



Gen AI Enabled Complaints Handling

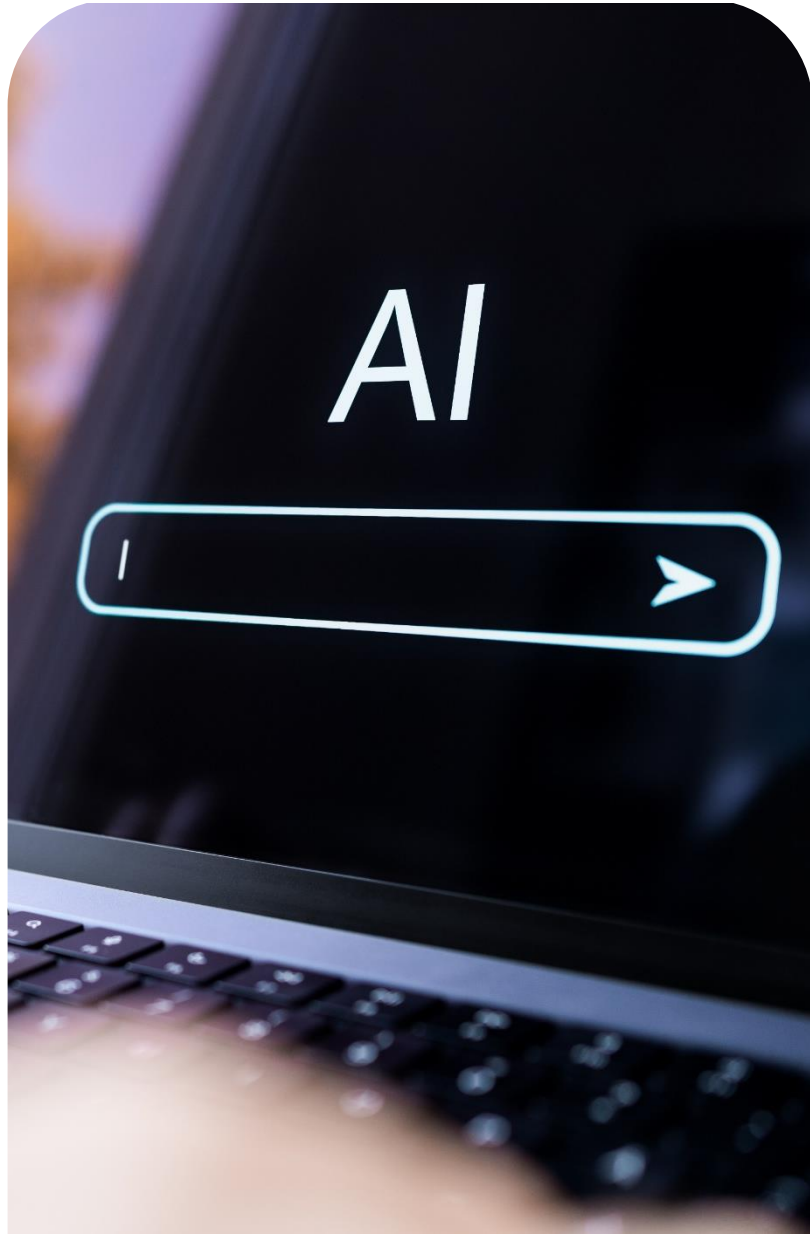


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01

Complaints Handling Challenges and Impact

Complaints Handling Challenges & Impacts

Complaints handling is a critical aspect of customer service that can significantly influence a company's reputation and customer loyalty. However, organizations often face various challenges in effectively managing complaints, which can lead to negative impacts on customer satisfaction and overall business performance.

Overwhelming Volume and Variety

Complaints arrive 24/7 from a multitude of channels. The sheer volume of unstructured text and voice data is challenging for customer agents to process comprehensively.

Inefficiency and Inconsistent Handling

The process typically relies on agents manually reading, categorizing, and summarizing complaints. This is time-consuming, prone to human error, and subject to individual bias.

Limited Root Cause Identification

Manual analysis is often surface level, leading to fixing symptoms rather than the root cause. As a result, opportunities to proactively respond to complaints are missed.

Difficulty in Prioritizing Complaints

Without effective categorization and prioritization, urgent issues may be overlooked, resulting in escalated customer dissatisfaction.

Lack of Real-Time Insights

Many organizations struggle to obtain timely insights into customer complaints, making it difficult to address issues proactively.

Business impacts

Operational Inefficiency

High operational cost due to the labor-intensive nature of manual analysis.

Poor Customer Experience

Delayed responses and prolonged resolution times contribute to customer dissatisfaction and attrition.

Reactive Complaints Handling

Limited root cause identification and the lack of real-time insights impede the business from shifting to proactive complaints handling.

02

Gen AI Opportunities in Complaints Handling



Gen AI Opportunities in Complaints Analysis

The integration of Gen AI into complaints analysis presents numerous opportunities for organizations to enhance their customer service and operational efficiency. By leveraging advanced AI technologies, businesses can gain deeper insights into customer feedback, streamline complaint resolution processes, and ultimately improve customer satisfaction.

01

Complaint Summarization

Gen AI can ingest a complaint from any channel and instantly generate a concise, accurate summary. It can classify the complaint with high precision, identify its urgency and route it to the appropriate team or workflow.

02

Sentiment and Intent Analysis

Gen AI can discern nuanced emotions beyond just “positive” or “negative”. It can identify frustration, disappointment, or confusion. It also pinpoints customer intent, e.g., are they seeking a refund, requesting a feature or warning other users?

03

Thematic and Root Cause Analysis

Gen AI can analyse thousands of complaints simultaneously and identify common themes and hidden correlations, and pinpointing the exact root cause that manual analysis would miss.

04

Emerging Trend Detection

By analyzing feedback in real-time, Gen AI can act as an early warning system. It can flag a sudden spike in complaints, allowing for immediate intervention before the issue escalates.

05

Customer's Journey Analysis

By collecting all interactions between the agent and customer, Gen AI can reconstruct the full customer journey leading up to a complaint. This provides a clear view of which steps or interactions are causing the most friction.

Solutions to these challenges

Overwhelming Volume and Variety

Automated Complaint Summarization

Inefficiency and Inconsistent Handling

Consistent Customer's Journey Analysis

Limited Root Cause Identification

Thematic and Root Cause Analysis

Difficulty in Prioritizing Complaints

Sentiment and Intent Analysis

Lack of Real-Time Insights

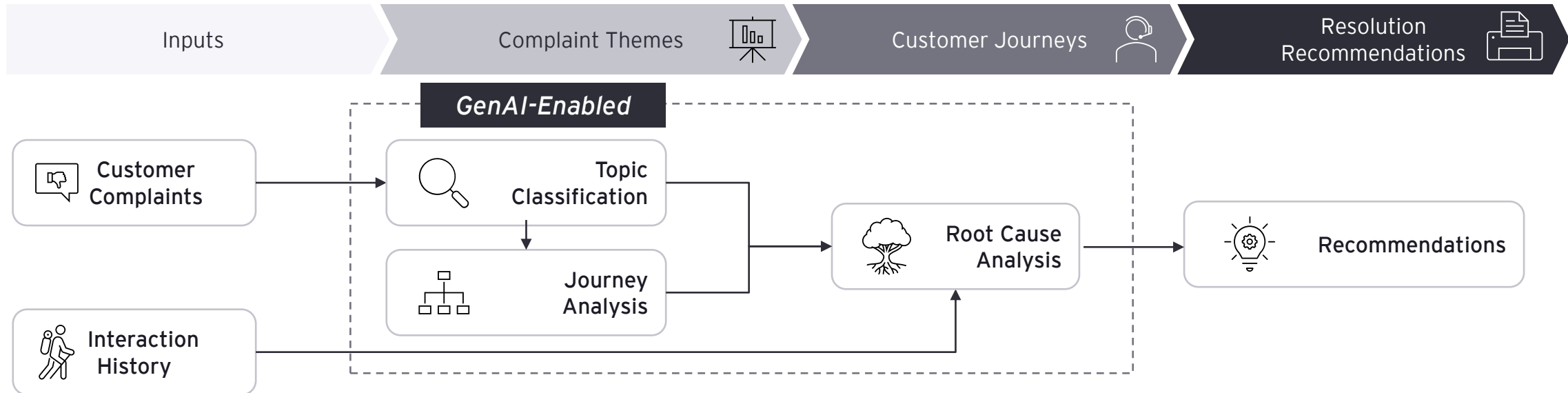
Emerging Trend Detection

03

Complaints Handling Use Case

Complaints Handling Use Case Overview

The proposed approach leverages Gen AI to increase efficiency and effectiveness of complaint handling by synthesizing the customer interaction journey, identifying the complaint theme and root cause, and supporting resolution.



Methodology

- Run **Pre-processing** and **Feature Engineering** on complaints and customers' interaction history
- Filter out the communications that are not relevant to the complaints

Methodology

- Classify** the complaint into groups of predefined themes (e.g. Billing, Service Delivery) using a **Large Language Model (LLM)**
- Further **dive deeper** into each theme finding details and highlighting trends using an LLM

Methodology

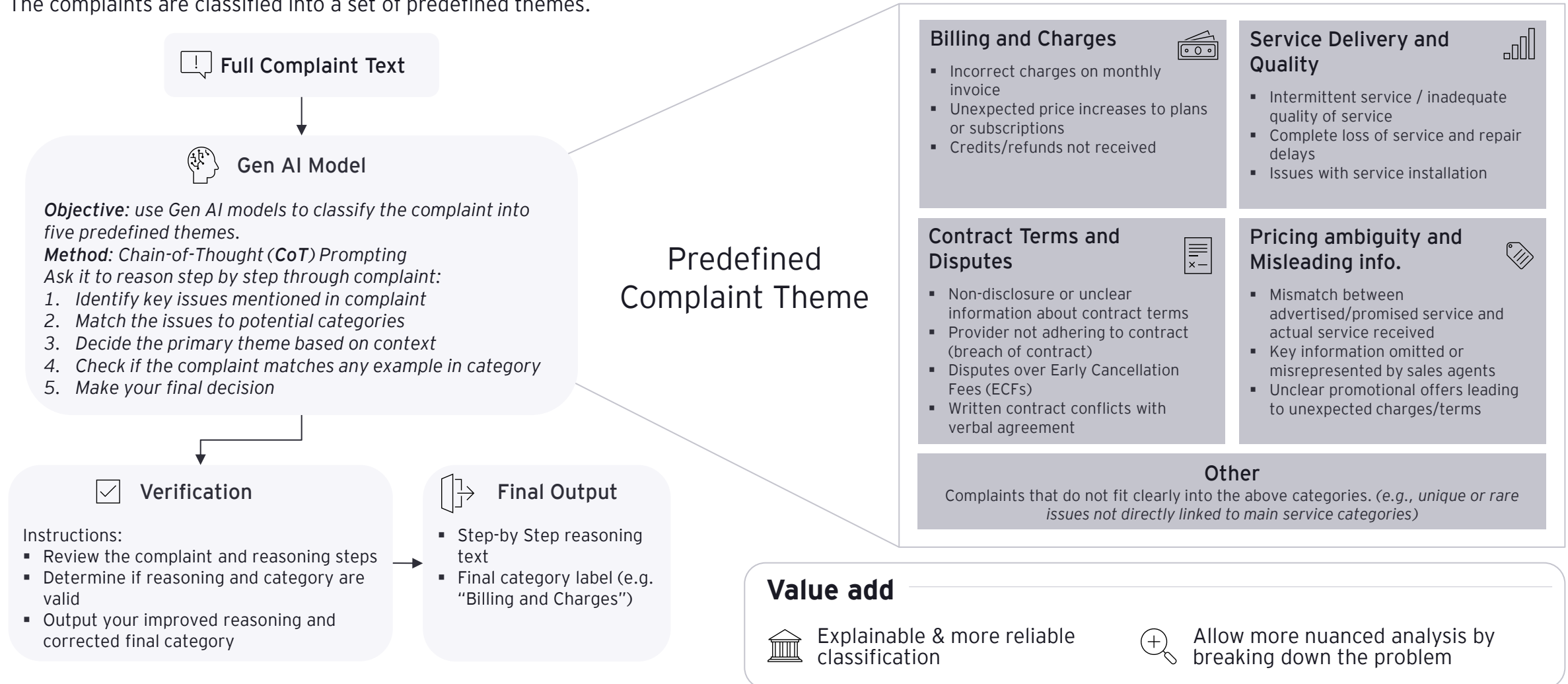
- Focus on themes/subthemes finding how the concerns in interaction history evolve over time leading to escalation, using an **LLM**
- Detect patterns** in customer journeys and create potential root causes using a **Gen AI model**
- Categorize the root causes using a **LLM-based clustering model**

Methodology

- Gen AI** is utilized to create a **resolution roadmap** that will be vetted by humans
- Root Causes and their resolutions will be **prioritized** based on their **severity** and **frequency**

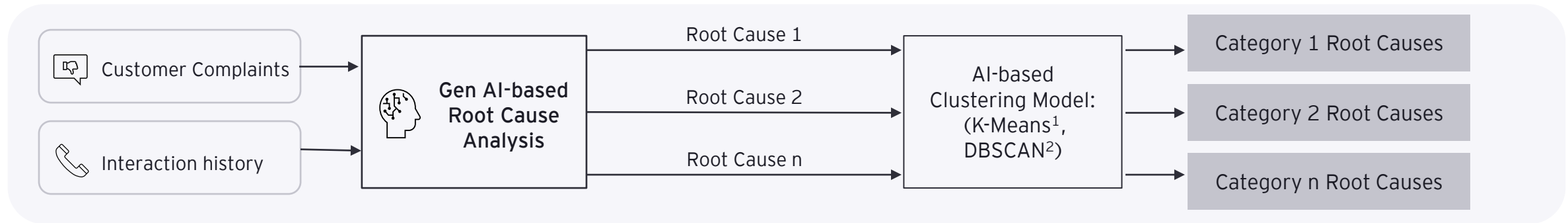
Complaints Themes Identification

The complaints are classified into a set of predefined themes.

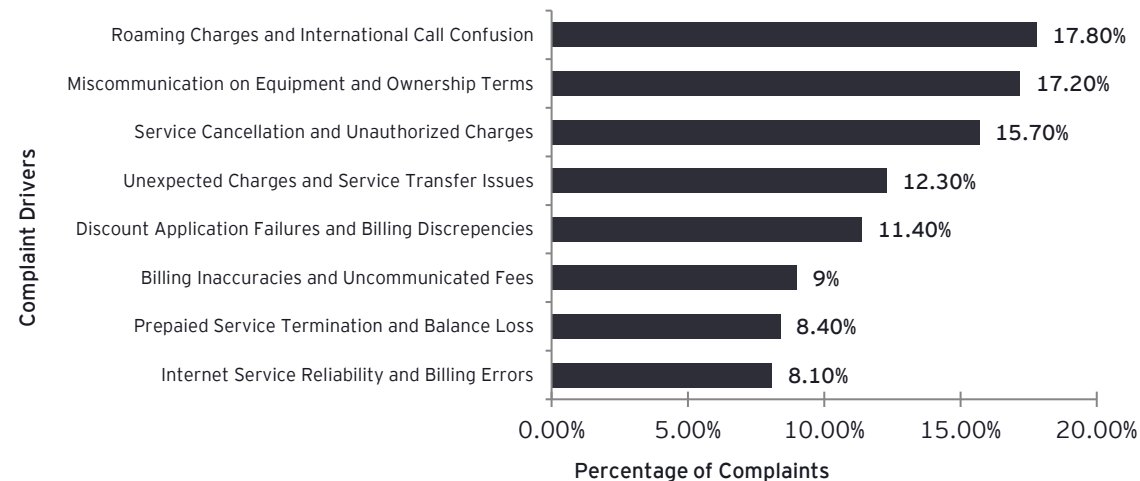


Customer Journey Analysis

The complaints along with all the prior relevant interactions are fed to a Gen AI model for root cause analysis. The root causes are then clustered into groups of similar issues.



Sample results:



1- K-Means: "K" cluster - Mean-based distance clustering model, 2- DBSCAN: Density-based Spatial clustering model

Major Root Causes

Below root causes are responsible for over 50% of complaints:

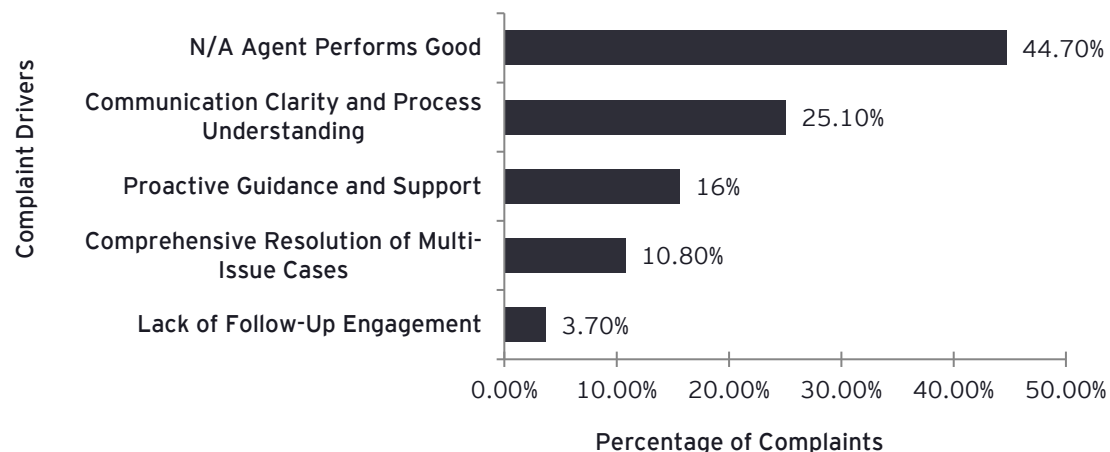
- Roaming charges and international call confusion
- Miscommunication on equipment and ownership terms
- Service cancellation and unauthorized charges

Resolution Recommendation based on Agent Evaluation

The complaints along with all the prior relevant interactions are fed to a Gen AI model for root cause analysis. The root causes are then clustered into groups of similar issues.



Sample results:



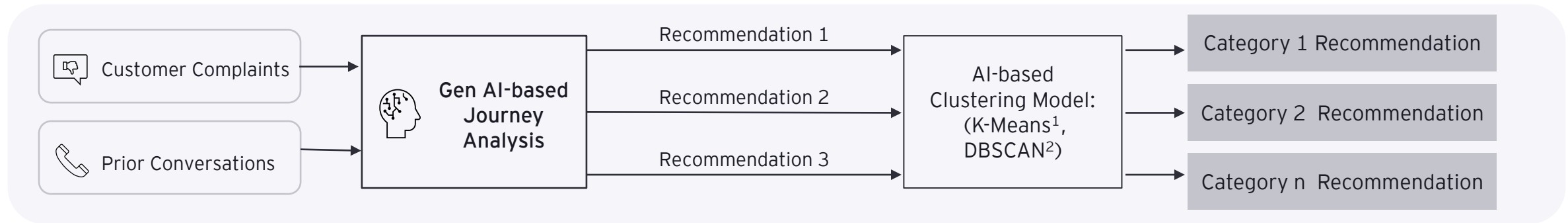
Agent Opportunities

- In 25% of cases, agents need to improve **communication clarity and process understanding**. For example, agents often struggle to clearly explain the billing cycle and payment window to customers, leading to misunderstandings.
- In 16% of cases, agents need to provide more **proactive guidance and support**. For example, when one customer moved to a new location, the agent assumed: "it should be plug and play", instead of confirming the new address.
- In 11% of cases, agents struggle to provide **comprehensive resolution for multi-issue cases**. For example, when customers have multiple concerns, the conversation often becomes repetitive, and agents fail to focus on the main issue.
- In 4 % of cases, agents **fail to follow-up**. For example, the agent promised to resolve the issue and provide a follow-up call after that, but the agent fails to call back.

1- K-Means: "K" cluster - Mean-based distance clustering model, 2- DBSCAN: Density-based Spatial clustering model

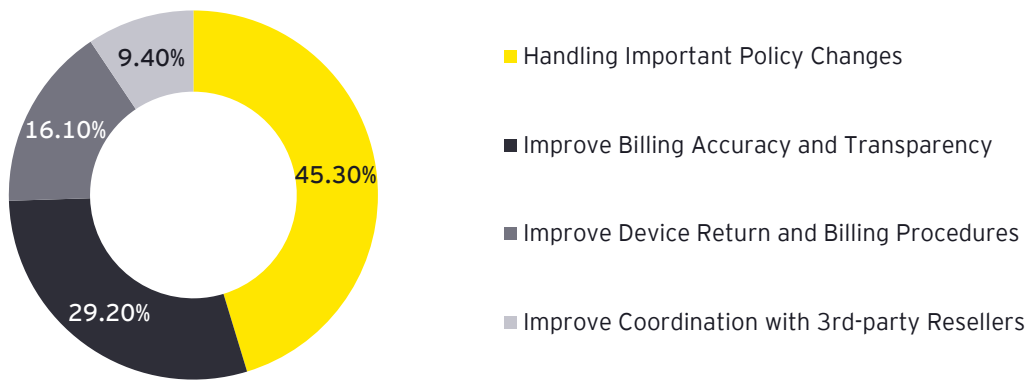
Resolution Recommendation based on Journeys Analysis

The complaints along with all the prior relevant interactions are fed to a Gen AI model for root cause analysis. The root causes are then clustered into groups of similar issues.



Sample results:

Resolution Recommendation Distribution



1- K-Means: "K" cluster - Mean-based distance clustering model, 2- DBSCAN: Density-based Spatial clustering model

Resolution Recommendations:

- **Handling Important Policy Changes (43.3%)**
Provide training for agents on handling important policy changes to address customer concerns effectively.
- **Improve Billing Transparency (29.2%)**
Billing accuracy and transparency need to be improved. There are gaps between the billing and the actual discounts applied or promised.
- **Improve Device Return Policy (16.1%)**
Enhance the clarity of Device Return Policy and Billing procedure ensuring consistent information across interactions.
- **Improve Coordination with Third Party Resellers (9.4%)**
There are discrepancies between service provider and resellers, showing the need for a mechanism to verify promised credits and contract term.

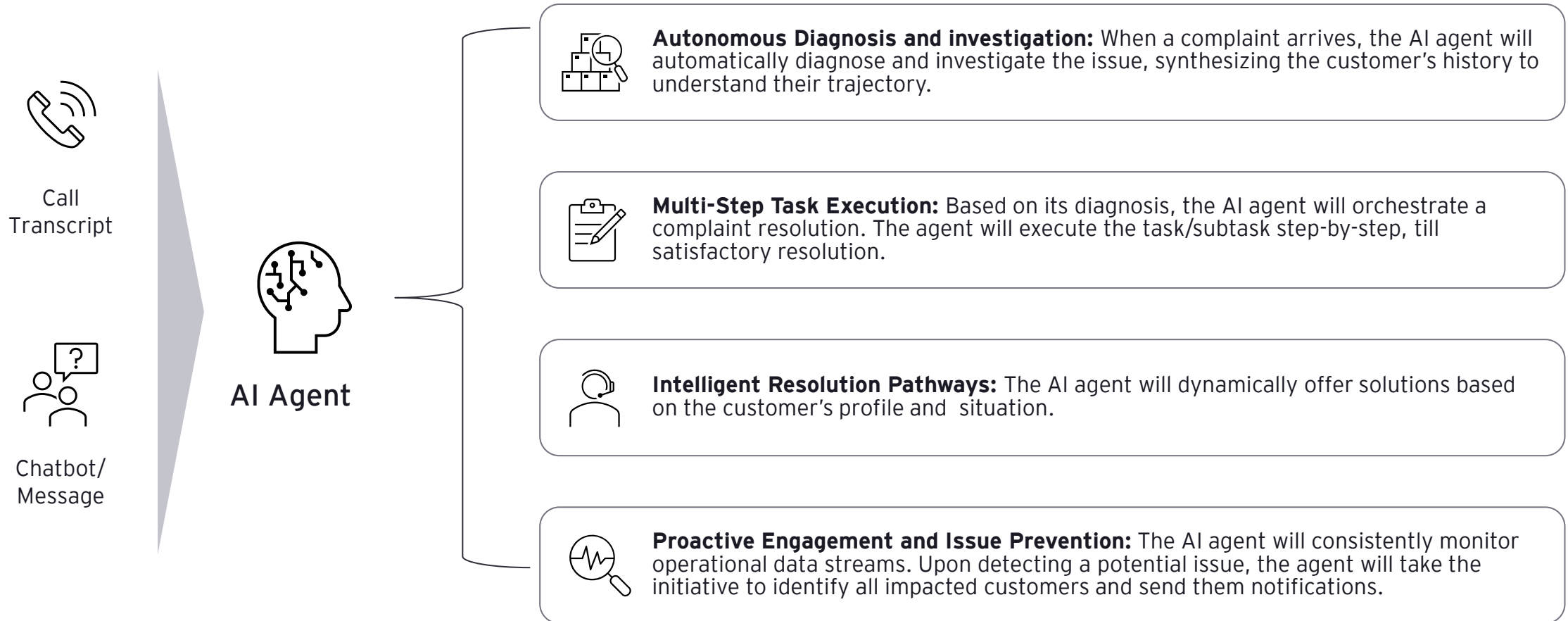
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Future opportunities



Future Opportunity: AI Service Agent

We have established a clear vision for utilizing Gen AI to swiftly and comprehensively analyze customer complaints. Although this is our main goal, we aim to go further than just quickly understanding the issues; we seek to address them with even greater efficiency. This marks the transition from an AI-powered analyzer to an AI agent.



Authors



Yara Elias

Partner, AI Risk Leader
yara.elias@ca.ey.com



Brian Peterson

Partner, Business Consulting
brian.peterson@ca.ey.com



Ahmad Ghawanmeh

Manager, AI Risk
ahmad.ghawanmeh@ca.ey.com



Morgan Wang

Senior Consultant, AI Risk
morgan.wang@ca.ey.com



Nahid Parvaresh

Senior Consultant, AI Risk
nahid.parvaresh@ca.ey.com

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