

Tax Robot: Automated Financial Reporting



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Overview of Use Case

Yildirim Group was established as a modest construction material trading company based in Istanbul, Turkey. Continuously broadening its focus through new subsidiaries in 46 years, it has evolved into an industrially diversified group of companies as well as one of the fastest-growing Turkish industrial groups with operations in 51 countries on 5 continents. Today, Yildirim Group is active in 11 sectors. With such a diverse set of companies and worldwide locations, tracking the financials becomes a burden. Using Alteryx Designer and Scheduler we automated complex financial reports that involve multiple regulations and countries, eliminating human error.

The Business Challenge

We receive data in multiple formats such as CSV, Excel, PDF, TXT, WEB, SQL Server, SAP, SAP Hana, Netlog, Netsis, etc. This made the pre-processing tasks very time consuming and open to human error, resulting in serious tax penalties.

We faced several challenges:

- We needed to deliver regulatory reports for many companies at once in a consolidated manner within a tight deadline.
- We needed to provide error-free financial reporting.
- Blending and comparing various data sets was essential regarding different tax periods and different jurisdictions, which made the process even more complex.

Our goal was to streamline the whole process so that we can always have a consolidated financial view of our holdings, revisited not in days but in hours. With that in place, we could enable top management to have near-real-time decision making power.

Our Solution

The Yildirim Holding Tax team, at the direction of the CFO, started a data driven innovation project, that will benefit from our simplification of the financial analytics. The idea was to start a digital transformation by first digitizing financial reporting and tax return processes with self-service data & analytics solutions. Teams in the finance department started using Alteryx to build and develop solutions in order to improve efficiency and the quality of deliverables. Additionally, this enabled a faster development time and reduced human errors.

The solution we created using Alteryx included:

- Alteryx Designer and Alteryx Scheduler
- Data preparation: standardize all alternative inputs from CS, Excel, ERP systems and other databases.
- Data quality: understand and fix issues like missing values and wrong classifications
- Parsing semi-structured and unstructured PDF data like invoices into tables. Alteryx provides the ability to handle large and diverse datasets, semi-structured API based sources and unstructured sources using optical character recognition (OCR) technology to extract data like picture formatted PDF documents (raster images) from previous and current tax returns.
 - From photocopy to analyzable data:

Fotokopiden → Analiz edilebilir veriye



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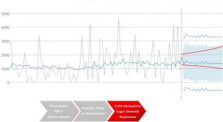
12

- We did forecasting to estimate the year-end tax burden

o We have sales opportunities for different products subject to diverse tax regulations and deliveries originating from a different country in most cases. This complexity results in a need for prediction of sales closure and prediction of date of delivery, invoicing, and time of payments, which altogether directly affect the resulting tax.

o Tax Estimation and Simulations: Estimates of future sales and taxes are made based on market data and expected orders. This can be simulated by adding econometric scenarios.

'Vergi Tahminleme ve Simülasyonları'



Piyasa verileri ve beklenen siparişler üzerinden gelecek dönem satış ve vergi tahmini yapılmıştır. Ekonometrik senaryolar eklenerek simülasyonlar oluşturulabilir.

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13

- We did what-if analyses of possible regulatory changes

o We crawled regulatory bodies' web pages and looked for changes in tax rates.

o We implemented these into our formula tools and did alternative reports with these possible number.

o Tax legislation details are difficult to follow, and we wanted declaration processes to be standard and automatic

o Countries included: Russia, Germany, Belgium, Turkey, Netherlands, Switzerland...



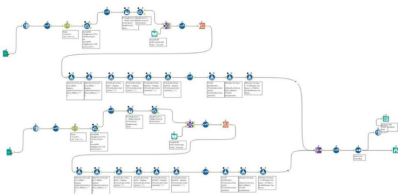
Vergi mevzuatlarının detayı, takibi zor

Beyanname süreçleri standart ve otomatik olmalı

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14

- Finally, we prepared reports using crosstab elements and reporting tools to render final documents. We use Tableau to visualize reports and dashboards



The Benefits of Alteryx

Before Alteryx, a single reporting process took anywhere between a day and a week of preparation, not to mention verification of multiple set of eyes. Today with Alteryx, it has become an automated task, taking less than a few hours. Additionally, human error in financial reporting is eliminated by automation. By connecting the outputs to the external reporting tool, our workload of pre-report process is also decreased. For 51 countries with 150 different locations around the world, we are planning to automate these processes as well.

We started the analytics journey from scratch. We took Alteryx trainings, Altdata, Alteryx's Partner, showed us how the quick prototyping methodology can enable kickstarting an analytics journey. Then, our team enrolled and started self-learning for data prep, enrichment and automation. We learned how to import PDF files in an iterative manner (using macros and Alteryx Gallery apps). We continue the journey with basic predictive analytics and text mining, which may boost our capabilities not only in tax but in other financial divisions as well.

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COMMENTS



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Some great content if you would like to get more ideas on tax analytics;



<https://www.owc.com/us/en/services/tax/tax-technology-blogs/tax-department-analytics.html>