

Digital Transformation and Financial Performance: A Case Study of Mahindra & Mahindra Ltd.

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ABSTRACT

Digital transformation has become an important driver of organizational change and business performance, particularly in the automobile industry, where technologies such as Artificial Intelligence (AI), Machine Learning (ML), cloud computing, Internet of Things (IoT), data analytics and digital manufacturing are increasingly integrated into business operations. The present study examines the evolution of digital transformation and its association with financial performance of Mahindra & Mahindra Ltd. during the three-year period from FY2023–24 to FY2025–26. The study adopts a descriptive and analytical case-study approach based entirely on secondary data obtained from annual reports, financial statements and corporate disclosures. Digital transformation intensity is measured through a structured index consisting of 15 indicators covering digital strategy, AI, ML, Robotic Process Automation, data analytics, cloud computing, IoT, digital manufacturing, predictive analytics, digital supply chain, digital customer services, connected vehicles, cybersecurity, digital investment and employee technology training. Each indicator is scored on a 0–3 scale to calculate the Digital Transformation Intensity Score (DTIS). Financial performance is assessed using revenue, Profit After Tax (PAT), Return on Equity (ROE), Earnings Per Share (EPS) and net profit margin. The findings indicate a substantial increase in DTIS from 55.56% in FY2023–24 to 88.89% in FY2024–25 and 93.33% in FY2025–26. During the same period, revenue, PAT and EPS showed an increasing trend, while net profit margin remained relatively stable and ROE declined moderately. The study indicates a positive temporal association between increasing digital transformation intensity and selected financial-performance indicators.

Keywords: Digital Transformation, Financial Performance, Automobile Industry, Artificial Intelligence, Mahindra & Mahindra.

Introduction

Digital transformation has emerged as an important driver of change in modern business organizations. The rapid development of artificial intelligence (AI), machine learning (ML), cloud computing, internet of things (IoT), data analytics, automation and digital platforms has changed the way companies conduct their operations and interact with customers. Digital technologies are no longer limited to information technology departments; they are increasingly integrated into production, supply-chain management, marketing, customer services, finance, human resources and strategic decision-making. As a result, organizations are increasingly investing in digital capabilities to improve operational efficiency, reduce costs, enhance customer experience and strengthen their competitive position.

The automobile industry is particularly affected by this digital transformation. Traditionally, automobile companies focused mainly on manufacturing efficiency, product quality and physical distribution. However, the emergence of connected vehicles, electric vehicles, smart manufacturing,

digital supply chains and software-based vehicle technologies has transformed the industry. Technologies such as AI, IoT, predictive analytics and cloud computing are being used for product development, predictive maintenance, quality control, demand forecasting, inventory management and customer support. Consequently, automobile companies are gradually moving from conventional manufacturing models towards technology-driven and data-based business models.

Digital transformation may also have important implications for the financial performance of companies. Investments in digital technologies can require substantial expenditure on software, hardware, cloud infrastructure, cybersecurity, and employee training and technology development. In the short term, such investments may increase costs; however, in the longer term they may contribute to improved productivity, reduced operational inefficiencies, better resource utilization, faster decision-making and improved customer retention. Therefore, understanding the relationship between digital transformation and financial performance has become an important area of research in commerce and business studies.

Brief Profile of the Company

Mahindra & Mahindra Ltd. (M&M) is one of India's leading diversified business enterprises and a flagship company of the Mahindra Group, with a strong presence in the automotive and farm equipment sectors. Established in 1945, the company has evolved from an automotive manufacturer into a diversified organization operating across mobility, agriculture, technology-enabled products and related businesses. M&M is particularly recognized for its utility vehicles, commercial vehicles, tractors and farm machinery, and has increasingly focused on electric mobility, connected vehicles, digital technologies and smart manufacturing. The company has strengthened its capabilities in areas such as Artificial Intelligence (AI), Machine Learning (ML), cloud computing, data analytics, Internet of Things (IoT), digital manufacturing and connected-vehicle technologies.

Mahindra's annual reports indicate the increasing importance of AI, data analytics, cloud computing, IoT, digital manufacturing, predictive analytics, connected vehicles and cybersecurity within its business operations. The company has progressed from individual digital initiatives towards more integrated digital capabilities. In manufacturing, digital technologies are being used for machine connectivity, predictive maintenance, and quality inspection and production optimization. In supply-chain management, digital systems support planning, monitoring and real-time visibility. Similarly, AI and digital platforms are being increasingly used for customer interaction, connected-vehicle services and decision-making.

(Source: Official Integrated Annual Reports & website description)

Review of Literature

Hanelt et al. (2021) in *A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change* conducted a systematic review of 279 studies on digital transformation. The study found that digital transformation involves not only the adoption of new technologies but also changes in organizational structures, processes and strategies. The authors highlighted digital transformation as an important factor in improving organizational capabilities and competitiveness.

Angoitia Grijalba et al. (2024) in paper, *Does the use of digital tools improve a firm's performance?*, analyses firms' adoption of digital tools before and after the pandemic and assessed performance in terms of sales and employment. The findings indicated that firms with greater pre-pandemic digitalization were better prepared to withstand the disruption caused by the pandemic. The study also showed that the adoption and use of digital platforms and online tools were positively associated with business performance. The authors therefore highlighted digitalization as an important capability for maintaining business activity and supporting firms' performance during periods of economic disruption.

Yavuz, M. S. et al. (2025) in their study, *Exploring the Financial Impact of Digital Transformation* examined the relationship between digital transformation and firms' financial performance using digitalization-related measures. The findings indicated that effective digital transformation can contribute positively to financial performance. The study also highlighted the importance of measuring the actual outcomes of digital investments rather than focusing only on technology adoption.

Sharma, M. et al. (2026) in their study, *Impact of Digital Transformation on Financial Performance: Indian Listed Companies* examines 233 Indian listed companies during 2012–2024 and

developed a digital-transformation index to investigate its relationship with financial performance. The findings indicated a positive association between digital transformation and financial performance and suggested that productivity can be an important mechanism through which digital transformation contributes to firm performance.

Objectives of the Study and Research Methodology

The present study examines Mahindra & Mahindra Ltd. during the three-year period from FY2023–24 to FY2025–26. Secondary data are collected from the company's annual reports and financial statements. The study measures the intensity of digital transformation through systematic content analysis and also examines selected financial-performance indicators such as income from operations, profit after tax, return on equity, net profit margin and earnings per share. The study therefore seeks to understand how the company's digital transformation evolved during the study period and how this evolution corresponded with changes in its financial performance.

Digital transformation is assessed using 15 indicators, including digital strategy, Artificial Intelligence, Machine Learning, RPA, data analytics, cloud computing, IoT, digital manufacturing, predictive analytics, digital supply-chain management, digital customer services, connected vehicles, cyber security, digital investment and employee technology training. Each indicator is scored from 0 to 3, where 0 represents no disclosure, 1 general disclosure, 2 specific applications, and 3 detailed, strategic or quantified implementation. The maximum annual DTIS is 45. Financial performance is assessed using income from operations, profit after tax, net profit margin, return on equity and earnings per share.

Digital Transformation Initiatives of Mahindra & Mahindra

Mahindra & Mahindra has increasingly incorporated digital technologies across its manufacturing, customer services, product development, supply-chain management and corporate functions. Artificial Intelligence (AI) is being applied in areas such as quality inspection, predictive maintenance, customer interaction, decision support and Generative AI-based solutions. Machine Learning (ML) is used to analyze large volumes of operational and customer data and support predictive decision-making, thereby improving forecasting, maintenance, quality management and personalized digital services. The company has also adopted cloud computing infrastructure to support data storage, computing, digital applications and enterprise systems, providing scalable computing capabilities and facilitating the integration of AI, analytics and other digital technologies. Internet of Things (IoT) and Industrial IoT enable machines, equipment and systems to generate and exchange real-time data, which supports operational monitoring, predictive maintenance and manufacturing efficiency.

Digital technologies are further integrated into digital manufacturing through automation, digital twins, machine connectivity, computer vision and AI-enabled quality systems, with the objective of improving productivity, quality and operational efficiency. In the area of connected vehicles, Mahindra is developing technology-enabled vehicles using digital platforms, connectivity and cloud-based services to enhance vehicle functionality, customer experience, remote services and data-driven vehicle management. The company is also using digital technologies in supply-chain management to improve planning, inventory management, logistics and real-time visibility, enabling more efficient coordination of suppliers, production, distribution and customer demand. Data analytics and predictive analytics support operational and managerial decision-making, particularly in maintenance, demand forecasting, quality management and supply-chain planning, helping the company identify potential problems and take preventive action.

With increasing digitalization, Mahindra has strengthened cybersecurity and digital-risk management to protect its digital infrastructure, while also developing employee capabilities through technology-oriented training and digital learning initiatives to support the adoption of emerging technologies and the broader digital transformation of the organization.

(Official Integrated Annual Reports for FY2023–24, 2024–25 & 2025–26.)

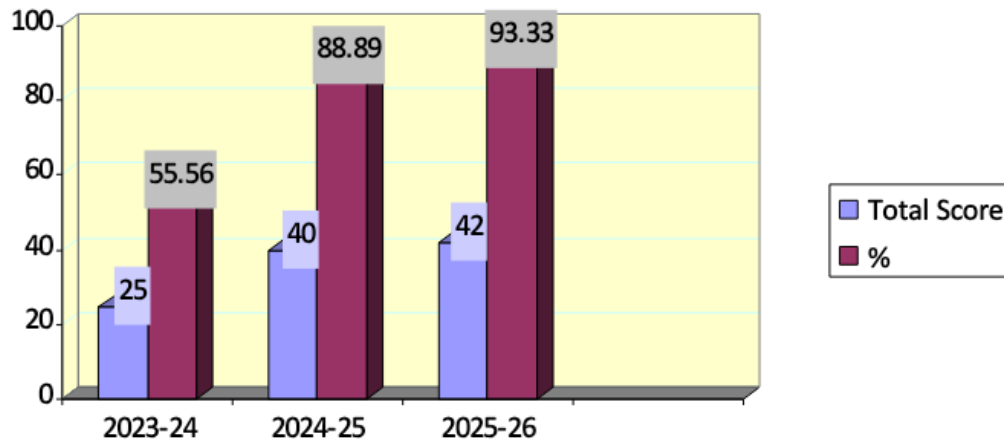
Analysis of Digital Transformation of the company

The digital transformation intensity of Mahindra & Mahindra Ltd. was assessed using 15 indicators covering major digital technologies and practices. Each indicator was assigned a score from 0 to 3, where 0 represents no disclosure, 1 represents general disclosure, 2 represents specific application, and 3 represents detailed, strategic or quantified implementation. The maximum possible score was 45 for each financial year.

Table 1: Fifteen-Indicator Scoring Table

S .No.	Digital Transformation Indicator	2023–24	2024–25	2025–26
1	Digital transformation strategy	2	3	3
2	Artificial Intelligence	2	3	3
3	Machine Learning	1	2	3
4	Robotic Process Automation	0	0	0
5	Data analytics	2	3	3
6	Cloud computing	2	3	3
7	Internet of Things	1	2	3
8	Digital manufacturing	2	3	3
9	Predictive analytics	2	3	3
10	Digital supply-chain management	2	2	3
11	Digital customer services	2	3	3
12	Connected/technology-enabled vehicles	2	3	3
13	Cybersecurity and digital risk management	2	3	3
14	Digital technology investment	1	2	3
15	Employee digital/technology training	2	3	2
Total Score		25	40	42
Maximum Score		45	45	45
DTIS (%)		55.56%	88.89%	93.33%

(Official Integrated Annual Reports for FY2023-24, 2024–25 & 2025–26.)

**Figure 1: Digital Transformation Intensity Score**

(Source: Table 1.1)

Analysis and Interpretation

During FY 2023–24, Mahindra & Mahindra obtained a DTIS of 55.56% (25 out of 45). The company had already established a significant digital foundation, particularly in AI, data analytics, cloud computing, digital manufacturing, predictive analytics and connected vehicles. However, several technologies were reported mainly through individual initiatives or general descriptions rather than extensive quantitative evidence. Machine Learning, IoT and digital investment therefore received relatively lower scores. RPA was not explicitly disclosed and was consequently assigned a score of zero.

The DTIS increased considerably to 88.89% (40 out of 45) in FY2024–25. This substantial improvement indicates that digital technologies were becoming more strategically integrated into the company's operations. Mahindra reported several specific AI applications, cloud infrastructure, digital manufacturing initiatives, IIoT applications, predictive analytics and digital customer-service solutions. The increased availability of specific and quantified evidence resulted in higher scores for several indicators.

The company's DTIS increased further to 93.33% (42 out of 45) in FY2025–26. Digital transformation had become more integrated across manufacturing, supply chains, customer services, connected vehicles and corporate functions. The increased use of AI, advanced analytics, digital platforms and technology-enabled operations indicates a movement towards AI-driven and enterprise-wide digital transformation. RPA remained at zero because explicit RPA adoption was not identified, while employee training received a score of 2 under the adopted scoring criteria.

The year-wise analysis demonstrates a clear upward trend in Mahindra & Mahindra's digital transformation intensity. The DTIS increased from 55.56% in FY2023–24 to 88.89% in FY2024–25 and further to 93.33% in FY2025–26. The largest improvement occurred between FY2023–24 and FY2024–25, when the score increased by 33.33 percentage points. A further improvement of 4.44 percentage points was observed in FY2025–26.

Overall, the findings suggest that Mahindra & Mahindra moved from a relatively broad digital foundation in FY2023–24 towards more extensive, strategic and integrated digital transformation in the subsequent years. The increase in DTIS indicates not merely the presence of digital technologies but greater depth and maturity in their reported implementation. However, as the score is based on annual-report disclosures, the results should be interpreted as digital transformation disclosure intensity rather than a direct measure of the company's complete technological adoption.

Analysis of Financial Performance

The financial performance of Mahindra & Mahindra Ltd. was analysed for the three-year period from FY2023–24 to FY2025–26 using Revenue, Profit after Tax (PAT), Return on Equity (ROE), Earnings Per Share (EPS) and Net Profit Margin. These indicators provide a broad view of the company's growth, profitability, efficiency and shareholder returns.

Table 2: Analysis of Financial Performance

Financial Indicator	2023–24	2024–25	2025–26
Revenue/Income from Operations (₹ crore)	1,39,078	1,59,211	1,98,639
PAT (₹ crore)	11,269	12,929	17,099
ROE (%)	22.25	20.82	20.10
EPS (₹)	89.42	115.91	152.20
Net Profit Margin (%)	8.10	8.12	8.61

(Official Integrated Annual Reports for FY 2023–24, 2024–25 & 2025–26.)

Analysis and Interpretation of Financial Performance

Mahindra & Mahindra recorded strong financial growth during the study period. Revenue increased from ₹1,39,078 crore in FY2023–24 to ₹1,98,639 crore in FY2025–26, while PAT increased from ₹11,269 crore to ₹17,099 crore. EPS also rose significantly from ₹89.42 to ₹152.20, indicating improved earnings available to shareholders. Net profit margin remained relatively stable but improved slightly from 8.10% to 8.61%.

In contrast, ROE declined moderately from 22.25% to 20.10%, although it remained above 20% throughout the period. Overall, the company showed a positive financial-performance trend, particularly in revenue, PAT and EPS. When compared with the increase in DTIS from 55.56% to 93.33%, the results indicate a positive association between increasing digital transformation intensity and selected financial indicators. However, because the study covers only one company and three years, causality cannot be established.

Digital Transformation and Financial Performance: A Comparative Analysis

The comparative analysis examines the trend in Mahindra & Mahindra Ltd.'s Digital Transformation Intensity Score (DTIS) alongside selected financial-performance indicators during FY2023–24 to FY2025–26. The DTIS increased from 55.56% in FY2023–24 to 88.89% in FY2024–25 and 93.33% in FY2025–26, indicating a substantial increase in the intensity and sophistication of reported digital transformation initiatives.

At the same time, the company's revenue and Profit After Tax (PAT) showed a consistent upward trend. Revenue increased from ₹1,39,078 crore in FY2023–24 to ₹1,98,639 crore in FY2025–26, while PAT increased from ₹11,269 crore to ₹17,099 crore. EPS also increased considerably from ₹89.42 to ₹152.20 during the same period. Net profit margin remained relatively stable but improved slightly from 8.10% to 8.61%. ROE, however, declined from 22.25% to 20.10%.

The results reveal a positive temporal association between increasing digital transformation intensity and several measures of financial performance. As DTIS increased substantially over the three-year period, revenue, PAT and EPS also recorded strong growth. The simultaneous upward movement suggests that the expansion of digital capabilities occurred during a period of improving financial performance.

The relationship is particularly visible between FY2023–24 and FY2024–25, when DTIS increased from 55.56% to 88.89%, while revenue increased by approximately 14.48%, PAT by approximately 14.73% and EPS by approximately 29.63%. Between FY2024–25 and FY2025–26, DTIS increased further to 93.33%, accompanied by continued growth in revenue, PAT and EPS.

However, ROE does not follow the same upward pattern. It decreased from 22.25% to 20.10% despite the substantial increase in DTIS. This indicates that the relationship between digital transformation and financial performance is not uniform across all financial indicators. ROE may be influenced by several other factors, including changes in shareholders' equity, capital structure and business expansion.

Overall, the analysis indicates that higher digital transformation intensity coincided with improved revenue, PAT and EPS, while net profit margin remained broadly stable and ROE declined moderately. Therefore, the findings provide evidence of a positive association between digital transformation intensity and selected financial-performance indicators, particularly revenue, PAT and EPS.

Conclusion

The study found that Mahindra & Mahindra's digital transformation intensity increased considerably during the study period. The DTIS increased from 55.56% in FY2023–24 to 88.89% in FY2024–25 and 93.33% in FY2025–26. Revenue, PAT and EPS also showed an increasing trend, while net profit margin remained relatively stable and ROE declined slightly. Overall, digital transformation and selected financial-performance indicators moved positively during the study period.

The study concludes that Mahindra & Mahindra has progressively strengthened its digital capabilities through AI, cloud computing, data analytics, IoT, digital manufacturing, connected vehicles and digital supply-chain systems. The increasing DTIS indicates greater depth and integration of digital technologies. The simultaneous improvement in revenue, PAT and EPS suggests a positive association between digital transformation and financial performance.

Limitations of the Study

The study is limited to Mahindra & Mahindra Ltd. and covers a relatively short period of three financial years. The measurement of digital transformation is based on annual-report disclosures, which may not fully reflect the actual extent of technology adoption within the company. The study uses a selected set of 15 indicators and therefore may not capture every dimension of digital transformation. Further, financial performance may be influenced by several factors such as market conditions, economic trends, product demand and business strategy; hence, the study does not establish a causal relationship between digital transformation and financial performance.

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