changes occurring in their internal and external environments. In today's rapidly evolving business world, technological advancements, globalization, and economic fluctuations continuously compel organizations to undergo transformation. The primary goal of change management is to manage these transformations in a planned and effective manner in order to enhance organizational performance, minimize resistance, and achieve sustainable success (Kotter, 1996; Burnes, 2017). The concept of change management began to appear in management science literature in the mid-20th century and has since been influenced by various disciplines such as psychology, sociology, behavioral sciences, and systems thinking (Cummings et al., 2016).

The theoretical infrastructure focuses on how organizations perceive, plan, and implement change. While theoretical models define the stages of change, theoretical frameworks explain the underlying factors influencing it. In the literature, change management theories are generally examined under three main schools: planned, emergent, and contingency approaches (Burnes, 2004). These schools encompass a wide range of perspectives, from individual behaviors to organizational systems.

Research indicates that nearly 70% of failed change initiatives are attributed to human factors (Kotter, 1996; Senturia, Flees & Maceda, 2008). Accordingly, theoretical foundations play a vital role in bridging the gap between academic understanding and practical implementation. Historically, Kurt Lewin's studies laid the cornerstone of change

management theory (Lewin, 1951), while modern approaches have been significantly shaped by John Kotter's leadership-oriented model.

1.3.1. Theoretical Schools of Change Management

Individual Perspective School: This school approaches change through the lens of individual behavior. The behavioral perspective explains individuals' reactions to change using a stimulus–response mechanism (Skinner, 1953), while Gestalt–Field Theory emphasizes perception and experience (Lewin, 1936). This school primarily focuses on reducing individual resistance to change and can be associated with Kübler-Ross's (1969) *Change Curve*, which describes the emotional responses individuals exhibit during the change process.

Group Dynamics School: The Group Dynamics School examines change within the context of social groups. Kurt Lewin's (1947) work on group dynamics forms the theoretical foundation of this school. Group norms, interactions, and *force fields* influence the acceptance of change. Participation and collaboration play a critical role in group-based change strategies.

Open Systems School: The Open Systems School views organizations as systems that are in constant interaction with their environments (Katz & Kahn, 1978). Change affects all components of the organization—including people, technology, processes, and structure—and necessitates environmental alignment. This approach integrates the contingency perspective, recognizing that successful change depends on organizational adaptability. The *McKinsey 7-S Framework* serves as a prominent example of this school (Peters & Waterman, 1982).

1.3.2. Major Change Management Models

Lewin's Three-Stage Model: Lewin (1951) conceptualized change as a three-stage process: *unfreezing*, *changing*, and *refreezing*. In this model, the need for change is first identified, new processes are then implemented, and finally, changes are institutionalized. *Force-field analysis* serves as a key tool in identifying driving and restraining forces during this process (Rosdiana & Aslami, 2022).

Kotter's Eight-Step Model: Kotter (1996) proposed an eight-step model for managing organizational change: (1) creating a sense of urgency, (2) building a guiding coalition, (3) developing a vision, (4) communicating the vision, (5) removing obstacles, (6) generating short-term wins, (7) consolidating gains, and (8) anchoring new approaches in the culture. This model emphasizes leadership and organizational culture as central elements in achieving lasting change.

ADKAR Model: Developed by Prosci, the ADKAR model adopts an individual-centered approach. It comprises five sequential stages—Awareness, Desire, Knowledge, Ability, and Reinforcement (Hiatt, 2006). The model stands out for its measurability and focus on individual-level change management, enabling organizations to track progress systematically.

McKinsey 7-S Framework: The McKinsey 7-S Framework emphasizes the alignment among seven organizational elements: strategy, structure, systems, shared values, skills, style, and staff (Peters & Waterman, 1982). It is widely used as a diagnostic and integrative tool for managing organizational change holistically.

1.3.3. Other Prominent Models and Theories

Nudge Theory (*Thaler & Sunstein, 2008*): Promotes behavioral change through subtle interventions rather than direct enforcement.

Kübler-Ross Change Curve (*Kübler-Ross, 1969*): Explains individuals' emotional reactions to change, such as denial, anger, exploration, and acceptance.

Bridges' Transition Model (*Bridges, 1991*): Focuses on the psychological transition that individuals experience through three stages—ending, neutral zone, and new beginning.

The theoretical infrastructure of change management is critical for understanding and managing the complex transformation processes organizations encounter. Theories at individual, group, and system levels provide frameworks that guide practical implementation. From Lewin's classical three-stage model to Kotter's leadership-oriented approach and modern integrative frameworks, all emphasize the inevitability of change and the importance of increasing success rates in change initiatives. Future trends such as digitalization and sustainability are expected to further diversify and enrich the theoretical landscape of change management (Bharadwaj et al., 2013; Rigby, Sutherland & Takeuchi, 2016).

2. CHANGE MANAGEMENT PROCESS

For organizations to adapt effectively to rapid environmental transformations, maintain their competitive advantage, and achieve sustainable performance, change management must be approached as a systematic, interdisciplinary, and multi-phased process (Burnes, 2017). This process encompasses not only the implementation of new practices but also the coordinated transformation of organizational structure, processes, culture, and employee attitudes (Aitken & Von Treuer, 2021; Hayes, 2022). The literature emphasizes that successful change processes integrate both leadership- and individual-oriented components and that the incorporation of project management principles into change initiatives is one of the key determinants of success (Pollak et al., 2022; Şimşek & Şahin, 2024).

2.1. Identifying the Need for Change

At the outset of the change process, the organization must conduct a comprehensive analysis of its internal and external environments to clearly define the need for change. Triggering factors such as technological advancements, market dynamics, regulatory changes, and shifts in stakeholder expectations should be identified, and the strategic rationale for change must be explicitly formulated (Kotter, 1996). At this stage, senior management's commitment to the change decision and the establishment of strong consensus at the executive level directly influence the feasibility and effectiveness of subsequent steps (Armenakis & Bedeian, 1999; Pollak et al., 2022).

2.2. Preparing the Organization for Change

This phase centers on communicating the need for change across all units of the organization, ensuring that employees understand why change is necessary, and addressing potential psychosocial resistance. Models such as ADKAR, which focus on individual-level transitions, outline sequential steps—Awareness, Desire, Knowledge, Ability, and Reinforcement—to facilitate employee adoption of change (Hiatt, 2006; Prosci, 2023a). Effective communication plans, visible sponsorship by leadership, and the active involvement of managers are critical at this stage (Cameron & Green, 2020).

2.3. Planning the Change

The planning phase involves clarifying the organizational vision and mission, setting measurable objectives, and evaluating alternative strategies. After a systematic assessment of the current state, alternative solutions are developed, and the most appropriate strategy is selected by considering potential risks and resource requirements. Integrating change management efforts with project management disciplines at this stage significantly enhances implementation efficiency and coordination (Williams & Wade-Golden, 2023; Şimşek & Şahin, 2024).

2.4. Implementing the Action Plan

During implementation, pilot projects are typically launched to test the change initiative on a smaller scale. This allows the organization to reinforce positive outcomes and develop corrective measures for unexpected challenges. Based on the pilot results, the model is revised and strengthened, after which it is gradually expanded to encompass the entire organization. The transition phase includes staff training, performance monitoring, and the visible communication of short-term wins to accelerate commitment and acceptance (Kotter, 2012; Pollak et al., 2022).

2.5. Evaluating and Institutionalizing the Change

In the final stage, the results of change initiatives are measured and evaluated using both quantitative and qualitative indicators. Performance metrics, employee satisfaction surveys, and stakeholder feedback serve as key evaluation data. Based on these findings, change practices should be embedded into corporate processes, and new procedures should become an integral part of organizational culture (Cummings & Worley, 2015).

In recent years, the growing phenomenon of “change fatigue”—the exhaustion and disengagement caused by multiple simultaneous change initiatives—has drawn increasing attention. To address this issue, organizations must carefully balance their change portfolios and workload to maintain momentum and prevent burnout (Gartner, 2024).

The change management process is presented in Figure 1:

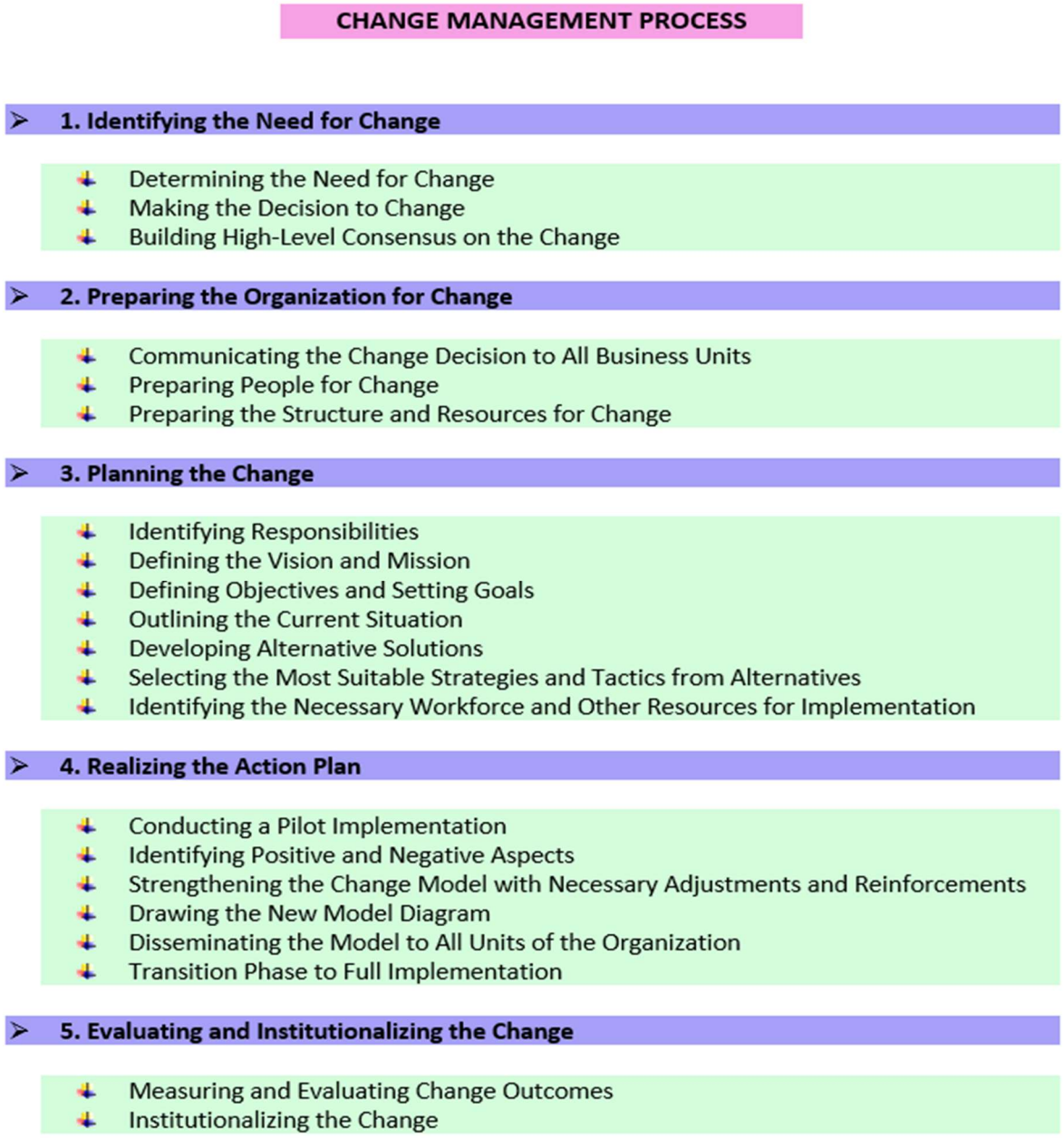

Figure 2. Change Management Process

In conclusion, change management should be considered a planned, cyclical process encompassing both leadership and individual adaptation dimensions. Success depends on strong leadership, effective communication, employee-centered support mechanisms, and continuous evaluation. The current literature emphasizes the importance of integrating traditional models (e.g., Kotter, ADKAR) with practical applications and aligning them with project management methodologies to enhance organizational agility and success (Çalışkan, 2007; Prosci, 2023b; Şimşek & Şahin, 2024).

3. DEVELOPMENT OF SCALE, METHODS AND FINDINGS

3.1. Research Problem and Ethical Approval

Rapid global developments in economic, technological, and socio-cultural domains have profoundly transformed the ways in which organizations operate, structure themselves, and formulate strategies. This transformation extends beyond the need for adaptation to external environmental dynamics; it also necessitates a deep internal restructuring within organizations. The extent to which organizations can successfully adapt to this transformation has become one of the most critical determinants of competitive advantage and sustainable success in today's business environment.

The planning, implementation, and institutionalization of this transformation constitute the core focus of the discipline known as change management within management science. The literature indicates that change management is closely associated with multidimensional factors such as organizational performance, employee engagement, leadership, organizational culture, and innovation. However, it also reveals a scarcity of valid and reliable instruments capable of measuring the effectiveness of this process in a holistic manner (Stouten et al., 2018; By, 2021). The need for theoretically grounded measurement tools that can be applied across different organizational structures and cultural contexts represents one of the key research gaps in the field of change management.

The research problem of this study centers on the lack of an objective instrument that can accurately assess how and to what extent organizations manage the process of change. Most existing scales are limited to specific sectors or cultural settings, highlighting the necessity of developing a valid and reliable Change Management Scale applicable to diverse sectors and organizational types. Based on this necessity, the present study aims to design a comprehensive measurement tool that can assess organizational change management capacity and thereby address the existing measurement gap in the literature.

Furthermore, by utilizing the scale to be developed, managers and researchers will be able to identify the strengths and weaknesses of organizations in managing change objectively and to make informed decisions regarding critical factors such as strategic planning, leadership, communication, and employee participation throughout change processes. Thus, this study aims to contribute meaningfully to the literature on change management at both theoretical and practical levels.

The research was conducted in full compliance with ethical principles. Participants took part in the study voluntarily, and the data collected were used solely for scientific purposes. Ethical approval for the study was obtained from the Social and Human Sciences Ethics Committee of the relevant university (Approval No: 21 / Date: 12.06.2024).

3.2. Sample and Scale Development

To determine the necessary items for measuring change management in organizations, a 16-person working group was first established. This team was selected from academics competent in organizational behavior and organizational managers with experience in this field. In line with the working group's views, characteristics for measuring the "change management" variable were determined. During the process of determining these characteristics, the perceptions of individuals within the organization regarding change management practices were taken into account, and characteristics that could explain this

variable were described in clear and understandable terms. The opinions of all working group participants were compiled, and as a result, a draft form containing 33 items was prepared.

The 33-item draft form was submitted for evaluation to six academics specializing in the field. Based on these evaluations, the form was revised, and the following 25-item "Change Management Scale Draft Form" was developed:

Table 1: Change Management Scale (Draft)

1.	Senior management identifies the need for change in a timely manner.
2.	Change decisions are made with consensus at the senior management level.
3.	The change process is aligned with the organization's strategic objectives.
4.	Leaders act decisively and consistently throughout the change process.
5.	*Long-term strategic plans are in place.* *
6.	Senior management clearly communicates the vision for change to employees.
7.	*Teamwork is valued, and collaboration is effectively implemented.* *
8.	Potential obstacles to change are anticipated in advance and preventive measures are taken.
9.	The decision to implement change is announced in a timely and transparent manner.
10.	Employees are given the opportunity to contribute to the change plan.
11.	Objectives and goals are communicated clearly to employees.
12.	Different units actively participate in the change process.
13.	*There are creative leaders who value multidimensional thinking and possess the flexibility to adapt quickly to change.* *
14.	Two-way communication is ensured during the change process.
15.	Feedback from employees is incorporated into the plan.
16.	*The company is investing sufficiently in information technology.* *
17.	Information flow regarding the process is updated on a regular basis.
18.	The change process is implemented as planned.
19.	Pilot implementations are carried out when necessary.
20.	*All personnel adhere to the corporate values.* *
21.	The outcomes of the implementation are monitored and evaluated.
22.	Deficiencies are addressed through appropriate corrective actions.
23.	Change practices are disseminated across all units.
24.	The results of change are measured and reported.
25.	The gains from change are embedded into the organizational culture.

** As a result of subsequent analysis, these items were removed from the scale.*

3.3. Data Collection and Statistical Analyses

The questionnaire designed for this research consisted of three main sections. The first section included an information note intended to inform participants about the purpose of the study, confidentiality principles, and the voluntary nature of participation. The second

section contained five questions regarding the demographic characteristics of the participants, including age, gender, education level, position within the institution, and sector of employment. The third section comprised the finalized version of the Change Management Scale developed within the scope of this research.

The Change Management Scale employed a five-point Likert-type structure, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The items of the scale addressed various dimensions of the change management process, including planning, implementation, communication, leadership, employee participation, and evaluation. The questionnaire was prepared electronically and distributed to participants via email and online platforms.

To ensure data security, strong and unique passwords were utilized, access to data was restricted exclusively to the researchers, and data storage environments were encrypted. In addition, all software and operating systems used during data collection were regularly updated. Personal identifying information was not requested at any stage, and all responses were recorded anonymously.

A statistical software package was employed for data analysis. In the first stage, descriptive statistics were calculated to summarize the demographic characteristics of the participants. Subsequently, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted to examine the construct validity of the scale. Reliability analyses were performed using Cronbach's alpha coefficients, and internal consistency levels were calculated for each sub-dimension. The analysis process concluded with criterion-related validity tests to assess the relationship between the scale scores and relevant external measures.

3.4. Research Population and Sampling Process

In order to enhance the generalizability of the findings and to test the validity of the Change Management Scale across different organizational structures, this research was conducted with employees working in three distinct sectors. These sectors were selected because they differ in the frequency, depth, and organizational impact of change, thus providing an opportunity to examine various dimensions of change management practices.

The first sample group consists of employees working in the education sector. Education is one of the fields where societal transformations are most rapidly reflected. The widespread adoption of digital learning platforms, the expansion of distance education, curriculum reforms, and institutional accreditation processes have led to significant organizational changes in educational institutions. Therefore, examining educators' attitudes toward change, perceptions of leadership, and levels of adaptation is essential for capturing the organizational and cultural dynamics of change, thereby supporting the validity of the developed scale.

The second sample group comprises professionals employed in the healthcare sector. The health sector is characterized by continuous restructuring due to technological innovations, digital transformation in service delivery, patient safety standards, and frequent regulatory updates. Moreover, healthcare professionals work in high-stress, multidisciplinary, and human-centered environments. Thus, change management practices in this sector incorporate both technical and human dimensions, making it a crucial setting for testing the reliability and validity of the developed scale.

The third sample group includes employees from the energy and renewable energy sector. In recent years, this sector has been undergoing profound transformation driven by the global climate crisis, carbon reduction policies, and sustainability goals. The growing adoption of renewable energy technologies, the digitalization of energy production and distribution systems, legislative changes, and international energy agreements have made organizational change a constant necessity. Accordingly, examining employees' perceptions and adaptation levels within the energy sector enables the scale to be tested in environmental, technological, and strategic contexts.

The survey forms prepared for the study were distributed online between February 1, 2025, and June 30, 2025, to participants selected through a convenience sampling method. The collected responses were screened, and incomplete or inconsistent data were excluded from analysis. The number of participants, demographic distributions, and comparative findings for each sector are presented in detail in the Findings section of the study.

3.4.1. First Sample Group

Personnel working in institutions operating in the education sector in Ankara constitute the participants of the first sample group of the study. There are approximately 40,000 personnel in this universe. The sample size was calculated as 381 individuals at a 95% confidence interval (Sekaran, 1992). Questionnaires related to the research were distributed to approximately 800 individuals identified through convenience sampling. Of the completed questionnaires, 622 were found suitable for analysis. The first sample group consists of 622 education personnel, including 398 men (63.9%) and 224 women (36.1%) working in educational institutions in Ankara. Of the first sample group, 337 were married (54.1%) and 285 were single (45.9%). The average age of participants working in businesses operating in the service sector in Mersin was determined to be 28.7 years, and their average length of service was 9.2 years.

3.4.2. Second Sample Group

The personnel of public and private healthcare institutions located in the Mersin region constitute the participants of the second sample group. Approximately 15,000 personnel are included in this universe. The sample size was calculated as 375 people with a 95% confidence interval (Sekaran, 1992). Questionnaires related to the research were distributed to a total of 750 people working in public and private healthcare institutions within the research universe and identified using the convenience sampling method. Of the completed questionnaires, 523 were found to be suitable for analysis. The second sample group consisted of 523 healthcare workers, including 301 women (57.5%) and 222 men (42.5%) working in public and private healthcare institutions. Of the first sample group, 282 were married (53.9%) and 241 were single (46.1%). The average age of participants in the healthcare sector was determined to be 31.3 years, and the average length of service was 14.6 years.

3.4.3. Third Sample Group

Employees of companies in the energy and renewable energy sector in Turkey constitute the participants in the third sample group of the study. It is estimated that approximately 50,000 employees are included in this universe. The sample size was calculated as 381 people at a 95% confidence interval (Sekaran, 1992). Questionnaires related to the research were distributed to a total of 1,000 people working in companies in the energy and

renewable energy sector within the research universe, identified using convenience sampling. Of the completed questionnaires, 588 were found to be suitable for analysis.

A total of 588 employees, comprising 411 men (69.8%) and 177 women (30.2%), working in companies in the energy and renewable energy sector in Turkey formed the third sample group. Of the third sample group, 368 were married (62.5%) and 220 were single (37.5%). The average age of participants in the energy and renewable energy sector was determined to be 28.6 years, and the average length of employment was 4.1 years.

3.5. Analysis of the Validity of the Measurement Tool

In this study, structural validity analyses were conducted to examine the validity of the developed Change Management Scale. Validity refers to the degree to which a measurement tool serves its intended purpose and accurately measures the construct it aims to assess without being confounded by other variables (Ercan & Kan, 2004). Structural validity, on the other hand, evaluates the extent to which the relationships among the dimensions of a scale align with the theoretical framework and how accurately the items reflect the intended constructs (Westen & Rosenthal, 2003). To provide both theoretical and empirical evidence supporting the structural validity and adequacy of the Change Management Scale, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed.

3.5.1. Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate statistical technique designed to identify a smaller number of conceptually coherent but uncorrelated latent variables by grouping together a larger set of interrelated observed variables (Büyüköztürk, 2016; Gürbüz & Şahin, 2018). The analysis was initiated with data collected from the first and second sample groups, consisting of personnel working in educational institutions in Ankara and healthcare institutions in Mersin. Before performing the EFA, the suitability of the dataset for factor analysis was examined. This suitability was assessed using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The KMO statistic provides an indication of whether the data structure is adequate for factor analysis. According to Kaiser's (1974) classification, KMO values between 0.90–1.00 are considered "Excellent," 0.80–0.89 as "Meritorious," 0.70–0.79 as "Middling," and 0.60–0.69 as "Acceptable." Therefore, a KMO value above 0.60 is generally considered desirable for conducting factor analysis. Bartlett's Test of Sphericity, in turn, assesses whether significant correlations exist among the variables by testing the null hypothesis that the correlation matrix is an identity matrix. A statistically significant test result indicates that the dataset is appropriate for factor analysis and also supports the assumption of normality (Büyüköztürk, 2016; Çalışkan, 2022a). According to the results, the KMO coefficient for the first sample group was 0.913, and the Bartlett's Test of Sphericity yielded a Chi-Square value of 4687.3 ($p < .001$). For the second sample group, the KMO coefficient was 0.896, and the Chi-Square value for Bartlett's test was 4275.4 ($p < .001$). These results indicate that both datasets were suitable for EFA (Kalaycı, 2006; Hair et al., 2010). In conducting the EFA, the Principal Components Analysis (PCA) method was used as the extraction technique, and the Varimax rotation method was applied to enhance interpretability. The factor loadings, eigenvalues, and explained variances of the scale items are presented in Table 2.

For the first sample group, the Exploratory Factor Analysis (EFA) began with a total of 25 items. The results indicated that the scale items were grouped under three factors with eigenvalues greater than 1. The total variance explained by these three factors was 65.44%.

The determinant value of the correlation matrix was found to be 0.001, suggesting that multicollinearity was not a concern. During the analysis, one item that exceeded the cross-loading threshold was identified and removed from the scale: CM13 – "There are creative leaders who value multidimensional thinking and possess the flexibility to adapt quickly to change." No items were found to fall below the threshold value of 0.50 in the anti-image correlation matrix, indicating that all remaining items were suitable for inclusion in the factor analysis. However, the factor loading for CM5 ("Long-term strategic plans are in place.") was 0.201, and for CM20 ("All personnel adhere to the corporate values.") it was 0.238. In general, factor loadings of at least 0.32 are considered acceptable, while values above 0.50 are recommended when aiming for stronger and more clearly defined factors (Meyers et al., 2005; Gürbüz & Şahin, 2018; Çalışkan, 2022). Accordingly, items CM5 and CM20 were excluded from the scale at this stage. The remaining items exhibited factor loadings above 0.60, indicating strong correlations with their respective factors. Subsequently, a second EFA was conducted using data obtained from the second sample group, with the revised 22-item version of the scale. The analysis again revealed a three-factor structure with eigenvalues greater than 1. The total variance explained by these three factors was 74.89%. The factor loading for CM7 ("Teamwork is valued, and collaboration is effectively implemented.") was 0.206, and for CM16 ("The company is investing sufficiently in information technology.") it was 0.198. Because these loadings were substantially lower compared to other items, both items were removed from the scale. Following the EFA, the final version of the Change Management Scale consisted of 20 items grouped under three dimensions. All items had factor loadings above 0.70, indicating a strong factor structure and satisfactory analytical results (Meyers et al., 2005). At this stage, the three dimensions of the developed scale were conceptually defined as follows:

- The first dimension, consisting of six items, was labeled "***Strategic Decision and Leadership***."
- The second dimension, consisting of seven items, was labeled "***Preparation and Planning***."
- The third dimension, consisting of seven items, was labeled "***Implementation, Monitoring, and Institutionalization***."

Table 2. Exploratory Factor Analysis Results

Dimensions							
Sample 1 (Education Sector)				Sample 2 (Health Institutions)			
	Factor 1	Factor 2	Factor 3		Factor 1	Factor 2	Factor 3
Eigen value	11.3	1.67	1.32	Eigen value	12.80	1.55	1.38
Explained Variance	52.85	6.82	5.77	Explained Variance	60.95	7.38	6.55
Item Code	Factor Loadings			Item Code	Factor Loadings		
CM6	.857			CM6	.913		
CM2	.845			CM8	.901		
CM8	.839			CM2	.876		
CM1	.834			CM1	.821		
CM4	.805			CM3	.802		
CM3	.789			CM4	.784		
CM7	.775			CM12		.899	
CM10		.809		CM14		.865	
CM12		.778		CM10		.829	
CM9		.774		CM15		.803	
CM14		.675		CM9		.788	
CM15		.669		CM17		.769	
CM11		.633		CM11		.741	
CM17		.628		CM24			.903
CM16		.614		CM22			.872
CM19			.802	CM18			.839
CM22			.788	CM19			.804
CM24			.726	CM25			.788
CM18			.695	CM23			.755
CM25			.667	CM21			.701
CM21			.629	~~CM7~~	~~.206~~		
CM23			.620	~~CM16~~		~~.198~~	
~~CM13~~	~~.498~~	~~.543~~					
~~CM5~~	~~.201~~						
~~CM20~~			~~.238~~				
Total Variance Explained			65.44%	Total Variance Explained			74.89%

At this stage, a discriminant validity analysis was conducted to determine whether each dimension of the measurement tool could be considered valid independently from the others. Discriminant validity assesses the extent to which a construct or dimension within a scale is distinct from other constructs, thereby ensuring that each represents a unique conceptual structure (Fornell & Larcker, 1981). The correlation coefficients among the three sub-dimensions of the Change Management Scale are presented in Table 3. For the discriminant validity to be considered acceptable and meaningful, the correlation coefficients between dimensions should be below 0.85 (Schweizer, 2014). The analysis results revealed that the correlations among the dimensions were below this threshold, indicating that the discriminant validity of the scale was established at an acceptable level.

Table 3. Change Management Scale Discriminant Validity Analysis

Change Management Scale	Sample 1 (Education Sector)			Sample 2 (Health Institutions)		
	SDL	PL	IMI	SDL	PL	IMI
Strategic Decision and Leadership (SDL)	1.00	.678**	.731**	1.00	.704**	.722**
Preparation and Planning (PL)	.678**	1.00	.692**	.704**	1.00	.762**
Implementation, Monitoring, and Institutionalization (IMI)	.731**	.692**	1.00	.722**	.762**	1.00

** p<0.01.

3.5.2. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a statistical technique used to verify and validate the structure of a measurement instrument that is theoretically well-grounded or has been previously developed, frequently applied, and empirically supported in prior studies (Hooper et al., 2008; Kline, 2015; Çalışkan et al., 2021). In this study, CFA was conducted to test the structural validity of the Change Management Scale—developed based on two different sample groups consisting of employees working in the service and healthcare sectors in Mersin—by applying it to a third and distinct sample group from the Information and Communication Technology (ICT) sector. All necessary analyses were performed using a statistical software package, and the resulting goodness-of-fit indices are presented in Table 4. In CFA, it is generally expected that the values of AGFI (Adjusted Goodness-of-Fit Index), GFI (Goodness-of-Fit Index), CFI (Comparative Fit Index), and NFI (Normed Fit Index) be 0.90 or higher, while the RMSEA (Root Mean Square Error of Approximation) value should be below 0.10 to indicate an acceptable model fit (Hooper et al., 2008; Schermelleh-Engel et al., 2003; Schumacker & Lomax, 2004; Çalışkan, 2019). The analysis results revealed that the obtained goodness of fit indices (CFI and NFI) showed “good fit” and the AGFI, GFI and RMSEA values showed “acceptable fit” (Hu & Bentler, 1999; Hooper et al., 2008; Kline et al., 2015; Gürbüz & Şahin, 2018). These findings demonstrate that the factor structure identified through EFA

using two different sample groups was successfully confirmed through CFA. Consequently, the developed Change Management Scale was statistically verified and found to be both valid and reliable. The model obtained through CFA is illustrated in Figure 2, and the corresponding fit indices are summarized in Table 4.

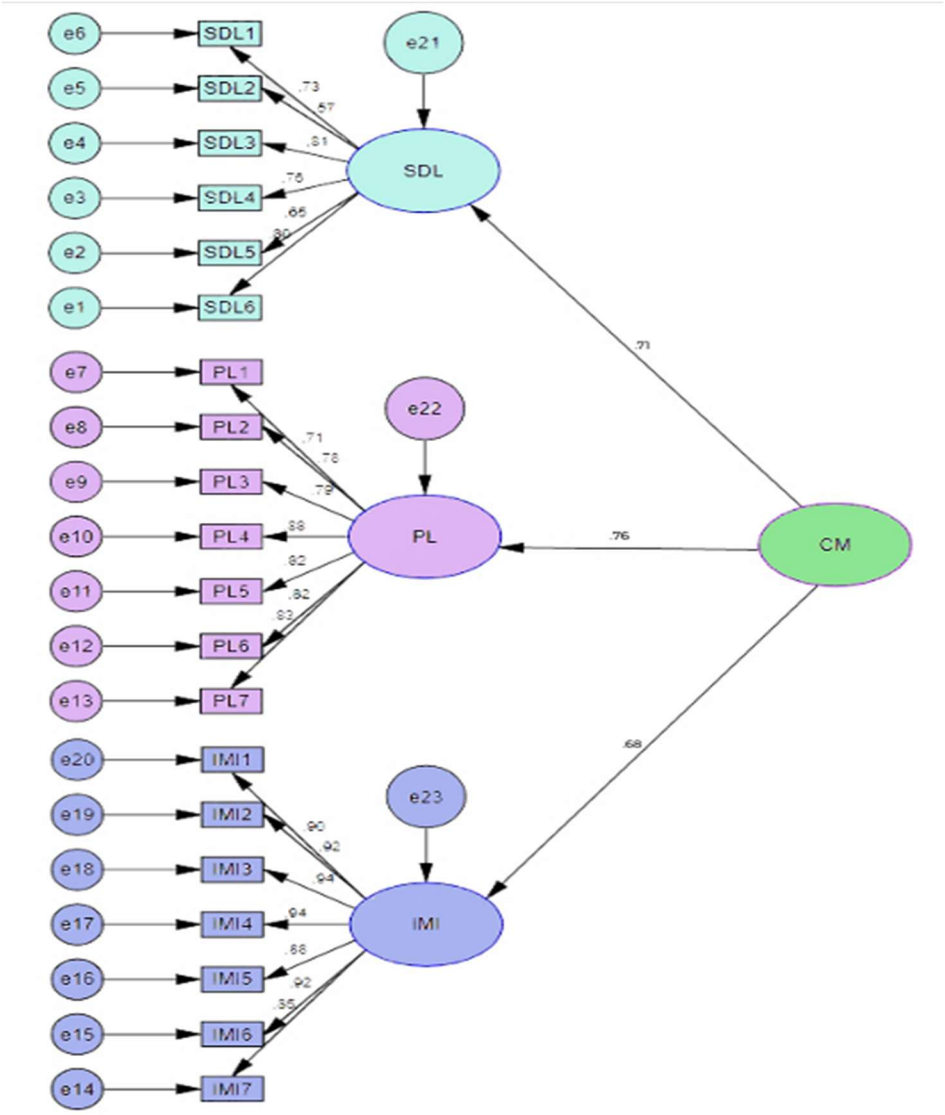

Figure 2. CFA Structure of the Third Sample Group

Table 4. Third Sample Group (Energy And Renewable Energy Sector) CFA Results

Change Management Scale	X^2	df	X^2/df	RMSEA	NFI	GFI	AGFI	CFI
Acceptable Fit			≤5df	≤0.10	≥0.90	≥0.90	≥0.85	≥0.95
Good Fit			≤3df	≤0.05	≥0.95	≥0.95	≥0.90	≥0.97
Sample 3 Third Level CFA	425.9	154	2.76	**.064**	**.95**	**.91**	**.88**	**.97**

n= 588; *p<0.001.

Not: ΔX^2 =Normal Theory Weighted Least Squares Chi-Square, df = Degrees of Freedom, RMSEA= Root Mean Square Error of Approximation, NFI= Normed Fit Index, GFI= Goodness of Fit Index, AGFI= Adjusted Goodness of Fit Index, CFI = Comparative Fit Index.

3.5.3. Criterion Validity

In addition to exploratory and confirmatory factor analyses, criterion-related validity was examined as the final step to further establish the validity of the Change Management Scale. Criterion validity is a technique used to determine the degree to which the scores of a measurement tool are related to one or more external criteria obtained from the same or different data sources (Büyüköztürk, 2016). For this purpose, the Openness Toward Organizational Change Scale was incorporated into the research model using data collected from the third sample group. In this analysis, openness toward organizational change was treated as an outcome variable, and its correlations with the Change Management Scale (CM) were examined.

The rationale for selecting openness to organizational change as the external criterion lies in the fact that numerous studies have consistently reported positive and significant relationships between change management practices and openness to change (Peng et al., 2021; Sinyal et al., 2021; Zainab et al., 2022). Since a well-managed change process is expected to foster higher levels of openness to change among employees, a positive and significant correlation between these two constructs would provide empirical evidence supporting the criterion validity of the Change Management Scale (Chawla & Kelloway, 2004; Barak, 2018). Individuals who are open to organizational change tend to display more constructive attitudes toward change management processes, as they are generally more adaptable and willing to engage in transformation initiatives (Errida & Lotfi, 2021; Khaw et al., 2023; Chabi & Saygılı, 2024). Therefore, openness to organizational change was considered an appropriate external criterion for evaluating the criterion-related validity of the Change Management Scale.

To measure participants' openness toward organizational change within the third sample group, the Openness toward Organizational Change Scale developed by Çalışkan (2022a) was utilized. This instrument consists of six items, including sample statements such as "I consider myself an individual who is open to changes in my workplace" and "I believe that change positively affects my performance." In the validation study conducted by Çalışkan

(2022a), the Cronbach's alpha coefficient of the scale was reported as .845, indicating high internal consistency.

The relationships between the Change Management Scale (CM) and the Openness toward Organizational Change Scale (OOC) were analyzed, and the results are presented in Table 5.

Table 5. Relationships Between Variables within the Scope of Criterion Validity

	Sample 3 n=588		
Variables	**Sample Mean**	**Sample standard deviation**	**CM**
CM Scale	3.34	.88	1
OOC Scale	3.79	.97	**.66****

** p< .01

As per the analysis, positive and statistically significant relationships were identified between change management and the openness toward organizational change.

3.6. Reliability Analysis

In the final stage of the analysis, tests were conducted to evaluate the reliability of the Change Management Scale. Internal consistency reliability refers to the extent to which the items within a scale are consistent with each other, indicating whether they collectively measure the same underlying construct. Among the various methods used to assess scale reliability, the Cronbach's alpha coefficient is one of the most widely applied techniques, as it provides an accurate and stable estimate of the construct being measured by considering all items simultaneously (Hair et al., 2019). The Cronbach's alpha coefficient serves as an indicator of the homogeneity and internal consistency of the items within the scale (Hair et al., 2017). A Cronbach's alpha value greater than 0.70 is generally regarded as evidence of high reliability (Gürbüz & Şahin, 2018). To assess the internal consistency of the Change Management Scale, the Cronbach's alpha coefficients were calculated separately for all three sample groups, and the results are presented in Table 6. The findings indicate that the proposed scale demonstrates satisfactory internal consistency and can be considered a highly reliable measurement instrument.

Table 6. Change Management (WCL) Scale Internal Consistency Results

Variables	Number of Items	Cronbach's α		
		Education	Health	Energy and Renewable Energy
Change Management	20	**.86**	**.89**	**.89**
Strategic Decision and Leadership	6	.84	.88	.87
Preparation and Planning	7	.90	.90	.91
Implementation, Monitoring, and Institutionalization	7	.87	.90	.94

DISCUSSION AND CONCLUSION

In contemporary organizations, change has become not only inevitable but also a fundamental prerequisite for achieving sustainable success and competitive advantage. However, the effectiveness of organizational change depends not merely on strategic planning or technological adaptation, but primarily on how well the process of change management is structured, implemented, and internalized. Effective change management enables organizations to navigate transformation in a systematic, planned, and human-centered manner (Stouten et al., 2018; By, 2021, Ferede et al., 2024). Within this context, developing a valid and reliable instrument to assess organizational change management capacity represents a significant contribution to the fields of management and organizational behavior.

The present study aimed to develop and validate the Change Management Scale as a comprehensive measurement tool capable of evaluating organizational change management practices across diverse sectors. Both qualitative and quantitative methods were employed, and **data were collected from employees working in Education, Healthcare, and Energy/Renewable Energy sectors — fields where the dynamics and impacts of change are strongly experienced. This multi-sectoral approach enhanced the generalizability of the findings and allowed the scale to be tested across different organizational contexts.**

To establish evidence of construct validity, an Exploratory Factor Analysis (EFA) was first conducted, which revealed a three-factor structure. These dimensions were conceptually and empirically defined as **Strategic Decision and Leadership**, **Preparation and Planning**, and **Implementation, Monitoring, and Institutionalization**. Subsequently, a Confirmatory Factor Analysis (CFA) was conducted using data from a different sample, and the results indicated

good fit indices, confirming that the three-factor model had a theoretically grounded and empirically supported structure (Hooper et al., 2008; Kline, 2011; Çalışkan et al., 2021).

In the final stage of validity testing, criterion-related validity was examined by incorporating the Openness to Organizational Change variable into the research model as an outcome variable. Previous research has consistently demonstrated positive and significant associations between effective change management and employees' openness to change (Peng et al., 2021; Sinyal et al., 2021; Zainab et al., 2022). The correlation analyses conducted in this study supported these findings, revealing a significant positive relationship between the two constructs and providing further evidence for the criterion validity of the Change Management Scale.

Reliability analyses were also conducted to assess the internal consistency of the scale. The Cronbach's alpha coefficients, calculated separately for all three sample groups, exceeded 0.70 for the overall scale as well as for each sub-dimension, demonstrating that the instrument has a high level of internal consistency and reliability (Hair et al., 2017; Gürbüz & Şahin, 2018). The internal consistency of the sub-dimensions Strategic Decision and Leadership, Preparation and Planning, and Implementation, Monitoring, and Institutionalization **was particularly strong, suggesting that these sub-dimensions may also be used independently in future studies.**

Compared to similar instruments in the literature, the developed Change Management Scale contains a smaller number of items, has a more practical and concise structure, and demonstrates strong cross-sectoral applicability. The scale can be used not only in the private sector but also in public institutions, serving as an important diagnostic and evaluative tool for organizations aiming to assess and improve their change management capacity. **The findings indicate that organizations can utilize this instrument to identify strengths and weaknesses in their change processes, refine their leadership and communication strategies, and design more effective change interventions.**

Considering that few scales in the existing literature have been empirically validated across multiple sectors and contexts, the Change Management Scale developed in this study is expected to fill a critical gap in both theoretical and practical domains. Furthermore, the integration of both national and international sources during the scale development process enhances its cross-cultural validity and provides a foundation for its potential use in diverse cultural and organizational settings.

In conclusion, the Change Management Scale developed through this study is a valid and reliable instrument that can be effectively employed to evaluate the processes of planning, implementing, and institutionalizing organizational change. Future research may further strengthen the findings of this study by applying the scale to different samples and by examining its interactions with other organizational variables such as employee commitment, innovation, organizational cynicism, and performance. Such studies will contribute not only to validating the robustness of the scale but also to enriching the theoretical understanding of change management and its role in organizational sustainability.

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CHANGE MANAGEMENT SCALE

Strategic Decision and Leadership

- Senior management identifies the need for change in a timely manner.
- Change decisions are made with consensus at the senior management level.
- The change process is aligned with the organization's strategic objectives.
- Leaders act decisively and consistently throughout the change process.
- Senior management clearly communicates the vision for change to employees.
- Potential obstacles to change are anticipated in advance and preventive measures are taken.

Preparation and Planning

- The decision to implement change is announced in a timely and transparent manner.
- Employees are given the opportunity to contribute to the change plan.
- Objectives and goals are communicated clearly to employees.
- Different units actively participate in the change process.
- Two-way communication is ensured during the change process.
- Feedback from employees is incorporated into the plan.
- Information flow regarding the process is updated on a regular basis

Implementation, Monitoring, and Institutionalization

- The change process is implemented as planned.
- Pilot implementations are carried out when necessary.
- The outcomes of the implementation are monitored and evaluated.
- Deficiencies are addressed through appropriate corrective actions.
- Change practices are disseminated across all units.
- The results of change are measured and reported.
- The gains from change are embedded into the organizational culture.

	CHANGE MANAGEMENT SCALE ITEMS	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
	First Dimension: Strategic Decision and Leadership					
1	Senior management identifies the need for change in a timely manner.	☐	☐	☐	☐	☐
2	Change decisions are made with consensus at the senior management level.	☐	☐	☐	☐	☐
3	The change process is aligned with the organization's strategic objectives.	☐	☐	☐	☐	☐
4	Leaders act decisively and consistently throughout the change process.	☐	☐	☐	☐	☐
5	Senior management clearly communicates the vision for change to employees.	☐	☐	☐	☐	☐
6	Potential obstacles to change are anticipated in advance and preventive measures are taken.	☐	☐	☐	☐	☒
	Second Dimension: Preparation and Planning					
1	The decision to implement change is announced in a timely and transparent manner.	☐	☐	☐	☐	☐
2	Employees are given the opportunity to contribute to the change plan.	☐	☐	☐	☐	☐
3	Objectives and goals are communicated clearly to employees.	☐	☐	☐	☐	☐
4	Different units actively participate in the change process.	☐	☐	☐	☐	☐
5	Two-way communication is ensured during the change process.	☐	☐	☐	☐	☐
6	Feedback from employees is incorporated into the plan.	☐	☐	☐	☐	☐
7	Information flow regarding the process is updated on a regular basis	☐	☐	☐	☐	☐
	Third Dimension: Implementation, Monitoring, and Institutionalization					
1	The change process is implemented as planned.	☐	☐	☐	☐	☐
2	Pilot implementations are carried out when necessary.	☐	☐	☐	☐	☐
3	The outcomes of the implementation are monitored and evaluated.	☐	☐	☐	☐	☐
4	Deficiencies are addressed through appropriate corrective actions.	☐	☐	☐	☐	☐
5	Change practices are disseminated across all units.	☐	☐	☐	☐	☐
6	The results of change are measured and reported.	☐	☐	☐	☐	☐
7	The gains from change are embedded into the organizational culture.	☐	☐	☐	☐	☐

DEĞİŞİM YÖNETİMİ ÖLÇEĞİ

Stratejik Karar ve Liderlik

- Üst yönetim, değişime olan ihtiyacı zamanında belirler.
- Değişim kararları, üst yönetim düzeyinde fikir birliğiyle alınır.
- Değişim süreci, kurumun stratejik hedefleriyle uyumludur.
- Liderler, değişim sürecinde kararlı ve tutarlıdır.
- Üst yönetim, değişim vizyonunu çalışanlarla net şekilde paylaşır.
- Değişim sürecinde olası engeller önceden öngörülür ve önlem alınır.

Hazırlık ve Planlama

- Değişim kararı, zamanında ve şeffaf biçimde duyurulur.
- Çalışanlar, değişim planına katkıda bulunma fırsatı bulur.
- Amaç ve hedefler çalışanlara açık biçimde aktarılır.
- Farklı birimler değişim sürecine aktif olarak katılır.
- Değişim sürecinde çift yönlü iletişim sağlanır.
- Çalışanlardan gelen geri bildirimler plana yansıtılır.
- Süreçle ilgili bilgi akışı düzenli olarak güncellenir.

Uygulama, İzleme ve Kurumsallaştırma

- Değişim süreci planlandığı gibi uygulanır.
- Gerektiğinde pilot uygulamalar yapılır.
- Uygulama sonuçları izlenir ve değerlendirilir.
- Eksiklikler gerekli düzeltmelerle giderilir.
- Değişim uygulamaları tüm birimlere yayılır.
- Değişimin sonuçları ölçülür ve raporlanır.
- Değişim kazanımları kurum kültürüne yerleştirilir.

	DEĞİŞİM YÖNETİMİ ÖLÇEĞİ **MADDELER**	**KESİNLİKLE KATILMAM**	**KATILMAM**	**KARASIZIM**	**KATILIRIM**	**KESİNLİKLE KATILIRIM**
	1. Boyut: Stratejik Karar ve Liderlik					
1	Üst yönetim, değişime olan ihtiyacı zamanında belirler.	☐	☐	☐	☐	☐
2	Değişim kararları, üst yönetim düzeyinde fikir birliğiyle alınır.	☐	☐	☐	☐	☐
3	Değişim süreci, kurumun stratejik hedefleriyle uyumludur.	☐	☐	☐	☐	☐
4	Liderler, değişim sürecinde kararlı ve tutarlıdır.	☐	☐	☐	☐	☐
5	Üst yönetim, değişim vizyonunu çalışanlarla net şekilde paylaşır.	☐	☐	☐	☐	☐
6	Değişim sürecinde olası engeller önceden öngörülür ve önlem alınır.	☐	☐	☐	☐	☐
	2. Boyut: Hazırlık ve Planlama					
1	Değişim kararı, zamanında ve şeffaf biçimde duyurulur.	☐	☐	☐	☐	☐
2	Çalışanlar, değişim planına katkıda bulunma fırsatı bulur.	☐	☐	☐	☐	☐
3	Amaç ve hedefler çalışanlara açık biçimde aktarılır.	☐	☐	☐	☐	☐
4	Farklı birimler değişim sürecine aktif olarak katılır.	☐	☐	☐	☐	☐
5	Değişim sürecinde çift yönlü iletişim sağlanır.	☐	☐	☐	☐	☐
6	Çalışanlardan gelen geri bildirimler plana yansıtılır.	☐	☐	☐	☐	☐
7	Süreçle ilgili bilgi akışı düzenli olarak güncellenir.	☐	☐	☐	☐	☐
	3. Boyut: Uygulama, İzleme ve Kurumsallaştırma					
1	Değişim süreci planlandığı gibi uygulanır.	☐	☐	☐	☐	☐
2	Gerektiğinde pilot uygulamalar yapılır.	☐	☐	☐	☐	☐
3	Uygulama sonuçları izlenir ve değerlendirilir.	☐	☐	☐	☐	☐
4	Eksiklikler gerekli düzeltmelerle giderilir.	☐	☐	☐	☐	☐
5	Değişim uygulamaları tüm birimlere yayılır.	☐	☐	☐	☐	☐
6	Değişimin sonuçları ölçülür ve raporlanır.	☐	☐	☐	☐	☐
7	Değişim kazanımları kurum kültürüne yerleştirilir.	☐	☐	☐	☐	☐