

Contact centre service performance

A telecom analytics case study in Power BI
Service access, transfer loss and survey interpretation

The analysis points to two different investigations: access to first human contact in Customer Support and the transfer journey for calls initially routed to Sales. Separating these paths makes the operational response more precise.

Business question

Where should a service team investigate first when customers abandon both before human contact and during a later transfer?

The source covers **197,278 interactions** across six reporting periods, with the final period partially observed. Inbound, outbound and chat are kept separate because the service-outcome rules apply to inbound calls.

Channel	Recorded interactions	Interpretation
Inbound calls	134,463	Population for attention and abandonment analysis
Outbound calls	54,620	Separate recorded activity; effective contact not established
Chat	8,195	Separate channel, outside the inbound service rules

Define the route before calculating the rate

Known human route	Count	Rate and denominator
Human attention	68,365	68.39% of 99,967 known-route calls
Abandonment before human attention	31,602	31.61% of 99,967 known-route calls
Abandonment after initial attention	2,290	3.35% of 68,365 attended calls

The known human route consists of inbound calls with a recognised agent or queue destination. It excludes AI destinations and unmapped final destinations. Human attention includes calls that were later abandoned during a transfer; those calls appear in both attention and total abandonment.

Decision implication: measure initial access and transfer loss separately. Their causes, denominators and operational remedies may differ.

Two service journeys to investigate

The findings identify where to ask the next operational question. They do not establish a cause or demonstrate that a proposed intervention has worked.

Observed signal	What it supports	Next investigation
Customer Support: 30,017 initial abandonments; 94.98% of the initial-abandonment total	Prioritise the largest loss volume	Review demand, queue access and operating coverage before diagnosing staffing
Initially routed to Sales: 1,081 transfer losses among 8,864 attended calls; 12.20%	Treat transfer completion as a separate service journey	Trace transfer events and the receiving team; initial routing does not assign responsibility
All known-route human attention: 2,290 later abandonments among 68,365 attended calls; 3.35%	Retain a transfer-loss control alongside first-contact access	Compare like populations and investigate differences in call mix

Customer experience with sample context

Measure	Observed result	Evidence base
NPS	34.28 points	7,708 valid responses; 5.73% of inbound calls
NPS excluding zeros	50.02 points	Provisional sensitivity scenario; confirm the meaning of zero
Service satisfaction	9.46 / 10	5,127 valid responses; 7.50% of known-route attended calls

NPS uses $100 \times (\text{promoters} - \text{detractors}) / \text{valid responses}$. Promoters score 9-10, passive respondents 7-8 and detractors 0-6. Passive respondents remain in the denominator. The zero-inclusive result is provisional; excluding zeros is a sensitivity test, not an automatic correction.

Satisfaction uses valid 1-10 scores from calls with known-route human attention. These scores describe respondents, whose experience may differ from that of customers who did not answer. Coverage measures available responses against the eligible population; survey invitations are not available.

Decision implication: confirm score semantics with the source owner and review response composition before setting targets. A company-recommendation score cannot isolate an individual's performance; individual comparisons are excluded from this public summary.

Method, verification and next steps

A reusable analytical layer

Source and grain: one record per interaction, with distinct channels. Source-category and destination mappings were checked before analysis; exceptions were retained and flagged rather than silently discarded.

Power Query: repeatable types, key normalisation, dictionary joins and outcome rules. Broad contact categories preserve missing, not-applicable and review states rather than forcing every record into a confident classification.

Power BI and DAX: a star schema connects the interaction fact table to date and destination dimensions. Thirty-nine measures calculate counts, rates, waits and surveys. KEEPFILTERS intersects relevant business conditions with active selections; numerators and denominators are recomputed in the selected context.

Native verification: the four-page report was refreshed, rendered and tested in Power BI Desktop. Key measures and filter behaviour were checked, and the saved report was reopened and compared with validated aggregate outputs.

Interpretation boundaries

These are descriptive observations, not estimated causal effects. The final period is partial, so full-period volume comparisons need equivalent observation windows. Call mix and respondent selection can affect rates and survey scores.

An AI destination does not establish resolution. The available records do not establish staffing adequacy, service-level compliance, first-contact resolution or revenue impact. No improvement outcome is claimed for the proposed actions.

Recommended sequence

1. Investigate first-contact access. Begin with Customer Support by volume, then compare demand, queues and coverage over equivalent periods with the operational team.

2. Trace the transfer journey. Review calls initially routed to Sales and the receiving path. Connect the aggregate signal to transfer events before deciding on a process or capacity change.

3. Agree measurement and monitor. Confirm survey-zero semantics, retain coverage and exception checks, and compare the same populations after any intervention.

The portfolio evidence presents aggregate findings and metric definitions. Individual records, company identity, calendar dates and operational source files remain outside the public version.