

Yellevate Invoice: Dispute and Revenue Loss Analysis

PROBLEM:

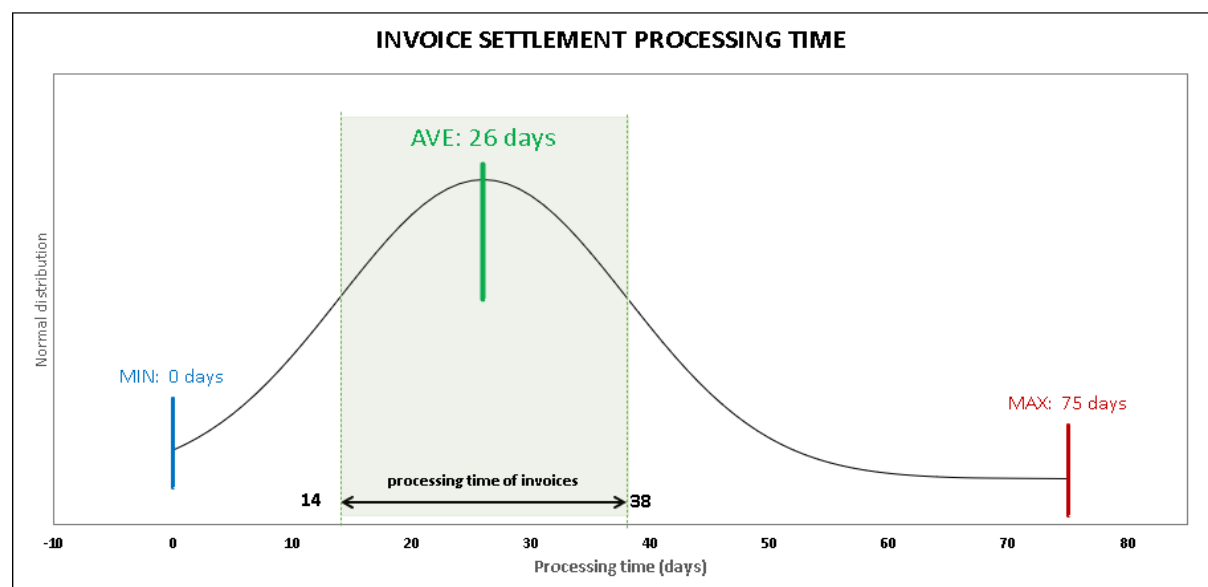
The problem is, there was a 20% dispute raised against the company that resulted in a 5% annual loss of revenue. The reason for the dispute is a client expressing dissatisfaction with the company's services and refusing to pay for them.

METHODOLOGY:

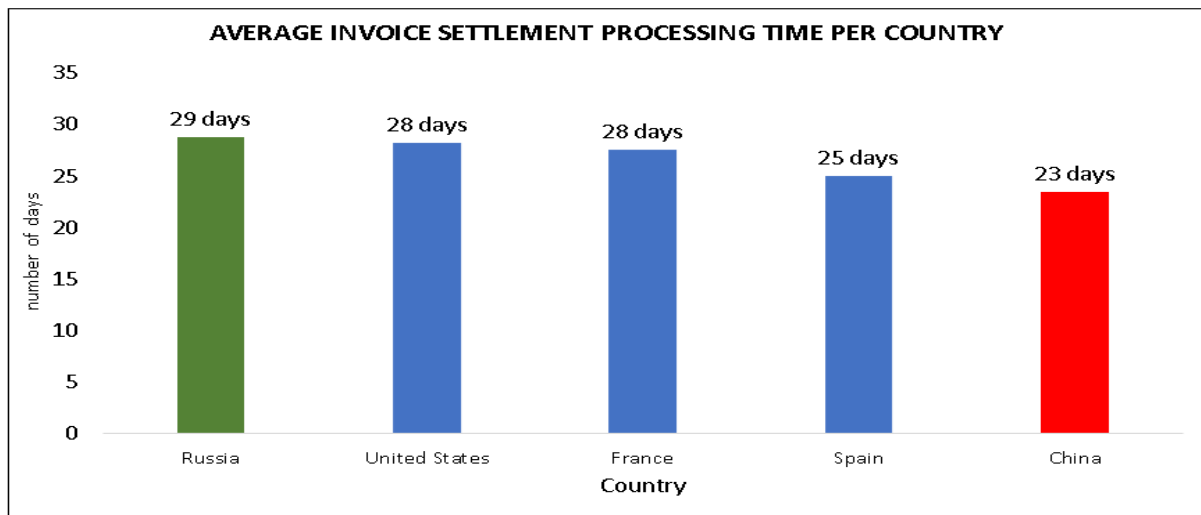
This is what we do to analyze the issue. We imported Yellevate invoice data to PostgreSQL to perform data preprocessing. After we transformed the data, we exported it. We use the exported data to perform the analysis: getting the percentage, average, and standard deviation. Afterward, we performed data visualization and generated insight. As soon as we finished generating our insights, we had come up with a summary and recommendation.

FINDINGS:

1.) The processing time in which invoices are settled.

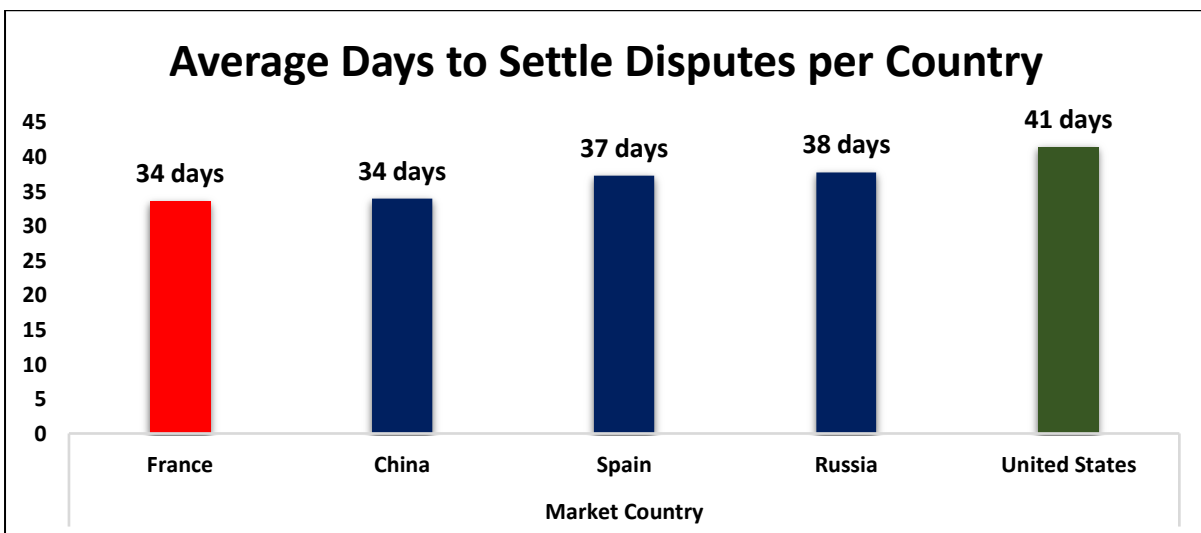
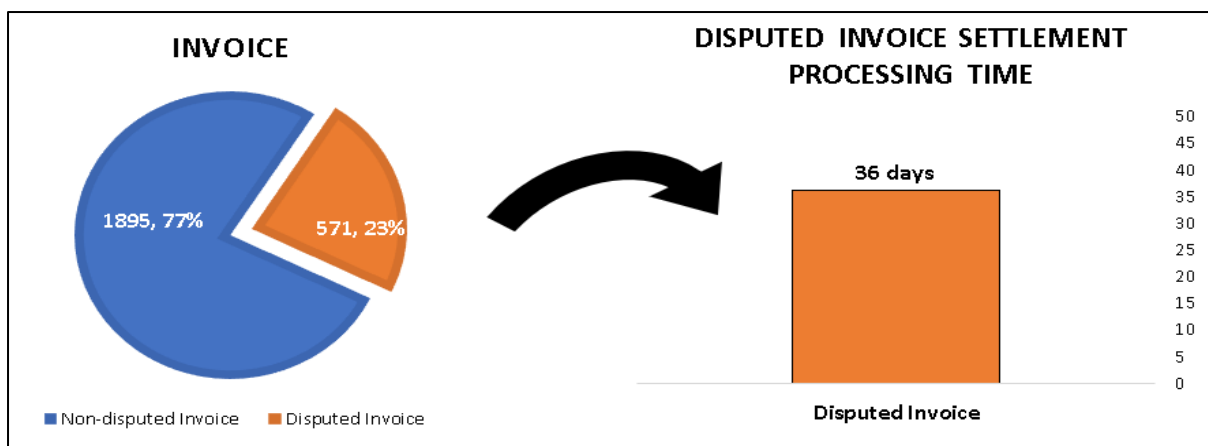


The average time taken to settle the invoice is **26 days**, with the maximum and minimum durations being 75 days and 0 days, respectively. By employing a standard deviation of 12 days, the processing time of the invoices were settled is ranging from **14 to 38 days, 68.80%**.



The country with the maximum average invoice settlement processing time is Russia with **29 days**. While China has the minimum average time taken to process invoice settlement with **23 days**.

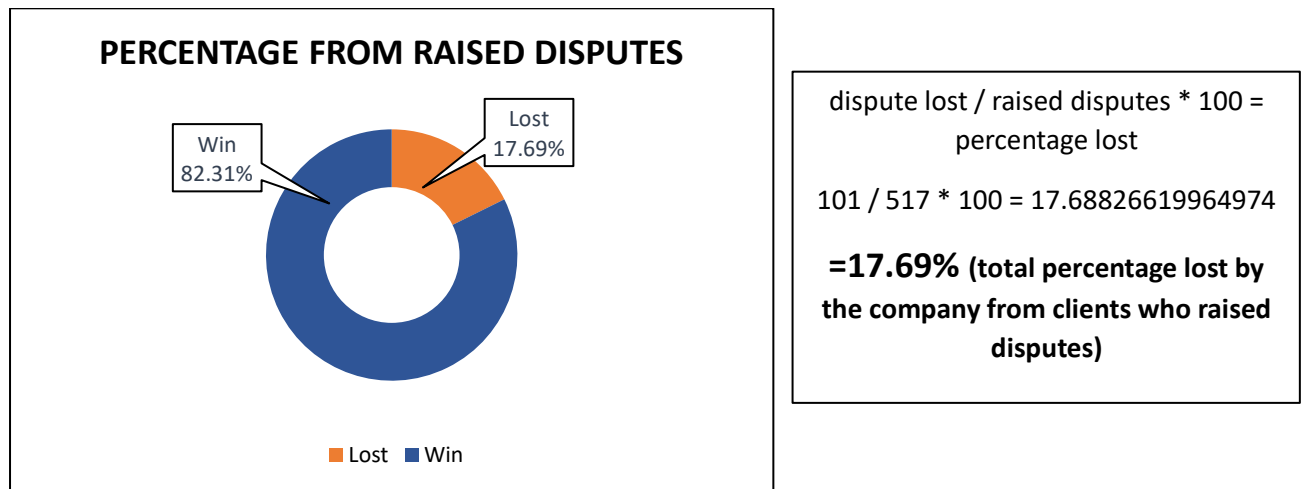
2.) The processing time for the company to settle disputes.



Out of 2,466 invoices, 1,895 (77%) are not disputed while 571(23%) are disputed.

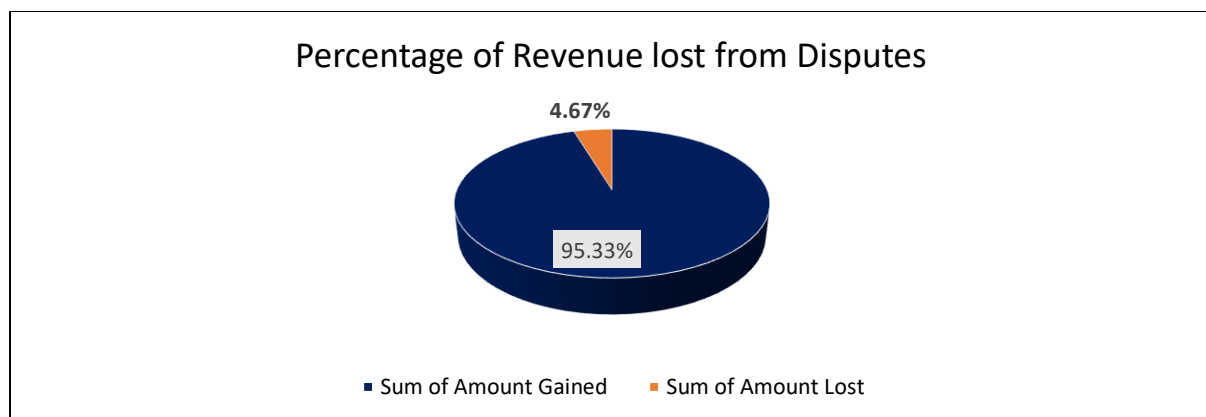
There's an average of **36 days** to settle dispute invoices from 5 market countries where the United States has the highest average days to settle disputes with **41 days** while France has the lowest average days to settle disputes with **34 days**.

3.) Percentage of disputes received by the company that was lost.



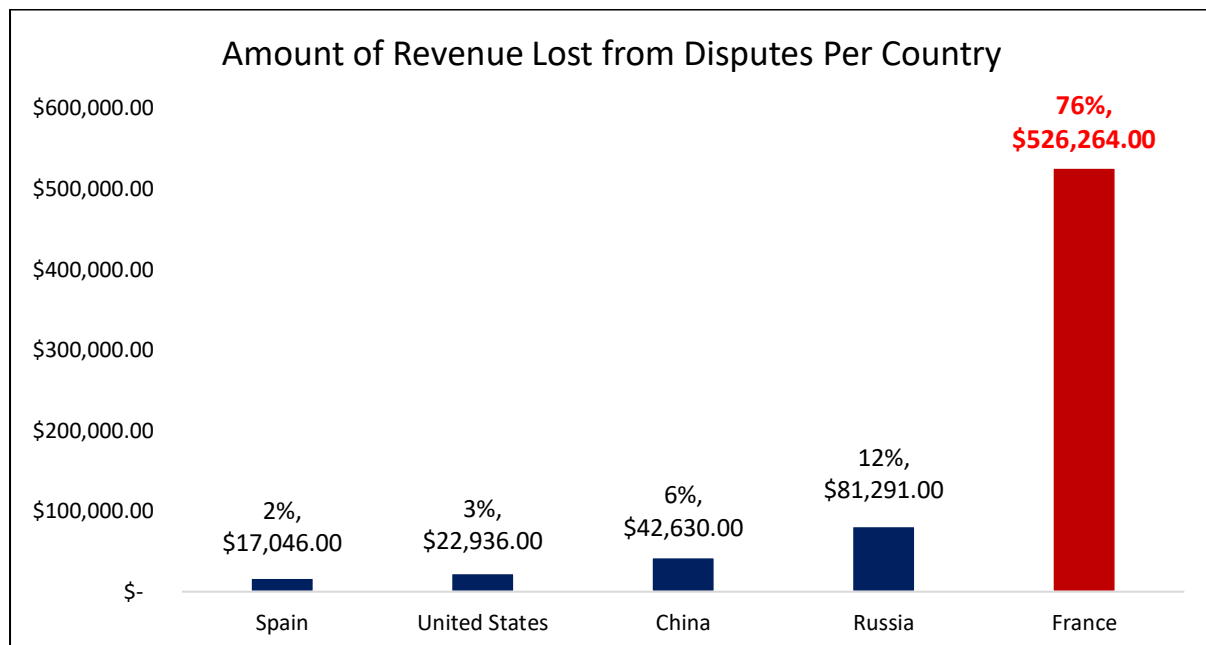
From the raised disputes, 17.69% is Yellevate's lost where total of 101 payment is opted out.

4.) Percentage of revenue lost from disputes.



Among this revenue lost from disputes, our losses reached \$690,167.00 out of \$14,770,318 or equivalent to 4.67%.

5.) The country where the company reached the highest losses from lost disputes.



France had the highest dispute raised, hence, the total amount lost is **\$526,264.00**. The amount of 5% annual loss of the company is \$690,167.00. Compared to other countries, France makes up **76%** of the overall amount of annual loss.

SUMMARY:

We found out that the average processing time taken for invoice settlement is 26 days. On the other hand, out of 2,466 invoices, 571 (23%) are disputed with an average of 36 days to settle from 5 market countries. Through further analysis of dispute invoices, we identified that 17.69% is Yellevate's loss with a total of 101 payments that have been opted out.

Lastly, France accounted for the largest amount of revenue lost due to disputes, totaling \$526,264.00, which equates to 76% of the overall losses. While this represents only 4.7% of Yellevate's total revenue loss, it is still important to investigate the underlying reasons for this loss and take measures to prevent further losses.

RECOMMENDATIONS:

We believe that there are various factors that contribute to client disputes, such as poor communication, unmet expectations, or unclear contractual terms. To prevent future disputes and minimize revenue loss, we have the following recommendations:

1. Shorten the processing time for invoice settlement - Since the average processing time for invoice settlement is 26 days, it's essential to reduce this time to avoid disputes and further revenue loss. Implementing a more efficient and streamlined invoicing process can help to achieve this.

2. Address the high dispute rate - With 23% of invoices being disputed, it's crucial to identify the root cause of these disputes and implement measures to reduce this rate. This could include better communication with clients and more proactive measures to address any concerns or issues raised by clients.

3. Yellevate should review and revise its contracts to ensure that they are clear, concise, and aligned with client expectations. By setting clear goals and objectives in the contract, Yellevate can minimize the risk of disputes arising from unmet expectations or unclear terms.

By implementing these recommendations, Yellevate can reduce the risk of disputes and revenue loss, improve customer satisfaction, and ultimately improve its bottom line.

DATA TABLE:

1.) The processing time in which invoices are settled (Average # of days rounded to a whole number).

INVOICE SETTLEMENT PROCESSING TIME

AVERAGE:	26
MAXIMUM:	75
MINIMUM:	0
STANDARD DEVIATION:	12
AVE + STDDEV	38
AVE - STDDEV	14

Invoice settlement days distribution:		
	Count	Percentage
Below 14 days:	361	14.6%
14 days ~ 38 days:	1696	68.8%
More than 38 days:	409	16.6%
Total Count	2466	100%

item	x	y
Average	26	0.02
	26	0.035
Maximum	75	-0.004
	75	0.006
Minimum	0	-0.001
	0	0.009
Average ± Standard deviation	14	-0.0025
	38	-0.0025

INVOICE PROCESSING TIME AND INVOICE ISSUED PER MONTH

Row Labels	Average of days_settled	Count of invoice_number
2020	28	1277
Jan	30	90
Feb	29	97
Mar	29	117
Apr	30	97
May	27	112
Jun	29	98
Jul	28	109
Aug	27	102
Sep	28	122
Oct	26	108
Nov	28	112
Dec	27	113
2021	25	1180
Jan	26	111
Feb	24	100
Mar	29	106
Apr	26	112
May	25	125
Jun	25	99
Jul	25	107
Aug	24	103
Sep	23	118
Oct	22	94
Nov	23	105
Grand Total	26	2457

AVERAGE INVOICE SETTLEMENT PROCESSING TIME PER COUNTRY

invoice_date	(All)
Row Labels	Average of days_settled
Russia	29
United States	28
France	28
Spain	25
China	23
Grand Total	26

2.) The processing time for the company to settle disputes (Average # of days rounded to a whole number).

Row Labels	Count of invoice_number
⊕ Non-disputed Invoice	1895
⊕ Disputed Invoice	571
Grand Total	2466

disputed Yes

Disputes	Days Settled
⊕ Disputed Invoice	36
Grand Total	36

disputed Yes

Disputes	Days Settled
⊕ Market Country	36
France	34
China	34
Spain	37
Russia	38
United States	41
Grand Total	36

3.) Percentage of disputes received by the company that was lost (within two decimal places).

COUNTRY	RAISED DISPUTES
France	222
Russia	149
United States	80
China	61
Spain	59
	571

COUNTRY	DISPUTES LOST
France	76
Russia	13
China	5
Spain	4
United States	3
	101

Column1	Count	Percentage
Win	470	82.31%
Lost	101	17.69%

4.) Percentage of revenue lost from disputes (within two decimal places).

INVOICE AMOUNT

Sum of Amount Gained	\$ 14,070,803.00	95.32%
Sum of Amount Lost	\$ 690,167.00	4.68%
TOTAL	\$ 14,760,970.00	100%

5.) The country where the company reached the highest losses from lost disputes (in USD).

Row Labels	Sum of Amount Lost	%
Spain	\$ 17,046.00	2%
United States	\$ 22,936.00	3%
China	\$ 42,630.00	6%
Russia	\$ 81,291.00	12%
France	\$ 526,264.00	76%
Grand Total	\$ 690,167.00	100%

GROUP WORKSPACE LINK:

https://docs.google.com/document/d/1VPL_AqZZ7WNV7o8O7h8kqUA10zU3sNk7XaHR-0IGaS4/edit?usp=sharing