

# M9L13. Framework for Data and Business Integration

## Slide #1



The slide cover is divided into two main sections. The left section has a dark background with white and yellow text. It features the Texas A&M University Engineering logo at the top, followed by the title 'Framework to Data and Business Integration' and the author's name 'Dr. Xiaomin Yang'. Below this, it identifies the course as 'TCMT 612 | Technical Management Decision Making' and the program as 'MASTERS OF ENGINEERING TECHNICAL MANAGEMENT'. The right section is a grayscale image of a person standing with their back to the camera, looking at a large, curved digital display. The display shows a complex network of nodes and lines, along with several hexagonal icons containing bar charts, line graphs, and network diagrams.

TEXAS A&M UNIVERSITY  
Engineering

Framework to Data and Business Integration

Dr. Xiaomin Yang

TCMT 612 | Technical Management Decision Making

MASTERS OF ENGINEERING TECHNICAL MANAGEMENT

## Slide #2

# Framework for Integrating Data-Analytics into a Business

- Need for integrating data analytics
- Failure rate of data-driven initiatives is 60%-85%
- Successful incorporation of data analytics into business should include:
  - Careful planning
  - Robust infrastructure
  - Skilled personnel
  - Deep understanding of the potential pitfalls
- This can help mitigate risks, and promote growth

The advent of computation driven business models has brought about significant disruptions in numerous industries.

To stay competitive and foster growth, enterprises are compelled to explore opportunities for integrating data analytics into their operations.

However, it's important to acknowledge that implementing data driven initiatives is not without its challenges.

According to a Fortune article, experts estimate failure rates for such initiatives to range from 60% to 85%.

This highlights the complexity and difficulty associated with successfully incorporating data analytics into business strategies.

Enterprises must approach these endeavors with careful planning, a robust infrastructure, skilled personnel, and a deep understanding of the potential pitfalls.

By doing so, they can mitigate the risks and increase their chances of harnessing the power of data analytics to drive growth and achieve their desired outcomes.

***Slide #3***

## Framework for Integrating Data-Analytics into a Business

Adopting a business-driven approach is crucial for successfully developing and integrating data analytics solutions into a company.

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***Slide #4***

## Framework for Integrating Data-Analytics into a Business

The following key steps should be followed:

To increase the chances of success, several key steps should be followed.

## Slide #5

### Framework for Integrating Data-Analytics into a Business



STRATEGY & BUSINESS  
VALUE CHAIN



IT SYSTEM & DATA  
ANALYTICS



HUMAN-COMPUTER  
INTERACTIONS

It's essential to be clear about the business strategy and objectives.

This ensures that data analytics initiatives are aligned with the overall goals of the organization, enabling focused and targeted efforts. Understanding the value chain and identifying opportunities for improvement is another vital aspect.

By analyzing the various activities and processes within the value chain, businesses can pinpoint areas where data analytics can have the most significant impact and drive value.

Establishing a business-driven computer human collaboration is crucial.

By bringing together experts from corporate strategy, business units, IT, data science, and other relevant functions, companies can ensure that data analytics solutions are developed in alignment with business needs and priorities.

**Slide #6**

## Framework for Integrating Data-Analytics into a Business

A business-driven approach enables strategic and purposeful integrations of data analytics solutions resulting in improved decision making, operational efficiency and competitive advantage.

By following a business-driven approach, organizations can effectively leverage data analytics to enhance their value chain and drive business success.

It enables a strategic and purposeful integration of data analytics solutions resulting in improved decision making, operational efficiency, and competitive advantage.