

# The role of data management in organizational change management: Smart Data Governance to fuel transformation

Shadia Nantege \*

*Master of Science in Data Science, University of the Cumberland, Kentucky, United States.*

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## Abstract

This paper looks at the important connection between data management and organizational change management (OCM) in the context of technology and process transformation. As organizations rely more on data-driven technologies and efficient processes to maintain their competitive advantage, combining strong data management practices with effective OCM strategies is vital. Data management ensures that high-quality, secure, and useful information is available to support transformation efforts. Meanwhile, OCM helps people accept these changes through training, communication, and cultural support.

This study looks at how these areas work together to promote successful transformations, emphasizing how they help to facilitate the adoption of new technologies, improve workflows, and reduce risks. The study highlights the importance of combining data management and organizational change management (OCM) for long-lasting results by exploring their shared goals, challenges, and best practices. By concentrating on both the technical and human elements, organizations can increase their likelihood of successful transformation, promote data-driven decision-making, and nurture a culture of adaptability and innovation. Data Governance and organizational change management (OCM) are mutually interdependent and fuel business process transformation into an era of data.

**Keywords:** Data Management; Organizational Change Management; Digital Transformation; Data Governance; Process Optimization

## 1. Introduction

Organizations are using technology and process changes more and more in today's quickly changing business environment to boost productivity, spur innovation, and preserve competitive edge. Data management and organizational change management (OCM), two related fields, are essential to these changes. Data management guarantees that process efficiencies and technology breakthroughs are supported by high-quality, secure, and actionable data, which serves as the basis for well-informed decision-making. To guarantee that these improvements are long-lasting, OCM attends to the human factor by encouraging employee adoption, engagement, and cultural alignment. Since effective change management depends on data-driven insights to inform strategy and robust data systems need user adoption to offer value, the interaction between two disciplines is crucial. In the framework of technology and process transformation, this study investigates the mutually beneficial link between data management and OCM, looking at their common goals, difficulties, and best practices. This study intends to give organizations a framework for achieving successful and long-lasting transformation outcomes by emphasizing their interconnection.

\* Corresponding author: Shadia Nantege

## 2. Overview of Data Management and Organizational Change Management

### 2.1. What is Data Management?

Data management is the process of gathering, storing, organizing, safeguarding, and using an organization's data to guarantee its security, accuracy, and accessibility. It includes procedures and equipment for managing data at every stage of its lifecycle, from creation to archiving or removal. This entails putting in place tools like databases or cloud storage to facilitate effective access and analysis, as well as setting standards for data governance, quality, and regulatory compliance. For enterprises to use data as a strategic asset, effective data management reduces risks such as data loss or breaches, enhances operational efficiency, and guarantees that data is trustworthy for decision-making.

### 2.2. What is Organizational Change Management (OCM)?

OCM is an organized method for handling the human aspect of change inside an organization in order to accomplish the intended results and a smooth transition. It entails getting people, groups, and the organization as a whole ready for assisting, and directing changes like new procedures, technology, tactics, or cultural transformations. During changes, OCM seeks to minimize disruption, lower employee stress, and synchronize the organization with its objectives. Kotter's 8-Step Process for Leading Change and ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) are examples of popular frameworks. It is essential to make sure that changes are accepted and maintained in addition to being put into practice.

### 2.3. Data-Driven Change Management

Data-driven change management uses data and analytics to direct and empower organizational change initiatives. It comprises data collection, analysis, and implementation to create decision-making, track progress, and measure the impact of change programs. This exercise generates evidence-based changes in fresh culture, technology, or procedures, eliminating incidental decision-making. The key components are:

- **Data Collection:** Involves statistical and descriptive data collection, like employee input, performance metrics, or operational KPIs, to measure the scenarios and make decisions concerning the areas that require improvement.
- **Analysis:** Involves the application of data to measure an organization's readiness for change, construct resistance, or identify areas of improvement. Surveys, predictive analytics, or sentiment analysis are typically used as tools.
- **Strategic Planning:** Making plans, schedules, and resources from insights from data to make successful outcomes more probable.
- **Progress Monitoring and Review:** Data is tracked all through the implementation phase to evaluate progress, make changes, and confirm alignment with objectives.
- **Stakeholder Engagement:** Data is used to tailor communication and training, address specific needs or concerns of several groups.

### 2.4. Best Data Management Practices

Effective data management enables decision-making, compliance, and productivity.

Practices based on established principles:

- **Data Governance:** Involves forming clear-cut policies, roles, and responsibilities for managing data and assigning data stewards to oversee quality compliance and usage.
- **Data Quality:** Ensures accuracy, completeness, and consistency of data by using automated tools for data processing to minimize errors.
- **Compliance, Security & Privacy:** Protect sensitive data by implementing robust security measures and ensuring compliance with regulations like GDPR, CCPA, or HIPAA.
- **Data Storage:** Utilize a centralized data repository to improve access and integration while ensuring scalability to contain the diversity of data types and sources.
- **Standardize data formats and processes:** Improve interoperation by creating consistent data formats and metadata standards to ensure efficient document processing while entering data, storing it, and retrieving it for consistency.
- **Automation and AI:** Take advantage of automation tools for data integration, cleaning, and monitoring to eliminate manual errors and use AI to identify patterns, predict trends, and flag anomalies.

- **Data sources integration:** Ensure all data sources, like ERP, CRM, IoT devices, are connected to create a consolidated data view by using ETL (Extract, Transform, Load), ELT (Extract, Load, Transform), or APIs for smooth integration.
- **Monitor and measure data performance:** Regularly monitor accuracy, completeness, usage, and performance of data by implementing KPIs to determine areas with poor performance that may need improvement.
- **Regularly backup and archive data:** Using regulated automated backups and recovery plans to prevent data loss and archive static data to maximize storage usage and optimize performance.
- **Embrace advanced data management tools:** Utilize tools like Microsoft Azure, Google BigQuery, and Collibra.

## 2.5. Interconnection Between Data Management and OCM

Data management and change management are closely connected. Successful organizational change often depends on effective data management. At the same time, change management helps people accept and adopt data management strategies. Here's a detailed assessment of their interconnection.

### 2.5.1. Data as a Basis for Transformation

- **Knowledge-Based Decisions:** Effective data management establishes data accessibility and trustworthiness to foster guidance for organizational change. For example, data analysis identifies inefficiencies or areas that require improvement, highlighting the need for transformation.
- **Performance Tracking:** During the dynamics of change, well-managed data helps organizations track progress, measure outcomes, and adjust strategies in real time.

### 2.5.2. Change Management Enables Data Management Adoption

- **Cultural Shift:** Implementing strong data management often requires a cultural shift toward making decisions based on data. Change management supports this by addressing employee resistance, providing training, and getting stakeholders on board with new data processes.
- **Process Integration:** Change management ensures that new data management tools, systems, or policies, such as adopting a new CRM or ERP system, fit well into existing workflows through communication, training, and support.

### 2.5.3. Alignment of Goals

Both areas aim to improve organizational efficiency and flexibility. Data management provides high-quality, governed data to support strategic goals, while change management connects people, processes, and technology to reach those goals.

### 2.5.4. Mitigating Risks

#### Data Risks

Poor data management, including inaccurate or isolated data, can derail change initiatives by resulting in poor decisions. Strong data governance reduces these risks.

#### Change Risks

Change management deals with risks like employee pushback or misalignment, which could undermine data management initiatives, such as adopting a new data platform.

### 2.5.5. Technology and Process Transformation

The interconnection between data management and organizational change management (OCM) is critical in driving successful technology and process transformations. Both disciplines are interdependent, as effective data management enables informed decision-making and process optimization, while OCM ensures the human and cultural aspects of transformation are addressed to achieve adoption and sustainability. Below, I explore this interconnection, focusing on their roles in technology and process transformation.

## **2.6. Shared Objectives in Transformation**

### *2.6.1. Data Management*

Provides the foundation for transformation by ensuring data is accurate, accessible, and actionable. It involves collecting, storing, processing, and analyzing data to support new technologies (e.g., AI, ERP systems) and optimized processes.

### *2.6.2. Organizational Change Management*

Focuses on preparing, equipping, and supporting people to adopt new technologies and processes. OCM addresses resistance, builds buy-in, and aligns organizational culture with transformation goals.

### *2.6.3. Interconnection*

Data management fuels the insights needed to design and implement transformations (e.g., identifying inefficiencies or opportunities through data analytics). OCM ensures employees understand and leverage these data-driven changes, fostering a culture of data literacy and process adherence.

## **2.7. Technology Transformation**

### *2.7.1. Data Management's Role*

- **Data Quality and Integration:** Technology transformations (e.g., cloud migrations, AI adoption) rely on clean, integrated data. Poor data quality can derail system implementations, leading to errors or inefficiencies.
- **Data Governance:** Establishes policies and standards to ensure data security, compliance, and usability during technology adoption (e.g., GDPR compliance in new CRM systems).
- **Analytics for Decision-Making:** Data provides insights into which technologies to adopt and how to optimize their deployment (e.g., predictive analytics to prioritize features in a new platform).

### *2.7.2. OCM's Role*

- **Training and Skill Development:** OCM ensures employees are trained to use new technologies, such as data platforms or automation tools, reducing resistance and improving proficiency.
- **Stakeholder Engagement:** OCM aligns leadership and teams on the value of technology changes, using data-driven insights to communicate benefits (e.g., ROI projections).
- **Cultural Alignment:** OCM fosters a data-driven culture, encouraging employees to trust and act on data insights from new systems.

### *2.7.3. Interconnection*

Data management provides the technical backbone (e.g., reliable data for a new ERP system), while OCM ensures employees adopt and effectively use the technology. For example, during a cloud migration, data management ensures seamless data transfer, while OCM trains staff to navigate the new platform, reducing downtime and errors.

## **2.8. Process Transformation**

### *2.8.1. Data Management's Role*

- **Process Optimization:** Data analytics identify bottlenecks or inefficiencies in existing processes, guiding redesign efforts (e.g., supply chain optimization using real-time data).
- **Automation Enablement:** Data fuels automated workflows (e.g., RPA or robotic process automation), requiring standardized, high-quality data inputs.
- **Performance Monitoring:** Data enables tracking of process improvements through KPIs, ensuring transformations deliver expected outcomes.

### *2.8.2. OCM's Role*

- **Change Communication:** OCM communicates the "why" behind process changes, using data-driven evidence to justify shifts (e.g., showing how a new process reduces costs).
- **Behavior Change:** OCM helps employees adapt to new workflows, addressing resistance to abandoning legacy processes.

- **Sustained Adoption:** OCM embeds new processes into daily routines through reinforcement mechanisms like training and feedback loops.

### *2.8.3. Interconnection*

Data management provides evidence and tools to redesign processes, while OCM ensures employees embrace these changes. For instance, in a lean process transformation, data analytics might reveal waste in a production line, but OCM ensures workers adopt new workflows by addressing fears of job loss or complexity.

## **2.9. Key Interdependencies**

### *2.9.1. Data as a Change Enabler*

Reliable data informs OCM strategies by identifying which teams need support or where resistance is likely (e.g., using employee feedback data to tailor training).

### *2.9.2. OCM Drives Data Adoption*

OCM promotes data literacy and trust in data-driven tools, ensuring employees use new systems effectively.

### *2.9.3. Feedback Loops*

Data management tracks transformation progress (e.g., adoption rates, system usage metrics), while OCM uses this data to refine change strategies, such as additional training or communication.

### *2.9.4. Risk Mitigation*

Poor data management (e.g., inaccurate data) can undermine transformation efforts, while ineffective OCM can lead to low adoption, wasting data-driven insights. Together, they reduce risks like project failure or employee disengagement.

## **2.10. Challenges in Integration**

Implementing data management projects successfully calls for more than just technical know-how; it also calls for skillfully managing the organizational change's human component. There are special and complicated challenges at the nexus of organizational change management (OCM) as discussed below.

- **Siloed Approaches:** Data management and OCM teams often operate separately, leading to misaligned priorities (e.g., IT focuses on system deployment, while HR struggles with employee readiness).
- **Resistance to Data-Driven Change:** Employees may distrust data or new processes, requiring OCM to address cultural barriers. Lack of a data-oriented mind or change resistance hinders progress.
- **Complexity of Transformation:** Large-scale transformations (e.g., digital transformation across an enterprise) demand tight coordination between data management (for technical execution) and OCM (for human adoption).

## **2.11. Best Practices for Alignment**

To fully realize the value of data assets and accomplish strategic goals, data management programs must be successfully aligned with organizational change management. Here are some of the ways organizations can navigate the challenges posed by integrating data management and OCM.

- **Integrated Planning:** Include data management and OCM teams in transformation planning to align technical and human elements from the start.
- **Data-Driven OCM:** Use data to inform OCM strategies, such as sentiment analysis to gauge employee readiness or adoption metrics to measure success, then foster data sharing and reward accomplishment.
- **Continuous Communication:** OCM should leverage data insights to communicate transformation benefits clearly, establish rapport, and foster confidence. Excellent leadership supporting good and transparent communication is a must.
- **Cross-Functional Teams:** Foster collaboration between data architects, IT, and change managers to ensure seamless execution and adoption to improve employees' data literacy.
- **Iterative Approach:** Use data to monitor progress and adjust OCM tactics (e.g., additional training for teams lagging in adoption).
- **Phased Rollout:** Phased rollout provides an opportunity for adjustment time.

- Technology: Use governance tools like OCM Solution, Prosci Change Management Suite, WalkMe, and automation to ensure efficiency.

### 3. Conclusion

Data management and OCM are two sides of the same coin in technology and process transformation. Data management provides the technical foundation—reliable, actionable data to drive decisions and optimize systems—while OCM ensures the human element—adoption, engagement, and cultural alignment. Their interconnection lies in their mutual dependence. Data informs change strategies, while OCM makes sure that data-driven tools and processes are accepted. By connecting these areas, organizations can achieve lasting and meaningful transformations.

### References

- [1] Krishnankutty, B., Bellary, S., Kumar, N. B., & Moodahadu, L. S. (2012). Data management in clinical research: An overview. *Indian Journal of Pharmacology*, 44(2), 168–172. DOI: 10.4103/0253-7613.93842
- [2] Tenopir, C., Birch, B., & Allard, S. (2011). Academic libraries and research data services: Current practices and plans for the future. *Association of College and Research Libraries*.
- [3] Van Loon, J. E., Akers, K. G., Hudson, C., & Sarkozy, A. (2017). Quality evaluation of data management plans at a research university. *IFLA Journal*, 43(1), 21–28. DOI: 10.1177/0340035216682041
- [4] Lewis, C. (2023). *Data Management in Large-Scale Education Research*. CRC Press.
- [5] Surkis, A., & Read, K. (2015). Research data management. *Journal of eScience Librarianship*, 4(1), e1067. DOI: 10.7191/jeslib.2015.1067
- [6] Wilms, K., Stieglitz, S., Ross, B., & Meske, C. (2020). Research data management as a wicked problem. *Journal of Librarianship and Information Science*, 52(4), 1092–1103. DOI: 10.1177/0961000620914406
- [7] Cheong, L. K., & Chang, V. (2007). The need for data governance: A case study. *Proceedings of the 18th Australasian Conference on Information Systems*, 999–1008.
- [8] Briney, K. (2015). *Data Management for Researchers: Organize, Maintain and Share Your Data for Research Success*. Pelagic Publishing.
- [9] Borghi, J., & Van Gulick, A. (2021). Research data management: A review of practices and challenges. *Data Science Journal*, 20(1), 1–12. DOI: 10.5334/dsj-2021-003
- [10] Whyte, A., & Tedds, J. (2011). Making the case for research data management. *DCC Briefing Papers*. Digital Curation Centre.
- [11] Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful organizational change: Integrating the management practice and scholarly literatures. *Academy of Management Annals*, 12(2), 752–788. DOI: 10.5465/annals.2016.0095
- [12] Kotter, J. P. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*, 73(2), 59–67.
- [13] Errida, A., & Lotfi, B. (2021). The determinants of organizational change management success: Literature review and case study. *International Journal of Engineering Business Management*, 13, 1–15. DOI: 10.1177/18479790211016273
- [14] Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management*, 25(3), 293–315. DOI: 10.1177/014920639902500303
- [15] Lewin, K. (1947). Frontiers in group dynamics. *Human Relations*, 1(1), 5–41. DOI: 10.1177/001872674700100103
- [16] Chowdhury, A., & Shil, N. C. (2022). Understanding change management in organizational context: Revisiting literature. *Management and Entrepreneurship: Trends of Development*, 1(19), 28–43. DOI: 10.26661/2522-1566/2022-1/19-03
- [17] Appelbaum, S. H., Habashy, S., Malo, J. L., & Shafiq, H. (2012). Back to the future: Revisiting Kotter's 1996 change model. *Journal of Management Development*, 31(8), 764–782. DOI: 10.1108/02621711211253231
- [18] Rousseau, D. M., & Ten Have, S. (2022). Evidence-based change management. *Organizational Dynamics*, 51(3), 100899. DOI: 10.1016/j.orgdyn.2022.100899

- [19] Hubbart, J. A. (2022). Organizational change: Considering truth and buy-in. *Administrative Sciences*, 12(4), 182. DOI: 10.3390/admsci12040182
- [20] Burnes, B. (2004). Organizational change management: A critical review. *Journal of Change Management*, 5(4), 369–380. DOI: 10.1080/1469701042000303810