



# POWERED BY AI

THE DIGITAL CFO

February 2024



# FOREWORD

The CFO role has evolved significantly over the years. The role was earlier primarily about fiduciary responsibility towards management, investors and regulators. The priority areas were consequently compliance, risk management, controls and value preservation.

However, every generation of technology has served to automate larger swathes of finance processes, and free up CFO capacity for insights generation, business partnering and value creation. In a volatile and complex environment, the CFO has now emerged as a “Co-Pilot”, shouldering the responsibility of steering the organization along with the CEO.

In the recent past, Artificial Intelligence (AI) and Generative Artificial Intelligence (GenAI) have captured the imagination across industries and functions. For CFOs, the rapid increase in volume and variety of data, coupled with the power of AI, presents an opportunity to take a significant step forward in terms of finance capabilities.

During the CFO Board Annual Retreat in December 2023, AI and GenAI were at the forefront of the discussions.

Following a keynote on the Art of the Possible using GenAI, the 75+ delegates spanning industries – Financial Services (19%), Manufacturing (17%), Retail and Consumer Products (14%), Technology and IT/ ITeS (27%), Others (23%) – participated in round table discussions and a curated survey.

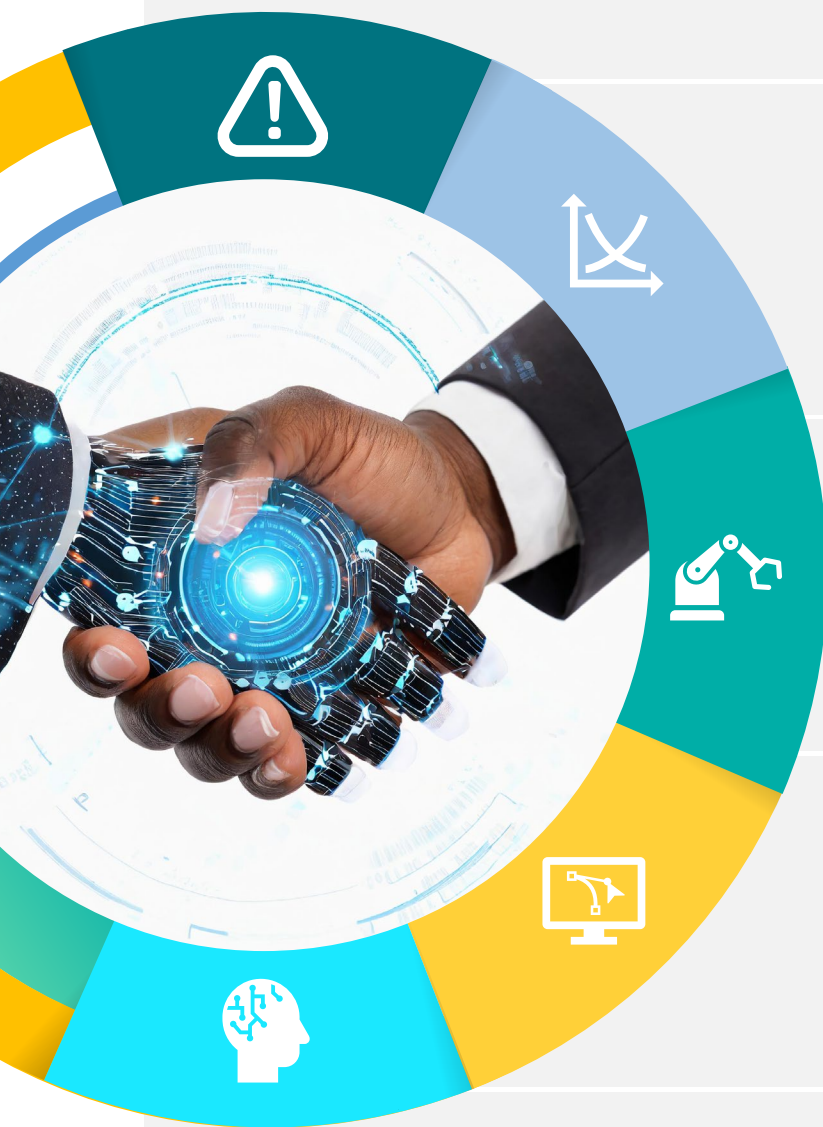
This report synthesizes the insights and learnings from the CFO Board Retreat and is intended to serve as a practical guide for the larger CFO community.

The time to act is now – with 28% of the surveyed CFOs having already initiated Generative AI pilots at their organizations.

The publication also features key considerations before implementing AI including ‘Responsible AI’ guidelines. Finally, the publication also shares a practical ‘crawl-walk-run’ approach to implementation to ensure the organization can build the required technology capabilities while also developing readiness to absorb the magnitude of organizational change.



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## THE DISRUPTION THAT CFOS ARE FACING



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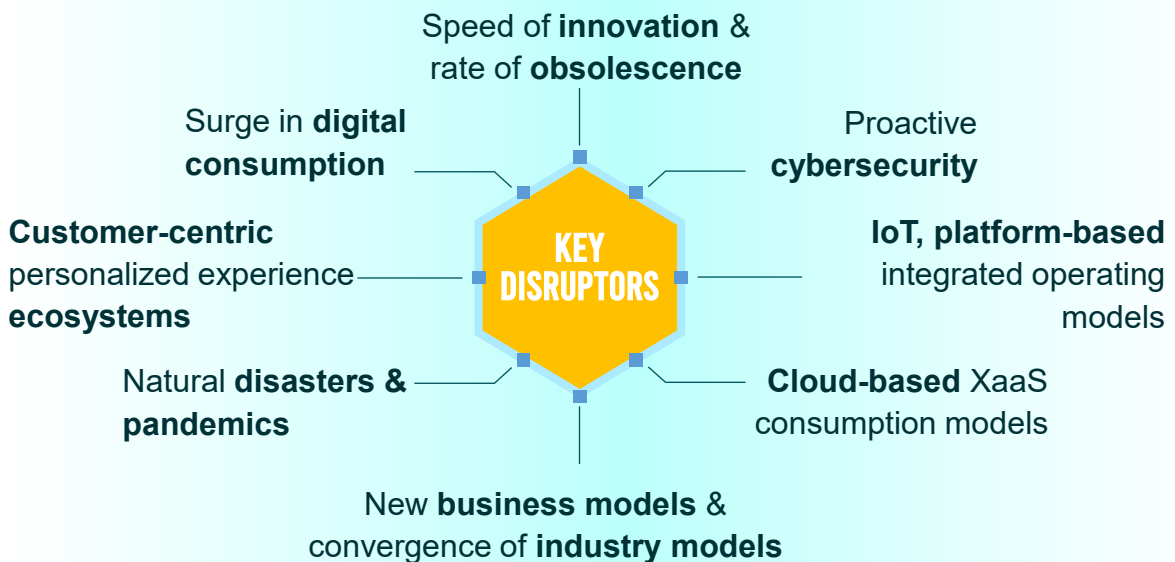
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# INCREASING ROLE AND RESPONSIBILITY FOR FINANCE

Organizations are exposed to multiple disruptors spanning macroeconomic, industry, technology and business model innovations. The interconnected global economy ensures rapid transmission of any event across national and industry boundaries.

Finance is expected to help organizations navigate this increasingly complex environment. CFOs are playing a significantly diverse role ranging from preserving to creating value!



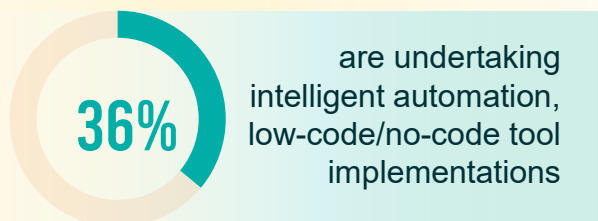
**66%** of CFOs rated **speed of innovation & rate of obsolescence** as the top disruptor for finance

**59%** of CFOs believe that creating a customer-centric personalized experience is a key challenge for finance



## TECHNOLOGY INVESTMENTS

Finance leaders are constantly evaluating new technologies to cater to the changing roles and expectations from finance. Their digital transformation journey includes investing in ERP, cloud, SaaS, low-code, and data platforms.

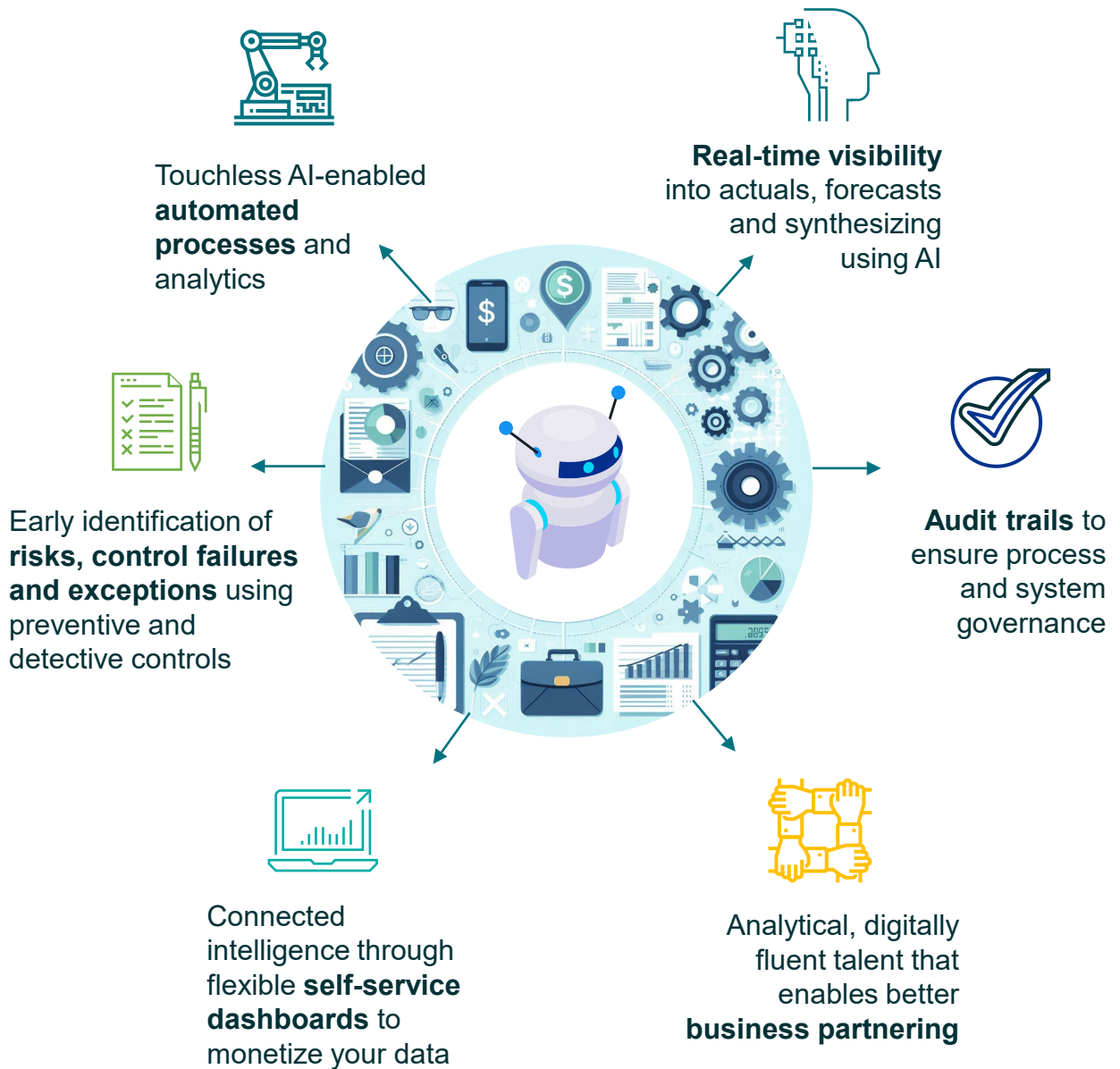


However, CFOs are grappling with rapid technology innovation and obsolescence of these investments. It is becoming increasingly evident that finance needs to develop awareness and agility to understand and deploy rapidly evolving innovations.

# WHAT DO CFOS NEED ?

## THE 'DREAM'

Technology has the unique position of being one of the biggest disruptors affecting finance, while also offering a powerful tool for keeping pace with the disruption!



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# THE LONG JOURNEY TO THE GENERATIVE AI BREAKTHROUGH

Generative AI has captured the collective imagination of the business world when ChatGPT burst on the scene and witnessed unprecedented adoption. Generative AI technology offers truly transformational potential due to its generalized/ horizontal application, and ability to rapidly deploy and scale.

However, it is the latest evolution in the Artificial Intelligence domain which has witnessed steady advances due to lower cost of computing.

## Traditional AI



### Simple model

Purpose-built for one use

“Narrow”

## Next generation AI



### Massive model

Generalized intelligence with many applications

“Generalized”

## EVOLUTION OF AI

### Artificial Intelligence (1956)

The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

### Machine Learning (1997)

A subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

### Deep Learning (2017)

A machine learning technique in which layers of neural networks are used to process data and make decisions or recommendations.

### Generative AI (2021)

Create new written, visual, and auditory content given prompts or existing data.

Finance is continuously investing in emerging technology to keep pace with the rapidly changing business environment. Generative AI is expected to augment and enhance the existing finance technology portfolio.

# WHAT IS GENERATIVE AI AND WHAT ARE ITS CAPABILITIES?

Generative Artificial Intelligence (GenAI) can generate text, images, or other media in response to prompts. GenAI models learn the patterns and structure of their input training data by applying neural network machine learning techniques, and then generate new data that has similar characteristics.

## BROAD CAPABILITIES OF GEN AI AND SOME USE CASES



### Content Generators

Generative tools which can generate blog posts, emails, images etc.

- Reports Generation
- Email content Generation
- PDF Generation
- Images Generation
- Video Generation
- Music Generation



### Information Extractors

Summarize and analyze larger documents, in short- and long-form.

- Data Extraction
- Feature Extraction
- Terms & Condition Extraction
- Contract Extraction
- Table Extraction
- Summarization



### Digital Assistants

Virtual assistants that can interact conversationally, based on defined logic.

- Smart Chatbots
- Knowledge Miner



### Language Translators

Tools to translate into multiple languages, as well as build out content.

- Translating from English to any other language



### Code Generators

Convert text inputs into code in various programming languages.

- SQL code
- Python code
- Code Reviewer

# HOW CAN AI BE USED TO TRANSFORM FINANCE?

Finance can lead radical transformation and gain competitive advantage from “staffing” AI on value streams that deliver the best returns.

## PRIMARY CATEGORIES IN FINANCE



### Intelligent Monitoring

Applied Anomaly Detection

Primary applications in Transact to Report processes (R2R, P2R, S2P, and L2C)



### Intelligent Document Processing

Language Modeling

Primary applications in Lead to Cash, Source to Pay, Risk & Compliance



### Intelligent Forecasting

Predictive Modeling

Primary applications across Plan to Perform, Integrated Business Planning, Tax, and Treasury



### Generative Insights

Content Analysis & Creation

Highly valuable but more experimental, more custom, and less repeatable

## SOME EXAMPLES

- GL Analysis
- Data anomaly detection
- Expense fraud
- Vendor risk
- Planning and forecasting
- Financial & Statutory compliance and reporting
- Master data management
- Cost assurance
- Revenue leakage
- Pricing Concessions
- Order Entry and billing
- Working capital
- Credit & Collections
- Spend analysis
- Invoice capture and processing
- Cash forecasting and management
- Investor communications
- Tax compliance
- Investment decision support
- Enterprise risk management
- Internal Audit

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# WHERE DO CFOS SEE MAXIMUM OPPORTUNITY FOR GENAI?

GenAI introduces a significant uplift in technology ability while at the same time democratizing access as it uses natural language inputs. This allows every organization to rapidly innovate and even disrupt their industry across both business models and operating models. At the CFO Board Retreat, Generative AI was unsurprisingly the topic of keen interest. CFOs are actively understanding, evaluating, and investing in it.

**28%** of the CFOs surveyed already have Generative AI pilots underway!

The CFO Board also delved into what areas were most attractive and opportune to consider Generative AI investments. Based on the deliberations, the CFOs believe risk management and improved insights are the top focus areas, followed by productivity improvements by increased automation.

**64%**

of CFOs see **risk and compliance** as the top opportunity area for Generative AI investment

**61%**

of CFOs believe **analytics and insight generation** is the optimal area to deploy Generative AI technology

**54%**

of CFOs chose **productivity through digital enablement** as the top benefit from Generative AI investments

# GENAI POWERED EFFICIENCY, EFFECTIVENESS AND INSIGHTS



## A) RISK AND COMPLIANCE

Modern risk management tools help in anticipating risk before it materializes thus ensuring proactive risk management. Finance can now intelligently identify patterns and anomalies using Generative AI, enabling dynamic risk management:



Develop a **balanced risk function** that both protects and enables



Enable **agility** to address disruption, new and evolving risks

# 40%

of the CFOs surveyed have AI-based pro-active control monitoring tools implementation already underway



## B) INSIGHT GENERATION AND ANALYTICS

Finance spans the entire value ecosystem and is uniquely positioned to be a strategic partner for enterprise insights.



Enable finance to harness a **variety of data sources** across and outside the organization



Harness data to provide **real time insights** and suggest **recommended actions**



## C) PRODUCTIVITY THROUGH DIGITAL ENABLEMENT

To fully capture the potential of today's digital transformation, finance needs to think digital and act human. It should invest in future-ready solutions as the business grows and evolves and embrace end-to-end digital enablement. This helps to achieve significant productivity benefits enabling optimum utilization of resources facilitating a focus-shift from preserving to creating value.



Accelerate **digitization** to further improve automation and productivity



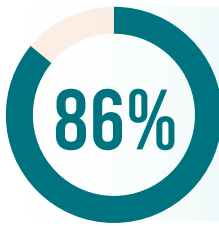
**Augment human employees** helping shift the focus from preserving to creating value

**Finance systems and platforms are also increasingly integrating Artificial Intelligence capabilities into their core product features**



# WHAT ARE THE TOP OUTCOMES SOUGHT FROM GENAI?

Finance leaders at the CFO Board Retreat called out improved business partnering and building out the best technology ecosystem as their top outcomes sought from AI investments.



are investing to **improve decisions** through use of data analytics



are investing to build the **best-in-class technology ecosystem** for the finance function

## TECHNOLOGY AS A SOURCE OF COMPETITIVE ADVANTAGE

Early adopters of finance technologies including AI are already realizing benefits accruing. They are prioritizing investments in technology, data and people - leveraging the synergy and beginning to gain competitive advantage over peers.

### Value realized

**70%+**

automation of transactional processes and reporting

Spend **2–3x** more time on analytics and decision support

Nearly continuous financial close and planning cycles **5x** faster

**>60%**

have adopted predictive forecasting and analytics

**>80%** integrate external data into strategic planning and decision making

**50%+**

more accurate forecasts

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# THE HUMANS MATTER MOST!

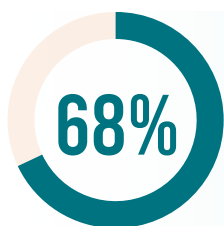
## PRIORITY 1 - UPSKILLING PEOPLE



### PEOPLE AND SKILLS

Organizations focusing on digital finance need to **develop new digital skills** within finance teams, as well as implement a culture of innovation. To achieve the short-term and long-

term goals, leaders must **continuously upskill** the teams and enable them to leverage benefits from capabilities and technologies like cloud, ERP, and AI



of the CFOs surveyed have said that investment in **People, Skills and Talent** is their biggest priority and focus area

Finance leaders in our survey have clearly stressed the need for building specific tech skill sets within finance

36%

of the CFOs plan to invest and build **data lake and data visualization** skills within finance

32%

of the CFOs plan to develop **AI and GenAI** skills within finance

## AGILITY - THE NEW WORK PARADIGM

To deal with the digital disruption in finance, CFOs need to embrace new agile ways of working and have to make investments focused on accelerating digital adoption, modernizing the workforce, and monetizing data.



CFOs need to mobilize teams with diverse skill sets; These teams can identify initiatives and adopt a rapid implement-> fail-> learn-> iterate cadence



CFOs need to invest in building a culture that embraces change and innovation. The tone and sponsorship from the top matters significantly in building this agile culture

# BUILDING A STRONG DATA FOUNDATION

## PRIORITY 2 – CREATING A ROBUST AND RELIABLE DATA PLATFORM

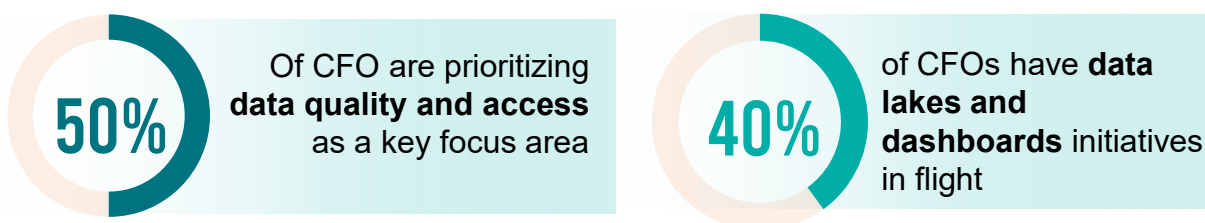


### DATA IS THE FOUNDATION FOR GEN AI

The importance of quality data for AI implementation cannot be overstated. Simply put, it is simultaneously the foundation for AI deployment and rocket fuel for AI growth.

Finance needs to **collect** (including new and emerging data sources), **curate** (cleanse, refine, as well as govern), and finally **consolidate** data. Modern data platforms such as data lakes allow finance to acquire, ingest and persist the data.

CFOs have already started to implement data roadmaps to support AI adoption:



#### DATA INGESTION

Integrate multiple sources of data including internal data, external data and public financial data

#### DATA LITERACY

Build data literacy with user communities to power technologies like AI and ML

#### DATA QUALITY

Clearly defined single source of data truth and data cleansing to ensure a baseline of clean and reliable data

#### DATA STRATEGY

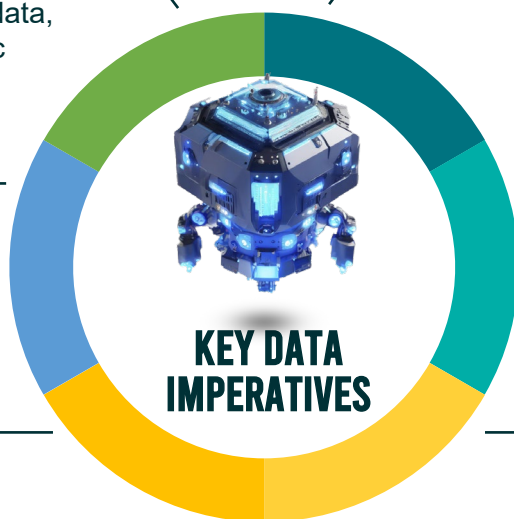
Data framework to enable firms demonstrate value whilst being compliant with data privacy regulations

#### DATA GOVERNANCE

Clear data accountability including well defined roles and responsibilities

#### DATA ARCHITECTURE

Seamless integration between various platforms to reduce data friction and enable quicker access to the data



# CONSIDER RISKS AND CHALLENGES

## PRIORITY 3 – DEVELOP A ‘RESPONSIBLE AI’ FRAMEWORK

AI and Generative AI is poised to transform the future of enterprises in general and finance in particular. However, many organizations still do not fully understand the risks and challenges that these technologies pose. CFOs must consider the multitude of risks including data protection, wrong or biased decisions, regulatory compliance, unauthorized access, intellectual property issues, and impact on the workforce.

### RISKS AND ISSUES CONCERNING USAGE OF AI

01

How do we ensure sensitive or confidential data is protected

02

How do we prevent issues surrounding Intellectual Property?

03

How do we prevent errors or biases in decision-making?

04

How do we secure AI models from cyber attacks?

05

How do we ensure compliance with global AI regulations?

06

How can we harness the value of AI at scale and responsibly

### RESPONSIBLE AI GUIDING PRINCIPLES

Successful Gen AI adoption requires **Responsible AI** framework, which can help CFOs harness the power of AI to accelerate value in a trusted manner.

<b>Accountability:</b>	Mechanisms are in place to drive responsibility across lifecycle
<b>Data Integrity:</b>	Data quality, governance & enrichment steps embed trust
<b>Explainability :</b>	AI can be understood, documented and open for review
<b>Reliability :</b>	AI systems perform at desired level of consistency
<b>Fairness :</b>	Models are free from bias and equitable
<b>Security :</b>	Safeguard against unauthorized access, corruption or attacks
<b>Privacy :</b>	Compliance with data privacy and usage regulations
<b>Safety :</b>	AI does not negatively impact humans, property, environment.

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# GETTING STARTED

Artificial Intelligence is still advancing as computing capacity and cost improve further. While this presents an additional layer of complexity, it is critical for CFOs to start understanding and adopting AI in their functions now. Across industries and functions, technology has been a source of sustainable competitive advantage, and consequently there are real risks to falling behind the curve.

As with any emerging technology, an iterative approach is key. This allows CFOs to effectively build capabilities while absorbing the impact on the workforce.

## SUGGESTED IMPLEMENTATION APPROACH



### Phase 1: “Crawl”

Build and pilot use cases (POCs)

- Identify and deploy 2 – 4 **initial use cases**
- Reimagine **future state operating model** (processes, technology, data and people)



### Phase 2: “Walk”

Enhance capabilities/ governance

- **Collect feedback on initial use cases**, and enhance/ embed into operations
- **Identify and implement additional use cases** across functions or processes



### Phase 3: “Run”

Scale and Transform

- Reshape **workforce** and **talent strategies**
- **Scale technology and infrastructure** (e.g., new models, additional data)

# OUR RESEARCH METHODOLOGY

## VOICE OF THE CFO BOARD COMMUNITY: SURVEY DURING THE ANNUAL RETREAT

The CFO Board Annual Retreat in December 2023 included a Keynote address on the CFO function being transformed by new technologies, with a specific focus on Generative AI.

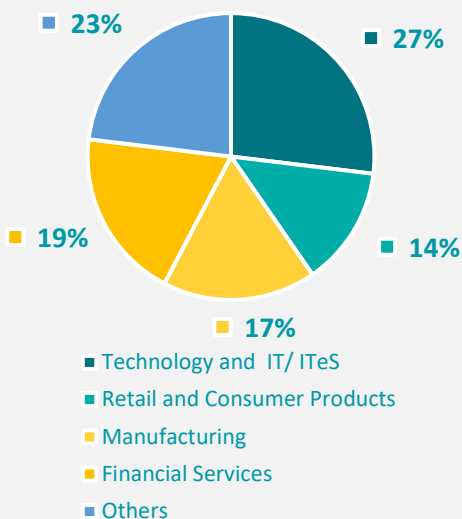
Following the keynote, the 75+ CFO Board delegates comprising CFOs from leading Indian companies participated in round table discussions and in a curated survey to gather insights on their transformation priorities and technology investments.

The round table sessions and surveys focused on technology and Generative AI in finance with specific questions around the below topics:

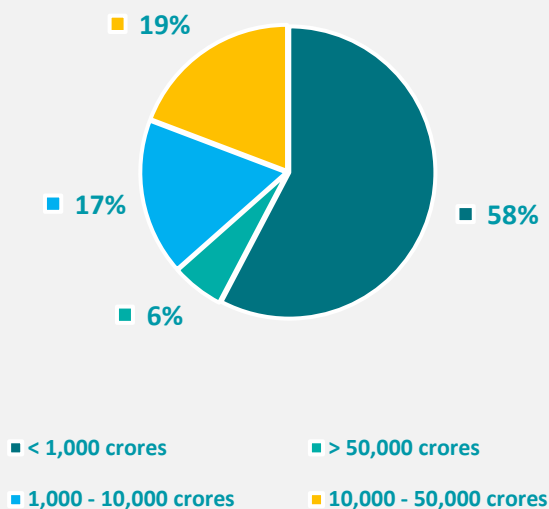
- What are the top disruptions for the finance function?
- What does finance need?
- What is the art of the possible?
- What are the key expected outcomes?
- How to get started?

## PARTICIPANT DEMOGRAPHICS

### BY INDUSTRY




### BY REVENUE



## SECONDARY RESEARCH

The insights garnered from the Voice of the CFO Board community were the basis for this report, to provide a practitioner perspective and a realistic view on the topic of Artificial Intelligence in finance.

These insights were supplemented by secondary research using KPMG and industry research to provide a broader and well-rounded perspective in this report.



This whitepaper has been prepared with guidance from Ms. Rekha Talluri, CFO – Microsoft India; Mr. Jaywardhan Semwal, Worldwide Leader - Corporate Financial Accounting at Hewlett Packard Enterprise; and Mr. Chaitanya Gogineni, Partner, KPMG in India.



For feedback and queries, write to The CFO Board at [secretariat@cfoboard.com](mailto:secretariat@cfoboard.com)  
For more information, visit [www.cfoboard.com](http://www.cfoboard.com)

#### **ASSOCIATION OF CFO WELFARE INDIA**

216-241, 2nd Floor, Block-F, International Trade Tower, Nehru Place,  
New Delhi-110019

For Feedback and queries, write to The CFO Board at [secretariat@cfoboard.com](mailto:secretariat@cfoboard.com)

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