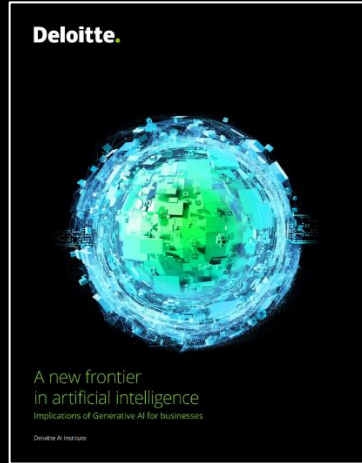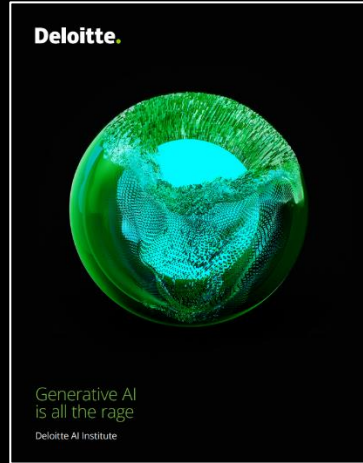# Deloitte.

Deloitte Thailand CFO Forum

Exploring the Power of
Generative AI in Transforming
Finance Functions

GenAI | Deloitte POV - Primer

GenAI | Deloitte POV - Updated

Scan QR code to read the full report

Deloitte.

Thailand Digital Transformation Survey 2023:
CFO Perspectives

Deloitte Thailand's 4th year annual digital transformation report
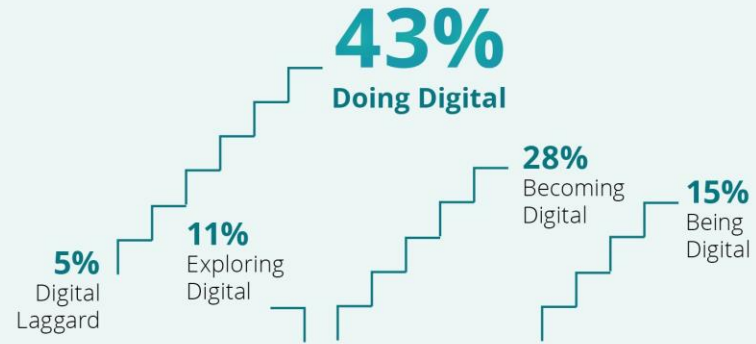
Meet our speakers

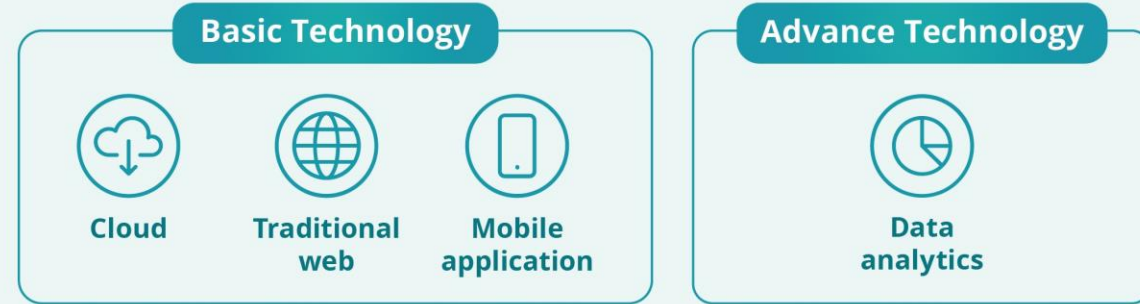**Parichart Jiravachara**
Partner,
Risk Advisory
Deloitte Thailand

Narain Chutijirawong, Ph.D.
Executive Director,
Clients & Markets
Deloitte Thailand

Digital transformation journey

43%
Doing Digital

28%
Becoming
Digital

15%
Being
Digital

11%
Exploring
Digital

5%
Digital
Laggard

Top technology implementation

Basic Technology

Cloud

Traditional
web

Mobile
application

Advance Technology

Data
analytics

Top successful results from digital transformation initiatives

Reduced cost

Increased employee productivity

Top challenges to achieve digital transformation implementation

Lack of internal and external expertise

Insufficient budget & resources
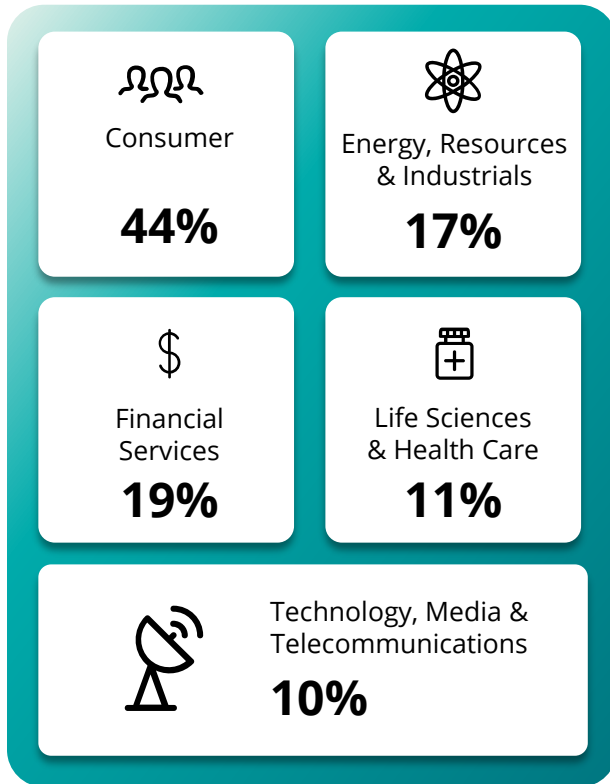
Immature digital culture

Exploring the Age of
Digital Disruption

Unlocking Success
in Digital
Transformations

Leadership's
Role and
Ambition

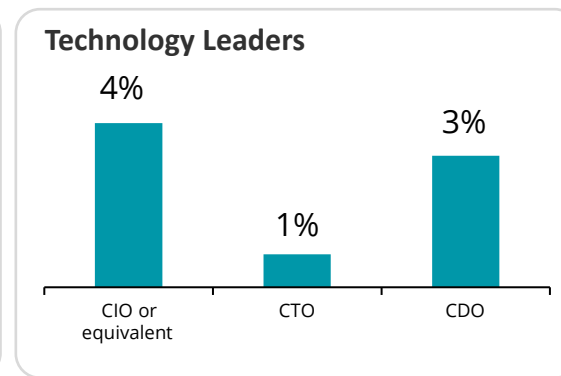# Sample structure and survey analysis have been designed to reflect the perspectives towards digital disruption and transformation in Thailand

Sample Size n=131

Consumer
44%

Energy, Resources & Industrials
17%

Financial Services
19%

Life Sciences & Health Care
11%

Technology, Media & Telecommunications
10%

Company type
- Trader — 19%
- Service — 51%
- Manufacturer — 30%

Corporate title
- Others — 51%
- Technology Leaders — 10%
- Business Leaders — 39%

Business Leaders
- CFO — 18%
- Executive/ management committee — 9%
- CEO — 6%
- COO — 5%
- Board of directors — 2%

Technology Leaders
- CIO or equivalent — 4%
- CTO — 1%
- CDO — 3%

Company size
- Large — 75%
- Medium — 15%
- Small — 10%

Impact of Digital Disruption

The perceived impact as moderate throughout the years. Businesses can essentially be categorized into two main groups based on their relationship with technology. The first group, where technology is central to their operations, doesn't feel significantly affected by digital disruption. This is because they inherently need to keep pace with digital advancements due to the nature of their business. On the other hand, the second group doesn't see the need to adopt a wide range of technologies, believing that enhancements to their internal processes are sufficient to remain competitive in their sector.

"We are not like traditional industries where when a digital solution comes up, it creates disruption. We are already on track."
- CFO at a leading Thailand online food and grocery delivery marketplace player

Q: Currently, how significant is the impact of digital disruption on your company? (C-level n= 53)

Before Pandemic
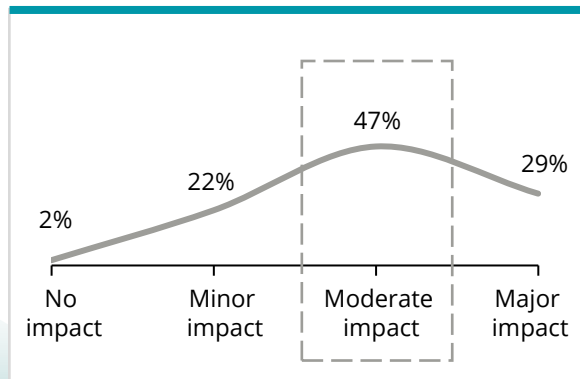
2%	22%	47%	29%
No impact	Minor impact	Moderate impact	Major impact

2021

6%	33%	42%	18%
No impact	Minor impact	Moderate impact	Major impact

2022

11%	20%	41%	27%
No impact	Minor impact	Moderate impact	Major impact

2023

6%	17%	42%	36%
No impact	Minor impact	Moderate impact	Major impact
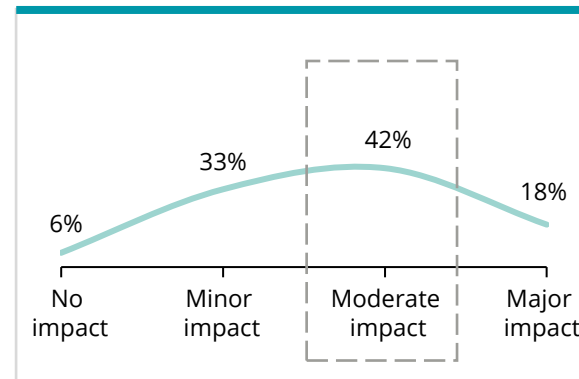
Currently, how significant is the impact of digital disruption on your company?

Majority of CFOs respondents felt digital disruption has had a **major impact** to the company, whereas other C-Suite feel it is has a moderate impact
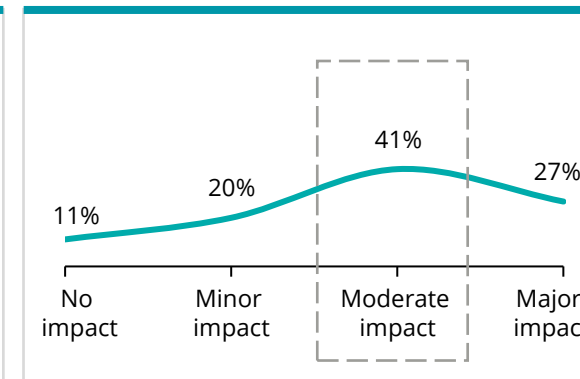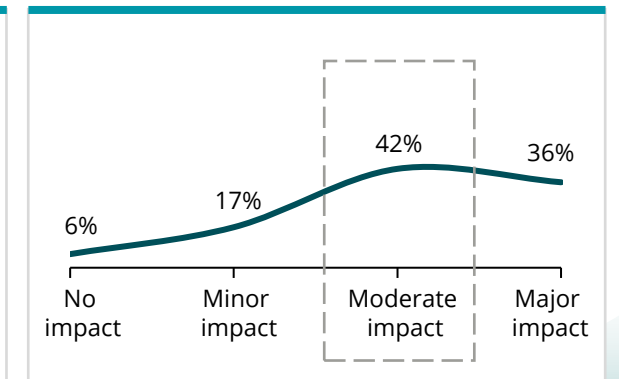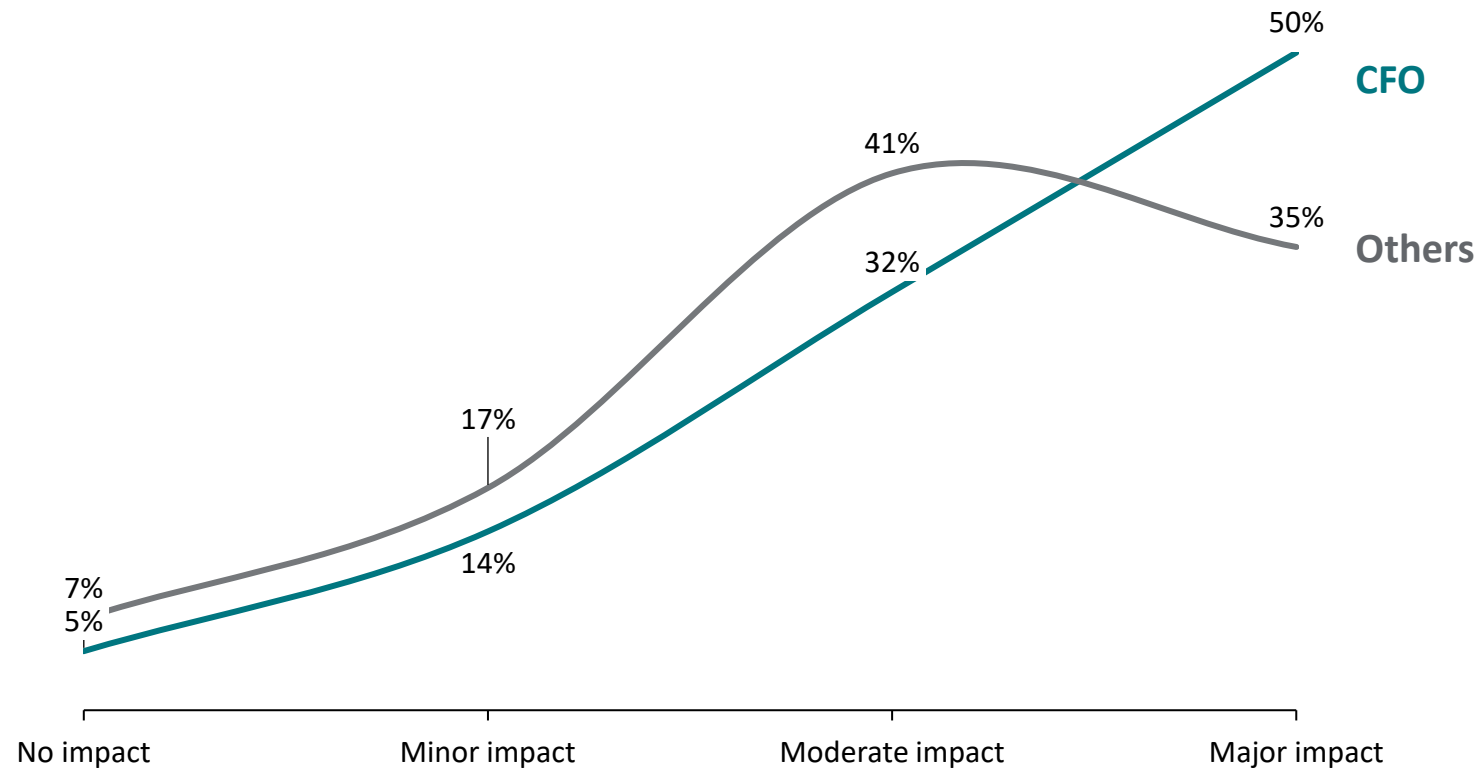

50%

CFO

41%

35%

Others

32%

17%

14%

7%
5%

No impact   Minor impact   Moderate impact   Major impact

Digital Transformation Journey

Majority of CFOs as well as the rest of the C-suite respondents felt that their organisations were in the Doing Digital stage of their digital transformation journey

Q: To what extent do the following statements reflect your company's response to the pace of digital disruption?

Digital laggard	Exploring Digital	Doing Digital	Becoming Digital	Being Digital
Business does not have a digital plan; do have limited initiatives and investment in place	Leverage traditional technologies to automate existing capabilities. No real change to the organization	Leverage digital technologies to extend capabilities, but still largely focused on same business, operating and customer models	Leverage digital technologies – becoming more synchronized and less siloed – with more advanced changes to current business, operating and customer models	Business, operating and customer models are optimized for digital and profoundly different from prior business, operating and customer models

54%

41%

27%

24%

18%

9%

11%

9%

5%

3%

— CFO
— Others

Digital Transformation Budget Allocation

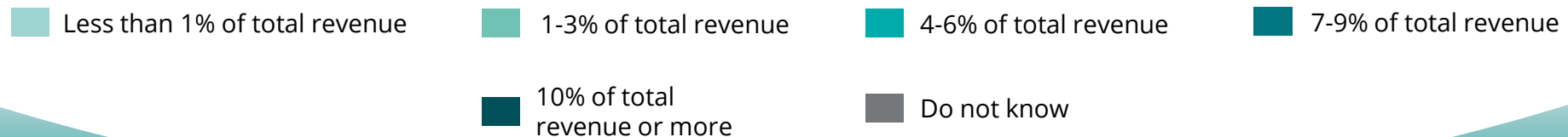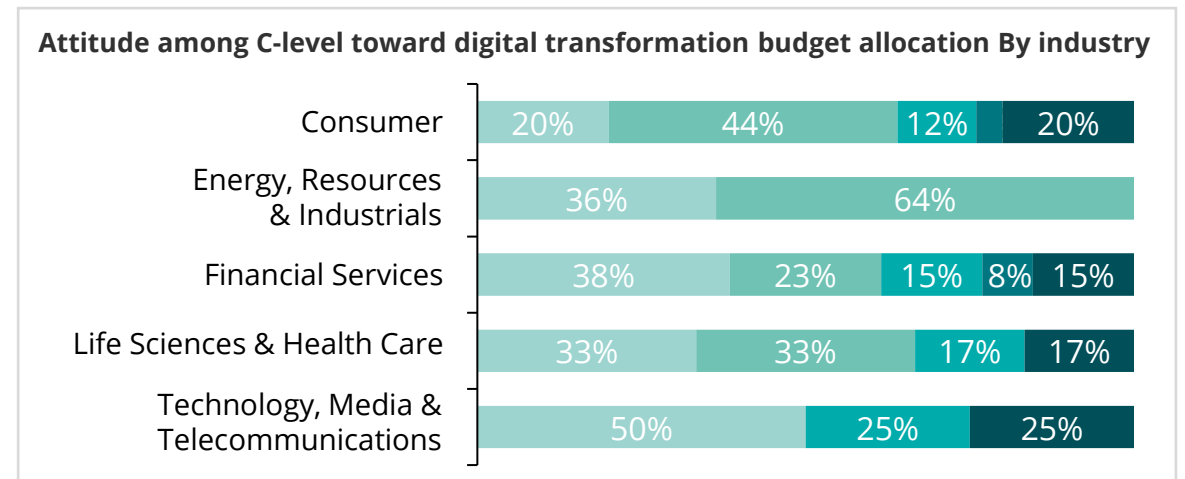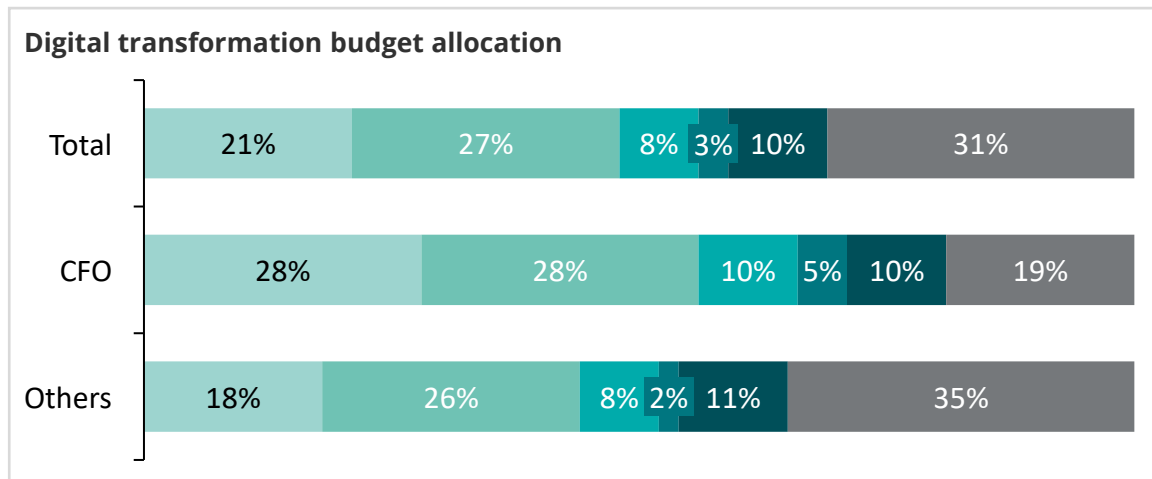More than 50% of CFO respondents allocate **3% or less of total revenue** towards digital transformation initiatives. Companies with technology at the core of their business, such as those in the TMT industry, invest in digital transformation by nature of their industry, while in the consumer industry with high customer involvement, investment in digital transformation attracts consumers and helps them stay competitive with peers.

> "Money will be allocated to the frontend first as it is the main money generator while long-term efficiency will be the key consideration for backend which takes long-term effort and results in cost-efficiency"
> - CFO at a leading Thailand consumer product player

Q: How do your companies plan to spend budgets on digital transformation initiatives? (n=86)

Digital transformation budget allocation

	Less than 1%	1-3%	4-6%	7-9%	10% or more	Do not know
Total	21%	27%	8%	3%	10%	31%
CFO	28%	28%	10%	5%	10%	19%
Others	18%	26%	8%	2%	11%	35%

Attitude among C-level toward digital transformation budget allocation By industry

	Less than 1%	1-3%	4-6%	7-9%	10% or more
Consumer	20%	44%	12%	20%	
Energy, Resources & Industrials	36%	64%			
Financial Services	38%	23%	15%	8%	15%
Life Sciences & Health Care	33%	33%	17%	17%	
Technology, Media & Telecommunications	50%		25%		25%

Legend:
- Less than 1% of total revenue
- 1-3% of total revenue
- 4-6% of total revenue
- 7-9% of total revenue
- 10% of total revenue or more
- Do not know

Technology Implementation by Company Size

Higher number of those already implemented or planned to invest in technology can be found in 2023 compared to 2022, especially in the data analytics field.

Q: Please select digital technologies that you already implemented or planned to invest? (C-level n=53)

Basic Technology

Advance Technology

Small size

	Cloud	Traditional web technology	Mobile application	Data analytics	Robotics (Robotic process automation)	Internet of Things	Artificial Intelligence	Blockchain	Augmented or Virtual reality technology
2022	75%	75%	50%	25%	0%			0%	
2023	33%	50%	50%	67%	17%	0%	0%	33%	0%

Medium size

	Cloud	Traditional web technology	Mobile application	Data analytics	Robotics (Robotic process automation)	Internet of Things	Artificial Intelligence	Blockchain	Augmented or Virtual reality technology
2022	67%	50%	39%	56%	22%	11%	11%	11%	17%
2023	60%	40%	30%	60%	10%	20%	10%	0%	20%

Large size

	Cloud	Traditional web technology	Mobile application	Data analytics	Robotics (Robotic process automation)	Internet of Things	Artificial Intelligence	Blockchain	Augmented or Virtual reality technology
2022	62%	31%	50%	58%	31%	23%	19%	19%	8%
2023	74%	51%	74%	74%	40%	31%	29%	9%	6%

Technology Implementation

Basic Technology

Technology
Cloud

Example use case
Data storage mainly for HR, finance and emails

Technology
Mobile Application

Example use case
Customer use, no applications for internal use as of now

Advance Technology

Technology
AI

Example use case
Desk research

Technology
Data analytic

Example use case
Data visualization program and analytical tool such as Excel

Technology
RPA

Example use case
Only in accounting and internal use at present

Technology
IOT

Example use case
Production machine sensor for work monitoring

"New technology has given our company additional benefits. It made some services easier but if we didn't do it, the business can still run efficiently, and not lose anything."
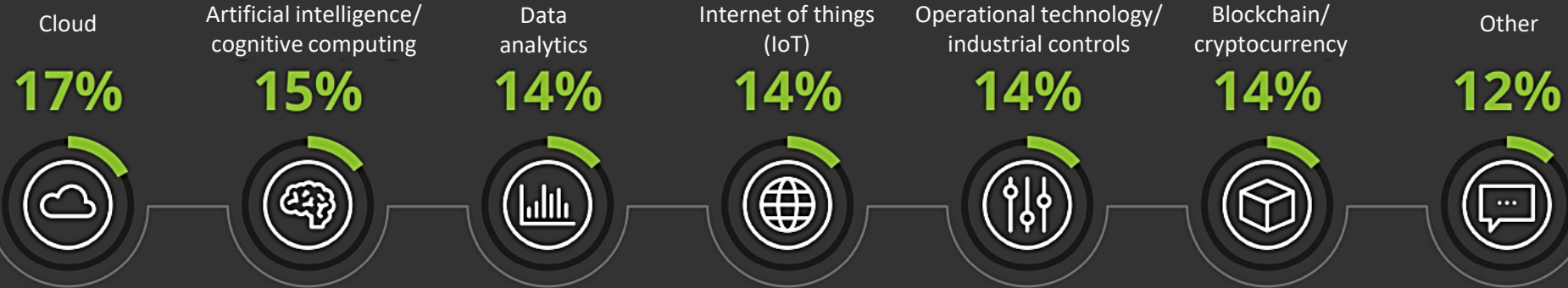
- CFA at a leading Thailand insurance player

Executive are all in for digital transformation

Investments in cyber lagging behind the desire to share data

Executives are all in for digital transformation

Survey respondents say they are not prioritizing one but a number of digital transformation initiatives to simplify environments and increase efficiencies.

Cloud	Artificial intelligence/ cognitive computing	Data analytics	Internet of things (IoT)	Operational technology/ industrial controls	Blockchain/ cryptocurrency	Other
17%	**15%**	**14%**	**14%**	**14%**	**14%**	**12%**

But survey results reveal a disconnected story

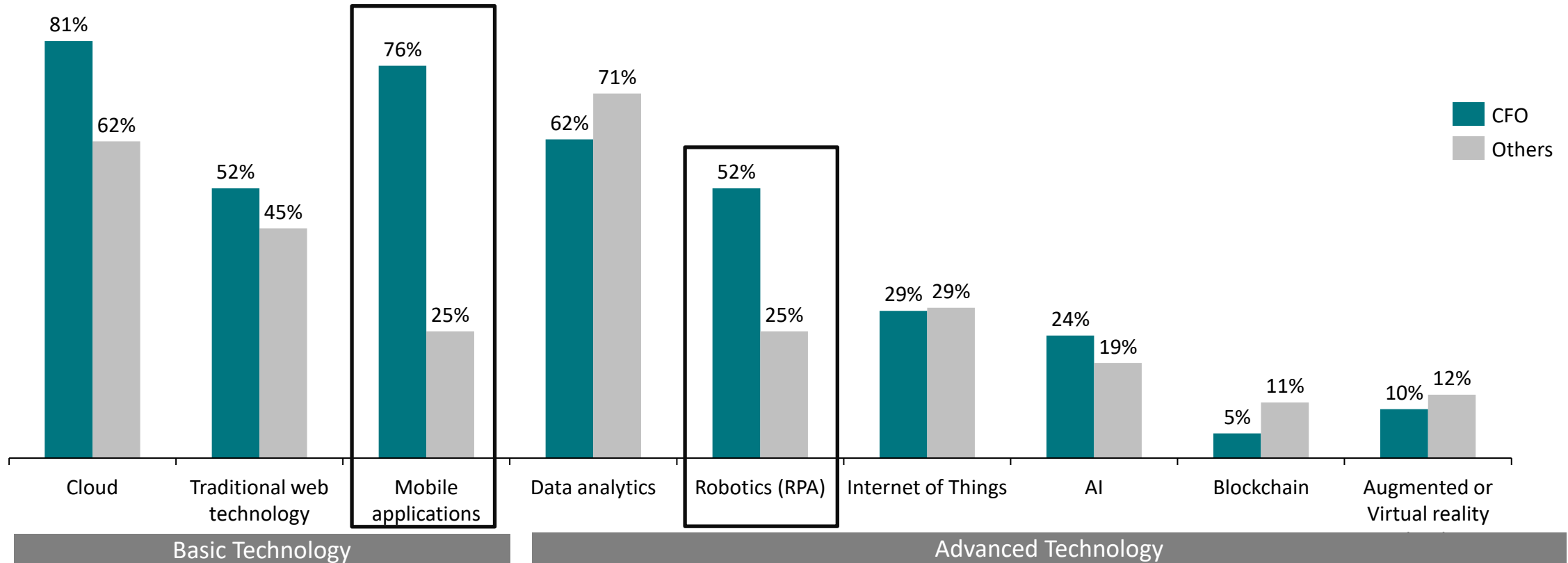Those surveyed view digital transformation as one of the most challenging aspects of cyber risk management, and yet indicate that less than **10%** of cyber budgets are allocated to these digital transformation efforts

With finite budgets and resources, day-to-day cyber management will likely tax even the highest performing cyber teams

Please select digital technologies that you already implemented or planned to invest in?

Mobile applications and RPA was much higher amongst CFO respondents compared to others in terms of planned or current investment opportunities
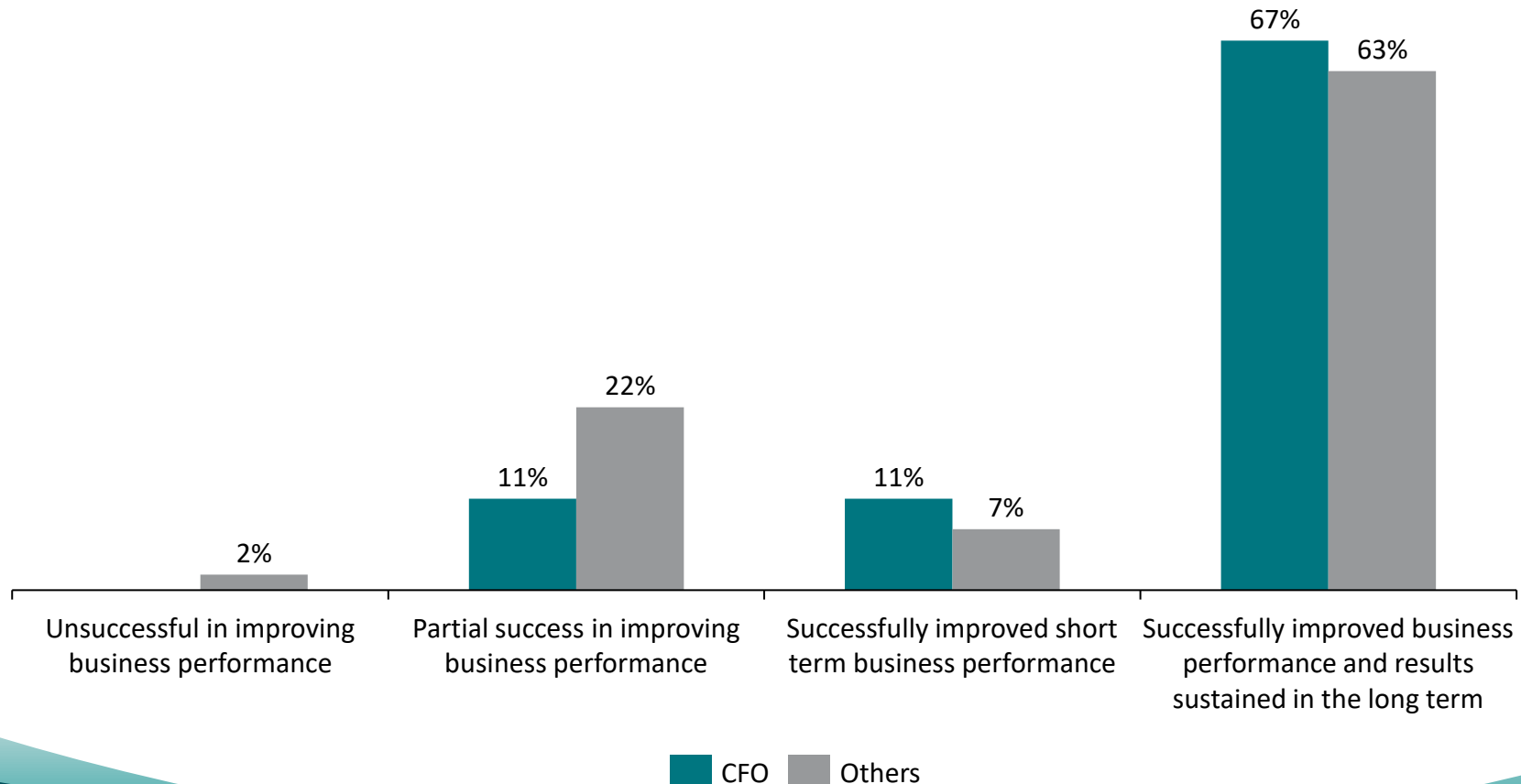

Legend: CFO | Others

Chart values:
- Cloud: CFO 81%, Others 62%
- Traditional web technology: CFO 52%, Others 45%
- Mobile applications: CFO 76%, Others 25%
- Data analytics: CFO 62%, Others 71%
- Robotics (RPA): CFO 52%, Others 25%
- Internet of Things: CFO 29%, Others 29%
- AI: CFO 24%, Others 19%
- Blockchain: CFO 5%, Others 11%
- Augmented or Virtual reality: CFO 10%, Others 12%

Basic Technology | Advanced Technology

Digital adaptations that you invested in or planned to invest

Cyber security was the top digital adaption chosen for investments across all respondents
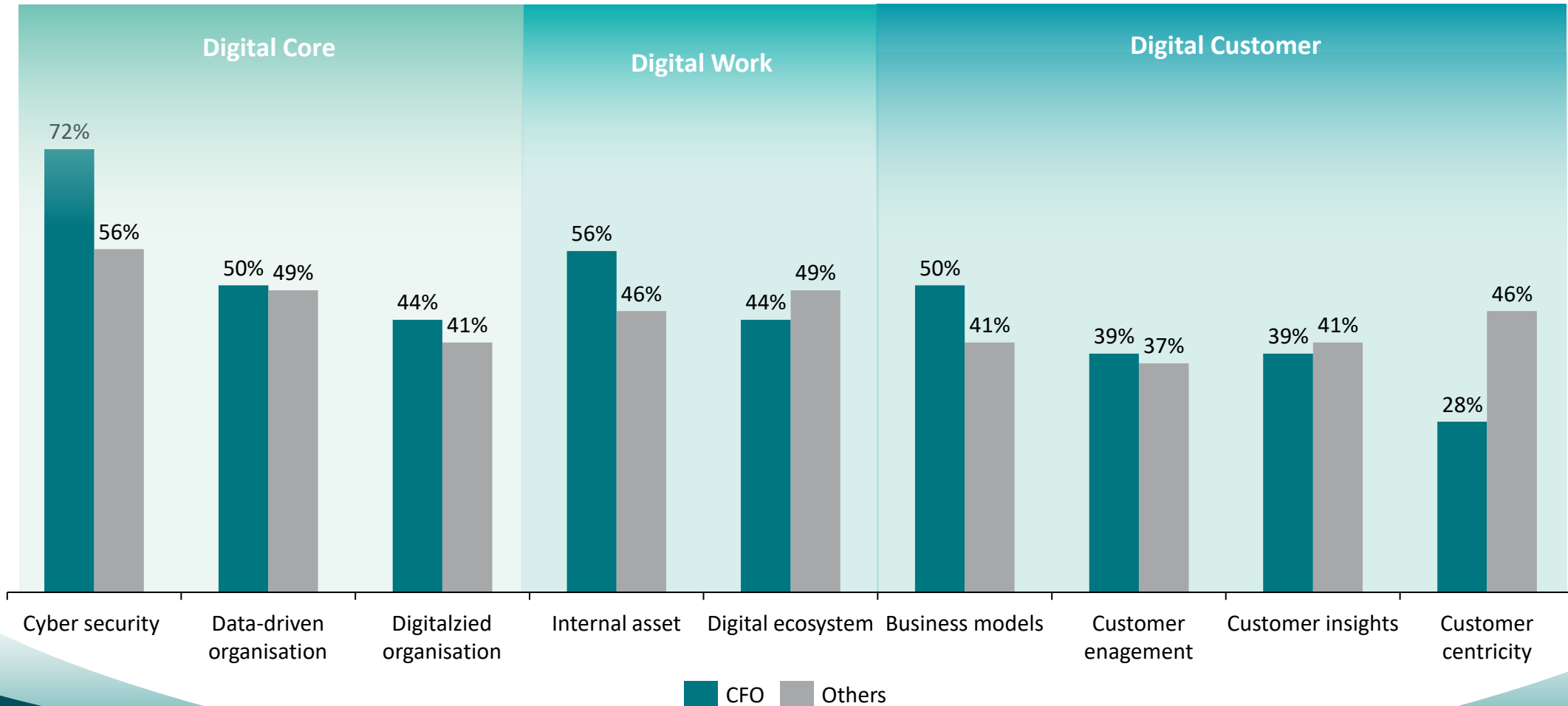
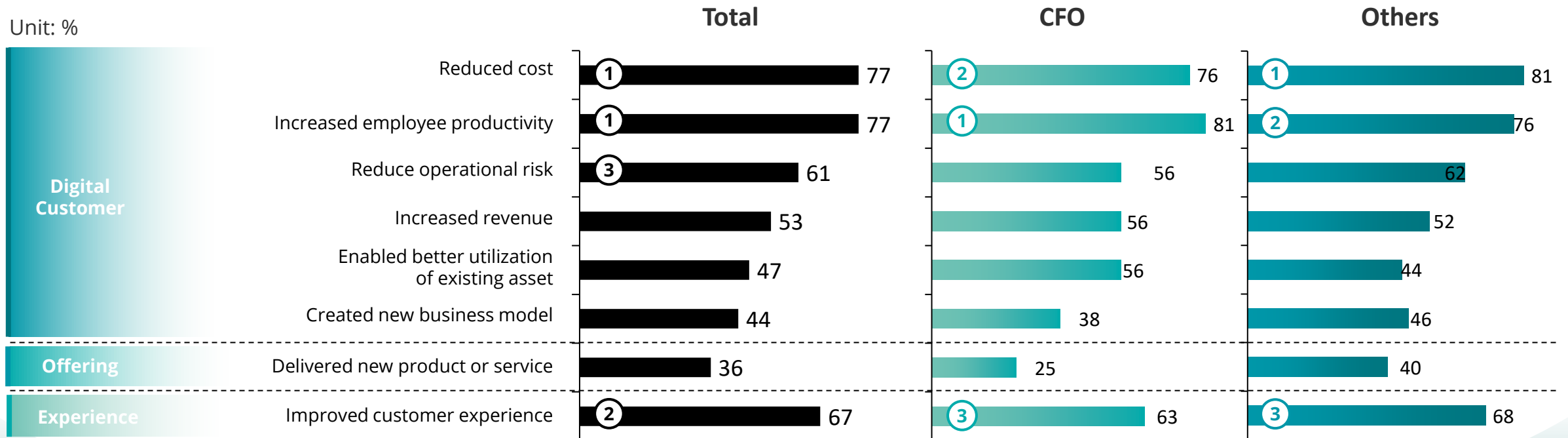# Perception towards Results of Digital Transformation Initiatives

Majority of CFO and other C-Suite respondents have seen that digital transformation initiatives have **successfully improved** business performance with **long-term sustained results**

Legend: CFO, Others

Unsuccessful in improving business performance: CFO —, Others 2%
Partial success in improving business performance: CFO 11%, Others 22%
Successfully improved short term business performance: CFO 11%, Others 7%
Successfully improved business performance and results sustained in the long term: CFO 67%, Others 63%

Successful Result by Position

Increased employee productivity and cost reduction are the top two successful results for digital transformation implementation across CFO respondents, and the remaining respondents. This is followed by improving customer experience.

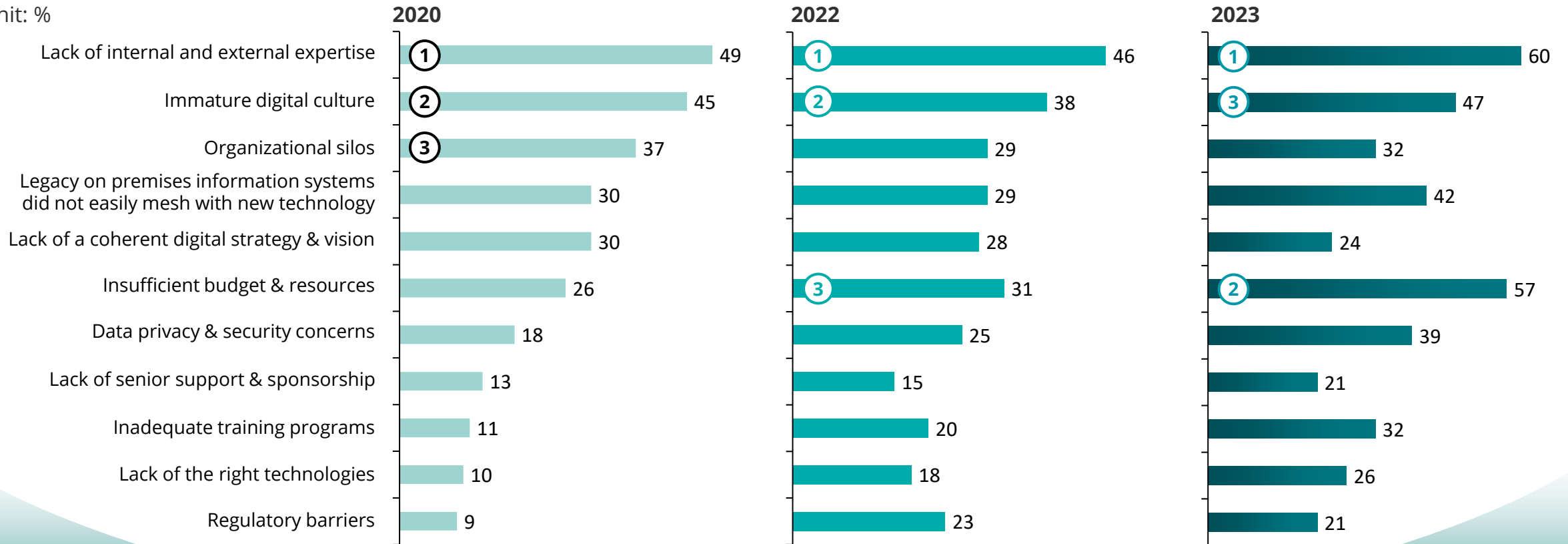**Q: What were successful results from digital transformation initiatives?**

Unit: %

	Total	CFO	Others
Digital Customer			
Reduced cost	① 77	② 76	① 81
Increased employee productivity	① 77	① 81	② 76
Reduce operational risk	③ 61	56	62
Increased revenue	53	56	52
Enabled better utilization of existing asset	47	56	44
Created new business model	44	38	46
Offering Delivered new product or service	36	25	40
Experience Improved customer experience	② 67	③ 63	③ 68

Challenge of Digital Transformation

The top challenge remains as human resource capability, however, since 2020, post-covid economic recessions have prompted increased budget reservations. IT has been continuously outsourced with cloud-based solutions to solve insufficient budget issues, while PDPA has increased data privacy concerns.
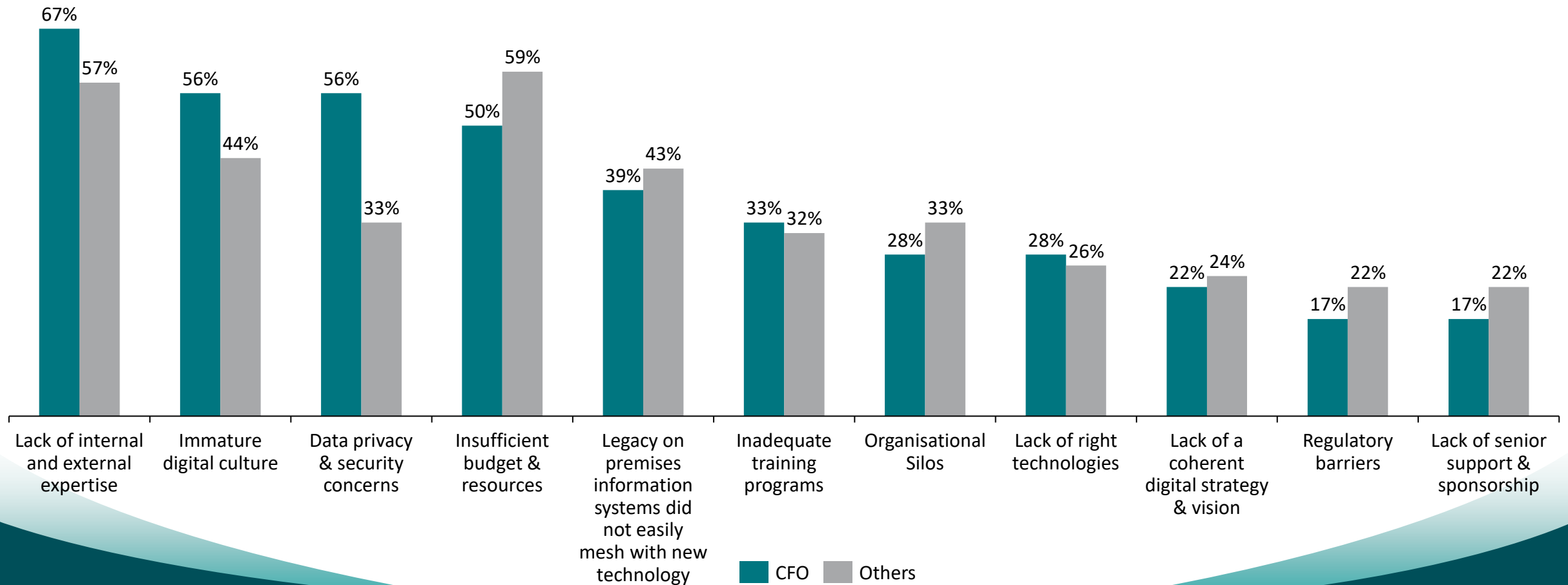
Q: What are challenges to achieve digital transformation implementation in your company?

Unit: %

	2020	2022	2023
Lack of internal and external expertise	① 49	① 46	① 60
Immature digital culture	② 45	② 38	③ 47
Organizational silos	③ 37	29	32
Legacy on premises information systems did not easily mesh with new technology	30	29	42
Lack of a coherent digital strategy & vision	30	28	24
Insufficient budget & resources	26	③ 31	② 57
Data privacy & security concerns	18	25	39
Lack of senior support & sponsorship	13	15	21
Inadequate training programs	11	20	32
Lack of the right technologies	10	18	26
Regulatory barriers	9	23	21

What are the challenges to achieving digital transformation implementation in your company?

The top challenges for CFO respondents were **lack of expertise, immature digital culture, data privacy and security concerns, and budget/resource constraints.** Data privacy and security concerns was not regarded as a top challenge amongst other respondents, where it ranked 5th.

Legend: ■ CFO ■ Others

Chart data:

Challenge	CFO	Others
Lack of internal and external expertise	67%	57%
Immature digital culture	56%	44%
Data privacy & security concerns	56%	33%
Insufficient budget & resources	50%	59%
Legacy on premises information systems did not easily mesh with new technology	39%	43%
Inadequate training programs	33%	32%
Organisational Silos	28%	33%
Lack of right technologies	28%	26%
Lack of a coherent digital strategy & vision	22%	24%
Regulatory barriers	17%	22%
Lack of senior support & sponsorship	17%	22%

Digital transformation ambitions range from modest to radical

CEO's Role

Digital Vision

Level 0	Level 1	Level 2	Level 3	Level 4
Incremental digitization	Advanced digitization	New markets	New products	New business models

What changes?

Level 0	Level 1	Level 2	Level 3	Level 4
• Same business model • Same capability • Same market • Digitization of some existing internal data and operating processes • Incremental cost/operational improvements	• New digital platforms • Same business model • Same capability • Same market • Radical digitization of processes and/or platform • Revenue generation alongside radical cost/efficiency improvements	• Same business model • Same capability • New market or channel • Similar operating model (eases change)	• Same business model • New capability resulting in new products/service offering(s) • Same market	• New business model • New, innovative capability resulting in products of services that disrupt and transform industry standard • Likely involves ecosystem model • New KPI's likely needed

Incremental spectrum

These levels build incrementally. The more levels a CEO's vision encompasses, the more likely it is to require enterprise wide transformation, include a new operating model and organizational structure.

Source: Deloitte Global CEO Program and Center for Integrated Research analysis, 2022.

Organizational Readiness
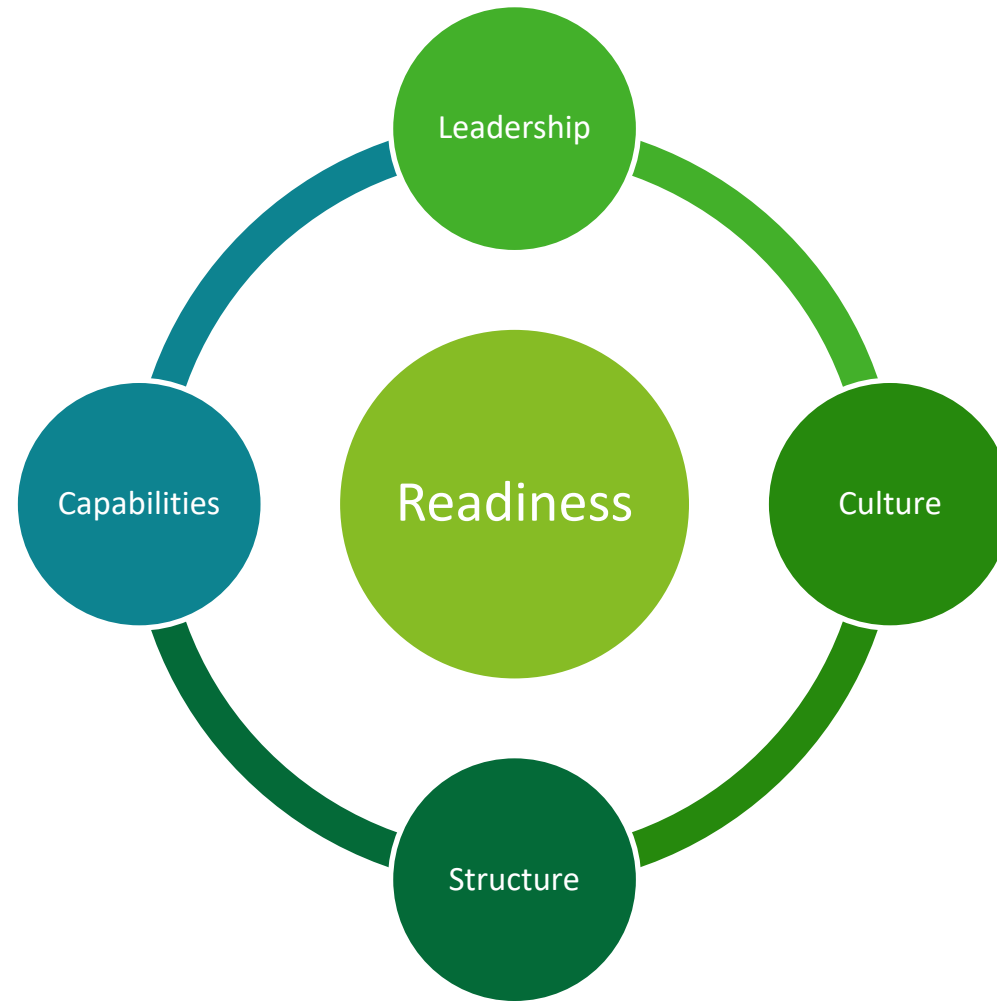
CEOs play different roles in four different transformation scenarios

Source: Deloitte Global CEO Program analysis, 2022.

Deloitte Insights | deloitte.com/insights
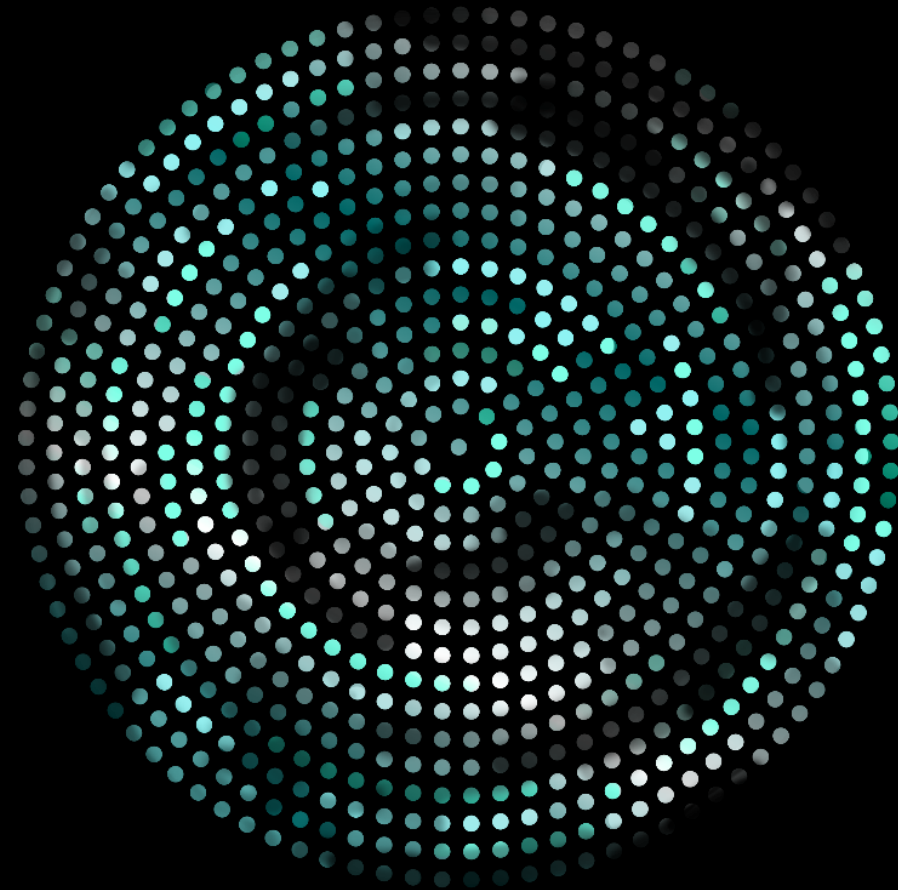
Gen AI for Consumers

Feb 2024

With you today

Chin is a Director in the Strategy, Growth & Innovation practice in South East Asia. His offering in AI & Data. He is a strong solution architect and advocate of Cloud for data platform and is a GenAI graph practitioner.

He has over 35 years experience in industry covering operational responsibility in manufacturing, supply chain management, warehousing & global distribution, JIT hubs design, and customer service centers.

His technical responsibilities includes product development, product management & strategy, data warehousing & analytics, cloud solutions, digital twins, IoT, and complex system integration.

Chin Kok Poh

Selected experience:
- Expert in Supply Chain Management and Manufacturing, Demand Management and Assured Supply processes in Texas Instruments and Motorola Semiconductors.
- Worked with clients and customers in Asia Pacific, US, and Europe.
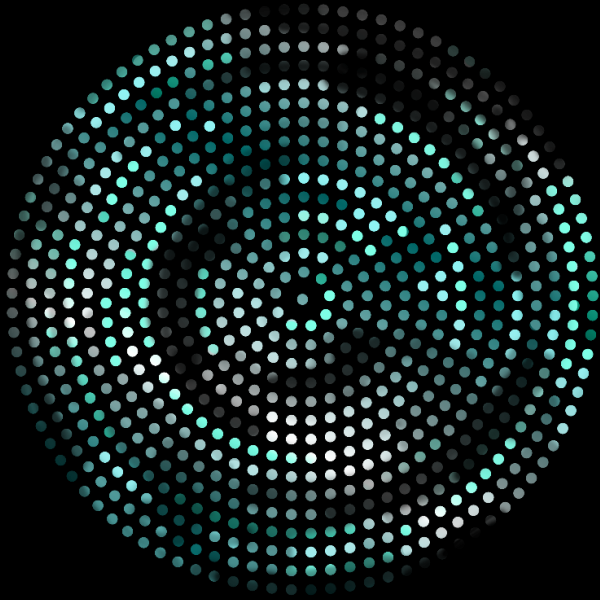
What is Generative AI?

What do we fundamentally need to know about AI?

AI is an algorithm...

Not a magic genie

It doesn't stand still...

we are all learning to work with it

It's not one thing...

there are many tools for many tasks

Where Generative AI Is Relevant

Deloitte leverages Alliance-powered LLMs to transform enterprise operations by integrating data-driven intelligence into core business processes
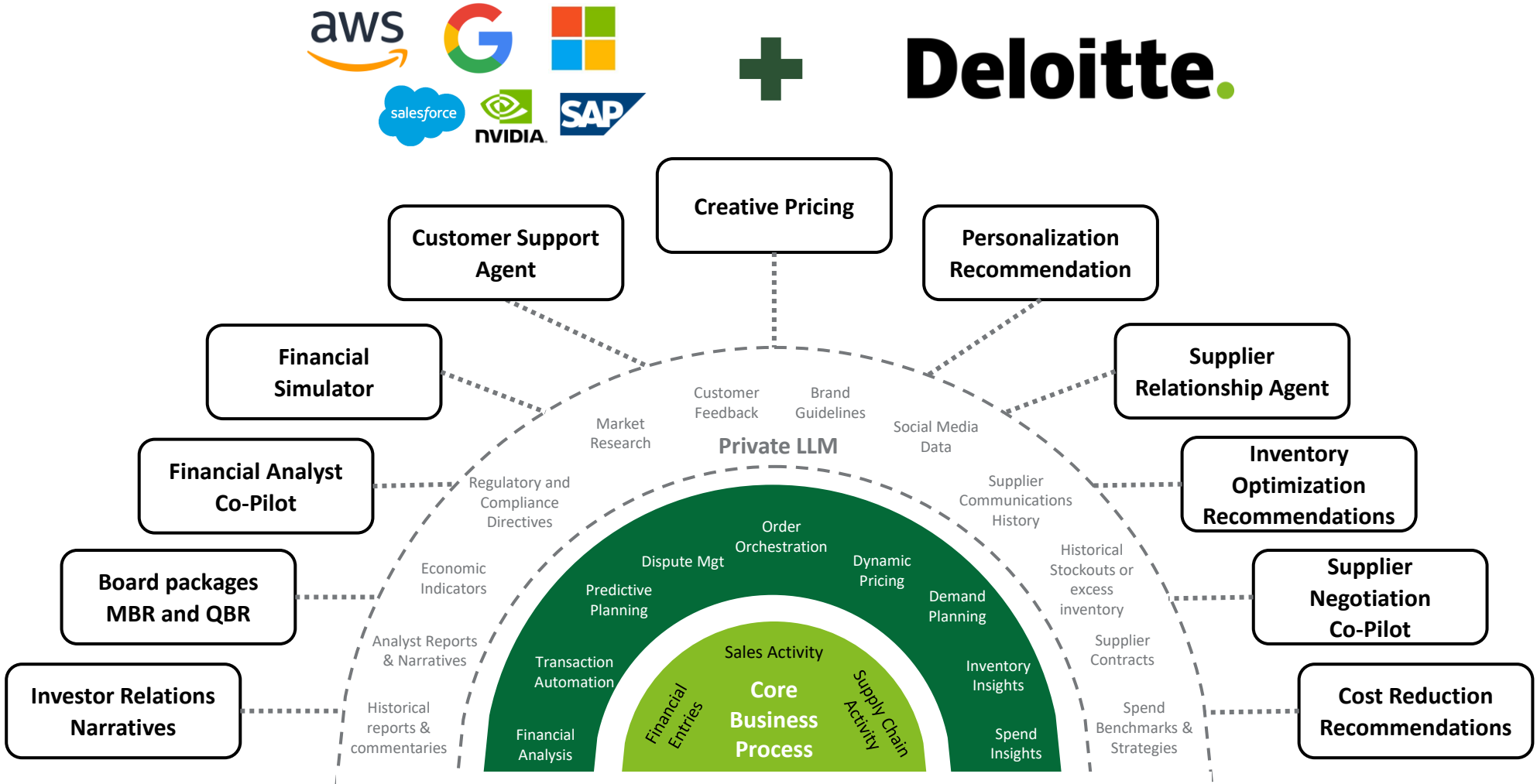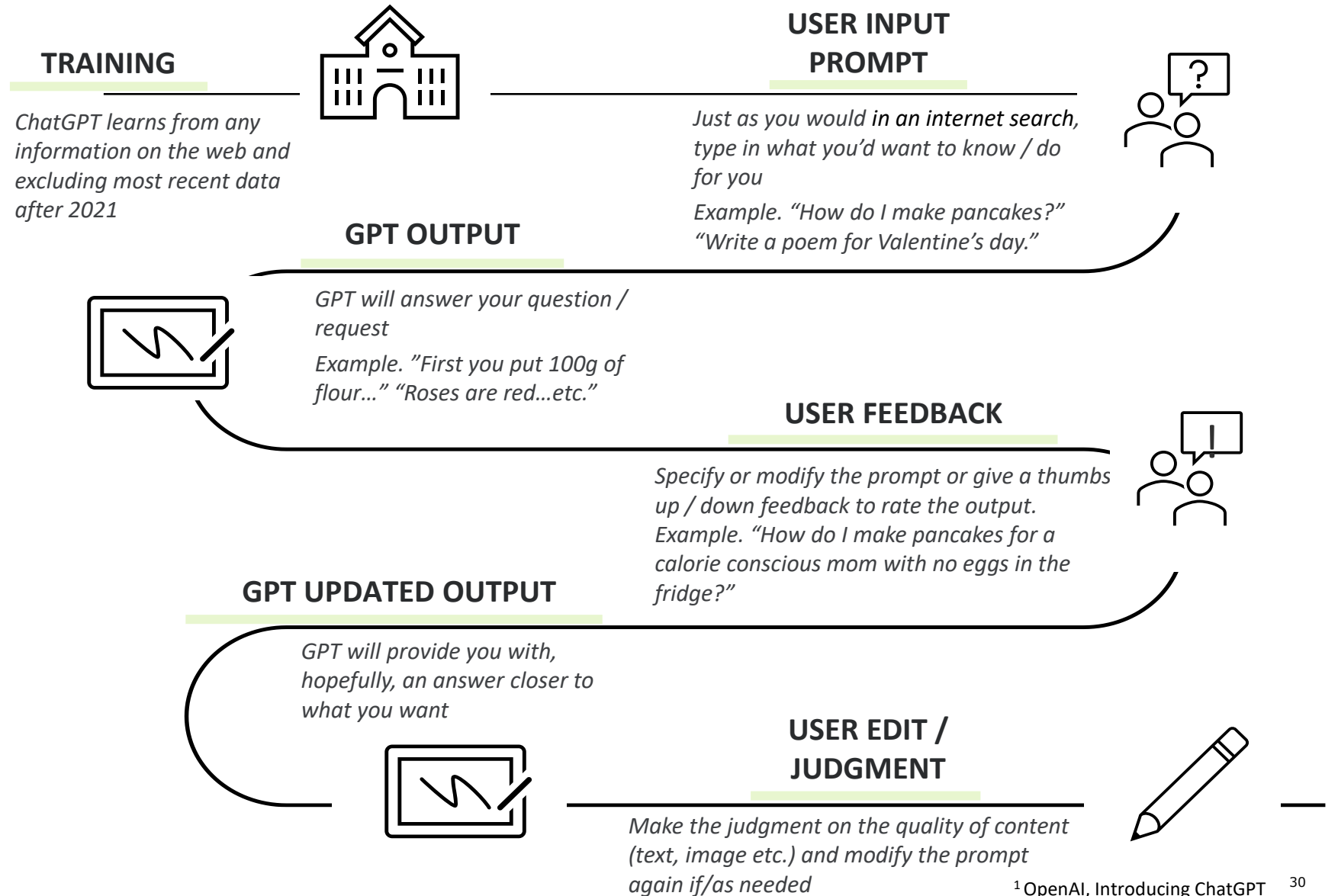
Trusting Gen AI requires algorithms understanding and diligent output evaluation

Imagine GPT as an infant…

learning how to talk. The infant first learns basic patterns of how to talk from their parents, in this case, from the Internet.

Although it can be very smart, ChatGPT, like infants, could output comments that contain misinformation, biases, or information that is not required. Users then give feedback to course correct. It is a **constant loop** of users giving **feedback,** as the GPT improves the quality of output.

Judgment and edits are crucial steps for humans, as we address the **alignment problem**: how can human beings create a model that reduces the number of biases and that aligns with our human values of what we'd want the world to look like?

TRAINING

ChatGPT learns from any information on the web and excluding most recent data after 2021

USER INPUT PROMPT

Just as you would in an internet search, type in what you'd want to know / do for you

Example. "How do I make pancakes?" "Write a poem for Valentine's day."

GPT OUTPUT

GPT will answer your question / request

Example. "First you put 100g of flour…" "Roses are red…etc."

USER FEEDBACK

Specify or modify the prompt or give a thumbs up / down feedback to rate the output. Example. "How do I make pancakes for a calorie conscious mom with no eggs in the fridge?"

GPT UPDATED OUTPUT

GPT will provide you with, hopefully, an answer closer to what you want

USER EDIT / JUDGMENT

Make the judgment on the quality of content (text, image etc.) and modify the prompt again if/as needed

Problems solved through Generative AI

Generative AI use-cases bucketed into four pillars

Capabilities

Text Search and Summarization	Content Generation	Software Development	Business Solutioning
Search & generate text summaries	Create new content - text, image, audio etc.	Generate, translate, explain & debug code	Gen AI based solutions & tools

Use-cases

• Quick summary of a large report	• Custom image generation	• Write a code to build a forecasting model in python	• Creating descriptive summaries from data mart
• FAQ from playbook	• Social media campaigns	• Code Migration from SQL to python	• Customer complaints resolution
• Creating comparative summaries	• Hyper personalized emails	• Code debugging & documentation	• Anomaly detection
		• Synthetic data generation for testing	

Generative AI in Finance Operations

A New Frontier in Artificial Intelligence and for Finance

How much will generative AI impact our lives?

Research has suggested that breakthroughs in generative AI could increase global GDP by 7%—nearly $7 trillion—and boost productivity growth by 1.5 percentage points.

Generative AI might start by producing concise and coherent summaries of text (e.g., meeting minutes), converting existing content to new modes (e.g., text to visual charts), or generating impact analyses from, say, new regulations. Producing novel content represents a definitive shift in the capabilities of AI, moving it from an enabler of our work to a potential co-pilot. It might augment human capability and then advance it.
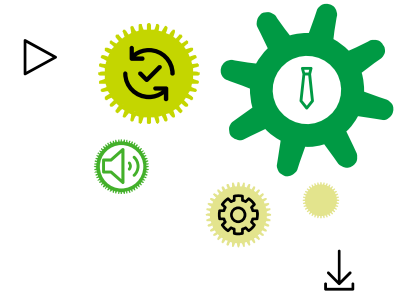
CFOs and Finance leaders should start to develop strategies today for how generative AI will affect both their functions and their businesses tomorrow.

Getting to know generative AI:

To consider the potential impact of generative AI in Finance, it's helpful to explore what generative AI is and how it operates. Generative AI:

- Creates original content such as text, images, audio, code, and video. Up until now, these types of content required solely human skill and expertise to create.
- Can add contextual awareness and human-like decision-making to enterprise and finance workflows, potentially dramatically changing how work is conducted.
- Is powered by foundation models, which run on deep-learning algorithms modeled on the organization of neurons in the human brain.

Sources:

What Does This Mean for Finance? (1/2)

Areas within Finance primed for generative AI-enabled transformation

Financial Planning and Analysis (FP&A)	Transactional Finance	Controllership
CFOs may struggle to integrate financial, operational, and commercial data … and deliver insights.	CFOs seek enhanced efficiency and reduced operational costs … all while improving experience.	CFOs aren't likely to trust AI to produce audited financials anytime soon, but draft reports … maybe.

Financial Planning and Analysis (FP&A)

- **Faster insights**: Analyze data much faster, revealing trends in real-time.
- **Real-time monitoring**: Continuous trend tracking for better decision-making.
- **Advanced scenario analysis**: Simulate multiple future scenarios with slight variations.
- **Actionable insights**: Uncover hidden trends and opportunities for leaders.

Transactional Finance

- **Automation**: Streamline billing, payments, and collections through automated portals which reduce costs and save time.
- **AI-powered interactions**: Personalized transactional support via "agents" understanding individual needs.
- **Enhanced analyst efficiency**: On-demand generation of standard operating procedures, capture minor changes in process, and enable conversational Q&A for new employees using trained AI models.

Controllership

- **Streamlined reporting**: Highly reliable generative AI drafts for internal/external reports, saving time during month/quarter-end.
- **Automation**: Automated activities like reconciliations, journal entries, and consolidations for accurate balancing.
- **Enhanced analysis**: AI-powered drafting of management reports in numeric and narrative formats for earlier detection of cost, buying pattern, and market changes.

Achieving strategic planning of tomorrow, today

Augmenting autonomous finance operations

Partnering on financial and management reporting

What Does This Mean for Finance? (2/2)

| **Areas within Finance primed for generative AI-enabled transformation** |

Internal Audit and Compliance	Tax	Investor Relations

| CFOs need to stay diligent in anticipating and mitigating risk ... now more than ever. | CFOs are seeking more out of their tax function—more agility, more flexibility ... to deliver more value. | Stakeholder management is becoming more complex ... leaving less time to focus on the strategic message. |

| • **Real-time continuous anomaly detection**: Identify discrepancies through unlimited, simultaneous analysis of transactions.
• **Proactive security monitoring**: Track system connectivity for immediate alerts on potential issues.
• **AI-driven response**: Analyze flagged activity and implement countermeasures.
• **Automated security measures**: Spot anomalies and generate action reports, recommendations, and user notifications. | • **Automation**: Automate repetitive tasks like compliance and reporting automated, freeing staff for strategic work.
• **Unleash Data**: Bridges data silos, aligning data with transactions for tax reporting.
• **AI-powered Tax Tools**: Automated taxability calculations and document generation which customize reports for stakeholders and authorities.
• **Impact analysis of new regulations**: Enable a more agile and dynamic tax department. | • **Trained on company-specific data**: Generate draft stakeholder materials which potentially provide earnings Q&A draft narratives and employees' time is saved to focus on strategy and delivering a consistent and impactful message to stakeholders. |

| **Elevating continuous controls monitoring and detection** | **Embracing a more-with-less mindset in tax** | **Enabling strategy first in stakeholder engagement** |

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# The Potential of Generative AI to Transform Finance
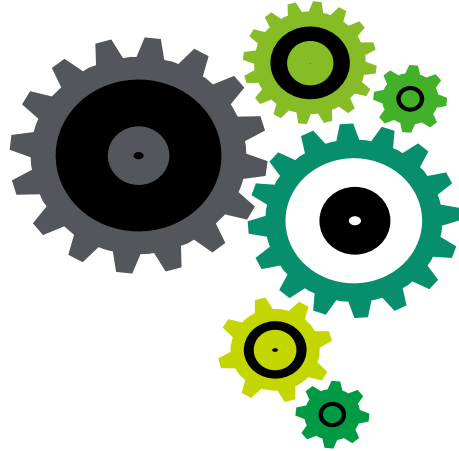
1 According to a Gartner study, 80% of CFOs surveyed in 2022 expected to spend more on AI in the coming two years. With that investment, however, around two-thirds think their function will reach an autonomous state within six years.

2 It will be crucial that leaders consider the use of generative AI from an enterprise-wide approach with a clear understanding of where this technology will have an impact on operating expenditures, capital expenditures, market capitalization, and many more.

3 CFOs and Finance leaders can play a pivotal role in driving strategic collaboration among key C-suite leaders to enable greater success—and return on investment—of AI deployment and adoption. The journey should begin with a sound strategy and a few use cases to test and learn with well-governed and accessible data. It doesn't have to be perfect, but it should be controlled.
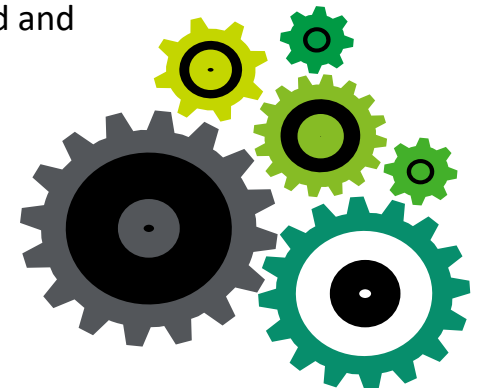
Consideration for A Success Generative AI in Finance

Current limitations that Finance professionals should consider

Amplication of Bias	Reliability of Output	Security of Information	Sovereignty of Data
Risks: • **Human bias in training data**: Biases are amplified in generated content if training data is skewed. • **Specific biases in finance**: Anchoring bias (relying heavily on specific information) can impact forecasting and other processes. **Mitigation Strategies:** • **Finance leaders' responsibility**: Be vigilant about bias in training data and regularly evaluate generated content. • **Deloitte's Trustworthy AI™ framework**: Implement processes to break down bias and track data lineage for auditability.	**Risks:** • **Hallucinations**: Foundation models can confidently produce incorrect responses, akin to overconfident humans unable to recognize their own fallibility. This risk increases with subjective tasks and choices. **Mitigation Strategies:** • **Phased adoption**: Start with simple tasks to ensure accuracy before scaling. • **Certification for finance**: Consider future tests for models providing financial insights. • **Finance leader vigilance**: Always validate and double-check generated content.	**Risks:** • **Lack guaranteed data privacy:** Existing content and prompts fuel their learning, potentially exposing shared information. **Mitigation Strategies:** • **Enterprise models:** Training private models in secure environments can reduce risks. • **Stringent security:** Safeguarding sensitive financial information remains crucial. • **Collaboration:** Finance leaders and tech teams collaborate to align generative AI security with company standards.	**Risks:** • **Lacks discretion in content sharing and compliance**: Cannot comply with varying company policies and global privacy laws. • **Lacks control over data access and potential misuse**. **Mitigation Strategies:** • Leaders must ensure responsible use.

Implications on Finance Talent

For all its tantalizing potential to automate and augment processes, generative AI will still require human talent.

Workers Skeptical of Generative AI in Finance: Change Management is Key

Skepticism Exists	Over half of workers mistrust generative AI in finance (Harris Poll).
Change Management is Crucial	Leaders need a thoughtful approach to build trust.
Focus on Collaboration	Reframe AI as a "co-pilot" supporting and amplifying human capabilities.

The Future of Finance Jobs: AI Collaboration, Not Replacement

While roles may shift in finance due to generative AI, core human skills like curiosity, empathy, and critical thinking remain vital are still needed. Finance professionals might need to develop generative AI fluency and enhance skills like:

How to engineer prompts (i.e., ask good questions) to get desired results.

How to recognize potential bias.

How to confirm the quality and validity of generated output and monitor performance of models over time.

Balancing Potential and Caution

Generative AI buzz is hot by promising efficiency gains but also warrants caution. Despite concerns, it might revolutionize the Finance function. Leading organizations have launched pilot programs and are scaling fast.

Glimpsing a Future of Unimagined Possibilities

Generative AI promises to revolutionize finance beyond just automation. While initial impacts will be seen in automated analysis, reporting, and risk management, its true potential lies in its ability to unlock entirely new possibilities through groundbreaking innovations.

Generative AI is here, and it's adapting and learning.

CFOs and Finance executives who adapt and learn with it can lead the future.

Strategy for AI-enabled Transformation

To do this, CFO should start by			
Understanding how the Finance function could be impacted	**Leveraging these areas to prioritize/ pilot use cases**	**Understanding the risks**	**Taking a first step**

Understanding how the Finance function could be impacted

- **Transactional finance**: Automates Finance processes and uncovers inconsistencies. Get variance and scenario analyses instantly, tailored to preference. Reporting becomes super flexible, on-demand, and granular based on prompts.

- **Controllership**: AI won't replace human judgment for final financials, but it can streamline internal/external reports, automate tasks, and offer anomaly detection for finance efficiency gains.

- **Insights generation**: Generative AI unlocks real-time insights by seamlessly integrating diverse financial, operational, and commercial data, overcoming past limitations of stale reporting.

Leveraging these areas to prioritize/ pilot use cases

- CFOs should be **significant influencers** in their enterprise AI strategy (not just in Finance).

- **Strategic collaboration** between key leaders (e.g. CEO, CFO, and CIO), will play a vital role in the success of AI deployment and adoption.

- The journey should begin with a solid strategy and a few use cases to build **proofs of concept** with well-governed and accessible data.

- It doesn't have to be perfect, but the key is to **learn and scale fast**.

Understanding the risks

- **Governance and output validation**: To ensure reliable Generative AI outputs, CFOs must validate LLM results, mimicking "garbage in, garbage out" by addressing data quality and building trust over time.

- **Hallucination**: Currently, LLMs have the tendency to confidently provide incorrect answers. AI can also inadvertently reinforce stereotypes or exclusions based on the training data set.

- **Unadjusted risk tolerance**: AI may not comprehend the risk tolerance of an organization. Ensuring a transparent controls process (security & segregation of duties) will be paramount as AI is leveraged at scale.

Taking a first step

- **Proof of concepts first**: Engage with Tech teams to develop AI experiments within 6 months.

- **Focus on data-heavy tasks**: Prioritize automation and analysis in data-rich areas.

- **CFOs lead the charge**: Build informed AI strategies and encourage enterprise adoption.

- **Prototype despite challenges**: Embrace messy data and legacy systems, learn from early iterations.

- **Early movers win**: Start now to lay the foundation for AI-driven success.

Insurance Use Cases

Industry Value Chain	Use Case Description	Primary Modality	Feasibility (H/M/L)	Customer Impact	Business Impact	Expected Outcomes
Product Design and Actuarial	**Product Personalization fit**. Parse customer data across all insurer touchpoints and other third party data sources (e.g., claims data, policy preferences, social media, insurance coverage gaps etc.) to deduce customer needs for making product/coverage recommendations through text or voice. Generative AI can be effectively used for customer acquisition as a majority of customers are researching insurance products online.	Text, Voice	H	H	H	• Relevant and effective products and service offerings • Increased sales
Distribution and Marketing	**Agent assistance and customer education**. Create text and image-based product summaries, develop coverage comparisons, develop personalized coverage recommendations and develop real time illustrations to assist agents to provide the most relevant information and answer questions in real time when engaging with a customer. By supplementing generative AI within CRM tools, agents/producers can be provided with enriched and personalized information about the customers to sell efficiently.	Text, Image	H	H	H	• Increased sales • Increased agent efficiency • Improved customer experience
Distribution and Marketing	**Targeted outbound campaigns.** Develop audience-specific messages using text or video to market new products or existing product upsells to customers, increasing sales and conversion (e.g., auto generated email with a policy offer based on contextual information about life events)	Text, Image	H	M	M	• Increased sales and conversion • Improved marketing ROI
New Business and Underwriting	**Data Insights Curation.** Create text-based risk assessment summaries for underwriter review by parsing and analyzing broad sets of structured (e.g., claims data, location data, medical data etc.) and unstructured data (e.g., data and images from social media) required to make underwriting decisions.	Text	H	M	H	• Improved underwriter efficiency • Improved risk assessment
New Business and Underwriting	**Underwriter enablement**. Create quotes by analyzing structured and unstructured data against insurer underwriting guidelines and pass through automated underwriting workflow or trigger for underwriter review.	Text	M	M	M	• Improved underwriter efficiency • Improved risk assessment
Customer Service & Operations	**Automated customer service:** Use AI-powered chatbots for providing 24/7 customer service and support, handling a wide range of customer queries such as delivering information about policies and claims and helping with account management	Text, Voice	H	H	H	• Improved customer experience • Reduced operational costs

Investment Management Use Cases

	Internal Data Enabled	**Internal & External Data Enabled**

Client Facing

Internal Data Enabled:
- **Improved Self-service:** Behavioral overlay for improved self-service using chatbot prompts, etc.
- **Templatized Estate Documents:** Wills, Power of Attorney, Incorporation Docs
- **Explanation of benefits**: Interpret or summarize complex documents, such as terms and agreements, benefits, exceptions, claim processes, etc.

Internal & External Data Enabled:
- **Increase engagement, usage and site visit metrics:** Create email/social copy to direct clients to the bank's content at the intersection of current events and client portfolio composition/interests
- **Investment Research & Advice:** Research for end-customers for portfolio management

Advisor Facing

Internal Data Enabled:
- **Synthesis of non-quantitative information:** Summaries of trust document, wills, family trees/history, values, statements,
- **Behavioral overlay for improved client-service:** Call center scripts, any client interaction
- **Summarize Client Profile:** Preferences, communication styles, history with the bank, advisor notes etc. when bringing on /transitioning advisory resources
  Internal: Improved knowledge management, learning, career pathing, etc.
- **Quantifying Longitudinal value of Advisor Recommendation** : Model hypothetical outcome based on if a specific strategy had been implemented

Internal & External Data Enabled:
- **Summarization**: Market reports / summaries for focus sectors
- **Report/Summary generation:** at intersection of market news and client portfolios
- **Investment Research:** Support research for clients' investment
- **Invitation to Events**: Based upon client profile share invitation with clients for better Customer engagement
- **Develop Investment Strategy:** AI inform models to maximize the portfolio outcomes, risk management on all available data
- **Trust Structure Recommendation**: Use available data and client objective identify the best fit Trust structure and domicile
- **Family Status Changes Engagement**: Identifying an action plan based on family status change

Client & Advisor Facing

Internal Data Enabled:
- **Hyper-personalized offer generation:** Use GenAI across image and text, to generate offers matched to behavioral markers in propensity to buy and look-alike models

Internal & External Data Enabled:
- **Next Best Action:** Recommendation of the next best activity for client/advisor
- **Client Retention Needs:** Intel on competitors along with client behavior (e.g., Wire Transfers to competitor) to proactively identify potential clients at risk and personalized mitigation approach

Key Enabling Data Sets

Internal Data Enabled:
- **Client Behavioral Factors**, Investor Type (Personas), Risk Tolerance, Loss Aversion, Financial IQ,
- **Demographic** client (Age, family compositions, location, source of income, employment)
- **Usage of Bank's Products and Services**: Product Usage, Click Tracking, Web Analytics Data
- **Bank's Client Financial Data:** Current Assets, Deposits/Credits, Flows of information, ACH
- **Client Provided Documents**: Tax Statements, Estate Documents
- **Bank's Internal Resource**: HR, Learning, Portals, White Papers, Directory, Employee Profiles, Proprietary Bank Market Strategy, Tools, Handbooks

Internal & External Data Enabled:
- **Publicly Available Market Data:** Assets Prices, Regulatory Fillings, New Stories, Management profiles, Sentiment Gauges, Tax Data, Treasury Data
- **Publicly Available Client Data:** Professional Licenses , Boat, Car Registrations, Negative News, Social Media Profiles
- **Private Market Data:** Valuation of private assets/ non-public assets
- **Private Client Data:** Tax status data (subscribed data) for individual and entity tax return data
- **Third-party Data for Client**: Characteristics of client's portfolio (e.g., Equifax liquid and net worth estimate based upon client address)
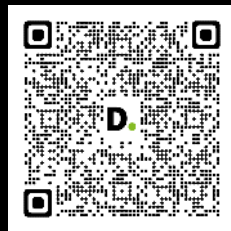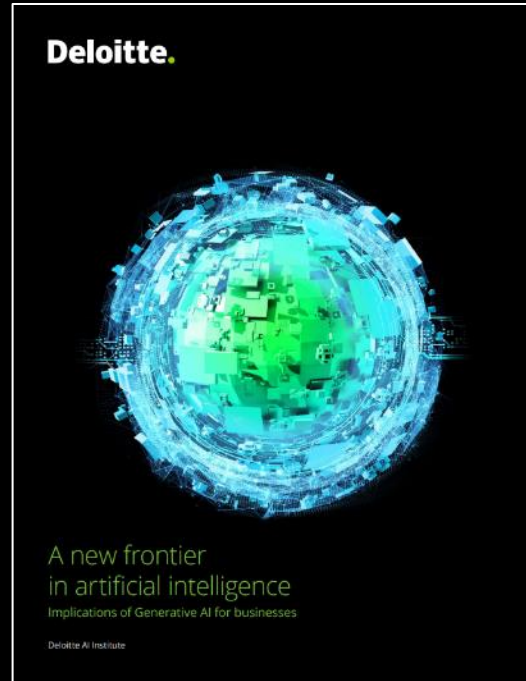
Generative AI, A Game Changer?

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Executive Director | Clients & Markets
Deloitte Thailand
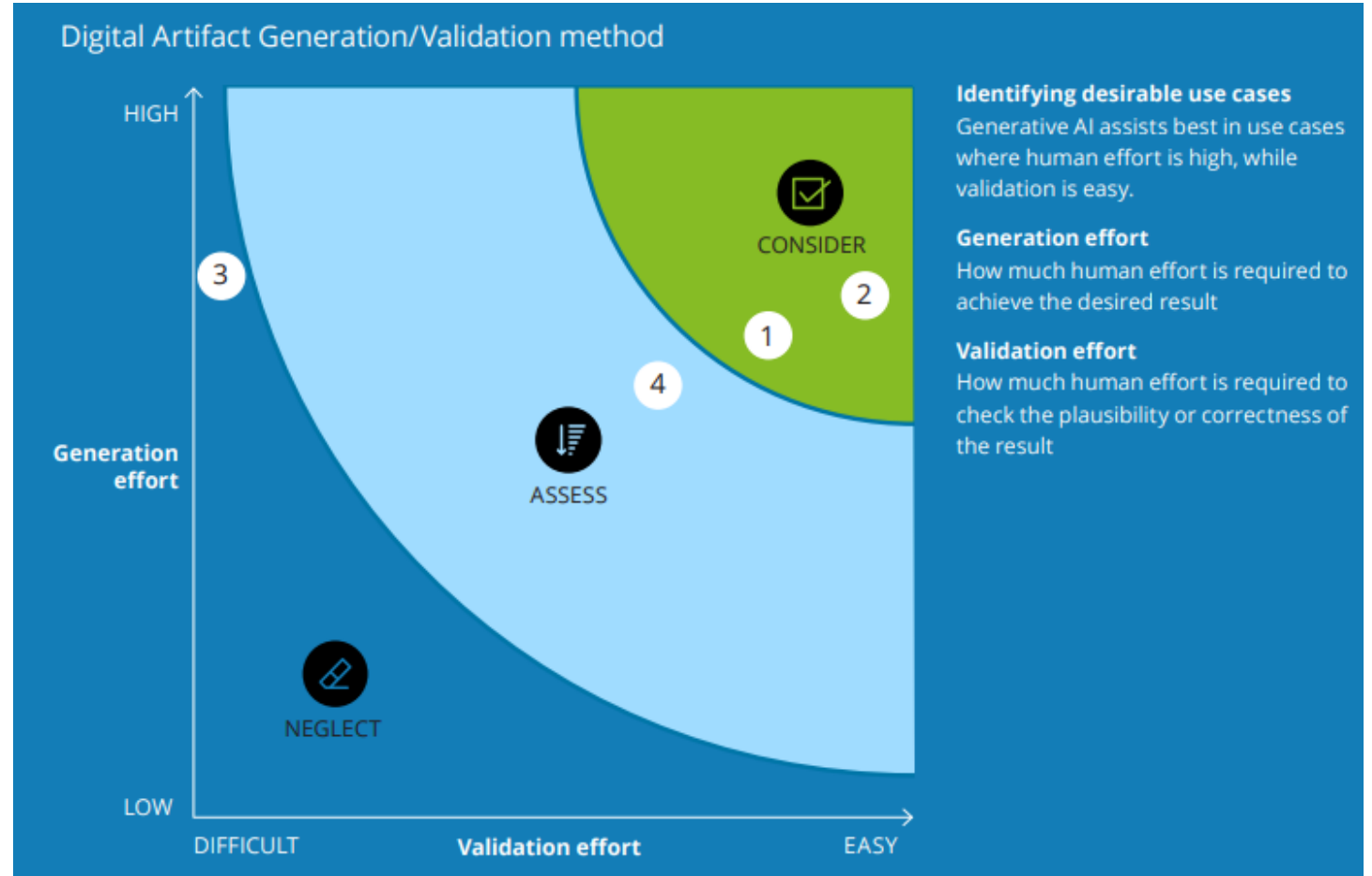
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The
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A selection of high-impact use cases
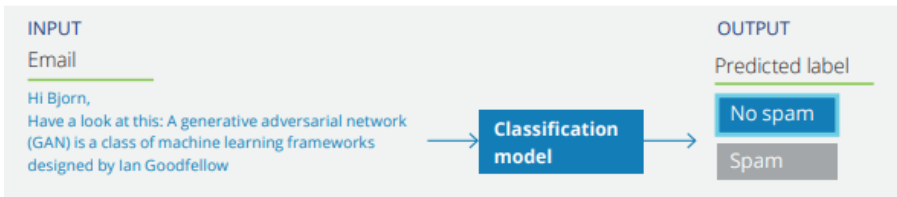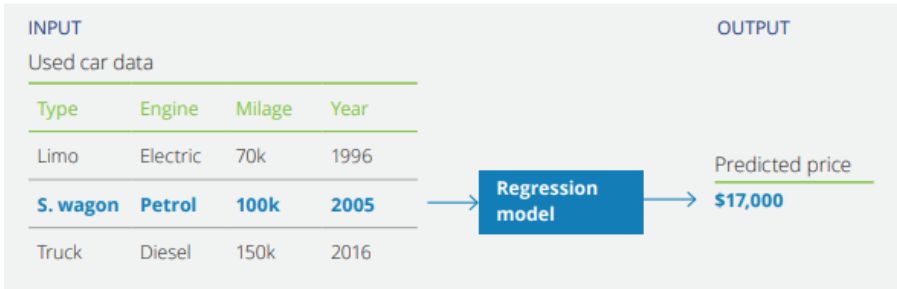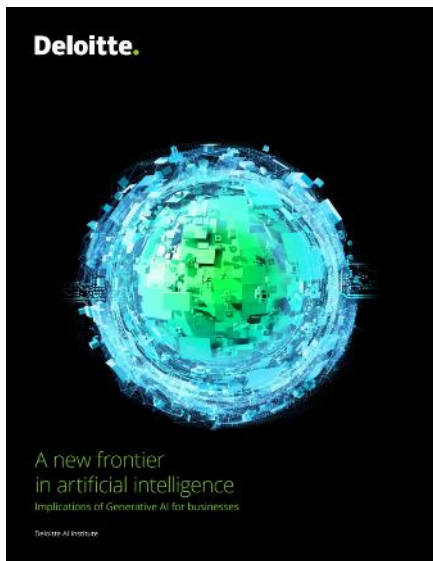across six major industries

By Deloitte AI Institute

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Generative AI is all the rage

A new frontier in artificial intelligence | Consumer Use Cases

A Sampling of Consumer Use Cases Available Today

	Efficiency	Instruction	Creation	Entertainment
High Complexity	Creating a health & wellness plan	Conversing with virtual companions	Generating & editing video files	Creating original games
	Discovering new products	Creating personalized financial plans	Creating interior design mockups	Chatting with pop culture figures
	Conducting research with citations	Teaching new languages	Curating outfits & fashion ideas	Rendering 3D environments
Low Complexity	Curating content	Synthesizing research papers	Modifying & editing design files	Remixing or sampling music
	Answering general questions	Guiding & informing personal writing	Creating art & editing images	Generating original fictional short stories

Sample vendors

Efficiency	Instruction	Creation	Entertainment
Synthesis.ai Consensus	Grammarly Lingostar.ai	Luminar AI Lensa	Jasper Scenario

Source: Deloitte

A new frontier in artificial intelligence | Use Cases by Business Function

SALES & MARKETING

1. Video editing and generation
2. Metaverse 3D experience
3. Product descriptions and reviews
4. Personalized consumer advertisements
5. Recommender systems for e-commerce
6. Chatbot / virtual assistant dialogue generation

HUMAN RESOURCES

13. Personal onboarding assistant
14. Compensation analysis
15. Workforce skill analysis
16. 3D avatar creation
17. Metaverse 3D workforce experience
18. Metaverse 3D workforce upskilling

SUPPLY CHAIN & PROCUREMENT

25. Demand planning (Consumer Sentiment Analysis)
26. Inventory analysis
27. Global trade-logistics analysis
28. Contract Adherence & Anomaly Detection
29. Scenario simulation
30. Language translation for global trade

GOVERNANCE & OPERATIONS

7. Intranet search (knowledge management)
8. Process analysis
9. Training for new team members
10. Document inventory analysis
11. News and media summaries
12. Sentiment Analysis for Workforce

INFORMATION TECHNOLOGY

19. Code generation across languages/frameworks/CSPs
20. Development lifecycle documentation
21. Test automation and test scenario creation
22. Training on new technologies
23. Peer review for optimized code writing
24. Legacy code summarization & translation

FINANCE & ACCOUNTING

31. Fraud, waste, and abuse prevention
32. Regulation and oversight analysis
33. Financial report analysis
34. Proactive value opportunity identification
35. Budget and ROI analysis
35. Divestment recommendations

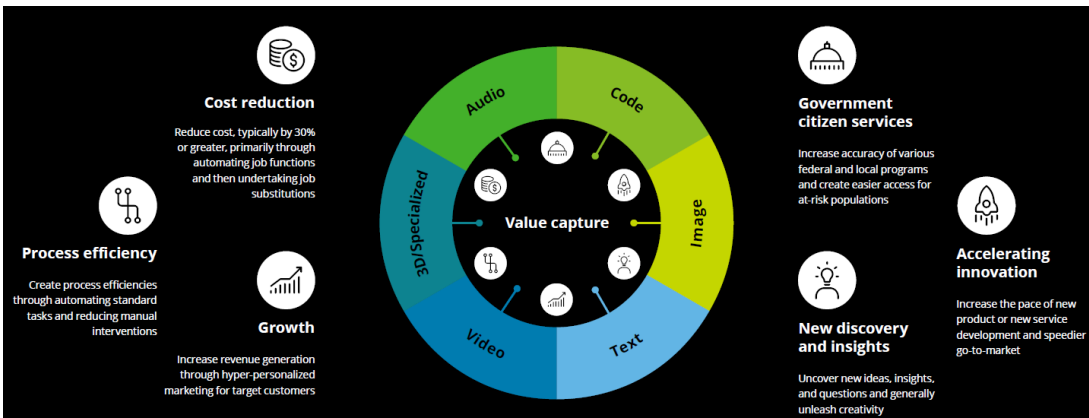# A new frontier in artificial intelligence | Use Cases by Industry

Sampling of Vertical and Horizontal Enterprise Use Cases

	Consumer & Retail	Life Sciences & Health Care	Banking & Fin. Services	Technology	Media & Telecom	Industrial & Manufacturing	Government & Public Sector
Emerging (Vertical)	Personalized Conversational Retail Experience	AR/VR Content Generation for Digital Therapy	Fraud Simulation & Pattern Detection	Personalized AR/VR Experience Generation	Original Games Creation	Geological Assessment for Oil Exploration	Academic 24/7 Office Hours Virtual Assistant
	Customized Product Design & Recommendation	Predictive & Virtual Patient Triage	Tax and Compliance Audit & Scenario Testing	Automated Product & Hardware Design	Trailer & Summary Generation	Generative Simulation & Safety Testing	Infrastructure Mapping & Planning
	Product Details & Photography Generation	3D Images of Anatomy for Education	Retail Banking Transaction Support	Personalized & Automated UI/UX Design	Script/Score Design & Subtitle Generation	3D Env. Rendering: Well Sites, Pipelines, etc.	Disaster Recovery Simulation
	Fashion Outfit Curation	Healthy & Wellness Plan Creation	Personalized Virtual Financial Advisor	Product Testing & Feedback Generation	Personalized News & Content Generation	Automated Tech. Equipment Training	Fraud, Waste & Abuse Prevention Reports
Mature	Personal Art Creation & Edits	Drug Discovery Through Molecule Simulation	Financial Reporting Analysis & Insight Gen.	Software Sales, CX & Retention Support	Original Fictional Short Stories Generation	Generative Automation for Smart Factories	Research w/ Citations & Explainers
Horizontal	Personalized Conversational Retail Experience	Self-serve HR & IT Functions	End-to-end Automated Customer Service	Customer Feedback Sentiment Classification		Automated Code Debugging & Issue Resolution	Dialogue Generation for Virtual Assistants
	Enterprise Search & Knowledge Mgmt.	3D Environment Rendering: Metaverse	Marketing/Sales Content Generation	Accessibility Support (text-to-speech & speech-to-text)		Autonomous Code Generation & Completions	Personalized Targeted Ads across platforms

Generative AI Modality

- Text
- Image
- Audio
- Video
- 3d Model
- Code
- Others

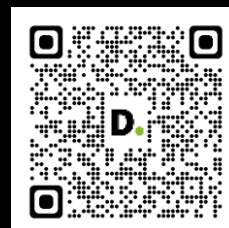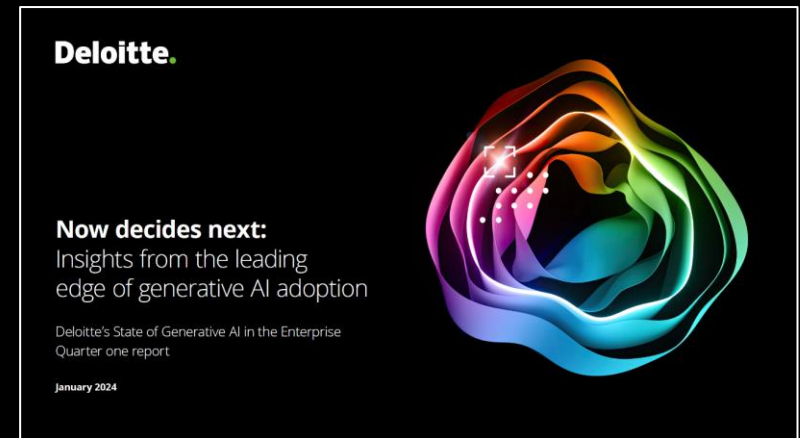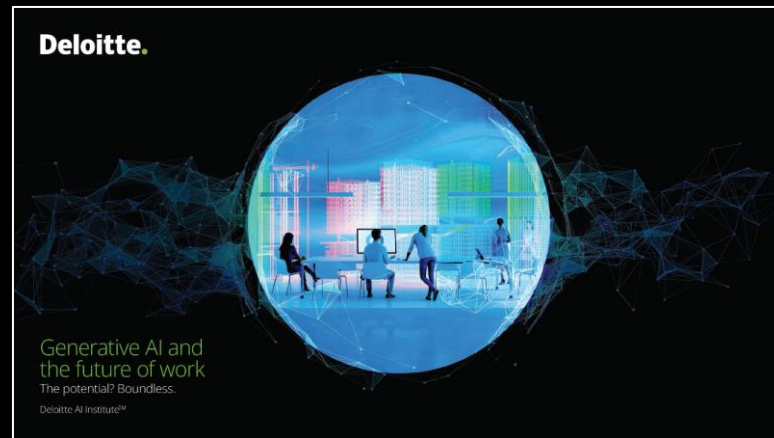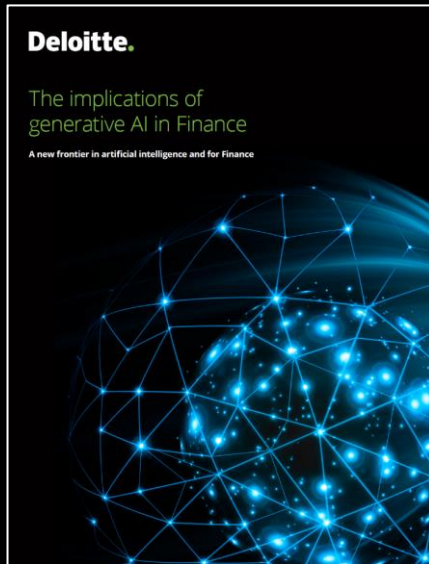# The Generative AI Dossier | High-Impact Use Cases across Six Major Industries

The Generative AI Dossier

A selection of high-impact use cases across six major industries

Consumer 7

Government & Public Services 75

Energy, Resources & Industrials 29

Life Sciences & Health Care 97

Financial Services 52

Technology, Media & Telecommunications 120

Cost reduction
Reduce cost, typically by 30% or greater, primarily through automating job functions and then undertaking job substitutions

Process efficiency
Create process efficiencies through automating standard tasks and reducing manual interventions

Growth
Increase revenue generation through hyper-personalized marketing for target customers

Value capture

Audio / Code / Image / Text / Video / 3D/Specialized

Government citizen services
Increase accuracy of various federal and local programs and create easier access for at-risk populations

Accelerating innovation
Increase the pace of new product or new service development and speedier go-to-market

New discovery and insights
Uncover new ideas, insights, and questions and generally unleash creativity

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The Consumer Generative AI Dossier

Marketing content assistant
(Content Generation)

Generative AI can be used to enable the creation of efficient, consistent, and personalized content across a range of modalities.

GROWTH

Audio / Code / Image / Text / Video / 3D/Specialized

Issue/opportunity

Companies face a significant challenge in managing and optimizing marketing content. With hundreds of websites for brand portfolios, each in dozens of languages, companies struggle to allocate enough time and resources to create customer group-specific product descriptions, images, video, and even audio. Enterprises also wrestle with consistency across descriptions, imagery, ads, and other media, and the materials may not always be optimized for the necessary purposes (e.g., product descriptions for search versus e-mail). Companies need a method to provide a seamless and personalized brand experience across different ecosystems and touchpoints.

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The implications of
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Generative AI and
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The potential? Boundless.
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Now decides next:
Insights from the leading
edge of generative AI adoption

Deloitte's State of Generative AI in the Enterprise
Quarter one report

January 2024

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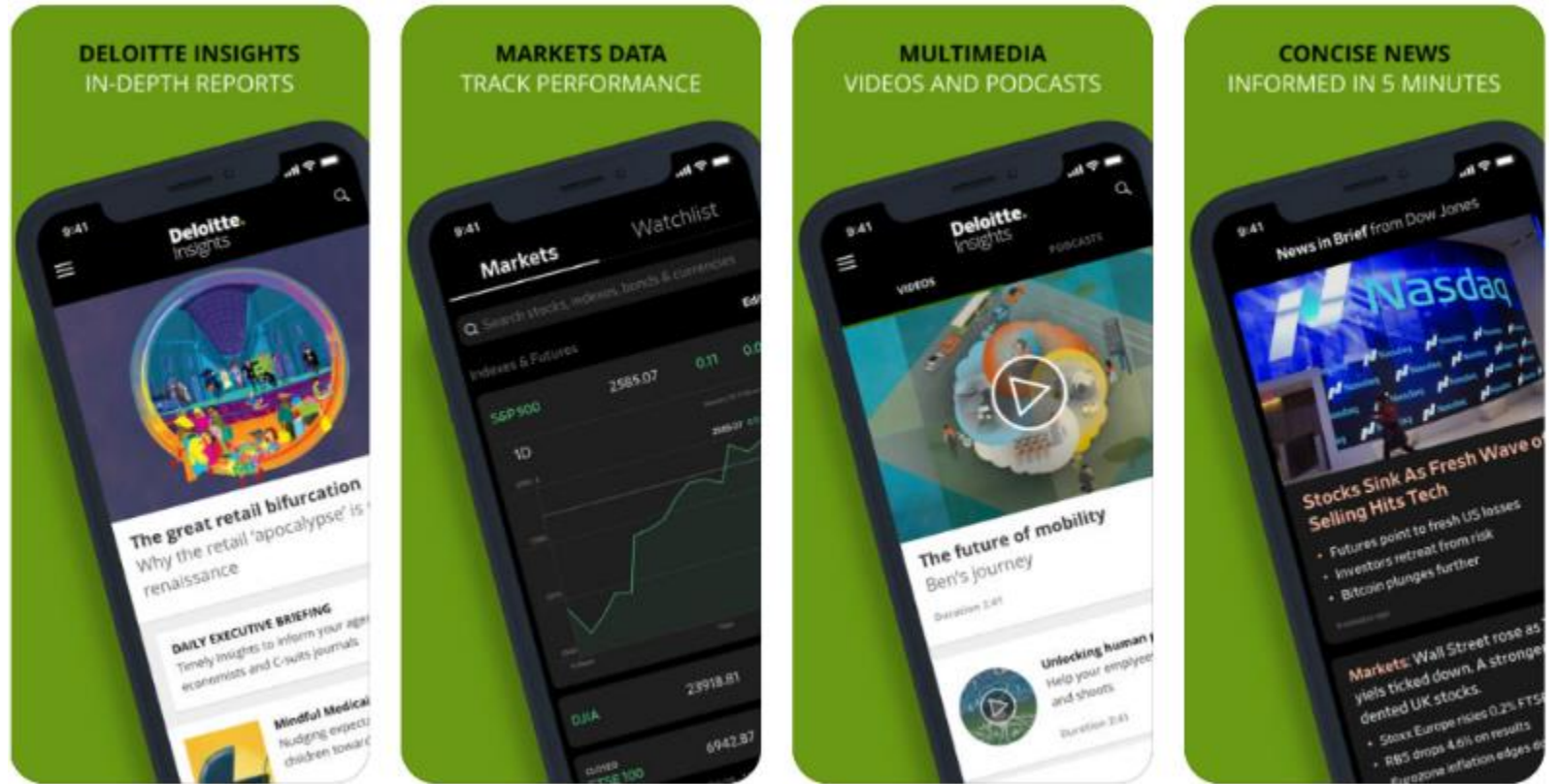
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