

ASSIGNMENT

Take one domain and Build Business Understanding

Domain Chosen: E-Commerce Platform (Amazon/Flipkart Type Business)

Introduction

Business Understanding is the first phase of any analytics or data science project. It focuses on clearly identifying business goals, understanding operational challenges, and defining how data-driven solutions can support decision-making. Without proper business understanding, analysis may not align with organizational objectives. In the e-commerce domain, this step is crucial because operations involve customers, sellers, logistics, payments, and inventory management.

1. Business Objective

The main objective of an e-commerce platform is to provide a seamless online shopping experience while maximizing profitability. Key goals include:

- Increasing total sales and revenue
- Improving customer satisfaction and loyalty
- Expanding the customer base
- Reducing cart abandonment rate
- Optimizing inventory and supply chain operations

The company also aims to provide competitive pricing and fast delivery to remain competitive in the market.

2. Problem Statement

E-commerce businesses face several challenges:

- High cart abandonment rate – Customers add products to the cart but do not complete the purchase.
- Delivery delays – Logistics issues can result in late deliveries and negative reviews.
- Inventory mismanagement – Overstocking increases storage costs, while understocking leads to lost sales.

- Customer churn – Customers may switch to competitors due to poor experience or pricing.

These problems affect revenue, customer retention, and brand reputation.

3. Key Factors Affecting the Business

Multiple factors influence e-commerce performance:

- Product pricing and discounts
- Website/app user experience
- Delivery time and shipping charges
- Product availability
- Customer reviews and ratings
- Marketing campaigns and advertisements
- Payment options and security
- Seasonal demand and festivals

External factors such as economic conditions and competitor strategies also impact sales.

4. Role of Data in Solving the Problem

Data is central to improving e-commerce performance:

- Customer behavior data helps analyze browsing patterns and purchasing habits.
- Sales data helps forecast demand and manage inventory.
- Logistics data helps optimize delivery routes and reduce shipping time.
- Feedback and review data identifies product or service issues.
- Recommendation systems personalize product suggestions to increase sales.

Advanced analytics and machine learning models can predict customer churn, recommend dynamic pricing, and improve targeted marketing campaigns.

5. Expected Outcomes

By clearly understanding business goals and applying data-driven strategies, the company can:

- Increase conversion rates
- Reduce cart abandonment
- Improve inventory turnover
- Enhance customer loyalty
- Optimize operational costs
- Boost overall profitability

6. Success Metrics (KPIs)

To measure success, the business can track:

- Conversion Rate
- Customer Acquisition Cost (CAC)
- Customer Lifetime Value (CLV)
- Average Order Value (AOV)
- Order Fulfillment Time
- Return Rate
- Customer Satisfaction Score (CSAT)

These KPIs help evaluate whether business objectives are being achieved.

Conclusion

Business Understanding plays a crucial role in aligning analytics with organizational goals. In the e-commerce domain, it helps identify operational inefficiencies, customer behavior patterns, and growth opportunities. By leveraging data effectively, businesses can improve performance, enhance customer experience, and achieve long-term sustainable growth.