



## THE ROLE OF DATA ANALYTICS IN DIGITAL TRANSFORMATION

### Abstract

Behavioural and cultural change is hard to achieve. Departments and executives continue to make uninformed decisions based on incomplete and misinterpreted data or misinformation. Moreover, companies have long stored large amounts of data on servers, drives, Excel sheets and IT applications that are hard to access as they only meet specific departmental needs. This makes it difficult for inter-department communication. Bridging these data silos is a complicated task that requires planned effort and patience. Decisions based on pure data play a crucial role in the digital transformation of any enterprise.

## The significance of data analytics in digital transformation <sup>[1]</sup> <sup>[2]</sup>

According to a survey, most companies understand the importance of enterprise-wide digital transformation. However, only 24% said that their company possessed the technology and organisational alignment to do so.<sup>[1]</sup> Even with a wide range of analytical tools, 92.2% of the companies reported struggling with process and change management, communication, and the skills necessary for a true digital transformation.\*

Organisations that invest a substantial amount of resources on digital transformation must understand the significance of data analytics and the need to move beyond the traditional siloed approach. Enterprises can greatly benefit from data analytics in combination with artificial intelligence (AI) and machine learning (ML), having tackled the challenges through organisational alignment, free-flowing interdepartmental communication, and training.

Data analytics includes scrutinising,

cleansing, modifying, and modelling the data to arrive at better business decisions. It uses different tools to extract insights that help organisations make better decisions. Without data, an organisation cannot innovate, strategise, and win new business. Digital transformation based on data analytics focuses on improving customer experience and tackling nettlesome business problems across departments. This is different from the traditional approach of data analytics in silos. Some questions that make a solid case for data analytics based on digital transformation are as follows:

- Do departments focus on personal priorities rather than enterprise-wide strategies?
- Is the process modelling confined to the department's boundaries and has no uniformity?
- Are the process improvement goals small and incremental with no long-term vision?

- Are the key performance indicators (KPIs) focussed on cost and volume only?
- Do your executives focus more on their departments than on creating value for the clients?
- Do you conduct enterprise-wide restructuring frequently or at regular intervals?
- Are IT projects launched only as a reaction to a fallout in a department?
- Do the various HODs see each other as competitors rather than collaborators?

If the answer to most of these questions is a 'yes,' you will find it difficult to make data-driven decisions. Without a definite resolution to all these issues, your organisation will continue to struggle despite investments in digitally transforming technology.





## Benefits of data analytics<sup>[2]</sup> <sup>[3]</sup>

Companies collect data at every point in the customer journey. Extracting valuable information and insights from this data can help companies promote their product to the end consumer through personalised marketing. In addition, data analytics identifies and mitigates risks and promotes data-driven decisions rather than intuition-based decisions in a company, such as:

- **Enhance decision-making for the company:** By using data insights, you can understand customer requirements and complaints better. This helps your company provide better service to the customers and retain them over the long term.
- **Improve the efficiency of all employees:** Employee efficiency largely depends on how quickly they can access the right data. With complete digital transformation, employees do not need to rely only on laptops or office systems to access the right information. With information on cloud, employees can access data remotely using a smartphone. This also ensures high data security using relevant access rights.
- **Elevate the company's financial health:** With powerful insights and quick data access, you can reduce the time and effort to complete a task. In a large organisation with multiple departments and locations, this translates into huge savings. You can use the extra cash to invest and grow the business or make the company a great place to work for the employees.
- **Better customer experience:** Since your company has access to the right data and analytics, you can improve customer experience. The customer insights enhance the quality of each interaction you have with a new business prospect or an old client looking for a resolution to a complaint.
- **Improve risk management:** Data analytics allows businesses to access historical and real-time data, which contributes in risk mitigation. You can use predictive analysis to quantify and anticipate the possible risks.
- **Predict customer behaviour:** Adopt a proactive approach instead of a reactive one. By predicting a customer's behaviour, you can resolve customer questions and complaints even before they arise.
- **Retain loyal customers:** The cost of acquiring a new customer is much higher than that of retaining an old customer. But retention depends on providing excellent service and complaint resolution. Data analytics and deep insights make it easy to achieve customer delight.



## Current data analytics challenges and solutions<sup>[1]</sup>

It is difficult to extract data stored in Excel sheets and IT systems that are not in sync with each other. In such cases, the IT teams seldom get a chance to perform proactive data analytics. Other challenges include:

- Lack of communication between departments as IT systems are department specific
- Difficulty in bridging data silos

There isn't a standard recipe for all organisations. The solution is always tailored to the challenges faced by each organisation. But they can implement the solution in the following ways:

- **Organisational alignment:** Every company and its management are aware of the importance of organisation-wide alignment. But it is complicated in real world when departments emphasise on strategies and goals that don't fully align with the organisation as a whole. One must adopt a top-down approach where the top management aligns their goals and percolates the same values to the teams

working under them. This needs a union of both technology and strategy to achieve the results that matter to the entire organisation.

- **Resolving data fragmentation and enhancing process improvement:** According to a survey, 70% of organisations don't have a mature data strategy. Working on improving the processes and workflows is essential. But if it happens within the boundaries of a department with low or no outside visibility, it can be a wasted effort. Data fragmentation within the company leads to transparency issues where the overall performance of the company suffers.  
  
For exceptional performance, organisations need to pay attention to key cross-functional processes such as request to resolution, order to delivery, and idea to launch. This will give an idea of the data required to achieve digital success and improve customer experience.

Cross-functional alignment also needs to happen in internal processes, such as the requirement to implementation and requisition to onboarding. A typical example would be the order-to-delivery process, which requires complete alignment between sales, operations, and customer service, all needing access to data-based analytics. This approach is far more effective than meeting data requirements, one department at a time.

- **Providing relevant training:** Connecting the training and course material to real-world problems is the key to achieving tangible results in digital transformation. However, this requires a planned approach to achieve organisation-wide digital transformation. This is often challenging for the management when they are overloaded with pressing tasks. But with discipline and consistency, you can develop business and technical skills to accelerate the change.

## Types of data analytics<sup>[2]</sup>

Broadly, data analytics can be categorised into four types, with each category having a different objective in digital transformation:

- **Diagnostic:** This answers questions about why certain undesirable incidents happened. It complements descriptive analytics, which is more complex.
- **Descriptive:** This technique analyses large data sets, identifies success or failure incidents, and develops KPIs for the organisation.
- **Prescriptive:** As the name suggests, this technique deals with solutions that the organisation needs to implement. This works in tandem with the ideas and data from predictive analytics.
- **Predictive:** This predicts what will probably happen in the future and uses historical data and identifies patterns to determine the events that are likely to occur.



## Bringing together data analytics and AI for true digital transformation <sup>[4]</sup>

AI is a catalyst for digital transformation that helps an enterprise become agile, adaptive, and innovative. AI can not only help achieve better financial results but also predict future behaviour, thanks to its deep learning and pattern recognition algorithms.

By defining personas or personal profiles, companies can create marketing strategies that are effective and targeted. They can

reduce risk by predicting the probability of specific scenarios and reducing response times using AI bots. ML can help offload redundant tasks from human resources, thus reducing manual errors. In addition, predictive analytics can help design relevant marketing campaigns, thereby using the budgets efficiently. These are just a few of the many benefits of integrating data analytics with AI.

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### Conclusion

An organisation that seeks to implement complete digital transformation may benefit from getting a technology partner on board. This should be followed by a comprehensive assessment of the organisation's current digital maturity and planning the transformation roadmap.

Without a technology partner to guide through the whole journey, an organisation may continue to struggle even with large

investments in big data, AI initiatives, and digital transformation. But with guidance from industry experts, you can navigate the challenges and implement a true digital transformation, including process updates and behavioural changes in the team and the management.

\*For organisations on the digital transformation journey, agility is key in responding to a rapidly changing technology and business landscape. Now more than ever, it is crucial to deliver and exceed on organisational expectations with a robust digital mindset backed by innovation. Enabling businesses to sense, learn, respond, and evolve like a living organism, will be imperative for business excellence going forward. A comprehensive, yet modular suite of services is doing exactly that. Equipping organisations with intuitive decision-making automatically at scale, actionable insights based on real-time solutions, anytime/anywhere experience, and in-depth data visibility across functions leading to hyper-productivity, Live Enterprise is building connected organisations that are innovating collaboratively for the future.

### References

1. [Data, analytics, and digital transformation | VentureBeat](#)
2. [Why are data and analytics key to digital transformation | EPCGroup](#)
3. [Digital transformation: Implementing big data analytics](#)
4. [Data analytics and artificial intelligence in digital transformation](#)



For more information, contact [infosysbpm@infosys.com](mailto:infosysbpm@infosys.com)



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