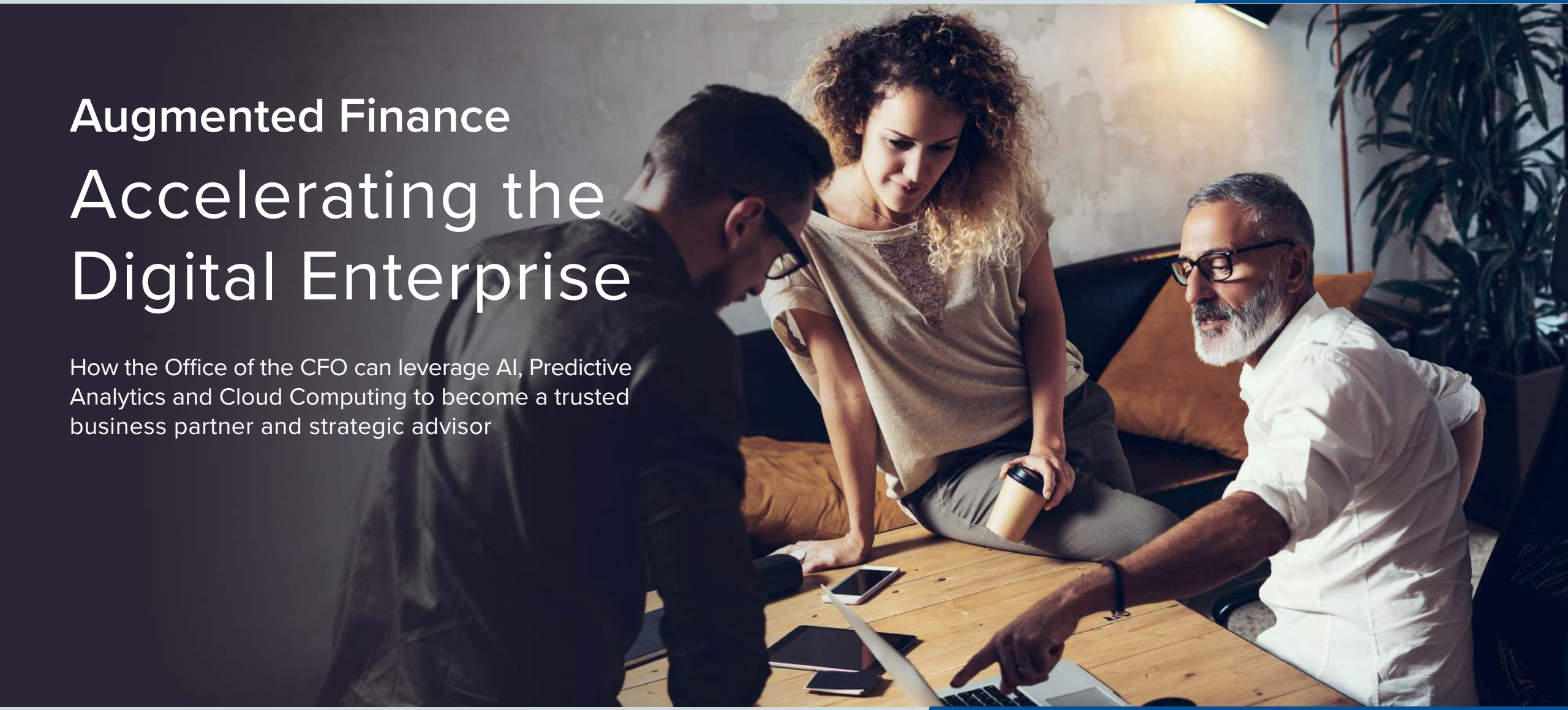
Augmented Finance

Accelerating the Digital Enterprise

How the Office of the CFO can leverage AI, Predictive Analytics and Cloud Computing to become a trusted business partner and strategic advisor



jedox. | Microsoft

Finance at the Crossroads

Digital Transformation presents CFOs with new challenges and is having a huge impact on the Finance function, putting the Office of the CFO at a crossroads.

The digital business model requires new skills and processes. The classic finance model has to change quickly, expanding beyond traditional functions such as accounting, controlling and reporting to a more strategic role where the Office of the CFO provides insight and future direction for decision-support to the entire business.

How quickly finance adapts to its evolving role is not only critical for the CFO's successful career path, but also for the success and competitiveness of the companies they work for. Particularly important will be how Finance seizes the opportunities enabled by digital transformation initiatives powered by next generation analytics enabled by artificial intelligence (AI), machine learning (ML) and virtually limitless computing power in the cloud.

In this ebook, Jedox, a leading provider of AI-enabled Enterprise Planning and Performance Management software, has partnered with Microsoft to outline how the Office of the CFO is evolving with digital transformation. This ebook specifically looks at common challenges and how Finance can move quickly to drive successful AI-enabled data and analytics strategies – and establish the Office of the CFO at the heart of the digital enterprise.

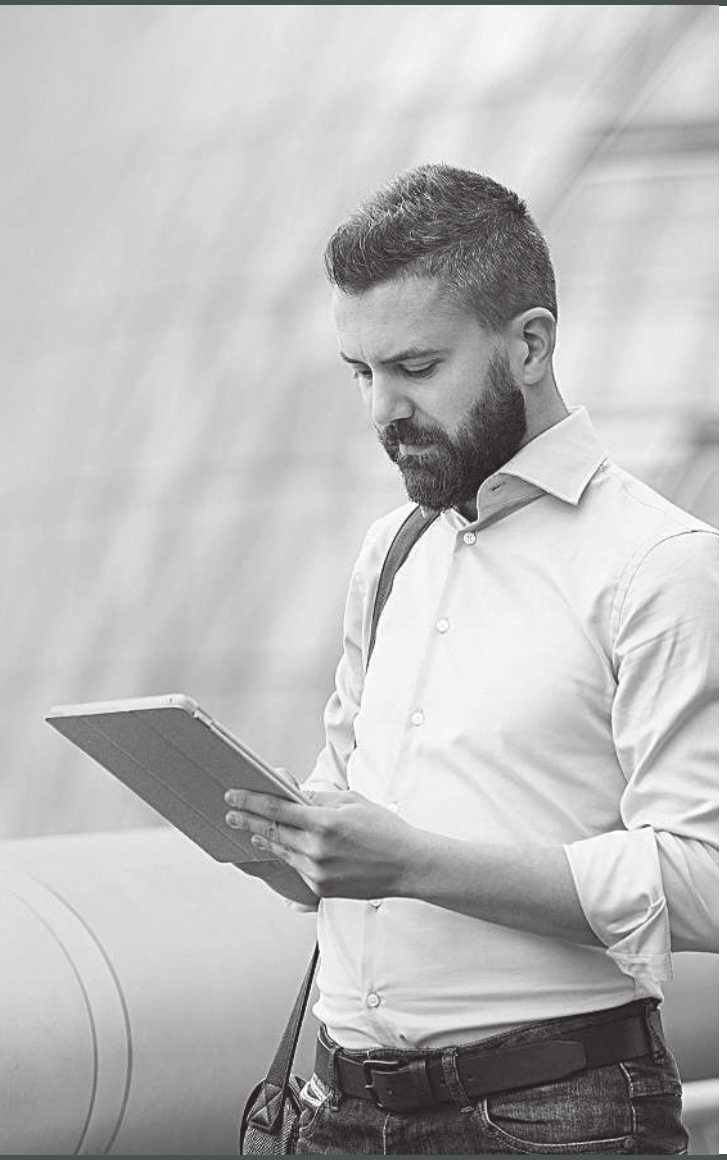


Table of Contents

Next Generation Digital Finance 4
Accelerating Digital Transformation – the role of the CFO 5
Three major Challenges for Digital Finance: 6
- Challenge #1 – Turning Data into Information
- Challenge #2 – Advancing Analytics Skillsets and Tools
- Challenge #3 – Empowering the Business with AI

Key Technologies enabling Digital Transformation 8
- The CFO's Quick Guide to Artificial Intelligence
- The Cloud as a Catalyst for Growth and Innovation
- Five foundational technologies for Digital Finance

Journey towards Transformation 11
- Becoming a Strategic Business Partner

Stage 1: Streamlined Financial Planning and Analysis 12
Case Study Bonnier B2B – Reporting faster and on time 13
Stage 2: Integrated strategic, financial and operational plans 14
Case Study Unitymedia – Boosting planning quality & efficiency 15
Stage 3: Insigths and automation via smart algorithms 16
Gaining Deeper Customer Insights 17
Outlook: Harnessing AI & Machine Learning in FP&A 18

Next Generation Digital Finance

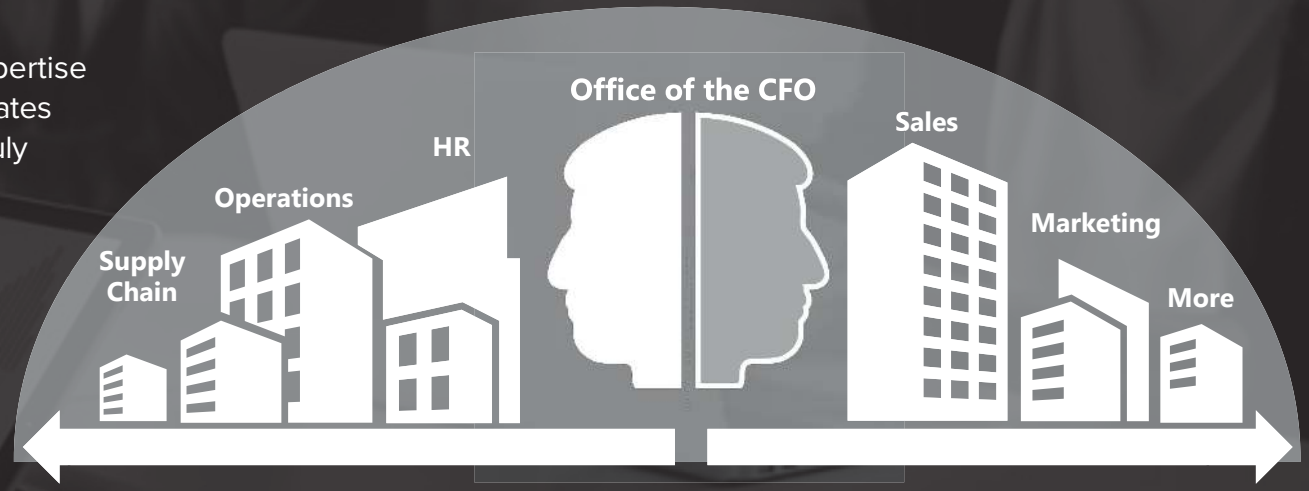
The Evolving Role of the Finance Function across the Digital Enterprise

Most Finance teams already recognize that the business demands new types of support and their responsibilities are shifting. Instead of just focusing on core transactional functions, CFOs see a growing requirement to extend Financial Planning and Analysis (FP&A) capabilities out across the enterprise – and that requires new skills and technical capabilities.

The Office of the CFO, in its new role sitting at the center of data and analytics, is increasingly relied on to gather, process and deliver the kind of data-driven insights needed to guide company strategy. This requires Finance to reach out and partner with business functions in order to impact business decision-making with insight and foresight across the entire value chain.

In doing so, the Office of the CFO must extend its traditional technology expertise and tool base so that modern enterprise performance management incorporates key corporate functions such as Sales, Supply Chain, HR and IT to enable a truly integrated planning, analytics and reporting approach.

By working beyond Finance – and taking advantage of the deeper insights enabled by AI - the result can be the creation of a true, business-wide Enterprise Performance Management analytics foundation. One that not only provides guidance for business decisions, but also shapes the questions the business is asking in the first place.



Accelerating Digital Transformation – the Role of the CFO

Expert Interview: the CFO as the Driver of the New Digital Business Model

How does the role of the CFO evolve with digital transformation?

”Digital transformation presents an opportunity for CFOs to position themselves - based on the combination of analytics and business knowhow in the office of finance - as a driver of the digital business model. He or she can thereby develop into a more strategic role.”

What are some of the challenges on the journey toward a digital enterprise?

”Many companies are struggling to get a handle on the type of digital transformation that fits with their specific situation. At the same time, some of the basics for the deployment of new technologies are not in place such as clean master data in the IT system landscape. Lastly, there is also a shortage of experts for digital transformation in the market.”

How can CFOs leverage new technologies such as AI, ML and Cloud Computing?

”In the first step, these technologies help digitize the processes in the office of finance and create more efficiency as a result. In addition, the office of finance should start to develop specific use cases that have the potential to impact the entire business. It is important to try and demonstrate measurable success with smaller projects and gain experience with new technologies quickly. In the medium run, it is also key to lay the foundations for true transformation with the harmonization of IT systems for example.”

KPMG

Christian Willmes
Partner Digital Finance, KPMG

Three Major Challenges for Digital Finance

Challenge #1: Turning Data into Information

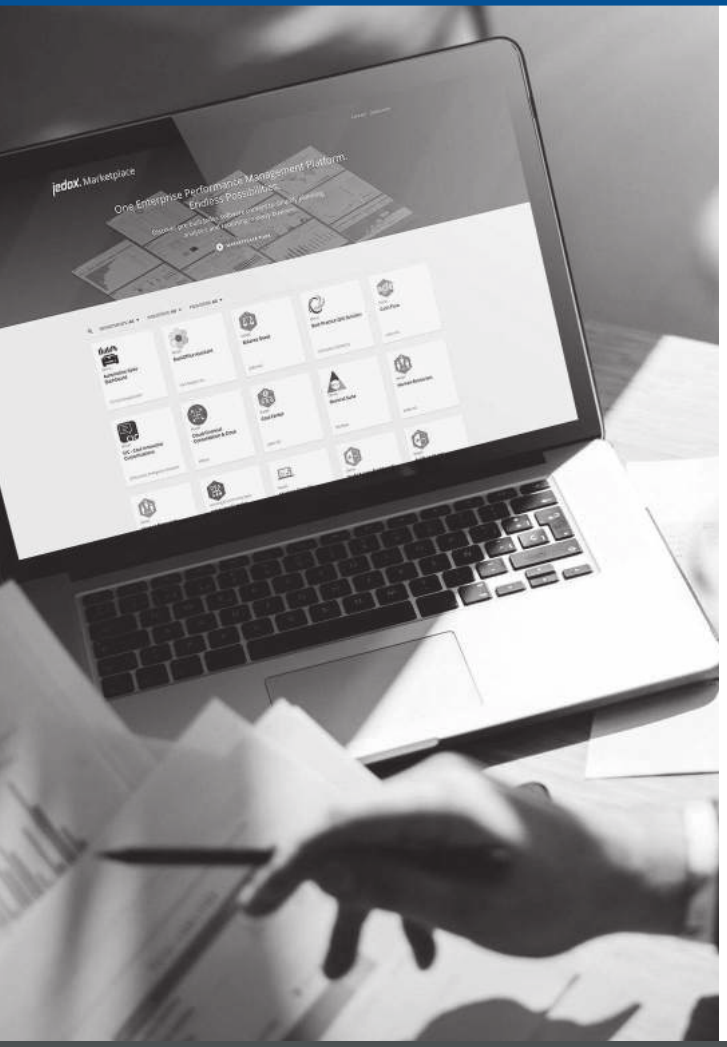
The combination of major Digital Transformation initiatives and of the extending the reach of the Office of the CFO out across the enterprise accelerates the opportunity, and the complexity, of handling massive amounts of data.

Turning huge volumes of data into valuable information is challenging, and most organizations are still only scratching the surface of their data's huge potential. For finance teams that are charged with bringing this data together there is a pressing requirement to be able to integrate disparate systems with the help of IT, analyze large datasets, and do it in a way that is both consistent and delivers high value outputs.

Whether it is data from CRM, ERP, HR or other internal systems, it all needs to be brought together, enriched with relevant external data and analyzed intelligently. Key considerations include:

- How to map and integrate internal data silos?
- How to combine cloud and on-premises data sources?
- Which external data sources add value?
- How to ensure high data quality and consistent structure?
- How to manage access to sensitive data for different stakeholders?

Three Major Challenges for Digital Finance



Challenge #2: Advancing Analytics Skillsets and Tools

Finance must adapt to seize the opportunity that multiple data sources present. But simply gathering data can never be enough. Instead, advanced analytics and data science skills are increasingly needed to interpret and draw insights from the information available.

Clearly these skillsets are rare and expensive, and Finance cannot rely on in the IT function or external Business Intelligence resources to support daily analytics requirements. The answer is to develop new Office of the CFO analytics resources and become a frontrunner for company-wide analytics initiatives. Innovative FP&A tools will incorporate technologies like AI and machine learning, providing Finance with new capabilities in a familiar application environment.

Challenge #3: Empowering the Business with AI

Successful Digital Transformation initiatives benefit when powerful AI and machine learning techniques are applied in order to process and analyze large volumes of data from across the business.

However, to unleash the value of specific data patterns, insights and predictions discovered by these techniques, the Office of the CFO needs to work across multiple lines of business, understanding their particular requirements and ensuring that business functions are able to act on new insights intuitively without in-depth analytics expertise. This means the CFO needs intimate knowledge of the business and flexible IT systems to adapt, refine and embed AI results in key business applications.

Key Technologies enabling Digital Transformation

Making AI Real – The CFO's Quick Guide to Artificial Intelligence

CFOs need to prepare for a new era where people and intelligent machines are working together towards a common goal. Data is the new currency, and businesses need to analyze data from multiple sources in real-time. Artificial Intelligence (AI) thrives on massive data. The Office of the CFO can leverage AI for more quality and automation in forecasting, new insights and recommendations for performance management, and to identify key drivers for simulating the future of the business.

Technologies that enable computers to mimic intelligent behavior

Artificial Intelligence (AI)

How it works

Based on input data (training) computers build a model through pattern detection using advanced analytics methods and algorithms.

Machines learn from **large data sets**/ experience and improve at a given task

Machine Learning (ML)

Types of Machine Learning

Supervised
An algorithm uses training data and feedback from humans to learn the relationship of given inputs to a given output

Unsupervised
An algorithm explores input data without being given an explicit output variable

Outputs & Application Examples

Classification
Classify a new product or service to e.g. predict future sale

Segmentation
Explore customer data to find patterns e.g. for customer loyalty

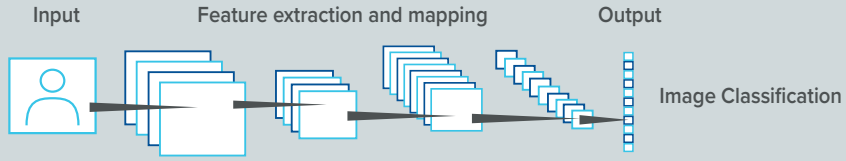
Correlation/ Association
Identify drivers for targets and assess their impact

Forecast/ Prediction
Forecast sales or demand using time-series data

Subset of ML using artificial, multi-layered Neural Networks for unsupervised learning from **very large datasets**

Deep Learning

Application Examples
Mainly used for image recognition and natural language processing.



Source: McKinsey & Company, An executive's guide to AI, 2018

Cloud Computing as a Catalyst for Growth and Innovation

Four Major Benefits of Cloud Computing:

- Operational efficiency through scalability, availability and cost efficiency
- Improved, accelerated adoption of new technology
- Democratized consumption of AI services and AI-enabled business applications
- Standards and regulatory compliance

How SaaS and Public Cloud support Digital Finance

Software-as-a-Service (SaaS) enables finance teams to benefit from the latest in software innovation with very short lead times. Continuous releases of new features are encouraging and accelerating the use of new technologies and lowering the burden on internal IT resources. Public cloud platforms such as Microsoft Azure are highly secure and scalable, supporting a range of flexible deployment options and providing the scalability to add users and performance as required. Performance elasticity is also an essential benefit for the variable computing requirements of AI in training, testing and use phases.

Security and Data Privacy

Microsoft as a public cloud provider invests heavily in enterprise-class security technologies and processes to provide highest levels of security and data privacy and to protect customers against a wide range of threats. These measures are audited and attested through the official certification authorities.

Microsoft

“With cloud computing, companies essentially gain more agility allowing them to respond to accelerated changes in todays and future markets in order to stay competitive.”

CARSTEN THIEL
Senior Technical Evangelist
Microsoft One Commercial Partner Unit

Key Technologies Enabling the Digital Transformation

Five Foundational Technologies for Digital Finance

A broad range of technologies support Digital Finance in automating business processes, creating more efficiency, and delivering the performance and analytics power required to drive new business models and create more value for customers. Some of the key technologies involved include:

- **Robotic Process Automation (RPA)** – RPA presents Finance teams with the opportunity to automate time-consuming data acquisition, reconciliation and verification, helping to improve consistency and control and freeing up resources for more advanced tasks.
- **Predictive Analytics** helps Finance make predictions about unknown future events by analyzing current data. These predictions can support strategy development and business decision-making. Predictive analytics makes use of various advanced analytics techniques such as data-mining, statistics and machine learning algorithms
- **In-Memory Database** – In-memory database technology provides the required performance and scalability for fast, flexible data analysis needs in complex modelling and calculations scenarios such as budgeting, planning and forecasting. Data is stored in main memory for faster access and response times.
- **GPU accelerated computing** – Speed matters. Applications with many concurrent users and complex calculations benefit from a Graphics Processing Unit (GPU), or graphics card, which boosts the speed and performance of real-time data analysis, helping organizations to facilitate agile decision-making.
- **Data Hub** – Joining data from different sources for analytics by consolidating data from multiple systems - whether in the cloud or on premise - becomes even more essential with AI and machine learning as these techniques require massive amounts of data. Advanced data integration and preparation including mapping, cleansing, while enriching datasets is a key technology for the digital enterprise.

Journey Towards Digital Transformation

How Finance Can Transition to Become a Strategic Business Partner

The transition of the CFO and the finance team from its traditional role of the ‘Financial Controlling’ unit to that of a more dynamic strategic partner happens in stages. Each stage grows skills and expertise in the office of the CFO and builds trust among business partners.

Starting from a position where data silos and spreadsheet-based processes dominate in FP&A, the first step is to establish a unified approach to planning, reporting and analysis across the organization. Achieving this helps to standardize and optimize processes, improving efficiency and data quality.

Next, the Office of the CFO is ready to transition into the role of the “Information Specialist” turning data into information by combining timely and, accurate business analytics with seamless enterprise performance management. The deep integration of strategic, financial and operational planning and performance management will lead to more accurate plans, forecasts and performance tracking.

When the foundations are laid, the CFO is ready to drive further automation of repetitive processes using a breadth of technologies such as AI or RPA. This leads to an acceleration of new insights and predictive foresight by leveraging smart algorithms and powerful prescriptive recommendation engines that enable dynamic response across the extended business. Successfully delivering at this stage results in improved business outcomes, helping to establish the CFO as a “Strategic Business Partner”.

Streamlined Financial Planning and Analysis

Stage 1

Goals:

- Establish a reliable and consistent data foundation
- Enable an efficient, friction-free planning process that is intuitive and error-proof
- Take control of reporting in finance and implement self-service analytics

How Jedox supports streamlined Financial Planning and Analysis:

- **Accelerate an Integrated Financial Planning Solution**
  Fast design and implementation of an integrated financial planning solution thanks to pre-built core finance content
- **Bringing data together from across the company**
  Powerful data integration for ERP/GL, CRM, HR and other key enterprise systems in the cloud or on-premise via the Jedox Integration tool
- **Finance builds its own plans, reports and analytics faster**
  Easier-to-use with full Planning and Performance Management functionality in Microsoft Excel plus a choice of web and mobile interfaces
- **Streamline control and process administration**
  Robust workflows and user access rights management simplify process administrations
- **Stay agile with a scalable cloud platform**
  Rapid deployment and scalability thanks to a comprehensive cloud platform

Reporting Faster and On Time

Cloud solution unlocks high-performance, scalable Business Intelligence for Bonnier

Customer Objective
Bonnier needed to replace its aging management reporting and consolidation system as it had become too slow, rigid and expensive. The team wanted a solution that was more flexible, user-friendly and scalable.

Business Results
With Jedox Cloud, Bonnier's local companies can now upload their own financial data, run validations and double check entries – resulting in faster and more streamlined monthly and weekly reporting. This has led directly to a 33% time saving in monthly reporting, freeing significant time for more strategic, value-added analysis. The Bonnier B2B team also recognizes that this level of performance opens up many new possibilities to optimize other business processes.

Key Takeaways

- Faster, streamlined cloud solution leads to a 33% time saving in monthly reporting
- Highly scalable, extensible platform for broader Enterprise Performance Management
- Ease-of-use and flexibility enable Finance to manage the solution

"Jedox Cloud is a very strong, very flexible and very stable tool, and we've only scratched the surface of the possibilities that the software offers for us in the long run – particularly in terms of standardizing BI, forecasting and planning across all our local companies."

Chris Stiebel,
CFO, Bonnier Business to Business

BONNIER

About Bonnier Business to Business
Bonnier Business to Business publishes business news publications for decision-makers across 10 European countries. The company also hosts digital training, educational platforms and conferences in several countries.

Integrated Strategic, Financial and Operational Plans

Stage 2

Goals:

- Translate business strategy into operational delivery
- Successfully integrate an organization's financial and operational plans
- Ensure integrated performance management
- Enable driver-based, automated planning across the business

How Jedox supports integrated Enterprise Performance Management:

- **Simplify planning for business users**
  Embed Jedox planning into other systems with a seamless user interface, for example allowing sales teams to plan from within CRM tools such as Salesforce
- **Model custom business drivers**
  Thanks to Jedox' flexibility for data integration, business modelling and reporting, power users in finance and other business functions can design custom planning and performance management applications
- **Set actionable targets and track performance globally**
  With powerful analytics and reporting integrated directly into the planning solution, finance and business leaders can translate strategic goals into targets and accelerate forecasting and performance reporting across the entire organization

Boosting Planning Quality and Efficiency

Unitymedia achieves solid forecasts with integrated planning and simulation

Customer Objective
Unitymedia wanted to boost the quality and efficiency of its HR planning by replacing its existing Excel-based tools with a flexible Enterprise Performance Management solution that integrated seamlessly with its SAP HCM HR system. The project goal was to increase focus on strategic activities by automating routine tasks, while still meeting the company's strict requirements for data protection and security.

Business Results
Extending its HR system with Jedox planning and reporting has resulted in faster planning cycles and monthly rolling forecasts for Unitymedia. With Jedox, Unitymedia's HR team now has a planning solution tailored to their specific planning needs, with aggregated FTE values and costs now available within the Jedox financial planning portal. The granular planning module also helps to automate complex processes and, because it is based on up-to-date HR data, clearly shows how planned personnel spending will affect the company's P&L.

Key Takeaways

- Automating routine planning activities leaves HR teams free to focus on more strategic tasks
- Seamless integration between core planning and line of business applications such as HR ensures transparency of data
- Sophisticated access controls play a key role in ensuring data protection compliance
- Flexible HR planning with Jedox on SAP HCM helps boost quality and efficiency

"Jedox has given us a foundation for more strategic forecasting and high-quality HR planning, as well as much faster access to our personnel data."

Jörg Wendler,
Director Workforce Management,
Unitymedia GmbH

unitymedia

About Unitymedia
Unitymedia is Germany's leading cable network operator, with some 2,700 employees providing services to 13 million households. The company is part of Liberty Global – the largest international TV and broadband company.

Insights and Automation via Smart Algorithms

Stage 3

Goals:

- Leverage AI to open up the opportunity for smarter, more automated forecasting and performance management processes
- Provide predictive and prescriptive decision-support & recommendations helping the business to make better, faster decisions
- Move to dynamic performance management by unlocking driver-based planning across key areas such as sales, operations, HR and supply chain

How Jedox enables AI-powered Automation and Insights:

- **Ensure high data quality for AI**
  The powerful Jedox Data Hub offers advanced data integration, cleansing and preparation capabilities, ensuring the high-quality input data that AI demands
- **Apply to AI/Machine Learning/ Predictive Analytics for multiple Use Cases**
  The Jedox AI engine is a managed cloud service based on standard AI libraries, offering flexibility to apply a huge variety of smart algorithms across the business
- **Leverage accessible AI in Enterprise Performance Management**
  The Jedox AI engine is fully integrated into the core Enterprise Performance Management platform, making AI-enabled solutions both accessible and easy-to-use for finance and the rest of the business

Gaining Deeper Customer Insights

ServiceMaster runs customer loyalty project with embedded Jedox AI

Customer Objective
To gain deeper insights on customer loyalty, ServiceMaster launched a pilot project that utilizes the AI capabilities in Jedox software. The key objective for the team was to predict and analyze customer loyalty for its 'Terminix' brand which has over 2 million customers - identifying actions that help to prevent cancellations and increase customer loyalty.

Project Description
With the Jedox data hub a massive dataset was created that covered customer sales agreement information as well as additional data including information about work orders along with revenue and customer allowances.

Business Results
Using AI, ServiceMaster has gained quicker insights with higher confidence into relevant customer features. ServiceMaster found customer characteristics that previously they did not think were correlated with customer loyalty or that were not ranked as high on their list. This included factors such as contract value, tenure, product mix and whether the customer came to them with a problem or was proactively contacted by sales. With faster predictions the entire organization can utilize the results more quickly to determine necessary changes to business processes.

Key Takeaways

- AI delivers new insights from massive datasets with high speed
- AI results create cross-organizational insights for action plans
- Embedded AI in FP&A software is a direct solution pathway for non-data scientists
- Software support for data integration and preparation is essential

"The AI project sheds light on new features that could be causing the issues as opposed to our older way of thinking where we just assumed what was happening."

Jamie Cousin,
FP&A Manager, ServiceMaster

ServiceMaster

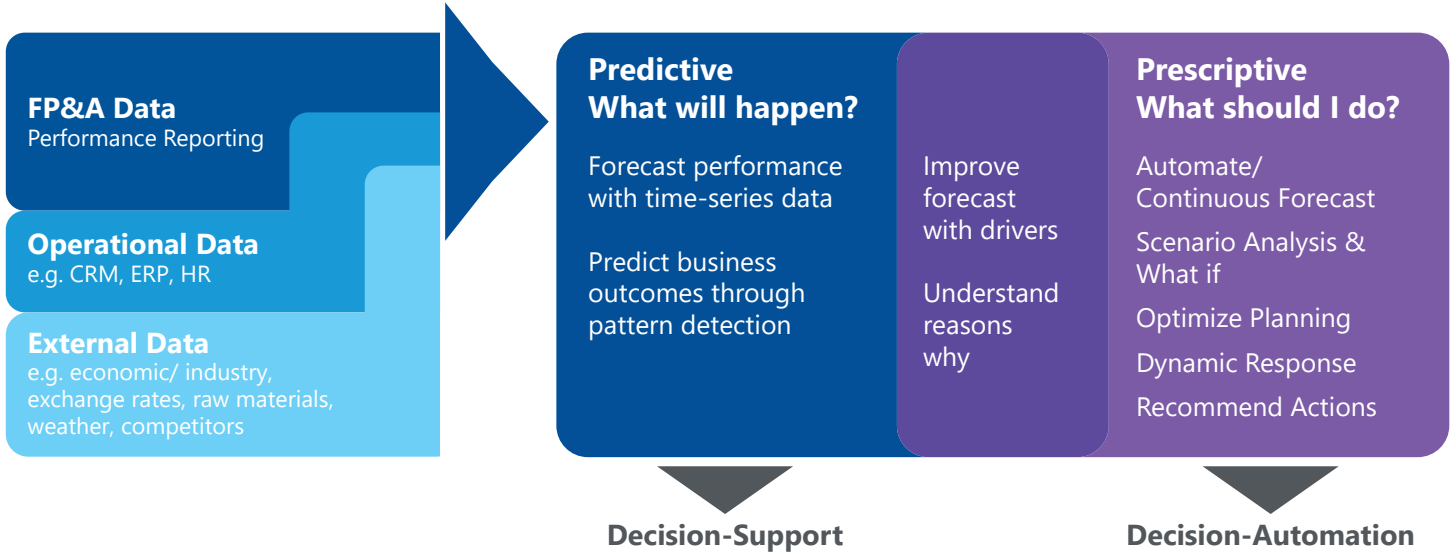
About Our Customer
ServiceMaster is a Fortune 1000 company that provides essential home and commercial services. The company has been using Jedox for financial planning and analysis as well as external and internal reporting for over three years.

Outlook: Harnessing The Power of AI and Predictive Analytics

How the AI engine embedded in the Jedox Enterprise Performance Management platform empowers Finance to shape the future of their organization with:

- **AI**ssisted(TM) Data Preparation
- **AI**ssisted(TM) Predictive Forecast
- **AI**ssisted(TM) Performance Management

Discover more



"We believe for AI to truly unfold its transformational power it needs to sit right at the heart of an organization's operations - and that means embedding AI capabilities where they can be used by your key business applications. That's why we're excited to be working closely with Gold Azure Cloud partner Jedox who supports the Office of Finance and other business functions in harnessing AI for decision-support and automation across its Enterprise Performance Management solutions."

DAVID CARMONA
General Manager, Artificial Intelligence at Microsoft

Microsoft

jedox.

About Jedox

Jedox accelerates planning, analysis, and reporting with one unified and cloud-based Enterprise Performance Management software suite. Jedox empowers finance decision makers and business users across all departments, helping them work smarter, streamline business collaboration, and make insight-based decisions with confidence. Around 2,500 organizations in over 140 countries use Jedox for real-time planning in the cloud, on web, and on any device. For a free trial, visit www.jedox.com

For more information, please contact:
info@jedox.com
www.jedox.com
http://www.linkedin.com/company/jedox/