

M9L22. IT and Data Analytics

Slide #1



The slide cover is divided into two main sections. The left section is a dark grey rectangle containing the Texas A&M University Engineering logo at the top, followed by the title 'IT and Data Analytics' in a large, white, sans-serif font. Below the title is the name 'Dr. Xiaomin Yang'. At the bottom of this section, the text 'TCMT 612' is in yellow, followed by a vertical line and 'Technical Management Decision Making' in white. A red horizontal bar at the very bottom contains the text 'MASTERS OF ENGINEERING TECHNICAL MANAGEMENT' in white. The right section is a light grey image showing a person from behind, looking at a large digital display. The display features a complex network graph with many nodes and lines, and several smaller icons representing data analytics, such as bar charts, line graphs, and network diagrams.

ATM
TEXAS A&M UNIVERSITY
Engineering

IT and Data Analytics

Dr. Xiaomin Yang

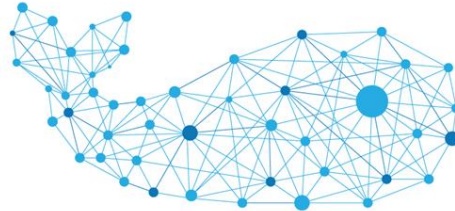
TCMT 612 | Technical Management
Decision Making

MASTERS OF ENGINEERING TECHNICAL MANAGEMENT

Slide #2

IT and Data Analytics Best Practices

CULTIVATE DATA CULTURE



Pinterest image

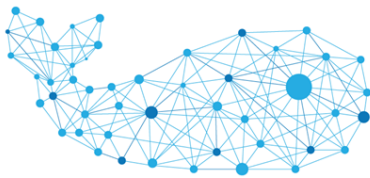
Despite significant investments in data science, artificial intelligence, and machine learning technologies, many companies have struggled to fully harness the potential of data analytics.

Survey studies, along with insights from academic researchers and industrial experts, have shed light on practices that can increase the likelihood of success in cultivating a data-driven culture.

Slide #3

IT and Data Analytics Best Practices

DATA CULTURE



Governance

- Put formal governance in place to develop data assets with quality and integrity
- Involve data experts in the deployment of data solutions

Business-driven approach

- Need to justify the implementation of data analytics solutions with validated business cases
- Evaluation to determine return on investment

Pinterest image

One key recommendation is to establish a strong data governance framework.

Data is considered an operating asset and organizations should prioritize the development of high quality and reliable data assets through formal governance processes.

This enables every business unit, team, or individual to incorporate data driven approaches into their decision-making processes effectively.

Involving data subject matter experts in the deployment of data solutions is another crucial aspect.

These experts possess the necessary domain knowledge and understanding of data nuances, which can significantly impact the success of data analytics initiatives.

Their involvement ensures that the data solutions align with the specific needs and requirements of the business.

It is essential to justify the implementation of data analytics solutions with validated business cases.

Like any new technology, data analytics initiatives should undergo a thorough evaluation process to determine their potential value and return on investment.

Following appropriate governance processes throughout the development to deployment life cycle further enhances the chances of success and maximizes the value derived from data analytics solutions.

Slide #4



By implementing these recommended practices, organizations can increase their chances of realizing the full potential of data analytics.

A data-driven culture, flexible data governance, involvement of subject matter experts, and justified business cases contribute to improved decision making, increased revenue generation, and cost reduction.

Ultimately, these practices paved the way for data analytics to become a transformative force within the organization, driving business growth and competitive advantage.