

Case resolution. TASK 1 to 4

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EXECUTIVE SUMMARY:

- Adjusting the resolution window from 7 days to 3 days captures 93.62% of all resolved cases.
- Considering resolution rate as the KPI to define performance, CALL is the best-performing channel and EMAIL the weakest in both Italy and France..
- Overall, BPO2 shows stronger performance, not only in resolution rate but also in response time.
- EMAIL has a fixed monthly cost equivalent to one agent, while CHAT and CALL costs were calculated based on total handling time spent on support.
- Average monthly channel cost in 2022:
 - EMAIL: €1,813
 - CALL: €383,604
 - CHAT: €114,583

TASK 1:

Currently, the resolution (1) window is 7 days, we would like to optimise this timeframe.

Recommend a new one and justify.

- (1) If there is NO any other touchpoint/row ID with the same reason or detailed reason in the specified timeframe**

My recommendation is to adopt a 3-day resolution window. Within this timeframe, 76.72% of all inquiries are resolved, covering 93.62% of cases with a resolution.

- In 2022 overall, 81.95% of all issues reached resolution.
- Under the current 7-day window, the resolution rate is 77.88% of inquiries, representing 95.03% of all resolved cases.
- Most cases are resolved on the same day, this accounts for 91.29% of resolved cases (or 74.81% of all issues solved). I would extend the window to 3 days accounting for weekends, assuming reduced operational capacity.

Although each channel has different resolution rates, their time-to-resolution pattern is similar, with the majority of cases solved on day 0.

	TOTAL	SAME DAY	1 DAY OR LESS	3 DAYS OR LESS	5 DAYS OR LESS	7 DAYS OR LESS (CURRENT TIME WINDOW)
RESOLUTION RATE	81.95%	74.81%	75.73%	76.72%	77.34%	77.88%
% RESOLUTION OF THE TOTAL	100%	91.29%	92.41%	93.62%	94.37%	95.03%
PP. INCREMENTAL			1.12%	1.21%	0.76%	0.66%

TASK 2:**Which channel performed the best/worst in each country in 2022?**

Assumptions:

- I'm using the 7-day resolution rate as the main KPI to identify the best and worst performing channels.
- Because some cases involve multiple channels, I'm attributing resolution to the last channel used (the channel that resolved the issue).

COUNTRY	CHANNEL	COUNT ISSUE	TOUCHPOINTS ISSUE	ISSUE RESPONSE TIME HOURS	% RESOLVED 7 DAYS
FR	call	44546	1.16	1.64	83.15%
FR	chat	36067	1.10	1.49	78.72%
FR	email	64592	1.32	47.35	70.27%
IT	call	56855	1.15	0.54	84.69%
IT	chat	41531	1.11	0.56	80.94%
IT	email	47907	1.31	29.24	71.7%

For both countries, CALL is the best performing channel, while EMAIL shows the weakest performance. EMAIL also has more touchpoints and significantly longer response times. It's worth noting that in France, EMAIL is the primary contact channel, and in Italy most inquiries come through CALL.

Next step: Analyze the reasons and routing by channel to identify whether specific issue types consistently require longer handling times and are frequently redirected to EMAIL.

TASK 3:**Which Agent Company performed the best?**

Assumptions:

- Because some inquiries involve multiple channels and more than one agent company, I'm attributing the resolution to the last channel and last agent company that interacted with the case.

Overall, BPO2 performs better, not only in resolution rate but also in response time.

When looking at performance by channel, BPO2 performance pattern also appears in EMAIL. However, BPO1 performs slightly better in CHAT, while the SumUp in-house team has a higher resolution rate for CALLS, although with longer response times.

It's important to highlight that BPO2 handles the smallest inquiry volume and has more agents available per issue. This lower workload and higher agent availability may help explain their stronger performance and faster response times.

Next step: Investigate how routing rules are defined by each agent company regarding channel, issue reason, cost, and agent availability.

Additionally, review whether the lower resolution rates (except in CALLS) and higher response times for the SumUp in-house team are linked to more complex inquiries.

AGENT COMPANY	COUNT ISSUE	AGENTS PER ISSUE	ISSUE RESPONSE TIME HOURS	% RESOLVED 7 DAYS
BPO1	156498	1.10	5.54	79.47%
BPO2	59491	1.13	3.47	82.46%
SUMUP	73789	1.06	48.31	70.92%

CHANNEL	AGENT COMPANY	COUNT ISSUE	AGENTS PER ISSUE	ISSUE RESPONSE TIME HOURS	% RESOLVED 7 DAYS
call	BPO1	50835	1.14	1.02	83.64%
call	BPO2	47328	1.14	0.99	84.27%
call	SUMUP	3232	1.14	1.58	86.36%
chat	BPO1	72736	1.10	0.98	79.91%
chat	BPO2	4867	1.10	1.13	79.76%
chat	SUMUP	1	1.00	0	100%

email	BPO1	32970	1.07	22.58	71.99%
email	BPO2	7299	1.08	21.12	72.45%
email	SUMUP	70556	1.06	50.45	70.22%

TASK 4:

How would you associate costs to each channel?

My approach and assumptions:

- All agents have the same fixed cost (no variable costs considered) and work the same number of hours.
- There is no handling time for EMAIL, and all email inquiries are linked to a single agent ID (Table 1).
- Based on the information above, I first calculated the EMAIL cost and then calculated the CHAT and CALL costs.
- Agents can handle up to 3 chats simultaneously, while calls must be handled one at a time.

EMAIL:

- For email, I calculated the number of agents per month and divided the total monthly cost by the number of agents. Since I'm assuming fixed cost per agent, it can't fluctuate by month, so I used the average number of agents (276) for the calculation. The number of agents is relatively stable but shows small monthly variations (Table 2).
- **Monthly EMAIL cost: €1,813**
 - Support agent investment: €0.5M per month
 - Average agents per month: 276
 - Cost per agent: €1,813

CALL and CHAT:

- I calculated the total handling time for each channel.
- For CHAT, I divided the handling time by 3, since an agent can manage up to three chats simultaneously.
- After adjusting chat handling time, I distributed the total handling time by month and applied this monthly distribution proportionally to the €498,187 monthly investment (after subtracting the €1,813 email cost) (Table 3).
- To estimate a monthly channel cost, I used the average handling-time distribution across the year (Table 4).
- **Monthly average CALL cost: €383,604**
- **Monthly average CHAT cost: €114,583**

Table 1:

CHANNEL	# TOTAL AGENTS YEAR	TOUCHPOINTS	HANDLING TIME SECONDS
email	1	146955	
chat	427	89243	78936053
call	322	114587	86448899

Table 2:

MONTH	# AGENT MONTH
1	256
2	282
3	288
4	292
5	288
6	282
7	273
8	262
9	281
10	283
11	276
12	247
Average	276

Table 3:

MONTH	CHANNEL	ADJUSTED HANDLING TIME	PCT HANDLING TIME BY MONTH	CHANNEL COST
1	call	5848506	0.76	€378,622
1	chat	1856919	0.24	€119,565
2	call	6139677	0.77	€383,604
2	chat	1819007	0.23	€114,583
3	call	7801113	0.79	€393,568
3	chat	2075588	0.21	€104,619
4	call	6870598	0.79	€393,568
4	chat	1810108	0.21	€104,619
5	call	8889349	0.78	€388,586

5	chat	2466500	0.22	€109,601
6	call	8002191	0.77	€383,604
6	chat	2364551	0.23	€114,583
7	call	7839406	0.78	€388,586
7	chat	2253498	0.22	€109,601
8	call	6949355	0.77	€383,604
8	chat	2095309	0.23	€114,583
9	call	8112168	0.75	€373,640
9	chat	2677921	0.25	€124,547
10	call	7017482	0.74	€368,658
10	chat	2507615	0.26	€129,529
11	call	6314247	0.73	€363,677
11	chat	2363670	0.27	€134,510
12	call	6664807	0.77	€383,604
12	chat	2021304	0.23	€114,583

Table 4:

CHANNEL	AVG DISTRIBUTION HANDLING TIME	MONTHLY AVG CHANNEL COST
call	0.77	€383,604
chat	0.23	€114,583