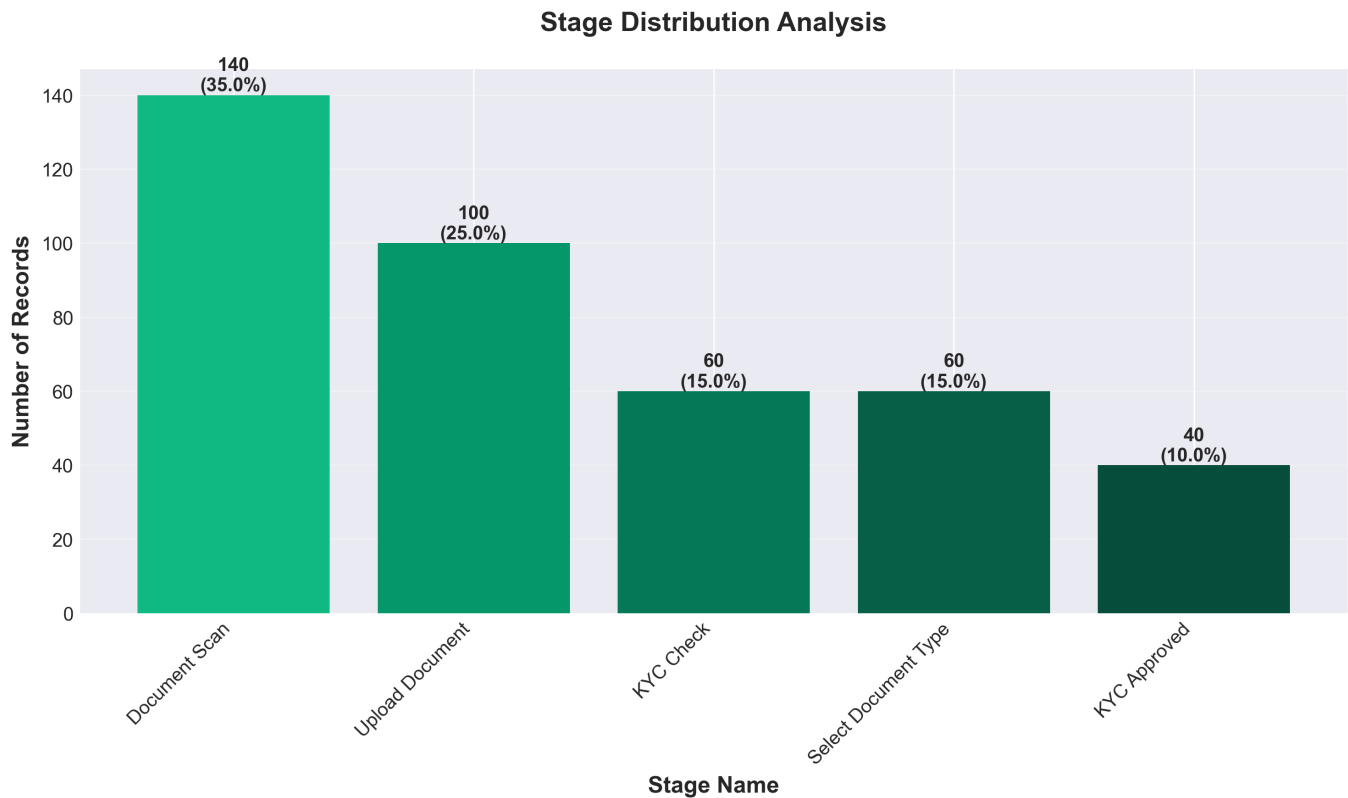# Data Visualization Guide

Digital KYC: Reduce Drop-Off, Lift Conversion

This document describes all the visualizations created for the case study analysis.

Visualization Files Created
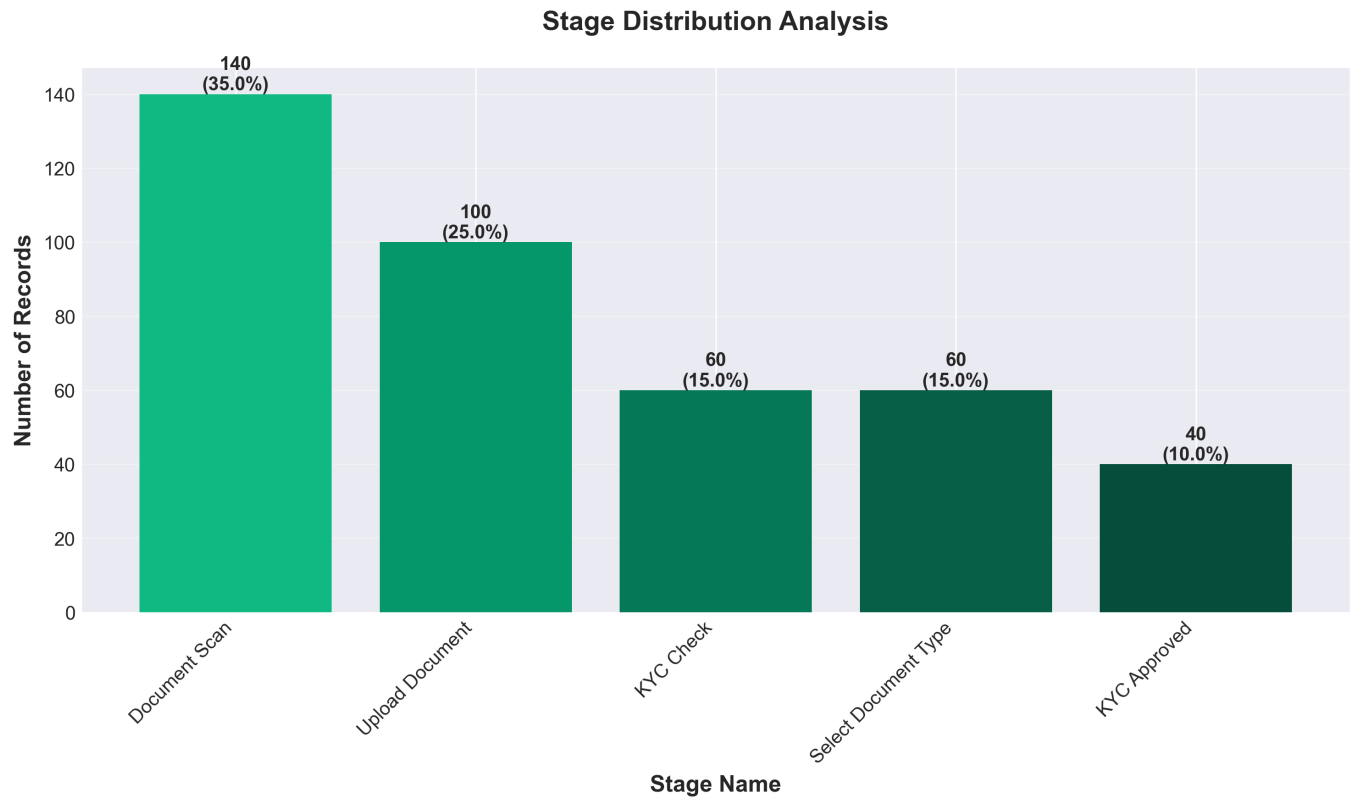
1. **Stage Distribution Analysis**

Purpose: Shows the volume of transactions at each stage of the KYC process.

Key Insights:

- Document Scan has the highest volume (140 records, 35%)
- Upload Document is second (100 records, 25%)
- Together, these two stages account for 60% of all transactions
- Indicates these are the primary bottleneck stages

Use Case: Include in Section 2.2 (Stage Distribution Analysis) of the case study report.

2. **Failure Rate by Stage**
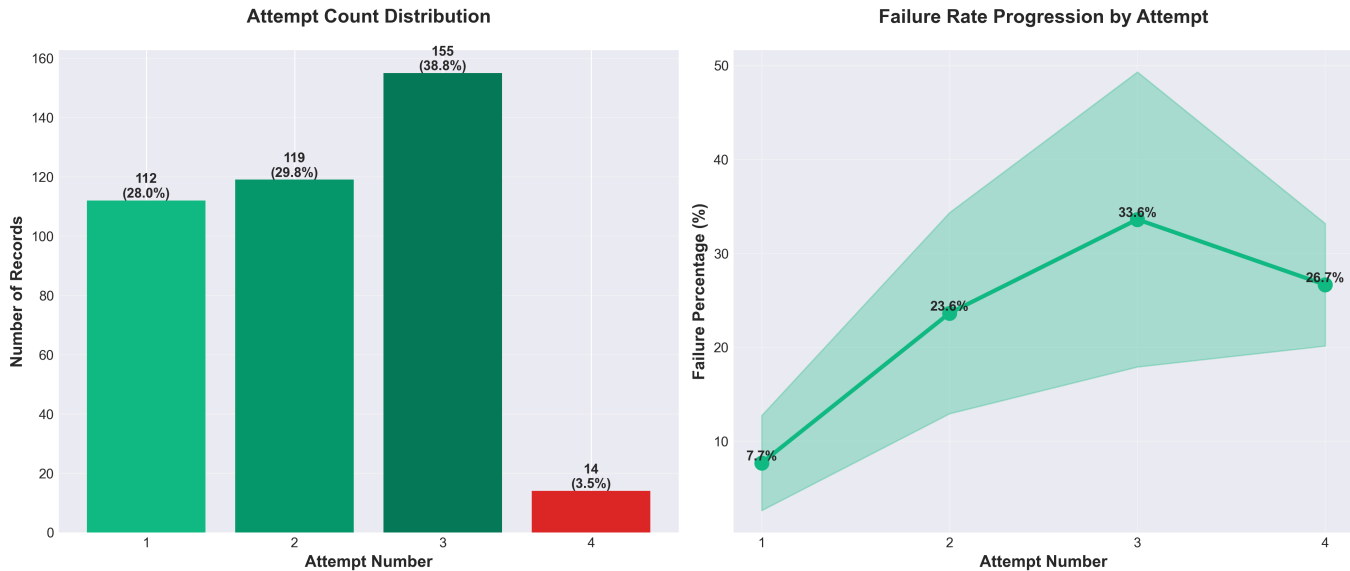
Stage Distribution Analysis

Purpose: Compares average and maximum failure percentages across all stages.

Key Insights:

- KYC Check has the highest average failure rate (46.8%)
- Upload Document shows the highest maximum failure rate (64.3%)
- Document Scan has moderate failure rates but highest volume
- Helps prioritize which stages need immediate attention

Use Case: Include in Section 2.3 (Failure Rate Analysis by Stage) of the case study report.

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3. **Attempt Pattern Analysis**

Purpose: Dual chart showing attempt count distribution and failure rate progression.
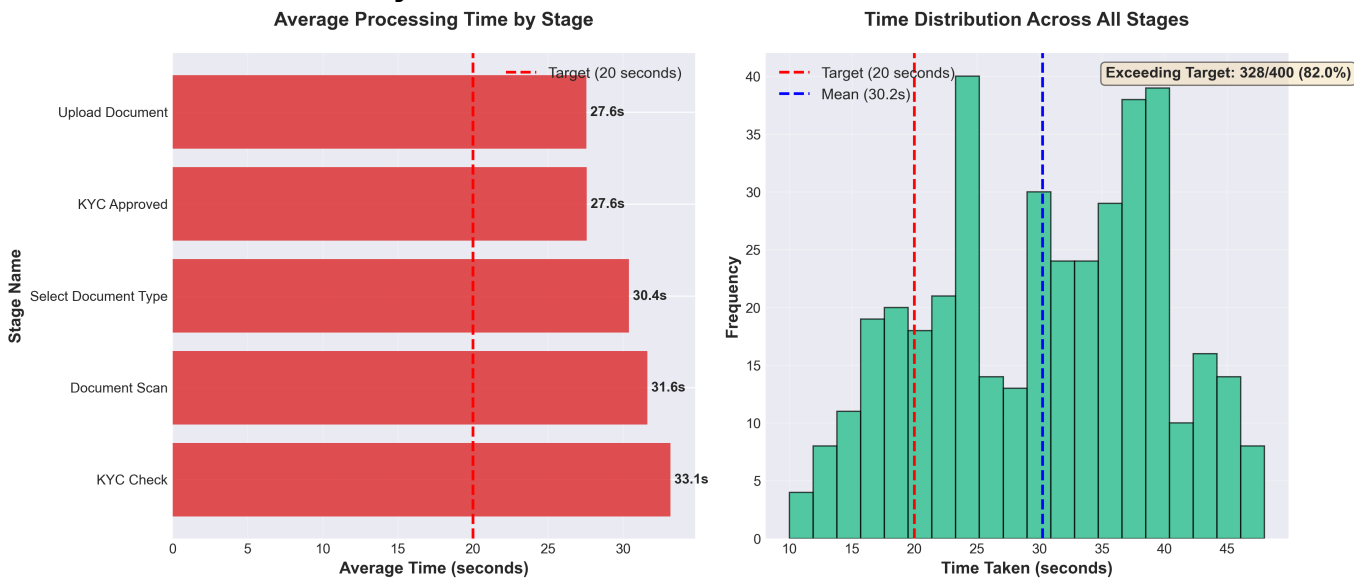
Key Insights:

- 38.75% of customers require 3 attempts (155 out of 400)
- Only 3.5% reach 4th attempt (automatic rejection)
- Failure rate triples from 1st to 3rd attempt (7.7% → 33.6%)
- Shows progressive difficulty as customers retry

Use Case: Include in Section 2.4 (Attempt Pattern Analysis) of the case study report.

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4. **Time Performance Analysis**

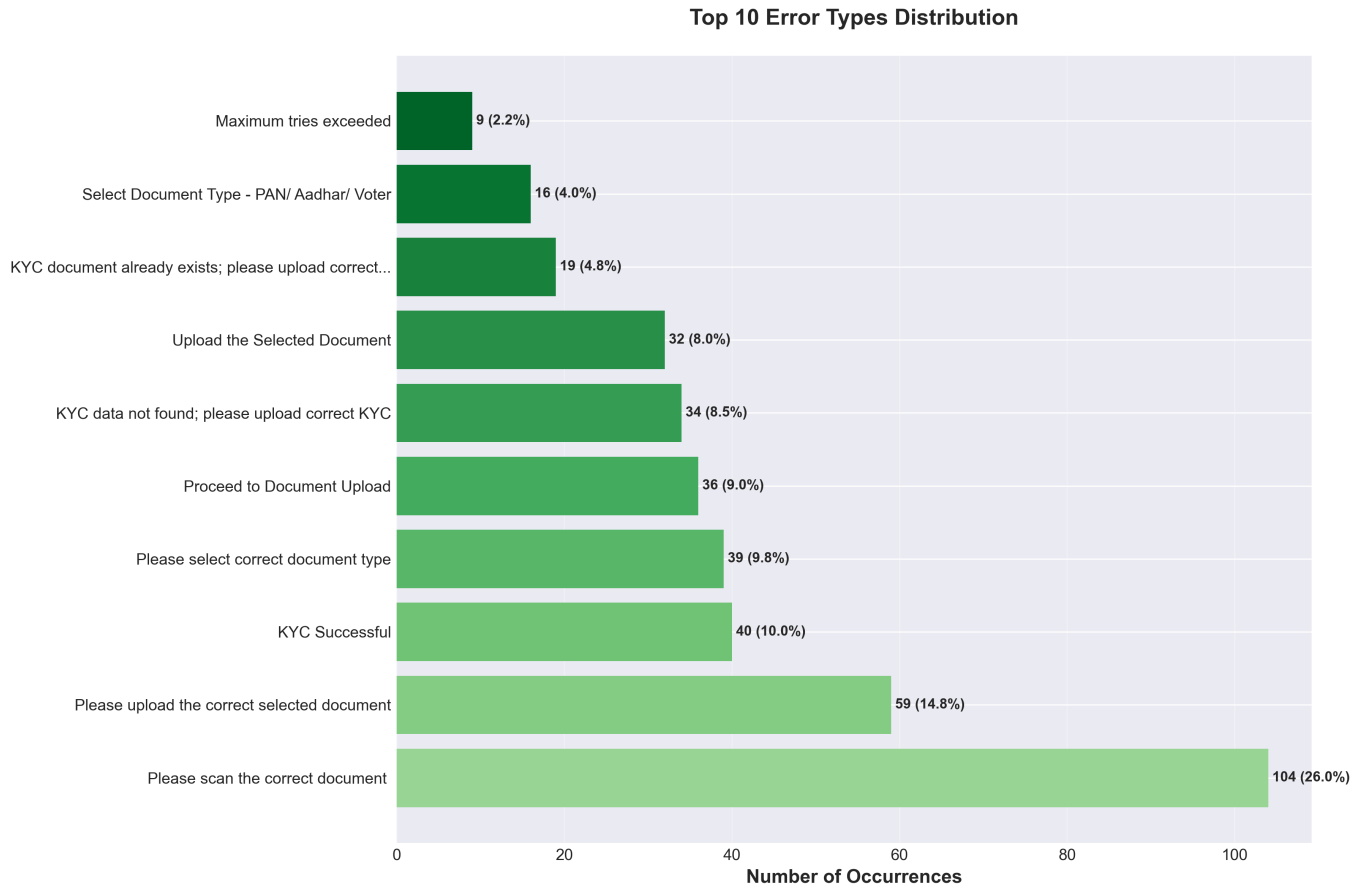**Purpose**: Shows average processing time by stage and overall time distribution.

Key Insights:

- 82% of transactions exceed the 20-second target
- KYC Check has the longest average time (33.2 seconds)
- Most stages exceed target significantly
- Time distribution shows wide variance in processing times

Use Case: Include in Section 2.5 (Time Performance Analysis) of the case study report.

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5. **Error Type Distribution**

Top 10 Error Types Distribution

Error Type	Occurrences
Maximum tries exceeded	9 (2.2%)
Select Document Type - PAN/ Aadhar/ Voter	16 (4.0%)
KYC document already exists; please upload correct...	19 (4.8%)
Upload the Selected Document	32 (8.0%)
KYC data not found; please upload correct KYC	34 (8.5%)
Proceed to Document Upload	36 (9.0%)
Please select correct document type	39 (9.8%)
KYC Successful	40 (10.0%)
Please upload the correct selected document	59 (14.8%)
Please scan the correct document	104 (26.0%)

Number of Occurrences

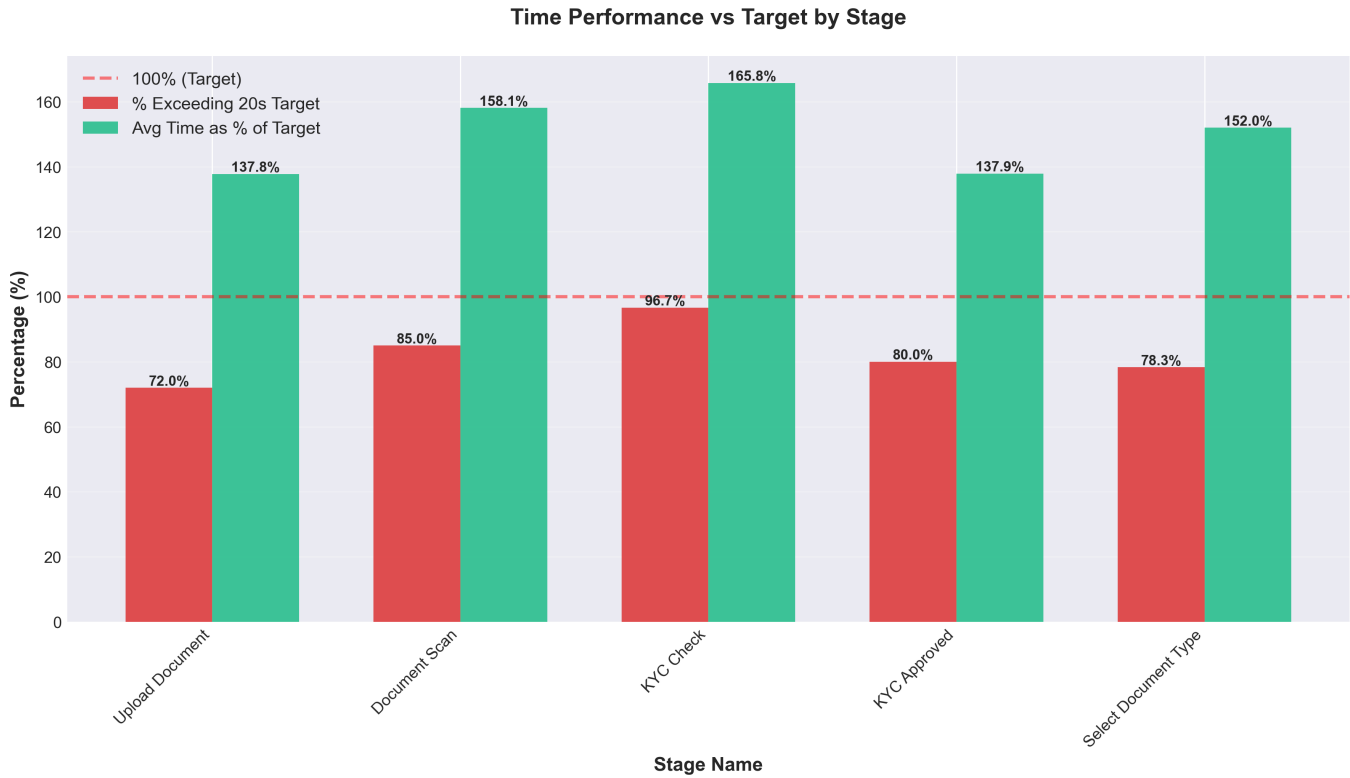**Purpose**: Displays the top 10 most common error types encountered.

Key Insights:

- "Please scan the correct document" is the most common error (26%)
- Upload-related errors are second most common (14.8%)
- Duplicate KYC errors account for 4.8% of all errors
- Helps identify specific user guidance needs

Use Case: Include in Section 2.6 (Error Type Distribution) of the case study report.

6. **Time vs Target by Stage**

Time Performance vs Target by Stage

Purpose: Compares percentage of transactions exceeding target vs. average time as percentage of target.

Key Insights:

- KYC Check: 96.7% exceed target, 166% of target time
- Document Scan: 85% exceed target, 158% of target time
- All stages significantly exceed the 20-second target
- Visual comparison makes performance gaps clear

Use Case: Include in Section 2.5 (Time Performance Analysis) or Section 3 (Root Cause Analysis).

7. **Comprehensive Dashboard**

Digital KYC Process - Comprehensive Analysis Dashboard

```
KEY PERFORMANCE METRICS SUMMARY

Total Records Analyzed: 400
Overall Rejection Rate: 3.50% (Target: <1%)
Transactions Exceeding 20s Target: 82.0% (Target: <20%)
Average Processing Time: 30.2 seconds (Target: <18s)
Duplicate KYC Rate: 4.75% (Target: <1%)
First Attempt Success Rate: 28.0% (Target: >95%)
```

Purpose: Single-page overview of all key metrics and analyses.

Components:

- Stage distribution (pie chart)
- Failure rate by stage (horizontal bar)
- Attempt count distribution
- Time performance box plot
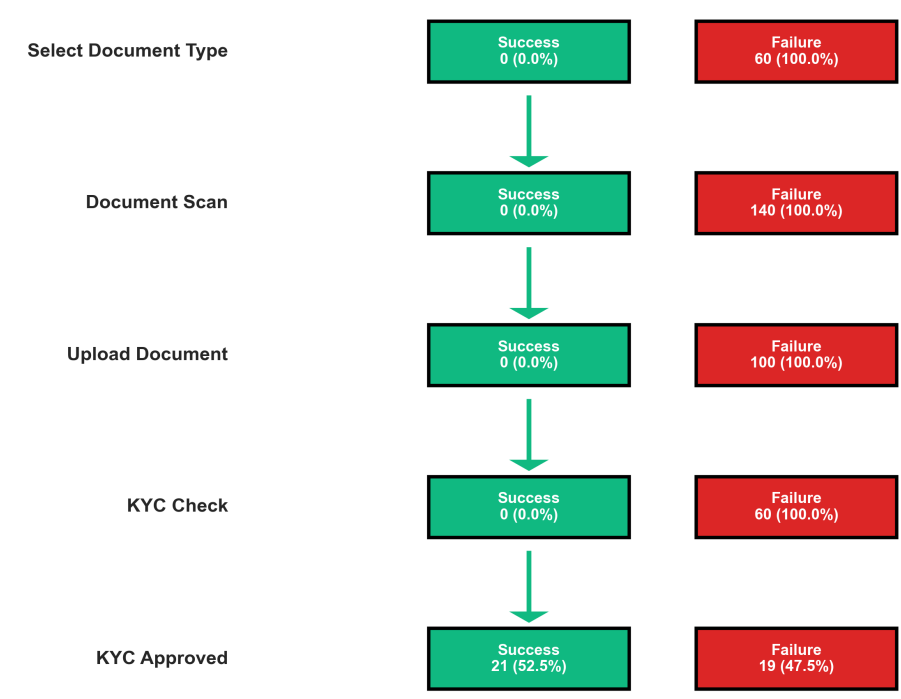- Top 5 error types
- Key metrics summary panel

Key Insights:

- Provides executive-level overview
- All critical metrics in one view
- Easy to understand at a glance

Use Case:

- Include as a summary slide in presentations
- Use in Executive Summary section
- Reference in conclusion

8. **Customer Journey Flow**

Customer Journey Flow - Success vs Failure at Each Stage

Select Document Type	Success 0 (0.0%)	Failure 60 (100.0%)
Document Scan	Success 0 (0.0%)	Failure 140 (100.0%)
Upload Document	Success 0 (0.0%)	Failure 100 (100.0%)
KYC Check	Success 0 (0.0%)	Failure 60 (100.0%)
KYC Approved	Success 21 (52.5%)	Failure 19 (47.5%)

Purpose: Visual representation of success vs. failure rates at each stage of the customer journey.

Key Insights:

- Shows progression through stages
- Highlights where customers drop off
- Success/failure rates at each checkpoint
- Visual flow makes journey clear

Use Case:

- Include in Problem Statement section
- Use in presentations to explain process
- Reference when discussing customer experience