Gen AI in Finance: can humans rise to the occasion?

We have all heard the hype around Generative AI (GenAI) and how an artificial intelligence entity can derive coherent and knowledgeable reports, articles, points of view—and even songs. When we see the pace of this new technology, we see how organizations are finding themselves tinkering with the tool and asking themselves how to manage the risks that the use of GenAI can bring to the business.

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Finance is the nerve centre of the business, and they tend to see the effect of any technology change quite rapidly. KPMG member firms have started to see intrepid organizations build their first MVPs to become pioneers in the use of GenAI for Finance tasks, including: reporting development acceleration, finding anomalies in the AR and AP processes, spelling out insights between forecasts, and predictive analytics.

As an example, we will follow the journey of Company X, an investment company that has started to try out their own generative AI to feed the entity finance data that brings a historic angle to build a foundation of knowledge – a stream of current real time data. This data maps to their ongoing day-to-day business operations and presents a bulk of data analytics with business rules, algorithms, and visualizations to feed possible predictions.

In a way, we see Finance is seeking for the technology-enabled data stream that will allow them to reach the unlimited insights that the business is expecting. The fountain that nurtures the trust that Business has in Finance. The trust that the final stakeholders have in their finance reports. Finance is in constant search of the "truth", and GenAI may just be that fountain of finance-driven, evidence-based, digital insights that can drive accelerated business outcomes.

For years Finance has relied on people skills to deliver on business outcomes. As business accelerates, people need to work faster, smarter, and with better costumer service for the internal functions and lines of business. Although, focusing exclusively on people-driven pace, without enabling technology and GenAI, would never allow a Finance organization to thrive.

Once we add people and technology together, thinking automation and standardization, we can see the speed of the fly-wheel increase. Today, Finance has started focusing on analytics skills and tools that allow them to process data with more quality, in larger volumes, and from multiple sources.

Now GenAI has come to add to the equation a third entity that can provide artificially intelligent financial insights from immense amounts of data, with a great level of accuracy. Some organizations even question: can this artificial intelligence now replace human skills? Probably not. As we move through the adoption and stabilization phases of GenAI in Finance, we may see this happen in pockets. Whereas in other areas – e.g., planning, budgeting, and forecasting - we will see a new level of Finance evolve: one with unlimited power to simmer information, produce insights and advise on business goals, if they learn how to work with the new GenAI entity.

So, what steps did Company X take in their search for the "fountain of eternal truth"? They started with bringing all of their data together (which implied driving a fast and furious data quality check); followed by bringing together experts from across the company to discuss the vision and the overall objectives (Finance brought in IT, Marketing, Legal, and others at the table). Third, they analyzed the pros and cons of working with a generative AI query engine, and ultimately decided they had to build their own internal GenAI. Again, they were back to the question on humans: who is going to build this?

The rise of the humans

The question will be: can humans rise to the occasion? The rise of the humans would then mark a new generation of Finance where we, as Finance professionals, can add to our skills portfolio the data literacy to become more evidence-based; the skills to code, train, question, and learn from the AI to distill true and trustful future oriented insights; and we can continue to add the most human and important skill we have: the power to take data analytics and the insights and provide actionable financial wisdom that brings thriving business outcomes.

Can organizations raise their skills to aspire to this Finance Wisdom? What skills does Finance need to rise to the GenAI occasion? Can Finance become more IT-oriented?

Roles, skills & jobs: Generative AI roles

1 **AI Language Model Engineers**

Candidates must exhibit extensive knowledge of Natural Language Processing (NLP) and demonstrate capabilities in designing and developing efficient instructions for generative artificial intelligence models. They are expected to possess advanced proficiency in NLP methodologies, text generation technologies, and exhibit familiarity with specific frameworks or libraries associated with instruction engineering for AI models.

2 **Generative AI Architects**

Requires expertise in machine learning and associated models, with a speciality in neural networks and deep learning architectures. They must bring expertise with encoder decoder structures and transformer blocks. In addition to this, they should have robust programming skills and familiarity with relevant framworks such as TensorFlow or PyTorch.

3 **AI Product Managers**

Possesses a deep familiarity of AI technologies and their potential applications. They require a balanced mix of technical knowledge and business insights to identify market opportunities, establish product requirements, and collaborate efficiency with cross functional teams. Superior communication, project coordination, and strategic thinking skills are essential for this role.

4 **AI Model Training Specialities**

Brings wide ranging proficiency in machine learning and data science, and be adept in training and refining AI models using extensive datasets. They should possess expertise in data preprocessing, feature engineering, and hyperparamater tuning. Additionally, they require domain specific knowledge to verify the validity and accuracy of the models.

5 **AI Principles & Ethics Advisors**

Specialize in understanding and addressing the ethical considerations related to AI and responsible innovation. Skilled in socio technical analysis, they are responsible for ensuring fairness, transparency and accountability in AI systems. Expertise in ethics, bias mitigation, privacy, and adherence to regulations is crucial for this role.

6 **Generative AI Data Engineers**

Offers a comprehensive understanding of data integration and ETL processes, data pipeline development, and data warehousing. What distinguishes them from standard data engineers is that in a generative AI environment, they need to know how to integrate generative AI models into data processing pipelines.

If Finance wants to be able to code, train, question, and learn from the AI, Finance roles need to adopt these new GenAI skills and tools. They will need to learn and apply NPL, more TensorFlow, product development, prompt engineering, data preprocessing, ethical AI principles, and generative AI models.

This would be on top of the learning curve they already have to manage for Data Analytics and Business Acumen, two areas that are also constantly evolving and that raise the bar of what Finance is expected to know and do for a fast-growing business, or a turmoil when the business needs to reinvent or act quickly to cut cost.

Certainly, in these uncertain economic times, the Finance roles need to be ready for anything – and to build that resilience, they will need to add to their skills portfolio the GenAI skills and tools. To put it bluntly, the GenAI skillset will make or break Finance. GenAI skills can help your organization build a recession-proof Finance organization, and it may be the only way you can future-proof your Finance team.

Future-proofing these days refers to going back to the basics, going back to, "why are you doing this? What is the purpose of the jobs we are doing, and why do we continue doing the same? Or should we be doing things differently?" This reflection is critical in today's Finance space.

For those organizations that are in the journey to understand their purpose and are connecting the dots between what are we doing and why are we doing it, GenAI is bringing a gigantic opportunity. Can we do what we do – and understand why are we doing it – faster now that GenAI can help us get there at greater speeds?

The answer is, yes. From the possibilities that GenAI opens, we have another opportunity to set aside the manual, task-heavy, tactical work, leave it to the algorithms and codes, and focus on what is most important. Finance should be seen as a leader, not a follower, serving Business as a co-pilot – as an oracle predicting the future, as a partner-in-crime to deliver innovation, market speed, and business internal customer satisfaction.
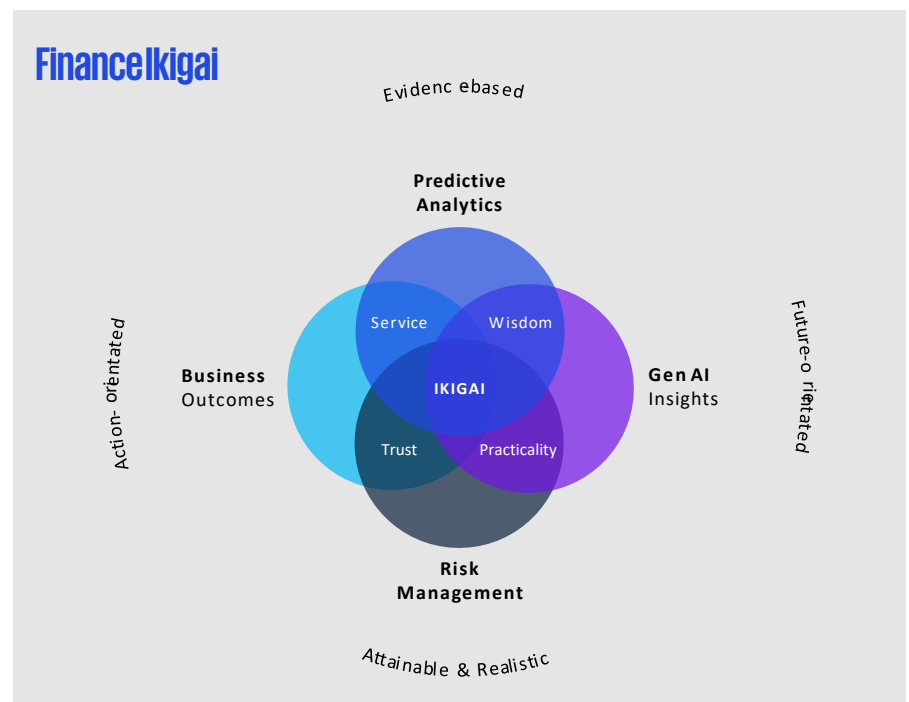
With GenAI, Finance can finally complete their skills portfolio and companies can find their Finance IKIGAI[1]. They can find that joy and fulfillment that comes from aligning your passion, mission, vocation, and profession.

If we combine the groups of skills that we have discussed so far: Analytics is helping Finance become more evidence-based; Business Acumen is always needed to stay close to what the business needs; and now GenAI is able to bring together the data and the business acumen by building the bridge required to generate the intelligence for the business, the business insights required to advise, and guide the business.

GenAI can't be seen as technology for Finance, but rather a set of skills that Finance will need to acquire. The accountants of today will need to get comfortable – willing and able- to work with the popular generative AI tools of the world, and this means adding to their skills repertoire more machine learning, coding, and prompt engineering, to basically teach the accountants to think like machines, to be able to teach the machines Finance. And if the current Finance staff and leaders are not comfortable enough, the new generations of Finance talent (Gen Zs) will bring this synergy with the machines in a more intuitive way.

But we see that a fourth skill group comes into play: Risk Management.

Finance Ikigai

Evidence based

Predictive Analytics

Action-orientated

Service   Wisdom

IKIGAI

Business Outcomes   GenAI Insights

Future-orientated

Trust   Practicality

Risk Management

Attainable & Realistic

Let's go back to what is happening at Company X. They have built their GenAI internal tool, have fed it all their clean data, and now they are playing around with this "GenAI toddler" to teach it how to build the correct insights from the data. Including how to follow patterns, draw the right conclusions, how to express the narrative in business terms – which is taking time and resources. Finance is getting impatient, the business is getting worried, and Risk appeared at the door.

Risk could not dispute the relevance to the business. GenAI was here to stay, but how should Finance help it grow and mature? That was the real question. To get to a mature GenAI, Finance would need to explore how to bring those insights from toddler babble to expert wisdom.

How big is your sand-box?

Not to get too deep, Risk ended up putting some guardrails and rules. Now, the new GenAI entity has a sandbox where it plays and grows. There is less risk, limited resources consumed, and a happier face from the business. This illustrates how the fourth skill group plays to complement the Finance IKIGAI.

Risk is a key element in the adoption of GenAI for Finance. Risk should have always been at that table. For this organization, Risk added a key part to the conversation: what is our risk appetite to put all our data into this GenAI entity? What is the risk analysis we need to do before trusting the insights from the GenAI? Those risk conversations can enable or restrict the use of GenAI for all possible Finance use cases.

Risk is the final piece of the puzzle. By building a strong collaboration with Risk, and adding risk management skills

into the Finance function, then the growth years – the teenage years – of the new GenAI Finance entity will be carefully protected.

Just as Analytics has brought an evidence-based approach, nurturing Finance with Business acumen skills has helped Finance become more action-oriented – and now, GenAI skills can help Finance bring faster, future-oriented insights. And, of course, Risk skills will help Finance determine what is actually attainable.

In the same way it would have been great to have Risk enter earlier on, rather than last, Talent hasn't been invited to the table yet. Talent will be key to help Finance bring sustained change. Talent will help answer what Finance has not thought about yet in our example: where are we going to recruit these skills from? How are we going to retain them? What will we offer our Finance teams today to upskill our people?

As a premonition, GenAI is here to stay. It will grow from its infancy capabilities today to have enormous reach inside all the organizational functions. Just as it can start in Finance, where the data is more reliable, it can also cross over to build enterprise-wide business insights working with data from other functions.

The question for your organization is: who do you want to invite to the table early on in your GenAI journey for Finance? Don't miss out on inviting your people, culture, talent, as well as your learning and development experts.

And as a guest of honor, please remember to consider inviting your regulators. As a word of caution, consider that in our example Company X is a pioneer and less shy organization, and companies like that are also finding out the hard way that it can be dangerous to use AI generated

financial insights if not policed by unbiased banking experts that have regulatory knowledge, and a future regulatory conscious.

Since GenAI regulation is still a work in progress, it's important to plan ahead, and consider regulators will need to limit and put in place some very necessary guardrails. The regulation needs to evolve to protect the investors and the possible actions they take based on GenAI insights. For example, how will companies explain to the regulators the decisions they make based on what the GenAI told them?

GenAI in Finance is unknown territory and walking slowly and with everyone, until we have a more mature regulatory environment, is a wise first steps to develop your Finance IKIGenAI consider:

— Building the first use cases in Finance to use GenAI, looking at clean data repeatable processes with simple automation and standardization

— Inviting everyone to the proof-of-concept creation, to have every voice at the table. Including: Legal, Risk, HR, IT, Marketing, etc.

— Having a conversation with your regulator in terms of how they see GenAI being considered in the regulation in the future

— Plan how to add, attract or acquire the skillset for your Finance team to be GenAI ready: data analytics literacy, AI modelling, AI architecture, data pre-processing, feature engineering, prompt engineering, etc.