Bancassurance Officer

Subsector: Retail Banking

Job Family: Sales and Distribution

Impact Level

> Today, this role is responsible for selling and advising customers about insurance product offerings.

High Impact

Consolidated Activities

	Today	Future
Insurance product marketing and sales	Task has low decision latitude as products are often generic across segments and not specialised to customer needs. Sales are not targeted to specific types of customers but offered more broadly to various customer segments.	Advanced Analytics can be used to generate customer profiles for more targeted outreach for specific groups who are most interested in purchasing insurance products via banking channels. AI will be able to help identify patterns and recommend products and services for better bundling opportunities.
Insurance product knowledge	Task is advisory in nature. Product updates will pass through traditional channels to update the job-holder on changes and updates to specific products. Understanding and sharing information with customers requires human judgment.	Chatbots will be able to provide information about product offerings, allowing for less manual intervention for basic queries. Complex cases will be passed along to Bancassurance Officers for further evaluation and assistance.

In the next

3-5 years ...

Moving forward, this role will evolve to market and sell other products and services rather than solely focusing on a singular product. This broader product and service portfolio will help to address customer needs and enhance customer experience in that they will be able to get a variety of financial planning items from a single source.

Skills Differentiators:

▸ **Lateral Thinking:** Job holders will be required to be able to search for opportunities to create differentiated product experience for customers by adapting sales strategies to combine recommendations based on customer preferences, and considering other relevant products of interests.

▸ **Product Awareness:** Having product knowledge across multiple types of products within a portfolio would be more common than having a single product focus, enabling the role to provide more comprehensive service experience to customers.

▸ **Advisory:** Understanding customers better due to Advanced Analytics will allow for more individualized, relevant and useful information to be shared.

▸ **Customer Mindset:** The job holders will be able to leverage on Advanced Analytics to understanding customer purchasing habits, anticipate customer needs and use customer life stage knowledge to create more proactive outreach for potential sales.

▸ **Data Interpretation and Analysis:** Making sense of data provided to the role will be necessary, while a change of mindset required to apply existing sale skills to drive efficiency within new scopes for the role.

RPA | Advanced Analytics | AI

Branch Operations

Subsector: Retail Banking

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for managing branch service delivery, and the effective design of the role's workflow to drive teller efficiency, and deploy new technologies to improve branch efficiency.

High Impact

Consolidated Activities

	Today	Future
Process Efficiency and Improvements	Execution requires human judgment to ensure optimisation of resources.	RPA can be leveraged to help collect data at different stages of the workflow process for further analysis to provide insights or suggestions for areas of improvement.
ATM/VTM Network Tracking	Execution requires frequent checks to ensure adherence to uptime and availability standards. Banks are using automated monitoring systems with real time dashboards to oversee the availability of bank's ATM network to its customers.	The role will continue to leverage automated monitoring systems with real time dashboards to effectively monitor large groups of ATMs/VTMs, and automatically prioritise maintenance during downtime.
Customer Feedback Management	Execution is supported by technology, such as video banking/chat bots replicating the experience of interacting with a physical personnel while increasing convenience.	Advanced Analytics can provide insight on future customer needs, and allow more automated banking channels to be offered to customers.
Self-service or Automated Banking Channels Improvement	N/A	Contribute to innovation and new service opportunities in the ATM/VTM space, and drive the delivery of enhanced functionality for customers.

In the next

3–5 years ...

As banks are determining how best to change their branch footprint, this role will see a transition in responsibilities with an increasing shift towards digital banking platforms and management of customer experiences for improved services over competitors.

Skills Differentiators:

▸ **User Experience Design:** The job holder will need to be able to display understanding of the omni-channel banking interactions and help to deliver an experience that is aligned to customers' expectations.

▸ **Data Interpretation and Analysis:** Being able to make sense of data analytics and determine how it fits into existing business processes will be necessary to ensure that established business operational processes are not compromised with the infusion of Advanced Analytics.

▸ **Process Excellence:** Using enhanced monitoring systems, the job holder will bring new information to achieve new levels of efficiency and drive implementation of improvements.

▸ **Customer Mindset:** Advanced Analytics will offer insights on customer preferences and needs, allowing the job holder to tailor processes and experience that are aligned to customers' expectations.

▸ **Change Management:** The job holder will have the mindset and ability to adapt to and drive effective change – to ensure the successful adoption of digital solutions across organisation and customer segments.

	RPA		Advanced Analytics		AI

Branch Teller

Subsector: Retail Banking

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for accurately processing routine bank transactions at a bank. These transactions include cashing cheques, depositing money, and collecting loan payments.

High Impact

Consolidated Activities

	Today	Future
Frontline Counter Transactions Support	Execution of task is tedious and repetitive. Despite handling some transactions for non-digital users today, most daily transactions are already handled digitally. Automated tellers as well as online/mobile platforms are already facilitating the completion of payment services, complex transactions and money management functions.	Transaction support at branch will likely cease to exist as bank branches become transformed. This task is likely to become automated, and in future, this technology may allow more complicated transactions to be addressed and supported.
Customer Assistance and Feedback Management	Execution is supported by technology. Video banking/chat bots replicate the experience of interacting with a physical personnel while increasing convenience.	Advanced Analytics can provide insight on future customer needs and allow more tailored services to be offered to customers.
Digital Assistance	Execution has already been incorporated with technology. Tellers are increasingly providing non-traditional support to customers – including familiarising customers with the new apps and/or new features within online banking.	This role will continue to provide assistance to new or existing digital users.
Product Advisory	Execution of task is advisory-driven and requires deep product knowledge and expertise.	This role will be able to respond to queries from walk-in customers with regards to all products or services offered by the bank.

In the next

3–5 years ...

Due to the transformation of the branch footprint, Branch Tellers roles will continue to shift significantly in the coming years. There will be an opportunity for digital ambassadors to assist with some branch related items as well as the opportunity to see a shift of tellers to more product and sales related roles as they expand their knowledge and experience.

Skills Differentiators:

▸ **Customer Mindset:** Advanced Analytics will offer insights on customer preferences and expectations, allowing the job holder to tailor recommendations to customer needs.

▸ **Advanced Digital Acumen/Literacy:** In order to transition into digital ambassador roles, the job holder will need to be proficient in using technology in a business capacity to help others.

▸ **Targeted Technical Sales:** In order to take on a sales-focused role in the future, the job holder will need to be able to leverage insights to customise services that address unique customer needs and finalise sales.

▸ **Advisory:** With the shift in activities for this role, the job holder will need to be able to communicate efficiently and provide advisory services to customers beyond the scope of basic transactions.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change, and quickly adapt to and become comfortable with new tools and systems will help to ensure continuity of service.

RPA	Advanced Analytics	AI

Business Assurance

Subsector: Retail Banking

Job Family: Business Assurance

Impact Level

Today, this role is responsible for performing validation of completeness and accuracy of Know Your Customer (KYC) documentation and ensure that KYC for new and existing accounts is in compliance with local regulations and organisational policies.

High Impact

Consolidated Activities

	Today	Future
Client Document Collection and Validation	Task is administrative in nature and requires low decision latitude. Execution of task can involve manual entry of information based on paper forms leading to time consuming processes.	AI bots can perform repetitive tasks – such as communicating with customers, analysing their responses using Natural Language Processing (NLP) – critically saving time and resources needed to run KYC process.
High-risk Clients Identification	Execution can be manual and paper-intensive. Many banks are leveraging software and data subscription license to filter documents relating to bank's criteria for sanctions, PEPs, legal issues, adverse media, source of wealth and biographical information.	Based on pattern recognition techniques coupled with unstructured text analysis, AI-powered technologies can help to identify high-risk customers who need to be screened with Enhanced Due Diligence (EDD).
Keep Abreast of Regulatory Changes	Task requires human oversight and judgment to determine how regulations will effect KYC processes and their completion in a timely fashion.	Cognitive engines can analyse high volumes of regulatory changes and ensure that a business is alerted to the latest policies. NLP can select specific segments within the regulatory documents and disseminate to relevant departments.

In the next

3–5 years ...

The infusion of automation and AI into this role will help with the more repetitive and simple tasks, allowing the role to focus on investigating high risk clients and other complex tasks. Providing oversight to new systems will ensure that they are functioning properly and providing the correct results.

Skills Differentiators:

▸ **Change Management:** Adapting to and communicating changes to pre-existing processes will require changes within the role, as well as educating the business to align on new efficiencies while maintaining the integrity of the process.

▸ **Lateral Thinking:** Using knowledge of best practices, the job holder will need to ensure that process and outcomes are aligned and supported by technology, while focusing awareness on other factors that may require additional attention, such as new and emerging risks.

▸ **Advanced Digital Acumen/Literacy:** Using digital tools available will require a willingness to adapt, an understanding of how to derive value from them, and ability to work alongside to provide human oversight.

▸ **Process Excellence:** As automation becomes more ingrained in the role, there will be more opportunities to improve the overall processes – resulting in an improvement of the customer experience.

▸ **Data Interpretation and Analysis:** Leveraging on data will help to improve efficiency for the job-holder, but further analysis and understanding will be required to verify that data provided via automated systems is accurate and reflective of needs.

RPA | Advanced Analytics | AI

Credit and Loan Officer

Subsector: Retail Banking

Job Family: Loan and Credit Operations

Impact Level

Today, this role is responsible for overseeing customer creditworthiness within regulatory guidelines, reviewing documentation, ensuring reasonable loan limit granting, developing debt payment plans, as well as completing and processing loan contracts and payments.

High Impact

Consolidated Activities

	Today	Future
Pre-approval and documentation	Task is high volume and repetitive. RPA can allow customer data to be collected more quickly and reliably while identifying applications that are ready for decisions from those that need additional information.	AI-powered technologies can be used to assess customer creditworthiness based on their transaction data. Centralised data repositories (i.e., MyInfo) can speed up the process.
Document validation	Execution of task is document intensive and high in volume, therefore making the task time consuming.	Automation will continue to enable and/or speed up the retrieval of applicants' financial documents from direct sources, mitigating the risk of data manipulations on the application. This would increase transparency and compliance in the fraud assessment process of the task.
Credit analysis for loan decisions	Execution of task is high in volume and has been made more efficient by technology.	In the future, machine learning can comb through an individual's digital footprint (social media, browsing history) to provide insights into one's creditworthiness. However, this could be a challenge to achieve due to data privacy laws.
Post-disbursement services	Execution of task can be supported by technology.	Advanced Analytics could be used to develop personalised customer treatment strategies.

In the next

3–5 years ...

This role will continue to be responsible for overseeing and facilitating the credibility and trustworthiness of customer transactions. However, automation is likely to speed up administrative tasks involved and tighten the credibility screening process to ensure stricter due diligence and compliance for the bank.

Skills Differentiators:

▸ **Advisory:** The job holder will need to develop skills to apply the right advisory strategy to engage with internal customers in different situations, and provide guidance to business units that can be passed along through various channels to improve customer interactions.

▸ **Complex Problem Solving:** The job holder will display the ability to resolve complex customer cases and leverage available resources to develop and execute solutions.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to gain better understanding of the entire credit and loan landscape and extract key insights for recommendations, decisions or actions in other parts of the value chain (e.g., product management).

▸ **Process Excellence:** With good understanding of existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Automation Management:** The job holder will possess technical capabilities to provide oversight and look for potential improvements as well as resolve basic problems as they arise.

RPA | Advanced Analytics | AI

Customer Service/Call Centre Representative

Subsector: Retail Banking

Job Family: Customer Service

Impact Level

Today, this role is responsible for interacting with customers and handling inquiries for all product and service-related issues via various channels, including complaint resolution.

High Impact

Consolidated Activities

	Today	Future
Customer inquiries support	Tasks are high volume and repetitive. Many banks have started to leverage chatbots to support responses to basic or frequently asked queries. Moving away from phone calls, banks are also using live chat to support more complicated queries.	Cognitive computing will further enable chatbots to have a certain level of intelligence in communication, providing a seamless interaction between customers and digital platforms, including a shorter time to resolve inquiries.
Product, service or account knowledge	Simple account information is already automated today. However, human intervention may be needed as customers seek clarifications on products and services.	Advanced Analytics along with AI can help to synthesise client profiles to provide more targeted opportunities for potential cross sales and up-sales. This will allow for more tailored conversations to particular customer needs.
Issue and feedback reporting	Execution of task is repetitive and time consuming.	Advanced Analytics will allow for more frequent reporting to identify issues and pain points earlier, helping to improve the customer experience.
Administrative activities (customer data collection)	Execution of tasks is high volume and repetitive. RPA helps to streamline processes around data collection and input.	This can be further facilitated by APIs which will lead to more inter-connectivity between systems and reduce repetitive tasks.

In the next

3–5 years ...

This role will be part of an omni-channel approach to providing a positive customer experience across multiple platforms. Given that simple queries will be resolved via digital channels, this role will focus on more complex cases, as well as provide more sales and product advise to customers.

Skills Differentiators:

▸ **Complex Problem Solving:** The job holder will display the ability to respond to complex customer cases and understand underlying issues, in addition to being empowered to deliver solutions to enable continuity of service for customers.

▸ **Technology Troubleshooting:** The job holder will handle basic troubleshooting to assist customers with digital application support.

▸ **Data Interpretation and Analysis:** The skills to make sense of quantitative and qualitative data to improve customer experience will be essential.

▸ **Customer Mindset:** Being able to understand clients needs, objectives, and to resolve complex customer-centric problems is vital.

▸ **Product Awareness:** The job holder will possess in-depth product knowledge to be able to explain the features of different products and services and how are they applicable to client's needs.

RPA | Advanced Analytics | AI

Fund Administrator

Subsector: Retail Banking

Job Family: Unit Trust Operations

Impact Level

Today, this role is responsible for Unit Trust sales and fund administration, including monitoring and reporting on the fund performance.

High Impact

Consolidated Activities

	Today	Future
Subscription/ Redemptions	Execution is enabled by digital self-service platforms and is supported by human advisory services.	Advanced Analytics and AI can help recommend Unit Trust offerings to customers with more accuracy, as Advanced Analytics is able to provide insights into the customer's risk appetite and profile.
Order input and maintenance	Execution is document intensive and fairly standardised in terms of information required to be collected from customers.	RPA will enable quicker input of information with less administrative errors. APIs will also help to streamline information collection with increasing system connectivity.
Monitoring, reporting and reconciliation	Execution is repetitive and time consuming, as it requires ongoing maintenance.	RPA will help to consolidate information for review. AI can assist in monitoring and identifying the role when abnormalities are detected.
Risk and return analysis	Task is advisory in nature, as different customers have different expectations and risk thresholds. Execution of task leverages on analytical thinking skills.	Advanced Analytics can help create customer segments with similar expectations. Human judgment will still be necessary to analyse fund details and communicate that information to customers.

In the next

3–5 years ...

This role will evolve as customer preferences are changing in terms of how they purchase Unit Trust products given the increase in digital channels. It is likely that this role will converge with other product sales roles, increasing the portfolio of products that this role can sell and provide advisory services for.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will possess skill to draw insights (e.g., customers' preference) from the data and connect it to actionable plans to result in improved selling capabilities.

▸ **Advisory:** As this role takes on additional product types, they will play more of an advisory role to their customers. The job holder will display ability to communicate effectively with customers, ensuring that products suit their needs and address the concerns that they have.

▸ **Targeted Technical Sales:** The job holder will leverage results from Advanced Analytics to improve customer targeting. This would lead to more sales conversions due to an improved understanding of customer needs.

▸ **Lateral Thinking:** The job holder will demonstrate the ability to think out of the box when confronted with new findings, and determine a more holistic approach to making decisions.

▸ **Product Awareness:** As this role converges with other product sales roles, in depth understanding across product types will be necessary to ensure a balanced approach to sales.

RPA | Advanced Analytics | AI

Mortgage Specialist

Subsector: Retail Banking

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for managing mortgage sales, including sourcing for clients, providing advice and building relationships for future referrals.

High Impact

Consolidated Activities

	Today	Future
Mortgage Loan Advisory	Execution is advisory in nature. Some banks today use chatbots to answer commonly asked questions regarding home loans (e.g., eligibility, documents required) or other general queries about home and renovation loans.	Chatbots will continue to be improved in probing questions to better understand customers' query, and accurately assign different queries to human specialists.
New Customer Acquisition	Execution of task used to be reactive and require human intervention. Banks are gradually leveraging technology – such as using chatbots to provide instant replies, which helps maintain customer engagement with the bank in a more comprehensive manner.	Advanced Analytics and AI can help to identify customer behavioural trends and track their purchasing habits (via website visits, social media footprint). Predictive analytics could help to signal when a customer is considering a property purchase, revealing the best times for sales outreach versus previous methods of cold-calling to drive sales generation.

In the next

3–5 years ...

This role will continue to be responsible for providing support for the bank's mortgage service. However, this role will become increasingly augmented as RPA, AI, and Advanced Analytics are used to assist this role in understanding customer profiles and addressing client queries. Similar to other product sales roles in the future, having a diverse portfolio of product types will help to ensure that this role can adapt to any type of sales responsibilities.

Skills Differentiators:

‣ **Data Interpretation and Analysis:** To leverage on insights from Advanced Analytics, the job holder will need to be able to process data and use it in meaningful ways to help close sales and continue to connect those insights to the business process.

‣ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated for review, and search for necessary information while working alongside digital tools to develop and execution solutions.

‣ **Advisory:** The job holder will need to further develop this skill to apply the right advisory strategy to engage with clients in different situations.

‣ **Lateral Thinking:** The job holder will demonstrate the ability to think out of the box and to connect various components to offer differentiated services compared to competitors.

‣ **Product Awareness:** In addition to customer insights gathered, the job holder will possess robust understanding of various products to deliver targeted recommendations to their customers.

RPA | Advanced Analytics | AI

Transaction Processing Officer

Subsector: Retail Banking

Job Family: Transaction Operations

Impact Level

Today, this role is responsible for transaction processing duties related to fund transfer and clearance, including verification and compliance of transactions.

High Impact

Consolidated Activities

	Today	Future
Transaction Processing	Execution requires human judgment to ensure optimisation of resources.	APIs will help to work towards seamless connectivity between systems for increased ease in transferring information. In the longer term, Blockchain could potentially further disrupt this role.
Statement Preparation and Issuance	Execution of task is repetitive and document intensive. Digital channels allow for real-time tracking of customers' account activity.	Automated systems will be able to monitor customer profiles and customise statements according to customer needs.
Reconciliation reporting and monitoring	Execution of task has low decisional latitude. Technology can be leveraged on to automate this task.	APIs can facilitate direct communication between the transaction processing and finance systems, while cross functional APIs will help with sharing information in real-time. Blockchain could also eliminate inefficiencies arising from reconciliation timeframes.

In the next

3–5 years ...

This role will require less people to handle the current set of activities, due to data analytics and automation. Those that remain in this function will provide oversight for new systems and help to continue to improve and streamline the process. When exceptions arise, this role will need to be prepared to handle these cases as well.

Skills Differentiators:

- **Automation Management:** The job holder will possess technical capabilities to oversee the various automated processes and look for potential improvements to ensure that tools/machines are delivering the expected outputs.
- **Technology Troubleshooting:** Job holder will need to display the ability to resolve basic technical issues and provide guidance on what needs to be escalated to relevant business units to ensure minimal operation disruption.
- **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in developing key operation requirements and addressing business needs.
- **Process Excellence:** With good understanding of existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.
- **Risk Awareness:** While new systems and tools will help to achieve new levels of efficiency, the job holder will need to be aware of associated risks, to ensure that appropriate actions are taken to avoid unnecessary threats.

RPA | Advanced Analytics | AI

Financial Consultant/Personal Banker

Subsector: Retail Banking

Job Family: Relationship Management

Impact Level

Today, this role is responsible for advising and selling financial products and services to new and existing customers and building relationships for future engagement.

Medium Impact

Consolidated Activities

	Today	Future
Customer Product and Service Advisory	Task is advisory in nature. Digital platforms are used to facilitate conversations between banks and customers.	Advanced Analytics and machine learning will allow for more targeted advice on products or services while automation can help to direct customers to the most appropriate resource based on the nature of enquiry.
Cross Sell and Upsell Product Portfolio	Execution requires deep product and service knowledge. Most of the time, execution involves human judgment to make recommendations to customers.	Advanced Analytics will help to create robust customer profiles and facilitate classification of customers into segments (such as retention, migration, expansion, acquisition, and/or reprioritization) to lead to more informed conversations.
Relationship Building and After-sales Support	Task is advisory-based but can be supported by technology. Chatbots and digital channels allow customers to obtain answers to generic questions.	Robo-advisors with more advanced AI technology will be able to provide more personalised support based on the customers' profile and historical data. However, it is important to note that robo-advisors will not replace the job of the Relationship Manager, rather it would complement their day-to-day activities.

In the next

3-5 years ...

This role will continue to be responsible for building and maintaining relationships with the bank and its customers. This role will be augmented to be able to work with a larger portfolio. With Advanced Analytics, they will be able to better understand customer profiles and improve customization, including tailoring of services to more specific customer segments.

Skills Differentiators:

▸ **Advisory:** The job holder will display the ability to apply the right advisory strategies to engage and deepen connections with clients in different situations.

▸ **Change Management:** Adapting to customer needs and expectations will be necessary to help incorporate the use of digital tools, and also offer more personalized services for customers

▸ **Advanced Digital Acumen/Literacy:** Understanding the underlying parameters of chatbot and AI enabled solutions will allow for the role to seek opportunities to further leverage these advanced technologies in customer servicing.

▸ **Data Storytelling:** The job holder will need to be able to create and disseminate relatable and compelling anecdotes based on data in a manner that will resonate with customers.

▸ **Customer Mindset:** This enables the job holder to tailor recommendations that best meet clients' needs.

RPA | Advanced Analytics | AI

Product Analyst

Subsector: Retail Banking

Job Family: Product Management

Impact Level

Today, this role is responsible for researching market trends, conducting competitor analysis, overseeing overall product development/management, and determining product positioning, target market and pricing.

Medium Impact

Consolidated Activities

	Today	Future
Research Market Opportunities	Execution is time intensive and requires manual effort to collate and interpret information from a variety of sources.	Advanced Analytics along with AI can be used to gather and synthesise information from multiple sources for quicker reviewing to understand market trends better.
New Product Creation and Product Maintenance	Execution of task requires human judgment and decision making to shape the product portfolio and differentiate it from competitors.	Advanced Analytics will lead to selection of products that are more tailored to customer segments, while digital platforms will make it easier for customers to research and compare products.
Product Monitoring and Reporting	Execution is repetitive, high volume and time intensive as an ongoing procedure.	RPA can aid in monitoring various sources to gain deeper insights into product performance. Sentiment analysis on digital and social media sites can help to gather information for product service and improvements that are necessary.

In the next

3–5 years ...

Products are rapidly changing due to evolving customer needs. This role will leverage Advanced Analytics to gain stronger customer insights and enhance collaboration to ensure that relevant business units are included into decisions and execution related processes.

Skills Differentiators:

▸ **Data Storytelling:** The job holder will need to be able to disseminate and be persuasive in communicating key messages from research or analysis to ensure that information resonates with audiences and influences them into action.

▸ **Customer Mindset:** This enables the job holder to create products that best meet their clients' requirements, and align with strategy defined by the firm.

▸ **Project Management:** The job holder will stay abreast with new methodologies/techniques of project management to carry out and follow through the project life cycle in the most effective manner.

▸ **Influencing and Negotiation:** The job holder will display ability to persuade others with their point of view and qualitative and quantitative information on what they recommend to enable product improvements and innovation.

▸ **Stakeholder Engagement:** The job holder will bring together various business units with diverse perspectives to enhance product creation, and be able to manage and align stakeholders to meet the intended objectives.

RPA · Advanced Analytics · AI

Credit Operations

Subsector: Corporate Banking

Job Family: Operations

Impact Level

Today, this role oversees the structured loans within the corporate banking business and is responsible for providing credit documentation, administration and operational support.

High Impact

Consolidated Activities

	Today	Future
Credit Documentation	Execution involves validation of loan documentation, ensuring that documentation is complete as per the bank policy and credit approvals are obtained by the credit committee.	AI enabled tools will be leveraged to automate the validation process, and offer quick acknowledgment to the RMs and applicants regarding missing documents, approvals/rejections, and improve communication between banks and clients.
Credit Application Processing	Execution involves processing approved credit applications, and is typically time consuming and high in volume. Many banks are leveraging STP to execute SME loan applications electronically.	As the full potential of STP in lending applications is realised, this role will shift their focus towards providing oversight, managing exceptions, and troubleshooting to ensure smooth execution.
Loan Disbursement and Other Credit Administration	Execution is administrative, involves preparation of payment instructions and notification letters.	Blockchain technology could be leveraged to support the disbursement of funds.

In the next

3-5 years ...

The increasing use of AI enabled tools and STP will reduce the mundane documentation and processing tasks as they can be automated. This role will provide oversight, investigate complex cases, and leverage analysis outcomes to further enhance the processing of credit analysis.

Skills Differentiators:

▸ **Process Excellence:** With good understanding of operations, the job holder can help to highlight root causes of process inefficiencies and identify the right processes that require automation.

▸ **Advanced Digital Acumen/Literacy:** The job holder will possess strong understanding on how advanced digital solutions can be leveraged and learn the technical features to support the operations.

▸ **Complex Problem Solving:** The job holder will need to examine sophisticated cases that are escalated and leverage available resources to develop and execute solutions.

▸ **Systems Thinking:** The job holder will possess strong understanding of how systems work over time and within the context of larger systems, ensuring successful implementation/integration of technology solutions.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change, ultimately improving the adoption of AI/digital solutions to support day-to-day operations.

RPA | Advanced Analytics | AI

Product Sales

Subsector: Corporate Banking

Job Family: Sales

Impact Level

Today, this role is responsible for generating new business opportunities, working closely with Relationship Managers (RMs) to deliver services and products that are most suitable for clients.

SME:	▬▬▬ ▬▬▬ ▬▬▬	High Impact
Commercial/Corporate:	▬▬▬ ▬▬▬ ▬▬▬	Medium Impact
MNC/FI/NBFI:	▬▬▬ ▬▬▬ ▬▬▬	Low Impact

Consolidated Activities

	Today	Future
Product Portfolio Management	Execution requires regular competitor benchmarking and market research.	For SME banking, banks will use Advanced Analytics to move towards the next level of customisation by bundling products and services based on client's preferences, and improve their advice with additional data points e.g., industry/global economic data.
Product Advisory and Recommendation	Execution is advisory-based, product sales teams will work closely with RMs to recommend commoditised products that are most suitable for clients.	AI-tools will be used to carry out analyses of corporates' transaction flows, payables/receivables, assets and liabilities. This information can enable banks to provide personalised advice on bill payment, hedging strategies, financial balance sheet management, and other investment advice. However, the products demanded by MNC Regional HQ/Treasury Centres/NBFI are more complex and bespoke. Hence, product advisory will remain high touch.
Cross Selling Strategies	Execution is driven by the rudimentary understanding of the current relationship. It involves basic data analytics, but many fail to paint a full picture due to the fragmented data sources across business silos.	Obtaining a full view of the client – including account level and behavioural attributes such as fees, revenues, profitability, channel usage etc., coupled with sophisticated data modelling, can result in a better understanding for relationship expansion.

In the next

3–5 years …

Digital portals will continue to drive the sales and advice for products that are high volume and lower risk. This role will leverage rich insights gathered through analyses to develop proactive sale strategies and improve their advice – tailoring to the unique needs of their clients.

Skills Differentiators:

▸ **Advisory:** The job holder will continue to display the ability to apply the right advisory strategies to engage with clients in different situations.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders; effectively eliciting stakeholders' views and developing consensus.

▸ **Influencing and Negotiation:** The job holder will display confidence in presenting and justifying the rationale for design recommendations, and gain buy-in from relevant stakeholders.

▸ **Data Interpretation and Analysis:** The job holder will analyse and interpret quantitative and qualitative data to extract key insights for recommendations, decisions or actions.

▸ **Data Storytelling:** The job holder will demonstrate the ability to disseminate key messages/findings in a compelling, impactful, and easy-to-understand manner to audiences with varying levels of subject matter knowledge.

RPA	Advanced Analytics	AI

Relationship Manager

Subsector: Corporate Banking

Job Family: Relationship Management

Impact Level

Today, this role is responsible for exploring new business potential, identifying client needs, and evaluating credit risk strategies to achieve a balanced stance for corporate clients and the bank.

SME: ▬▬▬▬▬ High Impact
Commercial/Corporate: ▬▬▬▬▬ Medium Impact
MNC/FI/NBFI: ▬▬▬▬▬ Low Impact

Consolidated Activities

	Today	Future
New Business Identification	Execution involves personal networks. Relationship Managers (RMs) work closely with the coverage team to drive efforts to expand the business with existing clients. They are gradually moving away from "reactive product pusher".	RMs will continue to work collaboratively with all coverage and product stakeholders to develop new profitable businesses. The role will maintain strong working relationships with other lines of business to achieve cross-selling objectives.
Client Relationship Management	Execution is relatively high touch, but can be supported by technology.	Virtual RMs can be made available via digital platforms, helping to maintain the relationship element while driving down cost-to-serve. It also empowers clients with the tools to self-serve.
Credit/Risk Profile Evaluation	Execution involves preparing thorough financial analysis and regular credit reviews in accordance to the bank's guidelines. Typically focusing on only a handful of credit attributes.	Machine learning can be used to analyse large data sets from various sources, allowing banks to model credit risk for clients in a more accurate manner. Digital applications can also be leveraged to provide greater transparency around credit access.
Loan Syndication	Execution of task requires close collaboration with regional RMs to originate syndication deals, and involves negotiation with clients and syndicate partners.	While blockchain could help banks to better track activities and comply with requirements related to syndicated loans, the technology is still being developed for this use case. Human intervention and judgment will remain critical in carrying out the task in the near future.

In the next **3–5** years ...

RPA and AI will be leveraged to include more credit attributes in the analysis, reducing the risks while improving the speed of analysis. This role will provide oversight, investigate complex cases, and leverage analysis outcomes to further enhance the process of credit analysis.

Skills Differentiators:

▸ **Lateral Thinking:** The job holder will be required to handle larger sets of data. Hence, the ability to 'connect-the dots' and stay focused on big picture will remain important.

▸ **Advisory:** The job holder will need to continue to display the ability to apply the right advisory strategies to engage with various business units.

▸ **Advanced Digital Acumen/Literacy:** The job holder will gain strong understanding on AI tools and how advanced solutions and features can be further leveraged/enhanced to support day-to-day tasks.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Influencing and Negotiation:** The job holder will have the ability to display confidence in presenting and justifying the rationale for the recommendations or solutions, and gain buy-in from the relevant stakeholders.

RPA | Advanced Analytics | AI

Transaction Banking Operations

Subsector: Corporate Banking

Job Family: Operations

Impact Level

Today, this role is responsible for end-to-end processing of Letters of Credit (LOC), conducting transaction monitoring in accordance with bank/regulatory guidelines, and delivering cash management services to commercial customers.

High Impact

Consolidated Activities

	Today	Future
Trade Documents Validation	Execution is rule based and can be enhanced by technology. AI tools are used to extract a range of data and, automatically enter into the Finance of International Trade Automated System for approval.	AI technologies will continue to be leveraged to shorten the time taken to process requests for LOC. Human judgment will still be required to review information prior to final approval.
Compliance Screening	Execution is data intensive. Effective screening requires experienced personnel who are able to recognise red flags.	AI can automate compliance screening, allowing for vast amounts of web content to be screened, while enhancing the screening process by allowing assessments to be made against global and regional trade finance rules and regulations.
Transaction Processing	Execution is high volume and prone to errors. RPA can assist with transaction processing, however, many documents are still paper based requiring manual processing. Payment instructions from clients can be unsystematic and in different formats.	For payment processing, service externalisation could be used to engage in the service delivery process (e.g., upload payment files through APIs, automated error checks and reconciliation via cognitive technologies etc.), to shorten processing time. For trade finance, an element of human judgment will still be needed to review documentation for regulatory implications and to ensure that complex regulations are adhered to.

In the next

3–5 years …

When most of the documentary handling tasks are relieved with the implementation of open account trade, this role will spend the bulk of their time on validation, providing oversight, managing exception cases, and driving the technology implementation in accordance with the bank's strategy.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will need to be able to interpret data to extract key insights to inform strategies, recommendations, decisions or actions.

▸ **Process Excellence:** With good understanding of operations, the job holder can help to highlight root causes of their process inefficiencies and identify the right processes that require automation.

▸ **Systems Thinking:** The job holder will possess strong understanding of the operations of various systems and how they operate within the context of the larger systems, ensuring successful implementation/integration of technology solutions.

▸ **Advanced Digital Acumen/Literacy:** The job holder will upskill to be proficient in using advanced digital tools and gain strong understanding on how different solutions and features can be further leveraged to support operations.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change, ultimately improving the adoption of AI/digital solutions to support their day-to-day operations.

RPA	Advanced Analytics	AI

Assistant Relationship Manager/Credit Analyst

Subsector: Corporate Banking	**Impact Level**	Today, this role is responsible for credit proposals for corporate borrowers, including conducting credit reviews, performing financial analysis on companies and handling credit requests from Relationship Managers (RMs).
Job Family: Relationship Management		

Medium Impact

Consolidated Activities

	Today	Future
Credit Analysis (Financial Evaluation)	Execution is strongly relation-based and paper-intensive. In recent years, banks have been gradually moving toward sophisticated credit assessment models to assess corporate credit-worthiness. With the rise of RPA, manual data entry into financial spreading software has been nearly eliminated.	While AI and big data can be used to predict risks at an early stage, unlike listed/large corporations, SME related information is not readily available on open sources. Human judgment (supplemented by analysis) is required to make sound and well-reasoned credit recommendations by balancing risk and business needs.
Credit Proposal and Approval	Execution involves paper intensive processes, once completed approval can also take a long time.	Lending decisions will be improved using Advanced Analytics. Automated decision engines will identify loan contract non-compliance, risk assessment of payment default, and approve loan applications that meet the established credit criteria with little manual intervention.
Handle Credit Requests and Renewal	Execution involves paper intensive processes that are time consuming.	With the use of AI, accurate information will be provided to the right stakeholders in the correct format. This will reduce touchpoints and turnaround time. For complex loan requests, human analysis and judgment will be required.

In the next

3–5 years ...

RPA and AI can be leveraged to include more credit attributes in the analysis, reducing the risks while improving the speed of analysis. This role will provide oversight, investigate complex cases, and leverage analysis outcomes to further enhance the process of credit analysis.

Skills Differentiators:

▸ **Advanced Digital Acumen/Literacy:** The job holder will upskill to be proficient in using advanced digital tools and gain a strong understanding on how different solutions features can be further leveraged to support the operations.

▸ **Data Interpretation and Analysis:** The job holder will analyse and interpret quantitative and qualitative data to extract key insights for recommendations, decisions or actions.

▸ **Project Management:** The job holder will possess skills to develop execution plans to meet assignment objectives, and the agreed upon milestones and deadlines.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders; effectively eliciting stakeholders' views and developing consensus.

▸ **Investigation:** The job holder will display the ability to use various techniques to gather and ascertain information that inform the financial strength of a client.

RPA | Advanced Analytics | AI

Business Manager

Subsector: Corporate Banking

Job Family: Business Management

Impact Level

Today, this role is responsible for business process improvement, and other business related initiatives, and overseeing the first line governance issues, risk management and compliance matters.

Medium Impact

Consolidated Activities

	Today	Future
Business and Strategy Support	Execution requires close collaboration with key stakeholders.	While data analytics can help to guide the annual planning and forecasting, human intervention and judgment remain critical in the development and production of strategic plans for the business.
Business and Individual Scorecard Development	Execution requires close collaboration with key stakeholders.	Advanced Analytics may enhance the role by supporting the decision-making process in determining business metrics/targets.
Business and Regulatory Requirements Adherence	Execution requires close collaboration with other business units across risk, compliance, operations, finance etc. Execution can also be supported by technology to improve accuracy.	Digital platforms can provide real-time monitoring and tracking of internal controls, and predictive analytics can be used to predict potential gap or non-adherence to the controls.
Business Risk Management	Execution can be supported by technology and improve accuracy.	Predictive analytics can be leveraged to determine potential business risks. However, human judgment is key in deriving mitigating solutions to ensure all risks are managed effectively.

In the next

3–5 years ...

This role will leverage digital and Advanced Analytics tools to replace the routine tracking tasks, allowing them to spend more time on higher value tasks – i.e., extracting business-relevant insights from data to support robust recommendations and decision making.

Skills Differentiators:

▸ **Project Management:** The job holder will display the ability to apply the appropriate principles for the planning and managing of a wide variety of projects to ensure that project objectives are met.

▸ **Stakeholder Engagement:** The job holder will need to be able to coordinate and maintain productive working relationships with stakeholders, in order to deliver rollout of initiatives and projects.

▸ **Change Management:** The job holder needs to possess robust knowledge and skills to assist the bank in making successful transitions in new initiatives.

▸ **Lateral Thinking:** The job holder will demonstrate the ability to connect the dots using all the data available and analyse results, enabling the job holder to see the big picture of how different initiatives are brought together to improve the operations or grow the business.

▸ **Risk Awareness:** The job holder will possess in-depth knowledge of risk policies to maintain strict compliance of all initiatives and ensure the level of risk is communicated effectively to key stakeholders.

RPA | Advanced Analytics | AI

Client Implementation Officer

Subsector: Corporate Banking

Job Family: Middle Office

Impact Level

Today, this role is responsible for onboarding new corporate clients, and ensuring that they are well-equipped to use the products and services.

Medium Impact

Consolidated Activities

	Today	Future
Document Preparation and Collection	Execution is high volume and document-intensive. RPA can facilitate faster data entry.	There is an opportunity to digitise the onboarding process end-to-end. Digital channels can help to streamline and accelerate data gathering process, support e-signatures and reporting, ultimately, leading to improved client onboarding.
Account Opening	Execution is automated. Online account opening services can pre-populate forms on behalf of the clients and eliminate the need for unnecessary form-filling and data entry.	Digital platforms will continue to be leveraged. Human intervention is required to provide oversight, manage complicated cases, and address issues that are hindering onboarding.
Training Facilitation	Execution involves providing hands-on product training to clients, and ensuring end users are capable of utilising products.	Banks will increasingly rely on digital/self service platforms that support online and personalised training to end users anywhere, anytime.

In the next

3-5 years ...

With the rise of self-service platforms, job holders will increasingly leverage technology to onboard clients.

Skills Differentiators:

▸ **Project Management:** The job holder will need to to deliver the objectives of the engagement, manage working groups, and deliver projects in a consistent manner.

▸ **Complex Problem Solving:** The job holder will ensure products are implemented and examine complex problems that are escalated to leverage available resources to develop and execute solutions.

▸ **Advanced Digital Acumen:** On-going upskilling will be required to ensure the job holder is familiar with new electronic platforms, and capable of using advanced AI-tools.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of their process inefficiencies and identify the right processes for automation.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change to ensure the client can successfully adopt digital solutions to support their day-to-day operations.

RPA   Advanced Analytics   AI

Client Service Officer

Subsector: Corporate Banking

Job Family: Middle Office

Impact Level

Today, this role serves as the primary contact person for clients and is responsible for operational enquiries and maintenance activities through the full client lifecycle with the bank.

Medium Impact

Consolidated Activities

	Today	Future
Enquiry, Complaint and Service Related Communications	Execution is hands-on and typically involves handling a high volume of calls.	Digital channels may be used as the initial contact point for clients to reach out for assistance. Leveraging the data collected through digital platforms, AI and Advanced Analytics will help to identify trends and trigger proactive alerts to prevent client complaints.
Due Diligence and Conformity Check	Execution is high volume and the procedure can be cumbersome and time-consuming with job holders relying heavily on spreadsheets and manual processes.	Self-service digital channels, centralised storage of client documents and rule-based workflow engines can help to assess whether regulatory changes will impact clients and shorten the turnaround time of the process.

In the next

3-5 years ...

Digital platforms will enable a "self-service" feature to enhance the client experience. Job holders will focus on providing oversight, managing escalated cases, and proactively managing the client experience through the analysis of collected data.

Skills Differentiators:

- **Data Interpretation and Analysis:** The job holder will display the ability to interpret data and extract key insights for decisions, recommendations or actions.
- **Advanced Digital Acumen/Literacy:** The job holder will upskill to be proficient in using advanced digital tools and gain a strong understanding of how advanced technology solutions can be used including understanding the features available to be leveraged/enhanced to support the business.
- **Customer Mindset:** The job holder will need to be closer to the customer to better understand their concerns, and put together solutions to resolve their queries.
- **Technology Troubleshooting:** The job holder will need to display the ability to assist clients in resolving basic technical issues on self-service platforms.
- **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

RPA	Advanced Analytics	AI

Product Management

Subsector: Corporate Banking

Job Family: Product Management

Impact Level

Today, this role is responsible for identifying product development or refinement opportunities based on competitor benchmarking and research (market and consumer).

Medium Impact

Consolidated Activities

	Today	Future
Product Monitoring and Reporting	Execution requires regular evaluation of the existing product portfolio and involves data analysis and drafting of concise findings/ recommendations.	Real-time monitoring and reporting can take place, with AI helping to pro-actively identify products that are under-performing.
Consumer and Competitive Market Research	Execution is time consuming, but can be supported by technology when clear strategies are established. Research outcomes are used to drive the identification of new product development or product refinement opportunities. Hence, human judgment is required.	Advanced Analytics provides real-time insights into consumer behavior and preferences, enabling targeted product development for specific client channels. Availability of alternative data sources will also enhance analysis capabilities, allowing better insights for decision-making.
Business Case Development	Execution requires close partnership with various stakeholders within the bank to review product specifications and understand the business requirements for new products.	Human intervention will remain critical to foster the close collaboration with other functions to deliver a strong business case for decision and implementation.

In the next

3–5 years ...

This role will use AI and Advanced Analytics tools to obtain real-time tracking of product performance and accelerate market research and competitor benchmarking. They will leverage the insights obtained to inform opportunities for new products and improve existing solutions.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Project Management:** The job holder will possess skills to deliver assignment objectives, key requirements and gain support from key stakeholders to implement actions within the agreed deadlines.

▸ **Advanced Digital Acumen/Literacy:** The job holder will gain a strong understanding on how solutions and the technical features can be further incorporated in the product management process.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units and senior management in developing key requirements for various solutions/products that are aligned with the business strategy.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change, ultimately improving the adoption of AI/digital solutions to support their day-to-day operations.

RPA	Advanced Analytics	AI

Credit Recovery Manager

Subsector: Corporate Banking

Job Family: Credit Recovery

Impact Level

Today, this role is responsible for timely planning and execution of recovery strategies for delinquent corporate accounts, with the objective to minimise credit losses and maximise recoveries.
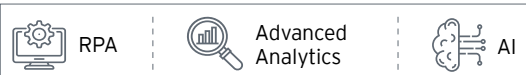
Low Impact

Consolidated Activities

	Today	Future
Repayment Negotiation	Execution involves contact with clients to negotiate repayment arrangements.	Leverage Advanced Analytics to inform realistic alternative repayment plans catering for different client concerns. Digital platform will be used to deliver a seamless experience to the clients.
Account/Loan Restructuring	Execution is typically reactive and the task is carried out when payment issue arises. It involves detailed analysis to perform account restructuring and derive action plans to mitigate credit losses.	AI enabled tools will be used to assist in the identification of clients who should receive restructuring offers, taking into account clients' income, transactions, outstanding debt and other circumstances, a predictive analytics tool will put forth an offer that is most suitable for the client.
Remedial Strategies Development	Execution involves working with stakeholders (including legal) to make recommendations for credit or special actions. Leveraging data, human judgment is required in evaluating the various options against an acceptable risk profile to maximise bank recoveries.	Advanced Analytics will be used to better understand clients and predict their behaviours during delinquency, in order to prioritise strategies to maximise recovery.

In the next

3–5 years ...

Advanced Analytics and AI solutions will be used to improve recommendations for credit recovery. Human intervention will remain critical to work closely with different stakeholders in the development and evaluation of strategies that minimise delinquent loans.

Skills Differentiators:

▸ **Influencing and Negotiation:** The job holder will have the ability to display confidence in presenting and justifying the rationale for recommendations or solutions, and gain buy-in from relevant stakeholders.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Risk Awareness:** The job holder will possess deep understanding of risk to balance the objective to maximise returns against the bank's acceptable risk parameters.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders; effectively eliciting stakeholders' views and developing consensus.

▸ **Advanced Digital Acumen/Literacy:** The job holder will gain strong understanding of AI tools and how advanced solutions and features can be further leveraged/enhanced to support day-to-day operations.

RPA   Advanced Analytics   AI

Product Development

Subsector: Corporate Banking

Job Family: Product Management

Impact Level

Today, this role is responsible for researching market trends, competitor analysis, determining a product's positioning, target market, pricing, and overall product development and management.

Low Impact

Consolidated Activities

	Today	Future
Product Risk Management	Execution involves financial risk assessment and analysis to enhance risk discovery and mitigation.	Advanced Analytics will be leveraged to better identify risk parameters to facilitate the proactive management of stakeholders to determine risk appetite and policies most suitable for the bank, and implement strategic partnerships and solutions for risk mitigation, such as credit insurance or multilateral development programs.
Products Design and Enhancement	Execution requires deep technical knowledge, innovative mindset, and a high level of judgment to design and assess interventions for over- and under-performing products.	While product design requires innovative mindset, AI and Advanced Analytics will support "what-if" analysis and scenario testing to ensure effective product design.
Pricing Strategies and Policies	Execution involves regular analysis and market research to understand market pricing and cost trends across different customer segments.	More data points (e.g., customer behaviours dynamics, value, transaction activities, price sensitivity, risk, etc.) can be incorporated into analysis to enable banks to significantly improve their pricing strategies.
Training Material and Sales Collateral Development	Execution requires close working relationships with various stakeholders across the business value chain (not limited to Sales, Marketing, and the Middle Office).	Human judgment and expertise remain critical in fostering the close collaboration with different stakeholders to ensure that training of new/refined product capabilities are delivered to the wider teams and the product is clearly presented or explained in line with marketing guidelines.

In the next

3–5 years ...

This role requires deep technical expertise, knowledge and judgment. Data and technology will be leveraged to augment the product design or refinement decisions.

Skills Differentiators:

▸ **Project Management:** The job holder will possess skills to deliver assignment objectives, key requirements and gain support from key stakeholders to implement actions within the agreed upon deadlines.

▸ **Influencing and Negotiation:** The job holder will display confidence in presenting and justifying the rationale for the design recommendations, and gain buy-in from relevant stakeholders.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders; effectively eliciting stakeholders' views and developing consensus.

▸ **Customer Mindset:** This enables the job holder to curate solutions that best meet their clients' requirements, as well as align with strategies defined by the firm.

▸ **Data Storytelling:** With more information gathered and analysed, the job holder will possess skills to effectively convey findings/messages to different audiences.

RPA | Advanced Analytics | AI

Post Trade Specialist

Subsector: Investment Banking

Job Family: Trade Management

Impact Level

Today, this role is responsible for clearing, settlements, margin and collateral management as well as follow-up and regulatory obligations and corporate actions.

High Impact

Consolidated Activities

	Today	Future
Trade Clearing and Settlement	Execution is rule-based, high volume, and document intensive all of which can be enabled by technology. RPA and workflow automation tools are leveraged to automatically update accounts and monitor adherence to payment agreements.	Distributed ledger technology (blockchain) could fundamentally transform transaction documentation, resulting in the redundancy of reconciliation that is performed today, therefore reducing settlement risks.
Collateral and Margin Management	Execution of tasks is tedious and involves manual collation of data from multiple sources e.g., collateral management often involves fragmented processes as it relies on many tools and software. Banks have started to leverage RPA to handle margin management.	RPA solutions combining machine learning skills will continue to be used in addressing margin calculation, margin calls and valuation (i.e., using machines to interpret unstructured emails) and automatically populate terms into margin call management systems. Despite automation, human intervention will be required for complex exception cases.

In the next

3-5 years ...

This role will switch from delivering routine tasks, to exception management, driving initiatives that focus on automating trade support, and facilitating decisions in reducing counterparty credit risk. Human judgment and the ability to design creative solutions will be required.

Skills Differentiators:

▸ **Automation Management:** The job holder will upskill to oversee automated systems, ensuring that operations requirements are met and focus on the continuous improvement of machines.

▸ **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure job holders are familiar with new electronic platforms, and capable of using advanced AI-tools.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execute solutions.

▸ **Risk Awareness:** Deep understanding of risk and control remain critical. By removing manual processes the job holder can focus to support the management of counterparty credit risk.

RPA | Advanced Analytics | AI

Product Controller

Subsector: Investment Banking

Job Family: Operations

Impact Level

Today, this role oversees management reporting i.e., daily and monthly P&L, and trading desk balance sheet, and is responsible for the monitoring of trades in the portfolios to ensure it is within a specified remit.

High Impact

Consolidated Activities

	Today	Future
P&L Production and Analysis	Execution is repetitive, rule-based and high volume. Many banks have outsourced the P&L production efforts to external service providers. If kept internally, RPA can automate P&L, balance sheet control and month-end attestation, as well as daily reconciliations of source system to general ledger and sub-ledgers.	Banks will continue to explore the outsourcing opportunities for this task. The industry is anticipating that an acceleration in outsourcing could take place due to FRTB (2019) which could bring stringent requirements such as tests being performed at desk level on a daily basis, as well as at lower levels of granularity and 250 days of historical data to be available for back testing. If kept internally, this process could also be enabled by the use of APIs.
Trading Discrepancy Monitoring	Rule-based and repetitive activities require some technical expertise and knowledge. Banks are leveraging actual trades executed, comparing them with market news and other data available to track trading discrepancies.	Banks will continue to leverage analytics, in particular predictive and real-time tracking, to identify sub-optimal trading strategies and market abuse.

In the next

3–5 years ...

In order to achieve a more cost-effective option for P&L compilation, especially with more stringent regulations, key tasks will be outsourced. With their risk controls/reporting expertise, this role will provide oversight and could potentially take on risk management roles.

Skills Differentiators:

▸ **Risk Awareness:** Deep understanding of risk and control remain critical. The job holder will focus on implementing new regulatory requirements, resolving trade/P&L discrepancies and reducing operational risk through process efficiency.

▸ **Lead Virtual Team:** This skill will become increasingly important as outsourcing trends persist.

▸ **Data Interpretation and Analysis:** Job holder will need to be able to decipher data to uncover hidden insights and help to generate more intelligent decisions.

▸ **Business and Financial Acumen:** Financial and accounting skills will continue to be vital for the job holder to oversee balance sheet and P&L analysis.

▸ **Process Excellence:** With a strong focus on process improvement and system enhancement, the job holder will continue to focus on the implementation of effective process controls and process re-engineering opportunities to improve areas of inefficiencies.

RPA | Advanced Analytics | AI

Remisier

Subsector: Investment Banking

Job Family: Sales/Distribution

Impact Level

Today, this role is responsible for the development of bespoke financial instruments for clients, which include structuring new products by combining various underlying types of assets to create tailored products with different risk and return rates.

High Impact

Consolidated Activities

	Today	Future
Transaction Execution/ Reporting	Execution is repetitive and rule-based in nature and has been taken over by technology. Digital applications can handle the entire process with fully integrated systems, regardless of the time of day. Clients can also have access to all their information instantaneously.	Advanced Analytics can be applied on past transactions to determine the insights that allow for customisation of client interactions.
Financial Advisory and Relationship Management	Execution requires human judgment, interaction, frequent networking and deep technical, subject matter knowledge.	Digital platforms could allow this service to be provided more comprehensively. Such as providing financial advice in an easy-to-understand manner, exchanging market views, and using data to tailor advice to specific clients.

In the next

3-5 years ...

The traditional Remisier role will likely cease to exist. This role will transform from an agent of stockbroking and share trading, who carries out trade execution for clients, to a trusted advisor and expert in recommending investment decision to their clients.

Skills Differentiators:

▸ **Advisory:** In order to play a bigger role in offering personalised advice, other than the provision of "execution-related advice", the job holder in this role will need to understand the structure of the advisory process and choose the right strategy for different situations.

▸ **Data Interpretation and Analysis:** With more and more information being made available, the Remisier will need to understand how to use this information to help with their objectives.

▸ **Research:** The job holder will be expected to conduct more in-depth research to keep up-to-date on the market landscape.

▸ **Influencing and Negotiation:** The job holder will need to be proactive in influencing potential customers, by leveraging various platforms to showcase their expertise, and deepen connections with clients.

▸ **Risk Awareness:** The job holder will need to posses strong risk management skills to understand associated risks present in products, and judge whether an investment is suitable for the client.

RPA | Advanced Analytics | AI

Trade Support Specialist

Subsector: Investment Banking

Job Family: Trade Management

Impact Level

Today, this role sits in the middle office, overseeing trade support. It is responsible for the processing of trades covering the validation, enrichment, and affirmation of trades and ensuring that all controls are in place.

High Impact

Consolidated Activities

	Today	Future
Trade Booking	Job holders assist the front office in ad-hoc booking requests and update the middle office systems. Some banks are already using RPA and workflow automation tools.	In the future this could either be done effortlessly by Traders, or automated entirely.
Trade Enrichment	Execution is document-intensive. Some banks have already automated trade enrichment related tasks.	APIs can enable access to new data sources of additional trade-related information across relevant systems.
Trade Affirmation/ Confirmation	Execution involves issuance of trade confirmation, reporting trade to regulatory authorities, and issuing settlement instructions. Often, STP is applied. For paper-based documents, technology like OCR can enable similar changes.	RPA will continue to be used, enabling automated verification of trade details with counterparties for transactions involving electronic confirmation. Blockchain could also help to streamline the order-to-settlement process and significantly reduce the amount of work.
Pre- and Post-Trade Analytics	Advanced Analytics are applied to model capital, balance sheet and tax impacts pre-trade to better understand the actual trades executed, and gain insights into areas for profit generation.	Taken to the next level, analysis could be performed in real time – alerting the Trader if they appeared to not act appropriately in response to economic or sentiment analysis.
Governance and Control	Execution involves ensuring trades are booked timely on the trade date and anomalous trading activities are escalated and investigated.	The job holder will continue to oversee the control of trading and propose enhancements to improve processes.

In the next

3–5 years ...

Most of the tasks (except trading control) performed by this role will be automated. As complex/exotic trades will continue to be too complicated to automate, this role will continue to contribute in a complex transaction – focusing on structure/documentation of complex trades.

Skills Differentiators:

▸ **Automation Management:** As automation takes place, the job holder will upskill to oversee systems, ensuring that operations requirements are met before seeking continuous improvement opportunities.

▸ **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure job holders are familiar with the new electronic platforms, and capable of using advanced AI-tools.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execute solutions.

RPA | Advanced Analytics | AI

Trader

Subsector: Investment Banking

Job Family: Sales and Trading

Impact Level

Today, this role is responsible for the buying and selling of various financial assets for investors and clients, making prices, executing trades and seeking to maximise assets and/or minimise risk.

Liquid Assets: ▬▬▬ High Impact
Illiquid Assets: ▬▬▬ Medium Impact

Consolidated Activities

	Today	Future
Trading Strategy and Risk Management	The continuous increase of electronic trading and enhanced regulatory requirements for transparency, extending to other asset classes beyond equities, has resulted in convergence of trading techniques across asset classes.	Machine learning algorithms – using a vast array of social networking data/public data sets can be used to discover breaking news and emerging trends – will continue to support trading strategies. Human judgment will remain critical in deciphering analysis, addressing nuances, and filtering relevant information to be shared with different stakeholder groups.
Trade Execution	Liquid assets (i.e., equities) are already heavily automated with algorithms working behind trade execution. The option to implement trade execution platforms as a service is also available, offering clear attribution of trading costs, delivering sophisticated risk management at lower costs. This offers transparency that is compliant with MiFID II and trading rules. New technology is also available, which enhances the effectiveness of conversations with clients.	With the use of deep learning, recommendations that best fit client's needs and the bank's balance sheet can be generated. Banks will also leverage cloud-based (encrypted) voice messaging to eliminate the expenses associated with legacy tele-communication systems. It is important to note that voice communication will remain critical as it continues to help Traders to convey nuances and build trust- based relationships with their stakeholders. Hence, human intervention will remain critical.

In the next

3–5 years ...

Traders (Liquid assets) could be replaced by technologists as electronic trading gains traction. The job holder may upskill to trade illiquid assets, or upskill with programming and coding skills to transition to quantitative focused roles.

Skills Differentiators:

▸ **Lateral Thinking:** Demonstrating the ability to think outside of the box when confronted with a piece of news or research findings will remain important.

▸ **Customer Mindset:** The key focus of a Trader is to serve clients. Therefore, for the job holder to move into sales, a strong understanding of, and ability to resolve complex customer-centric problems will be necessary.

▸ **Programming and Coding:** With the deep expertise in trading, the job holder could upskill with coding skills to transition into a quantitative role.

▸ **Advisory:** Moving into a sales role, the job holder will need to further develop this skill to apply the right advisory strategies to engage with clients in different situations.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages and findings from research and analysis in a compelling, impactful, and easy-to-understand manner to audiences with varying levels of interest.

RPA | Advanced Analytics | AI

Corporate Finance Banker

Subsector: Investment Banking

Job Family: Corporate Finance

Impact Level

Today, this role is responsible for the origination, structuring and syndication of clients' financial needs, including advisory, divestitures, capital raising, M&A, structured financing, project financing, etc.

Medium Impact

Consolidated Activities

	Today	Future
Relationship Management and Deal Origination	Execution requires networking to build relationships, and leveraging those networks to acquire information that is not publicly available.	Leveraging personal networks will continue to be critical. However, the process of searching for a buyer could be streamlined with automation, which would enable scanning through annual reports, press releases, and other sources to determine potential deal sources and leads.
Deal Structuring and Financial Modelling	Execution requires deep technical knowledge and a high level of judgment to handle bespoke and complex services.	Building on the success of automation of IPO processes via RPA embedded in digital platforms, banks are expanding this strategy to corporate mergers.
Syndication and Stakeholder Management	Execution requires personal networks and relationships.	While digital applications can be used to send instantaneous updates to clients on deal pricing, size and timing, the cultivation of relationships between stakeholders will continue to require human input.

In the next

3-5 years ...

There will continue to be opportunities to relieve some of the manual tasks that are part of this role. However, human input will remain critical as part of the valuation process.

Skills Differentiators:

▶ **Data Interpretation and Analysis:** Being able to analyse complex data sets, and have the ability to quickly draw insightful conclusions from the data are skills that will be essential for the job holder.

▶ **Lateral Thinking:** The job holder will demonstrate the ability to connect the dots using all the data available and analyse results, enabling the job holder to see the big picture of how different initiatives are brought together to improve decision making.

▶ **Global Perspectives:** As cross-border transactions happen regularly, a robust understanding of the global market/economy and the corporate landscape is important.

▶ **Analytics and Computational Modelling:** Despite automation, the job holder will continue to demonstrate solid financial modelling and valuation skills.

▶ **Influencing and Negotiation:** Impeccable negotiation skills will continue to be vital for this role to succeed.

RPA | Advanced Analytics | AI

Debt Capital Markets (DCM) Banker

Subsector: Investment Banking

Job Family: ECM/DCM

Impact Level

Today, this role is relationship-centric, using RPA to automate non-core tasks, and Advanced Analytics to provide insights to enhance the robustness of decisions.

Medium Impact

Consolidated Activities

	Today	Future
Relationship Management and Deal Origination	Execution requires personal networks and relationships. Machine learning (AI) is being considered for predicting the clients' best position for follow-on bond/loan offerings.	Sentiment analysis can support the prioritisation of client outreach efforts.
Deal Structuring and Advisory	Execution requires deep technical knowledge and a high level of judgment to handle bespoke and complex services.	Predictive analytics with access to new sources of data can help in the timing and structuring of deals such as helping to understand how a potential bond issuance is being perceived.
Deal Syndication and Loan Origination	Execution requires the development of strong personal networks and relationships. Today, RPA is being explored to expedite compilation of information.	Digital platforms can improve the efficiency of price-setting via auction models and innovations that improve the connection between the issuers and dealers, allowing them to exchange data more efficiently.
Sales and Placement Support	Execution requires personal networks/relationships but can be enabled by technology.	Cloud-based content automation solutions can enable faster/automated creation of prospectus', term sheets, sales memos, etc.

In the next

3–5 years ...

This role will continue to be responsible for the origination, structuring, advisory and syndication in debt capital raising efforts of clients. It also includes sales support for marketing and distribution of debt securities.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will possess skills to interpret markets and results of the analysis for further action.

▸ **Influencing and Negotiation:** The job holder will pitch their ideas on debt issuances to their clients, delivering impactful exchanges and discussions to obtain buy-in.

▸ **Advanced Digital Acumen/Literacy:** Whilst proficiency in valuation and modeling remains critical, the job holder must upskill to leverage more advanced technology which will allow the processing of larger data sets.

▸ **Advisory:** The skill will continue to be critical as the key focus of this role is to deliver data-driven advice to organisations, sovereigns, or agencies to raise debt.

▸ **Stakeholder Engagement:** The job holder will need to be able to develop a strong network of internal and external contacts, as well as balance the interests of complex stakeholders.

RPA | Advanced Analytics | AI

Economist

Subsector: Investment Banking	
Job Family: Research	

Impact Level

Today, this role is responsible for providing insightful advice based on the application of economic theory and knowledge, particularly in the behavior of the aggregate economy covering various phenomena.

Medium Impact

Consolidated Activities

	Today	Future
Secondary Research (e.g., economic reports, monetary policy shifts)	Execution is rule based and document intensive by nature, and traditionally, time consuming to execute.	APIs can enable faster and in some cases, real-time access to information. AI (NLP) is able to decode large volumes of information, reducing the effort associated with manual research activities.
Economic Modelling and Analysis	Execution requires technical expertise/ knowledge, and can be enabled by technology.	Machine learning is seen to develop complex economic models – such as predictions about economic growth. Automated quantitative capabilities will help to answer questions more rapidly.
Economic Outlook Insights and Report Generation	Execution requires deep technical knowledge. It is advisory in nature but there are aspects that can undergo straight-through processing.	AI (Natural Language Generation) has the potential to generate reports and commentary, but there are limitations as these models are less likely to account for irrational and out of the 'norm' behaviours and trends.

In the next

3–5 years ...

Given that data mining and manual research tasks are being completed more rapidly then before, this role will be able to focus on incorporating subjective data and irrational phenomenon to increase the robustness of the data-driven models.

Skills Differentiators:

▸ **Data Storytelling:** The job holder will be required to present results in a manner which is persuasive as well as easy to understand to ensure that arguments/analysis outcomes are readily accepted.

▸ **Advisory:** Even with the inclusion of data analytics and automation, it will still be critical for the job holder to provide economic advice and recommendations.

▸ **Programming and Coding:** Coding proficiency will allow the job holder to run or evaluate complex mathematical models and simulations. The job holder will be required to continue learning new programming languages.

▸ **Analytics and Computational Modelling:** Solid quantitative modeling skills are the foundation skills required for this role, and they will continue to be important despite advancement in automation. Instead of utilising Excel, this role may instead leverage advanced statistical tools to build/maintain econometrics models. Hence, **advanced digital acumen/literacy** may be important in the future.

RPA | Advanced Analytics | AI

Equity Capital Markets (ECM) Banker

Subsector: Investment Banking

Job Family: ECM/DCM

Impact Level

Today, this role is relationship-centric, with RPA solutions automating non-core tasks and Advanced Analytics providing insights into data-driven origination opportunities.

Medium Impact

Consolidated Activities

	Today	Future
Relationship Management and Deal Origination	Execution requires leveraging personal networks and relationships. Machine learning is now being used in predicting recommendations for clients who are best positioned for follow-on equity offerings.	Sentiment analysis can further support the prioritisation of client outreach efforts.
Deal Structuring and Advisory	Execution requires deep technical knowledge and a high level of judgment to handle bespoke and complex services.	Predictive analytics with access to new sources of data can help in the timing and structuring of deals.
Deal Syndication and Underwriting	Execution requires personal networks and relationships, especially with other banks in underwriting efforts. RPA can expedite compiling information.	Distributed ledger technology* could present an opportunity to directly issue shares with less costs and friction.
Sales, Placements and Post-IPO Support	Execution requires personal networks/relationships, but can be enabled by technology. Standardised pitch book templates are available today, but not favoured by clients and bankers mainly due to the perception of 'recycling' presentation materials.	Machine learning can be used in the post-IPO support phase.

In the next

3–5 years ...

This role will be responsible for the origination, structuring, advisory and syndication in equity capital raising efforts of clients. It will also include sales support for the marketing and distribution of equity securities.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will possess the ability to interpret markets and results of analysis for further actions and enhanced decision making.

▸ **Influencing and Negotiation:** The job holder will need to be able to defend the validity of their ideas and ultimately bring together the parties that are part of the transaction.

▸ **Advanced Digital Acumen/Literacy:** While proficiency in modelling and calculations remains critical, job holder must upskill to leverage more advanced technology to process larger data sets.

▸ **Project Management:** Equity syndication requires strong project management skills to follow through with deal execution processes and work effectively with different parties both internally and externally.

▸ **Stakeholder Engagement:** The job holder will need to be able to develop a strong network of internal and external contacts, as well as balance interests of complex stakeholders.

RPA | Advanced Analytics | AI

*Proof of concepts have taken place with issuance in private markets

Quantitative Analyst

Subsector: Investment Banking

Job Family: Quants

Impact Level

Today, this role implements complex mathematical models to evaluate financial instruments or markets, as well as calculate accounting adjustments and validate models to ensure regulatory fit.

Medium Impact

Consolidated Activities

	Today	Future
Trading Model Validation	Execution focuses on ensuring the quantitative models fit within regulatory requirements, including managing the library of existing code. In some countries, these tasks have already been offshored to lower cost centres.	The offshoring trend will continue to reduce the need for this role to perform trading model validation.
Product/Price Valuation and Verification	Execution requires technical expertise and knowledge, but it can be enabled by technology. The current landscape of Independent Price Verification (IPV) systems comprise largely of in-house, End-User Computing (EUC) solutions that lack clear control and transparency.	RPA or cloud-based service providers can help managers to source different prices from a variety of sources. Collating, ranking and defining those prices in a central repository where records can easily be audited. Advanced Analytics can leverage the new sources of data to predict and evaluate assets.
Trading Model Development	Execution involves close collaboration with traders and the technology team to build trading tools.	With AI, this will be a new task for the role. This job role will support and possibly lead the development of trading algorithms and work closely with technology specialists to contribute to alpha generation on a systematic trading desk.

In the next

3–5 years ...

This role will evolve as trading desks are increasingly being automated. As there is a shift away from model validation, the job holder will lead the development of trading algorithms, working closely with traders and technology specialists to develop trading tools.

Skills Differentiators:

▸ **Analytics and Computational Modelling:** This skill will remain important in the construction of mathematical models designed to provide insight into complex financial systems.

▸ **Programming and Coding:** Fluency in programming languages (e.g., C++, Python, Perl, Java etc.) will be vital to develop and implement mathematical models.

▸ **Risk Awareness:** Solid understanding of various types of financial risk is indispensable for this role.

▸ **Technology Design:** Close collaboration with the technology team in designing appropriate systems to run the developed models, requires the job holder to have a basic proficiency in technology design to facilitate an effective partnership.

▸ **Advanced Digital Acumen/Literacy:** In addition to advanced excel skills, the job holder should have expertise in advanced statistical analysis software or other tools.

RPA | Advanced Analytics | AI

Research Analyst

Subsector: Investment Banking

Job Family: Research

Impact Level

Today, the job holder in this role conducts fundamental analysis on companies or asset classes to provide institutional clients, retail clients and in-house Traders with in-depth research and analysis.

Medium Impact

Consolidated Activities

	Today	Future
Primary Research	Execution requires engaging with personal networks/relationships to gather information that is not publicly available.	In the longer-run, advanced AI technologies such as facial recognition may help to support the process of and generation of differentiated/alternative interpretations of information.
Secondary Research	Execution is repetitive and can be enabled by technology.	Advanced Analytics engines can mine unstructured data from non-traditional sources and combine the results with structured data (e.g., earnings data, company reports).
Financial Modelling and Analysis	Execution requires technical expertise/ knowledge and can be enabled by technology. Machine learning is seen to develop complex financial models.	Automated quantitative capabilities will answer questions within minutes, where they once would have taken days to research.
Business Development and Report Generation	Execution is advisory in nature, but there are aspects that can undergo straight-through processing. RPA is used for the generation of research reports in standardised formats.	Communication via digital platforms enables targeted push-research. AI (natural language generation) also has the potential to generate reports and commentary.

In the next

3-5 years ...

As the repetitive data gathering tasks are replaced, this role will evolve to become more advisory. As such, the job holder will be able to focus on various industries or select a specialised area to provide differentiated and value-added ideas.

Skills Differentiators:

▸ **Advisory:** The ability to deliver high quality and value-added advice, based on an objective interpretation of clients' contexts as well as their specific needs will be critical.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages/findings from research/ analysis in a compelling, impactful, and easy-to-understand manner to audiences with varying levels of interest.

▸ **Lateral Thinking:** The job holder will be required to handle larger data sets and will therefore need to be able to 'connect-the-dots' whilst staying focused on the big picture.

▸ **Advanced Digital Acumen/Literacy:** As banks gradually move away from excel-based tools, job holders will need to become proficient in using advanced statistical analysis software or other tools.

▸ **Data Interpretation and Analysis:** The analysis and interpretation of both quantitative and qualitative data will be a critical.

RPA   Advanced Analytics   AI

Treasury Operations Officer

Subsector: Investment Banking

Job Family: Operations

Impact Level

Today, this role is responsible for controlling and overseeing the bank's capital and liquidity, and ensuring that the bank remains financially stable to support various business activities.

Medium Impact

Consolidated Activities

	Today	Future
Capital Review and Monitoring	Apart from using RPA, treasury management systems via cloud-based solutions are available for reducing cost and harmonising processing.	Banks will increasingly deploy analytics solutions across repositories of information to provide a near-real time view of cash flow positions and liquidity in order to support decision-making (e.g., banks will leverage data such as foreign exchange, market value assumptions, rates and spread to conduct analytics for insights into stress testing or interest rate risk management). Open API services can be utilized to help to meet the need for working capital.
Business and Stakeholder Liaison	Execution requires liaising with external stakeholders (e.g., regulators) as well as different business units within the bank to discuss implications of trading activities on the bank's capital. In addition execution requires providing advice on how capital and liquidity within the bank are regulated and controlled.	Analytics can be leverage to uncover hidden insights with regards to the bank's liquidity, capital position, balance sheet etc., and real-time tracking can be used to ensure that business and regulation requirements are met. Human judgment will remain critical in liaising with regulators and collaborating with different parts of the business.

In the next

3-5 years ...

This role will leverage sophisticated analytics solutions with the incorporation of larger data sets to better manage the bank's capital and liquidity, ensuring that the bank can better withstand potential future market stressors.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The increasingly complex data and analytics will require sophisticated translation of findings into sound decisions/actions.

▸ **Data Storytelling:** The availability of more data requires the job holder to be able to disseminate insights in a clear and compelling manner to audiences with varying levels of interest.

▸ **Strategy Planning:** In addition to a data-driven mindset, this skill will be required as the job holder needs to present a strategy to manage cash flow, funding, FX requirements and money market placements.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders; effectively eliciting stakeholders' views and developing consensus.

▸ **Risk Awareness:** In-depth risk knowledge remains critical for the job holder to oversee FX, hedging, financial risks, financial instruments, credit risk etc.

RPA | Advanced Analytics | AI

Institutional Sales Officer

Subsector: Investment Banking

Job Family: Sales and Trading

Impact Level

Today, this role is responsible for sourcing and building long-term relationships with buy-side clients (asset management firms, wealth managers and high net worth individuals (HNWIs) to trade with the bank.

Low Impact

Consolidated Activities

	Today	Future
Relationship Management	Execution requires personal networks/ relationships and can be enabled by technology. Today, many conversations are carried out via phone or Bloomberg terminals throughout the day.	Despite the rise of electronic platforms/ channels, IM chats or emails, voice communications will continue to play an important role in pre- and post-trade interactions, as it is perceived to be more personal, and it helps to convey nuances, build trust and develop stronger relationships with clients.
Trading Advisory	Execution requires personal knowledge of their clients to put forth trade ideas that best fit client's needs.	AI-powered tools can be implemented to track and listen to conversations with clients or monitor inboxes and electronic platforms for clients' messages, examine their trades, suggest additional sales, and anticipate future requests.
Trade Orders Dissemination	Execution involves communicating client demands for pricing to Traders and Structurers.	

In the next

3-5 years ...

This role will continue to rely on high-touch channels for client communications. AI-powered tools will be used to support client interactions, allowing job holders to approach clients with data-driven trade recommendations and helping them to decide future actions.

Skills Differentiators:

▸ **Lateral Thinking:** Apart from deep sector, product or solutions expertise the job holder will need to incorporate more (and potentially diverse) information/insights into developing trading ideas that differentiate themselves from others.

▸ **Influencing and Negotiation:** While pitching trade ideas to clients, such skills will be critical for job holders to align to their clients way of thinking.

▸ **Advanced Digital Acumen/Literacy:** The job holder needs to be constantly upskilled to operate using new electronic-trading tools, as well as advanced AI-tools.

▸ **Data Interpretation and Analysis:** While computation and analysis can be performed using technologies, the job holder needs to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Advisory:** With deep knowledge of market, customer, product etc., the job holder will have the ability to apply the right advisory strategy to provide trading advice to clients.

RPA | Advanced Analytics | AI

Senior Banker/Coverage Officer

Subsector: Investment Banking		Impact Level	Today, this role is responsible for client sourcing, establishing long-term relationships with clients, providing financial advisory based on client's needs, and evaluating market conditions, etc.
Job Family: Relationship Management			

Low Impact

Consolidated Activities

	Today	Future
Client Acquisition	Execution requires personal networks/ relationships, but can be enabled by technology. Predictive analytics can be used to understand the highest performing client relationships thus, assisting to prioritise client outreach efforts.	Behavioural analytics from previously untapped (virtual deal rooms, industry partners) can help in client prioritisation decisions.
Relationship Management and Advisory	Execution requires personal networks/ relationships but in some instances, can be supported by technology.	Digital client engagement platforms (with an option for self-service, targeted almost realtime push notifications, etc.) can enhance the customer experience and reduce attrition.
Deals Origination and Execution	Execution requires personal networks and relationships, especially in gathering information that is not publicly available. This can also be enabled by technology.	Machine learning can be used to help determine the client's best position for follow-on capital raising offerings. Cloudbased digital applications that are mobilefriendly can also help to reduce internal communications or coordination efforts. However, the overall nature of this task is seen to remain humancentered.

In the next

3–5 years ...

This role will continue to front the bank's offerings to clients. The job holder will leverage analytics capabilities, and make use of the richness of the available data in the bank to establish or maintain effective relationships, and decide on the best actions to take in response to their clients' needs.

Skills Differentiators:

▸ **Global Perspective:** In order to drive innovation in the solutions offered to clients, the job holder must be deeply attuned to regional and global trends.

▸ **Customer Mindset:** This is vital for the job holder to curate solutions that best meet their clients' requirements, as well as align with the bank's strategy.

▸ **Influencing and Negotiation:** The job holder must be able to handle various situations with objectives of obtaining buy-in and maintaining client relationships.

▸ **Data Storytelling:** With increased accessibility to information, this skill is becoming more important in order to effectively convey findings and messages to different audiences.

▸ **Lateral Thinking**: The ability to incorporate information collated from different sources into client advice or solutions will be vital.

RPA	Advanced Analytics	AI

Structurer

Subsector: Investment Banking	**Impact Level**	Today, this role is responsible for the development of bespoke financial instruments for clients, which include structuring new products by combining various underlying types of assets to create tailored products with different risk and return rates.
Job Family: Product Origination		

Low Impact

Consolidated Activities

	Today	Future
Product Origination and Management	Execution requires deep technical knowledge to handle bespoke and complex products/services. High levels of judgment are necessary as client needs may not be straightforward. Predictive analytics powered by new sources of information can support the structuring of a product that better meets the needs of customers.	AI can be deployed to structure products, monitor performance of products and support the pricing of new/existing products. However, given the bespoke nature of solutions, the question has been raised around if this technology investment would have the necessary scale to justify the initial investment.
Product Pricing Development	Execution includes collaborating with sales teams to provide market analysis, and with trading teams to improve upon pricing and risk management.	While data analytics can be leveraged to determine optimal pricing strategies, human judgment will remain critical in aligning with the bank's overall objectives and strategies.

In the next

3–5 years ...

Given the highly bespoke nature of the services provided by the job holder, there will be minimal opportunities to automate tasks. However, this role will need to possess multi-asset expertise in a cross-asset structure instead of solely focusing on a single asset class.

Skills Differentiators:

- **Data Interpretation and Analysis:** The ability to interpret financial or risk analytics, and leverage insights for product and pricing recommendations will be essential.
- **Advanced Digital Acumen/Literacy:** The job holder needs to be constantly upskilled to operate using advanced AI-tools.
- **Programming and Coding:** Whilst coding skills are not compulsory today, they will increasingly become an advantage when assisting with market analysis and the pricing of products.
- **Influencing and Negotiation:** The job holder will need to have the ability to display confidence in presenting and justifying the rationale for their proposed solutions, as well as gain buy-in from relevant stakeholders.
- **Advisory:** With deep knowledge of the instruments, market, customer etc., the job holder will have the ability to apply the right advisory strategies to provide pricing recommendation to stakeholders.

RPA | Advanced Analytics | AI

Post Trade Specialist

| **Subsector:** Private Banking |
| **Job Family:** Trade Management |

Impact Level

Today, this role sits in the middle office, overseeing trade support. It is responsible for the processing of trades covering the validation, enrichment, and affirmation of trades, and ensuring that all controls are in place.

High Impact

Consolidated Activities

	Today	Future
Trade Booking	Job holders assist the front office in ad-hoc booking requests and update the middle office systems. Some banks are already using RPA and workflow automation tools.	In the future this could either be done effortlessly by Traders, or automated entirely.
Trade Enrichment	Execution of task is document-intensive. Some banks have already automate trade enrichment related tasks.	APIs can enable access to new data sources of additional trade-related information across relevant systems.
Trade Affirmation/ Confirmation	Execution involves issuance of trade confirmation, reporting trade to regulatory authorities, and issuing settlement instructions. Often, STP is applied. For paper-based documents, technology like OCR can enable similar changes.	RPA will continue to be used, enabling automated verification of trade details with counterparties for transactions involving electronic confirmation. Blockchain could also help to streamline the order-to-settlement process and significantly reduce the amount of work.
Pre- and Post-Trade Analytics	Advanced Analytics are applied to model capital, balance sheet and tax impacts pre-trade to better understand the actual trades executed and to gain insights into areas for profit generation.	Taken to the next level, analysis could be performed in real time – alerting the Trader if they appeared to not act appropriately in response to economic or sentiment analysis.
Governance and Control	Execution involves ensuring trades are booked timely on the trade date and anomalous trading activities are escalated and investigated.	The job holder will continue to oversee the control of trading and propose enhancements to improve processes.

In the next

3-5 years ...

Most of the tasks (except trading control) performed by this role will be automated. As complex/exotic trades will continue to be too complicated to automate, this role will continue to contribute in a complex transaction – focusing on structure/documentation of complex trades.

Skills Differentiators:

▸ **Automation Management:** As automation takes place, the job holder will upskill to oversee systems, ensuring that operations requirements are met before seeking continuous improvement opportunities.

▸ **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure job holders are familiar with the new electronic platforms and capable of using advanced AI-tools.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execute solutions.

| RPA | Advanced Analytics | AI |

Trade Support Specialist

Subsector: Private Banking

Job Family: Trade Management

Impact Level

Today, this role is responsible for clearing, settlement, margin and collateral management as well as follow-up and regulatory obligations including corporate actions.

High Impact

Consolidated Activities

	Today	Future
Trade Clearing and Settlement	Execution is rule-based, high volume, document intensive and can be enabled by technology. RPA and workflow automation tools are leveraged to automatically update accounts and monitor adherence to payment agreements.	Distributed ledger technology (Blockchain) could fundamentally transform transaction documentation resulting in the redundancy of reconciliations that are performed today, as well as reduction in settlement risk.
Collateral and Margin Management	Execution is tedious and involves manual collation of data from multiple sources e.g., collateral management involves fragmented processes as it relies on many tools and software. Banks have begun to leverage RPA tools to handle margin management.	RPA solutions combining machine learning skills will continue to be used in addressing margin calculation, margin calls and valuation – e.g., using machines to interpret unstructured emails, and automatically populating terms into margin call management systems. Despite automation, human intervention would remain relevant for complex exception cases.

In the next

3–5 years ...

This role will switch from delivering routine tasks to exception management, drive initiatives that focus on automating trade support, and facilitate the decisions in reducing counterparty credit risk – where human judgment and creative solutions are required.

Skills Differentiators:

- **Automation Management:** The job holder will upskill to oversee the automated systems, ensuring that operations requirements are met, and focusing on the continuous improvement of machines.
- **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure job holders are familiar with the new electronic platforms and capable of using advanced AI-tools.
- **Process Excellence:** With good understanding of the existing operations, job holders can help to highlight root causes of process inefficiencies and identify the right processes that require automation.
- **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execute solutions.
- **Risk Awareness:** The job holder will possess a deep understanding of risk and control by removing manual processes, the job holder can focus to support the management of counterparty credit risk.

RPA | Advanced Analytics | AI

Trader

Subsector: Private Banking

Job Family: Sales and Trading

Impact Level

Today, this role is responsible for putting forth trading strategies and overseeing the trades completed by brokers/dealers.

High Impact

Consolidated Activities

	Today	Future
Trade Execution	Execution desks manually take orders on trading platforms – such as keying in information, sending requests for quotation etc. Job holder also focuses on monitoring trade execution and ensures the completion of trades performed by third party broker/dealers. Some banks have begun to implement trading-enabled applications – allowing clients to execute simple investments – e.g., equities, spot FX, exchange-traded funds.	Trade orders can be fed into trading systems in a straight-through-processing (STP) manner. Trading functionality can also be incorporated into private banking (mobile) applications allowing high net worth (HNW) clients to execute orders for a range of asset classes in different markets.
Trading Options and Strategy Development	Execution involves discussion of trading options and strategies with clients, keeping abreast of market news, conditions, new trading strategies and/or techniques.	Leveraging AI-powered solutions, recommendations that best fit the client's needs can be generated.
Transaction Cost Analysis (TCA)	Execution involves focusing on evaluating transaction costs of various trading strategies and monitoring the commission paid to brokers/dealers – to gauge the effectiveness of their trade execution over time.	The rise of algorithmic trading has generated large volumes of data and a wider variety of trade analytics tools that will be able to do quick analysis of results. *For hedge funds, analysis will continue to run on in-house/proprietary tools due to the more complex requirements.

In the next

3–5 years ...

The increased use of self-service platforms and STP will impact the role. The job holder could upskill to trade illiquid assets.

Skills Differentiators:

▸ **Advanced Digital Acumen/Literacy:** The job holder will possess robust knowledge of various trading systems and platforms, and stay up-to-date on new tools.

▸ **Lateral Thinking:** The job holder will demonstrate the ability to think outside of the box when confronted with a piece of news or research findings that were not previously available.

▸ **Customer Mindset:** The job holder will possess strong skills to understand client needs and recommend appropriate trading options and strategies given individual preferences.

▸ **Data Storytelling:** The job holder will display the ability to disseminate proposed strategies in a clear and concise manner to a variety of audiences (i.e., clients and brokers).

▸ **Analytics and Computational Modelling:** The job holder must be able to analyse the past and predict future price trends, patterns and other indicators to help interpret the market and identify trading opportunities.

RPA | Advanced Analytics | AI

Transaction Processing Officer

Subsector: Private Banking

Job Family: Transaction Operations

Impact Level

Today, this role is responsible for transaction processing duties related to fund transfer and clearance, including the verification and compliance of transactions.

High Impact

Consolidated Activities

	Today	Future
Transaction Processing	Execution is rule based. Digital banking platforms will be able to handle transactions, RPA can serve to automate the process and review for errors.	APIs will help to work towards seamless connectivity between systems for increased ease of transferring information. In the longer term, blockchain could potentially further disrupt this role.
Statement Preparation and Issuance	Execution is repetitive and document intensive. Digital channels will allow for real-time tracking of customer account activity.	Automated systems will be able to monitor customer profiles and customise statements according to customer needs.
Reconciliation reporting and monitoring	Execution has low decisional latitude. Technology can be leveraged to automate this task.	APIs can facilitate direct communication between the transaction processing and finance systems, while cross functional APIs will help with sharing information in real-time. Blockchain could also eliminate inefficiencies arising from reconciliation timeframes.

In the next

3–5 years ...

This role will require less people to handle the current set of activities, due to data analytics and automation. Those that remain in this function will provide oversights of new systems and help to continuously improve and streamline processes. When exceptions arise this role will need to be prepared to handle these cases as well.

Skills Differentiators:

▸ **Automation Management:** The job holder will possess technical capabilities to oversee the various automated processes and look for potential improvements to ensure the tools/machines are delivering the expected outputs.

▸ **Technology Troubleshooting:** Job holder will need to display the ability to resolve basic technical issues and provide guidance on what needs to be escalated to the relevant business units to ensure minimal operational disruption.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in developing key operation requirements and addressing business needs.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Risk Awareness:** While new systems and tools will help to achieve new levels of efficiency, the job holder will need to be aware of the associated risks, to ensure that appropriate actions are taken to avoid unnecessary risks.

RPA | Advanced Analytics | AI

Assistant Relationship Manager

Subsector: Private Banking

Job Family: Client Servicing

Impact Level

Today, this role is responsible for supporting the Private Banker to assist in client servicing and also growing the Private Banker portfolio.

Medium Impact

Consolidated Activities

	Today	Future
Account Management or Maintenance	Execution involves handling of account opening requests, account closures, updates, and other account servicing related requests and verifying transactions and authorisations.	Digital account opening services with verification and authentication that happens in real-time can improve the overall task process. In addition, mobile/smart phone account access allows clients to update their account automatically.
Client Administration	Execution involves tracking and following-up on outstanding documentation, client outstanding fee payments, verifying transactions, etc.	Self-service solutions will be implemented for clients to take actions on their own, without the need to liaise with Private Bankers With the availability of self-service portals, banks can further understand the clients' needs by applying analytics to evaluate clients actions and behaviours.
Ad-hoc Client Requests	Focus is on adhering to clients instructions received via written/voice communications.	

In the next

3-5 years ...

With the idea of self-service being widely accepted as an industry norm from the perspective of RMs and high-net-worth clients, two scenarios could take place, the job scope of Assistant Relationship Manager (ARM) will take on a larger advisory role, or the role of the traditional ARM will gradually not be necessary.

Skills Differentiators: (for potential convergence with Junior Relationship Managers):

▸ **Analytics and Computational Modelling:** The job holder will display the ability to perform financial and statistical analysis to evaluate market trends and the potential impact on client's portfolio will be important.

▸ **Customer Mindset:** The job holder possess strong skill to understand clients needs and resolve complex customercentric problems is vital.

▸ **Product Awareness:** The job holder will possess robust understanding of various financial and investment products of different asset classes available in the bank.

▸ **Advisory:** The job holder will apply the right advisory strategy to provide simple investment advice to clients.

▸ **Advanced Digital Acumen/Literacy:** The job holder will upskill to operate using new digital tools to supplement their day-to-day operations, and provide assistance or guidance to clients in navigating through self-service portal.

RPA | Advanced Analytics | AI

Business Manager

Subsector: Private Banking	
Job Family: Business Management	

Impact Level

Today, this role is responsible for managing all aspects of the business – including strategy and execution, growth and change initiatives, as well as cost and sales management.

Medium Impact

Consolidated Activities

	Today	Future
Organisation-wide Initiative Roll-out	Execution requires close collaboration with stakeholders across the business to design and implement initiatives – e.g., development of new products, deal pipelines, and sales improvement.	Close collaboration and partnership remain critical. However, AI-tools/digital platforms that enable real-time status update and risk analysis/response planning will be able to support the tedious implementation process.
Cost Management	Cost-transparency solutions are being leveraged to make costs more transparent to the business.	In addition to cost transparency solutions, banks will increasingly use predictive analytics to be cost efficient.
Business Resilience	Banks are gradually adopting cloud-based solutions – mainly to replace spreadsheets, emails and phone calls which are typically used to coordinate activities during critical periods, and real-time tracking of status during disruption.	Cloud-based solutions will continue to be leveraged. Advanced Analytics and predictive analytics can be used to detect early warning of issues that could severely affect the business – ranging from geo-political events to internal disruptions.
Management Reporting	Execution can be repetitive and time consuming – as it requires the job holder to conduct analysis, translate the data/results into narratives and recommendations.	With a major influx of data that needs to be evaluated, banks will gradually leverage AI and natural language generation (NLG) technology to automate routine analysis and generate data-rich insights.

In the next

3-5 years ...

This role will leverage AI-powered tools to replace the mundane tasks, allowing them to play a more strategic role and have more time to spend on higher value activities – e.g., extracting business-relevant insights from data to support robust recommendations and decision making.

Skills Differentiators:

▸ **Project Management:** The job holder will display the ability to apply the appropriate principles for planning and managing a wide variety of projects to ensure that the objectives are achieved.

▸ **Stakeholder Engagement:** The job holder will need to be able to coordinate and maintain productive working relationships with stakeholders, in order to deliver roll-out out of initiatives and projects.

▸ **Change Management:** The job holder needs to possess robust knowledge and skill to assist the bank in making successful transitions.

▸ **Lateral Thinking:** The job holder will demonstrate the ability to connect the dots using all the data available, enabling the job holder to see the big picture of how different initiatives are brought together to improve the operations or grow the business.

▸ **Risk Awareness:** The job holder will possess in-depth knowledge of risk policies to ensure strict compliance of all initiatives and that the level of risk is communicated effectively to key stakeholders.

RPA	Advanced Analytics	AI

Credit Structuring Officer

Subsector: Private Banking

Job Family: Product Management

Impact Level

> Today, this role is responsible for structuring complex financing, and works closely with RMs, credit risk, and legal teams, to ensure credit related issues are addressed and credit solutions are tailored to the needs of clients.

Medium Impact

Consolidated Activities

	Today	Future
Credit Requests Analysis	Execution involves analysis and structuring of credit requests which are typically high volume and time consuming.	AI and advanced analytical tools will be leveraged to accelerate the processing of credit requests.
Credit Product Advisory/Sales Support	With strong understanding of various product features, job holders will work with RMs to deliver creative and innovative credit solutions to satisfy clients' requirements and promote different credit products. Execution of tasks can be enabled by technology.	Robo-advisors will be able to facilitate the product sales and advisory process – e.g., overview of credit products, high level recommendations based on client's need requirements. As a follow up, job holder will continue to partner/collaborate with RMs to follow-up and offer personalised credit solutions based on customised needs.
Credit Product Development	Execution requires job holder to provide technical input into development, scoping and implementation of new credit products.	With the availability of robo-advisors, more data will be collected and banks can further understand their clients' needs by applying Advanced Analytics to evaluate the actions and behaviours, and subsequently, refining credit products to ensure attractiveness.

In the next

3-5 years ...

This role will leverage AI-powered and Advanced Analytics tools to accelerate the credit structuring process. Nonetheless, close partnership with different stakeholders will remain important throughout the process.

Skills Differentiators:

▸ **Lateral Thinking:** The job holder must possess sound understanding of market, product, and regulatory policies etc., the ability to 'connect-the-dots' and stay focused on big picture will be critical.

▸ **Advanced Digital Acumen/Literacy:** As banks gradually move away from Excel-based tools, the job holders will need to upskill to be proficient in using advanced statistical analysis software or other tools.

▸ **Data Interpretation and Analysis:** The skills to analyse and interpret quantitative and qualitative data and subsequently translate insights into recommendation, will be essential.

▸ **Stakeholder Engagement:** The job holder will maintain productive working relationships with internal and external stakeholders to facilitate the growth of the bank's credit business.

▸ **Risk Awareness:** It is crucial for the job holder to support the growth of the credit business across the bank to enable achievements of credit income generation in a risk conscious manner.

RPA   Advanced Analytics   AI

Economist

Subsector: Private Banking

Job Family: Research

Impact Level

Today, this role is responsible for providing insightful advice based on the application of economic theory and knowledge, particularly in the behavior of the aggregate economy covering various phenomena.

Medium Impact

Consolidated Activities

	Today	Future
Secondary Research (e.g., economic reports, monetary policy shifts)	Execution is rule based and document intensive by nature, and traditionally, time consuming to execute.	APIs can enable faster and in some cases, real-time access to information. AI (NLP) is able to decode large volumes of information, reducing the effort associated with manual research activities.
Economic Modelling and Analysis	Execution requires technical expertise/ knowledge, and can be enabled by technology.	Machine learning is seen to develop complex economic models – such as predictions about economic growth. Automated quantitative capabilities will help to answer questions more rapidly.
Economic Outlook Insights and Report Generation	Execution requires deep technical knowledge. It is advisory in nature but there are aspects that can undergo straight-through processing.	AI (NLG) has the potential to generate reports and commentary, but there are limitations as these models are less likely to account for irrational and out of the 'norm' behaviours and trends.

In the next

3–5 years …

Given that data mining and manual research tasks are being completed more rapidly then before, this role will be able to focus on incorporating subjective data and irrational phenomenon to increase the robustness of the data-driven models.

Skills Differentiators:

▸ **Data Storytelling:** The job holder will be required to present results in a manner which is persuasive as well as easy to understand to ensure that arguments/analysis outcomes are readily accepted.

▸ **Advisory:** Even with the inclusion of data analytics and automation, it will still be critical for the job holder to provide economic advice and recommendations.

▸ **Programming and Coding:** Coding proficiency will allow the job holder to run or evaluate complex mathematical models and simulations. The job holder will be required to continue learning new programming languages.

▸ **Analytics and Computational Modelling:** Solid quantitative modeling skills are the foundation skills required for this role, and they will continue to be important despite advancement in automation. Instead of utilising Excel, this role may instead leverage advanced statistical tools to build/maintain econometrics models. Hence, **advanced digital acumen/literacy** may be important in the future.

RPA | Advanced Analytics | AI

Portfolio Manager/Portfolio Advisor

Subsector: Private Banking

Job Family: Portfolio Management

Impact Level

Today, this role is responsible for portfolio construction, asset allocation and managing client portfolios according to client investment goals and parameters.

Medium Impact

Consolidated Activities

	Today	Future
Client Portfolio Management	Execution can be tedious due to the high volume e.g., usage of spreadsheets in portfolio tracking. Some banks are already offering real-time aggregated investment portfolio reporting for their clients.	Apart for accessing portfolio analysis or reports using smartphones and tablets, implementation of advanced digital tools will also enable clients to share their financial activities with financial advisors/private banker in real time, facilitating the dynamic portfolio management.
Portfolio Construction	Execution requires expertise/knowledge. This role partners with Financial Planners to tailor portfolio management solutions/strategies and distribute targeted presentations to clients.	Algorithmic automation will be used to streamline the decision-making process by filtering the vast investment ideas against clients' investment parameters (not limited to risk tolerance and time horizon).
Client Materials Development	RPA solutions can enable the extraction of data from multiple sources and assemble presentation materials, and sophisticated visualisation tools that can show complex relationships between news in the context of a portfolio are available to enable the role to make better informed decisions.	While there are opportunities to further automate the material development process, human intervention will remain critical as the information needs to be personalised and show how the suggestions will move the clients closer to achieving their goals.

In the next

3–5 years ...

While algorithms can help to manage a portfolio, human intervention will remain critical for this role. Data analytics and digital tools will be leveraged to deliver robust and timely recommendations, and effectively illustrate the value that can be delivered to clients.

Skills Differentiators:

▸ **Advanced Digital Acumen/Literacy:** The job holder will continuously upskill to be proficient in using sophisticated software/programs.

▸ **Data Interpretation and Analysis:** The skills to analyse and interpret quantitative and qualitative data and subsequently translate it into insights and investment recommendations will remain essential.

▸ **Lateral Thinking:** The job holder will demonstrate the ability to connect the dots using all the data available, enabling the job holder to see the big picture of how a new piece of information can affect the performance of the portfolio.

▸ **Stakeholder Engagement:** The job holder will maintain productive working relationships with internal and external stakeholders to deliver effective portfolio management strategies.

▸ **Customer Mindset:** This is vital for the job holder to tailor solutions that will help their clients to move closer to achieving their investment goals in a given timeframe.

RPA | Advanced Analytics | AI

Research Analyst

Subsector: Private Banking

Job Family: Research

Impact Level

Today, the job holder in this role conducts fundamental analysis on companies or asset classes to provide institutional clients, retail clients and in-house Traders with in-depth research and analysis.

Medium Impact

Consolidated Activities

	Today	Future
Primary Research	Execution requires engaging with personal networks/relationships to gather information that is not publicly available.	In the longer-run, advanced AI technologies such as facial recognition may help to support the process of and generation of differentiated/alternative interpretations of information.
Secondary Research	Execution is repetitive and can be enabled by technology.	Advanced Analytics engines can mine unstructured data from non-traditional sources and combine the results with structured data (e.g., earnings data, company reports).
Financial Modelling and Analysis	Execution requires technical expertise/ knowledge and can be enabled by technology. Machine learning is seen to develop complex financial models.	Automated quantitative capabilities will answer questions within minutes, where they once would have taken days to research.
Business Development and Report Generation	Execution is advisory in nature, but there are aspects that can undergo straight-through processing. RPA is used for the generation of research reports in standardised formats.	Communication via digital platforms enables targeted push-research. AI (natural language generation) also has the potential to generate reports and commentary.

In the next

3–5 years …

As the repetitive data gathering tasks are replaced, this role will evolve to become more advisory. As such, the job holder will be able to focus on various industries or select a specialised area to provide differentiated and value-added ideas.

Skills Differentiators:

- **Advisory:** The ability to deliver high quality and value-added advice, based on an objective interpretation of clients' contexts as well as their specific needs will be critical.
- **Data Storytelling:** The job holder will need to be able to disseminate key messages/findings from research/ analysis in a compelling, impactful, and easy-to-understand manner to audiences with varying levels of interest.
- **Lateral Thinking:** The job holder will be required to handle larger data sets and will therefore need to be able to 'connect-the-dots' whilst staying focused on the big picture.
- **Advanced Digital Acumen/Literacy:** As banks gradually move away from excel-based tools, job holders will need to become proficient in using advanced statistical analysis software or other tools.
- **Data Interpretation and Analysis:** The analysis and interpretation of both quantitative and qualitative data will be a critical.

RPA | Advanced Analytics | AI

Wealth Planner/Advisor

Subsector: Private Banking

Job Family: Wealth Planning

Impact Level

Today, this role is responsible for developing and implementing wealth plans for private clients to help them meet their personal objectives.

Medium Impact

Consolidated Activities

	Today	Future
Credit Requests Analysis	Banks are using financial planning software to perform tax analysis, estate planning and modelling scenarios for alternative plans.	In using AI tools to support the analysis of data to determine client's financial status, anticipate expenditures and forecast income patterns, it will enable the role to provide recommendations in a proactive manner.
Financial Advice	Execution involves discussion on investment performance, economic, and market trends as well as customised planning strategies based on client's investment objectives, risk tolerance and asset allocation. The process is largely human-centered. Banks are seeing the opportunity to leverage technology to facilitate the process.	A hybrid model (human advice and robo-advisors) will be used to enhance service delivery to clients. Incorporated with filtering tools/probing questions to learn about clients decision factors, online portals will be able to offer general information about the products or simple advice that will best fit the client's demographics, goals, and needs.

In the next

3–5 years ...

While this role will be augmented with the implementation of advanced tools, they are expected to be hands-on in the design process, assist in on-going review to ensure appropriateness, and understand the assumptions and logic embedded in the algorithms.

Skills Differentiators:

▸ **Automation Management:** This is critical for the job holder to oversee the automated systems, ensuring that logic rooted in the algorithms is accurate, and focus on opportunities for continuous improvement.

▸ **Customer Mindset:** Being able to understand clients needs, objectives, and to resolve complex customer-centric problems will continue to be vital.

▸ **Advanced Digital Acumen/Literacy:** The job holder will continuously upskill to be proficient in using advanced statistical analysis software and other digital tools.

▸ **Data Interpretation and Analysis:** The job holder will need skills to analyse and interpret quantitative and qualitative data to subsequently translate that into insights and recommendations.

▸ **Influencing and Negotiation:** The job holder will demonstrate the ability to disseminate and if necessary, defend the validity of their ideas; ultimately, aligning with the client's way of thinking.

RPA	Advanced Analytics	AI

Private Banker/Wealth Manager

Subsector: Private Banking

Job Family: Relationship Management

Impact Level

Today, this role is responsible for sourcing new clients and developing a deep understanding of client segments, including client dynamics and challenges.

Low Impact

Consolidated Activities

	Today	Future
New Business and Client Acquisition	Execution is relationship-based. In order to build a sustainable client portfolio, bankers will work towards gaining client's trust and look out for their clients' interests.	A hybrid model (human advice and robo-advisors) can be used to enhance service delivery to clients. Robo-advisors can help to expand the client base, but private banking is a "human business" − focusing on building relationships and gaining trust from clients.
Client Relationship Management	Execution requires personal networks and involves frequent face-to-face meetings with clients to define investment goals.	Robo-advisors will be able to provide simple advice to clients − i.e., sharing of latest market insights, overview of investment products, leaving the private bankers to follow-up and offer more sophisticated advice based on client's customised needs.
Portfolio Management and Investment Advice	Execution involves working closely with other stakeholders (i.e., Financial Planners) within the firm to create individualised investment strategies for clients.	This will be enabled by technology, with predictive analytics assisting this role to conduct trend analysis on financial products and market information, providing clients with targeted product recommendations.

In the next

3−5 years …

With the rise of inter-generational wealth shifts, this role will be expected to adopt a digital mindset and perform in a "high touch, high tech" environment.

Skills Differentiators:

▸ **Influencing and Negotiating:** This skill is essential for the job holder to disseminate and if necessary, defend the validity of their ideas, ultimately, helping to align with the client's way of thinking.

▸ **Advanced Digital Acumen/Literacy:** The job holder will upskill to operate using new digital tools to supplement their day-to-day operations.

▸ **Product Awareness:** The job holder will possess in-depth financial product knowledge to be able to explain how different investment products are structured and how are they applicable to their client's needs.

▸ **Advisory:** The job holder will need to apply the right advisory strategy to provide investment advice to their clients.

▸ **Customer Mindset:** The job holder will need to use Advanced Analytics to enhance their client understanding and develop insights and recommendations that are customised to their needs.

Client Service Officer

Impact Level

Today, this role is responsible for all operational aspects of client service, from onboarding to managing transitions, as well as handling enquires on fund performance and report dissemination.

High Impact

Consolidated Activities

	Today	Future
KYC Check	Execution is laborious as the existing onboarding systems enforce one-size-fits-all checklists for KYC information collection.	AI powered systems would incorporate a high number of attributes into screening processes, enabling a holistic view and providing a more reliable outcome. In addition, API and cloud-based solutions can enable automated data cleansing, remediation and monitoring to improve onboarding time.
Client Servicing	Execution of task can be supported by technology. Business intelligence tools are used to provide real-time dashboards of client portfolios, helping this role navigate data to address first-level questions in a targeted manner, enhancing the client dialogue.	Leveraging self-service portals and chatbots, clients are able to obtain answers to basic inquiries without human intervention. However, due to the highly bespoke nature of Asset Management clients, the use of Chatbots have not been widely tested today, in comparison to other sectors.
Transition Management	Execution of task requires deep technical knowledge and human judgment.	Technology is not likely to impact the execution of this task as deep technical knowledge and human judgment remain critical.

In the next

3–5 years ...

Digital platforms will enable clients to view portfolios and check status' in real-time, allowing a "self-service" feature to enhance the client experience. They will focus on more strategic/complicated tasks – i.e., transition management.

Skills Differentiators:

▸ **Stakeholder Engagement** The job holder will be highly skilled to liaise with internal and external stakeholders, effectively eliciting stakeholders' views and developing consensus.

▸ **Advanced Digital Acumen/Literacy:** Apart from upskilling to be proficient in using advanced digital tools, the job holder will need to gain strong understanding on machine/deep learning powered solutions and how technology solutions and its features can be further leveraged/enhanced to support the business.

▸ **Customer Mindset:** The job holder will need to be closer to the customer to better understand their needs, concerns, and put together solutions to resolve their queries.

▸ **Risk Awareness:** It is important for the job holder to posses strong risk acumen to understand AML typologies and high risk client types.

▸ **Technology Troubleshooting:** The job holder will need to display the ability to assist clients in resolving basic technical issues on self-service platforms.

RPA | Advanced Analytics | AI

Fund Accountant

Subsector: Asset Management

Job Family: Fund Accounting

Impact Level

Today, this role is responsible for the preparation and reporting of fund financial statements, and monitoring cash positions as well as overall liquidity of the fund.

High Impact

Consolidated Activities

	Today	Future
Financial Statements Preparation	Execution is manual. it involves the use of excel workbooks and can be prone to errors. Automation tools are adopted to streamline the statement production process and achieve cost efficiency.	Third-party solutions will continue to be leveraged to reduce risk of human error and manipulation, allowing the role to focus on value-added tasks e.g., validation, evaluation of new disclosure requirements, and vendor management etc. RPA supports automated distribution of financial statements and tax reports to external auditors.
Net Asset Value (NAV) Calculation	Execution is manual and error-prone. Asset management firms have moved away from the use of spreadsheet based solutions and have automated the NAV validation processes.	Blockchain solutions could offer significant efficiency improvements by performing daily NAV calculation processes in a few minutes.
Cash Positions Monitoring and Fund Liquidity	Execution requires validation and reconciliation, which can be supported by technology to reduce human error. RPA tools can enable cash and asset reconciliations against the records of the custodian.	API can enable the direct extraction of data (e.g., corporate actions, stock prices) from one system to another.

In the next

3–5 years ...

Many tasks performed by this role will continue to be outsourced to fund accounting software. Moving forward, this role will provide oversight, exception management and coordinate with third-party service providers.

Skills Differentiators:

▸ **Project Management:** This skill is essential for the job holder to deliver project objectives, key requirements and gain support from key stakeholders to implement actions that drive project success.

▸ **Advanced Digital Acumen/Literacy:** The job holder will possess strong understanding on how solutions can be further leveraged to support the business, and learn the technical features to better liaise with vendors

▸ **Complex Problem Solving:** The job holder will need to examine sophisticated cases that are escalated and leverage available resources to develop and execution solutions.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units and senior management in developing key requirements and addressing business needs.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change; ultimately improving the adoption of AI/digital solutions to support their day-to-day operations.

RPA | Advanced Analytics | AI

Investment Performance Analyst

Subsector: Asset Management

Job Family: Performance Management

Impact Level

Today, this role is responsible for accurate calculation and reporting of portfolio returns, as well as ensuring performance analytics are incorporated and communicated into client presentations as appropriate.

High Impact

Consolidated Activities

	Today	Future
Portfolio Return Calculation	Execution is repetitive and typically rule based. Poor data quality may slow down performance calculations. Hence, asset management firms are driving initiatives to improve data and reduce onerous manual effort.	RPA technology will be leveraged to enable the extraction of data from multiple sources to reduce human errors, validate fund performance or portfolio data, and enable automated report generation and dissemination.
Performance Analytics	As volume increases, completion of attribution analysis can be time consuming.	Technology enabled with Advanced Analytics can enable the deconstruction of excess return to attribute it to the various investment decisions.
Stakeholder Reporting	Execution can be supported by digital platforms/technologies, with the increasing use of visual materials.	The rise of dashboards or digital apps could potentially deliver real-time reporting. Chatbots can also be used to interact with stakeholders and answer simple inquiries with regards to fund performance.
Factsheet Creation	Execution is fairly repetitive and mundane. Many asset management firms have adopted factsheet automation solutions.	Automated solutions will continue to be leveraged for factsheet creation, lightening up the workload and minimising human errors.

In the next

3–5 years ...

The experience and technical knowledge of this role will remain critical to steer/identify causes of excess returns. This role is also expected to provide technical support and guidance for new products and initiatives.

Skills Differentiators:

▸ **Automation Management:** The job holder will upskill to oversee automated systems, ensuring that operations requirements are met, and focusing on the continuous improvement of automated solutions.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes for automation.

▸ **Complex Problem Solving:** The job holder will need to examine complex cases that are escalated and leverage available resources to develop and execute solutions.

▸ **Data Storytelling:** The job holder will display the ability to disseminate key messages/findings in a clear and compelling manner to audiences with varying levels of subject matter understanding.

▸ **Influencing and Negotiation:** The job holder will possess the ability to display confidence in presenting and justifying the rationale for recommendations or solutions, and gain buy-in from relevant stakeholders.

RPA | Advanced Analytics | AI

Portfolio Assistant/Front Office Support

Subsector: Asset Management

Job Family: Portfolio Management

Impact Level

Today, this role is responsible for providing fund management support, such as execution of investment strategies, portfolio construction based on client guidelines and cash management of team portfolios.

High Impact

Consolidated Activities

	Today	Future
Cash Management	Execution can be tedious and time consuming. Leveraging the technology available today, dashboards can help to display real-time cash positions, receivables, expected timeframe for receivables and payables to ensure timely decision making to achieve optimal efficiency.	Algorithms based on predetermined parameters are able to alert the role when there are excess cash balances.
Trade Order Monitoring	Execution is rule-based and can be repetitive. Business intelligence tools provide real-time dashboards enabling timely monitoring of trade orders, and ensure corrective action and updates are made in a timely manner.	APIs enable information transfer to and from enterprise systems e.g., trade order management systems to business intelligence programs. For reporting, RPA enables automated status reporting to internal stakeholders, Portfolio Managers, investment team and trading desk personnel, reducing the need for the role to be a liaison across all teams.
Portfolio Construction	N/A	Leverage predictive analytics (and analytics solutions) in constructing enhanced investment decisions. Alternative data sources will also further enhance analysis capabilities.

In the next

3–5 years ...

As technology is increasingly adopted, the job scope of the role is expected to shift. Advisory, human judgment and deep technical expertise will be the focus of this role as it evolves to become a Junior Fund Manager.

Skills Differentiators:

▸ **Advanced Digital Acumen:** The job holder will gain strong understanding on machine/deep learning powered solutions and how technology solutions and its features can be further leveraged/enhanced to support the business.

▸ **Influencing and Negotiation:** The job holder will have the ability to display confidence in presenting and justifying the rationale for the recommendations or solutions, and gain buy-in from relevant stakeholders.

▸ **Lateral Thinking:** The job holder will have the ability to look at the 'big picture' and find the linkage between various information, and ultimately using these information to evaluate investment recommendations/decisions.

▸ **Data Interpretation and Analysis:** The job holder will display the ability to interpret data and extract key insights for decisions, recommendations or actions.

▸ **Customer Mindset:** This enables the job holder to tailor recommendations that best meet the clients' needs.

RPA | Advanced Analytics | AI

Post Trade Specialist

Subsector: Asset Management

Job Family: Trade Management

Impact Level

Today, this role is responsible for clearing, settlements, margin and collateral management as well as follow-up with regulatory obligations and corporate actions.

High Impact

Consolidated Activities

	Today	Future
Trade Clearing and Settlement	Rule-based, high volume, document intensive activity which can be enabled by technology. RPA and workflow automation tools are leveraged to automatically update accounts and monitor adherence to payment agreements.	Blockchain could transform transaction documentation, resulting in the redundancy of reconciliation activities, and a reduction in settlement risk.
Collateral and Margin Management	Execution is tedious and involves manual collation of data from multiple sources (e.g., collateral management). Banks have started to leverage RPA tools to handle margin management.	RPA solutions combining machine learning skills will continue to be used in addressing margin calculation, margin calls and valuation and automatically populate terms into margin call management systems. Despite automation, human intervention would be required for complex exception cases.

In the next

3–5 years ...

This role will switch from delivering routine tasks, to exception management, driving initiatives that focus on automating trade support, and facilitating decisions in reducing counterparty credit risk. Human judgment and the ability to design creative solutions will be required.

Skills Differentiators:

▸ **Automation Management:** The job holder will upskill to oversee automated systems ensuring that operations requirements are met and focusing on the continuous improvement of machines.

▸ **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure the job holder is familiar with new electronic platforms, and capable of using advanced AI-tools.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execute solutions.

▸ **Risk Awareness:** Deep understanding of risk and control remain crucial. By removing manual processes the job holder can refocus to support the management of counterparty credit risk.

RPA | Advanced Analytics | AI

Product Manager

Subsector: Asset Management

Job Family: Product Administration

Impact Level

Today, this role is responsible for product administration, conducting analysis and tracking product performance to inform the development and enhancement of new products.

High Impact

Consolidated Activities

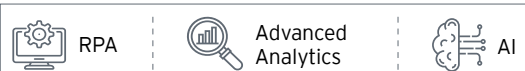|	Today	Future
Product Due Diligence and Registration	Execution is fairly repetitive and document intensive. RPA is used to automate new product registration and documentation based on a set of rule-based conditions.	AI tools can help to validate that product requirements are compliant with market and company regulations, and are able to raise exceptions.
Consumer and Competitive Market Research	Execution is time consuming as they are high volume, but can be supported by technology when clear strategies are established.	Advanced Analytics provide real-time insights into consumer behavior and preferences, enabling targeted product development for specific client channels. Availability of alternative data sources will also enhances analyses.
Product Performance Tracking and Reporting	Asset management firms have started to leverage internal/external solutions to track and monitor product performance post-launch.	Digital technology and Advanced Analytics enable data navigation and real-time product health and performance monitoring/analysis. RPA can execute rule-based instructions to collate data from various applications for report assembly.

In the next

3-5 years ...

Many of the job holders tasks could be outsourced/offshored. Job holder will be required to manage exceptions, provide oversight, and coordinate with third-party service provider.

Skills Differentiators:

▸ **Project Management:** The job holder will possess skills to deliver project objectives, key requirements and gain support from key stakeholders to implement actions that drive project success.

▸ **Advanced Digital Acumen/Literacy:** The job holder will gain strong understanding on how solutions can be further leveraged to support the business, and learn the technical features to better liaise with vendors.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units and senior management in developing key requirements and addressing business needs.

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change; ultimately improving the adoption of AI/digital solutions to support their day-to-day operations.

RPA | Advanced Analytics | AI

Trade Support Specialist

Subsector: Asset Management

Job Family: Trade Management

Impact Level

Today, this role sits in the Middle Office, overseeing trade support and control of trading business. It is responsible for the processing of trades covering the validation, enrichment, and affirmation of trades, and ensuring that all controls are in place.

High Impact

Consolidated Activities

	Today	Future
Trade Booking	Job holders assist front office in ad-hoc booking requests and update middle office systems. Some banks are using RPA and workflow automation tools.	Execution could either be done effortlessly by Traders, or automated entirely.
Trade Enrichment	Execution is document-intensive. Some banks have already automated trade enrichment related tasks.	APIs can enable access to new data sources of additional trade-related information across relevant systems.
Trade Affirmation/ Confirmation	Execution involves issuance of trade confirmation, report trades to regulatory authorities, and issue settlement instructions. Often, STP is applied. For paper-based, technology OCR can enable a similar change.	RPA will continue to be used, enabling automated verification of trade details with counterparties for transactions involving electronic confirmation. Blockchain can also help to streamline the order-to-settlement process and significantly reduce the amount of work.
Pre- and Post-Trade Analytics	Advanced Analytics are applied to model capital, balance sheet and tax impacts pre-trade to better understand the actual trades executed, and gain insights into areas for profit generation.	Taken to the next level, analysis could be performed in real time – alerting the Trader who has not appeared to act appropriately in response to economic or sentiment analysis.
Governance and Control	Execution involves ensuring trades are booked timely on the trade date and anomalous trading activities are escalated and investigated.	The job holder will continue to oversee the control of trading and propose enhancements to improve processes.

In the next

3-5 years ...

Most of the tasks (except trading control) performed by this role will be automated. As exotic trades remain complicated for automation, this role will continue to contribute in complex transactions – e.g., structure and documentation of complex trades.

Skills Differentiators:

- **Automation Management:** As automation takes place, the job holder will upskill to oversee systems, ensuring that operations requirements are met before seeking continuous improvement opportunities.
- **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure the job holders are familiar with the new electronic platforms, and capable of using advanced AI-tools.
- **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of their process inefficiencies and identify the right processes for automation.
- **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.
- **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execute solutions.

RPA | Advanced Analytics | AI

Trader (Buy-Side)

Subsector: Asset Management

Job Family: Sales and Trading

Impact Level

Today, this role is responsible for executing buy and sell orders across all asset classes (equities, fixed income, money market, FX, commodities) on behalf on an investor.

High Impact

Consolidated Activities

	Today	Future
Order Execution	Automated trading and the development of algorithms are used to execute orders across different asset classes. The collaboration between human and machine is apparent throughout the trade cycle.	Human Traders and automation will continue to coexist to source liquidity and to ensure efficient execution. This role will work closely with Portfolio Managers to add value to the investment process, generate money-making ideas and reduce transaction costs.
Trading Strategy Development	Asset management firms are tapping on trading tools/software to obtain a clear view on the fragmented global information that affect the swings in different asset classes, and incorporate new trading data and analysis to optimise trading strategies.	This role will continue to leverage software and Advanced Analytics to generate new ideas for the portfolio team. It is also possible to take on more programming responsibilities to build their own custom tailored trading strategy using the templates available in software.
Partial Fill Allocation	Execution is rule-based and often repetitive. RPA helps to extract client/user data requirements (e.g., lot size allocation, long/short positions) to calculate partial fill allocations.	RPA solutions will continue to be leveraged.

In the next

3–5 years ...

Moving away from solely execution, buy-side Traders will add value to Portfolio Managers – e.g., demonstrate different trading methodologies and advise on the impact of regulations for best execution. The surge of data also requires them to distil information in the most effective way to asset managers.

Skills Differentiators:

▸ **Lateral Thinking:** The job holder will demonstrate the ability to think outside of the box when confronted with a new piece of information or research findings.

▸ **Risk Awareness:** The job holder will need to possess strong skills to understand how new regulations can affect execution and associated risks present in execution strategies.

▸ **Advisory:** The job holder will need to further develop this skill to apply the right advisory strategy to engage with the portfolio team in different situations.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages and findings from research and analysis in a compelling, impactful, and easy-to-understand manner to audiences with varying levels of interest.

▸ **Advanced Digital Acumen:** The job holder will gain a strong understanding on AI-powered solutions and how technology solutions and its features can be further leveraged/enhanced to support the business.

RPA | Advanced Analytics | AI

Transaction Processing Officer

Subsector: Asset Management

Job Family: Operations

Impact Level

Today, this role is responsible for accurate processing of transactions for the products and services provided to the client.

High Impact

Consolidated Activities

	Today	Future
Document Verification	Execution is document intensive. identity document verification technology can be used to authenticate and perform checks on different types of identity documents, including authenticity of the client's signature.	Blockchain could significantly shorten the document verification processes by providing a common shared platform that allow participating users to store, retrieve and remotely access documents.
Transaction Submissions and Processing	Execution is rule-based and repetitive. RPA has been leveraged to process transactions around the clock, achieving improved productivity.	RPA will continue to be leveraged, and AI will improve the approval rates of transactions by examining the transactions in an account to detect suspicious transactions.
Transaction Records Filling	Execution is document intensive. RPA can automate the scanning and indexing of transaction records. These records can be stored on the cloud to eliminate the need for off-site facilities and computer hard drives.	With the potential rise of blockchain, asset management firms could no longer need to spend time on documentation and filing.

In the next

3-5 years ...

Automation/advanced technology will remove a lot of laborious and repetitive tasks freeing up time of this role. In short, this role will see a potential convergence of job roles with other back office functions.

Skills Differentiators:

▸ **Automation Management:** The job holder will upskill to oversee automated systems, ensuring that operations requirements are met and focusing on the continuous improvement of machines.

▸ **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure the job holder is familiar with new electronic platforms, and capable of using advanced AI-tools.

▸ **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated and leverage available resources to develop and execution solutions.

▸ **Technology Troubleshooting:** The job holder will need to display the ability to assist clients in resolving basic technical issues on different platforms to ensure seamless transaction processing.

RPA | Advanced Analytics | AI

Transfer Agent/Registrar

Subsector: Asset Management

Job Family: Asset Servicing

Impact Level

Today, this role is responsible for maintaining records of shareholder accounts, calculating and disbursing dividends, preparing shareholder account statements, tax statements and other shareholder notices.

High Impact

Consolidated Activities

	Today	Future
Shareholder Record Keeping	Firms are looking for opportunities to streamline the record keeping system, allowing them to track the flow of shareholder financial/non-financial correspondences more effectively.	Blockchain could be able to record transactions while reducing risk. Digital technology will improve efficiency in account opening, documentation uploading and reporting.
Transaction and Dividend Processing	The process for dividend processing and information sharing can be onerous and manual. Many firms have already leveraged STP to streamline service delivery.	STP leveraging APIs and cloud technology to network data streams enables processing to be automated, assisting in identifying exceptions.
Account Services and Inquiry Resolution	Execution often involves the intervention of the call centre to be assisted by the respective agents. Asset servicing firms are gradually using solutions that enable real-time access to portals − allowing shareholders to view their account details and make transactions around the clock.	Chatbots are able to provide first-level answers to shareholder queries and requests for information such as account statements, account balances and transaction confirmations.
Process Subscriptions and Redemptions	RPA enables information to be extracted and validated from other enterprise systems and databases to process subscriptions or redemptions.	Blockchain could be able to process fund subscriptions and redemptions, without the intervention of an intermediary.

In the next

3−5 years ...

The role could be threatened with the rise of Blockchain (and the fall of legacy systems). The services offered must be reinvented to meet the new regulatory standards. Data analysis capacity must also be improved to provide Asset Managers with information on fund distribution/investor profiles.

Skills Differentiators:

▸ **Systems Thinking:** The job holder will possess strong understanding of how systems work over time and within the context of larger systems, ensuring successful implementation/integration of technology solutions.

▸ **Process Excellence:** With good understanding of the operations, the job holder can help to highlight the root cause of their process inefficiencies and identify the right processes that require automation.

▸ **Project Management:** This skill is vital for the job holder to implement improvements and new solutions in a timely manner, ensuring successful roll-outs.

▸ **Advanced Digital Acumen/Literacy:** The job holder will need to be upskilled to further enhance the solutions in order to better support the needs of asset management firms.

▸ **Data Storytelling:** The job holder will display the ability to disseminate key messages/findings in a clear and compelling manner to audiences with varying levels of subject matter understanding.

RPA   Advanced Analytics   AI

Economist

Subsector: Asset Management

Job Family: Research

Impact Level

Today, this role is responsible for providing insightful advice based on the application of economic theory and knowledge particularly in the behaviour of the aggregate economy covering various phenomena.

Medium Impact

Consolidated Activities

	Today	Future
Secondary Research (e.g., economic reports, monetary policy shifts)	The nature of the task is rule based and document intensive. Traditionally, execution is time consuming.	APIs enable faster and in some cases, real-time access to information. AI (NLP) is able to decode voluminous sources of information, reducing the effort associated with manual research activities.
Economic Modelling and Analysis	Technical expertise/knowledge are required to conduct economic and sectoral analysis as well as forecast.	Applying machine learning in the development of complex economic models – e.g., economic growth prediction. Automated quantitative capabilities will help to answer questions more quickly that were previously very time consuming.
Economic Outlook Insights and Report Generation	Execution requires deep technical knowledge, and is advisory in nature – i.e., present economics views to clients, but it also has aspects that can undergo STP.	AI (NLG) has the potential to generate reports and commentary but there are limitations as these models are less likely to account for irrational and out of the 'norm' behaviours and trends.

In the next

3-5 years ...

As data mining and manual research tasks are being completed faster than before, this role would focus on incorporating subjective data to boost the robustness of data-driven models.

Skills Differentiators:

▶ **Data Storytelling:** The job holder will possess the skill to present results in an easily understood and persuasive manner to ensure that arguments/analysis outcomes are readily accepted.

▶ **Advisory:** Despite data analytics and automation, the job holder will need to apply the right advisory strategy to provide economic advice and recommendations.

▶ **Programming and Coding:** Coding proficiency allows the job holder to run/evaluate complex mathematical models and simulations. They are required to keep up with the new programming languages in the future.

▶ **Analytics and Computational Modelling:** Displaying solid quantitative/modeling skills is foundational for this role, and continue to be important despite advancements in automation. However, instead of utilising Excel, the job holder may leverage advanced statistical tools to build/maintain econometrics models. Hence, **advanced digital acumen/literacy** may be important in the future.

RPA | Advanced Analytics | AI

Portfolio Manager/Advisor

Subsector: Asset Management

Job Family: Investment Management

Impact Level

Today, this role is responsible for portfolio construction, asset allocation and managing client portfolios according to client investment goals and parameters.

Medium Impact

Consolidated Activities

	Today	Future
Client Management	Execution requires strong personal network and relationship building, but can be supported by technology.	Digital applications support job holders in conducting client investment needs assessments (e.g., investment goals, time and risk appetite).
Risk Analysis and Portfolio Construction	Execution requires technical expertise and knowledge, however, technology can help to augment it. Predictive analytics are gradually being used to forecast events and trends in the future based on historical data.	Algorithmic- and analytics solutions are used to streamline the decision-making process through "filtering" investment ideas against defined parameters. Alternative data sources will also further enhance analysis capabilities.
Trades Recommendation	While AI can be used to support the execution of this task, human judgment and deep technical expertise remain critical – i.e., decision to sell or buy – it is not possible for technology to replace it entirely.	The combination of AI and human judgment will continue to play a vital part in execution. Communication with Traders to execute the trades can be enabled through RPA.
Client Materials Development	RPA can enable the extraction of data from multiple data sources and assemble presentation materials and investment proposals into standardised templates. Human intervention will remain essential in personalising the materials for client's unique needs.	RPA combined with human judgment and technical expertise remain critical to offer personalised materials to clients.

In the next

3–5 years ...

Technology will continue to be adopted to support data gathering and improve recommendations. Moving forward, the key differentiator of the role is the technical expertise/judgment that can steer the basis/direction of analysis, ultimately translating into the quality of investment decisions.

Skills Differentiators:

- **Influencing and Negotiation:** The job holder will have the ability to display confidence in presenting and justifying the rationale for the recommendations, and gain buy-in from relevant stakeholders.
- **Lateral Thinking:** The job holder will have ability to look at the 'big picture' and find the linkage between information, ultimately, using these information to evaluate investment recommendations/decisions.
- **Advanced Digital Acumen:** The job holder will gain strong understanding on AI-powered solutions and how technology solutions and its features can be further leveraged/enhanced to support the business.
- **Customer Mindset:** This enables the job holder to tailor recommendations that best meet clients' needs.
- **Risk Awareness:** In-depth knowledge in this area is vital for the job holder to understand any associated risk present in products/recommendations, and be able to judge whether an investment suits the client.

RPA | Advanced Analytics | AI

Product Developer

Subsector: Asset Management

Job Family: Product Development

Impact Level

Today, this role is responsible for identifying market trends and opportunities in order to develop new products as well as enhance existing products according to client needs and requirements.

Medium Impact

Consolidated Activities

	Today	Future
Competitive Market Research	Execution requires deep technical knowledge and a high level of judgment to formulate research strategies and research parameters to be captured by algorithms.	Advanced Analytics tools can be used to speed up the data collation process, and extract key consumer insights in a shorter timeframe.
Products Design and Enhancement	Execution requires deep technical knowledge, an innovative mindset, and a high level of judgment to design and assess interventions for over- and under-performing products.	While product design requires innovative mindset, AI and Advanced Analytics can support "what-if" analysis and scenario testing to ensure effective product design.
Internal and External Client Engagement	Execution requires human interaction, personal networks and relationships.	Digital platforms may assist in enhancing client conversations, and enabling real-time information sharing.
Product Performance Monitoring	Asset management firms have started to leverage internal/external solutions to track and monitor product performance post-launch.	Digital technology can enable real-time product monitoring. Advanced Analytics can also be applied to better understand the root causes.
Product Design Implementation	Execution involves overseeing fund launches, repositioning, maintenance and closures, or other related product design/delivery tasks required by the business.	Technical expertise and human judgment will remain critical in delivering complex projects.

In the next

3-5 years ...

The nature of this role requires deep technical expertise, knowledge and judgment, hence, data and technology will be leveraged to augment the product design/refinement decisions.

Skills Differentiators:

- **Project Management:** The job holder will need to display ability to deliver project objectives, manage working groups, and ensure key activities are implemented to drive project success.
- **Influencing and Negotiation:** The job holder will display confidence in presenting and justifying the rationale for the design recommendations, and gain buy-in from relevant stakeholders.
- **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders, effectively eliciting stakeholders' views and developing consensus.
- **Customer Mindset:** This enables the job holder to curate solutions that best meet their clients' requirements, as well as align with strategy defined by the firm.
- **Data Storytelling:** With more information gathered and analysed, the job holder will possess skills to effectively convey findings/messages to different audiences.

RPA   Advanced Analytics   AI

Research Analyst

Subsector: Asset Management

Job Family: Research

Impact Level

Today, this role responsible for conducting research and providing investment recommendations to investment teams.

Medium Impact

Consolidated Activities

	Today	Future
Primary Research	Execution requires personal networks/ relationships and involves soliciting information that is not publicly available.	In the longer-run, advanced AI technologies such as facial recognition may help support the process of and generation of differentiated/alternative interpretations.
Secondary Research	The nature of the task is rule based and document intensive. Traditionally, execution is time consuming.	Advanced Analytics engines can mine unstructured data from non-traditional sources and combine the results with structured data (e.g., earnings data, company reports). Powerful insights could also be drawn through analytics applied to IoT enabled systems.
Valuation and Analysis	Despite being enhanced by technology, technical expertise is required to inform the direction of the analyses.	Predictive analytics, machine learning algorithms and AI are able to automate analysis based on pre-set parameters more efficiently and accurately.
Investment Recommendation Compilation	Execution can be supported by RPA, enabling the extraction of data from multiple sources or databases for information assembly, on the condition that a standardised template is provided.	Despite the automation opportunity, technical expertise and human judgment remain critical to validate and tailor the content.

In the next

3–5 years ...

The efficiency in the data gathering will improve and strengthen analysis by incorporating alternative data sources. Moving forward, this role will leverage analytics coupled with human judgment, experience and foresight to steer the direction and basis of analysis.

Skills Differentiators:

▸ **Advisory:** The job holder will display the ability to deliver high quality and value added advices, based on objective interpretation of clients' contexts as well as their needs.

▸ **Data Storytelling:** The job holder will display the ability to disseminate key messages/findings in a clear and compelling manner to audiences with varying levels of subject matter understanding.

▸ **Lateral Thinking:** The job holder will be required to handle larger sets of data, hence, the ability to 'connect-the dots' and stay focused on the big picture.

▸ **Advanced Digital Acumen/Literacy:** As banks gradually move away from Excel-based tools, the job holders will be upskilled to be proficient in using advanced statistical analysis software or other tools.

▸ **Data Interpretation and Analysis:** The job holder will possess skills to analyse and interpret quantitative and qualitative data.

RPA | Advanced Analytics | AI

Alternatives Investment Partner

Subsector: Asset Management

Job Family: Investment Management

Impact Level

Today, this role is responsible for investing in alternative investments, managing the portfolio of investments and providing post-deal advisory to maximise returns.

Low Impact

Consolidated Activities

	Today	Future
New Investment Opportunities Identification	Execution requires deep technical knowledge, experience and a high level of judgment.	Human judgment and technical expertise will remain critical in executing the task.
Deal Closure Negotiation	Execution requires deep technical knowledge and a high level of judgment for bespoke and complex situations.	
Investments Management	Execution can be enabled by technology, particularly for real-time monitoring activities.	Digital technology and dashboards provide real-time status updates and performance tracking. Advanced Analytics (predictive analytics) can enable forecasting of potential events and trends that may impact company performance, supporting the decision-making process.
Post-Deal Advisory	Execution requires deep technical knowledge, experience and a high level of judgment.	Advanced Analytics (or predictive analytics) can potentially play a role in enabling "what-if" analysis to forecast potential outcomes, supporting the Alternatives Partner in providing advice to management.

In the next

3–5 years ...

Technology will have limited impact on the role – due to the high level of human judgment, deep technical knowledge, and bespoke/complex deals. There will be an increasing use of predictive analytics to support the investment decision-making process.

Skills Differentiators:

▶ **Lateral Thinking:** The job holder will have the ability to look at the 'big picture' and find the connections between various datasets, and ultimately use this information to evaluate investment opportunities.

▶ **Global Perspective:** A robust understanding of the global market/economy and the corporate landscape will remain a critical element.

▶ **Influencing and Negotiation:** The job holder will have the ability to display confidence in presenting and justifying the rationale for the solution, and gain buy-in from relevant stakeholders.

▶ **Data Interpretation and Analysis:** The job holder will display the ability to interpret data and extract key insights for decisions, recommendations or actions.

▶ **Data Storytelling:** The job holder will display the ability to disseminate key messages/findings in a clear and compelling manner to audiences with varying levels of subject matter understanding.

RPA | Advanced Analytics | AI

Distribution Manager

Subsector: Asset Management

Job Family: Distribution

Impact Level

Today, this role is responsible for acquiring and maintaining client relationships – institutions and intermediaries – while delivering the firm's service and product capabilities to clients.

Low Impact

Consolidated Activities

	Today	Future
Client Acquisition	Execution involves human interaction, long-term relationship building and may involve bespoke and complex products and services.	Predictive analytics and AI can anticipate client requirements through analytics-based selling.
Client Engagement	Execution requires human interaction, long-term relationship building and involves bespoke and complex products and services.	Digital technology augments this task by providing real-time dashboards and instant "what-if" scenario testing, enhancing client conversations. AI (NLP) and sentiment analysis enables the relationship management team to anticipate and respond to client queries in a targeted manner, enhancing the client experience.
Client Service Optimization	Execution requires handling bespoke and complex situations, requiring a high degree of human judgment.	Big data and Advanced Analytics enable targeted diagnosis of complex client service issues and complaints, identifying trends that lead to service deficiencies.

In the next

3–5 years ...

The nature of this role is highly strategic in nature. While technology can support the activities and tasks, it will not have a significant impact on the way day-to-day work is performed. With the rise of digital technologies, this role will need to be adept with multiple tools and platforms.

Skills Differentiators:

‣ **Data Storytelling:** The job holder will display the ability to disseminate key messages/findings in a clear and compelling manner to audiences with varying levels of subject matter understanding.

‣ **Data Interpretation/Analysis:** The job holder will display the ability to interpret data and extract key insights for decisions, recommendations or actions.

‣ **Influencing and Negotiation:** The job holder will have ability to display confidence in presenting and justifying the rationale for recommendations, and gain buy-in from relevant stakeholders.

‣ **Advisory:** The job holder will have the ability to apply the right advisory strategies to engage with clients in a variety of different situations.

‣ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders; effectively eliciting stakeholders' views and developing consensus.

RPA | Advanced Analytics | AI

Claims Examiner

Subsector: Insurance

Job Family: Claims Examiner

Impact Level

Today, this role is responsible for filing claims, analysing and investigating claims, facilitating settlement of claims and managing other customer relationship matters such as negotiation and complaints.

Retail: ▬▬▬ ▬▬▬ ▬▬▬ High Impact
Non-Retail: ▬▬▬ ▬▬▬ ▬▬▬ Medium Impact

Consolidated Activities

	Today	Future
Claim Filing and General Claims Enquiries	Execution is tedious as it is high volume and document intensive in nature. There is typically not much human judgment or critical thinking required to perform these tasks.	First Notice of Loss (FNOL) and basic general enquiries can be addressed via digital channels enabled by Chatbots. AI can help process simple and basic claims. This would reduce the time required to perform these tasks, freeing up the job holder to attend to more complex claims.
Data Entry and Data Validation	Execution is time consuming and tedious as the volume of data involved is usually rather large.	RPA can be implemented to eliminate the need for manual data entry and allow the role to focus on more complex tasks.
Manual Claims Assessment	Execution is time consuming and administrative in nature. This task is repetitive, high in volume and largely rule-based. However, human judgment and evaluation is still required for more complex, larger claims.	Text mining tools can be used to identify payable and non-payable items on e-forms and uploaded documents. Automated fraud detection systems will help to identify claims that need attention, and escalate complex cases for claim examiners to handle.
Payment Approval and Calculation	Execution is largely administrative and simple in nature. However, this task is usually high in volume, which can be time consuming to finish processing.	Advanced Analytics and machine learning solutions can be used to assess the validity of claims and recommend an outcome/payment amount.
Complicated Case Review	Execution requires investigation and critical thinking skills to help evaluate the urgency and the authenticity of the claim. This task requires higher order thinking and each case is usually unique.	The job holder in this role will continue to rely on complex thinking and investigation skills to carry out task. In the future, however, the role will be able to incorporate data analytics and AI to gather real-time data and facts of the incident to help judge the authenticity of the claim.

In the next

3-5 years ...

This role will evolve to assist customers with more technical services related issues as customers continue to adopt digital applications. In addition, this role can shift to include more sales related activities due to improved customer data analytics.

Skills Differentiators:

▸ **Investigation:** With AI increasingly able to take over simpler settlements process, the job holder will require strong skill in conducting investigations of questionable claims and identifying root causes of complex claims.

▸ **Data Interpretation and Analysis:** The job holder must carefully consider and interpret various pieces of information to reach a decision. This skill will also become more important when insurers shift towards a preventive model.

▸ **Advanced Digital Acumen:** Strong digital acumen is needed to understand the features of digital tools and to utilise them to achieve seamless processing.

▸ **Research:** The skill will remain important as job holders need to remain well-informed around new medical procedures and the latest prescription drugs.

▸ **Complex Problem Solving:** The job holder will need to examine complex cases that are escalated and leverage available resources to develop and execution solutions.

RPA | Advanced Analytics | AI

Contact Centre Representative

Subsector: Insurance

Job Family: Customer Service

Today, the job holder is responsible for handling enquiries, issues, and customer service related requests.

High Impact

Consolidated Activities

	Today	Future
Enquiry Resolution	Execution is repetitive and simple in nature. However, communication and stakeholder engagement skills are still required.	Advanced Analytics and AI will support digital self-service platforms, possibly incorporating Chatbots (with natural language processing capabilities) which will respond to customers' needs in the same way that representatives currently do. Contact Centre Representatives can then focus on handling more complex enquiries, or even carry out sales related activities.
Data Entry and Issue Log Tracking	Execution is administrative in nature and demands much cognitive thinking or human judgment. It is also very rule-based and high in volume.	RPA will assist to consolidate information gathered from various digital sources to simplify the interpretation of data and trends, reducing time needed for manual completion.
Customer Issues/ Inquiries Reporting (Specific to product/service)	Execution generally follows a standard operating escalation procedure.	Chatbots can assist to resolve simple enquiries which will allow the job holder to focus on more complex queries. IoT connected devices along with APIs could help to track pain points for more proactive approaches to deriving solutions rather than reacting to customer inquiries.
Cross-selling and Upselling	Execution requires an understanding of the customer profile to identify products to upsell. This task also calls for excellent communication and influencing skills that persuade and entice customers to purchase these products.	By leveraging Advanced Analytics, useful customer data can be obtained to provide Contact Centre Representatives with visibility of the customer's profile. They will be better positioned to recommend a bespoke range of products for cross-selling/upselling.

In the next

3–5 years ...

This role will evolve to assist customers with more technical services related issues as customers continue to adopt digital applications. In addition, this role can shift to include more sales related activities due to improved customer data analytics.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will display ability to make sense of data that is provided in various formats to create improved cross and up-selling opportunities.

▸ **Technology Troubleshooting:** The job holder will handle basic troubleshooting to assist customers with digital application support.

▸ **Automation Management:** The ability to help train chatbots and provide recommendations will help to improve capabilities in servicing customers.

▸ **Target Technical Sales:** Given enhanced customer profiles, the job holder will be able to have more targeted customer conversations, which can lead to potential for higher sales conversions.

▸ **User Experience Design:** The ability to advise customers and provide suggestions around design improvements will help the job holder to ensure that customer preferences are captured in the design of new features.

RPA | Advanced Analytics | AI

New Business Operations Officer

Subsector: Insurance

Job Family: Operations

Impact Level

Today, this role is responsible for managing workflow and improving the quality and time required for new business processes.

High Impact

Consolidated Activities

	Today	Future
Application Processing (Workflow Management System)	Execution is repetitive and document intensive. The process is usually time consuming due to the high volume of applications.	RPA will eliminate the need for manual document review, and improve both the speed and efficiency of data entry, thereby reducing processing time and potential for manual errors.
KYC Review	Execution is largely administrative in nature, and requires manual verification of paper based documents.	Advanced Analytics and AI can be used to screen for potential risk areas. This would greatly reduce manual processing time and allow individuals to focus on complex or abnormal cases.
Complex Sales Inquiries Resolution	Execution requires strong communication skills to advise contact centre representatives or other first-line customer service roles on how to resolve these enquiries.	Digital self-service channels will be aided by the incorporation of AI, which can be used to route customers to the correct qualified representative and provide the first-line of screening to filter out simpler inquiries, reducing the number of cases that require additional follow up and increasing the efficiency of the resolution process.

In the next

3-5 years ...

Given that this role may be highly impacted, it is likely to see convergence with other client servicing type roles. In addition, the role will handle the most complex cases and continually need to remain updated about new offerings to ensure that information is accurately captured and processed.

Skills Differentiators:

▸ **Lead Virtual Teams:** Working collaboratively with teams that are dispersed across multiple locations will become more and more commonplace, leading to a need to adapt to working styles.

▸ **Advanced Digital Acumen/Literacy:** Understanding the variety of disruptive technologies available will help the job holder identify opportunities for process improvements.

▸ **Process Excellence:** Given the in-depth knowledge on application processing, the job holder can help to highlight the root cause of process inefficiencies and identify the right processes that require automation.

▸ **Automation Management:** As RPA solutions become more widely used to convert processes, the job holder will need to understand the underlying construct and continually look for opportunities for improvement.

▸ **Complex Problem Solving:** The job holder will need to examine complex cases that are escalated for review, and leverage available resources to develop and execution solutions.

RPA Advanced Analytics AI

Policy Servicing Officer

Subsector: Insurance

Job Family: Policy Management

Impact Level

Today, this role is responsible for policy administration, premium settlement and handling of policy-related enquiries and ensuring quality service delivery.

High Impact

Consolidated Activities

	Today	Future
Policy Documentation and Issuance	Execution is manual, repetitive in nature and rule-based with minimal need for human judgment.	RPA would allow tasks to be completed with little to no human intervention. This would greatly reduce processing and execution time, as well as increase accuracy rate.
Premiums and Adjustment Calculation	Execution is a manual process. Some human judgment and decision making is required for the adjustment of premiums.	Insurers can leverage Advanced Analytics to produce unique customer behaviour insights, allowing decisions on premium adjustments to be made in a more transparent and timely fashion.
Policy Enquiries	Execution is fairly repetitive and mundane. Simple enquiries can be resolved more quickly with automated processes.	Digital portals and mobile applications will provide a 'one stop' service centre for customers. Insurers can now filter out simple repetitive questions and focus on handling more complex enquiries.
In-force Portfolio and Liability Management	Execution requires strong financial acumen to manage risks and liabilities.	Analytical techniques can be adopted to uncover insights on the behaviour of policyholders, which will help to ensure portfolio profitability, and timely updating.

In the next

3–5 years ...

This role will shift to focus on more complex policy servicing needs. Advanced Analytics will allow for improved collection of customer information, allowing job holders to make more informed decisions and improve processes to drive improved customer experiences.

Skills Differentiators:

- **Data Interpretation and Analysis:** Being able to extract insights from data will help the job holder make more informed decisions. However, the job holder needs to be able to decipher when data is irrelevant or inaccurate to ensure it is not used.
- **Data Storytelling:** The job holder will need to incorporate data and insights when informing stakeholders on strategy or business decision with regards to policy retention.
- **Automation Management:** As more processes move to RPA and AI solutions, this role will provide oversight of these systems and work to continually train the tools to improve outputs.
- **Process Excellence:** With the use of RPA, an increased focus will be placed on improving existing processes to combine servicing needs with overall customer experience in a more efficient manner.
- **Complex Problem Solving:** There will be a shift in this role to focus on complex cases. The job holder will therefore need the ability to draw on business acumen to resolve cases that are unique and outside normal policy parameters.

RPA | Advanced Analytics | AI

Underwriter

Subsector: Insurance

Job Family: Underwriting

Impact Level

Today, this role is responsible for collection of data from insurance applicants, analysis of risk, determining policy terms, generating pricing and premiums as well as developing products and issuing policies.

Retail: ▬▬▬▬▬▬ High Impact
Non-Retail: ▬▬▬ ▭▭▭ Low Impact

Consolidated Activities

	Today	Future
Insurance Application Review (Risk and Approval Assessment)	Execution is high in volume, repetitive and requires low decision latitude as it is administrative in nature.	Machine learning and automation will help to increase the volume of applications that can be analysed and approved. This will greatly facilitate the entire workflow and reduce the time taken to review and approve these applications.
Information Collection	Execution is simple and repetitive in nature.	RPA can potentially facilitate the collection of large amounts of data from a variety of sources which would speed up the entire process.
Quotation and Negotiation	Execution requires interpersonal skills such as negotiation and persuasion skills to help the organisation negotiate for the best deals with terms and a cost that meets the organisation's objective.	AI can leverage on insights from data analytics to help suggest optimal quotations for certain products or plans, which will also require less manual revision or time taken to manually determine an optimal quote.
Coverage Limits and Premiums Setting	Execution requires close collaboration with other roles and departments who are able to adjust the coverage and premiums to an appropriate level.	Advanced Analytics could increase efficiency by helping Underwriters to price premiums by providing deeper customer and market insights at an optimal level, whilst ensuring profit and cover potential risks.
Policy Terms and Condition Setting	Execution requires in-depth product and customer knowledge to ascertain the appropriate and suitable terms and conditions for the policy.	Advanced Analytics and AI will help to predict risks and losses, leading to the potential for more favourable terms for customers.

In the next

3–5 years ...

This role will shift to support more complex underwriting, and look for new ways to improve the overall process with the infusion of Advanced Analytics. In addition this role will need to remain adaptable and updated to new developments in the industry to prepare for changes in underwriting needs.

Skills Differentiators:

▸ **Advanced Digital Acumen/Literacy:** The job holder will need to understand new robust data analytics software/tools, which will help to allow the role to use that information in meaningful ways.

▸ **Stakeholder Engagement:** The job holder will need to be able to develop a strong network of internally and externally, as well as balance interests of complex stakeholders.

▸ **Lateral Thinking:** The job holder will possess skills to leverage diverse information, and be able to connect-the-dots', in improving the pricing and risk mitigation strategy.

▸ **Data Interpretation and Analysis:** Data analytics can be collected in a more efficient way, and so the job holder will need to possess skills to derive meaning from the data.

▸ **Analytics and Computational Modelling:** As more complex underwriting gets passed on to this role the complexity of the premium, limits and policy term models will also increase. Therefore, the job holder needs to be prepared to determine which computational methods will achieve the desired results.

RPA | Advanced Analytics | AI

Agency Management Officer

Subsector: Insurance

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for setting sales targets and developing agency strategies to deliver growth targets, focusing on improving the business profitability through product mix and maintaining business quality.

Medium Impact

Consolidated Activities

	Today	Future
Goal Setting and Business Planning	Execution requires strong business and financial acumen to set strategic goals and plans for the agency. This task requires close collaboration with various stakeholders to collect input and decide the direction of the agency.	Advanced Analytics can be used to generate deeper insights (e.g., past performance, sales trends and data around customer behavior) to facilitate evidence-based decision making.
Training Program Design and Facilitation	Execution requires strong communication skills as well as a passion for developing others.	E-learning portals and digital applications can be put in place to support personalised training and experience sharing, regardless of time or location.
New Agents' Recruitment and Onboarding	Execution is time intensive and document heavy, with strong communication skills being critical as recruiters are the initial point of contact between new agents and the insurer.	AI can be used to conduct quicker background screenings. Digital applications with self-service capabilities will allow agents to have easier access to information without having to liaise extensively with the job holder in this role. RPA can also help to speed up documentation processes during onboarding of new staff.
Regulatory Changes and New Products Communication	Execution requires strong communication skills to effectively communicate updates across the entire agency.	Digital applications will be able to inform agents about new product launches and communicates updates of regulatory policy changes in a quick and efficient manner.

In the next

3-5 years ...

Self service channels will help to improve communication and transfer of information between parties. Digital tools and Advanced Analytics will help to support this role in serving agents, which in turn will better support customers.

Skills Differentiators:

▶ **Advanced Digital Acumen/Literacy:** Staying updated with evolutions and being well versed in the latest digital trends will allow for the job holder to effectively use digital tools and advise the organisation on how best to communicate with agents.

▶ **Leading Virtual Teams:** Working with agents via digital channels will need the job holder to adapt to new communication and management technique to achieve the same results as face-to-face interactions.

▶ **Data Interpretation and Analysis:** The job holder will possesses the ability to draw further insights from the information provided to create actionable plans.

▶ **Stakeholder Engagement:** The job holder will need to be able to develop a strong network of internal and external contacts, as well as balance the interests of complex stakeholders.

▶ **Technology Troubleshooting:** The job holder will display ability to handle agent inquiries about digital channels and provide basic technical support to ensure a positive user experience.

RPA | Advanced Analytics | AI

Broker

Subsector: Insurance

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for identifying clients and providing advice about products, policies, potential risks and opportunities for budget optimisation.

Medium Impact

Consolidated Activities

	Today	Future
Lead Generation	Execution is time consuming and requires ongoing search and follow-up with potential clients. Human judgment is required to effectively identify needs and propose ways to address them.	Advanced Analytics can be used to monitor and analyse how prospects are engaged, identify needs and propose follow-up actions for the job holder to act on.
Relationship Management (with insurers and clients)	Execution relies heavily on 'people' skills to manage different stakeholders.	Sustaining relationships still requires hi-touch skills to develop trust and engage in relevant negotiations with insurers on behalf of clients.
Product Recommendation and Advisory	Execution is focused on distilling various options for clients, and utilising human judgment to provide recommendations best fit for specific needs.	Chatbots can act as "internal advisors", helping Brokers to seek clarifications on products and processes of various insurers. Advanced Analytics can be used for loss-scenario testing to help clients understand policy differences.
Claims Settlement Assistance	Execution can be time and document-intensive helping clients to gather and review documentation, and filing.	RPA can continue to support administrative aspects of tasks. Advanced Analytics can assist the job-holder to play a risk advisory role to advise clients how to maximise claims process.

In the next

3–5 years ...

This role will continue to require human insight and people skills to manage relationships, negotiate and provide guidance. With augmentation of technology, job holders will spend less time on administrative and repetitive actions, and be better equipped to act in an advisory capacity.

Skills Differentiators:

‣ **Advanced Digital Acumen/Literacy:** The job holder will need to stay abreast of latest technologies to manage and use tools to increase effectiveness.

‣ **Data Interpretation and Analysis:** The job holder will need to effectively extract and make sense of information to generate insights relevant to clients and partner insurers.

‣ **Influencing & Negotiation:** The job holder must be able to handle various situations and stakeholders and use persuasive techniques to supplement data-driven insights to align audience's perspectives with the over-arching objective.

‣ **Targeted Technical Sales:** Leveraging insights from advanced analytics, the job holder will be able to identify the unique needs and preferences of potential partners and prepare to meet their needs and build stronger rapport with prospective companies.

‣ **Advisory:** Having access to advanced analytics will sharpen the job holder's ability to make more relevant and targeted recommendations.

RPA	Advanced Analytics	AI

Financial Planner/Insurance Agent

Subsector: Insurance

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for developing and implementing financial plans to help customers meet their objectives and manage customer relationships.

Medium Impact

Consolidated Activities

	Today	Future
Customer Base Development	Execution requires relationship building skills to retain and grow the existing customer base. The role would require strong networking skills and initiative to source new customers and develop new sales channels.	AI can leverage on Advanced Analytics to generate insights that allow agents to better understand potential sales and distribution networks. Networking and relationship building, however, will still remain key to the success of this task.
Insurance Sales	Execution is sales and profit driven. Excellent negotiation and influencing skills remain critical for the success of this task.	Advanced Analytics will help agents to better understand the profile of customers to recommend a bespoke variety of products for customers to select from. Agents will be expected to take on a more advisory role in guiding customers with selecting the right product that fits their specific needs. Improved digital applications will help to support post-sales activity to create a more seamless experience for both parties.
Policy Explanation	Execution is repetitive and requires low decisional latitude.	Mobile/digital channels enabled with self-service portals and/or chatbots can assist with providing information to customers without human intervention. This allows agents to focus on complex or escalated cases that require human intervention.
Administrative Record-keeping and Policy Renewals	Execution is administrative and high in volume, resulting in a time consuming activity.	Digital applications will allow customers to have access to basic self-service tasks. RPA can help to automatically detect policies that are approaching renewal dates and send out reminders.

In the next

3–5 years ...

In the future, this role will shift to encompass a variety of financial planning products. Given changing customer preferences for digital channels, the job holder will need to adapt their approach to customer service. Advanced Analytics will help to make this possible with enhanced customer profiling.

Skills Differentiators:

▸ **Advisory:** Given shifting customer preferences, the job holder will be required to provide more holistic recommendations considering differing factors.

▸ **Advanced Digital Acumen/Literacy:** As digital applications/channels become more common for customers, the job holder will need to be prepared to shift the way they communicate with customers, as well as have a deeper understanding of the tools available to help them.

▸ **Data Interpretation and Analysis:** The job holder will possess the ability to make sense of analysis results to enhance sales recommendations.

▸ **Targeted Technical Sales:** The job holder will leverage analytics to more effectively profile customers, which will drive customised recommendations and likely lead to more sales conversions.

▸ **Global Perspective:** In an effort to provide more holistic services, the job holder will need to understand market trends and developments to offer the most appealing products.

RPA | Advanced Analytics | AI

Investment Management Officer

Subsector: Insurance

Job Family: Investment Management

Impact Level

Today, this role is responsible for developing and managing tactical execution of investment strategies to achieve earnings and growth targets set forth by the business.

Medium Impact

Consolidated Activities

	Today	Future
Investment Guidelines and Strategy Development	Execution requires expertise on current investment regulations, financial product awareness and strategy planning to help formulate guidelines that align with the strategic development of the organisation.	Advanced Analytics can be leveraged on to help provide insights on financial markets and consumer behaviours for more granular analysis to improve strategic decisions together and minimise potential for losses.
Internal and External Investment Coordination	Execution still requires a high level of human judgment, tapping on communication and management skills, such as the ability to coordinate and collaborate effectively between various tasks and teams to ensure the smooth running and planning of internal and external investments.	This role is likely to still rely on collaborative partnerships between internal and external investment departments to ensure that investment strategies are aligned with the overall direction of the firm. Interpersonal relationship and communication skills will still be key for this role.
Portfolio Management and Analysis	Execution requires strong financial acumen and product knowledge, as well as deep analytical and decision making skills to evaluate and draw insights from the current investment portfolio.	Advanced Analytics and algorithm automation will help to monitor portfolio performance, and provide analysis for current investment performance and structuring potential portfolios.
Investment Strategy Research	Execution requires strong research and investigation skills to conduct insightful research.	Machine learning will help to run "what-if" scenarios on investment strategies, reducing potentially risky decisions. Human judgment will still be required to evaluate whether these risks are significant and/or likely to be detrimental to the firm.

In the next

3–5 years …

This role will use Advanced Analytics to help with investment decisions. However, human judgment will still be required to align with strategic investment decisions. Opportunities for automation of portfolio management could facilitate reaching desired targets.

Skills Differentiators:

▸ **Risk Awareness:** Given the infusion of data analytics and automation in decision making processes, the job holder will need to have the ability to evaluate risk and return decisions.

▸ **Lateral Thinking:** The job holder needs to possess skills to connect business insights to enhance quality of research findings.

▸ **Advanced Digital Acumen/Literacy:** The ability to use and understand available tools will ensure most efficient utilisation to achieve desired outcomes.

▸ **Influencing and Negotiation:** Job holders will be required to show ability to persuade stakeholders to rely on information provided by Advanced Analytics.

▸ **Complex Problem Solving:** Increasingly complex investment strategies will give rise to new issues that the job holder may not have prior experience dealing with, requiring them to adapt new approaches.

RPA · Advanced Analytics · AI

Loss Prevention

Subsector: Insurance

Job Family: Claims Management

Impact Level

Today, this role is responsible for assessing potential hazards and loss exposures to help make recommendations to reduce potential for loss and minimize risks.

Medium Impact

Consolidated Activities

	Today	Future
Data Gathering	Execution is administrative in nature, high in volume and fairly time consuming.	AI can facilitate the data gathering process by extracting data from various sources and processing. This reduces the time and energy spent, freeing the job holder's capacity for more complex tasks.
Data Analysis/ Risk Identification	Execution requires familiarity in conducting analysis and interpretation of data. Human judgment is also required to gather evidence from various sources of data to identify the various risks involved.	AI can identify and evaluate the various sources of data, and generate potential areas of risk based on findings. Human expertise would still be needed to determine whether these risks are unprecedented or calculated.
Formulation of Loss Prevention Strategy	Execution requires technical understanding of products and data. The job holder will also need to be able to think laterally to gain insights from various quantitative and qualitative sources to formulate loss prevention strategies. Close collaboration with other business units is required to ensure that the strategy developed is aligned with the organisation's overall strategy.	AI can leverage on data analytics to formulate a cost-effective strategy for risk mitigation. However, human expertise will be needed to communicate these strategies to clients in a manner that facilitates accurate and stringent compliance.

In the next

3–5 years ...

Access to Advanced Analytics and AI will enable the job holder to provide more relevant risk insights to determine how to mitigate risks, which will lead to a less reactive and more proactive approach to loss prevention.

Skills Differentiators:

▸ **Advanced Digital Acumen/Literacy:** The ability to use advanced tools and software to collate and process information will be critical. Given the potential for IoT devices to become more common, the job holder will need to understand how that technology can aid the role.

▸ **Consulting/Advisory:** Given the access that this role has to Advanced Analytics, the expectation is that the job holder will be able to impart that information in an advisory capacity to others.

▸ **Data Storytelling:** The job holder will need to be able to share Advanced Analytics insights in a way that is relevant and useful to other parts of the organisation in order to help gain their buy-in.

▸ **Stakeholder Engagement:** The job holder will be required to work more collaboratively with other business units to implement loss prevention across the organisation, which will make it more effective in the future.

▸ **Data Interpretation and Analysis:** The ability to understand data from a variety of sources will help the job holder create more holistic loss prevention recommendations to the business.

RPA | Advanced Analytics | AI

Pricing Actuary

Subsector: Insurance

Job Family: Actuary and Pricing

Impact Level

Today, this role is responsible for the development of product pricing, drive innovative approaches and estimating profitability associated with potential future risk.

Medium Impact

Consolidated Activities

	Today	Future
Model Development, including Risk and Profit Evaluation	Execution requires expertise in computational modelling to help develop and improve pricing models. The tasks require human judgment to evaluate risks and potential profits.	Advanced Analytics and AI can be used to create more robust and complex pricing models.
Pricing Procedure Analysis	Execution is rule-based and repetitive which allows room for human error. Errors can be minimised using automation.	RPA can assist to support pricing and rate monitoring, which will reduce time necessary for the manual collection and analysis of the information - thereby allowing the procedure to be conducted more efficiently.
Financial Earnings Interpretation	Execution requires critical thinking, as well as an understanding of the organisation's objectives.	The use of human judgment remains critical, however RPA can enable the quick processing and summarising of important data to help uncover deeper insights from reports.
New Product Development	Execution requires knowledge of customer demographics and needs, which are derived from in-depth market research. The job holder would need to collaborate with other teams to develop suitable products with suitable prices to entice customers.	Advanced Analytics will help to determine customer preferences for more targeted product development. Products will become easier to customize, and more accurate pricing will help to drive profitability.

In the next

3-5 years ...

The job holder will use more complex models to arrive at more accurate pricing for products. These models will be aided by Advanced Analytics and AI, leaving increased capacity for analysis, assumption review and product innovation.

Skills Differentiators:

▸ **Lateral Thinking:** The job holder will need to identify new opportunities for collaboration, as well as draw insights from more complex models - which will lead to improved pricing.

▸ **Data Storytelling:** The ability to take insights from complex models and use them in communicating findings to other business units for potential improvements will be important, along with the ability to help achieve stakeholder buy-in.

▸ **Business and Financial Acumen:** The job holder will require commercial acumen and perspective to determine ways to work with product development teams will be useful for both teams.

▸ **Stakeholder Engagement:** The job holder will need to be able to present findings to relevant stakeholders in a meaningful and impactful way which leads to action.

▸ **Programming and Coding:** It will be useful for the job holder to be able to write and develop programs that facilitate the interpretation of larger data sets.

RPA | Advanced Analytics | AI

Product Development

Subsector: Insurance

Job Family: Product Management

Impact Level

Today, this role is responsible for performing market analysis, building strategies to drive product demand and developing product positioning. This role often coordinates with actuaries to determine pricing.

Medium Impact

Consolidated Activities

	Today	Future
New Product Creation/Product Enhancement	Execution requires collaboration and coordination between various teams. Awareness of current market needs is necessary in developing successful products.	Job holders can leverage Advanced Analytics to uncover deeper customer insights for customisation of products that better suit customers' needs.
Product Support/ Advisory (to sales and distribution channels)	Execution leverages on advisory skills. Communication and engagement with various teams in the sales and distribution channels is key to providing support to these outlets.	Digital and mobile applications with Chatbots will be able to provide real time, around the clock support with limited human intervention using various channels. Complex issues will be escalated towards this role.
Product Performance Reporting	Execution is time consuming as the job holder must gather data and conduct relevant calculations. Execution can be tedious, depending on how extensive the product range is, and may take a long time for the information to be processed.	AI will help to track and collect performance metrics, carry out calculations, and generate reports - greatly reducing the processing time and manual effort involved. Advanced Analytics and machine learning can help facilitate additional stress testing to minimize unforeseen errors.
Inforce Product Analysis	Execution requires product awareness and lateral thinking skills to gather information from various sources.	Advanced Analytics will provide deeper insight into performance and sales of products, allowing for more focused scope and context for analysis.

In the next

3-5 years ...

This role will be increasing data driven to identify and cater to customer needs, which will allow increased customisation by targeting smaller customer segments.

Skills Differentiators:

▸ **Customer Mindset:** Access to Advanced Analytics will provide customer preference information to the job holder which will result in improved product development focused on targeting customer needs.

▸ **Data Interpretation and Analysis:** The ability to make sense of Advanced Analytics will give the job holder an edge. Additionally, being able to identify when information is irrelevant or incorrect will ensure that decisions are made based on valid information.

▸ **Lead Virtual Teams:** Given that product creation will become more collaborative, the job holder will need to work with various teams and stakeholders who are often spread across geographies.

▸ **Global Perspective:** Understanding various markets and competitor offerings will allow the job holder to cater to a wider audience and deliver more in-demand products.

▸ **Project Management:** With increasing product complexity and customisation, the job holder will need to learn new ways of managing projects to increase speed and efficiency of project delivery.

RPA	Advanced Analytics	AI

Reinsurance Management Officer

Subsector: Insurance

Job Family: Reinsurance Management

Impact Level

Today, this role is responsible for management of reinsurance business between insurance companies and reinsurance companies.

Medium Impact

Consolidated Activities

	Today	Future
Contract Administration and Filing, Statement or Accounts Booking and Settlement Reporting (incl. Bordereau maintenance)	Execution of task is manual and administrative in nature. Task is repetitive.	RPA could help to consolidate information for analysis and interpretation. APIs will help to transfer information between relevant parties.
Premium Calculations Review, Reporting and Adjusting	Execution of task can be repetitive and time consuming. However, some parts of the task may require human judgment and analysis skills to decide whether premiums should be maintained or adjusted.	Advanced Analytics can provide insights on pricing or market situations to allow for more granular primary and secondary analysis on premiums for review. AI supported models could help with large complex calculations of premiums and generate digestible and easy to read reports for review.

In the next

3-5 years ...

This role will help to maintain the relationship between insurers and re-insurers with augmented insights they will be able to provide more value-adding services rather than just purely maintenance.

Skills Differentiators:

▸ **Process Excellence:** RPA will enable processes that allow the job holder to focus on identifying and implementing potential improvements to reinsurance management in an effort to make the process more seamless and efficient.

▸ **Data Interpretation and Analysis:** The job holder will need to be able to validate data analysis findings and ensure they are accurate and relevant.

▸ **Complex Problem Solving:** As insurance products become more complicated, the relationship with reinsurance providers will also have more intricacies that the job holder will need to be prepared to handle.

▸ **Advisory:** The job holder will have the ability to apply the right advisory strategy to provide guidance and value adding insights to stakeholders.

▸ **Lateral Thinking:** The ability to look for mutually beneficial opportunities between the two parties will help to drive adoption of process improvements.

RPA	Advanced Analytics	AI

Valuation Actuary

Subsector: Insurance

Job Family: Actuary and Pricing

Impact Level

Today, this role is responsible for forecasting cash flow projections and earnings analysis of future liabilities associated with inforce policies issues, and ensure compliance with valuation and solvency requirements.

Medium Impact

Consolidated Activities

	Today	Future
Valuation Process Development/ Improvement	Execution requires business acumen and foresight to develop and/or improve the valuation process in alignment with the overall strategy of the organisation.	Advanced Analytics can be leveraged to produce insights around potential areas of improvement in the valuation process.
Actuarial Model Development	Execution requires technical expertise in advanced computational modelling, and knowledge of the business to contextualise and develop relevant actuarial models.	Advanced Analytics can help provide insights that will facilitate the creation of more complex models. Digital visualisation tools will allow for quicker and clearer analysis of data.
Reserve Modelling and Capital Requirement Reporting (incl. monthly financial review)	Execution is repetitive. Analysis of monthly financial reports is relatively rule-based and provides opportunity for automation.	APIs can provide more seamless integration between accounting and financial systems for easier review. In addition, RPA could be used to increase the speed of data consolidation - allowing more time for trend analysis.
Management Report (EEV, IFRS and SII/Ecap) and Regulatory Compliance	Execution requires human judgment and decision making. In addition, technical knowledge on regulatory compliance is essential to perform in this role.	Human judgment will remain critical to communicate and determine the impact of latest regulations.

In the next

3–5 years ...

Access to an increased amount data analytics will lead to improved reporting and collaboration on assumption building with other business units. Being able to communicate increasingly complex models, findings and insights to non-actuarial stakeholders will be critical.

Skills Differentiators:

▶ **Business and Financial Acumen:** These skills will be necessary for the job holder to evaluate new regulations and make strategic decisions about implementation with upcoming regulations, such as IFRS17.

▶ **Analytics and Computational Modelling:** The job holder will need to possess strong quantitative skills to help with using increasingly complex models to support decision making.

▶ **Programming and Coding:** The job holder will need to be able to write and develop programs that lead to more robust models which would ultimately improve model results for enhanced reporting.

▶ **Data Storytelling:** Being able to create a meaningful business case based off Advanced Analytics findings will help the job holder work more efficiently within the organisation.

▶ **Stakeholder Engagement:** The job holder will need to have strong communication skills and the ability to achieve strategic alignment with stakeholders.

RPA | Advanced Analytics | AI

Partnership and Affinity Management

Subsector: Insurance

Job Family: Sales and Distribution

Impact Level

Today, this role is responsible for managing partnerships with various companies (FIs) and other industry segments to deliver product offerings and services to a larger group of customers.

Low Impact

Consolidated Activities

	Today	Future
Account/ Relationship Management	Execution involves building interpersonal relationships and customer networks, requires strong communication and networking skills.	Advanced Analytics can produce insights and information tidbits to provide the foundation for relevant conversations between the various parties. Development and management of a relationship however, requires meaningful cultivation as well as "human touch".
New Partnership Identification/ Evaluation	Execution relies on relationship building and communication skills. However, prior research will need to be done in advance to identify potential partners.	Advanced Analytics will help to generate stronger profiles of potential partners, which will allow the individual to have more informed conversations and be better prepared with insights specific to their potential needs.
Business Development Plan Preparation	Execution requires in-depth business knowledge, both in understanding the objectives of business units as well as how to achieve results that is aligned with the strategic position of the organisation.	Advanced Analytics will provide deeper insights to enable more customized business solutions to be produced. This provides extra value to the insurer's partners and strengthens the network between the insurer and partner.
Sales Analysis and Support for Bank/ Affinity Partners	Execution requires close collaboration with partners to share sales reports for analysis.	Advanced Analytics can be better integrated with the use of APIs to enable improved tracking of sales metrics and potential identification of sales or consumer behavior patterns.

In the next

3-5 years ...

This role will harness data analytics capabilities to leverage on information which will empower the job holder to more effectively approach current and potential partners. Remaining updated on the latest industry trends and technology will ensure that they can cater to a wide range of companies.

Skills Differentiators:

‣ **Advanced Digital Acumen/Literacy:** The job holder will need to stay abreast of latest technologies to seek new opportunities with companies.

‣ **Change Management:** Adapting to companies with various levels of technology adoption will require constant adapting of resources and techniques, requiring the job holder to be comfortable in managing changes

‣ **Influencing and Negotiation:** The job holder must be able to handle various situations and stakeholders and use persuasive techniques to align audience's perspectives with the overarching objective and to maintain good stakeholder relationships.

‣ **Targeted Technical Sales:** Leveraging insights from Advanced Analytics, the job holder will be able to identify the unique needs/preferences of potential partners and prepare to meet their needs and build stronger rapport with prospective companies.

‣ **Advisory:** Having access to Advanced Analytics will sharpen the job holder's ability to make more relevant and targeted recommendations.

RPA | Advanced Analytics | AI

AML/CFT Transaction Surveillance

Subsector: Enterprise

Job Family: Compliance (Operational)

Impact Level

Today, this role is responsible for ongoing review of transactions flagged by monitoring systems, ensuring significant issues identified are fully investigated and promptly escalated where necessary, and analyse data to enhance monitoring effectiveness.

High Impact

Consolidated Activities

	Today	Future
Data Collection and Investigation	Execution is rule based. Though transaction monitoring systems are leveraged today, the rate of false positives is high. Hence, extensive time and human effort is required to access diverse systems/data sources to extract and review results.	Using API, machines will be used to collect data (pulling from diverse sources including client information system, transactions history, open sourced searches and watch-list screening), reducing the human effort and time spent in the process.
Suspicious Transaction Reports (STRs) Drafting	Execution is tedious and prone to human errors. Automated solutions are available to put together information needed to complete a STR report.	With the use of advanced natural language generation (NLG), draft STR can be autogenerated − wherein the most important and relevant details from the highlighted transactions are captured in the narrative for review and edit by the analyst.
STR Validation	Tasks require human judgment. Human intervention is needed to review and validate content in STR before submission to the authorities.	Human intervention will continue to be critical in the process of reviewing and validating the STR content prior to submission.

In the next

3–5 years ...

Automated systems will shift the day-to-day focus from execution of manual and time consuming activities to value-adding report validation, and challenging the inputs to ensure narratives are robust and accurate.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Advanced Digital Acumen/Literacy:** The job holder will need to be constantly upskilled to operate using new or refined AI-enabled machines.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages and findings from investigation in a compelling, clear, and easy-to-understand manner for relevant stakeholders to take action.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated for review, and leverage available resources to develop and execute solutions.

▸ **Investigation:** The job holder will display ability to gather and ascertain evidence to uncover suspicious behaviours and evaluate the appropriate corrective actions.

RPA   Advanced Analytics   AI

Compliance Monitoring and Testing

Subsector: Enterprise

Job Family: Compliance (Operational)

Impact Level

Today, this role is responsible for testing the effectiveness of compliance risk controls in accordance with compliance monitoring procedures, communicating results to management and promoting best practices to strengthen internal controls.

High Impact

Consolidated Activities

	Today	Future
Compliance Monitoring Plans Development	Execution involves manual compilation of required inputs to determine the scope, scale and complexity of monitoring plans.	With the support of aggregated enterprise-wide data, a robust risk-based testing and monitoring strategy, plan and approach can be better developed.
Testing Execution and Reporting	Execution is time consuming. FIs are leveraging RPA to broaden the sample size (or scope of coverage), and gradually shifting towards full-population testing without the need to expand the workforce.	Execution will be deployed off-shore (testing-as-a-service), with experts who are dedicated to perform large scale testing activities and offer real time test results through dashboard.

In the next

3-5 years ...

This role will evolve as RPA takes over the manual and/or repetitive testing process, allowing them to refocus on higher value areas - e.g., validate results, build mitigation strategies to close the gap of existing control and contribute to the development of robust internal controls.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Advanced Digital Acumen/Literacy:** The job holder will need to be constantly upskilled to operate new or refined AI-enabled machines.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages/findings from investigation in a compelling, clear, and easy-to-understand manner for relevant stakeholders to take action.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated for review and leverage available resources to develop and execute solutions.

▸ **Process Excellence:** Equipped with findings of operational effectiveness testing, the job holder needs to possess the skills to identify process improvement opportunities and drive continuous improvement.

RPA	Advanced Analytics	AI

Trade Surveillance

Subsector: Enterprise

Job Family: Compliance (Operational)

Impact Level

Today, this role is responsible for second line monitoring of front office trading activities, examining trade related data to detect potential market abuse, and escalating breaches for appropriate actions to be executed.

High Impact

Consolidated Activities

	Today	Future
Trade/Order Patterns Analysis	Trade surveillance solutions are available to monitor Traders' communication, and cross reference information against the trading activities. Due to the high volume of data, execution is resource intensive and time consuming.	Unstructured data from electronic communications will increasingly be incorporated in the analysis, with the help of cognitive computing. RPA and analytics will also be used for Trader profiling, using unsupervised learning techniques to cluster Traders based on their trading patterns, and outliers can then be used as a gauge to identify potentially illicit trading activities.
Suspicious Alerts Investigation	Automated systems powered by machine learning are used to alert officers in early stages by identifying suspicious situations based on a series of pre-defined scenarios, such as naked short-selling, high volume trades, phantom orders, and then classify based on level of risk. Due to the high volume of alerts, execution is resource intensive and time consuming.	With the help of automated systems, the team could focus their investigations on the highest priority issues. There is also a possibility that a common utility service will be developed to share the surveillance capability across participating FIs.

In the next

3-5 years ...

This role will move away from reactive processes which focus on past patterns of activities and invest greater time and effort in predictive capabilities to prevent adverse events. In addition, this role is likely to converge with other surveillance roles.

Skills Differentiators:

- **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.
- **Advanced Digital Acumen/Literacy:** The job holder will need to be constantly upskilled to operate using new or refined AI-enabled machines.
- **Data Storytelling:** The job holder will need to be able to disseminate key messages and findings from investigation in a compelling, clear, and easy-to-understand manner for relevant stakeholders to take actions.
- **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated for review and leverage available resources to develop and execute solutions.
- **Investigation:** The job holder will display the ability to gather and ascertain evidence to uncover suspicious behaviours and evaluate the appropriate corrective actions.

RPA | Advanced Analytics | AI

Compliance Regulatory Reporting Officer

Subsector: Enterprise

Job Family: Compliance (Operational)

Impact Level

Today, this role is responsible for liaising with internal stakeholders on regulatory reporting matters, and overseeing the delivery of regulatory submissions.

Medium Impact

Consolidated Activities

	Today	Future
Local Regulatory Reporting	Execution involves extraction of information for regulatory bodies, head office, and other government authorities. The manual extraction from different systems can be time consuming.	With clearly defined rules and standardisation on data format, location and file name, machines can be programmed to extract, cleanse, and validate data within minutes.
Aggregation and Variance Analysis	Execution involves complex computations and can be prone to human errors. However, the task is rule-based. Hence, FIs are exploring automation opportunities.	With the processes and requirements well defined, AI-powered technologies can be built to perform complex calculations in a shorter timeframe and with minimal errors. Human judgment remains critical in validating and challenging outputs.
Queries Resolution	Execution requires human intervention. Technical expertise is vital in investigating and performing logical checks on the information conveyed to regulators and management.	Human judgment and technical expertise will remain critical in handling and effectively closing queries raised by the regulators and management.

In the next

3-5 years ...

With the support of automated technologies, this role will focus on managing the expectations of stakeholders, and validating the information conveyed to regulators and senior management.

Skills Differentiators:

▸ **Process Excellence:** With good understanding of existing operations, the job holder will help to highlight the root cause of process inefficiencies, and identify the right processes that require automation.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Stakeholder Engagement:** The job holder will need to proactively engage key stakeholders to address ad-hoc queries and effectively manage the balance of interests of various stakeholders.

▸ **Risk Awareness:** The job holder needs to posses strong risk management skill to identify hidden risks or non-conformity issues.

▸ **Advanced Digital Acumen/Literacy:** The job holder will need to be constantly upskilled to operate new or refined AI-enabled machines.

RPA | Advanced Analytics | AI

Credit Risk Officer

Subsector: Enterprise

Job Family: Risk Management

Impact Level

Today, this role is responsible for identifying and balancing credit risk and returns of the credit portfolio through credit modeling techniques.

Medium Impact

Consolidated Activities

	Today	Future
Credit Risk Appetite and Limit Definition	Execution involves collaboration with business and key stakeholders to determine appropriate thresholds. Human judgment is needed to ensure alignment between various parties.	Role may leverage on Advanced Analytics to predict customer's spending patterns and behavior to help decide on appropriate credit limit.
Credit Risk Policy Development	Execution requires deep technical expertise and field experience to understand how best to safeguard interests of the organisation and minimise risk.	Advanced Analytics will enable modelling to create more robust frameworks that can be customised for different business line needs, while reviewing aggregated data will help to reveal trends and causal relationships.
Counterparty Risk Review and Rating	Execution requires human judgment and analytical thinking skills to manually evaluate and determine risk levels.	APIs will be used to aggregate financial information on existing and prospective counter-parties, obtaining a holistic understanding of credit risk exposure. Advanced Analytics allows for robust risk evaluation. Human judgment will still be required to validate and challenge machine-generated outputs.
Model Implementation	Execution involves technical expertise and knowledge of computational modelling to conduct stress testing, setting limits and provisioning.	Advanced Analytics and machine learning will generate more complex and robust models, but human judgment is needed to ensure that stress testing outputs are complete, consistent and comply with business and regulatory requirements.
Credit Risk Portfolio Monitoring and Reporting	Execution requires deep analytical skills and technical understanding of credit risk. However, task can be high in volume and tedious as manual monitoring and generating of reports are required.	AI will monitor credit data in real-time to produce more accurate reports and allow for earlier warning triggers.

In the next

3–5 years ...

This role will dedicate more time on strategic and policy implementation decisions due to the augmentation of the role by data analytics and automation. This role will need to be able to work with more complex models to continue to improve stress testing and reporting.

Skills Differentiators:

- **Data Storytelling:** The job holder will demonstrate ability to disseminate key findings in a compelling, impactful, and easy-to-understand manner to audiences with varying level of interests and appetite.

- **Data Engineering:** The job holder will possess strong understanding of the data pipeline and how to improve the collection of information prior to analysis.

- **Systems Thinking:** The job holder will possess strong understanding of how systems work within the context of larger systems to ensure successful implementation/integration of technology solutions.

- **Automation Management:** The job holder will oversee systems to ensure that requirements are met.

- **Analytics and Computational Modelling:** Despite automation, the job holder will continue to demonstrate strong capability in creating and delivering sophisticated models.

RPA | Advanced Analytics | AI

Data Analyst

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for collecting, organising, and interpreting statistical information to help companies make better business decisions.

Medium Impact

Consolidated Activities

	Today	Future
Data Collection	Data collation and integration of structured datasets that are high volume and time consuming in nature. RPA and AI are gradually being leveraged to consolidate data from primary and secondary sources.	AI-tools can be leveraged to address and adjust data issues – such as errors and irregularities. The process of converting raw information into data that can be easily understood – remains human centric.
Data Analysis	Execution can be supported by technology but it still requires technical oversight to ensure that analysis is carried our properly.	AI and Advanced Analytics could be used analyse and identify trends in date sets to derive insights from unstructured and structured data sets.
Insights and Findings Presentation	Task requires human judgment and understanding of organisation needs and objectives to help provide relevant information to the business.	Data visualisation tools will continue to be leveraged to present findings to management in an easy-to-understand manner and to work with various business units to incorporate the insights into business decisions.

In the next

3–5 years ...

It will become increasingly necessary to make sense of Advanced Analytics to communicate insights across the organisation. This role will be augmented by technology, and given automation opportunities for the data gathering and collection processes to allow for greater allowing higher order thinking and analysis improving recommendations.

Skills Differentiators:

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units, gain understanding of business needs, and leverage data to help them to build targeted solutions.

▸ **Lateral Thinking:** The job holder will be required to handle larger sets of data today, hence, the ability to 'connect-the-dots' and stay focused on big picture will remain important.

▸ **Investigation:** The job holder will demonstrate ability to gather and ascertain information to gain a deeper understanding of the problems, and ultimately, developing unique solutions to resolve outstanding issues.

▸ **Data Storytelling:** With more information gathered and analysed, the job holder will possess skills to effectively convey findings/messages to different audiences – ensuring that critical messages are communicated accordingly.

▸ **Process Excellence:** As systems and tools become available to improve the data collection aspects of the role, the job holder can highlight the root cause of their process inefficiencies and identify the right processes that require automation.

RPA | Advanced Analytics | AI

Data Scientist

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for designing and constructing new processes for data modeling and production using prototypes, algorithms, predictive models, and custom analysis.

Medium Impact

Consolidated Activities

	Today	Future
Data Collection	Data collation and integration of structured datasets that are high volume and time consuming in nature. RPA and AI are gradually being leveraged to consolidate data from primary and secondary sources.	While AI-tools can be leveraged to address and adjust data issues – such as errors and irregularities – the process of converting raw information into data that can be easily understood remains human centric.
Model Development and Project Management	Task requires in depth technical knowledge and expertise to create models that aid the job holder in achieving business objectives.	Advanced Analytics and AI could help to organise complex structured and unstructured data sets. The creation of models will continue to require human intervention – mainly to translate business needs into algorithms, and to interpret analysis outcomes for further actions.
Insights and Findings Presentation	Task requires human judgment and understanding of organisation needs and objectives to help provide relevant information to the business.	Data visualisation tools will continue to be leveraged to present findings in an easy-to-understand manner and to work with various business units to incorporate the insights into business decisions.

In the next

3–5 years ...

This role will evolve to combine increased business knowledge with technical and machine learning capabilities, leading to enhanced data visualization capabilities. As organisations have access to more data analytics, this role will collaborate more with various business units to derive models and solutions for the organisation.

Skills Differentiators:

▸ **Data Engineering:** The job holder will possess strong understanding of the full data pipeline and be able to identify opportunities for optimisation and enhanced analysis.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units, gain understanding of business needs, and leverage data to help them build targeted solutions.

▸ **Advisory:** The job holder will display the ability to apply the right advisory strategy to engage with stakeholders in different situations and provide advice that leverages on deeper business acumen infused with quantitative and technical insights to the business.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with various stakeholders across the organisation, effectively eliciting stakeholders' views on areas of priorities and developing alignment across.

▸ **Data Storytelling:** With more information gathered and analysed, the job holder will possess skills to effectively convey messages and findings to different audiences – ensuring that critical messages are communicated accordingly.

RPA · Advanced Analytics · AI

Finance Operations and Tax

Subsector: Enterprise

Job Family: Finance

Impact Level

Today, this role is responsible for financial reporting, management reporting, organisational organisational budgeting, expenditure and other finance and tax management related activities.

Medium Impact

Consolidated Activities

	Today	Future
Tax Assessment and Filing	Execution is administrative and document intensive. Processing high volumes of paperwork can be time consuming, while current regulations limit the use of technology.	RPA will be leveraged to process such high volume administrative tasks due to the higher complexity of the information being processed and evaluated.
Financial and Management Reporting	Execution is administrative, typically high volume and requires low decision latitude.	RPA will be able to automatically generate financial and management reports by translating data into reports.
Operational Accounting	Execution is rule-based and processing the high volume of work can be time consuming.	RPA will automate various operational accounting functions (e.g., management of account receivables), and assist to convert hardcopy documents into a digital format.
Organisational Planning, Budgeting and Forecasting	Execution involves detailed analysis to forecast the firm's fiscal spending. FIs have moved away from using spreadsheet software (e.g., Microsoft Excel).	Predictive analytics and AI capabilities will be used to analyse large data sets and perform sophisticated modelling to churn more accurate forecasting. Human intervention will remain vital to drive budgeting and planning decisions.
General accounting	Execution is rule based, time consuming, and prone to human error. RPA is increasingly adopted to automate general accounting functions.	Machine Learning will be leveraged in general ledger applications to analyse historical and pending transactions, thus improving cash flow predictions.

In the next

3–5 years ...

As administrative accounting duties (e.g., statement closing, reconciliation) are replaced by technology, this role will oversee the processing of financial and tax documents using machines. Job holders can analyse larger sets of data in a meaningful way with the support of advanced solutions, and to facilitate decision making in a unbiased, fact driven way.

Skills Differentiators:

- **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in developing strategies to improve organisation's financial position.
- **Data Interpretation and Analysis:** The job holder will display ability to verify data integrity/relevance, interpret data and extract key insights for decisions, recommendations or actions.
- **Process Excellence:** With good understanding of the existing operations, the job holder can help to highlight the root cause of their process inefficiencies and identify the right processes for automation.
- **Lateral Thinking:** The ability to drawing insights from disperse data and incorporate information collated from different sources into their advice or solutions will be vital.
- **Advisory:** Incorporating the insights acquired, the job holder will display ability to apply the right advisory strategy to facilitate the development of robust budgeting and related strategy.

RPA | Advanced Analytics | AI

Financial Crime Compliance Investigation and Intelligence

Subsector: Enterprise

Job Family: Compliance (Advisory)

Impact Level

Today, this role is responsible for undertaking investigation into AML/CFT related matters, working closely with management to address significant reputation risks arising from investigations findings and acting as a subject matter on financial crime investigation.

Medium Impact

Consolidated Activities

	Today	Future
AML/CFT Thematic Analysis and Investigation	Execution is time-consuming and resource-intensive. FIs are gradually introducing analytics and automation at every step of the financial crime detection and investigation process.	The increasing use of RPA and machine learning-powered tools will aid in data collection and turning raw data into actionable intelligence. However, human judgment remains critical in leveraging interpretation of data points to draw conclusions.
Media Sweeps/ Financial Crime Typologies Updates	Execution is time-consuming and resource-intensive.	In conjunction with client transactional data, external data sources (including news feeds and social media) and AI technology will be leveraged to increase accuracy in AML.

In the next

3-5 years ...

Advanced technologies (powered by AI) have been tapped on to make investigations more efficient. This role will gradually evolve, shifting from the manual effort to acquire data to bespoke investigation strategies and methods to uncover the root cause of financial crime.

Skills Differentiators:

▸ **Investigation:** The job holder will display ability to gather and ascertain evidence to uncover suspicious behaviours and evaluate the appropriate corrective actions.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages/findings from investigation in a compelling, clear, and easy-to-understand manner for relevant stakeholders to take action.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Conflict Management:** The job holder will need to apply appropriate conflict resolution strategies to manage complex situations – especially under circumstances where clear solutions are lacking.

▸ **Advanced Digital Acumen/Literacy:** The job holder will need to be constantly upskilled to operate new or refined AI-enabled machines.

RPA	Advanced Analytics	AI

Financial Crime Data Analytics

Subsector: Enterprise

Job Family: Compliance (Advisory)

Impact Level

Today, this role is responsible for developing financial crime models in the areas of anti-money laundering, sanctions screening, and external and internal fraud – with the objective to automate financial crime reports and dashboards.

Medium Impact

Consolidated Activities

	Today	Future
Data Collection	Tasks are manual and time-consuming. Manual data retrieval process is reduced by using RPA. Big data technology is also increasingly being used.	Big data technology will be widely adopted, providing a single point of access and an all-inclusive view across the FI, supporting the development of a wide range of analytics and scenarios that are applicable for compliance and wider business needs.
Machine Learning Models Development	Execution is analysis-intensive. Machine learning is used to analyse client transaction patterns, identify outliers and anomalies in behaviours and profiles, and to supplement the analysis of emerging trends and the assessment of potential risks.	Financial crime analytics utility platforms will be developed to help financial institutions collaborate towards protecting their customers and other stakeholders while creating a more robust control environment.
Stakeholder Liaison and Results Presentation	Execution requires human interactions and technical expertise to explain findings to key stakeholders and facilitate discussions with business to improve future modelling.	Technical expertise and knowledge will remain critical in delivering and explaining the results to stakeholders. In addition, in-depth regulatory and compliance knowledge will be developed to assist in solutioning.

In the next

3–5 years ...

This role will continue to explore advanced technologies that provide them with the ability to investigate large and random data sets more quickly and efficiently.

Skills Differentiators:

▸ **Change Management:** Apart from coping with changes happening with data and technology ecosystem, the job holder will need to equipped with the capability and emotional resilience to drive change based on analytical and predictive outputs.

▸ **Process Excellence:** Equipped with data-driven insights, the job holder will need to possess skills to address process inefficiencies and prioritise areas of improvement for creating more robust control environments.

▸ **Data Storytelling:** The job holder will need to be able to disseminate key messages and findings from investigations in a compelling and easy-to-understand manner for relevant stakeholders to take action.

▸ **Automation Management:** The job holder will need to upskill to oversee systems, ensuring that operations requirements are met before seeking continuous improvement opportunities.

▸ **Analytics and Computational Modelling:** Solid quantitative and modeling skills are the foundational skills required for this role, and they will continue to be important despite advancement in automation.

RPA | Advanced Analytics | AI

Human Resource Operations

Subsector: Enterprise

Job Family: Human Resources

Impact Level

Today, this role is responsible for leading Human Resources (HR) practices that will provide an employee-oriented, high performance culture – including managing recruitment and ongoing development of the workforce.

Medium Impact

Consolidated Activities

	Today	Future
Talent Acquisition	Tasks such as filing of paperwork and arranging of interviews are administrative, and the outcomes often rely on human decision making which is susceptible to bias and inconsistencies in judgment.	AI (cognitive) solutions will facilitate candidate profiling while eliminating human bias from the process. Virtual recruiters will handle scheduling, feedback collation, and address basic questions in real time.
Employee Onboarding	Execution is often rule-based and document intensive. Activities can ideally be completed on digital platforms, eliminating need for paperwork and excessive downtime.	AI will be used to customise onboarding programmes for new hires or even to ease integration into the company by providing a virtual buddy/digital assistant to answer questions or provide basic technical support.
Employee Retention and Performance Analysis	Execution involves collection of inputs and data to assess a staff member's performance, and is typically time consuming. Outcomes are often subject to bias and inconsistencies in judgment.	AI will yield real-time insights on employee feedback, allowing HR to more proactively reach out to employees, as well as provide a continuous flow of data to enable better feedback and promotion decisions.
Employee Training	Execution involves close collaboration with business to acknowledge training needs, which can be supported by technology. Many banks have adopted on-the-go learning with the increasing use of mobile platforms.	AI will collect and analyse employee data to generate customised training programs, and virtual reality (e.g., gamification) will be used to make training scenarios more engaging and realistic.

In the next

3–5 years ...

This role will continue to play a critical role in working closely with business to prepare their workforce for the future. They will incorporate advanced data analytics and AI solutions to improve various HR processes and delivery, as well as enhance employees' experience.

Skills Differentiators:

▸ **Advanced Digital Acumen/Literacy:** Access to more software and digital tools will help to augment this role's responsibilities but it will be necessary to understand the underlying technology to take full advantage of it.

▸ **Data Interpretation and Analysis:** Using Advanced Analytics to provide more meaningful insights for the organisation will require being able to make sense of data to draw conclusions.

▸ **Change Management:** Being adaptable to changing workforce needs will be important, in addition to changing underlying processes and how tasks are carried out in terms of acquisition and on-boarding. Adapting to these changes will require a willingness to work alongside technology.

▸ **Advisory:** Using access to Advanced Analytics, the role will be able to draw more meaningful insights from data to provide enhanced recommendations to the business.

▸ **Business and Finance Acumen:** Understanding the evolving business environment and the impact of data analytics and automation will be necessary to help this role acquire talent that is suited for rapidly changing roles, skill sets and business needs.

RPA | Advanced Analytics | AI

Internal Audit

| **Subsector:** Enterprise |
| **Job Family:** Internal Audit |

Impact Level

Today, this role is responsible for the on-going maintenance and assessment of an institution's internal controls, risk management and governance systems and processes.

Medium Impact

Consolidated Activities

	Today	Future
Independent Assurance Services	Execution requires business and technical expertise to provide advisory and oversight services to the organisation.	RPA and AI tools will be used to automate the audit process, and enable the auditing of future scenarios within a controlled environment or allow for live simulation with test subjects/bots. This role will review results and provide exception management.
Governance Risks and Controls Advisory	Execution requires strong communication and advisory skills, as well as strong expertise on current regulations.	Cloud computing and digital platforms will enable the use of interactive web based tools that are accessible anywhere. AI will generate real-time updates on current changes in regulations to equip the role job holder with enhanced information for prior to sharing across the organisation.

In the next

3–5 years ...

This role will continue to provide advisory and assurance services to the organisation. However, tasks execution can be augmented by easing manual processes along with using technology to increase the speed in which audit reports can be consolidated for further analysis and review.

Skills Differentiators:

▸ **Complex Problem Solving:** Given the infusion of data analytics into many of the services that will be reviewed by the job holder, the complexity of audit services will increase – requiring the job-holder to understand how to resolve more complex problems.

▸ **Lateral Thinking:** The job holder will display the ability to find linkages between various information and piece them together in a complete form to develop the best recommendation for the business.

▸ **Advisory:** The job holder will the display ability to apply the right advisory strategy to act as a consultant for identifying and suggesting improvements in organisation practices.

▸ **Data Interpretation and Analysis:** The job holder will be able to draw insights from data and incorporate them into the development of recommendations.

▸ **Process Excellence:** The job holder will demonstrate capability in evaluating and improving the effectiveness of governance, risk management and control processes.

RPA | Advanced Analytics | AI

IT Applications and Software

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for translating the needs of business units into technical specifications and overseeing the deployment and management of systems and solutions, which are developed internally and/or built and sourced externally.

Medium Impact

Consolidated Activities

	Today	Future
Applications/ Software Implementation	Execution of development activities are seeing augmentation from a DevOps perspective – in the way that they adopt and implement technology methodologies such as Agile and Waterfall. These are impacting the speed of delivery for new applications and software.	Given the rapid need for development, this role will need to continue to remain updated on new and enhanced technology and methodologies available. As the number of connected devices grows and users become more sophisticated, software development will also become more specialised.

In the next

3–5 years …

While the responsibility for application and software development/implementation remains stable as technology advances, the technical knowledge of the individual must evolve with it to remain relevant including working more collaboratively with various business units.

Skills Differentiators:

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in developing requirements that will guide the design and implementation of applications and software.

▸ **Project Management:** The job holder will possess skills to deliver assignment objectives, key requirements and gain support from key stakeholders to implement actions within agreed deadlines.

▸ **Stakeholder Engagement:** The job holder will need to be able to coordinate and maintain productive working relationships with stakeholders, to ensure successful roll out of initiatives and projects.

▸ **Risk Awareness:** The job holder will possess knowledge of risk – including strong understanding on new and emerging risks such as cybersecurity – to be able to proactively guard against threats.

▸ **User Experience Design:** The job holder will display ability to design and solve user experience issues for various types of users.

RPA | Advanced Analytics | AI

IT Operations Management

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for delivering efficient and reliable infrastructure through performance monitoring and maintenance and overseeing the routine installations of hardware (e.g., network components and multi-functional devices).

Medium Impact

Consolidated Activities

	Today	Future
Governance for Infrastructure Architecture	Execution requires human judgment and technical expertise for design and development of policies.	Human judgment and technical expertise remain critical in setting-up infrastructure architecture and overall governance framework.
Business Requirements Definition	Execution requires human judgment and technical expertise to translate requirements.	Human judgment and technical expertise will remain critical to liaise with stakeholders to understand the business needs, technical requirements, as well as to negotiate expectations.
Infrastructure Maintenance and Optimisation	Execution requires human oversight. It is becoming increasingly common for job holders to work alongside data analytics and automation systems and tools to solve problems.	Machine learning could collect system performance data for capacity planning. Machine learning will be used as a way to optimise systems rather than independently handle potential problems.
Infrastructure Incidents Resolution	Digital tools are available that will help to self-recover in case of an incident. However, human judgment and technical expertise are required to resolve more complex problems.	AI will help to optimise system performance using tools that are available. Job holders will continue to work closely with senior management to establish disaster recovery plans for the organisation.

In the next

3–5 years …

This role will continue to facilitate the overarching operations to ensure smooth operations and governance for the IT infrastructure. This role will leverage AI to optimise systems leading to enhanced recommendations. In addition, the rise of cloud computing will require that this role will move away from managing on-premise.

Skills Differentiators:

▸ **Change Management:** The job holder will possess the mindset and ability to adapt to and drive effective change that are aligned to the organisation's direction, ultimately improving the adoption of new infrastructure across organisation.

▸ **Process Excellence:** The job holder will possess skills to highlight the root causes of process inefficiencies and identify improvement opportunities across organisation.

▸ **Stakeholder Engagement:** The job holder will need to be able to coordinate and maintain productive working relationships with stakeholders to deliver initiatives and projects that are aligned to desired objectives for the organisation.

▸ **Project Management:** The job holder will be able to apply the appropriate principles for the planning and managing of a wide variety of projects to ensure the objectives are achieved within agreed timeframe.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in implementing IT infrastructure and strategies that are aligned to business or organisational needs.

RPA | Advanced Analytics | AI

IT Project Delivery

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for planning and delivering IT projects across the organisation, and provisioning IT services (e.g., development, negotiation and review of licensing contracts).

Medium Impact

Consolidated Activities

	Today	Future
Resource Management and Project Plan Development	Execution requires human judgment to plan and identify necessary resources for projects.	Organisations will continue to move towards adoption of agile/scrum methodologies. This role will continue to require being tech-savvy and adapting to the new technology methodologies, rather than just being functional project managers.
Stakeholder Management	Dashboards are already being adopted and being used to provide real-time updates to stakeholders.	Data analytics will facilitate the collection of feedback from various sources to spot trends and draw attention to oversights that affect other teams before they become barriers to project success.
Change Management	Task requires understanding the complexities of undertaking change initiatives and how they will effect the organisation.	This role will need to stay abreast of new methodologies and best potential for adoption within their organisation. This will also include deciding on which tools are useful and take advantage of their benefits to improve efficiency.

In the next

3–5 years ...

This role adopts new methodologies in the facilitation and delivery of IT related projects, and will continue to rely on stakeholder engagement, project management skills, as well as hone their technological expertise to continue delivering top quality IT projects to the organisation.

Skills Differentiators:

▸ **Change Management:** The job holder will possess a change mindset and ability to incorporate latest methodologies into project delivery.

▸ **Influencing and Negotiation:** The job holder will display confidence in presenting and justifying the rationale for new strategies, as well as guide the organisation throughout the transition and/or project delivery.

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with internal and external stakeholders (e.g., vendors), effectively eliciting stakeholders' views on areas of priorities and developing alignment across.

▸ **Risk Awareness:** The job holder will possess knowledge of risk and be able to identify potential areas of risk for new methodologies and project delivery to proactively address any concerns prior to escalation.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in implementing IT projects that address the different needs.

RPA   Advanced Analytics   AI

IT Security

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for overseeing the programs, protocols and escalation processes for security incidents, and working towards enhancing security operations as well as cybersecurity solutions.

Medium Impact

Consolidated Activities

	Today	Future
Security Strategy and Standards Setting	Execution involves human judgment and technical expertise in aligning enterprise security vision and underlying initiatives with business strategy.	Human interaction and technical expertise will remain key in advising top management on information technology security matters.
Cyber Risk Mitigation and Network Disaster Recovery Plan Development	Execution requires deep technical expertise and can be time consuming due to the need for independent reviews of information and formulation of recommendations.	Machine learning will be used to identify potential cyber-security incidents and potential network abnormalities. Working through raw data and leveraging unsupervised machine learning algorithms, abnormal information security activities can easily be detected. However, human judgment will remain critical in formulating corrective actions and appropriate controls to mitigate technical risks.
Penetration Testing and Results Reporting	Automated penetration testing software for real time information is already being adopted today. Dashboards that are able to visualise the testing and results are also common to help determine issues and quickly counter threats.	Automation of the security testing allows the human tester to focus their time and expertise on actually simulating realistic threats.

In the next

3–5 years ...

Methods of security breaches would be increasingly complex and difficult to prevent, hence, this role will leverage AI tools to predict anomalies and take a preventive approach to manage cyber threats with varying levels of complexity and determine the optimal course of action.

Skills Differentiators:

▸ **Cybersecurity:** The job holder will continuously upskill to be able to handle and address increasingly advanced data/online threats.

▸ **Systems Thinking:** The job holder will possess strong understanding of how systems work within the context of larger systems, ensuring successful implementation/integration of security solutions.

▸ **Stakeholder Engagement:** The job holder will need to be able to coordinate/maintain productive working relationships with stakeholders and achieve buy-in to ensure successful roll out of new security measures.

▸ **Risk Awareness:** The job holder will possess in-depth knowledge of risk – including strong understanding of emerging risks, inherent process and system risks – to develop comprehensive cyber-attack prevention plan.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in developing security measures and strategies to combat security vulnerabilities – in a way that is aligned across the organisation.

RPA	Advanced Analytics	AI

IT Service Support

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for day-to-day IT support and oversight of the maintenance and upgrading of support systems, as well as restoring services with minimal impact to users.

Medium Impact

Consolidated Activities

	Today	Future
System Maintenance, Installation and Configuration	Automated deployment is ongoing today which allows for automatic pushing of updates to users, continuing to reduce manual human intervention needed for these activities.	This role will need to monitor ongoing system utilisation and work with third-party vendors for implementation of monitoring tools. This role will need to be able to evaluate pre-packaged solutions for selection of best fit for the organisation.
Incident Resolution and Helpdesk	Execution is heavily depended on using IT personnel to address events and alerts from the IT infrastructure, as well as incidents reported by customers. Many organisations have developed self-service platforms with live chat software and portals to solve users' problems.	Chatbots will be used to handle first level of helpdesk cases, as they are largely repetitive. Chatbots will be trained to improve capabilities to resolve an incident or service request. For complex cases, chatbots will perform pre-processing, and route tickets to the right personnel for further action.

In the next

3–5 years ...

This role will change to handle more complex cases that are escalated by automated systems. Human intervention will be required to resolve complex system issues, and to recommend preventive solutions for issues that arise frequently.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will possess skills to interpret data to extract key insights for recommendations, decisions or actions.

▸ **Process Excellence:** With good understanding of existing operations, the job holder can help to highlight the root causes of their process inefficiencies and identify the right processes for automation.

▸ **Complex Problem Solving:** The job holder will need to examine escalated complex problems, and leverage available resources to develop and execute solutions.

▸ **Advanced Digital Acumen/Literacy:** On-going upskilling will be required to ensure the job holder is familiar with new electronic platforms, and capable of providing support to minimise disruptions

▸ **User Experience Design:** With the increasing introduction of self-service options, the job holder will possess capability to make recommendations for future improvements to enhance user experience.

RPA   Advanced Analytics   AI

IT Strategy and Architecture

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for translating business needs into technical system solutions. They develop architectural approaches, conduct business reviews, and offer recommendations to address system integration problems as well as compatibility.

Medium Impact

Consolidated Activities

	Today	Future
Enterprise and Information Architecture Strategy Implementation	Execution requires human judgment and collaboration with other business units.	Close collaboration with business units will remain critical to anticipate future needs and requirements of the organisation, driving alignment of enterprise architecture strategy and design with the overall business strategy.
Business Needs Identification	Execution requires human judgment, complex analytical and critical thinking skills to identify business needs from data and research.	Advanced Analytics will be increasingly leveraged to identify pain points within processes, and uncover the gaps between business objectives, processes and systems.
Enterprise and Information Architecture Design	Execution requires technical knowledge and collaboration with other business units.	The role need to stay abreast with new technologies as technical expertise is critical in the development of future state models and plans to deliver an architecture that supports the most efficient and secure IT environment that is in line with regulations.
Stakeholder Management and Partnership	Execution requires technical knowledge and effective communication skills with stakeholders. Technology may assist in the execution.	Human judgment and technical expertise will remain vital to garner buy-in and influence business stakeholders to shift priorities, resources, and budgets to align with enterprise and information architecture roadmaps. Close collaboration with IT stakeholders will be necessary to create ownership within the organisation.

In the next

3–5 years ...

Human judgment remains critical and this role will incorporate data analytics to obtain unique business insights for the design of IT architecture.

Skills Differentiators:

▸ **Cybersecurity:** Given the rise of cybersecurity vulnerabilities, this role will need to continually focus on, and remain updated with the latest information to help create strategies to protect the organisation.

▸ **Global Perspectives:** The job holder will look beyond the needs of the organisation, gain understanding on market best practice, and incorporate new learnings into the design of IT architecture for the firm.

▸ **Risk Awareness:** The job holder will possess in-depth knowledge of risk to ensure IT strategy is robust to support the organisation needs.

▸ **Strategic Planning:** The job holder will demonstrate ability to incorporate insights into the development of strategic initiatives cater to the organisation and business needs.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to work effectively with business units in identifying opportunities to leverage on new technologies to help achieve desired business outcomes.

| RPA | Advanced Analytics | AI |

IT Testing/Audit and Quality Assurance

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for Information Technology (IT) quality assurance through manual and automated testing – this includes finding and reporting bugs and glitches.

Medium Impact

Consolidated Activities

	Today	Future
IT Testing and Audit Plan Development	Execution requires manual documentation to describe testing scope and activities. However, some FIs have started to use RPA to map test plans to tracking tools.	IT testing plan development will continue to be improved with RPA tools that are able to run tests more quickly and accurately. This role will still be involved with analysing the results from automation systems.
Quality Assurance Testing and Monitoring	Execution can be time consuming and does not scale well.	RPA will be able to help with regression testing and test automation. Testing tools will reduce manual testing efforts, making the role more efficient.

In the next

3-5 years ...

This role will change to handle more complex cases that are escalated by automated systems. Human intervention will be required to resolve complex system issues, and to recommend preventive solutions for issues that arise frequently.

Skills Differentiators:

▸ **Automation Management:** Being able to use automated systems and identify opportunities to derive additional value from RPA will be critical to maximise its benefits.

▸ **Data Interpretation and Analysis:** Given more complex systems testing outputs, the job holder will be upskilled to analyse and interpret larger and more complex datasets in a meaningful way.

▸ **Investigation:** The job holder will display ability to examine logs and error reports to gather relevant information and uncover root causes.

▸ **Risk Awareness:** The job holder will possess strong knowledge of risk to assess system errors or problem severity across different scenarios.

▸ **Process Excellence:** With the incorporation of RPA, the job holder will need to continuously seek for opportunities to improve and streamline processes.

RPA | Advanced Analytics | AI

Marketing and Communications Officer

Subsector: Enterprise

Job Family: Marketing

Impact Level

Today, this role is responsible for the realisation of business strategies by driving marketing and branding programmes, communication plans, and generating data-driven commercial insights.

Medium Impact

Consolidated Activities

	Today	Future
Marketing Strategy Development	Execution requires human judgment and strategic planning. In addition, deep product knowledge and business acumen is important in helping job holders devise marketing plans that will attract customers, and are in line with the firm's branding.	Advanced Analytics can yield better customer insights leading to improved marketing strategies. Human judgment will still be needed to decide what data is actionable and how to best align strategies with the firm's ultimate objectives.
Campaign Development and Execution	Tasks are administrative in nature. Execution involves close partnership with multiple business stakeholders.	Advanced Analytics, coupled with usage of digital tools, will help to track the performance of campaigns and provide metrics to determine if any actions are needed to improve campaign performance.
Internal and External Communications	Execution requires excellent "people" skills – such as stakeholder engagement and conflict management to ensure smooth coordination of communications.	Digital platforms will facilitate the dissemination of communication. Human intervention will remain critical in managing an effective working relationships with different stakeholders.

In the next

3–5 years ...

This role will continue to be responsible for the ideation, creation and execution of strategic marketing campaigns. Advanced Analytics will be incorporated to improve marketing campaigns approaches. With the rise of digital platforms, this role will likely transform to be more similar to a Digital Marketer.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will use data driven insights to supplement generation of new ideas and create captivating content.

▸ **Targeted Technical Sales:** Due to increased efficiency, improved understanding of customer preferences, and speed of campaign development, more marketing communications can be circulated to support he product and sales value-chain and the function will be more closely linked to sales roles.

▸ **Product Awareness:** The job holder will possess in-depth understanding of the product portfolio in order to develop a robust marketing campaigns.

▸ **Customer Mindset:** The job holder will possess in-depth understanding of client's needs and incorporate valuable insights into marketing related activities.

▸ **Advanced Digital Acumen/Literacy:** The job holder will upskill to be proficient in using advanced digital tools and gain a strong understanding on how different solutions and its features can be leveraged to support marketing efforts.

RPA | Advanced Analytics | AI

Operational Excellence Officer

Subsector: Enterprise

Job Family: Risk Management

Impact Level

Today, this role is responsible for the implementation of process improvement initiatives to enhance operational efficiency, service delivery, and to create a continuous improvement culture in the organisation.

Medium Impact

Consolidated Activities

	Today	Future
Performance and Quality Monitoring	Execution is manual, and involves developing required performance management and quality scorecards for various functions.	Supported by AI, tracking will begin at the operational level, triggering alerts when service level agreements (SLAs) are not met. Organisations will also assess key performance indicators (KPIs) in a historical context and leverage data to predict operational "pain points", ultimately to improve performance
Continuous Process Improvement	Execution requires liaising with various business units to gather inputs and identify which areas in the operations workflow can be improved.	Advanced Analytics will provide more granular information to detect potential pain points. New methodologies will continue to be adopted to realise business products and process improvement opportunities.
Foster Culture of Continuous Improvement	Execution is advisory in nature and requires human judgment and expertise to collaborate across the organisation to create a work environment that engages employees at all levels to help drive out non-value adding work and simplify processes to achieve cost reduction.	Execution will continue to be human centric – relying on soft skills to encourage others to increase awareness, adopt and maintain a culture that encourages operational efficiency.

In the next

3–5 years ...

Moving away from the reactive break-and-fix approach, this role will leverage data to predict potential pain points across operations and strategically deploy resources to address anomalies as well as prioritise processes for automation.

Skills Differentiators:

▸ **Change Management:** The job holder will have the mindset and ability to drive effective change to ensure employees across the organisation adopt the continuous improvement culture, and showcase willingness to drive improvement in processes.

▸ **Project Management:** The job holder will be able to apply the appropriate principles for the planning and managing of a wide variety of process improvement projects to ensure stakeholder expectations and the objectives are achieved within agreed timeframe.

▸ **Business and Financial Acumen:** The job holder will possess commercial awareness to obtain a deeper understanding of the business needs and expectations, and ensure all processes and practices are able to drive and deliver business results.

▸ **Influencing and Negotiation:** The job holder needs to have the ability to display confidence in presenting and justifying the rationale for new processes as well as aligning the stakeholder's way of thinking and gaining buy-in from them.

▸ **Data Interpretation and Analysis:** Given the availability of large datasets, the job holder will be upskilled to analyse and interpret more complex data in a meaningful way.

RPA | Advanced Analytics | AI

Paralegal

Subsector: Enterprise

Job Family: Legal

Impact Level

Today, this role is responsible for supporting the running of legal department operations and legal administrative activities.

Medium Impact

Consolidated Activities

	Today	Future
Legal Research and Analysis	Execution involves extraction of information for regulatory bodies, head office, and other government authorities. The manual extraction from different systems can be time consuming.	AI-enable software will be used to filter and analyse legal databases to look for relevant information, allowing more sources to be processed in less time. Job holders will spend more time with analysis and identifying insights.
Filing and Documentation	Execution is repetitive and document intensive making it tedious and prone to human error.	RPA can be used to draft standard legal documents and automate routine filing of documents. Some human judgment is required for oversight and managing quality of output.
Vendor and Stakeholder Management	Execution can be time and document intensive, with large amounts of correspondence going between parties. However, partnership and 'people' skills are needed to effectively engage and communicate effectively.	Digital tools will facilitate dissemination of correspondence and communication. Human intervention will remain critical to manage effective working relationships and manage exceptions.

In the next

3-5 years ...

This role will continue to support the legal department operations and administration, but using technology to speed up efficiency of completing tasks. The job holder would be required to oversee and manage the use of digital tools, and focus more on project management and vendor management activities.

Skills Differentiators:

▶ **Advanced Digital Acumen/Literacy:** The job holder will need to stay abreast of latest technologies to effectively incorporate, manage and use digital tools to support legal activities.

▶ **Cybersecurity:** The job holder will possess awareness and knowledge of cybersecurity risks and work to proactively mitigate them through controls and safeguards

▶ **Risk Awareness:** The job holder will be aware and proactively identify risks that need to be addressed by the business from a legal capacity

▶ **Lateral Thinking:** The job holder will demonstrate the ability to connect the dots across different types of information as part of legal research to draw insights to support plans for addressing legal matters

▶ **Process Excellence:** The job holder will identify business processes which can be improved and seek opportunities to achieve efficiency in operations and legal administration.

RPA | Advanced Analytics | AI

Regulatory Change Management Officer

Subsector: Enterprise

Job Family: Regulatory Liaison

Impact Level

Today, this role is responsible for liaising with regulatory bodies and industry associations, and assessing the impact of new or refined regulations on business.

Medium Impact

Consolidated Activities

	Today	Future
Regulatory Bodies and Industry Association Liaison	Execution requires human interaction and involves ongoing networking. Human judgment, interaction and expertise are required to participate in official communications, industry roundtables and other related events to keep abreast with local regulatory matters.	This role will continue to act as the liaison with regulators, external counsels and consultations in respect to local regulatory requirements. Hence, human intervention remains critical.
Impact Assessment and New Requirements Interpretations	Execution is highly technical, and manual tracking and maintaining the library of regulations could be time consuming. FIs are exploring automation opportunities to automate the tracking of regulatory information – where new updates and insights are collated from external sources and integrated into a common repository.	AI-driven automated systems will be used to create a centralised regulatory library with consistent taxonomy. It will track regulatory updates from multiple sources, notify affected business units, and automatically run impact assessments. Human judgment remains critical in advising top management and risk function on changes and implications. In addition, technical expertise is vital in validating the outcomes of impact assessments and segmenting new regulations for various functions to take action.

In the next

3-5 years ...

This role will apply their expertise and technical knowledge in verifying and challenging the impact assessment results from different perspectives, and providing advice on the alignment between organisation strategy and new and/or refined regulations.

Skills Differentiators:

▸ **Influencing and Negotiation:** The job holder will need to display confidence in presenting and justifying the rationale for new policy implementation, and gaining buy-in from all stakeholders.

▸ **Stakeholder Engagement:** The job holder will need to proactively engage key stakeholders to address the business impact of regulatory changes and effectively manage the balance of interests of stakeholders.

▸ **Project Management:** This skill is important for the job holder to drive the implementation process, ensuring that regulatory changes are properly assigned and actions that drive project success are rolled out in a timely manner.

▸ **Data Interpretation and Analysis:** The job holder will need to be skillful in interpreting data to extract key insights for recommendations, decisions or actions.

▸ **Change Management:** Change management expertise is vital for job holders to help the business with successful transitions to revised or new regulations.

RPA | Advanced Analytics | AI

AML/CFT Policy Advisory

Subsector: Enterprise

Job Family: Compliance (Advisory)

Impact Level

Today, this role is responsible for maintaining/ developing AML guidelines and procedures, recognising the potential implications of regulatory changes, and providing prompt, constructive advice on AML/CFT legislation application to business.

Low Impact

Consolidated Activities

	Today	Future
AML/CFT Regulation Updates Notification	Execution requires human interpretation, hence leaving little room for application of technology.	Digital platforms will be used to alert officers on global emerging trends (e.g., in AML, sanctions, etc.), but technical knowledge and judgment are needed in the development of AML policies and procedures that are in line with the local regulatory requirements.
AML Policies and Procedures Drafting	Execution requires in-depth understanding of local and global regulatory requirements, and high level of human judgment to operationalise regulatory requirements with consideration to business practices.	Regulatory intelligence and analytical capabilities will contribute to the analysis and understanding of the impact of regulatory change. However, an effective system of internal control requires more than rigorous adherence to legislation. it requires the use of judgment in the application of the requirement to the business.
Stakeholder Management	Execution involves human interactions and advisory. There is limited to no automation opportunity.	Frequent stakeholder communications are needed to steer drafted policies and standards through various approval processes, discuss refinements and additional inputs, as well as track policy adoption and understand the challenges of adoption.

In the next

3–5 years ...

The nature of this role is unlikely to change in the near future. There is limited automation opportunity, but as financial crime evolves and regulations become more stringent, Advanced Analytics may potentially be used to support the advisor in policy formulation.

Skills Differentiators:

▸ **Product Awareness:** The job holder will need to possess good product knowledge in order to provide oversight from an AML/CFT perspective.

▸ **Complex Problem Solving:** The job holder will need to oversee emerging AML/CFT concerns and leverage available resources internally and externally to address complicated cases.

▸ **Advisory:** The job holder will display ability to apply the right advisory strategy to guide stakeholders on emerging AML/CFT regulations and to enable the prevention of crimes.

▸ **Lateral Thinking:** The job holder will display ability to incorporate information collated from different sources into their advice or solutions.

▸ **Stakeholder Engagement:** Job holder will need to proactively engage stakeholders to address AML/CFT issues with practical solutions, and effectively manage the balance of interests of different stakeholders.

RPA | Advanced Analytics | AI

Anti-Fraud, Bribery and Corruption (ABC) Advisory

Subsector: Enterprise

Job Family: Compliance (Advisory)

Impact Level

Today, this role is responsible for implementing ABC programmes across business divisions, reviewing risk assessment framework and providing advice to manage risks associated with transactions, client relationships, joint ventures, business development etc.

Low Impact

Consolidated Activities

	Today	Future
ABC Framework/ Program Design	Execution requires strong technical expertise. The evolving behaviours — specific to bribery, insider trading and corruption can be detected using Advanced Analytics and AI.	With the increasing use of Advanced Analytics, outcomes will be leveraged to inform the refinement of existing programmes. Human intervention and judgment will remain essential in fostering collaboration, facilitating discussion, redesigning internal policies and to ensure refined controls are fit for purpose.
ABC Policies Implementation	Execution is advisory-driven. Human intervention is key in building strong relationships with stakeholders within all business divisions, providing support relative to the management of ABC — related risk and addressing new legislative or regulatory requirements.	Human intervention remains critical in the execution, with limited to no opportunities for technology to be integrated.
Risk Management/ Mitigation Advisory	Execution is advisory-driven. In-depth knowledge and strong understanding of the business, risks, and regulations are critical in putting forth mitigation strategies.	Expertise and strong understanding of business is key to providing guidance and appropriate risk consultation to stakeholders (such as donations, sponsorships, joint venture, third parties management) and assist in the development of mitigation strategies.

In the next

3–5 years ...

This role will continue to play a strategic role, leveraging analytics for the development of robust intervention plans — in an effort to protect financial institutions against breaches.

Skills Differentiators:

- **Product Awareness:** The job holder will need to possess strong product knowledge, as well as commercial awareness to guide and ensure that the business is adhering strictly to anti-corruption legislation.
- **Complex Problem Solving:** The job holder will need to address a variety of compliance violations and leverage available resources to develop and implement corrective action plans.
- **Advisory:** The job holder will need to apply appropriate advisory strategies to guide stakeholders on emerging regulations and to enable the prevention of breaches.
- **Lateral Thinking:** The job holder will display the ability to incorporate information collated from different sources into advice or solutions.
- **Stakeholder Engagement:** The job holder will need to proactively engage stakeholders to address ABC issues with practical solutions, and effectively manage the balance of interests of various stakeholders.

RPA | Advanced Analytics | AI

Compliance Advisory

Subsector: Enterprise

Job Family: Compliance (Advisory)

Impact Level

Today, this role is responsible for advising the business on the implementation of new changes in regulations in various areas, and act as a subject matter expert to recommend refinements for compliance policies.

Low Impact

Consolidated Activities

	Today	Future
New Regulations Implementation Advisory	Execution is advisory-driven, with human judgment and expertise required to advise the business on the appropriate applications as well as implementing the suitable mitigation strategy to resolve compliance and operational risks.	With in-depth knowledge and understanding of the business and regulatory environment, this role will continue to act as a trusted advisor to the business.
Compliance Requirements Interpretations	While this task can be supported by technology (e.g., tracking of new regulations), interpretation requires human judgment.	Machine learning and analytics will be able to perform real-time tracking of current and upcoming regulations, and AI-powered applications or technology used to centralise regulatory library with consistent taxonomy. However, expertise remains critical in interpreting and keeping abreast with new legislations.
Compliance Policy Drafting and Revision	Human judgment and expertise are critical to fully understand the impact of new regulations on various functions, and develop robust internal controls to ensure that the organisation, its clients and employees are protected.	Human judgment and expertise will remain critical in establishing robust internal controls.

In the next

3-5 years ...

This role will continue to play a strategic, and important part in partnering with the business, to provide guidance on the interpretation of regulatory requirements and delivery of operations aligned with the organisation's appetite.

Skills Differentiators:

▸ **Product Awareness:** The job holder will need to possess strong product knowledge as well as commercial awareness to guide and ensure that the business is adhering to rules and regulations.

▸ **Complex Problem Solving:** The job holder will need to examine complex problems that are escalated for review, and leverage available resources to develop and execute solutions.

▸ **Advisory:** The job holder will need to apply appropriate advisory strategies to guide stakeholders on emerging regulations and to enable the prevention of breaches.

▸ **Lateral Thinking:** The job holder will display ability to incorporate information collated from different sources into advice or solutions.

▸ **Stakeholder Engagement:** The job holder will need to proactively engage key stakeholders to address compliance issues with practical solutions, and effectively manage the balance of interests of various stakeholders.

RPA | Advanced Analytics | AI

Customer Experience Designer

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for developing and implementing strategies aimed at improving customer relationships and satisfaction with the business, product and services, including incorporating feedback for continuous improvement.

Low Impact

Consolidated Activities

	Today	Future
Customer Experience Strategy Design	Task is advisory in nature and requires in-depth business knowledge. Predictive analytics are increasingly used to determine customer preferences and help shape the unique experience for various customer segments.	AI tools with Advanced Analytics capabilities will provide in-depth information about customers and their preferences, ultimately informing a robust strategy for customer experience.
Feedback and Customer Insights Evaluation	Execution requires human judgment. Collating and analysing information across multiple touchpoints can be time intensive, hence many organisations are leveraging technology for execution.	Digital applications may be developed to facilitate the voice of customer to help improve the customer journey. Human judgment will remain necessary to interpret the results.
Continuous Improvements On Customer Service	Task requires networks and relationships across the business to be able to identify and prioritise areas for change.	Data analytics will be used to identify common issues and root causes pertaining to quality of service across various platforms, creating robust insights and recommendations. Human judgment will remain vital in execution.
Customer Engagement Programs Development	Task is advisory in nature, and execution requires understanding business needs.	The role will leverage active and passive data to gauge customer sentiments, preferences, and to create the optimal schemes and incentives for customer engagement.
Usability Testing and User Experience Optimisation	Task requires understanding end-to-end solutions and providing advice on potential areas for improvements.	Data analytics will help to analyse user feedback on interface performance with the intention of enhancing the customer experience.

In the next

3–5 years ...

Recognising that enhanced customer experiences will serve as a differentiator amongst competitors, this role will need to be able to leverage data analytics to help address ever-changing customers' expectations and preferences.

Skills Differentiators:

▸ **Complex Problem Solving:** The job holder will be able to incorporate data insights into tackling complex solutions and seek for continuous improvement opportunities that are unique to the organisation.

▸ **Influencing and Negotiation:** The job holder will have the ability to display confidence in presenting and justifying rationale for the recommendations or solutions, and gain buy-in from relevant stakeholders to help achieve desired outcomes.

▸ **Data Storytelling:** The job holder will possess skills to effectively convey messages and findings to different audiences to ensure that critical messages are communicated accordingly.

▸ **Advisory:** The job holder will display the ability to apply the right advisory strategy to engage with stakeholders in different situations and provide advise that leverages on deeper business acumen infused with quantitative and technical insights to inform better customer experience.

▸ **Lateral Thinking:** The job holder will be required to handle larger sets of data today, hence the ability to 'connect-the-dots' and stay focused on big picture to develop creative solutions will remain important.

RPA | Advanced Analytics | AI

Digital Marketing Officer

Subsector: Enterprise

Job Family: Marketing

Impact Level

Today, this role is responsible for the realisation of the organisation's business strategies by driving its digital marketing programmes and implementing marketing content across all digital channels.

Low Impact

Consolidated Activities

	Today	Future
Marketing Campaigns Development	Execution requires an innovative mindset coupled with deep product knowledge and business acumen to devise effective marketing plans that are aligned to the organisation's branding. The job holder possesses knowledge in of how digital channels function to understand how best to structure online campaigns.	Advanced Analytics will be used to develop more segmented and targeted marketing campaigns. The job-holder will have enhanced ability to track conversions and adapt more quickly if campaigns are not performing up to determined standards.
Digital Marketing Strategy Definition and Implementation	Execution requires human judgment to design the parameters of the marketing strategy and enforce it across the team and the organisation.	Third-party software incorporated with machine learning and predictive analytics capabilities will be leveraged to identify factors that affect campaign effectiveness. Human intervention remains critical in utilising the insights to determine the best strategies and develop the most suitable marketing campaigns for various products.
Campaign Effectiveness Tracking	Execution involves regular trend analysis of online campaigns (e.g., paid search, social media etc.) to obtain insightful and actionable data. Organisations are leveraging software tools to gather real-time data to measure campaign impact and effectiveness.	

In the next

3–5 years ...

This role will continue to drive the online marketing efforts of the organisation. Solutions with Advanced Analytics and AI capabilities will help to enhance the strategic planning and design of marketing campaigns. This role will likely oversee both online and offline marketing events, offering an integrated strategy to drive effectiveness.

Skills Differentiators:

▸ **Data Interpretation and Analysis:** The job holder will display the ability to deliver actionable recommendations through data analysis to influence business decisions and strategies.

▸ **Advanced Digital Acumen/Literacy:** The job holder will continue to upskill to be proficient in using advanced digital tools and gain a strong understanding on how different solutions and its features can be leveraged to support marketing efforts.

▸ **Technology Troubleshooting:** The job holder will possess skills to resolve basic technical issues of different digital solutions or platforms to ensure seamless execution.

▸ **Product Awareness:** The job holder will possess in-depth understanding of the product portfolio in order to develop robust marketing campaigns.

▸ **Customer Mindset:** The job holder will possess in-depth understanding of client's needs and incorporate valuable insights into marketing related activities.

RPA | Advanced Analytics | AI

Digital Transformation

Subsector: Enterprise

Job Family: Information Technology

Impact Level

Today, this role is responsible for creating and implementing an organisation's digital agenda, in addition to innovation of product and services for continued digital advancement.

Low Impact

Consolidated Activities

|	Today	Future
Opportunities Identification for Digital Solutions	Execution requires in-depth understanding of technical needs as well as business objectives.	Many of the solutions will require creation of bespoke or complex product and service solutions. Advanced Analytics and AI will help to provide more information for consideration during new solution development.
Digital Strategy and Roadmap Development	Execution requires in depth business knowledge.	Understanding the existing state of the business and infrastructure will help to more accurately determine the best plan for adoption of digital solutions.
Relationship Management (or Stakeholder Alignment)	Execution requires personal networks and relationships, but can be supported by technology.	Evaluation of potential partners will require deep understanding of technologies available and potential use-cases for business.
Digital Best Practices and Process Development	Execution requires human judgment and staying abreast of latest trends and developments.	Given new and emerging technologies, it is important to understand implications that come along with implementation. Task is advisory in nature and requires the ability to communicate with various business units.

In the next

3-5 years ...

This role will be assisted by Advanced Analytics, however, human judgment remain critical to understand the needs and requirements of the customer and business.
In the longer term, this role could become more ingrained within other parts of the organisation.

Skills Differentiators:

▸ **Stakeholder Engagement:** The job holder will be highly skilled to liaise with various stakeholders across the organisation, effectively eliciting stakeholders' views on areas of priorities and developing alignment across.

▸ **Advanced Digital Acumen/Literacy:** The job holder will possess strong understanding on how solutions can be further leveraged, and learn the technical features to support the business.

▸ **Change Management:** The job holder will have the mindset and ability to adapt to and drive effective change to ensure the client can successfully adopt digital solutions to support their day-to-day operations.

▸ **Customer Mindset:** The job holder will need to be closer to the customer to better understand their expectations, and put together digital solutions to drive business growth.

▸ **Influencing and Negotiation:** The job holder will display confidence in presenting and justifying the rationale for proposed digital strategies, and gain buy-in from relevant stakeholders.
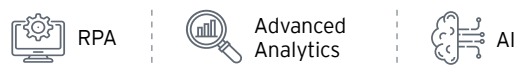
RPA | Advanced Analytics | AI

Enterprise Risk Management

Subsector: Enterprise

Job Family: Risk Management

Impact Level

Today, this role is responsible for identifying, and monitoring all major risk classes (such as strategic, financial, reputational etc.) in financial institutions, in addition to establishing risk aggregation and risk governance frameworks.

Low Impact

Consolidated Activities

	Today	Future
Enterprise Risk Management (ERM) Capabilities and Program Development	Execution requires in depth business knowledge. Human expertise is needed to generate the insights that lead to effective risk mitigation strategies. Human collaboration is critical in working with senior management to address potential risks.	Tasks will continue to leverage on human expertise, but performance will be enhanced by incorporating AI technology. AI can enable the analysis data on enterprise risks and generate insights to allow for more meticulous planning of ERM programmes.
Cross-risk Exposures Evaluation and Cross-risk Type Aggregations	Execution requires in-depth technical knowledge and sound decision making to evaluate the various risk exposures. Analytical and critical thinking skills would be critical for the success of this task.	AI will be able to process various situations and scenarios to estimate cross-risk exposures and provide insights and recommendations for this role to evaluate further.
Development of Business Continuity Management (BCM) governance framework	Execution requires in-depth business knowledge and stakeholder management skills. Tasks requires knowledge of the organisation's operations such that the role is able to ensure business continuity efficiently. Enterprise risk managers are required to collaborate with the BCM team – by exchanging insights on identified interruption risks – to support BCM exercise scenarios.	Advanced Analytics will be used to develop better forecasting models, while digital data visualisation tools can be used to better communicate results and findings. AI can contribute by running multiple "what-if" scenarios to understand the various impacts and implications during different emergencies. These would be invaluable insights that can contribute to the development of the BCM framework. However, human decision making and judgment would still be key for the success of this task.

In the next

3–5 years ...

This role will continue to be responsible for identifying and preventing enterprise risk within the organisation. However, technology can help provide additional insights to expand the foresight of the role and help them better prepare for such risks more proactively.

Skills Differentiators:

▸ **Data Engineering:** Given the increase in data analytics, data pipeline management will be critical to ensure that data meets the standards and requirements necessary.

▸ **Data Storytelling:** The job holder will demonstrate ability to disseminate key findings in a compelling, impactful, and easy-to-understand manner to audiences with varying level of interests and appetite.

▸ **Analytics and Computational Modelling:** Despite automation, the job holder will continue to demonstrate strong capability in creating and delivering sophisticated models.

▸ **Complex Problem Solving:** The job holder will need to examine sophisticated cases that are escalated and leverage available resources to develop and execution solutions.

▸ **Stakeholder Engagement:** The job holder will be highly skilled in liaising with internal and external stakeholders; effectively eliciting stakeholders' views and developing alignment across.

RPA	Advanced Analytics	AI

Legal Counsel

Subsector: Enterprise

Job Family: Legal

Impact Level

Today, this role is responsible for handling and mitigating any legal issues that could arise. They play a critical role in reviewing and drafting contracts, employee policies, and handling court cases.

Low Impact

Consolidated Activities

	Today	Future
Due Diligence and Contract Review	Execution is document-intensive, can be tedious, and is prone to human error.	AI-enabled software will be able to help in the due diligence/contract review process by extracting relevant information from contracts for analysis.
Documentation and Reporting	Execution is repetitive and often high in volume. Task is also time and document intensive and detail-heavy, making the process inefficient.	NLP will automate the drafting of legal agreements. RPA can help draft legal documents that are standard and low in complexity. However, due to the important nature of such documents, some human judgment is still required for oversight.
Legal Research and Analysis	Execution requires human judgment and analytical skills to search through various sources and extract insights. Research can be time and document intensive, resulting in only a limited number of sources being examined due to time constraints.	AI will be able to filter through and analyse large legal databases to look for relevant information AI may tap on natural language processing to identify desired keywords to filter databases for insights. This allows more documents to be processed within the given time, expanding the scope of research.

In the next

3–5 years ...

This role will continue to be responsible for overseeing the legal processes and ensuring legal compliance of the organisation. However, with augmentation, many traditionally administrative tasks can be processed at much greater speeds, increasing the job holders' efficiency.

Skills Differentiators:

▸ **Change Management:** The job holder will have the mindset and ability to adopt and drive effective change to ensure advanced solutions and new ways of working are embraced.

▸ **Risk Awareness:** The job holder will possess in-depth risk knowledge to help business evaluate and address risks pre-emptively.

▸ **Cybersecurity:** The job holder will possess in-depth knowledge of cybersecurity risks to work closely with relevant stakeholders to provide guidance on managing cybersecurity risk and addressing cybersecurity incidents.

▸ **Advanced Digital Acumen/Literacy:** The job holder will possess strong understanding on how digital solutions and technical features can be incorporated and leveraged to support operations.

▸ **Lateral Thinking:** The job holder will demonstrate the ability to connect the dots using all available information, and create robust arguments or action plans to address legal issues.

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Liquidity Risk Officer

Subsector: Enterprise

Job Family: Risk Management

Impact Level

Today, this role is responsible for identifying, quantifying, and managing the liquidity risk (cash flow and asset illiquidity), taking into account potential vulnerabilities and prepare regulatory liquidity standards.

Low Impact

Consolidated Activities

	Today	Future
Scenario Analysis and Stress Testing	Execution can be time consuming and repetitive. However, this task still requires analytical and critical thinking, as well as human judgment to conduct stress testing with multiple scenarios.	Advanced Analytics can yield probabilities of order flow scenarios or generate regulatory-required buffers and liquidity stress testing metrics. Machine learning could also be used to project balance sheet/income statements.
Liquidity Forecasting and Reporting	Execution is administrative and manual in nature. However, some human judgment and decision making is required to conduct forecasting of the liquidity risk.	Automated infrastructure will improve lead time and reporting consistency. Machine learning tools can potentially cluster and predict asset classes by evaluating relevant factors influencing liquidity.
Liquidity Impact Modelling	Execution requires deep technical expertise in liquidity risk and computational modelling to help design liquidity impact models.	AI can help with complex modelling. However, human judgment is needed to assess if assumptions are appropriate.
Risk Appetite/ Control Thresholds Setting	Execution requires strong business acumen and strategic planning to ensure that risk appetite is carefully calculated as the implications of insufficient risk controls would be severe for the organisation.	Machine learning will be used in systemic risk identification, but defining risk thresholds, proposing appropriate appetite and establishing contingency funding plans that align with business strategies requires human judgment and business expertise.
Liquidity Policy, Governance Framework and Contingency Funding Planning (CFP)	Execution requires deep technical knowledge and awareness of the business goals. Close collaboration with other business partners are key to ensure that policies planned are in line with the organisation's position and values.	Supported by stress testing data, human judgment and expertise will be key in creating a robust liquidity governance framework and the drawing up CFPs to address the financial institution's liquidity under stress.

In the next

3–5 years ...

This role will benefit from the inclusion of Advanced Analytics and AI into many of the tasks that are part of current processes. New sources of information will help with more proactive risk management and improved analysis and reporting.

Skills Differentiators:

▸ **Data Engineering:** Given the increase in data analytics, data pipeline management will be critical to ensure that data meets the standards and requirements necessary.

▸ **Data Storytelling:** The job holder will demonstrate ability to disseminate key findings in a compelling, impactful, and easy-to-understand manner to audiences with varying level of interests and appetite.

▸ **Analytics and Computational Modelling:** Despite automation, the job holder will continue to demonstrate strong capability in creating and delivering sophisticated models.

▸ **Programming and Coding:** The job holder will continue to enhance their programming capabilities as models are becoming more complex.

▸ **Stakeholder Engagement:** The job holder will be highly skilled in liaising with internal and external stakeholders; effectively eliciting stakeholders' views and developing alignment across.

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Market Risk Officer

Subsector: Enterprise

Job Family: Risk Management

Impact Level

Today, this role is responsible for the periodic review of market risk limits to ensure that risk measures and thresholds are commensurate with the markets, business strategy and risk/return profile.

Low Impact

Consolidated Activities

	Today	Future
Market Risk Reporting	Tasks are administrative and execution is time consuming as a lot of time is spent looking for information and monitoring the market on and ongoing basis.	Real-time calculation engines could conduct interest rate risk estimation/sensitivity to better model risks. Human expertise will remain vital in validating risk reporting to ensure compliance with ever changing regulatory reporting requirements.
Stress and Scenario Testing On Trading Portfolios	Execution is time intensive and is quite rule-based. However, some human judgment and expertise is still required to run these tests and review results.	Real-time calculation engines can be used to run 'what-if' scenario analyses along with DV01/PV01, but human expertise will remain vital in addressing exceptions and governing the accuracy of model outputs.
Market Risk Threshold and Triggers Review/ Advice	Execution requires deep technical expertise to provide consulting/advisory on market risk thresholds and triggers. Human expertise is critical in defining market risk limits, and ensuring that exceptions to limits are escalated and addressed when necessary.	AI is able to process various situations and scenarios to estimate the threshold for market risk, and provide insights and recommendations for this role to process. The job holder should be able to leverage on these insights to provide recommendations to business units.
Trading Or Balance Sheet Strategies Advisory	Execution requires deep technical expertise and good communication skills to provide consulting/advisory services. Cross collaboration with trading and other risk functions is essential, and human expertise is important in advising on the right strategy.	

In the next

3-5 years ...

This role will continue to be responsible for analysing and preventing market risks within an organisation. However, technology can in processing more administrative and repetitive tasks, allowing the roles focus to shift to be more about proactive risk management and reviewing of information provided by AI-enabled systems.

Skills Differentiators:

▸ **Data Engineering:** Given the increase in data analytics, data pipeline management will be critical to ensure that the data meets the standards and requirements necessary.

▸ **Data Storytelling:** The job holder will demonstrate ability to disseminate key findings in a compelling, impactful, and easy-to-understand manner to audiences with varying level of interests and appetite.

▸ **Analytics and Computational Modelling:** Despite automation, the job holder will continue to demonstrate strong capability in creating and delivering sophisticated models.

▸ **Programming and Coding:** The job holder will continue to enhance on programming capabilities as models are becoming more complex.

▸ **Stakeholder Engagement:** The job holder will be highly skilled in liaising with internal and external stakeholders; effectively eliciting stakeholders' views and developing alignment across.

RPA | Advanced Analytics | AI

Operational Risk Management

Subsector: Enterprise

Job Family: Risk Management

Impact Level

Today, this role is responsible for development, implementation and monitoring of the operational risk framework in line with best practices and legal requirements.

Low Impact

Consolidated Activities

	Today	Future
Operational Risk Management Framework Development	Execution requires close collaboration with other business units to understand and evaluate potential risks.	AI will be used to mine and sift through data to identify risk indicators. Cloud computing will enable a more collaborative data management system to oversee the entire organisation's framework.
Control Testing and Review	Execution is repetitive and time consuming. Testing can have limited success as only certain situations can be evaluated due to time constraints.	AI will help to look at processes more quickly and determine risk levels due to the ability to review multiple scenarios - this will be necessary given the increased complexity of models used for analysis.
Risk Profile Monitoring and Reporting	Execution requires technical expertise in risk reporting and the ability to analyse large volumes of risk reports. Task is document intensive and is time consuming as the role needs to constantly monitor these profiles.	AI will allow for a more proactive approach to addressing risks/losses by identifying most risky behavior and automatically providing an investigative context while eliminating manual efforts.

In the next

3-5 years ...

This role will continue to be in-charge of overseeing the operational risk control of the organisation, and will be partially augmented by AI – allowing the job holders to better identify and prevent risk prone situations and behaviours.

Skills Differentiators:

▸ **Process Excellence:** The job holder will help to highlight root cause of process inefficiencies and identify the right processes that require automation.

▸ **Data Storytelling:** The job holder will demonstrate ability to disseminate key findings in a compelling, impactful, and easy-to-understand manner to audiences with varying level of interests and appetite.

▸ **Change Management:** The job holder will have the mindset and ability to adapt to and drive effective change to ensure advanced solutions and new ways of working are embraced.

▸ **Advanced Digital Acumen/Literacy:** The job holder will possess strong understanding on how digital solutions and technical features can be further leveraged to support analysis.

▸ **Data Interpretation and Analysis:** The job holder will enhance their capability in evaluating model results and interpreting data to extract key insights for recommendations, decisions or actions.

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7.3 Skills Taxonomy

Foundational Skills	
Adaptability	Ability to change strategies and actions to conform to diverse situations while maintaining effectiveness
Basic Communications	Ability to convey information to others verbally and in writing as well as ask questions and pay attention to what others are saying to gain additional information
Basic Digital Literacy	Use ICT tools, equipment and software to create, evaluate and share information digitally with others
Basic Mathematical and Statistical Analysis	Ability to understand the language of math and reason with statistics as well as data
Collaboration	Working cooperatively with others, virtually and physically, to build consensus and to take collective action to achieve common objectives
Critical Thinking	Apply reasoning to evaluate statements, separating truth from falsehoods, and assess the strengths and weakness of different options of solution, conclusion and approach
Decision Making	Assemble information to form a well-rounded understanding of complex situations
Empathy	Establish and sustain relationships by identifying and valuing feelings of others, accurately interpreting others' emotions and working style without judgment, leveraging insights to effectively manage own responses so that one can mindfully interact with others to achieve intended results

Interpersonal Skills	
Conflict Management	Rationally handling conflict and attempting to mitigate fallout including determining key takeaways for future learnings
Develop Others/Coaching	Help others to learn and develop capabilities to enhance performance and achieve both personal and professional goals
Global Perspective	Display openness to and awareness of diversity across global culture and market trends
Influencing and Negotiation	Ability to convince others to take appropriate actions or being able to reach a mutually satisfactory agreement
Lead Virtual Teams	Use appropriate technologies, methods and interpersonal styles to form, develop, guide, and motivate remote, teams to attain successful outcomes and business objectives
Stakeholder Engagement	Manage stakeholder expectations and relationships through effective communication, networking and strategic alignment

Business Skills	
Advisory	Apply a long-range view on problem or situation and use in-depth knowledge to advise on potential actions
Business and Financial Acumen	Gain clarity on business goals, market situation and develop expertise in financial matters, evaluate the financial performance and position of the organisation over time
Business Report Writing	Analyse, select and organise ideas to write a clear, concise, correct and complete business report
Change Management	Manage various resources using available tools and techniques to assist organisation in making successful transitions, resulting in adoption and realisation of changes
Complex Problem Solving	Incorporate related information and past experience into the evaluation of options and development of solutions
Customer Mindset	Build cohesive end-to-end customer journey and experience to engage a population of customers with changing profiles, demands and buying patterns
Investigation	Gather and ascertain evidence and information, use logic and reasoning to uncover potential missing information and/or identify suspicious behaviors to determine root cause
Lateral Thinking	Identify opportunities by interpreting information and connect insights from various sources, incorporate a creative approach to develop actions
Process Excellence	Identify critical business processes and seek opportunities to achieve efficiency
Product Awareness	Establish strong understanding of various products and services offered in an organisation, peer groups, as well as regional/global market
Project Management	Plan and manage all aspects of a project including the allocation of resources (people, budget, time), close engagement with stakeholders and resolution of project concerns
Research	Interpret information to obtain deep understanding of specific field or area, integrate the findings into recommendation
Risk Awareness	Identify, assess and prioritise risks and apply resources to mitigate risks and impact of incidents. Understand impact of latest global regulatory development on business strategies
Strategy Planning	Identify and prioritise organisational objectives to support the business vision, including evaluating decisions to assess the resources necessary to achieve desired results. This also considers global/macro changes and its impact on local markets
Systems Thinking	Apply a holistic approach to analysis that focuses on the way that a system's constituent parts interrelate and how systems work over time and within the context of larger systems
Targeted Technical Sales	Customise product and service proposals to address unique customer needs, demonstrating in depth technical product knowledge to target customer preferences

7.3 Skills Taxonomy

Data and Digital Skills	
Advanced Digital Acumen/Literacy	Sophisticated understanding of technology and software features used to analyse and manipulate data and use ICT to organise and share information clearly
Analytics and Computational Modelling	Develop, select and/or apply algorithms and advanced computational methods to enable systems or software agents to learn, improve, adapt and produce desired outcomes or tasks, also include application of data modelling techniques to explore and address a specific requirement
Automation Management	Oversee automation systems to ensure operation requirements are met as well as propose strategies for the automation systems performance improvement
Cybersecurity	Understand cyber security threats and potential weaknesses for prioritisation of managing security risks
Data Engineering	Develop efficient and stable processes to collect, store, extract, transform, load and integrate data at various stages in the data pipeline ensuring that it is ready for use and analysis according to business requirements
Data Interpretation and Analysis	Extract, analyse and make sense of information to form a holistic perspective and generate insights
Data Storytelling	Blend the world of hard data and human communication. Use a combination of visualisation(s) and narrative(s) in a format that suits a particular need, and augment the full comprehension of new information.
Programming and Coding	Technical capability required to write programs to be processed by computers
Technology Design	Create solutions and strategies to implement technology incorporating emerging technology trends to meet current and future business needs
Technology Troubleshooting	Ability to problem solve basic technical issues and identify root cause of problems, including determining when to escalate issues
Threat Intelligence and Detection	Monitor intelligence-gathering and anticipate potential threats to an ICT system proactively, this involves the pre-emptive analysis of potential perpetrators, anomalous activities and evidence-based knowledge and inferences on perpetrators' motivations and tactics
User Experience Design	Understand prototyping and able to contribute in wireframing website features that appear logical and usable on any device – with the objectives to improve customer loyalty and satisfaction through ease of use and utility provided in the interaction with an end-product