JENJI presents:

# How analytics and data are shaping the future of expense management

WHITE PAPER

# Introduction

In the last decade, companies faced the importance of introducing sustainability in business spending, looking into business expenses in particular. With the 2008 financial crisis and the subsequent recession, businesses had no choice but to take an in-depth look at how they could streamline their finances. Investments started to be directed towards new technologies and in particular Artificial Intelligence (AI). For most companies, the short-term goal at the time was simply to get their head above water. But the large-scale investments accelerated research and breakthroughs, and more and more AI-based technologies made their way through corporate and mass use. The rise of the GAFAs accelerated the trend as they invested massively in AI entrepreneurial firms.

From the 2010s, as companies were still recovering from the global financial plunge, AI started to be seen as a vital toolbox to gain more business resilience. Blockchain, Big Data, Cloud Computing, Machine Learning, Deep Learning and Automation are technologies that both emerged from AI and reinforced AI development. High-demand for enhanced expense management meant these new tools were integrated in finance management with SaaS and then multiplatform solutions. Businesses that had not yet started the digitalisation journey for their business expenses realise their mistake with yet another global crisis in 2020, COVID-19. Business activity was shutting down all over the world and the only way to maintain work and revenue was through new technologies and streamlined expenses. CFOs found themselves in need for more agility, more instant feedback and reporting, more cost-effective management.

Data was the answer to most of these challenges. Or rather a smarter and more efficient use of expense data was the key answer. If data technologies were already a strong player in the market before the COVID-19 crisis, they expanded at a frantic pace in 2020 and even more so in 2021, reaching large companies as well as small businesses. With digitalisation, real-time expense management, automation and machine learning, CFOs were able to launch financial restructuring and optimise their expenses as the crisis was disrupting business at all levels. Now, with expense data available “as-the-expense-is-occurring”, the next step is reaching faster and sharper analysis of expenses, enhancing financial capacities and resilience in the long-term. This is where analytics are proving to be immensely useful especially with visualisation and contextualisation now being integrated in **data-driven expense management tools.**

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# Current Outlook of Expense Management

A few years ago, expense management took the leap and embarked onto the digitisation journey alongside all finance and management processes. Although the transformation had already begun in leading and tech companies, the COVID-19 crisis pushed CFOs from all sectors to rethink their expense management processes.

## Facts and Figures on the Expense Management Market

As work-from-home became mandatory in the countries strongly affected by the pandemic, **business expenses naturally shifted** towards home-based online expenses, home office arrangements, reduced in-person time at the office and increased online work and collaboration. Finance teams had no other choice to accelerate their digital transformation, including implementing digital expense management processes.

First timid steps towards digitisation were taken in 2020 but digital transformation boomed in 2021. If the number of Jenji users using digital expense management **increasing by 95%** in the last quarter of 2021,Yet, the transformation of the expense management market has not reached all entities and some companies still rely on outdated and **costly** processes.

## Manual Entry and the Lack of Data

Traditionally, expense management relied on manual entry, exposing financial teams to human error, fraud, and hidden costs. But in the digital era, the biggest flaw of manual entry is that it prevents collecting valuable financial data. As digital transformation became a central point of focus for financial teams, data emerged as a critical tool for companies. Fortune 100 companies perfectly understood how important data was and invested massively in data and AI initiatives, as the **NewVantage Partners annual survey** pointed out back in 2019.

However, if leading companies suspected the potential of data back then, positive results of data collection and analysis started to be truly visible with the COVID-19 crisis. As companies from all sectors were forced to move their operations online, the lack of data resulting from manual processing of finances revealed the difficulties in implementing simpler digital processes.

Focusing on expense management in particular, data collection is non-existent when expense reports are processed manually. Manual entry being a time-consuming and costly task, financial teams cannot afford to add an extra layer of expense just to create usable expense management data.

**THE FUTURE OF EXPENSE MANAGEMENT LIES IN DIGITISATION AND DIGITAL DATA.**

## Burden of Traditional Bulk Filing of Expenses

The bulk filing approach for expense management goes with paper receipts and manual entry of expense reports. This traditional method has been used for decades and transposed to computerised systems when computers took on a central role within companies.

Typically, expense reports are processed monthly or quarterly, all at once. The finance officer will use up to a few days per month to look after lost receipts and file expense reports in bulk. Not only does this method require financial officers to spend a significant amount of time on low-value work, the likelihood of human errors is heightened by the repetitive nature of the job.

Bulk filing of expenses is another task that was challenged with the COVID-19 crisis. Business expenses were still occurring, with new types of expenses emerging as a consequence of working from home, all the while employees could not submit their expense reports in person anymore disrupting financial teams' unworkable non-digital processes. Moving away from bulk filing towards instant processing of expense reports is a key objective for financial teams in 2022.

## Decentralised Expense Reporting Requiring Collaboration on All Fronts

Expense reporting can potentially involve any employee of a company. Business expenses occur at all levels and continuously. In addition, expense management requires coordination of several financial officers for the expense management, HR management, accounting and payroll.

**This decentralised system is cumbersome and prevents financial teams from having a clear vision on spending.**

Another drawback of this system is that everyone is spending time on expense reporting, instead of working on their higher-value tasks. Additionally, the risk of error and fraud increases as the number of involved entities grows.

Without a high level of collaboration, this system inevitably leads to chaotic and costly expense management. This collaboration on all fronts means adding an extra layer of management, increasing the overall management burden and diverting the company from its primary business objective.

# Expense Management Market Activity Timeline

## Expense Management Market: From Handwritten Reports to Smart Processes

Building from telecom expense management emerging from the 80s, expense management then took a new turn with travel expenses. In the 90s, programs such as Microsoft Excel introduced the simplification of repetitive tasks and complex calculation in the work process, opening the expense management market predominantly based on manual tasks. With the boom of business travels prior to the 2000s, expense management, then often referred to as T&E management, for travel & expense management, expanded quickly when finance teams started to understand the hidden costs of the entire processes.

The introduction of management software in the early 2000s into business ecosystems opened the path to the expense management software market which quickly took over the entire expense management market. Comprehensive solutions were offered to companies to start streamlining their processes and save resources. After smartphones and apps were adopted by the masses with the release of the **first iPhone in 2007**, SaaS and AI technologies pushed the market even further in the 2010s. Building on a high demand for performing everyday life and work tasks from anywhere, and the 2008 financial crisis, Fintech startups were behind the expense management market boom, developing creative solutions for real-time and on the go expense management. Today, post-COVID-19 forecasts show a compound annual growth rate (CAGR) above 11% for this market.


### Quick Timeline of Expense Management Developments:

- **Handwritten expense reports**
- **Table sheets expense reports**
- **Development of travel and expense policies**
- **Introduction of SaaS to management**
- **Introduction of AI and automation to business processes**
- **AI applied to expense management to streamline business expenses**
- **Boom of the expense management market with deep learning, automation, cloud storage, OCR...**

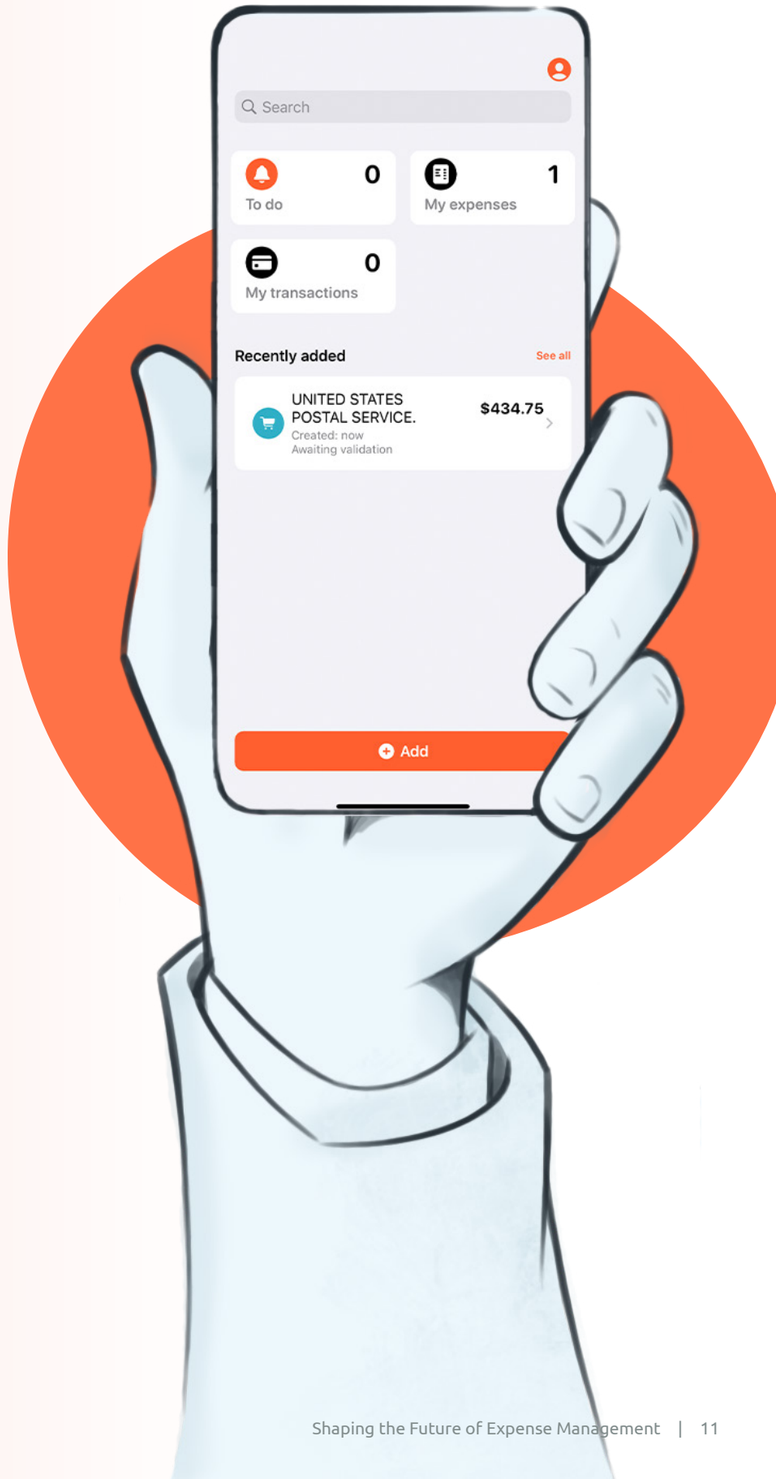


## Jenji's timeline: A Pure Player on a Booming Market

Founded in 2015 in Paris, France, and backed by Eurazeo, Jenji quickly became a leading player for expense management solutions for the mid-market. At the time, the expense management market was largely focused on the American market, with American SaaS companies developing solutions tailored for large

**As the market was expanding quickly, Jenji raised a first round of funding of €1 million with Axeleo in 2017, before raising a Series A funding of €6 million with Idinvest Partners and Axeleo.**

With a threefold growth every three year, the fintech company expanded in Europe and Asia by opening new offices in Zurich and Singapore in 2020. In 2021, Jenji launched several new products and conducted a **survey** on expense management practices and changes in APAC (Asia-Pacific region).



# The 5 Key Expense Management Trends Currently Shaping Finance Industry

As the finance market is now driven by digitisation, expense management trends are clearly set towards new technologies applied to digital oriented processes. With an array of AI solutions developed by Fintech in recent years, the expense management market is set to apply them on a larger scale, at all levels of the finance strategies.

## Moving away from Paper with Digitalisation

Business digitisation is a clear driver for business growth. In the last decade, the largestlargest and most competitive companies have been exploring how digital transformation was impacting their business performance. After the COVID-19 disruptions, most companies had no choice but to embrace the transformation. Digital transformation is a prerequisite to using AI-powered systems. It can be seen as the first step to move away from time-consuming, vulnerable and costly paper-based processes.

For expense management, digitisation means allowing the use of powerful technologies such as OCR, automation and machine learning, virtual card payments, etc.

**Paperless expense management allows for real-time management, preventing fraud and lost receipts, management from a remote location and faster expense reimbursement.**

With the EU market implementing a framework for digital business transactions, digital transformation is now more than ever an imperative for most companies.



## Real-time Expense Management

With an underlying “make it or break it” scenario, the pandemic pushed the even most reluctant entities to more agility, especially in all decision-making processes. Real-time access to expenses quickly became a major challenge for companies forced to reconsider their initial business objectives.

Building on a recognition rate reaching 99%, **OCR** (Optical Character Recognition) became one of the cornerstones of real-time business expense management. Coupled with automation, OCR allows employees to instantly report expenses. With this tool, finance teams can **switch** from the costly **manual-based expense reporting system** to an automated solution.

Real-time expense management is the foundation for sound financial decisions, relying on present data instead of data painfully collected in the previous year. Thanks to this technology, expenses become expense reports ready for review and approval in the blink of an eye, fraud and anomalies are detected instantly, and budget limits are always under control. **Real-time expense management** is the way forward to streamline expenses and allow for proactive financial decision-making.

## Expense and Booking Convergence

With virtual card integration, expense and booking convergence is the latest hot trend in the expense management market. Expense management tools are now offering easy integration between expense management and travel booking systems. The convergence helps T&E management to streamline processes, especially when used together with a virtual card. In a way, **T&E has evolved into T+E management.**

As the Global Business Travel Association expects a full recovery of business travel by 2025, the expense and booking convergence will help companies to take any travel-related burden off their employees’ shoulders by easing travel booking, travel planning, and travel support services. The use of expense reports will be limited, which is good news for both travelling employees and expense management teams. And when expense reports are still necessary, booking data can be transferred into an expense report automatically.

Ultimately, companies are most interested in streamlining travel costs, with travel expenses fully aligned with expense policies. Integrated travel booking and expense can support travel expense policy enforcement, thanks to travel data and analytics.

## Virtual Card Integration: the Best Answer to Fraud Attacks

**B2B digital payments** is one of the latest trends that boomed with the post-COVID-19 working processes. In line with the shift towards real-time management, online payments allow for faster remote transactions. Additionally, expense management benefits from virtual card payments with cash flow improvements. But the key asset of virtual card payments lies in how secure the process is. In 2020, **74% of companies were targeted by fraud attacks**, with checks and wire transfers being the payment methods the most likely to be attacked. Payments through virtual cards are by far the payment methods that offer the best security against payment fraud.

If early developments of virtual card business use received a mixed response, the significant reduction of risk of fraud and an eased integration into the company's ecosystem should help convince finance teams. Although payment services for B2B are subject to **strict regulations, virtual card integration** provides companies with a **ready-to-use payment solution**, directly integrated within the expense management processes.

## Automation and Machine Learning: Paving the Way to Consistency and Accuracy

Automation and machine learning have been trending for **several years** now. With automation, companies understood they could save resources by transferring low-value work to computers, **relocating qualified employees on high-value tasks**. Machine learning took automation a step further, and expense management embarked on a major shift to AI-enable systems.

Automation and machine learning help financial teams to spot all anomalies, with minimal manual intervention and monitoring. With automation and machine learning combined expense management can achieve:

- **Better compliance**
- **Real-time insight on spending**
- **Improved accountability**
- **Reliable fraud detection**
- **Enforcement of expense policies**
- **Financial transparency**

For companies that haven't made the switch **to AI-powered expense management** systems, 2022 would be a good time to take the plunge, supporting the move forward after 2 years of disruptions.



# How Finance Digital Transformation Relies on Digital Expense Management?

Digital transformation **started long before 2020** in finance departments and boomed in recent years and **with COVID-19**. But unless this transformation includes **expense management**, finance teams are unlikely to achieve digital transformation.

## Finance Digitisation

Digital transformation or **digitisation** is the process allowing an entity to convert information into a digital format. This process is usually introduced by the finance departments to increase cost-effectiveness, as finance and accounting require both repetitive low-value tasks and high-value work.

In 2022, and even more so since the COVID-19 crisis, business growth is clearly subjected to companies being more resilient and responsive. Yet, manual expense management is time-consuming and not cost-effective: the exact opposite of what financial teams are aiming for. In addition, expenses are the second most controllable budget, meaning expense data has a great value, if processed properly. Without digitisation to inform finance teams on where to optimise expenses, expenses remain an unprofitable costly account. This is true for all types of companies. Small businesses will have no hindsight to meet their financial goals with tax deduction for occasional untracked expenses, while large accounts might be overwhelmed with the quantity of expense reports to process, leaving no time for proper analysis and control of expenses.

In times of crisis, finance departments can find themselves unable to adapt quickly and expense management is often pushed to the side for other matters seen as more pressing. Introducing digital expense management into the finance processes is one of the best ways to launch digital transformation. SaaS solutions recently developed are powerful and innovation-driven. With a high rate of tasks that can be automated, digitisation of expense management can be effortless and quickly bring encouraging results for the finance department.

## Turning Expense Into Profit With Digitisation

Looking ahead, digital expense management can be the solid foundation for finance teams to **turn expense into profit**. Not only will digitisation increase cost-effectiveness, CFOs can use the transformation as **a platform to develop high-margin products and services**.

A better understanding of expenses leads to more resilience for the company. Digital expense management also allows for more agility and real-time financial decision-making.

**WITH DIGITAL EXPENSE MANAGEMENT DRIVING FINANCE TRANSFORMATION, OPPORTUNITIES FOR GROWTH ARE BOUNDLESS, ESPECIALLY WITH DATA COLLECTION AND ANALYTICS.**

PART 2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# Data and Analytics as the Financial Management Game Changer

New technologies are radically transforming the business ecosystem. The collection of business data is changing the way corporations organise the day-to-day and long-term expense plans. Financial management is one of the winning departments in that matter. AI provides CFOs with sharp tools to not only streamline expense processes, but also **turn data into profit** thanks to a data-driven approach.

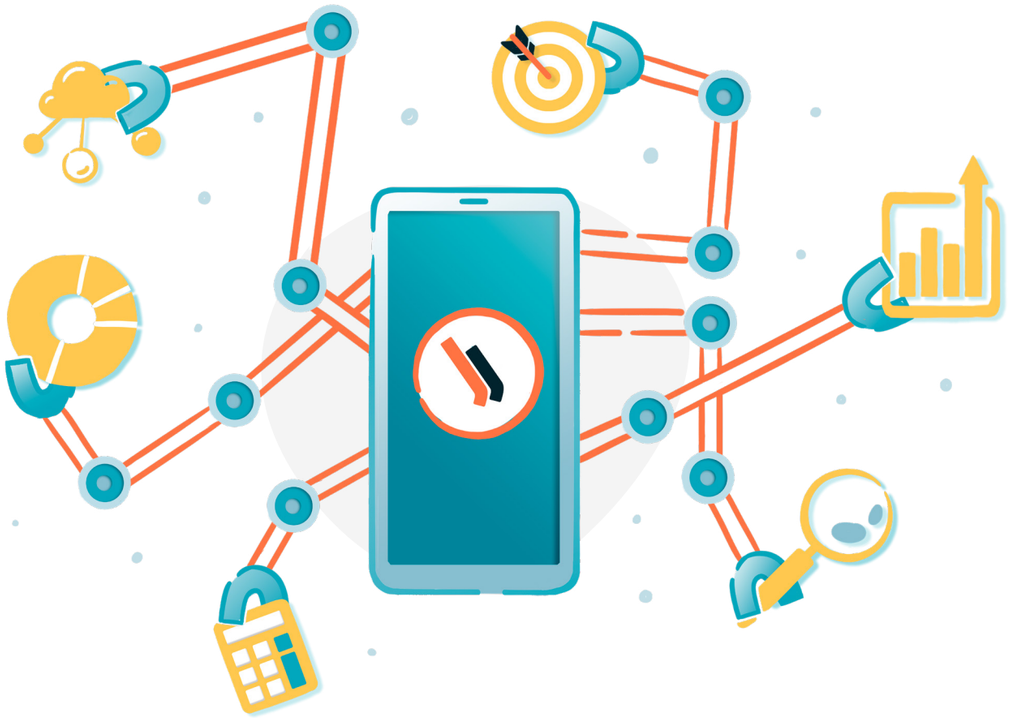
The financial data market is thriving, bringing-up both opportunities and challenges. Keeping in mind that financial data can bring insightful business directions, data visualisation and contextualisation is a step CFOs must not overlook.

# Current Landscape of Financial Data in Expense Management

Data breakthroughs came with new technologies and a broadening of Cloud usage. From there, the **Big Data**, which **started off** many years ago, quickly opened a vast array of opportunities, with a potential for business decisions to be drawn from collected data. But in fine, alongside the increase use of AI tools to improve business, data collection raised a lot of questions:

- **Why and how to store data?**
- **How to use the collected data?**
- **How to protect sensitive business data?**
- **How to handle large volumes of more and more complex data?**
- **How to turn data into information finance departments can use?**

As these questions were met with valuable answers from fintech startups such as Jenji, the financial data landscape has been greatly impacted by the COVID-19 crisis, with more and more companies moving their workforce and workflow online. De facto, the great move towards online work meant even more data was being created, bringing the need for data tools even further into business ecosystems.



## Leveraging the Cloud to Streamline the Expense Process

The storage aspect of collected data is an important factor in how much the data market expended in the last decade. External servers became essential to maximise the potential of the new AI tools which tend to collect a lot of data and offer synchronised online access. But essentially, cloud-based solutions offer more than just storage. They provide a holistic approach, easing the user experience and data processing.

Cloud services are expecting to **continue their growth in 2022** after expending continuously in the **previous financial years.** Leveraging the cloud will be a key component for streamlining expenses.

## Data Security in the Spotlight

Since data is both expending and stored externally, data security is now more than ever in the spotlight. Data security has always been paramount for companies, but since most of it was stored internally and on paper, security measures were more straightforward to put in place.

**Financial data is particularly sensitive and external cloud storage could easily expose to ransomware, phishing, and even theft.**

Incidentally, data privacy has been regulated in the EU, with employers now having to comply with the **GDPR** for data collected on their employees – such as name and address, business travels, etc.

Data security is critical for business, and financial teams need **reliable solutions** with data encryption, GDPR protected storage and guaranteed follow up in case an issue arises.

## Data Governance: Automation and Machine Learning for Intelligent Data Management

**Data governance** is a component of data management, and determines authority and control over data within the organisation. This type of data management aims to ensure data security, data privacy, data accuracy and data availability and usability. In other words, data governance targets data intelligence, which is a step forward to **business intelligence**.

With automation and machine learning, CFOs can achieve these goals effortlessly. Once the process is in place, these AI tools will digest and organise otherwise highly complex data. In 2022, financial teams are looking to fully enforce data governance in their processes.

## Data Analytics Reveals Its Potential

The latest evolution in the data market is **data analytics**. With AI tools able to store and sort complex and significant volumes of data, the path towards data analysis is now wide open. AI tools are now integrating analytics functions, to help financial teams adopt data-driven decision-making processes. Analytics are becoming increasingly important for business expense management, and heavily rely on data visualisation and contextualisation.

# Leveraging Data Visualisation for Finance Optimisation

## What Is Data Visualisation?

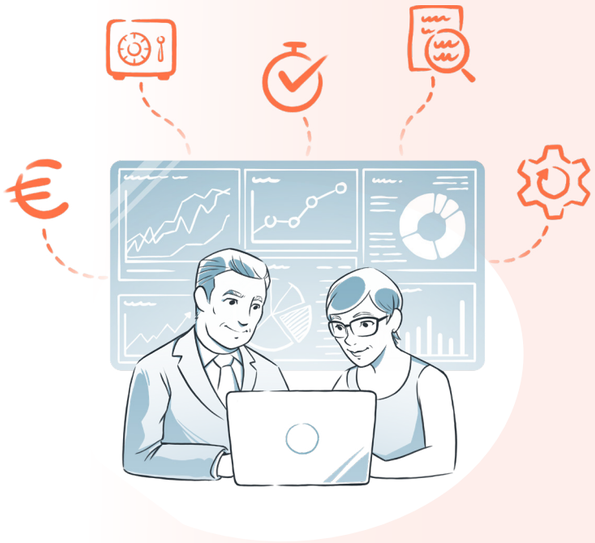
**Data visualisation**, a part of data analysis, is a visual representation of data to ease the interpretation of patterns and trends. Data visualisation has been used for a long time by companies, initially with hand-drawn graphs for business statistics and further developed with Excel, the 90s benchmark program for data analysis and its visualisation through charts, graphs and histograms. However, using data visualisation started to be a game changer for businesses from the 2010s when AI interactive data visualisation tools **unleashed the true power of data**.

### Why is Data Visualisation Important?

When analysing data, decision-makers may be faced with difficulties to convey complex ideas. This is partly due to the **short human attention span**. Yet, the value of data lies in how effectively it is interpreted. And visuals are **the most suitable type of stimulation** for the human brain, relying on both aesthetic and functionality.

Visuals are a universal language overcoming any language barrier the audience might have, and are more effective than text or tables. Without visualisation, all the collected data remains unhelpful meaningless data.

In a nutshell, data visualisation helps data users to convey their message in a better way, and even **to tell a story with data**. Visualisation is more impactful, and turns data into something actionable for decision-makers. Data visualisation used to be limited to spreadsheets tools. If today's AI tools still use charts, how these tools get to customised visualisation is unparallelled. There are a lot of operations **Excel-sheets cannot do**, and companies are now trying to **move away from spreadsheet-based analysis**, as they cannot afford to rely any longer on the time-consuming and **error-prone** spreadsheet system. With companies navigating a disrupted workflow since 2020, data visualisation is more relevant than ever to boost what can otherwise easily be counterproductive online business presentations.



## Data Visualisation Tools and Techniques

Data visualisation uses various types of data display, which can be customised for each company and even each department or user. Innovative data visualisation tools are still being developed to best meet the unique needs of finance teams. Decision-makers can now easily display patterns, relationships and connections, proportions, comparison, range, timelines and even concepts. Usually, the tools offer an interactive use of the visuals, with filtering and cross-filtering, layer processing and numerous customisation options.

Here are some of data visualisation tools commonly used by financial teams:

- Pie, line, area and bar charts
- Matrix charts
- Frame diagram
- Line graphs
- Maps
- Dynamic dashboards

## No-Code Data Visualisation for New End-Users

Data visualisation relies on a no-code or low-code approach, which paved the way to analytics for data end-users other than data scientists and Python specialists. Not only data visualisation goes way beyond spreadsheet analysis, AI automatically turns bulky complex raw data into actionable information. There is no need any more for expensive and time-consuming data science human expertise just to sort out data.

Financial teams now have access to powerful data analytics. Potentially, everyone can now use data visualisation for its department: marketing teams, sales teams, human resources teams, financial teams, all C-level executives including the CEO and CFO. Data visualisation allows these new end-users to track performance, issue data-driven reports, support business meetings, and decide on actionable insights. Even more importantly, data analysis can be shared and used transversally by all teams. With data visualisation, companies get an up-to-date **360° vision** of their finances.

# Improving Financial Decisions

## Faster and Better Decisions

Data visualisation tools can sort, arrange and cross-match data instantly. A very large quantity of information can be analysed and turned into visuals, to highlight trends and patterns. Data visualisation is more likely to extract useful and crucial information than any other tool before.

With patterns clearly identified and quickly displayed, decision-makers can find correlations and potential failures to achieve better outcomes. Decisions-makers are also in the best position to identify future trends and develop future strategies. Customisation and dynamic interface also participate in sharper analysis. And as data visualisation tools can be used by most departments, they encourage team efforts and collaboration, all this leading to improved financial decisions.

### Transforming Expense Data Into a Profit Centre

Analysing expense data goes way beyond finding where money is spent. Not only can expense data show trends and abnormalities to limit unnecessary costs, it can also turn expenses into profit. Because data visualisation helps to analyse spending behaviour, the potential for optimisation cannot be overlooked by financial teams.

For instance, data analysis can help CFOs to flag finance management flaws, which can be a costly issue for companies. Expense data is also the foundation to optimise tax strategies and generate more revenue. Additionally, predictive analytics use historical data to identify potential future outcomes. They support CFOs to stay one step ahead and spot profit opportunities as soon as they arise. Thanks to real-time monitoring coupled with visualisation, financial data can be retrieved and analysed instantly, at all times and everywhere. This can help CFOs tremendously for implementing faster, more effective and efficient decision-making processes.

**WITH DATA VISUALISATION, FINANCE TEAMS CAN NOT ONLY REDUCE COSTS BUT ALSO UNLOCK DATA VALUE WITH A SMARTER AND SHARPER USE OF DATA.**



# Focus on Data Contextualisation: Beyond Conventional Data Features

Data contextualisation brings data analytics one step further. In short, contextualisation is the **missing link** between strategy and results. Data contextualisation is not a conventional feature in that it addresses issues encountered in data storage as well as it lays down the foundation for more powerful analysis techniques and tools.

## Addressing Big Data Shortfalls With Data Contextualisation

With the ever-growing Big Data, companies can easily find themselves with overflowing complex data. These vast amounts of data were collected from multiple sources and usually stored on the cloud, but not necessarily structured in a usable way. Not only data collection can be costly, storing unusable data is counterproductive as well as expensive. In 2002, leveraging data use was an imperative for companies.

The storage of large amounts of structured and/or unstructured data is referred to as data hubs, **data lakes**, and data warehouses, each type of storage playing a different role. Data lakes for instance, offer the possibility to store data "as is", from any source – mobile apps, SaaS, social media, IoT devices – which can be a critical feature for most companies. However, issues resulting from storing a large amount of unstructured data tend to turn data lakes into a burden that even data scientists can have trouble using. Yet, storing data is relevant mostly if said data can be used to inform business decisions. This is where data contextualisation provides valuable assistance.

Data contextualisation is a process that adds context to data. In other words, background information is added to stored data and provides a broader understanding of what was collected. For example, a given business expense will be linked to a date, a department, and a category of expense, instead of remaining an isolated event (i.e.: "expense n°2635"). Contextualisation finds meaning or cause for a given piece of information. It helps companies to move away from the siloed organisation, which uses data solely in the context of its function or department. It repositions and enhances data in a complex network of interconnected and overlapping information.

## The Power of Connecting the Dots

Adding context to data is highly powerful. Especially coupled with machine learning and automation, which allow for conditioning and organising the source data as well as synchronising changes on the entire string of information. With structured, contextualised data, companies finally have big pictures within their reach and discover the relationships between their data points.

**Data visualisation would not be possible without data contextualisation. Patterns and trends can be displayed via custom visuals because data contextualisation connected the dots between the various data sources.**

Even further, data visualisation users can rely on an interactive architecture because the source data is contextualised and synchronised. Combining contextualisation with visualisation is the **foundation for getting valuable business insights** from data and analytics.

Companies are pulling away from static data analysis, and use data contextualisation to implement data storytelling, which partly relies on data visualisation. **Data storytelling** is built from cleaned and contextualised

data to convey actionable insights with audience-focused visuals and narratives. It helps to draw conclusions from the past to inform decisions. Presenting data analysis results is bound to be more and more dynamic and customised. Overall, the trend is towards convergence of data and analytics. Because finding data context is a critical prerequisite to analysing data and presenting results, tools now combine contextualisation with analytics to deliver end-to-end solutions. According to **Gartner**, 95% of fortune 500 companies will converge analytics and into data by 2023.

Beyond improvement of decisions within the financial department, the entire decision-making process for all departments is benefiting from data contextualisation. Decision makers can issue cross-sectional and cross-functional orientations and objectives. They can apply new strategies at the micro and macro levels. With a dynamic **business intelligence dashboard**, they can streamline entire processes from start to finish, across all departments. Data contextualisation is the hidden AI work that makes it all possible.

With data relationships and patterns at their fingertips, CFOs now have a powerful tool to implement financial management strategies using data.



## Top CFO Financial Management Strategies Using Data

Using data and AI, modern CFOs have the opportunity to play a more critical role in companies' growth with new data management options at their disposal. From an expert in finance, the CFO became **a business partner** with a strategic and operational role. CFOs are now expected to lead data management, analysis, and reports to extract the greatest data value. They are an important piece of the finance transformation puzzle in leveraging technology with digital investment.

## Taking the Lead on Digital Data Management

CFOs strategies should be directed towards digital transformation and up-to-par data management. New technologies allowed for a vast amount of data to be collected and stored externally. Finance optimization will require regaining data control to unfold its full potential. To do so, CFOs should implement AI solutions for data management, which means:

- **Shifting from spreadsheet systems to analytics**
- **Moving away from paper-based documentation and go paperless with digital transformation**
- **Moving digital data to cloud-based solutions**
- **Building robust data management policies**
- **Ensuring intelligent data collection**

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## Streamlining the Financial Process

Digital transformation will help achieve better financial management. With automation and Machine Learning, CFOs can streamline processes and cut unnecessary costs. AI will also help identify risks and errors and adopt a more proactive and flexible posture in unstable financial circumstances. Automation of financial data operations such as journal entries and financial data storage allows enhanced audit and reporting. Finally, CFOs have at their disposal promising and already powerful analytics developments and innovations.

## Launching a Data-Driven Decision Making Process

Once an AI-based data ecosystem has been implemented, CFOs can move onto using data for actionable insights. They can use analytics to highlight critical correlations and trends and base their decisions and these findings. Data-driven decisions are more likely to be on-point, as they are based on cross-dimensional contextual information. .

## Involving All Players in the Data Ecosystem

Digital transformation is an opportunity to involve all parties in building a reliable data architecture. Multi-source cloud-based storage allows the collection of data from everyone and from any digital source. For instance, user-friendly apps help record business expenses in the field and interactive dashboards can provide a compelling display of department or project expenses in the decision room.

**Potentially, everyone can contribute to the data ecosystem of the company.**

CFOs should ensure that all players that can be involved are indeed involved for better data management performance.

# Conclusion
## key findings

### The future of expense management is digital and data-based

If there were any doubts left, the COVID-19 pandemic lifted them all. Companies cannot afford to rely on expensive and time-consuming manual processes anymore. Going digital and using data means enjoying more agility in disrupted times, reducing costs and making better use of high-value tasks. Digital transformation offers various opportunities for business and postponing the inevitable transition could be fatal at this stage.

### AI tools are allowing to unlock Big Data's full potential

Data's high value comes from AI tools. AI can perform all sorts of low-value tasks, faster and better than humans. More importantly in the data ecosystem, AI tools can highlight relationships between data points that businesses failed to identify before.The potential for financial optimisation is tremendous and is already proving to be successful with tech and large companies.

### Expense data management is at the heart of finance optimisation

Using Big Data means implementing data management. Large amounts of data can be difficult to turn-around, and poor management can damage finances. Instead, financial departments can use expense data and data management for finance optimisation. Not only data can now be highly valuable, expense data management can turn expense into profit.

### Contextualisation and visualisation are facilitating the move towards data-driven decisions

Data contextualisation provides multiple layers to unstructured data and help overcome the Big Data challenges. From contextualised data, data visualisation provides a smart and effective display of findings. Patterns and trends are easily identified, presentation is customisable, and decisions are made according to sharp observations and analysis.

Decision-makers can now rely on powerful tools for data-driven decisions and expense optimisation.


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