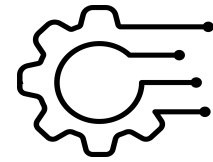


STUDY CASE:

Company A, known as one of the largest diversified conglomerates in Indonesia, has multiple verticals and businesses. As part of the data team that manages analytics collaboration within 230 companies under the A Management, you need to support a certain car selling business unit by enabling their analytical capabilities to increase the company's revenue. The one-line question from management is, "We need to increase our revenue; however, we are having difficulties monitoring and tracking our business metrics performance. How can you support us with our current needs?"

- Please write down the steps you will take to answer the question from management.**
- What factors could possibly increase the revenue of this car selling company?**
- Explain:**
 - a. Any possible approach**
 - b. Possible solution architecture**
 - c. Reasons to choose those approaches**
 - d. Any data needs and their reasons**
- Assume the project has run smoothly and delivered successfully; management now asks: How can you ensure that the analytics output generates good revenue and has a significant impact on the business?**



DATA DRIVEN APPROACH



Define objective & Information needs

- Increase the company's revenue
- Information needs:
 - Sales data
 - Marketing data
 - Financial data
 - Demographics
 - Consumer preferences



Collect data

- Gathering and cleansing data
- The quality of data is paramount to the success of a data-driven approach



Analyze data

- Use machine learning for sales predictions
- Identify key sales influencers
- Conduct A/B testing for marketing strategies



Present information

- Utilize reports and visuals for clarity.
- Regular reports on revenue and marketing performance.



Make data-driven decision

- Optimize products and pricing with consumer preferences
- Allocate resources using financial insights
- Adjust marketing based on A/B tests

A **data-driven approach** involves making decisions and formulating strategies based on the analysis of factual data and significantly **enhance metrics performance** by enabling precise decision-making, customer-centric strategies, and real-time monitoring. The **solution architecture** for enhancing revenue includes the following layers: data layer, data processing layer, data analytics layer, and decision support layer. This method ensures a **comprehensive and effective framework** for leveraging data insights to drive revenue growth.

SOLUTION ARCHITECTURE

1

Data Layer

collecting and storing data from various sources

2

Data Processing Layer

processing data from the data layer.

3

Data Analytics Layer

analyzing data from the data processing layer.

4

Decision Support Layer

supporting decision-making based on the results of data analysis

The key: The data that is collected should be relevant and accurate. Relevant data is data that is related to the purpose of data analysis. Accurate data is data that is free of errors.

Factor could possibly increase the revenue

1

Economics

A strong economy can drive increased demand for cars because consumers have more money to spend. This can occur due to economic growth, increased income, or lower interest rates.

2

Demographics

An increase in population, especially working-age population, can increase demand for cars due to the increase in the need for transportation.

In addition, Government policies, such as fuel economy standards or tax incentives for electric vehicles, can affect the demand for cars. Also consumer preferences, such as the preference for luxury cars or fuel-efficient cars, can also affect the demand for cars.

Technology

3

The development of car technology can increase consumer interest in buying cars.

Competition

4

The fierce competition in the automotive industry can encourage companies to innovate and offer more attractive products and services to consumers.

As part of the data team overseeing analytics collaboration within Astra Group's 230 companies, we will leverage **advanced data-driven solutions** to enhance the monitoring and tracking of business metrics for the car selling business unit.

By implementing robust analytics tools and fostering cross-company collaboration, we aim to provide actionable insights that will strategically boost revenue of the company.

Success Story

1. **Marketing and sales efficiency has dropped 34 percent**
2. **Machine learning improves decision-making and can quickly drive tangible results across marketing, sales (boost conversion rates), and customers success (Increase retention and renewals)**

Zara mengalami kenaikan 220% sejak tahun 2004 s.d. 2015 dengan memanfaatkan data science berupa prediction & decision support untuk meningkatkan efisiensi pergudangan & inovasi bisnis.

AirBnB menggunakan A/Testing, Image recognition & Analysis, NLP, predictive, regression, collaborative analysis untuk meningkatkan valuasi sejak tahun 2008.