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WHITE PAPER

HOW AI, GENAI, AND AUTOMATION CAN TRANSFORM DATA SHARED SERVICE ORGANIZATIONS

Abstract

Managing and monitoring massive volumes of business process data is complex, yet essential, in today's hyper-digital world. Many large corporations today have established data shared service organizations in low-cost geographies across the globe. With the recent advancements in artificial intelligence (AI) and generative AI (Gen- AI), particularly in the last two years, there is significant potential to revolutionize data shared services. The transformation can optimize the total cost of ownership and improve data quality.

This paper explores opportunities for data shared service organizations to leverage the latest in AI, GenAI, and automation to drive cost optimization, enhance data quality, and boost productivity. The paper describes what it takes to transform into truly digital data shared service organizations.

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Introduction

Data shared service organizations help strategically manage and maintain master data. They offer distinct advantages, particularly for large enterprises struggling with various challenges. These include a lack of a single source of truth for master data, maintaining data quality, and ensuring that data is supervised by a restricted group of individuals without access to ERP transactional data, with such segregation of duties helping prevent conflicts. These shared service organizations primarily manage master data entities such as customer, supplier, and product master data, leading to enhanced data quality. However, despite these benefits, these organizations have been slow to embrace digital transformation, with many of the processes remaining largely manual in nature.

Studying the end-to-end activities in data shared services organizations today, we observe a largely low to medium automation adoption rate as illustrated in Figure 1.

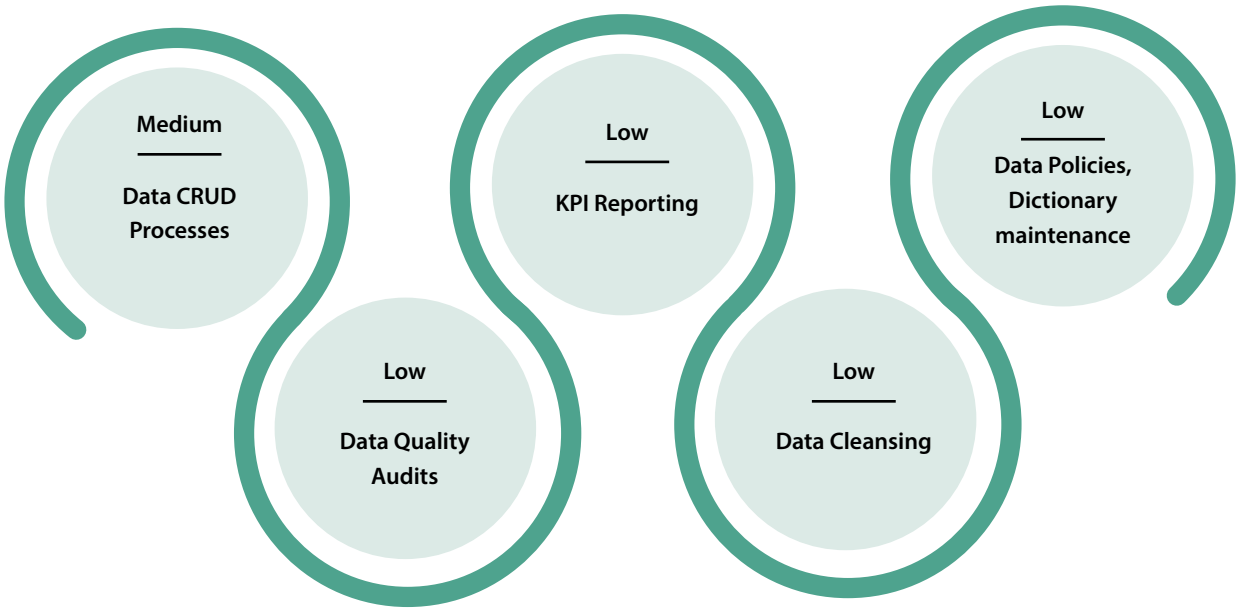

Fig 1: End-to-end activities in data shared services organization vs. their levels of automation

We can classify data on another plane, data shared service organizations can be classified based on their level of maturity, determined by the grade of their services, process improvements, use of technology, and focus on data transformation, among other factors. The increase in maturity from transformation to refinement is plotted against time to trace the maturity curve as depicted in Figure 2.

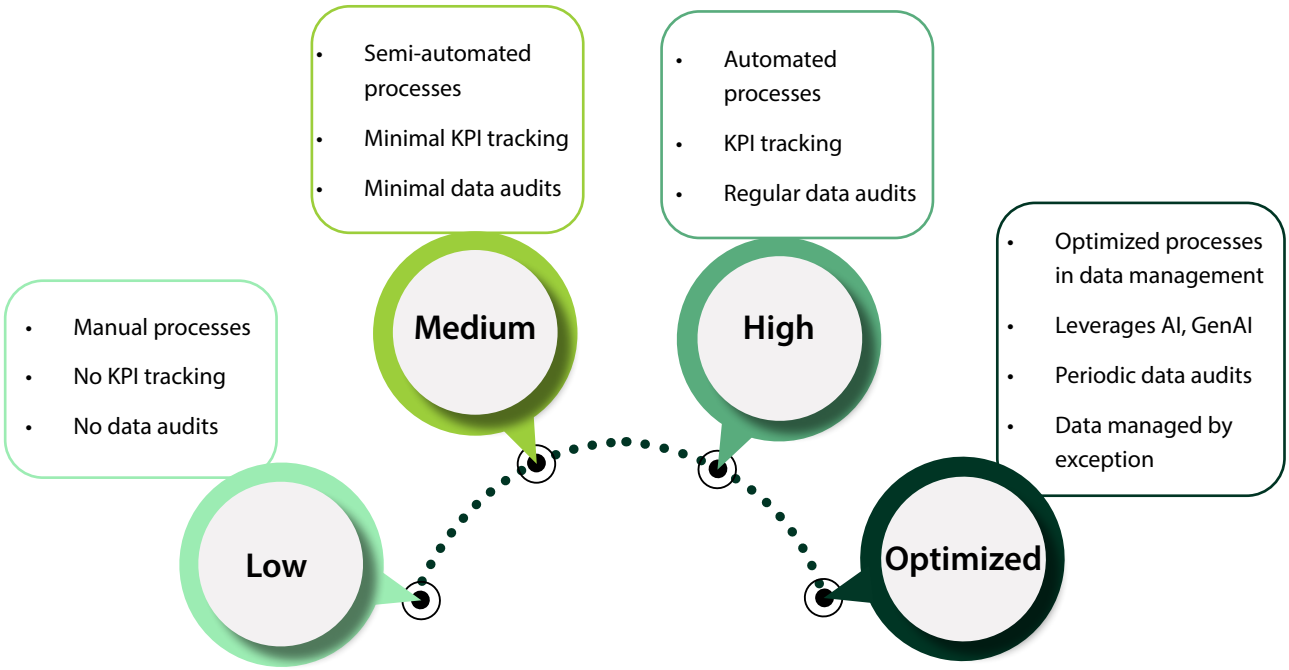

Fig 2: Maturity curve for data shared services organizations

GenAI and AI is changing every sphere of life today especially wherever there are touchpoints with data. The ability of AI and GenAI to transform data has opened up so many opportunities for all of us. Every day there is so much meaningful data being generated across the globe be it enterprise data, social media data, machine and device data and it is imperative that we leverage this vast gold mine called "data" to generate insights, improve productivity and help us monetize data to generate revenue.While it is essential to evaluate where an enterprise stands on the data maturity curve, there are several factors that influence its shift toward refinement

Key Enablers for Transforming Data Shared Service Organizations

As generative artificial intelligence (GenAI) makes rapid strides in the data landscape, it demonstrates significant potential in transforming the management and maintenance of data within data service organizations. Let us consider some of the specific automation opportunities in the data space:

Automating master data enrichment services leveraging onboarding workflow:

There are many instances that require the workflow to be manually enriched by the data requestor, post submission. AI and automation play a significant role at this point. Leveraging historical enrichment activities, the system can auto-enrich the majority of attributes. Only attributes that cannot be enriched with a high degree of confidence are routed to data stewards for manual review and enrichment.

Automating data quality audits:

Regular data quality audits are essential to ensure long-term data quality maintenance, prevent unauthorized data access, and carry out updates in compliance with organizational data access policies. There is considerable scope to automate data audits to check for data inconsistencies, conduct data quality checks, and review data access.

Automating master data creation:

Master data creation in MDM or ERP systems is a manual process. Embracing automation tools or calling APIs can ensure master data creation with a high degree of accuracy.

Automating KPI reporting for data quality and process metrics:

KPI reporting for data process and quality metrics is critical to the success of any data shared service organization. These metrics include the number of requests served each month, cycle time for master data onboarding, and throughput by each data steward. Automating these processes can help generate metrics for consistent monthly reporting with minimal manual intervention.

Leveraging GenAI for automated description generation and automated attribution:

Advancements in GenAI enhancements have facilitated the generation of item descriptions based on other attributes like item catalogs, item extensible attributes including item characteristics and the auto-generation of attribute values from historical data. Use cases such as automated description generation ensure data standardization and improve user productivity, leading to optimized search results.

Automating corrective actions on master data cleansing:

Leveraging the recent advancements in GenAI, it is now possible to automate data corrections. Based on the identified data gaps and past historical data, the system can autocorrect data or identify data attributes that require correction, subsequently sharing them with data stewards for approval.

AI-assisted Data Stewardship

AI-assisted data stewardship and data authoring are gaining significant traction, particularly with the growth of GenAI. AI assistants provide real-time suggestions to enrich data, thereby reducing the manual effort for data stewards, ensuring data standardization, and improving data quality.

Auto-generation of Procedures and Training Documents

Data shared service organizations often need various procedural, policy, and training documents to be maintained for data management. GenAI is proving to be a game changer, generating these documents with minimal user inputs.

AI and GenAI have helped transform the tedious manual task of maintaining these documents, enabling organizations to keep pace with the necessary changes efficiently.

Leveraging AI and GenAI for MDM Tools

With the advancement of AI and GenAI, master data management (MDM) tools have made rapid progress by incorporating capabilities such as intelligent data profiling, automated cleansing, automated data classification based on historical patterns, and enhanced data quality rules for cleansing, as well as the improvement of match and merge algorithms. These advancements significantly improve the ability to identify duplicate data within a dataset.

Conclusion

Historically, data shared-service organizations have been slow to adopt the digital transformation journey. The initial sluggish adoption was primarily because the focus was on setting up these data shared service organizations to maintain data at optimal cost and align with the requirements of segregation of duties. However, over the last two years or so, significant progress in AI, GenAI, and automation has introduced numerous possibilities to optimize total costs, improve productivity, and eventually deliver better quality master data to enterprises. Further, the industry has experienced considerable turnover, particularly in skilled data management resources. AI and automation will play a crucial role by automating routine tasks for data stewards, allowing them to focus on deriving insights from data.

About the Author

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Somnath has over 23 years of experience in Master Data Management and Supply Chain Management transformation programs as a Data Architect. He has helped global clients with MDM strategy and deployments. He has helped clients across multiple industry segments including manufacturing, hi-tech, retail, and professional services in their data journey. He is a thought leader in the data management and supply chain space.

Acknowledgments

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