Data Discovery & Feasibility Assessment

Project: Customer Service & Operations Analytics Framework

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Phase: Data Exploration & Feasibility

1. Objective

The objective of this phase is to evaluate whether available data can effectively support the stakeholder's business questions identified during the Stakeholder Alignment phase.

This assessment focuses on:

- Understanding available datasets
- Evaluating data quality and completeness
- Mapping business requirements to data fields
- Identifying gaps, limitations, and assumptions

2. Data Sources Reviewed

Data Source	Description	Update Frequency
Customer Service Records	Customer interactions, issue categories, resolution details	Daily
Operations Performance Data	Service times, regional performance, volume metrics	Daily
Customer Feedback Data	Satisfaction scores and feedback indicators	Weekly

All datasets were reviewed for structure, completeness, and relevance to business objectives.

Data Overview

This project uses a simulated customer support dataset designed to reflect real-world service operations. All customer-identifying fields are anonymized or synthetic and used strictly for analytical demonstration.

500–1000 simulated tickets

All personal info anonymized / synthetic

3. Key Data Fields Identified

The following fields were identified as critical for answering stakeholder questions:

- Request / Ticket ID
- Issue Category
- Service Area / Region
- Response Time
- Resolution Time
- Request Volume
- Date & Time Attributes

These fields enable time-based analysis, performance measurement, and comparative reporting.

4. Data Quality Assessment

Aspect	Observation
Completeness	Some missing values in resolution time
Consistency	Issue categories required standardization
Granularity	Data available at individual request level
Freshness	Data refreshed frequently enough for monitoring

Overall, data quality was deemed **sufficient for analytical and reporting purposes**, with minor preprocessing required.

5. KPI Feasibility Mapping

Business Metric	Required Fields	Feasibility
Average Response Time	Request Time, Response Time	Yes
Resolution Time	Request Time, Resolution Time	Yes
Request Volume Trends	Date, Request ID	Yes
Regional Performance	Region, Time Metrics	Yes
Customer Satisfaction	Feedback Score	Partial

Some customer satisfaction metrics are limited due to incomplete feedback coverage.

6. Data Limitations & Assumptions

- Not all service requests include customer feedback
- Historical data coverage varies across regions
- Some categorical fields required normalization
- Assumed consistent business definitions across datasets

These limitations were documented and communicated to stakeholders prior to dashboard development.

7. Conclusion & Next Steps

The available datasets are suitable for building a scalable BI solution that supports both operational monitoring and executive decision-making.

Next Phase:
Design analytical tables and data pipelines to transform raw data into analysis-ready datasets for dashboard development.