

ASSIGNMENT- 4

BUSINESS UNDERSTANDING IN E-COMMERCE DOMAIN

1. Introduction

Business Understanding is the first and most important phase of the data analytics process. Before applying any data mining or machine learning techniques, it is essential to clearly understand the business objectives, challenges, and expected outcomes. Without proper business understanding, technical solutions may fail to deliver real value.

In this report, the E-Commerce domain is selected to demonstrate how business understanding is built systematically.

2. Overview of E-Commerce Domain

E-Commerce refers to buying and selling goods and services through online platforms. Customers browse products, add items to cart, make payments digitally, and receive products through delivery services.

E-commerce businesses generate large volumes of data such as:

- Customer information
- Transaction records
- Browsing history
- Product reviews
- Payment details

This data can be analyzed to improve decision-making and profitability.

3. Business Background

The selected e-commerce company is facing challenges in maintaining consistent sales growth. Although website traffic is high, conversion rates are lower than expected.

Key observations include:

Many users leave without completing purchases

Repeat customer rate is low

Marketing campaigns are not fully optimized
Product recommendations are not personalized
These issues highlight the need for a structured business understanding approach.

4. Business Objectives

The primary business objectives are:
Increase overall sales revenue
Improve customer retention rate
Reduce cart abandonment
Enhance customer experience
Improve targeted marketing

The main focus of this project is to increase sales through personalized product recommendations and customer behavior analysis.

5. Problem Statement

Despite having a large customer base, the company struggles with:
High cart abandonment rate
Low repeat purchase rate
Inefficient recommendation system
Limited understanding of customer preferences
The organization wants to identify patterns in customer behavior to improve sales performance.

6. Stakeholder Identification

The major stakeholders involved are:
Business Managers – Focus on profit and growth
Marketing Team – Focus on campaigns and promotions
IT Department – Manage data systems

Data Analysts – Analyze and interpret data

Customers – End users of the platform

Each stakeholder has specific expectations from the data- driven solution.

7. Business Success Criteria

The success of the project will be measured using:

15% increase in monthly revenue

10% reduction in cart abandonment rate

20% improvement in customer retention

Increase in average order value

Higher customer satisfaction ratings

These measurable targets ensure alignment with business goals.

8. Data Requirements

To achieve the objectives, the following data is required:

8.1 Structured Data

Customer demographics

Transaction history

Product price and category

Payment methods

8.2 Semi- Structured Data

Website logs

Clickstream data

8.3 Unstructured Data

Customer reviews

Product feedback

Social media comments

Analyzing all these types of data helps in better decision-making.

9. Constraints and Risks

Some possible challenges include:

Data privacy regulations

Incomplete or inconsistent data

Budget constraints

Technical limitations

Rapidly changing market trends

These risks must be considered during planning.

10. Expected Business Benefits

After implementing the solution, the company expects:

Better personalized recommendations

Improved customer loyalty

Increased sales revenue

Data-driven marketing strategies

Strong competitive advantage

11. Importance of Business Understanding Phase

Business understanding ensures:

Clear definition of project goals

Alignment between technical and business teams

Better resource utilization

Reduced project failure risk

Improved return on investment

Without this phase, analytics projects may solve the wrong problem.

12. Conclusion

Business understanding plays a critical role in transforming raw data into valuable business insights. In the E-Commerce domain, identifying business objectives, understanding challenges, Business understanding plays a critical role in transforming raw data into valuable business insights. In the E-Commerce domain, identifying business objectives, understanding challenges, defining success criteria, and analyzing stakeholder requirements ensure effective decision-making. A well-defined business understanding phase leads to strategic growth, improved customer experience, and increased profitability.