



BREAKING LANGUAGE BARRIERS WITH AI, FOR EFFICIENT INVOICE PROCESSING

Abstract

Leon Muller, the Director of Finance and Accounting at a major European producer of induction devices, was determined to find a solution to tackle the lack of efficiencies of the invoice-to-pay process. Taking decisive action, he partnered with Infosys BPM to transform the accounts payable process with an AI/ML model. The outcomes were impressive as the initiative improved efficiency by 30%, reduced processing time to 2 days, and drastically minimised backlogs, delivering a substantial \$300K in cost savings.



Lost in 'invoice' translation

Leon Muller found himself revisiting the details of his recent call with a vendor concerning delayed payments. Although he ensured that his accounts payable (AP) team resolved the situation, the fact that a payment was delayed continued to weigh on his mind. As the Director of Finance and Accounting for a major Europe-based provider of turbocharging technologies, Leon was responsible for ensuring the AP team consistently adhered to payment timelines. The AP team was well aware of the costs of payment delays and the risks of damaging the organisation's reputation.

He decided to call an emergency meeting to investigate the delay and run through the entire invoice-to-payment process.

The AP team informed him that it took more than 3 days to process an invoice, especially if the invoice was in a language other than English. As a global

organisation, the team regularly received invoices in various languages. However, since the enterprise resource planning (ERP) tool operated in English, invoices had to be translated into English before further processing. While Google Translate was useful to an extent, the team had to involve in-house language experts stationed across countries, including Japan, Korea, and Taiwan.

There were also instances when vendors used multiple dialects in their invoices, so before engaging a translator, the language and dialect had to be identified. The team informed him that this dependency on language experts was one of the key reasons behind payment delays. It also dawned on Leon that using language experts was not only adding a layer to the process but also increasing the cost of operations.

Another reason for the delays was the time-consuming manual extraction of invoice data. Moreover, in the European region, vendors were known to adopt different invoice formats and currencies, and some invoices were even handwritten, making the process of extracting data even more challenging. To make matters worse, Leon discovered that the team struggled with massive backlogs of more than a thousand cases daily.

With a better understanding of the situation, Leon proposed leveraging technology and automation to overcome these challenges. The proposal was approved by the senior management, and Leon wasted no time in looking out for a suitable transformation partner, eventually enlisting Infosys BPM to help transform his accounts payable process.

Automated multi-lingual intelligence

Leon began briefing Vivek Saini, Infosys BPM's digital transformation expert, about the team's challenges in meeting payment deadlines and the need to enhance overall operational efficiency. He explained that he

was seeking a solution that could reduce the time spent on translations and data extraction and lower operational costs. He also emphasised the need for a solution that could be scaled to support new languages

in the future. Given the critical nature of the accounting function, he requested Vivek to ensure that the transformation would cause minimal disruption to his AP teams.

Vivek and his team began sifting through the processes and found that the AP team received ~30k invoices annually. However, only 60% of the invoices could be processed daily due to manual processes and other

discrepancies in formats and currencies. Vivek noted that since all non-English invoices had to pass through language experts before an agent could work on them, it was leading to massive backlogs.

Further, they estimated that the language experts were costing the organisation 3 person hours in various countries.

Approach summary



Using a digital-first approach, Vivek and a team of business analysts worked with global process owners to understand the current process and identify opportunities for streamlining. The team also made a list of the potential languages and took cognisance of the different dialects.

After weighing several options, the team finally chose the Infosys Accounts Payable on Cloud (APOC) platform – the inhouse, scalable, and end-to-end platform that uses AI and ML to automate processes. The platform offered an omni-channel experience, allowing AP teams to save time and maximise value. Leon and the other stakeholders were convinced that the APOC platform was the right choice to address their urgent needs. And so, Vivek quickly assigned teams to work on different aspects of the implementation.

As an end-to-end platform, APOC processed invoices in three stages

- Acquiring data by creating a case whenever a client sent an email with invoices attached as a PDF or TIFF file
- Using an optical character recognition (OCR) technology to extract, translate, and update the case file in APOC
- Posting the case to ERP platform for payment, after receiving all necessary approvals

To operationalise the data entry and validation process, Vivek brought in developers to deploy a pre-trained model of a leading automated data processing system and cloud-based APIs. These would extract content from documents and images, and translate the invoices to English, respectively.

Vivek implemented this solution systematically. Prior to implementation, his team worked closely with the organisation's cloud services team to ensure that the necessary systems and infrastructure for running the model were available. This was a crucial initial step as it helped to minimise any delays in the overall implementation. Then, Vivek's AI developers worked on the cloud-based API model, training it to detect the language in an invoice and translate it into English. Following this, the development trained the data processing system to extract information from an invoice. The models underwent rigorous testing to incorporate feedback and fix errors.

Multi-lingual appreciations

The new platform allowed the AP team to avoid handling diverse formats and spending time on manual processes. The data processing system and data extraction model automatically extracted data from invoices and uploaded to the

APOC platform. When non-English invoices were received, the cloud-based APIs automatically recognised the language and proceeded to translate the data. Thus, with no intermediaries causing delays, the translated data was immediately made

available for processing on the platform. It was a great relief for Leon to see backlogs being eliminated completely, from 1000 cases per day to 0.

Key benefits



Further, since the team no longer depended on language experts, the organisation could remove those additional resources. This change saved the organisation manual effort worth of 3 FTEs and led to cost savings of ~\$300K. Leon was also delighted to discover that his AP team could now process invoices faster

than before. The processing time reduced from three days to two, resulting in an efficiency improvement of over 30%.

Leon as well as the other senior management stakeholders in the organisation, greatly appreciated the attention to detail, regular updates, and

the speed at which Vivek and his team delivered this transformative solution were. The outcomes strengthened Leon's confidence, and he soon entrusted Vivek with a new transformation mandate, giving Infosys BPM another opportunity to use technology to deliver stellar benefits for the organisation.

**Names have been altered to preserve the identities of the people involved.*

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