# **🟢 1. Current KPI & Visualization Plan**

| **Visualization** | **Measure / Formula** | **Client Benefit (Insight)** |
| --- | --- | --- |
| **Bar Chart – Agent AHT** | AHT = (Inbound Handle Time + Outbound Handle Time) ÷ Total Calls | Identifies agents with long handle times → highlights coaching opportunities. |
| **Bar Chart – Agent Quality Score** | AVG(Quality Score) | Compare agent performance consistency. |
| **Bar Chart – Agent SLA %** | SLA % = In SLA ÷ (In SLA + Out SLA) | Which agents consistently meet SLA targets. |
| **Bar Chart – Agent Occupancy %** | (Handle Time ÷ Login Time) × 100 | See if agents are underutilized or overloaded. |
| **Bar Chart – Agent Availability %** | (Available Time ÷ Login Time) × 100 | Workforce planning – idle time distribution. |
| **Bar Chart – Agent Utilization %** | (Talk + ACW + Hold) ÷ Login Time × 100 | Full view of productive usage of time. |
| **Column Chart – Caller Type Volume** | COUNT(Calls by Caller Type) | See which caller groups (e.g. customer vs internal) generate most interactions. |
| **Column Chart – Caller Type Complaint Rate %** | (Complaint Calls ÷ Total Calls) × 100 | Identify caller groups driving dissatisfaction. |
| **Column Chart – Call Outcome Distribution** | COUNT(Calls by Outcome) | Track successful vs unsuccessful call resolutions. |
| **Column Chart – Disposition vs Complaint Rate** | (Complaints ÷ Total Calls by Disposition) × 100 | Pinpoint problem dispositions that drive complaints. |
| **Pie Chart – Sentiment %** | Positive %, Neutral %, Negative % | Quick read of overall customer sentiment health. |
| **Matrix – Outcome × Sentiment** | Crosstab % | Connect call resolution success to customer sentiment. |
| **Matrix – Disposition × Sentiment** | Crosstab % | Identify which call dispositions correlate with negative emotions. |
| **Scatter Plot – AHT vs Complaint Rate % (Size = Quality Score, Color = Sentiment)** | AHT vs Complaint Rate | Correlation view: “Do long calls = more complaints?” |
| **Correlation Heatmap** | Correlation of AHT, ACW, Talk Time, Occupancy, Utilization, SLA, Quality, Complaints | Executive-level insight: what drives what. |

👉 **Benefit for client**: This set of charts already provides a **360° operational + quality + sentiment dashboard** to manage agents, SLAs, and complaints.

# **🟢 2. Next Steps – Using Transcripts, Complaints & Call Flags**

Now we move beyond numbers → into **content analytics**.  
 Here’s what’s possible with your **transcript, summary, complaints, and call flag text data**.

## **A. Transcript-Level Analysis**

* **Word Clouds (Agent vs Customer)**:  
  + Compare what customers say vs how agents respond.
  + Filter by agent to identify language patterns.
* **N-grams (Bigrams/Trigrams)**:  
  + Extract common phrases in positive vs negative sentiment calls.
* **Topic Modeling (LDA / BERTopic)**:  
  + Group transcripts into themes (“billing issues”, “technical problem”, “policy confusion”).
* **Agent Style Metrics**:  
  + Average words per call, interruptions, empathy words usage.
  + Relate these to sentiment & complaint rates.

👉 *Client value*: Detect what conversations *sound like* when they succeed vs fail.

## **B. Complaints Column (Structured JSON → Text)**

* Already expanded into: Detected, What Happened, Desired Outcome, Preferred Contact.
* **Metrics you can create**:  
  + % of complaints **resolved on call**.
  + Top recurring complaint **reasons** (via text mining What Happened).
  + Desired outcomes → mismatch with actual call outcome.

👉 *Client value*: Links **customer expectations vs actual delivery**.

## **C. Call Flags (Title + Message)**

* Titles like *“Incomplete ID verification”*, *“Non-first call resolution”*.
* **Metrics you can create**:  
  + Flag frequency by agent.
  + % calls with multiple flags.
  + Flag correlation with complaints/sentiment.

**Advanced**: Create a **Flag Risk Score** per agent:  
  
 Risk Score = Weighted sum of Flags

(e.g., Incomplete ID = 2, Non-first resolution = 3)

👉 *Client value*: Risk-based monitoring – proactive coaching or compliance checks.

## **D. Linking All Together**

Here’s how text + metrics connect:

1. **Transcript themes ↔ Complaints**
   * Example: “bonus interest terms” appears often → matches complaint reason → escalate to product team.
2. **Flags ↔ Sentiment**
   * “Non-first resolution” flagged calls → show higher negative sentiment.
3. **Agent behaviors ↔ KPIs**
   * Agents using certain words (e.g., “unfortunately”) → higher complaints → correlate with AHT & SLA.

# **🟢 3. Next Steps Roadmap**

### **Phase 1 – Metrics & Dashboard (done now)**

* Agent KPIs, SLA, Complaints, Sentiment.

### **Phase 2 – Complaint & Flag Text Analytics**

* Expand “What Happened” + “Flag Titles” into structured categories.
* Build KPIs: Complaint Themes, Flag Risk Score.
* Visualize: Heatmap (Complaint Type × Sentiment), Bar (Top 5 Complaint Reasons).

### **Phase 3 – Transcript Analysis**

* Word Clouds, N-grams, Topic Modeling.
* Sentiment correlation with phrases.
* Empathy word usage vs Quality Score.

### **Phase 4 – Predictive/Prescriptive**

* **Early Warning Score**: Predict if a call is likely to escalate.
* **Agent Recommendation**: Route certain complaint types to best-performing agents.
* **Proactive Alerting**: “If negative sentiment + repeat complaint → trigger escalation workflow.”

✅ **Final Client Value**:  
 Not just reporting KPIs, but providing **actionable insights**:

* Which agents need coaching.
* Which complaint types are hurting CSAT.
* Which words/topics drive negative outcomes.
* How to reduce repeat calls.