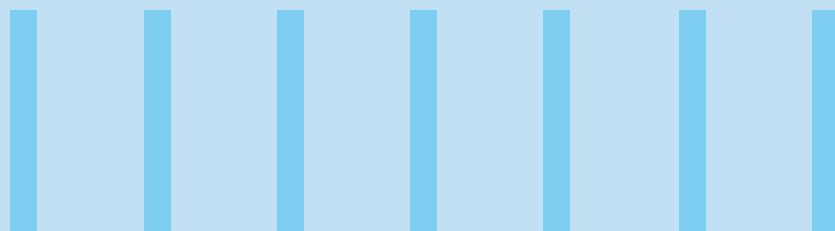




AUTOMATING FINANCIAL SPREADS

How technology can help with better business decisioning



Abstract

Financial institutions depend on financial spreading — the process of standardising financial statements received in diverse formats from a diverse set of enterprises — to make critical investment, credit, or underwriting decisions. Yet the activities involved are manual effort-intensive and prone to errors, and the massive volume of data needing to be analysed leads to the wastage of critical analyst resources. This paper discusses the challenges involved in the preparation of financial spreads and presents how an automated solution leveraging cutting-edge technology can help address them.



A critical cog in the lending value chain

Various types of financial institutions evaluate the financial statements of their clients for various reasons. Banks evaluate a company's financials to determine its creditworthiness and the health of the business throughout the duration of a loan. Similarly, commercial lenders use the information in financial statements to

analyse their borrowers' credit for business loans decisioning, and the same is true for insurance companies to determine financial risks when underwriting a policy. A typical financial firm receives hundreds of corporate financial statements and relies heavily on the insights from these to make strategic decisions. However, to achieve

this goal, the information contained in the statements — which arrive in different formats and file types — needs to be transformed into orderly, searchable data points to extract useful financial information. This process is called financial spreading.



- Financial Statements
- Tax forms
- Regulatory body reports
- Intake forms

Financial Spreading and Analysis

Downstream Business Decisioning

- Risk Analysis
- Investment Advisory
- Rating Analysis
- Credit Appraisals
- Credit Decisioning

Financial spreading enables the credit risk information of a business entity to be captured and easily analysed, for insights which can be used for downstream

business decisioning activities such as risk analysis, credit decisioning, and portfolio management. In other words, financial spreading facilitates stakeholders with

the required insights into a business that are needed to make nuanced financial decisions.

Spreading across the challenges

For financial firms, the process of financial spreading is challenging, because of the scale of activities involved. A large commercial bank may be required to process 100,000 financial statements for its spreads each year. Another challenge

is the diversity of inputs and their timing. A typical global financial firm handles financial statements from approximately 45,000 companies across 35 countries, each of whose financial data is updated at least once every quarter. Financial spreads

from all these statements are created and analysed quarterly, half-yearly or annually as per the frequency adopted by the institution.



Figure: Steps and processes involved in financial spreads

Apart from the scale and disparity in the information flow and types, financial spreading also absorbs a significant amount of analyst capacity because the processes involve much manual effort. In many firms, teams of over a hundred analysts are engaged solely in financial spreading related activities. Typically, the team size for financial spreading in tier 1 banks would have a headcount of at least 300 while that for tier 2 & 3 banks would be around 50. The reasons for the high degree of manual effort are detailed below:

- Uniqueness of data and presentation:** a company’s financial statements provide a wealth of information which is open to interpretation and different conclusions regarding its financial health. The problem external institutions face while evaluating these statements is that with each business

being unique, every financial statement looks different from the rest, reflecting the unique aspects of the business. This makes it difficult for financial firms to quickly understand one business and how it compares to others within a portfolio, an industry, or geography.

- Large and complex data sets:** The financial spreading process may involve gleaning information from documents relating to multiple counterparties viz. listed and unlisted entities in different countries, and sometimes different languages. Companies release these documents on a monthly, quarterly, or yearly basis including a variety of information such as their earnings, expenses, assets and liabilities, operating budget, and so on. Further, the financial data is often submitted in different formats,

including PDFs, images, Excel spreadsheets, faxes, and paper documents. These non-standard formats of financial documents result in piles of unstructured data which requires a lot of manual-intensive effort for processing and analysing.

- Fragmented and error-prone processes:** In the absence of apt technology to work with, financial spread analysts end up utilising non–standardised processes which typically involve manually examining complex information to derive critical insights. Often, institutions outsource these effort-intensive activities to third party vendors which results in making the entire process fragmented and thus adversely affects the accuracy and reliability of the spread insights.

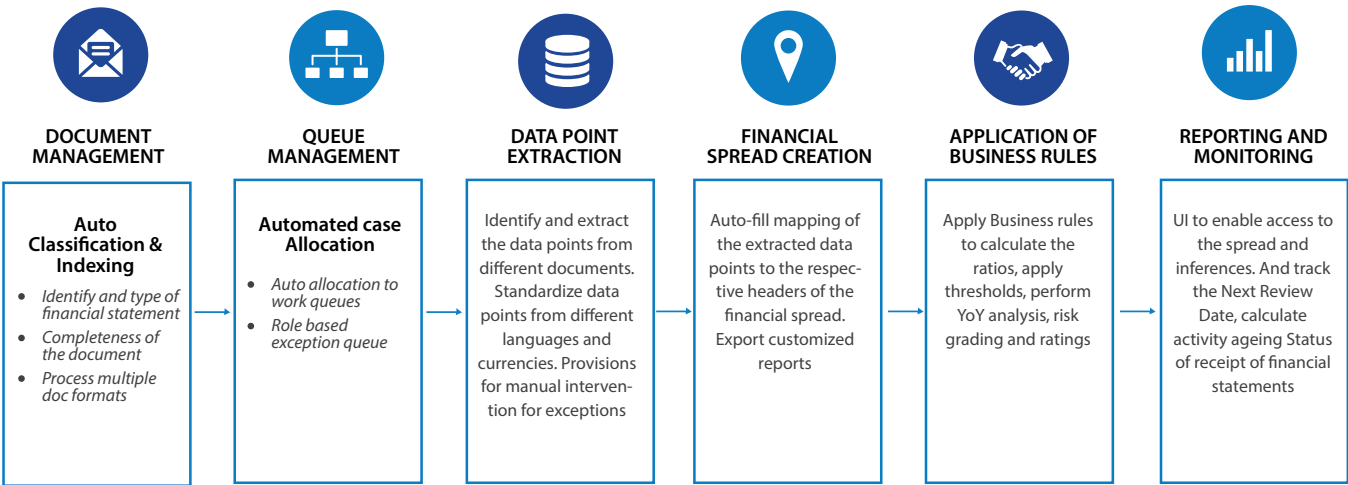
Automation; a better approach

An intelligent, automated financial spreading solution can facilitate automatic extraction of financial data from financial statements across multiple formats, currencies, and languages. For such diverse financial statements from different sources and in different formats — such as PDFs, fax, paper spreadsheets, and data files — technologies like Optical character

recognition (OCR) can be leveraged to mine their scanned images for machine-readable data. Then, scalable technologies such as computational linguistics and machine learning can be deployed to improve the data quality, remove inconsistencies, reduce costs, and make the spreading process easier and faster. In this way, automation can streamline the

workflows and the underwriting processes, increase efficiencies, and improve accuracy. Below is a proposed solution combining various digital components and leveraging multiple technologies. It provides seamless integration, a graphical user interface for analysts, for reporting, and for monitoring, and is flexible and configurable to adapt to various client models.

Key Solutions



The interactive UI integrates the processes to collect, import, spread, analyse, and export financial data under one solution. The solution can also be integrated with the organisation's existing LOS/ LMS systems, shared folders, and email systems to enable automated extraction of the relevant documents. The workflow

component streamlines the various stages of the spreading process and allows activities related to work allocation. This solution can be deployed as a web-based platform, on the cloud or on-premise. However, a cloud-based solution would be easier to deploy and would have lower IT implementation and maintenance

costs. With the flexibility to be customised according to any organisation's requirements and to apply business logic helpful for downstream activities, such an automated spreading solution can be deployed based on the vision and strategy adopted by the organisation, irrespective of its size.

Smart payments assistant

An automated financial spreading solution such as the one discussed above, will add much value to businesses through boosting efficiency, and optimising credit decisioning through its accurate and fast data extraction. Apart from realising cost savings on the manual efforts required otherwise, deploying automation will also

deliver firms the benefits of standardised processes as well as the ability to scale and customise financial spreading activities according to the business need. A few of the multiple operational efficiencies attainable through an automated financial spreading can be projected; up to 40% productivity

upliftment, ~70% improvement in accuracy, and up to 70% reduction in costs. Further the processing of multi-lingual statements fueled by artificial intelligence (AI) and natural language processing (NLP) can deliver ~80% automation leading to ~75% faster cycle time.

Looking ahead to better decisions

A recent research report projects the global commercial lending market to grow at a CAGR of 14.4% between 2021 to 2028. With this, it is projected that there will be 13% increase in technology spending by financial institutions, presenting an opportunity to automate heavily manual, repetitive, and error-prone processes like those involved in creating financial spreads.

¹Dive, Research. Global Commercial Lending Market Estimated to Surpass \$27,406.6 Billion and Grow at 14.4% CAGR in the 2021 to 2028 Timeframe |

<https://www.prnewswire.com/news-releases/global-commercial-lending-market-estimated-to-surpass-27-406-6-billion-and-grow-at-14-4-cagr-in-the-2021-to-2028-timeframe--exclusive-report-190-pages-by-research-dive-301595957.html>.

Accessed 28 Dec. 2022.

With banking and financial services being among the most data-intensive sectors and required to undertake financial spreading activities on a regular basis, an automated solution that leverages state of art technologies and workflow tools can deliver massive benefits. With

its flexibility and configurability to adapt to different client models, the power to crunch through large volumes of data, and the intelligence to handle critical complex financial information, such a solution can help address the challenges across the value chain.

Whatever be the field — credit appraisals, risk analysis, underwriting, or investment advisory — a growing adoption of automated financial spreading will streamline processes, reduce errors, ease the work of analysis, and in the end lead to better business decisioning.



Authors



Apurva Gupta

Senior Consultant – Financial Services, Digital Transformation Services, Infosys BPM

Apurva is a seasoned consultant with over 12 years of cross-functional experience across banking and consulting. Her core areas of expertise include domain consulting, strategy consulting, solution designing, design thinking and project management. As a Digital Transformation manager, Apurva has driven various initiatives and complex large-scale programs across emerging technologies, formulated go-to-market strategies and designed industry solutions.

Apurva has pursued her MBA from Symbiosis Center for IT and was awarded the title of 'best performer' of the batch. Prior to Infosys BPM she has worked with Wipro, IBM, and Union Bank of India, consulting on critical transformation projects in the Financial Services domain.



Sourav Ghosh

Senior Industry Principal, Infosys BPM

Sourav is a Senior Industry Principal with Infosys BPM's Digital Transformation Services, responsible for Industry Solutions – Global Digital solution design and Service delivery. An IBM-certified Design Thinking practitioner, he advises organizations on their operations strategy, assists them in improving profitability and efficiency of business processes, and helps in executing business transformation through calibration of operating model and technology.

Prior to Infosys, Sourav had been with IBM, Satyam, Tata Consultancy Services and Standard Chartered Bank across a variety of roles in India, the U.S., and the U.K.

*For organisations on the digital transformation journey, agility is key in responding to a rapidly changing technology and business landscape. Now more than ever, it is crucial to deliver and exceed organisational expectations with a robust digital mindset backed by innovation. Enabling businesses to sense, learn, respond, and evolve like living organisms will be imperative for business excellence. A comprehensive yet modular suite of services is doing precisely that. Equipping organisations with intuitive decision-making automatically at scale, actionable insights based on real-time solutions, anytime/anywhere experience, and in-depth data visibility across functions leading to hyper-productivity, [Live Enterprise](#) is building connected organisations that are innovating collaboratively for the future.

For more information, contact infosysbpm@infosys.com



© 2023 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.