

Yellevate Dispute Analysis

By Group 25 (Batch 4):

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Business Problem

Yellevate is a company that provides marketing services to other companies through email marketing, website development, content creation, and others.

For the past few years, Yellevate has been struggling with its client disputes. Clients are expressing dissatisfaction and are refusing to pay for the company's services. This has been a huge financial burden for the company: nearly 20% of the disputes resulted in a payment opt-out. This has led to an approximate 5% annual loss of revenue (in USD).

Using the data provided to us, we established probable reasons for the client disputes and payment delinquencies. Insights and recommendations were provided regarding the company's loss of revenue based on our data processing methodologies.

Methodology

1. 2-year worth of data was obtained from Yellevate with the following information:
 - Country
 - Client ID
 - Invoice Number
 - Invoice Date
 - Due Date
 - Invoice Amount (USD)
 - Disputed Invoices
 - Dispute lost
 - Settled date
 - Days to settle invoices
 - Days late
2. First step we took was to load the data in SQL to check the accuracy of the data by making sure that:
 - There are no duplicate entries
 - All transactions are valid – no NULL and NA values

3. Next, we used both SQL and Excel to answer these business questions:
 - Processing time in which invoice are settled
 - Processing time for the company to settle disputes
 - Percentage of disputes received by the company that were lost
 - Percentage of revenue lost from disputes
 - The country where the company reached the highest losses from lost disputes
4. Then, we did some deep dive using Excel to further analyze the data and their relationships.
5. Lastly, we created some visualizations so data can be consumed by the stakeholders.

Findings

1. The average processing time to settle invoices is 26 days. There are two possible outcomes for an invoice, and these are:
 - a. Invoice without dispute
 - b. Invoice with dispute
2. Since the date when the dispute was filed is unavailable, it was assumed that if the dispute equals are true, the settled date is equal to the number of days the company was able to settle the disputes. As a result, we have an average of 36 days to settle disputes.

Figure 2 shows the comparison of the processing time for invoices with and without disputes. Without dispute, the average processing time to settle the invoice is 24 days and 36 days if with dispute (+12 days). In addition, looking into a per country perspective, China shows the shortest processing time to settle invoices both disputed and undisputed. While USA has the longest time followed by Russia.

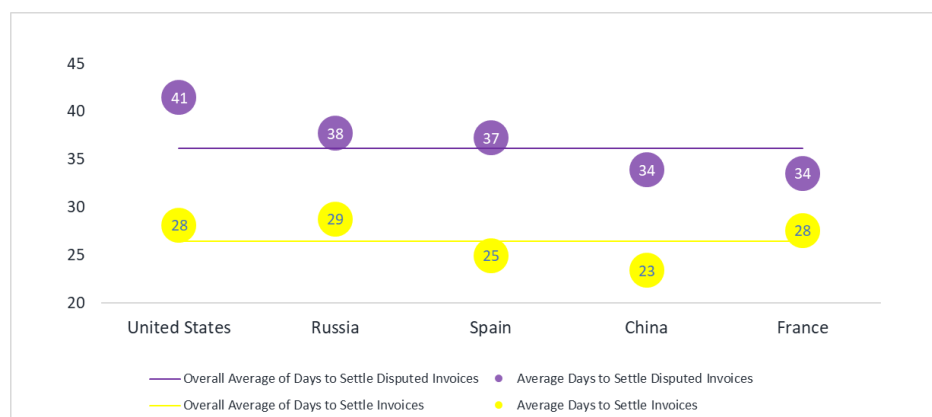


Figure 2. Comparison of Invoice Processing Time per Country

3. Among the 571 cases of disputed invoices, 17.69%, or 101 of which are valid.

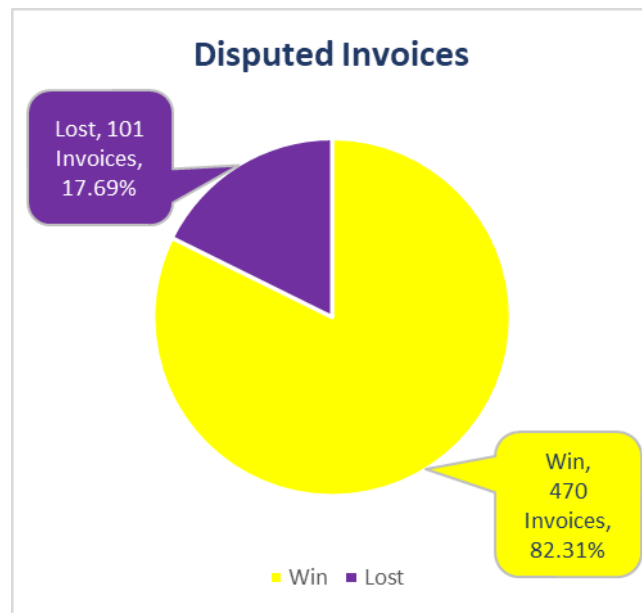


Figure 3a. Lost vs Win Disputes

In a per country statistics, France has the highest percentage of both win and lost disputes with 25.57% and 13.31% respectively. Followed by Russia with 23.82% win and 2.28% loss. While the USA has the third highest number of disputes, it also has the lowest % loss, 0.53%. Figure 3b shows this information.

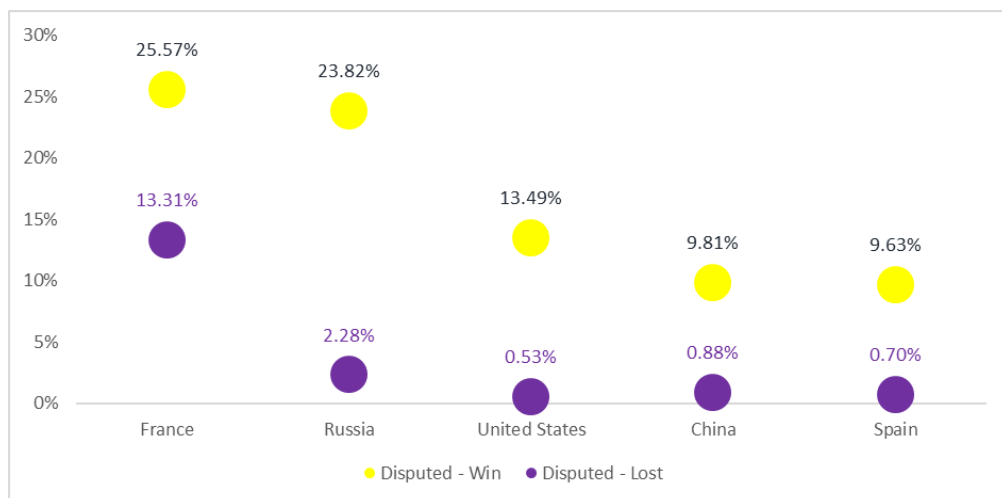


Figure 3b. Percentage of Disputed Invoices per Country.

4. Due to the lost disputes, the company incurred 4.67% (5%) losses equivalent to \$690,167 (\$0.690M). On the other hand, the company has gained \$11,021,547 revenue or 74.62% from the undisputed invoices.

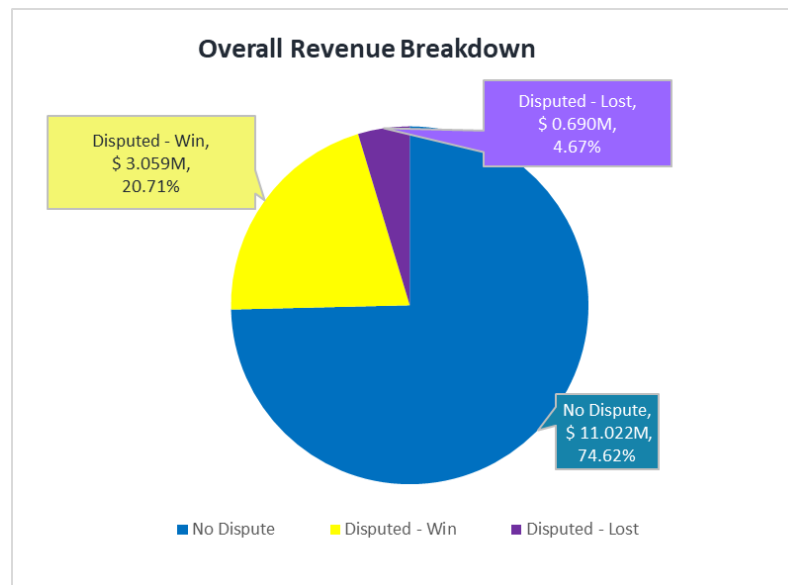


Figure 4a. Shows the overall Revenue Breakdown in US dollar and its equivalent percentage.

In terms of a yearly revenue loss, it was noticed that there's a 58% increase in 2021 Revenue Loss compared to the previous year, 2020.

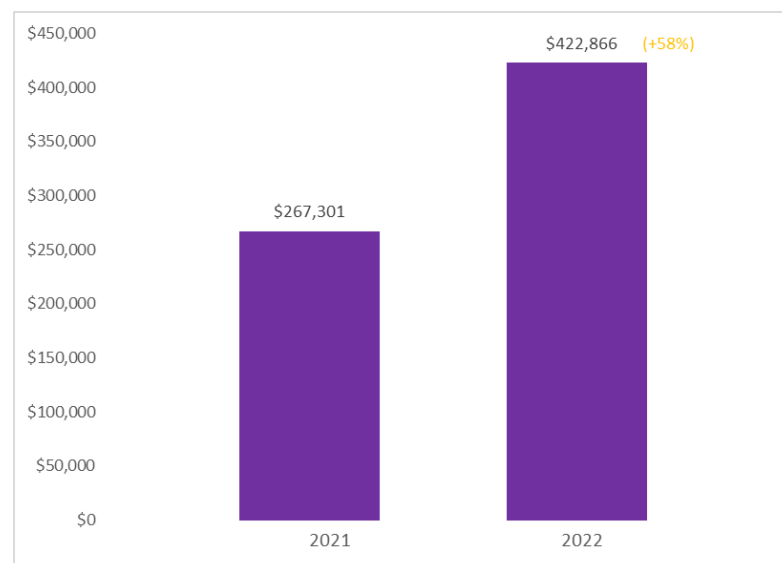


Figure 4b. Graph comparison of revenue loss for 2020 vs 2021.

5. The country where the company reached the highest losses from disputes is France amounting to \$0.526M or 3.56% which is way higher than the combined losses of the other four countries, \$163,903 or 1.11%.

With regards to the revenue generated per country, China has the highest amounting to \$4,004,896 or 27.11% with 0.29% of which was lost in dispute equivalent to \$42,630.

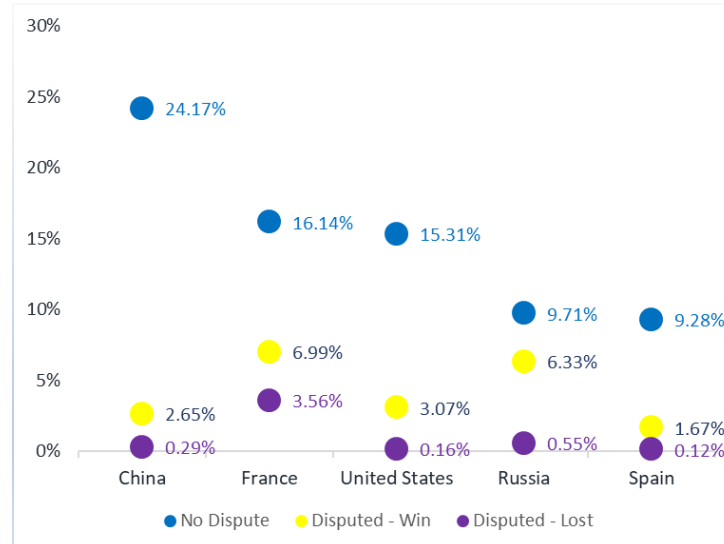


Figure 5a. Shows the Revenue Breakdown per Country in percentage.

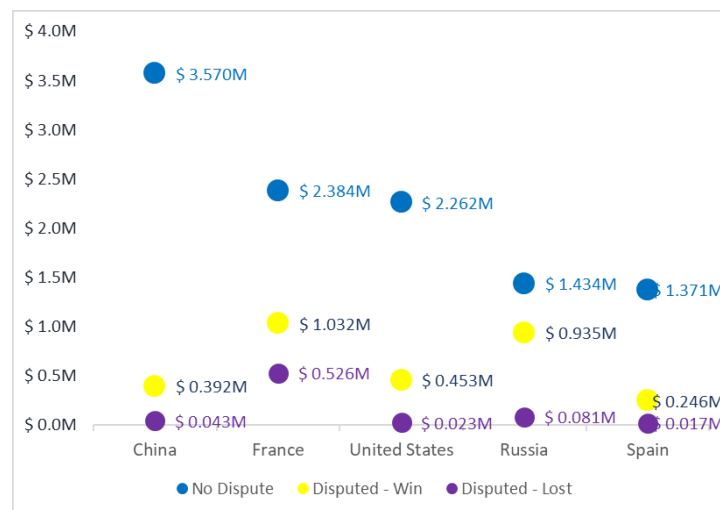


Figure 5b. Shows the Revenue per country in US dollars.

6. Since France constitutes the highest disputes, we looked into it further to show important trends and dependencies from this country.
- Trends of Win vs Lost Disputes over time (Figure 6a).
 - Processing Time to settle disputes (Figure 6b).
 - Relationship between lost disputes and its processing time (Figure 6c).
 - Processing Time to settles invoices in relation to its Due Date (Figure 6d).
 - Lost disputes settled before and after due date (Figure 6e).
 - Lost disputes and its processing time per Client (Figure 6f).
 - Potential Revenue from France (Figure 6g).

Figure 6a shows that at the early stage of the business, Yellevate was able to win most of the disputes. Disputes won was still higher than the lost ones until August where both disputes have become almost equal. Then, eventually, lost disputes outnumbered win disputes.

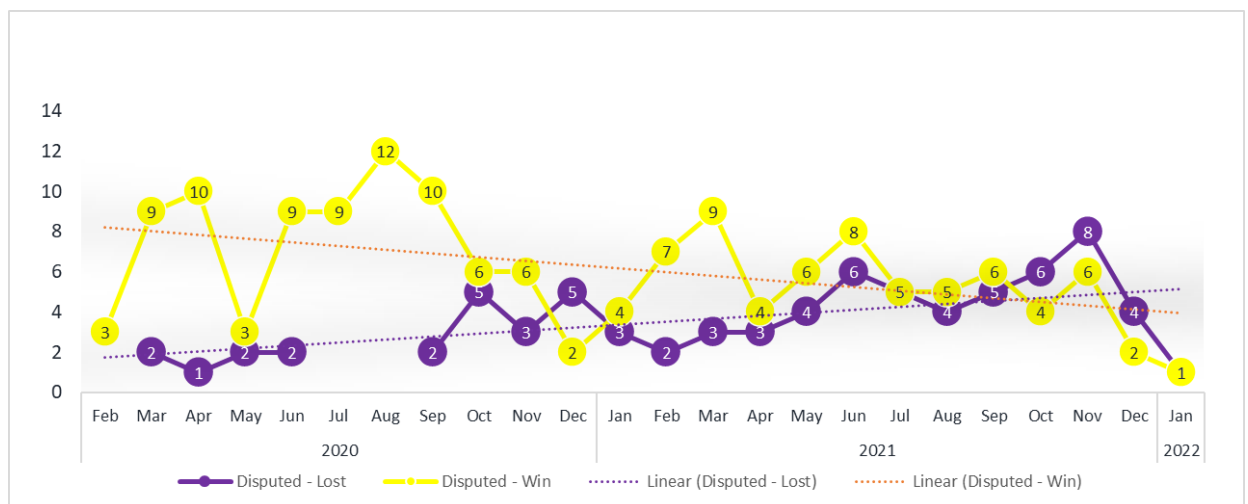


Figure 6a. Win vs Lost Trends per month from over time.

With regards to settlement, average days to settle win disputes was steady as the number of win disputes decreases.

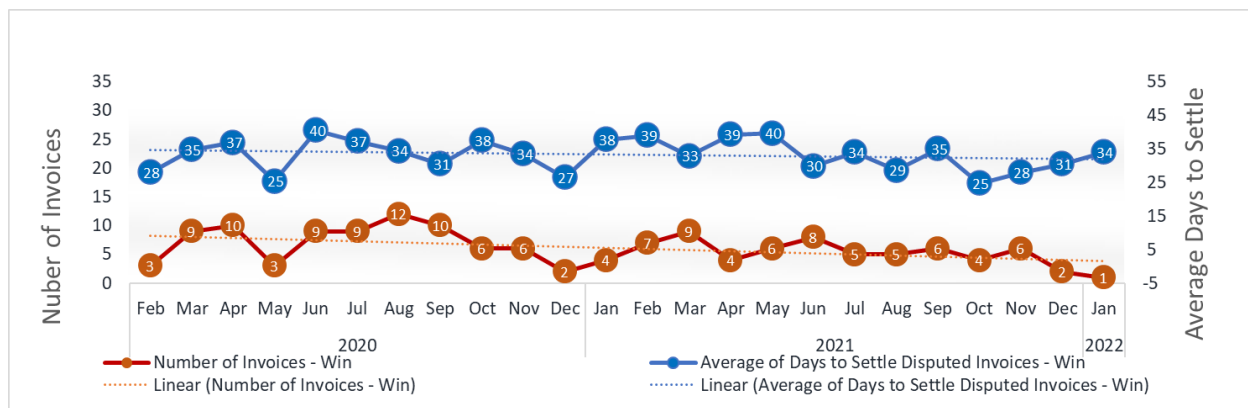


Figure 6b. Shows a steady trend of Win disputes and its processing time.

Over time, relationship between the number of lost disputes and the average days to settle becomes inversely proportional as seen on the chart.

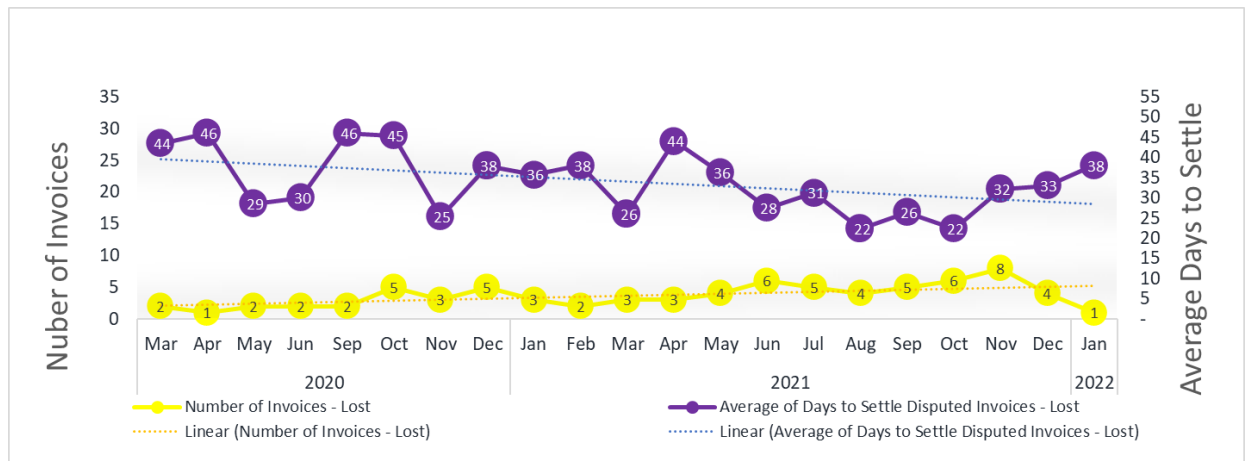


Figure 6c. Shows the trend of Lost Disputes and its processing time becomes inversely proportional overtime.

It is also observed that it takes longer days to settle disputes of past due invoices with average days of 41 days as compared to invoices which are not yet due with average days of only 22 days.

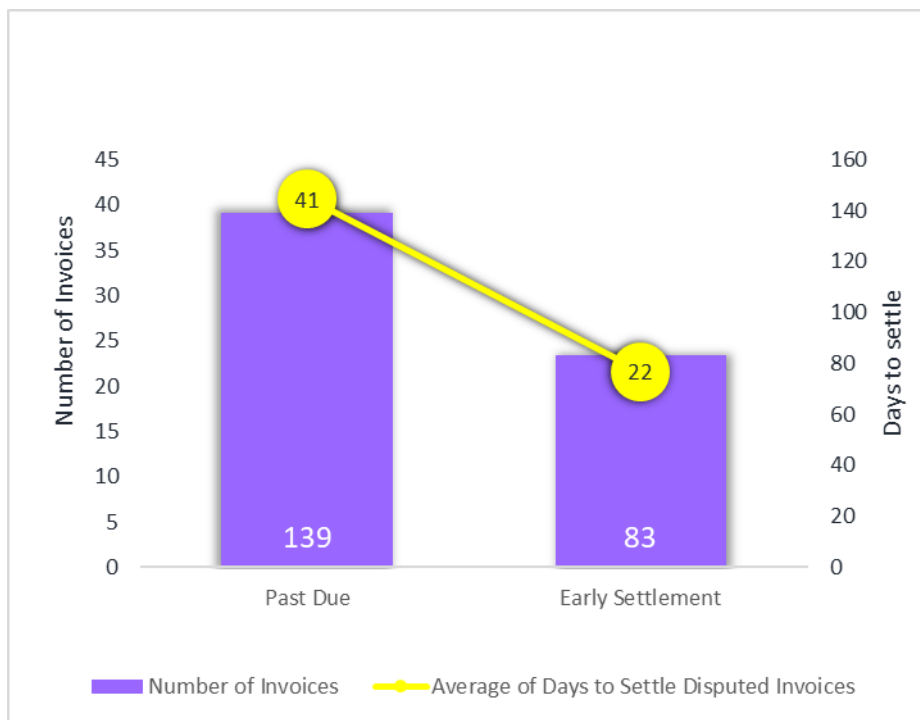


Figure 6d. Processing Time to settles invoices in relation to its Due Date.

Below are the clients with lost disputes and the corresponding days to settle

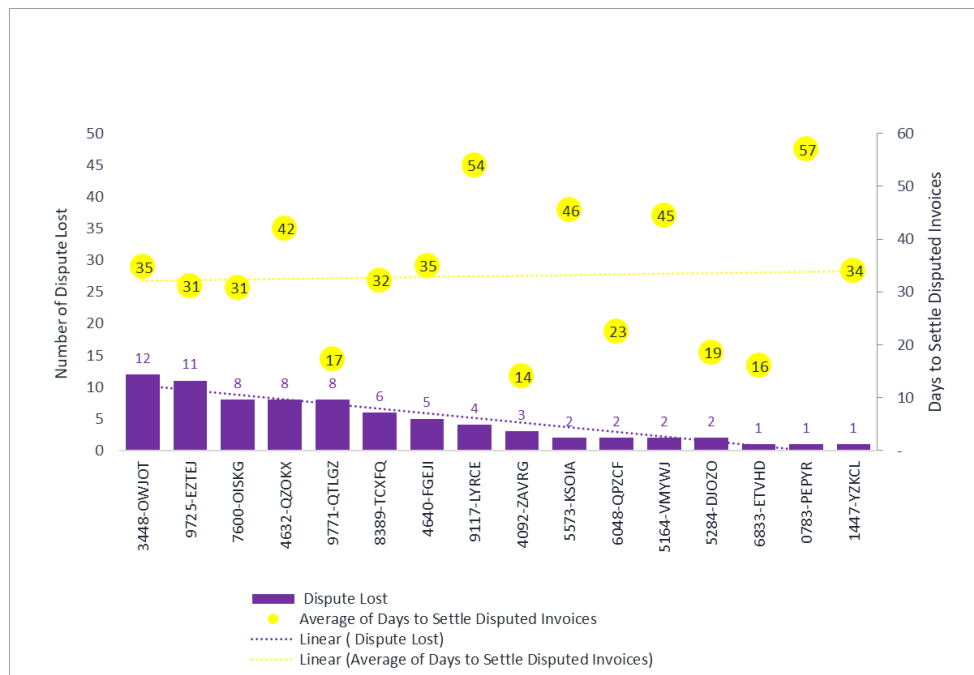


Figure 6e. Processing Time to settle Lost Disputes per Client.

Upon further review of the data, it is noted that client 9771-QTLGZ has the shortest number of days among the top clients with lost disputes – 17 days with 8 lost disputes. Based on record, 9771-QTLGZ has always been prompt in settling its payments on disputes in favor of Yellevate – 13-win disputes. This explains the inverse correlation between lost disputes and corresponding settlement days in Figure 6c

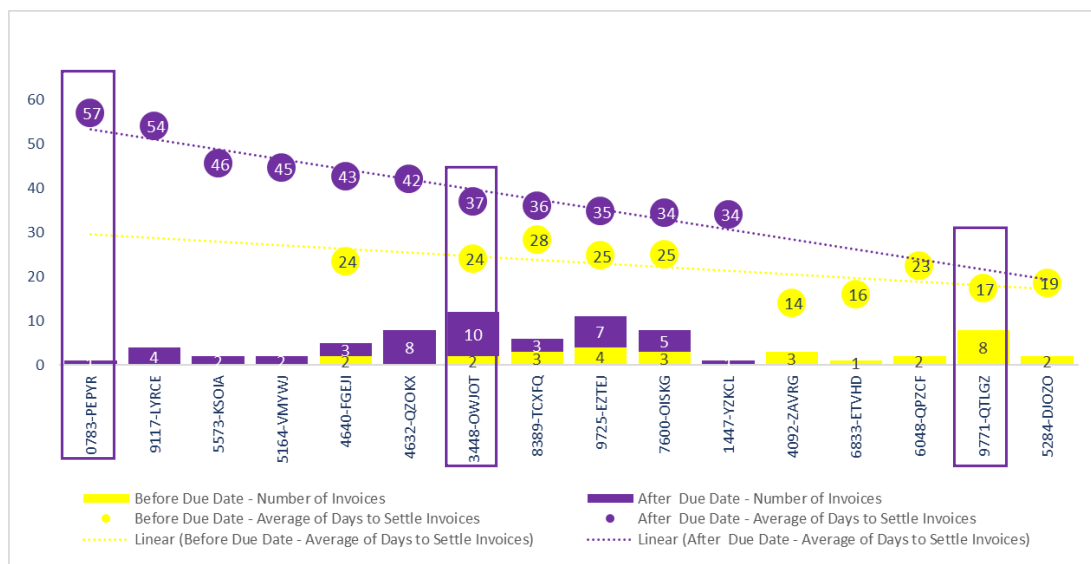


Figure 6f. Comparison of Processing Time to Settle Disputes Before and After Due Date.

Days to settle lost disputes after due date were always longer than days to settle disputes before due date. The longest of which took 57 days with only one lost dispute. The client with the highest lost dispute of ten invoices took 37 days to be settled. There was even a client with high dispute loss of eight invoices but with shorter days to settle of 17 days.

Potential Revenue from France

Potential revenue from France totals \$ 3,942,291. However, due to lost disputes, Yellevate incurred a loss of \$ 526,264 which comprises 13.34% of the total dispute lost among all other countries.

Among the 23 French companies, 16 contributed to the dispute lost. It would be safe to say that banning at least the top 7 companies (which comprise 75% of the dispute lost in the country and 10% of the potential income or \$ 390,418) would lessen the effect of the loss. But looking at the data, banning these companies could inflict an additional loss of 22% from the total potential revenue - note that 15% of the net revenue came from the top 7 clients.

Overall, France is in good standing as the second top performing country despite having the highest dispute lost.

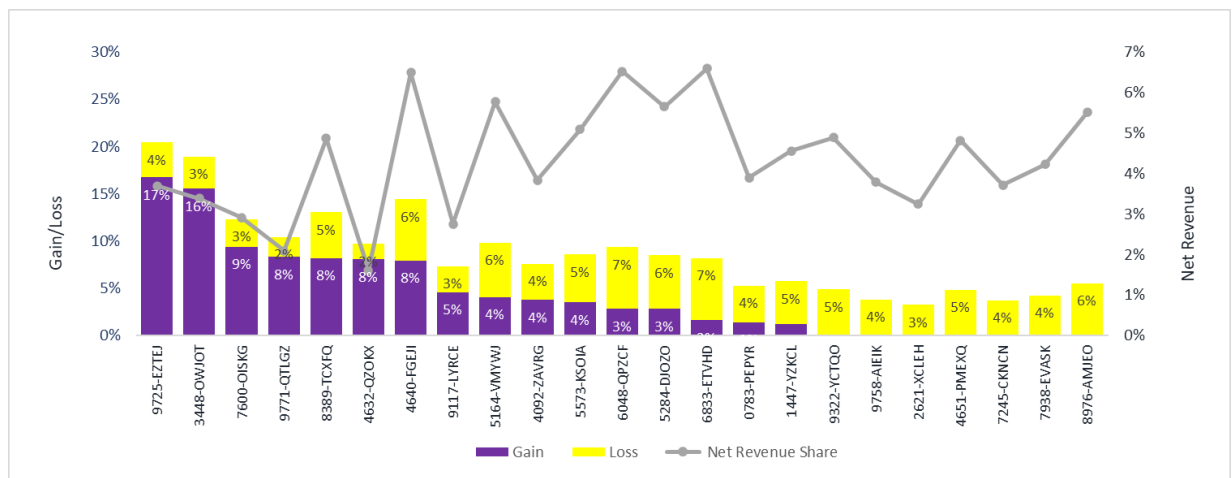


Figure 6g. Revenue Breakdown of Clients in France.

Customer ID	Gain (in USD)	Loss (in USD)	Net Revenue (in USD)	Net Revenue Share (%)
9725-EZTEJ	126,486	88,124	38,362	1.33%
3448-OWJOT	115,767	81,783	33,984	1.18%
7600-OISKG	99,710	49,426	50,284	1.74%
9771-QTLGZ	71,525	43,770	27,755	0.96%
8389-TCXFQ	166,517	43,067	123,450	4.27%
4632-QZOKX	55,259	42,486	12,773	0.44%
4640-FGEJI	221,784	41,762	180,022	6.23%
Total	857,048	390,418	466,630	16.15%
Overall	3,416,027	526,264	2,889,763	100.00%

Figure 6h. Revenue of the Top 7 Clients with Highest Disputes in France.

Recommendations

Since the data provided by the company cannot be used to identify the causes of disputes, we can only assume that mostly it is the result of contract technicalities or clients thinking they can get away with not paying for the services. Hence, these recommendations will center on how to have better management in handling disputes and how to avoid disputes to maximize the company's potential profits:

1. Improve Dispute Management System

Since 23.15% of Yellevate's invoices from 2020 to 2021 has been disputed, it is recommended to improve its Dispute Management System to become reliable dispute and be able to optimize the communication between clients and the company.

With the data gathered on France, the top country with highest number of disputes, the Dispute Management System should:

- Look into those disputes, have them categorized according to their concerns and its difficulty level. With this we could determine what would be the standard processing time to settle each dispute and be able to prioritize and resolve more disputes in the shortest possible time.
- Knowing the category with highest disputes, could give the company a chance to look into that area, understand the clients and possibly develop a solution or improve the existing contract to satisfy all the stakeholders.
- With the data presented, it was noted that among the five countries, China has the shortest days in settling invoices. The Dispute Management Team should review how the negotiation policies and processes being done in China, how it affects the processing time in settling invoices and implement it as well in other countries.
- With the system in place, client concerns are being heard and handled accordingly, lesser disputes and lesser processing time to settle disputes if any and the company revenue could greatly increase.

The Dispute Management Team could also review and apply the following to lessen the disputes and the disputes processing time.

- a. Fixed timeframe in processing the disputes. The company should come up with a reasonable timeframe for processing the disputes. This will give the team better time management in handling and resolving disputes.
- b. Negotiate
Examine and optimize how the team handles the negotiation process. Arrange to meet the client and record all the issues that the company has in writing. There might be issues that the client has or problems the company is experiencing. The company may want to revisit the quotation and contract with the client so that it's clear what is agreed to do and in what timeframe. We can have a client satisfaction survey every after the service is completed, so we can review the result of the survey annually or quarterly.

c. Avoid problems turning into disputes

The earlier the team tries to resolve issues the more likely it will have a positive outcome. Keep communicating with the client during the course of a project. If we can maintain a positive, open relationship, they will feel more confident about raising any issues as they arise - before they become major problems. We can improve our communication processes internally for us to avoid disputes. Here are the ways we would like to recommend:

- Create a process document to clearly set out in writing what we are going to do and to what timescale.
- If there are any changes in what has been agreed, detail these in writing ensuring that both the company and the client understand what else we will do and how this will affect the price and the completion date before we start the additional work.
- Be upfront when things go wrong, talk to the clients to explain what has gone wrong, and agree on a way forward.

2. Conducting Proper Background Checking of Clients

Providing proper legal documents will ensure that the client is legitimate such as a Business Permit, Audited Financial Statements, and Income Tax returns for financial status. We also need proper documentation of the contact details of the CEO, CFO, and/or managers, so we can easily communicate with the clients.

3. Revisit and Revise the Contract

We also recommended that the company revisit and revise the contract with its clients. The company needs to avoid being lenient to its clients by adding sections in the contract that will make the client more accountable and prevent losses from the client dispute.

a. Legal Actions

We need to include clearly in the contract that the company will resort to legal actions if the client shows no willingness to pay their outstanding invoices.

b. Down payment

Yellevate should require at least 50% of the total contract amount to be paid upon contract signing which will not be refundable on invalid disputes. This could save the company from a 100% lost dispute.

c. A specific time for reporting a dispute

After the completion of the company's service, clients should only have 1 week to file a dispute.

d. Providing a Guarantor

If possible, for us to further ensure that the client will be able to pay, providing a guarantor that will vouch for the client's legitimacy is an option to consider. A guarantor will have a strong credit score and earn sufficient income to meet the obligation.

e. Providing Incentives

An "incentive" is something that motivates a person to do something, in other words, it's an "enticement" designed to persuade the clients. We can provide incentives, especially to the clients that pay on time or have been using the product for a long time.

Incentives we can consider:

- Loyalty Programs - point system based on the consecutive number of years of business with Yellevate
- Options at the time of service - get a choice of either free items or a free extended warranty
- Product trial - getting a free bonus item for acquiring a trial of a certain business service

4. Future clients applying from France should be evaluated carefully as clients from this country have relatively high dispute cases.

5. On the average, the company incurred 4 lost disputes from its monthly disputes of 23 invoices. Looking at the figure below, it is established that the occurrence of disputes in France is 40% with 3 lost disputes monthly.

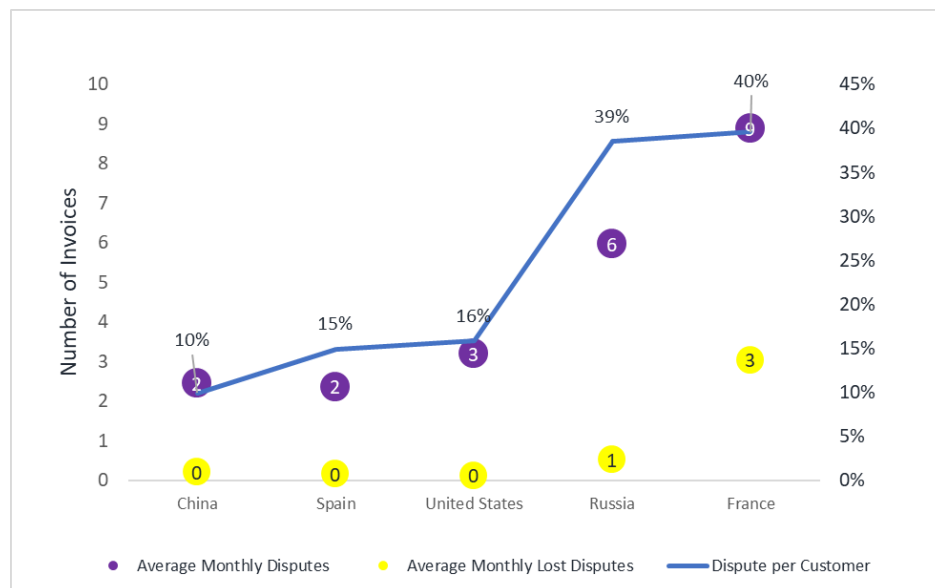


Figure 5a. Monthly average of lost disputes and total disputes in relation to percentage of disputed invoices percentage

The average frequency that a customer files a dispute is once a month and 65% of the overall filed disputes in the country is invalid. With this, we recommend the company to impose a policy that gives consequence to a customer once they incur 3 invalid disputes in a quarter. They should not be entitled to refund of the down payment. On the other hand, clients with 3 valid disputes in a quarter should be given refund of 80% of the down payment amount, 20% to be retained by the company to cover dispute processing costs.

This should be made clear with the clients and should be implemented prospectively, across the board.

We do not recommend stopping providing services to delinquent clients as this would mean losing potential revenue of \$1,247,466 or 32% of France total revenue and 8.45% of Yellevate's. As presented below, the number of win (invalid) disputes are higher than lost (valid) disputes on these delinquent clients.

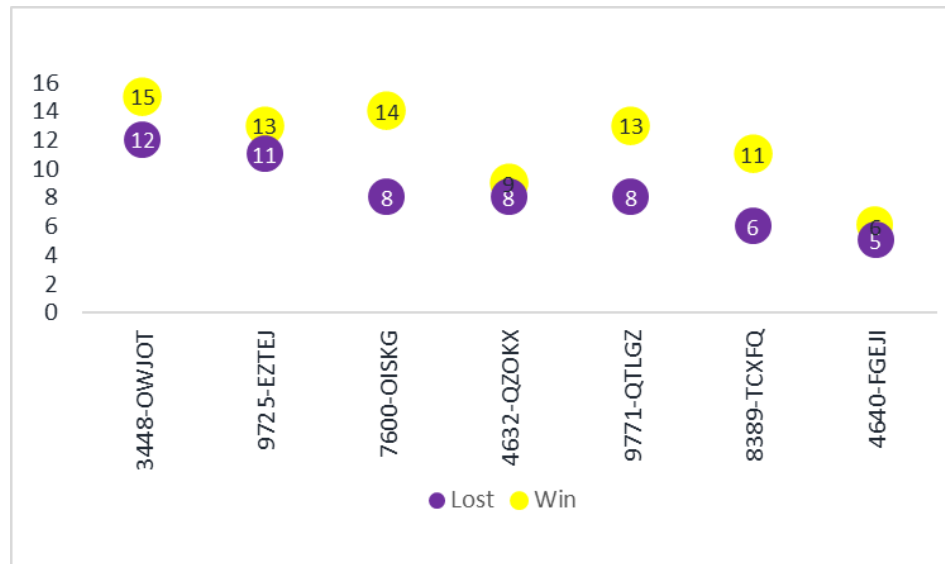


Figure 5b. Win vs lost disputes of top delinquent clients

Not until Yellevate has established a new market in other countries like China and USA (countries with high income but low disputes), revised its existing contracts, improved client relations, and solved dissatisfaction issues of clients, it cannot sacrifice the potential income these clients can give.

6. Lastly, since Yellevate is confident with the quality of services it offers, the company could provide a revenue forecast for each client. With this, benefits from services provided will be pointed out. Furthermore, we could add more promotions or enticing activities to their existing subscription that would greatly improve their digital presence. In this way, the client would realize what will they be missing in the event they opt out of Yellevate's services.