



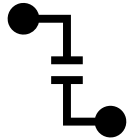
# Microsoft Finance Digital Transformation

KPMG CFO Roundtable  
October 26<sup>th</sup> & 27<sup>th</sup> | Dubai & Abu Dhabi



# Transformation challenges facing Finance

Legacy systems and processes influence common finance challenges



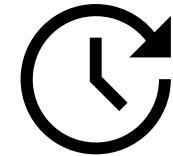
**Multiple sources of truth**, due to inconsistencies of financial metrics across divisions



**Inefficient decision-making process**, due to poor visibility of financial data over multiple system

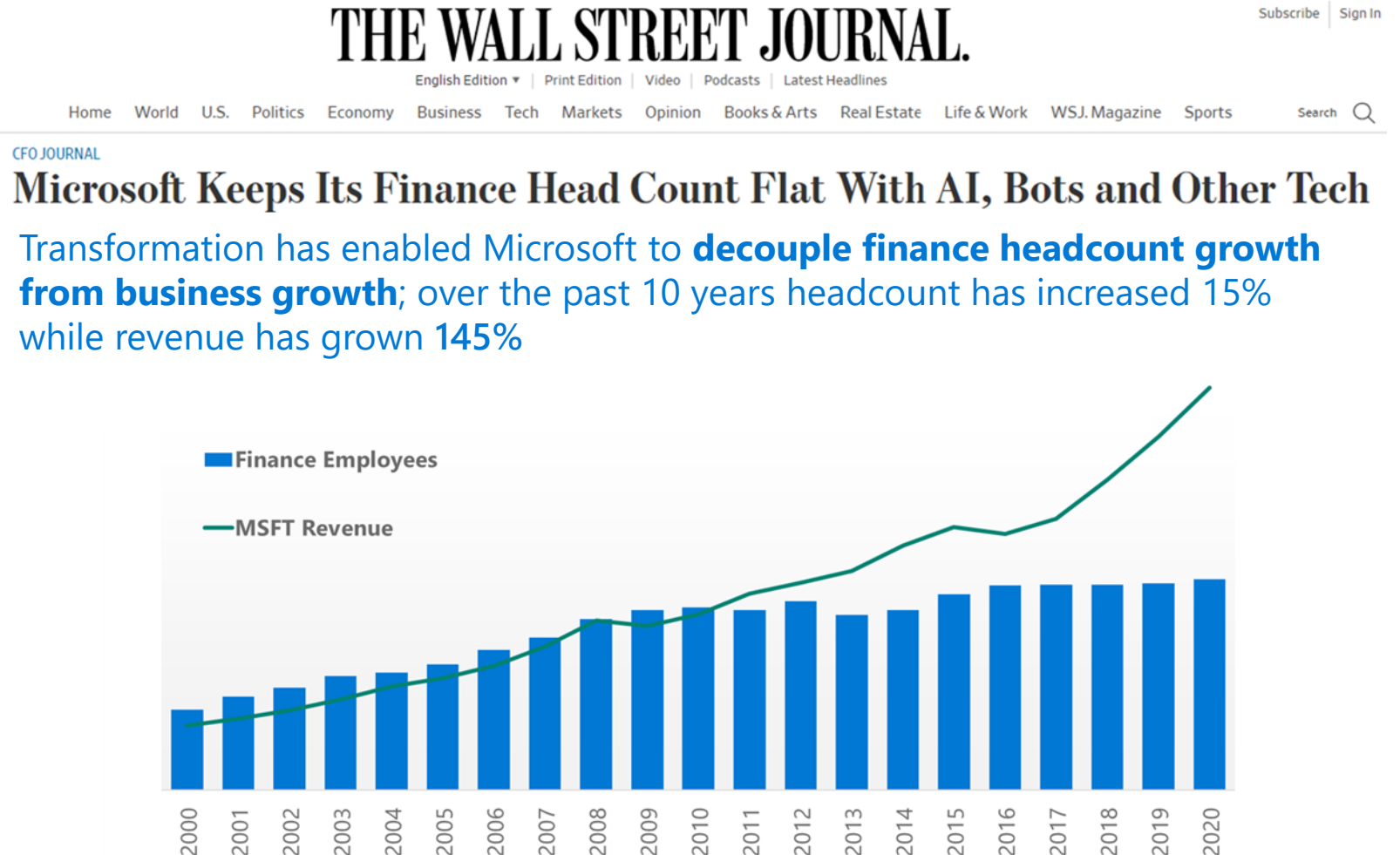


**Unaffordable time to value**, due to high effort and manual work to retrieve and report data

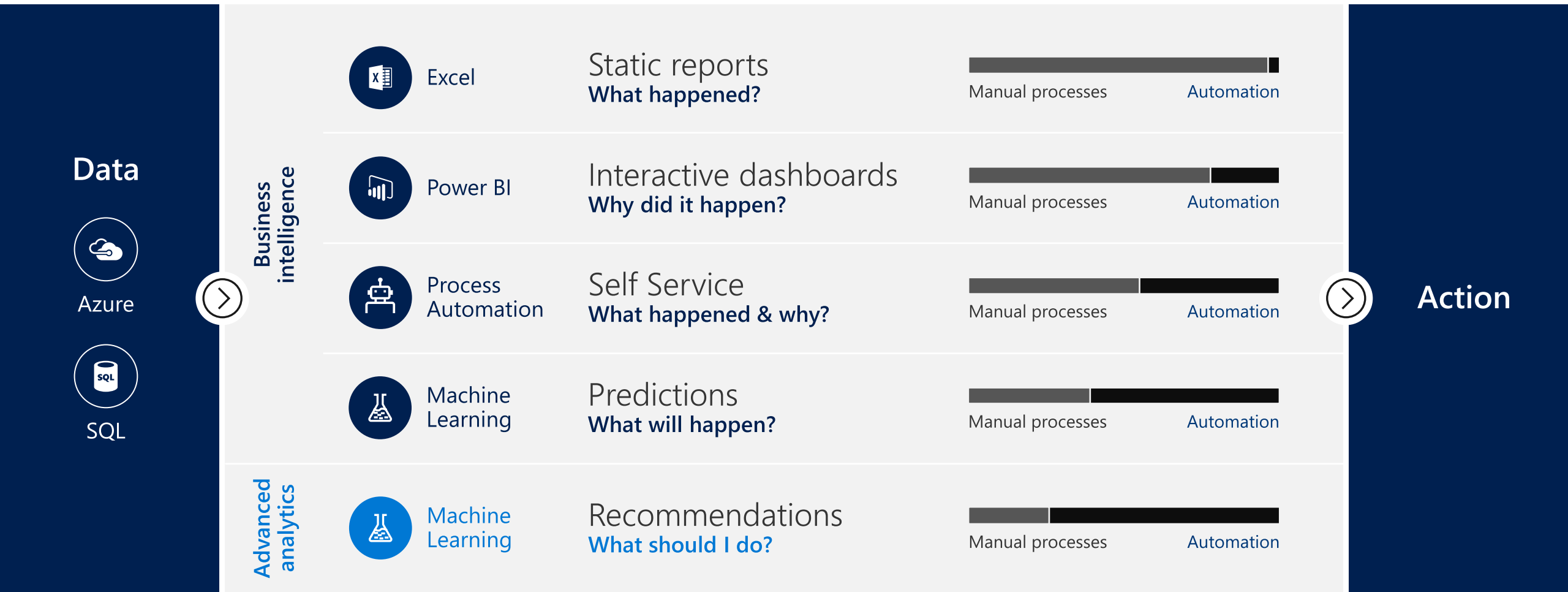


**Ineffective forward-looking analysis**, due to lack in data quality and advanced analytics models

We have successfully proved it through our own transformation - decoupling cost from growth & doing more with the same in Finance

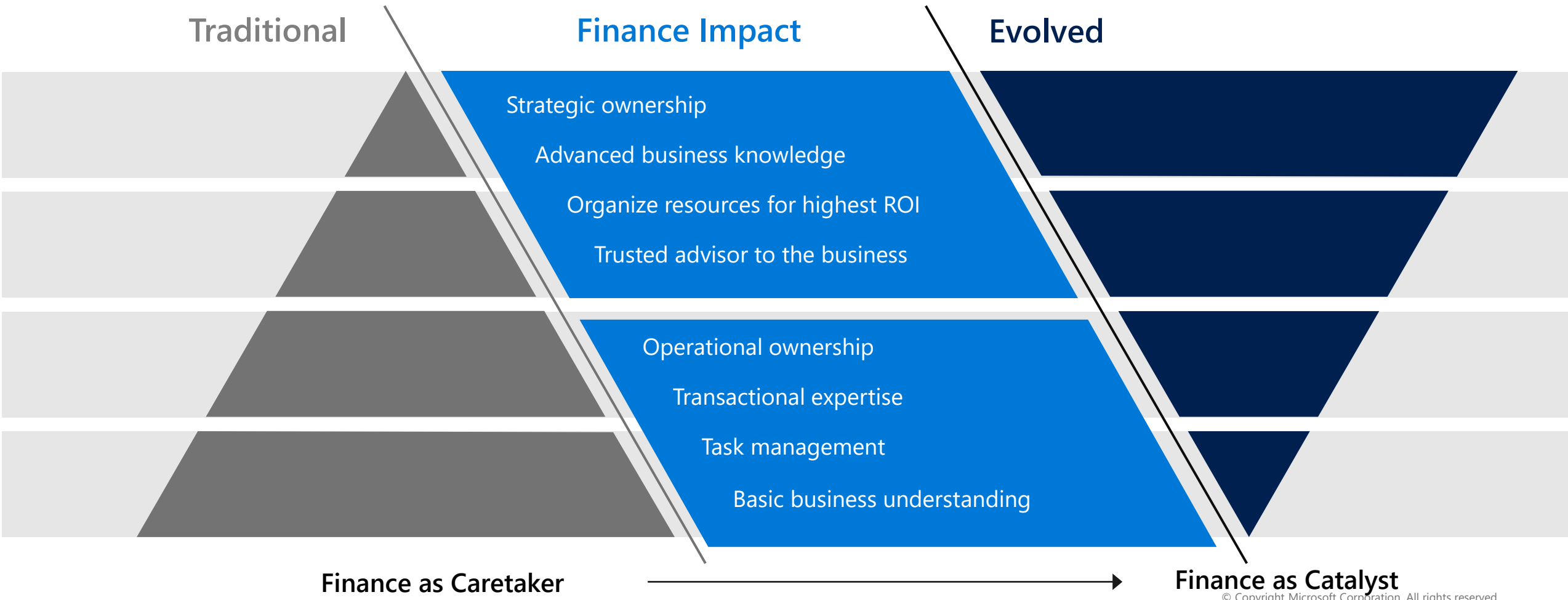


# Technology shortens time to action

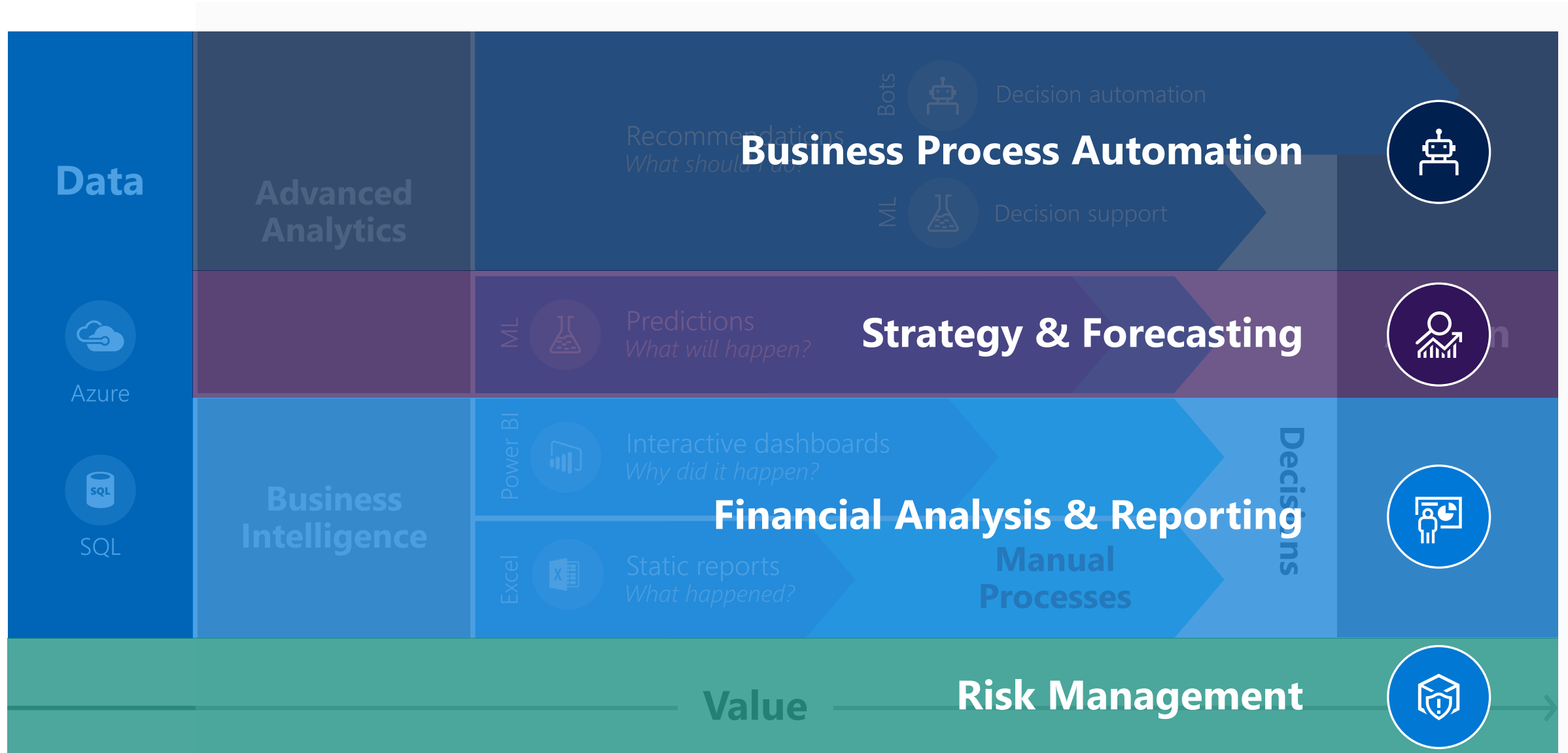


# Finance leaders are repositioning to be a catalyst for business transformation and value creation

*Both within the **finance function** and as strategic influencer across the broader enterprise*



# 4 pillars of our Digital Transformation



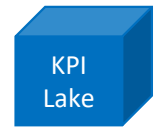
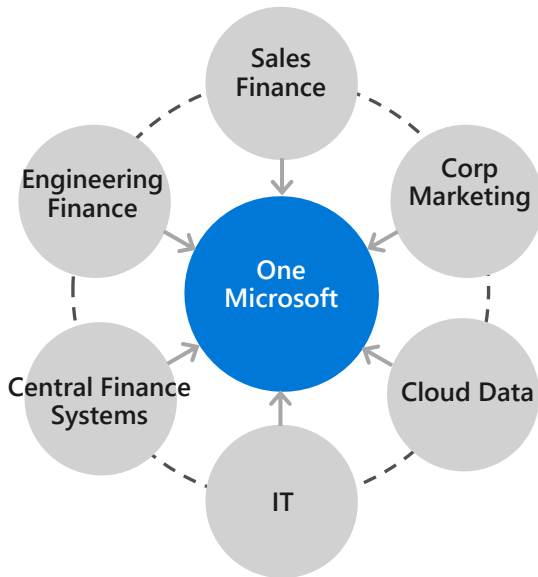
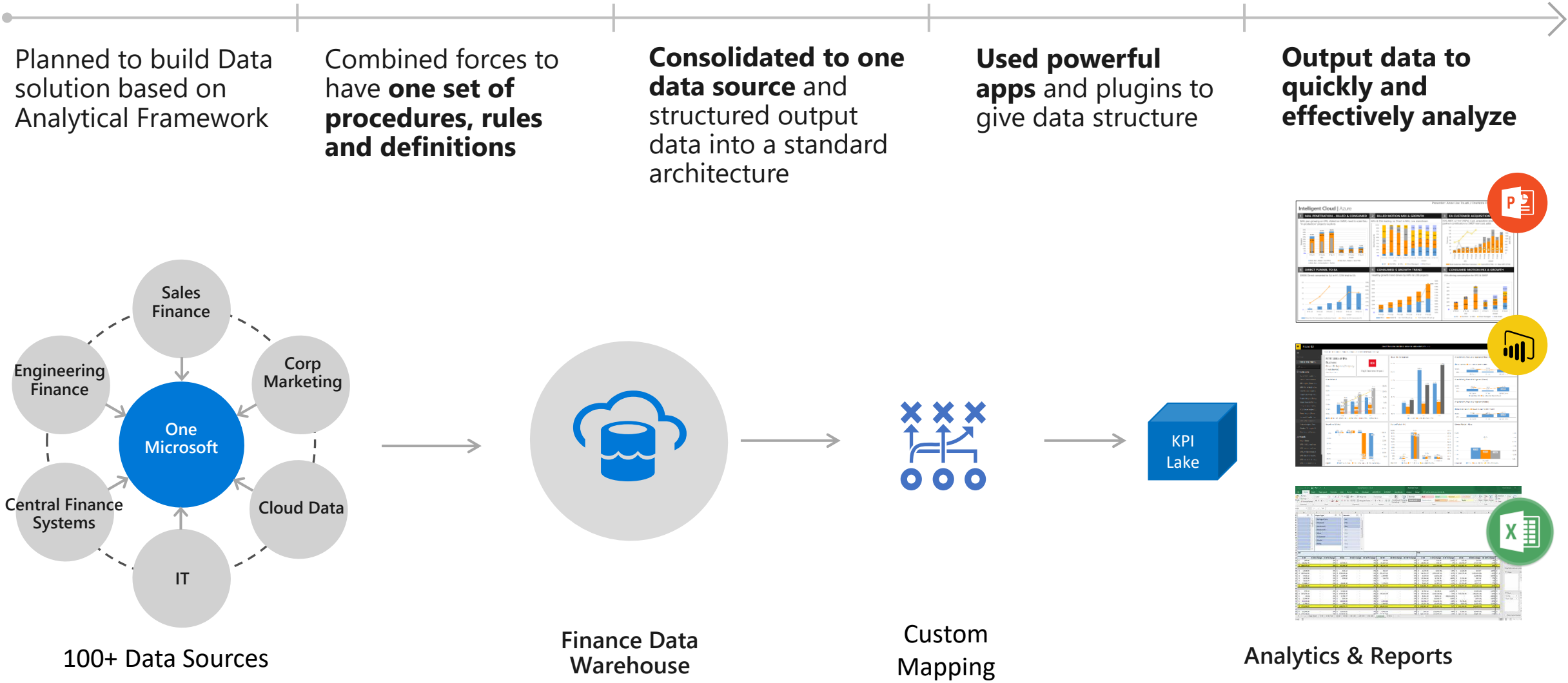


# Digital transformation: financial analysis & reporting



# Our data platform transformation

From manual, static, inconsistent to automated, dynamic, and centralized





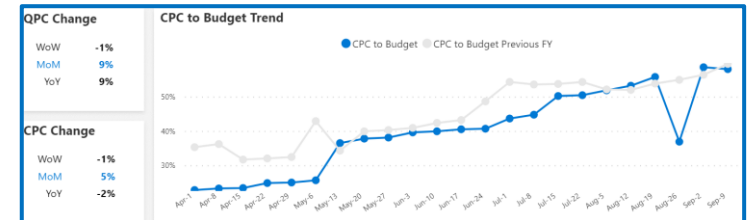
# Sample analytics and reports MSX Insights – Demo



## MSX Insights

Real time data  
PowerPoint-free  
Dynamic business  
reviews

| Area         | QPC Goal    | QPC To Budget | Qualified Pipeline     | Additional Pipeline Needed To Budget | CPC To Budget |
|--------------|-------------|---------------|------------------------|--------------------------------------|---------------|
| + APAC       | 131%        | 143%          | \$50,924,177           |                                      | 47%           |
| + Australia  | 122%        | 165%          | \$29,254,826           |                                      | 54%           |
| + Canada     | 139%        | 135%          | \$25,538,505           | \$959,103                            | 42%           |
| + CEE        | 154%        | 140%          | \$52,676,711           | \$6,513,033                          | 55%           |
| + France     | 136%        | 121%          | \$34,024,956           | \$4,783,012                          | 53%           |
| + GCR        | 149%        | 168%          | \$75,787,441           |                                      | 61%           |
| + Germany    | 139%        | 164%          | \$69,255,600           |                                      | 57%           |
| + India      | 215%        | 166%          | \$15,119,787           | \$5,347,322                          | 40%           |
| + Japan      | 121%        | 153%          | \$110,506,143          |                                      | 60%           |
| + LATAM      | 142%        | 161%          | \$54,983,474           |                                      | 54%           |
| + MEA        | 164%        | 187%          | \$80,127,562           |                                      | 64%           |
| + UK         | 116%        | 136%          | \$89,202,164           |                                      | 47%           |
| + US         | 133%        | 155%          | \$325,975,298          |                                      | 64%           |
| + WE         | 120%        | 125%          | \$114,146,347          |                                      | 51%           |
| <b>Total</b> | <b>134%</b> | <b>150%</b>   | <b>\$1,127,522,991</b> |                                      | <b>57%</b>    |





# Modern Business Management Reporting

## CHALLENGE

With pervasive legacy systems and scattered data sources, analysts spent most of their time gathering data, scrubbing numbers and building reporting views in order to prepare for business reviews.

**Focusing on these activities resulted in very little time left to provide business insights.**

## SOLUTION

Consolidation and simplification of multiple, disparate reports, tools, and data into a unified platform. Finance created a Secure KPI Lake (SQL on Azure IaaS) with standardized data and KPIs from 100+ sources, accessible by Power BI, with rights managed by Azure Active Directory and a role-based portal to share standard reports.

## RESULTS

- Unified data and reporting solution for 30k+ monthly active users from sales, finance, and operations; combo of standard reports and self service leveraging over 2K+ KPI
- Replaces over 1,000 HQ and field reports leading to a 20% reduction in time spent compiling and validating data = 150K hours per quarter

## TECHNOLOGY

Azure IaaS; Azure SQL; Power BI; SQL 2016; Excel; OneNote; PowerPoint

## TIME TAKEN

14 weeks to build and implement



# Digital transformation: strategy & forecasting

# Past revenue forecasting process



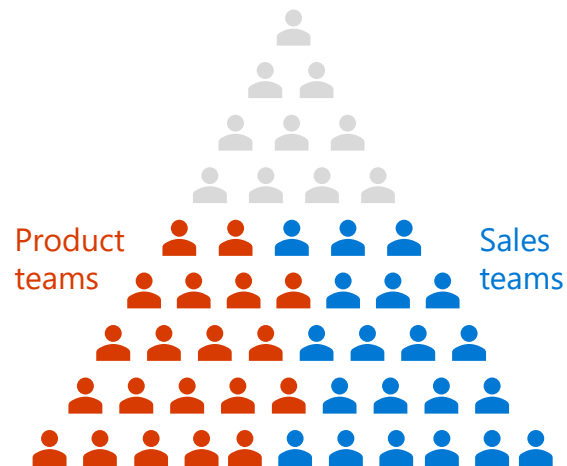
## Local & product forecasts



## Management reviews



## Global & executive reviews



**100+** analysts build Excel forecast models 2 weeks prior to quarter end



Over 1-2 weeks, product and sales leads use their expertise to judge up/down the forecasts



CFO and HQ finance teams push product and sales teams to land balanced, closest-to-the-pin forecasts

# Opportunity for ML to transform forecasting



## Goals

## Challenge's pre-ML

## ML opportunity

### Accuracy

Conscious & unconscious bias  
Layers of management judgment  
Undesirable error rate

No human bias  
No management judgment  
Highly accurate statistical model

### Time-to-market

3 weeks to produce a forecast  
Unable to react to market changes

30 minutes to produce a forecast  
CFO can react to market changes

### Efficiency

Hundreds of analysts forecasting  
Data & tool issues

Analysts can work on higher ROI projects  
No data & tool issues

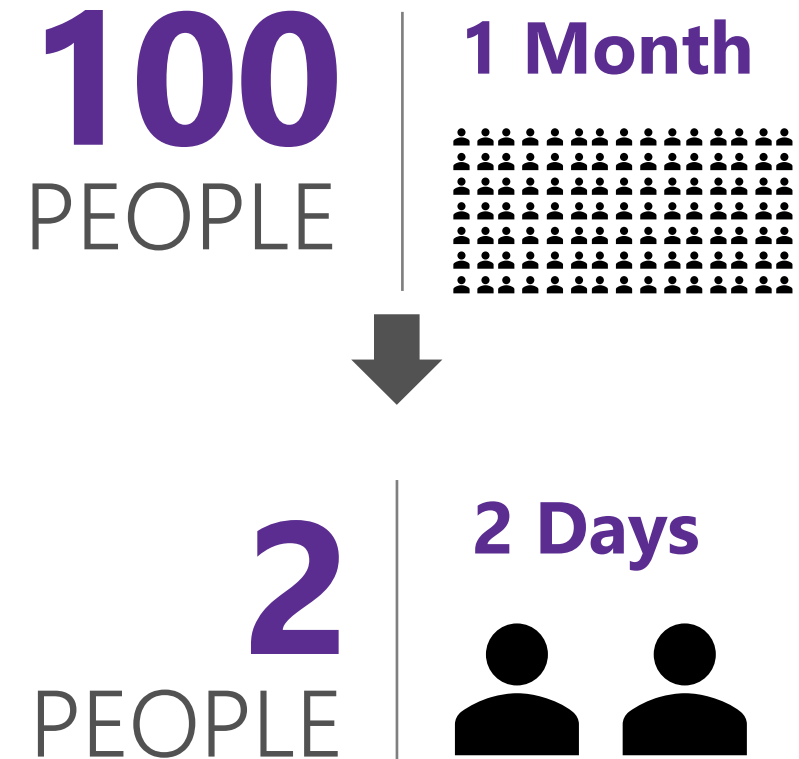


# ML forecast accuracy better than traditional bottoms-up process



Driving ROI from ML

| Machine Learning | CFO Forecast (VTF %) | ML Outlook VT ML % |
|------------------|----------------------|--------------------|
| FY16 Q2          | 3.5%                 | -0.5%              |
| FY16 Q3          | -3.3%                | 3.3%               |
| FY16 Q4          | 1.2%                 | 0.8%               |
| Average          | 2.7%                 | 1.5%               |



# ML revenue forecasting process



Improve accuracy through continuous refinement



Continuous push-pull between ML and human forecasts that improves finance's forecasting abilities

# ML/AI Forecasting - Demo



## Azure ML Studio + Power BI



# Machine Learning roles in finance

## Finance Business Owners

- **Define business problem(s) and desired outcome(s)**
- **Provide requirements, model evaluations, and signoffs**
- Manage change including how data will be used in decision making processes
- Identify and utilize insights to generate value and actions

## Data Scientists

- Retrieve, cleanse and map data
- Design, test and evaluate hypotheses
- **Customize and tune models to discover and learn from the data**
- **Apply existing algorithms and models to new business problems**
- Innovate to discover new algorithms &/or statistical models

## Center of Excellence

Strategy  
Operating Model  
Governance  
Optimization

## Data Analysts

- Provide a solid understanding of Microsoft data sets for data acquisition and generating business rules
- **Integrate machine learning output with traditional business intelligence and action frameworks**
- **Build Power BI reports and visuals**

## Architects & Engineers

- Deliver available, scalable, secure, and fault tolerant infrastructure
- Create and deploy solutions, platforms and end user experiences
- Stitch APIs together, automate models and integrate data



# Machine Learning Revenue Forecasting

## CHALLENGE

Finance leaders want to ensure that they have the most accurate forecasting process, while controlling investment of time and resources in the process.

## SOLUTION

Augmented current financial forecast with Azure Machine Learning forecasting solution stored in Azure Data Factory and Azure SQL Database, and accessed with Power BI.

## RESULTS

- 1.6% mean absolute % error over 16 quarters
- 98.4% accuracy with ML vs. 97.1% using traditional methods
- Real-time, dynamic predictions

## TECHNOLOGY

Azure Data; Azure Machine Learning; Azure SQL; Azure AI; Azure Data Factory; Power BI; SQL

## TIME TAKEN

8–10 weeks to build and implement



## FORECASTING

# Lessons learned



**Have conviction on ROI and other benefits**



**Stakeholder buy-in is essential**



**Think about where centralization makes sense**



**Try, fail, learn, improve**



**Understand the machine learning “black box”**



**Continuous improvement**



**Finance + data scientists**



**Feature selection responsibility**



# Digital transformation: Risk Management

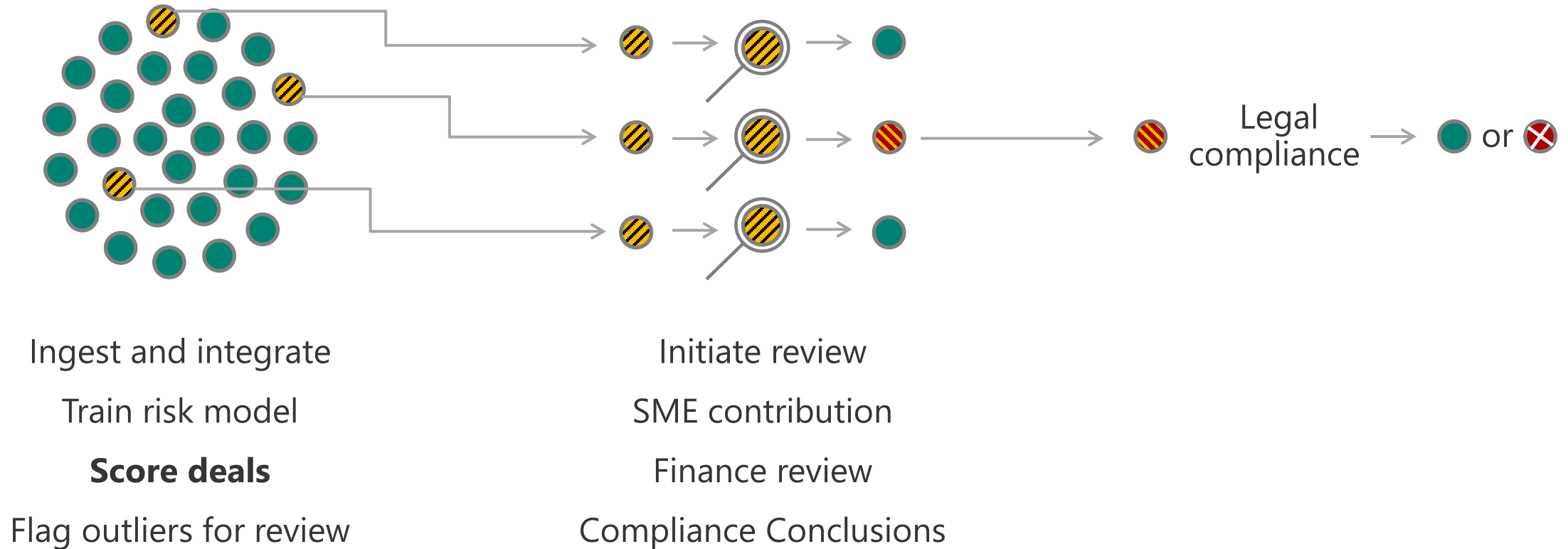
# Digitizing deal reviews at Microsoft



Analyze and flag risks

Review flagged deals

Escalate review



# Defining a High-risk deal



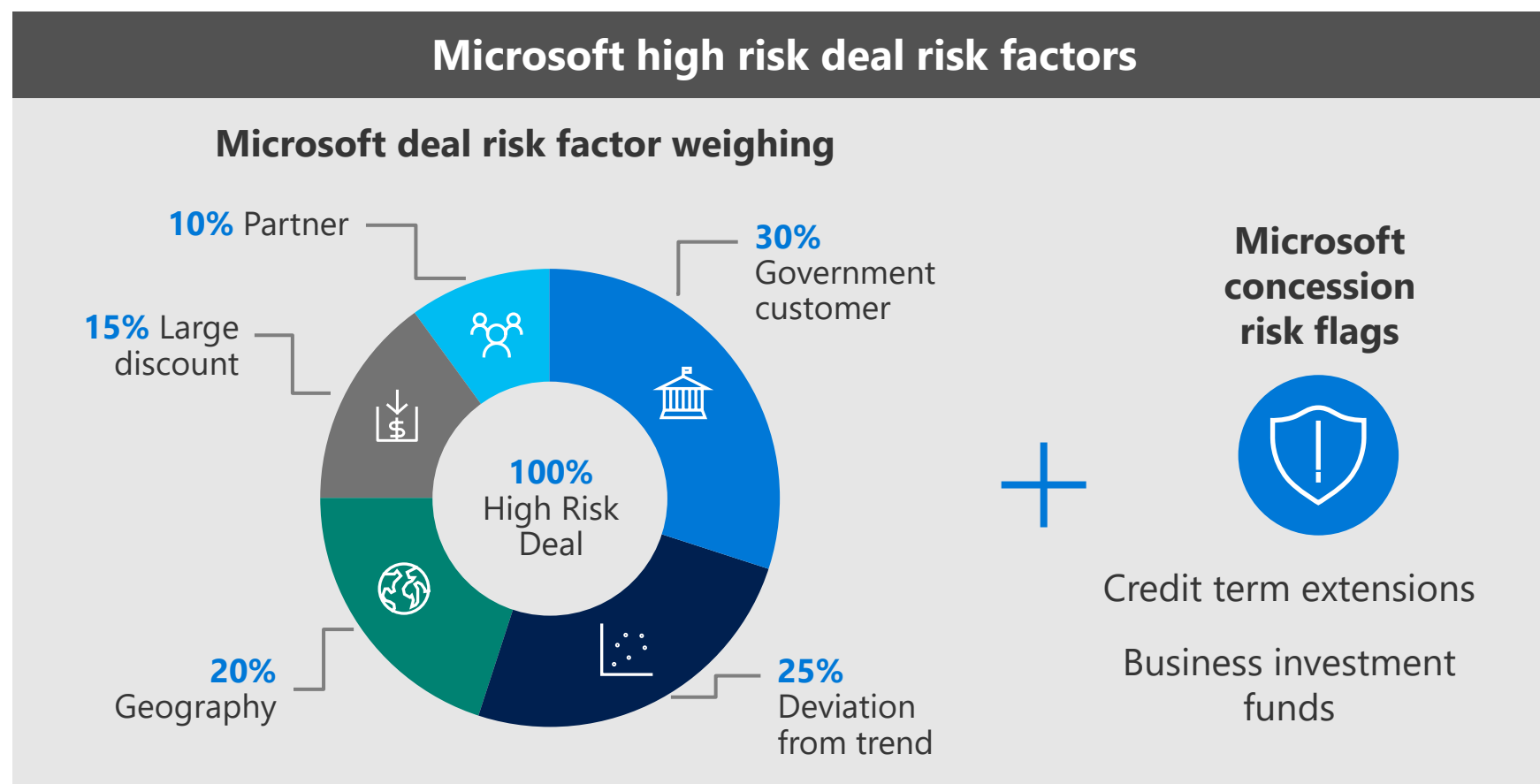
**Core concept:** a single risk factor may not itself be significant to identify high risk transactions. Yet, a deal **having 'signals' from multiple risk factors** can produce unique insights **compared to evaluating each factor on its own.**

## Sample risk potentials

- Geography
- Government customer
- Discounts
- Trend of deal size
- Partner

## Concession risk flags

- Credit term extensions
- Business investment funds



# High Risk Deal Analytics as a solution (HRDA)

Demo



1

## High Risk Deal Dashboard

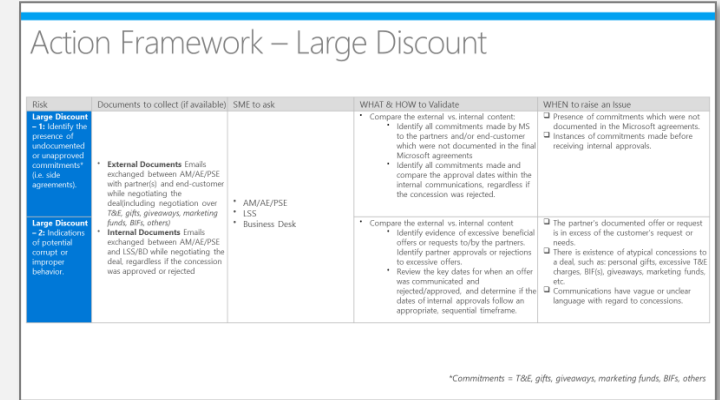
Analytics that identify which transactions require additional review



2

## HRD Action Framework

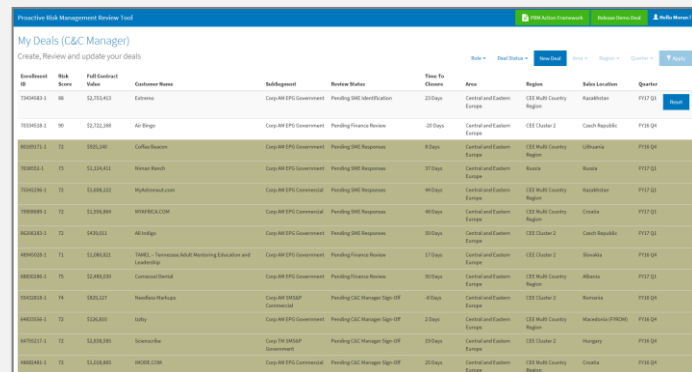
Recommended next steps based on risk flag and risk attribute



3

## Review Tool

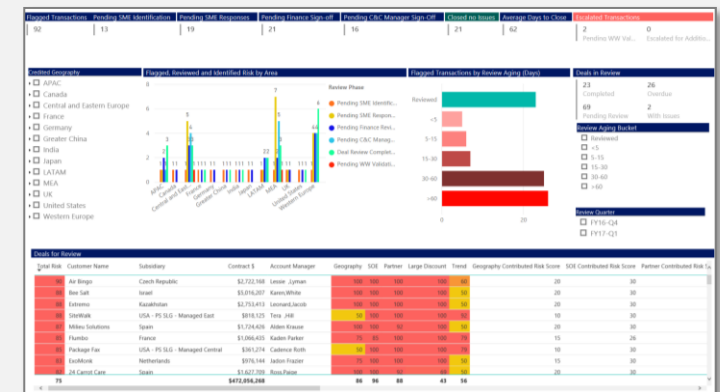
Transactions above threshold feed into this tool which tracks the review status of each transaction and documentation



4

## Review Dashboard

Summary view of riskiest transactions & review status





# Compliance Predictive Analytics

## CHALLENGE

Certain transactions are at an elevated risk for corrupt activity, fraud, or compliance issues. In order to proactively manage the risks, the compliance department is constantly striving to improve the process to reduce costs and error rates.

## SOLUTION

Built a risk analytics platform on Azure to provide comprehensive coverage of all sales transactions, with predictive machine learning based capabilities, driving a systematic review process, and focus on high risk transactions

## RESULTS

- Automated risk heatmap
- Action driven high risk review process
- Coverage of all sales transactions
- 52% reduction in transaction review time
- Expedited risk investigations

## TECHNOLOGY

Azure Analysis Services; Azure Blob Storage/Active Directory; Azure Web Apps (SaaS); Power BI; SQL Azure (PaaS);

## TIME TAKEN

3–4 months to build and implement

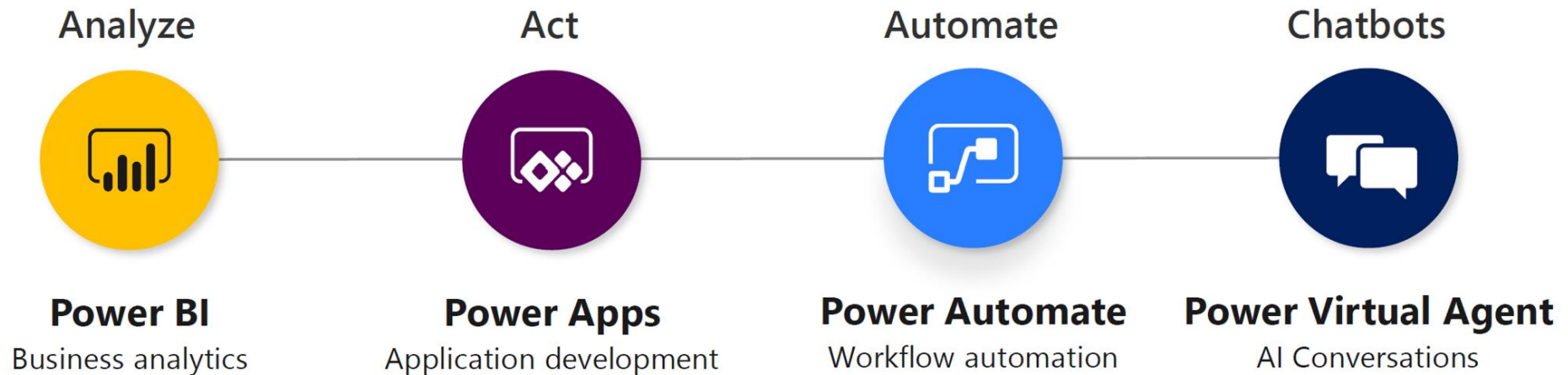


# Digital transformation: Business Process Automation



# Microsoft Power Platform

**A low-code AI capability that spans the Power Platform**



# Regional Investment Opex Process – [link](#)

Power Apps | MEA - Investment Tool

MEA  
FORWARD

Welcome, Alexandre de Suyrot!

QUICK ACTIONS

+NEW REQUEST

REFRESH DATA

FILTERS

Status

Line Item

RequestorFind items

MEAINVESTMENTS REQUESTS

+↺↻

ALL REQUESTS (100)

Search By Request ID

|                    |             |   |
|--------------------|-------------|---|
| APPROVED           |             | > |
| APPROVED           | 1084   MAR  | > |
| APPROVED           | 1083   ECIF | > |
| PENDING            | 1082   PEOF | > |
| APPROVED           | 1081   ECIF | > |
| APPROVED           | 1080   MAR  | > |
| APPROVED           | 1079   MAR  | > |
| NOT APPROVED       | 1078   PEOF | > |
| NOT APPROVED       | 1077   MAR  | > |
| PARTIALLY APPROVED | 1076   MAR  | > |

# WW Award Process Nomination – [link](#)

## DRIVING IMPACT AND CULTURE



*View Past Awards*

WELCOME ALEXANDRE

Do you have a teammate that provided exceptional value and impact to your team and Microsoft as a whole? Or do you want to celebrate someone that reflects Microsoft’s values?

Please take this opportunity to recognize individuals or groups who demonstrated outstanding impact.

For a new nomination click here:

Create New Nomination

View your previously submitted nominations

Impact Period

Impact done in:  
**FY23\_Q1**

- Open Date:  
**26/Sep/2022**
- Close Date:  
**17/Oct/2022**



# Duplicate Payment Anomaly Detection

Modernize payment inspection process using cognitive services to detect duplicate payments to suppliers.

Home / BUSINESS / Etihad Airways Transforms Its Finance Operations by Leveraging Microsoft AI Capabilities

## Etihad Airways Transforms Its Finance Operations by Leveraging Microsoft AI Capabilities

PRESS RELEASE

Published February 3rd, 2021 - 07:13 GMT

albawaba  
signal

Background Info



الإتihad  
**ETIHAD**  
AIRWAYS

### Challenges

- Payment anomalies identified as a key control gap by both the management and auditors
- Duplicates occurring in payments causing financial losses
- Manual, tedious process of verifying suspicious payments
- Using only a set of pre-defined business rules

### Business Benefit

**600**  
hours of  
manual work  
saved

**> \$200K**  
of retrieved  
duplicate  
payments  
in less than a month

### Anomaly detection for Etihad Airways Finance Department



# Bank Reconciliation Process Automation

*Leveraging AI solutions from Microsoft to automate bank-reconciliations*

[Home](#) / [BUSINESS](#) / Etihad Airways Expands Microsoft Partnership To Advance Its Tech Capabilities

## Etihad Airways Expands Microsoft Partnership To Advance Its Tech Capabilities

PRESS RELEASE

Published September 19th, 2021 - 11:27 GMT

albawaba  
signal

Background Information



الإتجاه  
**ETIHAD**  
AIRWAYS

### Challenges

- Risk of human errors given the large number transactions and manual reconciliation
- Bank reconciliations are a tedious and labor-intensive process in most global organizations
- Volume of data sources can be overwhelming

### Business Benefit

**4,800**  
hours/ year  
gained back

Increased **financial control & compliance** with audit requirements

Patterns identified from past data sources with **full transparency** on trends, volumes and pick periods

**+85% automation level** of bank reconciliations.

## PROCESS AUTOMATION

# Lessons learned



Grow tech insights across all career stages



Reimagine the ideal process before automating



Automation and compliance go hand-in-hand



Create and own your automation roadmap



Try, fail, learn, improve

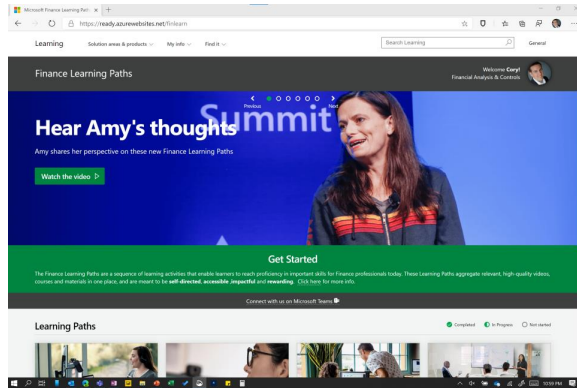


# Thank you



# Appendix

# Create a virtuous cycle of learning & innovation



**Foster Growth Mindset (learning paths)**

**Innovate (new projects)**



## Credit & Collections Chatbot

### CHALLENGE

Prior to each fiscal period end, Sales and Operations were challenged to address revenue risks and order impacting issues related to customer credit status in a timely manner because of the high volume of questions and the need to source information from various systems.

### SOLUTION

Created a chatbot with Azure Bot Service and Azure Cognitive Services, providing a responsive single user interface for customer facing teams to proactively resolve credit related order and revenue issues

### RESULTS

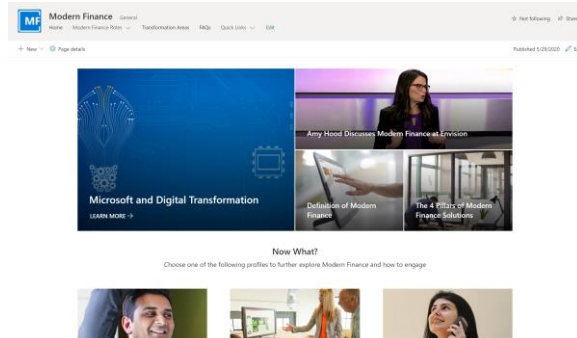
- Decreased response time: 5-10 minutes to 5-10 seconds
- Eliminated manual touchpoints, handling 12,000 queries/month
- Labor effort minimized: 1,800 hours/month to 30 hours/month
- Recognizes 30+ FAQs; directs users to relevant policies

### TECHNOLOGY

Azure Bot Service; Microsoft Teams; Azure App Service; LUIS from Azure; Azure Cognitive Services Suite; SQL Server

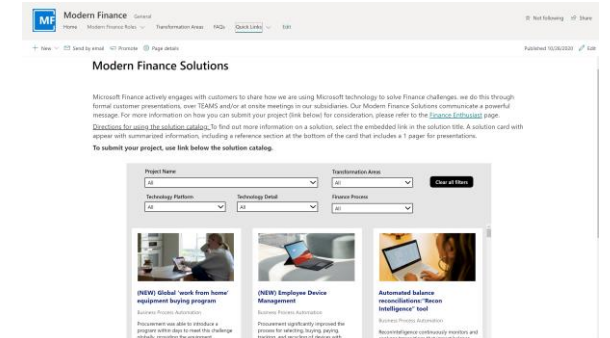
### TIME TAKEN

2-4 weeks to build and implement

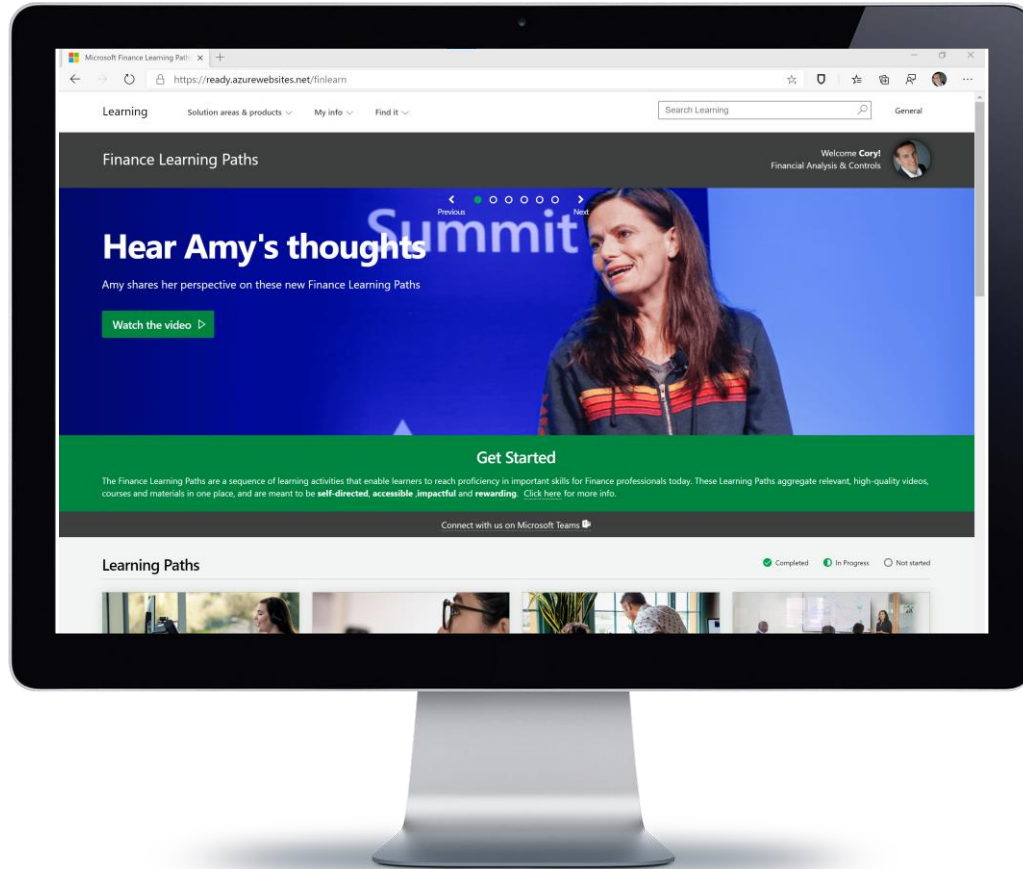


**Share best practices (Modern Finance portal)**

**Create sharable content (solutions)**



# 1- Finance Learning Paths



[Microsoft Finance Learning Paths  
\(ready.azurewebsites.net\)](https://ready.azurewebsites.net/)



Internally  
created



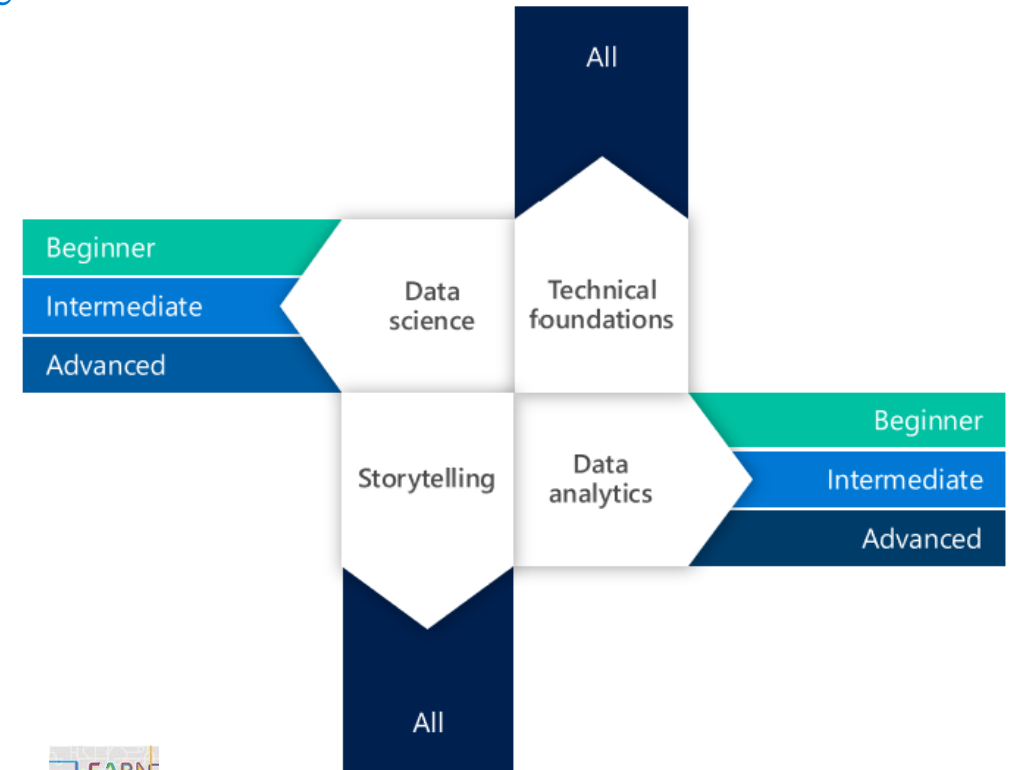
LinkedIn  
Learning



Microsoft  
Learn

Sources of content

We foster **tech intensity** in Finance by empowering our people to build capabilities in using Microsoft technology that drive individual and team innovation





## 2- Finance innovation paths

**Our Vision:** to foster, accelerate, and support innovation throughout Microsoft Finance by empowering [citizen developers](#) to access a common framework, build on the work of others, share best practices, partner with relevant groups, and celebrate success.



Modern Finance Internal  
Innovation

You are a Finance employee who wants to engage with Modern Finance through training, developing a better understanding of what it takes to get a project off the ground, or you have a Modern Finance solution to share on this site.



Visit our Modern Finance Gallery

Learn more →



Submit an innovation



Get help with your  
innovation



Finance Learning Paths

[Modern Finance Gallery \(sharepoint.com\)](#)



# 3- Share content and Best Practices



## Machine Learning Revenue Forecasting

### CHALLENGE

Finance leaders want to ensure that they have the most accurate forecasting process, while controlling investment of time and resources in the process.

### SOLUTION

Augmented current financial forecast with Azure Machine Learning forecasting solution stored in Azure Data Factory and Azure SQL Database, and accessed with Power BI.

### RESULTS

- 1.6% mean absolute % error over 16 quarters
- 98.4% accuracy with ML vs. 97.1% using traditional methods
- Real-time, dynamic predictions

### TECHNOLOGY

Azure Data; Azure Machine Learning; Azure SQL; Azure AI; Azure Data Factory; Power BI; SQL

### TIME TAKEN

8–10 weeks to build and implement

# Role of CFO to a business advisor

## TRADITIONAL Roles

FINANCE MANAGERS

ACCOUNTS PAYABLE  
CLERK

FP&A MANAGER

ACCOUNTING LEAD

## EMERGING Roles

FINANCE VALUE  
ARCHITECT

DATA  
ARCHITECT

DATA  
SCIENTIST

BEHAVIORAL  
SCIENTIST

RPA  
MANAGER

AI SCENARIO  
PLANNER

