



Navigating AI in Finance

Practical Applications for CFOs



Introduction

A resounding headline has been on the minds of finance leaders and business executives: Artificial Intelligence (AI) is here to stay. AI presents numerous opportunities to enhance creativity, boost productivity, and drive cost savings across various industries. While AI has already made its mark in fields like marketing and product development, its adoption in finance has been somewhat cautious. The sensitive nature of financial operations and data, along with rigorous regulatory considerations and approval processes have contributed to this restrained approach. However, the potential of AI for finance leaders is immense, and those who delay in embracing it may soon find themselves falling behind.

In this whitepaper, Aspire and PwC Singapore explore how AI can benefit finance teams, outline practical AI applications across different finance functions, and shed light on the technology's limitations. Our goal is to provide an informative view of the AI landscape in finance to help finance leaders prepare for the meaningful adoption of AI into their daily workflows.



AI is the gateway to financial innovation and progress. CFOs are positioned to harness AI's immense potential, transforming manual tasks into strategic insights and driving cost optimization decisions. The first step is always the hardest, but it will be well worth the investment.

Andrea Baronchelli

CEO of Aspire



1 The AI Opportunity

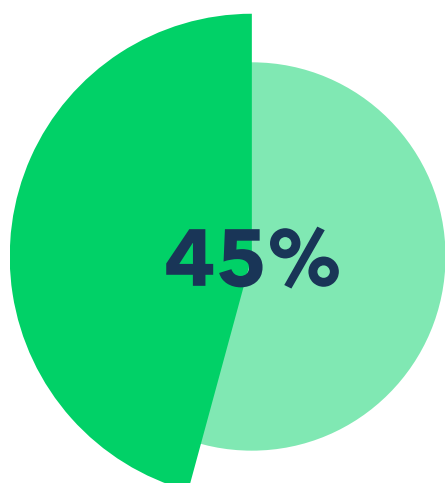
AI innovation and investment in the ASEAN region has been a hotbed of growth in recent years. According to data from Preqin, there has been a remarkable 19% Compound Annual Growth Rate (CAGR) in the number of fundraising deals for AI startups from 2018 to 2022¹. This surge is not just about the quantity of deals; it's also about the quality. During the same period, the average size of an AI fundraising deal has grown by 75%, indicating a strong vote of confidence from investors.

Singapore, in particular, is leading the charge. An impressive 80% of financing for AI startups within the region have originated from this city-state between 2018 to 2022². Singapore's commitment to AI is further underscored by its significant government investment of approximately \$500 million in AI research and development over the past five years³. These statistics paint a clear picture of the growth trajectory and the immense potential that AI holds in the finance landscape within the ASEAN region.

Business and finance leaders are acutely aware of the opportunities AI can bring to their companies and teams. In fact, many already have plans to double down on AI. According to PwC's Pulse Survey⁴, over half of CFOs (52%) are prioritizing the use of technologies such as Generative AI and advanced analytics to build predictive models and strengthen scenario analysis capabilities. What's more, 45% of CFOs plan to invest in Generative AI in the next 12 to 18 months.

Sources:

1. Preqin. Retrieved October 9 2023 from <https://pro.preqin.com/>
2. Preqin. Retrieved October 9 2023 from <https://pro.preqin.com/>
3. "South-east Asia takes the leap with AI" by The Straits Times, 4 Oct 2023
4. PwC Pulse Survey, August 22, 2023: base of 609 from Fortune 1000 and private companies; CFO base of



of CFOs plan to invest in **Generative AI in the next 12 to 18 months.**

Despite the enthusiasm, technology implementation remains a challenge for many CFOs. The survey highlights that over 4 in 5 business executives (88%) say achieving measurable value from new technology is a challenge. This underlines the significance of not just adopting AI, but also ensuring its effective integration into finance operations.



At Endowus, we have already integrated AI into our client interactions through our AI-driven WhatsApp chatbot, demonstrating our commitment to leveraging technology for enhanced client servicing. AI can revolutionize how we process financial data, manage risks, conduct market analysis and perform routine finance tasks.

Dominic Ong

CFO of Endowus

Endowus

2 How CFOs Can Get Started

AI has the potential to redefine finance functions and elevate productivity and insights immensely. As CFOs embark on a journey to fully harness AI and its capabilities, we recommend finance leaders to consider this milestone framework.



Opportunities

Improving working capital & cost optimization, generating reliable trends & insights, sharpening M&A and valuation decisions, regulatory research and GAAP education, and much more.

Get started

- **Identify key challenges** and low-hanging fruit
- **Tailor AI implementation** to address specific pain points, such as time spent on data analysis or reporting processes
- **Test and learn** by starting small, iterating, and scaling

Find the right tool

From machine learning to predictive and Gen AI, many tools are available in the market. It starts with understanding what type of AI can solve your challenges.

Input strong contextual data

Especially with Gen AI, ensure accurate and comprehensive contextual data is fed into the AI model to form a strong knowledge repository.

Implement data guardrails

Data privacy and reliability is a concern, especially when uploading confidential financial data into open-source AI models. Invest in comprehensive employee training and instill a culture of vigilance.

Financial impact and ROI

Calculate the return on investment and the impact on top and bottom lines.

Feasibility factors

Explore feasibility factors including potential risk, implementation time required, and internal adoption challenges.

Key metrics

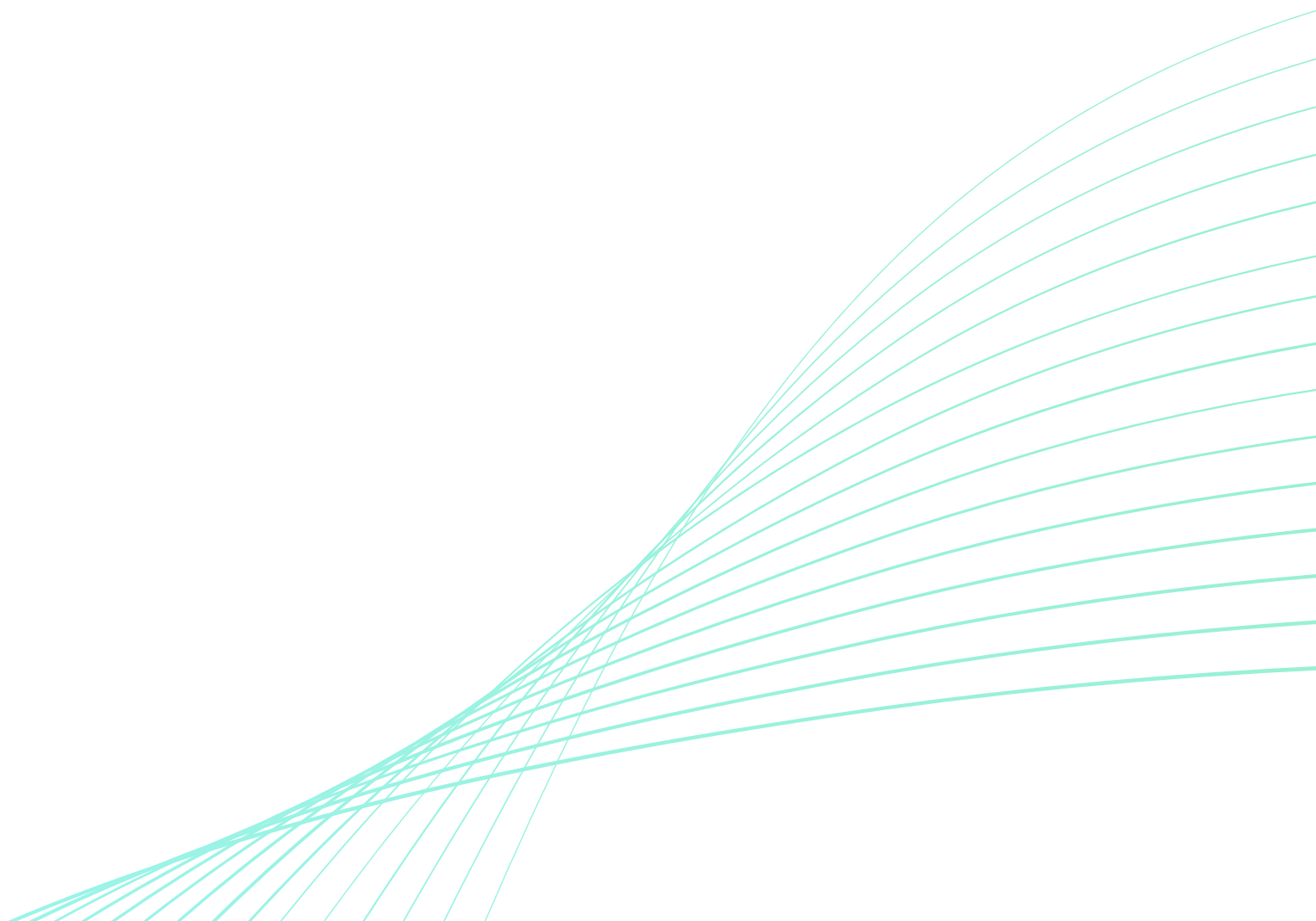
- Growth in revenue, cross-selling and upselling
- Reduction of operational costs, processing times, error rates, customer service response times
- Costs of maintaining AI systems and training employees



AI is a versatile tool and its implementation needs to be tailored to each organization's specific needs. Chairpersons and CEOs can begin by establishing a clear vision that is future resilient and outcome oriented. The leadership team, including CFOs, will need to align their AI use cases with that vision as well as weigh the potential returns against the associated costs and their organisation's risk tolerance. Taking the first step is key. That said, AI adoption, even on a small scale, is the primary imperative.

Aditya Shankar

Director, Digital Solutions, PwC Singapore



3 The Importance of Embracing AI in Finance

Finance leaders across industries and markets grapple with similar challenges, which AI can help solve. In conversations with finance leaders, Aspire and PwC Singapore identified three key challenges, which are rooted in the essence of financial operations and reporting, that require meticulous analysis of data.

1

Timely Reporting

CFOs struggle with the time spent on compiling data, analysis, and producing lengthy finance reports. This process is not only time-consuming but can often lead to resource inefficiency.

2

Data Analysis

Business leaders and investors require timely and accurate advice on company performance, including KPIs, annual rate of return, churn numbers, growth, and more to make strategic decisions. Traditionally, this takes days and even weeks to accomplish and may lack accuracy, especially when dealing with large and complex datasets.

3

Expense Reduction and Cost Optimization

CFOs are tasked with financial optimization, which demands an understanding of all existing expenses available in large data sets. This deep analysis is necessary to identify areas that can be optimized, leading to cost reduction.

Increasingly, finance operates at the intersection of technology and strategy. The introduction of AI doesn't merely streamline financial processes — it can act as the catalyst for a redefinition of the finance function. The integration of AI in finance can bring significant benefits to finance leaders.

1

Productivity

One of the biggest advantages of AI is its ability to not only automate, optimize, and reduce repetitive work, but also be involved in human-like decision making and cognitive tasks for elevated efficiency. Data analysis and reporting are ripe

opportunities for AI to alleviate finance teams' workload and generate automated, recurring outputs. By letting AI take over heavy data entry processes, human errors can be significantly reduced. Accounting integration opportunities also exist for tasks such as invoice and receipt scans, character recognition, optimizing expense management, and generating bulk invoices.



One of AI's most impactful roles in finance lies in automating complex manual tasks. With AI, CFOs are liberated from the burdens of mundane and manual work, empowering them to focus on driving profound business value through strategic financial insights.

Simon Hupont

Director of Product and AI at Aspire



2

Strategic Insights

AI empowers finance teams to generate insights by leveraging the vast pool of data at their disposal. It can help understand the root causes of financial trends, such as the reasons for an increase in operational expenditures and whether it's driven by any spending anomalies. AI can also conduct more complex predictive modeling and forecasting activities. This, in turn, enables faster decision-making, allowing the finance function to act as a true value contributor to the business.

3

Cost Savings

AI can lead to cost savings by enabling more efficient resource allocation. Roles and tasks that can be effectively handled by AI can result in reduced expenses. Human resources can then be better deployed in areas that add tangible business value.

4 Actionable Applications of AI in Finance

While AI applications are fast growing, most finance organizations and teams are taking an optimistically cautious approach, starting with the implementation of lower-risk AI features. In client partnerships and CFO conversations, Aspire and PwC Singapore have been witnessing practical applications of AI across core finance functions that reshape the way financial tasks are executed, adding efficiency, accuracy and strategic insight.

1

Finance Operations & Treasury Function

Finance Teams that Manage an Organization's Daily Financial Needs

Improving Working Capital

Optimizing working capital is a critical responsibility for finance leaders. Decisions on how much capital a business should keep in reserve, invest, or borrow have far-reaching implications for financial stability and growth. Historically, this laborious task is often reliant on spreadsheets and outdated risk models.

AI is rewriting the script. Banks, for example, have begun to harness the power of AI and machine learning to calculate optimal working capital. After integrating AI components into a company's products, AI can analyze historical data and accurately forecast deposit rollovers and working capital requirements, in addition to providing insights into the ideal cash balance, which is paramount for managing account payables and receivables. AI models can refresh themselves daily, providing up-to-date and accurate information to guide financial decisions.

AI can also delve into the nitty-gritty details of payments, analyzing terms and identifying instances where the company can pay earlier or later without incurring penalties. Such nuanced analyses can significantly improve an organization's cash balance and overall financial health.





In agrifood industry lending, where risk is high and traditional banks hesitate due to limited visibility, our AI-driven financing minimizes risks. Using predictive capabilities, we enhance lending processes, filling financial gaps for a more resilient and sustainable future for agrifood companies.

Gary Loh

Founder and CEO of DiMuto



Cost Optimization

Cost optimization is a perpetual question that plagues CFOs. A key challenge is the sheer volume of data points associated with a company's expenditure. Finance leaders must navigate a maze of spend categories and services to identify opportunities for cost reduction.

One area rife with cost optimization potential is software subscription and usage. With AI, companies can now easily track software usage within the organization. This helps in identifying underutilized software, duplicate services, and opportunities for streamlining spending. AI can also compare these subscriptions to industry pricing, helping businesses ascertain whether they are overpaying for services.



For Trusting Social, we see a huge opportunity both to apply GenAI for internal use cases in finance, HR and operations, as well as in creating Gen AI-powered solutions for our clients (banks and financial institutions). From a finance perspective, we see AI having applications in a wide range of situations including cash flow management, reconciliations, compliance and ESOP management.

Jaideep Lakshminarayanan

CFO of Trusting Social



2

Business Strategy, Intelligence, and Analytics Function

Finance Teams that Use Data-Driven Insights for Business Planning

Generating Reliable Trends and Insights

The foundation of sound business planning and strategy lies in the ability to generate reliable trends and insights from financial data. AI excels at uncovering analyses and trends based on data sets. Finance teams are increasingly turning to AI-powered tools that analyze data, monitor revenue and identify anomalies.

For example, AI tools can shed light on the reasons behind declining month-on-month revenue. By closely examining data, AI can pinpoint areas that require adjustments, enabling finance teams to make informed decisions promptly. Moreover, AI is making inroads into spend management, providing CFOs with critical information about expenditure categories, user trends, and budget groups, presented via user-friendly data visualization. With AI applied to payables and receivables, finance teams gain valuable insights into expected receivables, overdue payments, and the time it takes to recover outstanding amounts.



3

Corporate Development and Investor Relations Function

Finance Teams that Manage Fundraising and Strategic Partnerships

Sharpening M&A and Valuation Decisions

Mergers and acquisitions (M&A) and valuation decisions are traditionally based on assumptions, such as industry comparisons and discounted cash flow calculations. AI is now emerging as a valuable tool for M&A analysts by analyzing vast amounts of data, looking at historical valuations and associated company performance indicators, and predicting the correct valuation of a target company. By leveraging machine learning and analyzing extensive datasets, AI can help analysts determine an accurate valuation model.

This approach moves beyond conventional methods, offering a more comprehensive and data-driven approach to due diligence. With AI, finance leaders can make better-informed decisions about M&A and valuation, reducing the risk of costly mistakes.



Addressing Investor Queries

When it comes to investor relations, public companies often grapple with the challenge of managing investor expectations and addressing their inquiries. AI is poised to revolutionize this aspect. For instance, an automotive company in the US has implemented AI chatbots for investors. These chatbots are equipped with vast knowledge bases and can retrieve relevant information swiftly. In the past, investors had to review over hundreds of pages in quarterly reports. Now, they can now ask business questions, and the chatbots will respond almost instantaneously, significantly accelerating the process of addressing investor queries. This is a notable departure from the conventional process, which often involves days, or even weeks, of research and correspondence before the investor has access to relevant information.



4

Compliance Function

Finance Teams Looking after Accounting, Tax, and Reporting

Compliance and Regulatory Research

Navigating compliance and regulatory requirements is often a daunting task, particularly when expanding into new markets. Fintech companies, for example, must gain a comprehensive understanding of the rules and regulations governing their operations in different regions. This process can be time-consuming, fraught with uncertainties, and prone to costly missteps. AI offers a solution. Large Language Models (LLM) in AI have the capacity to analyze vast volumes of historical data related to compliance and regulatory information. By doing so, they can shed light on the intricacies of specific markets, clarifying what can or cannot be done when launching financial products. This is particularly important for risk-averse industries, where regulatory missteps can have major repercussions. What makes LLM particularly powerful is its ability to unearth how competitors have navigated similar regulatory landscapes. This knowledge can save businesses from reinventing the wheel and allow them to approach new markets with a greater degree of confidence and agility.



Operational Compliance

Within the compliance functions of financial teams, there exists the intricate task of overseeing operational compliance. This includes monitoring internal and external stakeholders, as well as maintaining a watchful eye on a variety of complex processes, such as ensuring that vendors are properly onboarded through a stringent assessment process.

Traditionally, compliance takes a rule-based approach, with businesses defining specific rules and instructions to address common issues. However, the day-to-day reality is replete with situations that may not have clear-cut rules. This is where AI can add value. AI systems, driven by machine learning, have the ability to derive the rules from the data itself, reducing the reliance on rigid rule-based checks. For instance, when spotting a fraudulent transaction, AI can be trained to detect anomalies by analyzing a wide range of data points and patterns. AI's adaptability and capacity to learn continuously make it an invaluable resource for ensuring operational compliance, even in scenarios where predefined rules fall short.



GAAP Education

Finance leaders understand the importance of adhering to Generally Accepted Accounting Principles (GAAP) for transparency, consistency, and comparability, and AI is stepping in to facilitate this crucial aspect of financial management. Financial institutions are increasingly relying on AI-driven chatbots to provide easy access to accounting standards and practices.

Take, for instance, a regional bank with a footprint across multiple countries. Instead of its accounting and auditing teams manually searching for answers to questions related to GAAP variations in priority markets, an internal-facing AI chatbot has been deployed. This chatbot enables employees to query and receive immediate responses, significantly expediting the process of understanding and applying complex accounting standards. It not only saves time, but also ensures that financial reporting is in strict compliance with GAAP across diverse markets.



5

The Limitations of AI in Finance



The increasing reliance on AI has also expanded the magnitude of associated risks. If AI implementation doesn't unfold as anticipated, the reputational risk can cast a shadow over a company's image, affecting customer trust and investor confidence.

One big concern lies with data privacy and reliability, which are particularly pronounced when it comes to uploading confidential financial data into open-source AI models or less secure tools, as even inadvertent queries beyond the firewall can trigger security breaches. Another challenge is related to the phenomenon of "hallucinations", where erroneous information is presented by AI in convincing ways.

To navigate these intricate waters, companies must invest in comprehensive employee training, covering the do's and don'ts of data queries, efficient AI utilization, and delineating the scope and limits of AI applications. With data leaks looming as a substantial threat, finance leaders must instill a culture of vigilance in fact-checking AI-generated content to ensure the integrity of their financial operations.



People are at the heart of any successful AI implementation. For finance leaders, ensuring that their teams are educated in AI's applications and risks will be the newest evolution of their roles and responsibilities. Proper training ensures awareness of data privacy, query guidelines and output validation, as well as in imbuing the necessary knowledge to mitigate potential pitfalls. Bottom line, success and failure are defined by every individual on the team.

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AI is already making significant inroads into the world of finance and business leaders. With the power of AI at their disposal, leaders can make more informed decisions, minimize risks, and drive their organizations toward greater financial success. At the same time, AI adoption and implementation poses inherent risks and challenges, and requires thoughtful planning and guardrails to unlock its full potential.

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About Us



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