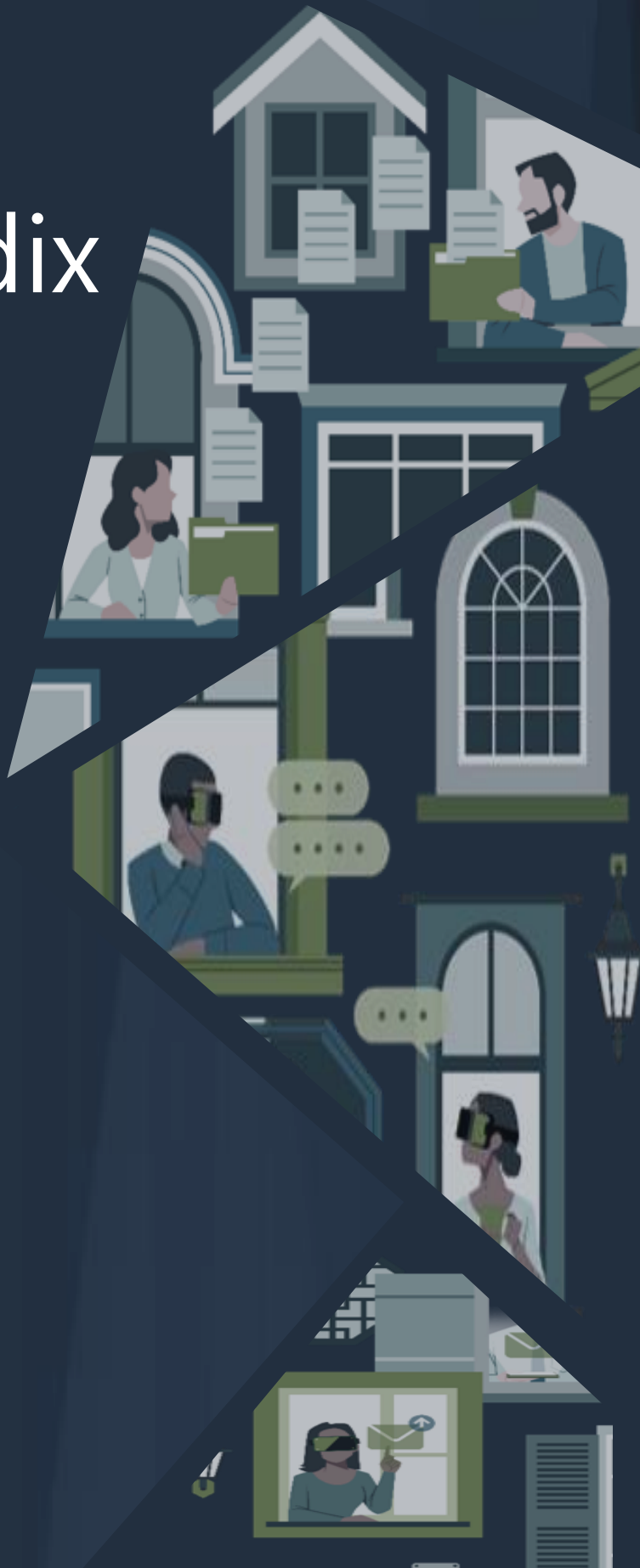


6. Appendix



6. Appendix

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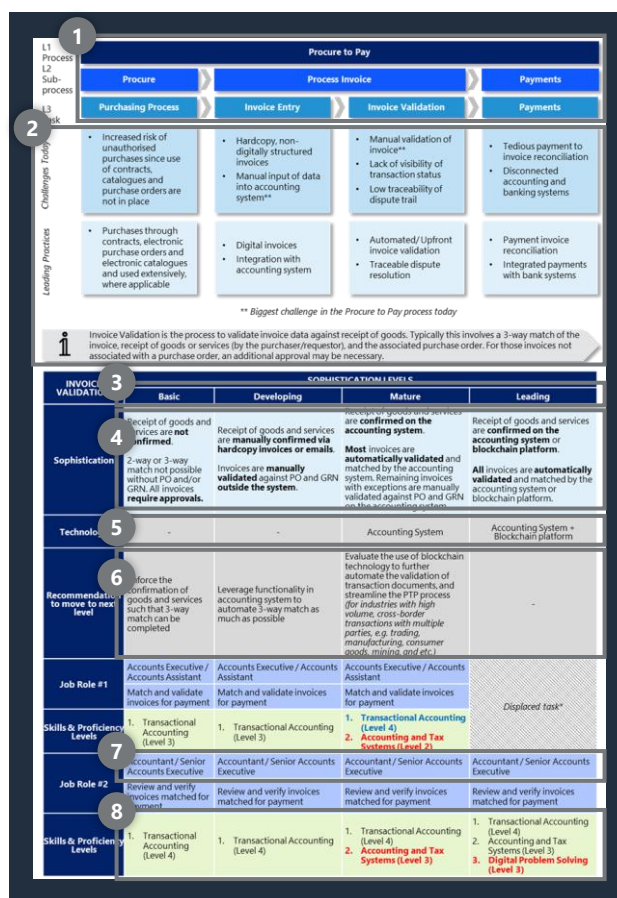
6.1 Sophistication map



Appendix 6.1 Sophistication map

In this section, the different levels of sophistication across each of the key Finance & Accounting (F&A) processes are illustrated through sophistication maps to allow F&A functions to assess their current level of sophistication in each of the process areas.

Figure 6.1 : Illustration of sophistication map



The sophistication map for each F&A process area consists of:

- 1 A decomposition of each process into Level 2: Sub-process and Level 3: Task;
- 2 The definition, key challenges and leading practices for each Task;
- 3 The levels of sophistication for each Task – from Basic to Developing to Mature to Leading;
- 4 A description of each Task at each level of sophistication;
- 5 Technology enablers used at each level of sophistication to perform the Task;
- 6 Recommendations to progress to the next level of sophistication;
- 7 F&A roles performing the particular Task; and
- 8 Skills and competencies required by each role to perform the Tasks at each sophistication level

Sophistication map

- Procure to Pay [79](#)
- Travel and Expense [87](#)
- Order to Cash [92](#)
- Record to Report [102](#)
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Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments

L1 Process	Procure to Pay			
L2 Sub-process	Procure	Process Invoice		Payments
L3 Task	Purchasing Process	Invoice Entry	Invoice Validation	Payments
Challenges today	<ul style="list-style-type: none"> • Increased risk of unauthorised purchases since use of contracts, catalogues and purchase orders are not in place 	<ul style="list-style-type: none"> • Hardcopy, non-digitally structured invoices • Manual input of data into accounting system** 	<ul style="list-style-type: none"> • Manual validation of invoice** • Lack of visibility of transaction status • Low traceability of dispute trail 	<ul style="list-style-type: none"> • Tedious payment to invoice reconciliation • Disconnected accounting and banking systems
Leading practices	<ul style="list-style-type: none"> • Purchases through contracts, electronic purchase orders and electronic catalogues and used extensively, where applicable 	<ul style="list-style-type: none"> • Digital invoices • Integration with accounting system 	<ul style="list-style-type: none"> • Automated/ Upfront invoice validation • Traceable dispute resolution 	<ul style="list-style-type: none"> • Payment invoice reconciliation • Integrated payments with bank systems

** Biggest challenge in the Procure to Pay process today

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Procurement Process refers to the management of contracts and catalogues as well as the issuance of purchase orders to your suppliers. These are used to reduce unauthorised purchases outside of the organisation's guidelines, and enable straight through processing of supplier invoices for payments.

PURCHASING PROCESS	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Purchase orders, contracts and catalogues are not used for purchasing.	Contracts are established with selected vendors but are paper based and tracked on spreadsheets . Purchase orders are used but not integrated into the accounting system. Purchases are not supported by electronic catalogues .	Contracts are established with selected vendors , and archived and managed in the eProcurement / accounting system . Electronic purchase orders or electronic catalogues are used and integrated into the accounting system.	All purchases are made through contracts in the system where applicable. Electronic purchase orders or electronic catalogues are extensively used and fully integrated into the accounting system. Usage of portal to send electronic purchase order to suppliers.
Technology	-	MS Office	Procurement Module in Accounting System / eProcurement System	Procurement Module in Accounting System / eProcurement System + Vendor Portal
Recommendation to move to next level	Define policy for usage of purchase orders, contracts and catalogues, and enforce the use of purchase orders, contracts or catalogues where applicable	Implement the procurement module in accounting system / eProcurement system to manage contracts centrally and to encourage usage of electronic purchase orders or catalogues	Improve compliance in usage of contracts, electronic purchase orders and electronic catalogues in the entire organisation. Leverage vendor portal functionality in procurement module / eProcurement system to share purchase orders with suppliers	-
Job role #1	Not applicable to F&A job roles			
Skills and proficiency levels	Not applicable to F&A job roles			

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Invoice Entry involves the receiving and sorting of invoices for matching and approval. This can either be manual (i.e. hardcopies) or electronic, and is initiated when the invoices are received for processing and entered into the accounting system.

INVOICE ENTRY	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Invoices are received in hardcopies and are manually entered and tracked in a spreadsheet	Invoices are received in hardcopies and are manually entered into the accounting system. For suppliers on the e-invoicing network, invoices are digitally created by the supplier and directly transmitted from the supplier's accounting system to your accounting system.	For invoices received in hardcopies or scanned PDFs via email , invoice information is automatically captured into the accounting system through optical character recognition (OCR) and machine learning (ML) technologies For suppliers on the e-invoicing network, invoices are digitally created by the supplier and directly transmitted from the supplier's accounting system to your accounting system.	All Invoices are digitally created on a self-service online platform/e-invoicing network by the supplier and automatically interfaced to the accounting system.
Technology	MS Office	Accounting System + InvoiceNow (e-invoice)	Accounting System + InvoiceNow (e-invoice) + OCR and ML	Accounting System + InvoiceNow (e-invoice) / Vendor Portal / Blockchain Platform
Recommendation to move to next level	For businesses with in-house accounting system, work with access point providers to onboard and connect to the e-invoicing (Peppol) network For businesses using Peppol ready accounting system, activate the InvoiceNow feature For businesses without accounting system, adopt a Peppol ready accounting system	Leverage OCR and ML capabilities to convert hardcopy or softcopy invoices to structured digital format for streamlined processing	Leverage vendor portal functionality in accounting system / eProcurement solution to transact with suppliers <i>(suitable for large organisations with strong bargaining power)</i> Evaluate the use of block chain technology to further automate the validation of transaction documents, and streamline the PTP process <i>(for industries with high volume, cross-border transactions with multiple parties, e.g. trading, manufacturing, consumer goods, mining, and etc.)</i>	-

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Invoice Entry involves the receiving and sorting of invoices for matching and approval. This can either be manual (i.e. hardcopies) or electronic, and is initiated when the invoices are received for processing and entered into the accounting system.

INVOICE ENTRY	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Invoices are received in hardcopies and are manually entered and tracked in a spreadsheet	Invoices are received in hardcopies and are manually entered into the accounting system. For suppliers on the e-invoicing network, invoices are digitally created by the supplier and directly transmitted from the supplier's accounting system to your accounting system.	For invoices received in hardcopies or scanned PDFs via email , invoice information is automatically captured into the accounting system through optical character recognition (OCR) and machine learning (ML) technologies For suppliers on the e-invoicing network, invoices are digitally created by the supplier and directly transmitted from the supplier's accounting system to your accounting system.	All Invoices are digitally created on a self-service online platform/e-invoicing network by the supplier and automatically interfaced to the accounting system.
Job role #1	Accounts Executive / Accounts Assistant Record transactions relating to payables	Accounts Executive / Accounts Assistant Record and verify transactions relating to payables in the accounting system	Accounts Executive / Accounts Assistant Verify transactions relating to payables in the accounting system	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 3)	1. Transactional Accounting (Level 3) 2. Accounting and Tax Systems (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Digital Problem Solving (Level 3)	
Job role #2	Accountant/ Senior Accounts Executive Review and verify transactions relating to payables	Accountant/ Senior Accounts Executive Review and verify transactions relating to payables in the accounting system	Accountant/ Senior Accounts Executive Verify transactions relating to payables in the accounting system & investigate OCR exceptions	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Digital Problem Solving (Level 3)	
Job role #3	Finance Manager Review and approve transactions relating to payables	Finance Manager Review and approve transactions relating to payables in the accounting system	Finance Manager Review and approve transactions relating to payables in the accounting system	Finance Manager Review and approve transactions relating to payables in the accounting system
Skills and proficiency levels	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Digital Problem Solving (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Digital Problem Solving (Level 4)

* Displaced task as data input will be transferred to the supplier via self-service channels and interfaced into accounting system for validation. Exceptions will be flagged for review. Therefore Accounts Executive / Accounts Assistant is not required to perform invoice entry. Accountant/Senior Accounts is not required to verify transactions manually.

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Invoice Validation is the process to validate invoice data against receipt of goods. Typically this involves a 3-way match of the invoice, receipt of goods or services (by the purchaser/requestor), and the associated purchase order. For those invoices not associated with a purchase order, an additional approval may be necessary.

INVOICE VALIDATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Receipt of goods and services are not confirmed . 2-way or 3-way match not possible without PO and/or GRN. All invoices require approvals .	Receipt of goods and services are manually confirmed via hardcopy invoices or emails . Invoices are manually validated against PO and GRN outside the system .	Receipt of goods and services are confirmed on the accounting system . Most invoices are automatically validated and matched by the accounting system. Remaining invoices with exceptions are manually validated against PO and GRN on the accounting system.	Receipt of goods and services are confirmed on the accounting system or blockchain platform . All invoices are automatically validated and matched by the accounting system or blockchain platform.
Technology	-	-	Accounting System	Accounting System + Blockchain platform
Recommendation to move to next level	Enforce the confirmation of goods and services such that 3-way match can be completed	Leverage functionality in accounting system to automate 3-way match as much as possible	Evaluate the use of blockchain technology to further automate the validation of transaction documents, and streamline the PTP process <i>(for industries with high volume, cross-border transactions with multiple parties, e.g. trading, manufacturing, consumer goods, mining, and etc.)</i>	-

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Invoice Validation is the process to validate invoice data against receipt of goods. Typically this involves a 3-way match of the invoice, receipt of goods or services (by the purchaser/requestor), and the associated purchase order. For those invoices not associated with a purchase order, an additional approval may be necessary.

INVOICE VALIDATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Receipt of goods and services are not confirmed . 2-way or 3-way match not possible without PO and/or GRN. All invoices require approvals .	Receipt of goods and services are manually confirmed via hardcopy invoices or emails . Invoices are manually validated against PO and GRN outside the system .	Receipt of goods and services are confirmed on the accounting system . Most invoices are automatically validated and matched by the accounting system. Remaining invoices with exceptions are manually validated against PO and GRN on the accounting system.	Receipt of goods and services are confirmed on the accounting system or blockchain platform . All invoices are automatically validated and matched by the accounting system or blockchain platform.
Job role #1	Accounts Executive / Accounts Assistant Match and validate invoices for payment	Accounts Executive / Accounts Assistant Match and validate invoices for payment	Accounts Executive / Accounts Assistant Match and validate invoices for payment	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 3)	1. Transactional Accounting (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 2)	
Job role #2	Accountant/ Senior Accounts Executive Review and verify invoices matched for payment	Accountant/ Senior Accounts Executive Review and verify invoices matched for payment	Accountant/ Senior Accounts Executive Review and verify invoices matched for payment	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	
Job role #3	Finance Manager Review and approve invoices matched for payment	Finance Manager Review and approve invoices matched for payment	Finance Manager Review and approve invoices matched for payment	Finance Manager Review and approve invoices matched for payment
Skills and proficiency levels	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Digital Problem Solving (Level 4)

* Displaced task as data input will be transferred to the supplier via self-service channels and interfaced into accounting system for validation. Therefore Accounts Executive / Accounts Assistant and Accountant/ Senior Accounts Executive is not required to perform invoice validation.

Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Payments refer to the method of dispatching the payment to suppliers or employees. After invoices are identified for payment, an approval for a payment run is obtained, a payment file is generated, and payments are made either manually or electronically.

PAYMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Payment proposals are prepared manually on spreadsheet and, payments are processed through cash or cheques Manual reconciliation of each successful payments to invoices required on spreadsheet	Payment proposals are automatically generated in the accounting system based on the due dates of the approved invoices, and payments are transmitted through online fund transfer Payments not integrated with the accounting system. Manual reconciliation of each successful payments to invoices required.	Payment proposals are automatically generated in the accounting system based on the due dates of the approved invoices, and payments are transmitted through online fund transfer Payments are integrated with the accounting system, where reconciliation of each successful payments to invoices is automated	Payment proposals are automatically generated in the accounting system based on the due dates of the approved invoices, and payments are transmitted through host-to-host integration to the banks Payments fully integrated with the accounting system, where reconciliation of each successful payments to invoices is automated
Technology	MS Office	Accounting System + Online fund transfer	Accounting System + Online fund transfer	Accounting System with host-to-host bank connectivity
Recommendation to move to next level	Maximize the adoption of electronic payments as much as possible	Explore integrating bank statements with the accounting system to automate reconciliation of successful payments to invoices	Explore accounting system with host-to-host connectivity or develop host-to-host connectivity to banks with the most transactions	-

Financial Accounting

Procure To Pay

Overview of Procure to Pay:

- Procure
- Process Invoice
- Payments



Payments refer to the method of dispatching the payment to suppliers or employees. After invoices are identified for payment, an approval for a payment run is obtained, a payment file is generated, and payments are made either manually or electronically.

PAYMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Payment proposals are prepared manually on spreadsheet and, payments are processed through cash or cheques Manual reconciliation of each successful payments to invoices required on spreadsheet	Payment proposals are automatically generated in the accounting system based on the due dates of the approved invoices, and payments are transmitted through online fund transfer Payments not integrated with the accounting system. Manual reconciliation of each successful payments to invoices required.	Payment proposals are automatically generated in the accounting system based on the due dates of the approved invoices, and payments are transmitted through online fund transfer Payments are integrated with the accounting system, where reconciliation of each successful payments to invoices is automated	Payment proposals are automatically generated in the accounting system based on the due dates of the approved invoices, and payments are transmitted through host-to-host integration to the banks Payments fully integrated with the accounting system, where reconciliation of each successful payments to invoices is automated
Job role #1	Accounts Executive / Accounts Assistant Prepare payment proposal, process cash or cheques for payment, and reconcile payments to invoices	Accounts Executive / Accounts Assistant Initiate or upload payment transactions to banks once approved internally, and reconcile payments to invoices	Accounts Executive / Accounts Assistant Initiate or upload payment transactions to banks once approved internally, and manage exceptions if any	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 3)	1. Transactional Accounting (Level 3) 2. Accounting and Tax Systems (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 2)	
Job role #2	Accountant/ Senior Accounts Executive Review payment proposal	Accountant/ Senior Accounts Executive Review payment proposal	Accountant/ Senior Accounts Executive Review payment proposal	Accountant/ Senior Accounts Executive Review payment proposal, and manage exceptions if any
Skills and proficiency levels	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)
Job role #3	Finance Manager Review and approve payment proposal	Finance Manager Review and approve payment proposal	Finance Manager Review and approve payment proposal	Finance Manager Review and approve payment proposal
Skills and proficiency levels	1. Transactional Accounting (Level 4)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3)

* *Displaced task as payment transmission and reconciliation will be fully automated. Therefore Accounts Executive / Accounts Assistant is not required to process payments. Accountant/ Senior Accounts Executive to review payment proposal, and manage exceptions if any.*

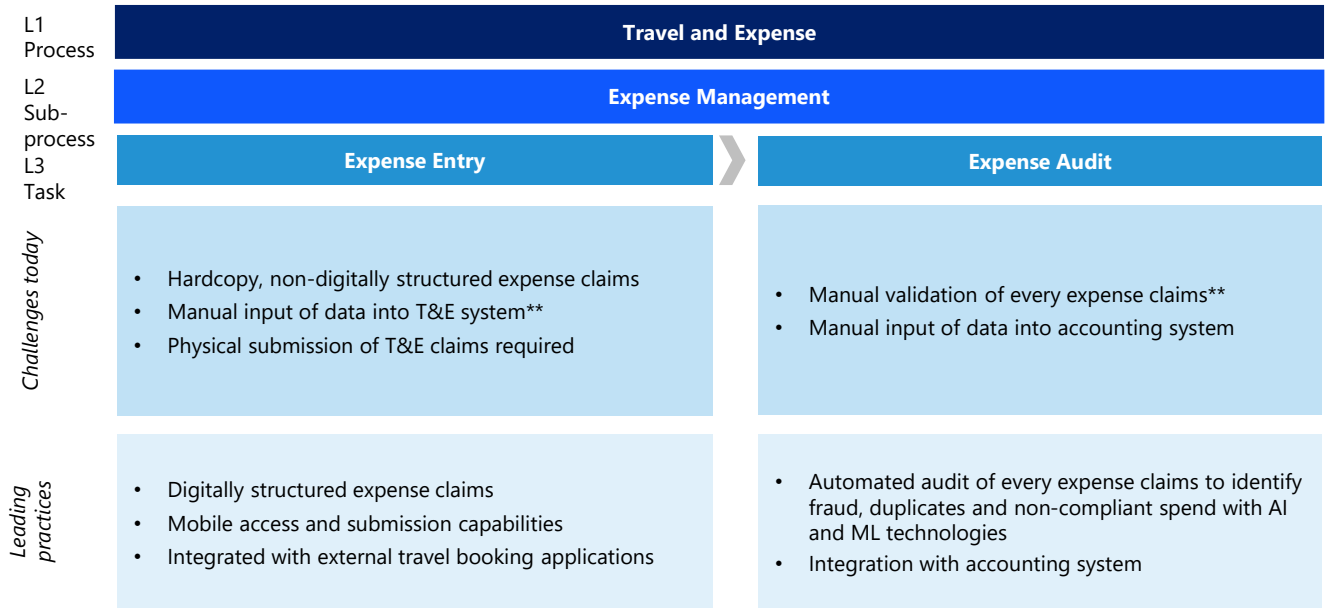
Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

Financial Accounting

Travel and Expense

Overview of Expense Management:

- Expense Entry
- Expense Audit




** Biggest challenge in the Travel and Expense process today

Financial Accounting

Travel and Expense

Overview of Expense Management:

- Expense Entry
- Expense Audit

 Expense Entry is the process where employee submit claims with supporting documents for reimbursements

EXPENSE ENTRY	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Expense claims are in hardcopies and require physical submissions. T&E system is not used in the organisation. Reliance on spreadsheets or emails .	Expense claims are in hardcopies and require physical submissions. Expense claims are manually entered into the T&E system .	Expense claims are digitally structured , where physical hardcopies are not required. Expense claims are captured into the T&E system through mobile and optical character recognition (OCR) & machine learning (ML) functionalities with minimal manual intervention	Expense claims are digitally structured , where physical hardcopies are not required. Expense claims are automatically captured into the T&E system through integration with travel booking applications , and processed once the travel is completed
Technology	-	T&E system	T&E system with mobile and OCR and ML functionalities	T&E system integrated with travel booking applications
Recommendation to move to next level	Implement T&E system to allow employees to input and submit expense claims in the system	Implement T&E system with mobile and OCR and ML functionalities to enable employees to submit expense claims as quickly as possible Evaluate providers on their approach to OCR and accuracy rate instead of just asking if they have OCR	Consider integrating to frequently used travel booking applications (e.g. Grab for Business) with your T&E system to automate expense reimbursement process	-
Job role #1	Not applicable to F&A job roles			
Skills and proficiency levels	Not applicable to F&A job roles			

Financial Accounting

Travel and Expense

Overview of Expense Management:

- Expense Entry
- Expense Audit



Expense Audit involves the approval and audit of expense claims submitted by employees to ensure adherence and compliance to the organisation's T&E policies.

EXPENSE AUDIT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Expense approval and audit process is not supported by mobile and workflow.</p> <p>All expense claims submitted in hardcopies are manually validated against the organisation's T&E policy.</p> <p>Approved expenses are manually posted into the accounting system.</p>	<p>Expense approval and audit process is not supported by mobile and workflow.</p> <p>All expense claims submitted in the T&E system are manually validated against the hardcopy submissions and the organisation's T&E policy.</p> <p>Approved expenses are manually posted into the accounting system.</p>	<p>Expense approval and audit process is supported by mobile and workflow.</p> <p>Most expense claims are automatically validated in the T&E system based on pre-configured business rules aligned to the organisation's T&E policy.</p> <p>Approved expenses are manually posted into the accounting system.</p>	<p>Expense approval and audit process is supported by mobile and workflow.</p> <p>All expense claims are automatically reviewed for fraud, mistakes and policy violations using artificial intelligence (AI) and ML technologies. Only high-risk expense reports are routed for investigation.</p> <p>Approved expenses are automatically posted/interfaced into the accounting system.</p>
Technology	-	T&E system	T&E system with mobile and workflow functionalities	T&E system with AI and ML capabilities, integrated with accounting system
Recommendation to move to next level	Implement T&E system to allow tracking and audit of expense claims in the system	Implement T&E system with mobile and workflow functionalities to enable streamlined approval and audit process. Setup business rules in the system to automate T&E policy enforcement	Implement T&E system that leverages AI and ML to audit expense claims and identify policy violations Integrate T&E system with accounting system, such that accounting entries are automatically posted	-

Financial Accounting

Travel and Expense

Overview of Expense Management:

- Expense Entry
- Expense Audit



Expense Audit involves the approval and audit of expense claims submitted by employees to ensure adherence and compliance to the organisation's T&E policies.

EXPENSE AUDIT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Expense approval and audit process is not supported by mobile and workflow . All expense claims submitted in hardcopies are manually validated against the organisation's T&E policy. Approved expenses are manually posted into the accounting system.	Expense approval and audit process is not supported by mobile and workflow . All expense claims submitted in the T&E system are manually validated against the hardcopy submissions and the organisation's T&E policy. Approved expenses are manually posted into the accounting system.	Expense approval and audit process is supported by mobile and workflow . Most expense claims are automatically validated in the T&E system based on pre-configured business rules aligned to the organisation's T&E policy. Approved expenses are manually posted into the accounting system.	Expense approval and audit process is supported by mobile and workflow . All expense claims are automatically reviewed for fraud, mistakes and policy violations using artificial intelligence (AI) and ML technologies. Only high-risk expense reports are routed for investigation. Approved expenses are automatically posted/interfaced into the accounting system.
Job role #1	Accounts Executive / Accounts Assistant Audit transactions relating to expense reimbursement to ensure adherence to T&E policies	Accounts Executive / Accounts Assistant Audit transactions relating to expense reimbursement to ensure adherence to T&E policies	Accounts Executive / Accounts Assistant Audit transactions relating to expense reimbursement to ensure adherence to T&E policies	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 3) 2. Accounting and Tax Systems (Level 2) 3. Internal Controls (Level 2)	1. Transactional Accounting (Level 3) 2. Accounting and Tax Systems (Level 2) 3. Internal Controls (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 2) 3. Internal Controls (Level 2)	
Job role #2	Accountant/ Senior Accounts Executive Review and verify transactions relating to expense reimbursement to ensure adherence to T&E policies	Accountant/ Senior Accounts Executive Review and verify transactions relating to expense reimbursement to ensure adherence to T&E policies	Accountant/ Senior Accounts Executive Review and verify exceptions from T&E system to ensure adherence to T&E policies	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Internal Controls (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Internal Controls (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Internal Controls (Level 2)	

* Displaced task as expense audit will be fully automated and interfaced into accounting system. Therefore Accounts Executive / Accounts Assistant and Accountant/ Senior Accounts Executive is not required to review expense claims. Exceptions and high-risk expense reports can be routed to employee's manager for investigation and approval.

Legend: Increase in expected skill proficiency

Financial Accounting

Travel and Expense

Overview of Expense Management:

- Expense Entry
- Expense Audit



Expense Audit involves the approval and audit of expense claims submitted by employees to ensure adherence and compliance to the organisation's T&E policies.

EXPENSE AUDIT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Expense approval and audit process is not supported by mobile and workflow . All expense claims submitted in hardcopies are manually validated against the organisation's T&E policy. Approved expenses are manually posted into the accounting system.	Expense approval and audit process is not supported by mobile and workflow . All expense claims submitted in the T&E system are manually validated against the hardcopy submissions and the organisation's T&E policy. Approved expenses are manually posted into the accounting system.	Expense approval and audit process is supported by mobile and workflow . Most expense claims are automatically validated in the T&E system based on pre-configured business rules aligned to the organisation's T&E policy. Approved expenses are manually posted into the accounting system.	Expense approval and audit process is supported by mobile and workflow . All expense claims are automatically reviewed for fraud, mistakes and policy violations using artificial intelligence (AI) and ML technologies. Only high-risk expense reports are routed for investigation. Approved expenses are automatically posted/interfaced into the accounting system.
Job role #3	Finance Manager Review and approve transactions relating to expense reimbursement to ensure adherence to T&E policies	Finance Manager Review and approve transactions relating to expense reimbursement to ensure adherence to T&E policies	Finance Manager Review and verify exceptions from T&E system to ensure adherence to T&E policies	<i>Displaced task*</i>
Skills and proficiency levels	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Internal Controls (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Internal Controls (Level 2)	1. Transactional Accounting (Level 4) 2. Accounting and Tax Systems (Level 3) 3. Internal Controls (Level 2)	

* Displaced task as expense audit will be fully automated and interfaced into accounting system. Therefore Finance Manager role is not required to review and approve expense claims. Exceptions and high-risk expense reports can be routed to employee's manager for investigation and approval.

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
- Receipt
- Collection

L1 Process					
Order to Cash					
L2 Sub-process		L2 Sub-process		L2 Sub-process	
Credit & Risk		Billing		Receipt	
L3 Task		L3 Task		L3 Task	
Credit Risk Management		Invoice Creation		Receiving Payments	
Credit Risk Management		Applying Payments		Analysis & Collection	
Challenges today	<ul style="list-style-type: none"> • No standard credit risk management policy in place resulting in collectability issues 	<ul style="list-style-type: none"> • Creation of invoices is time-consuming due to manual efforts • Manual input of transaction into accounting system resulting in higher rates of error 	<ul style="list-style-type: none"> • Payments received through manual methods are time-consuming to process and prone to human error 	<ul style="list-style-type: none"> • Manual application of payments received are time-consuming and prone to human error 	<ul style="list-style-type: none"> • Manual preparation of AR reports and analysis is time-consuming and prone to errors • Collection management activities are performed manually and are time-consuming
	<ul style="list-style-type: none"> • Robust credit risk management policy enabling effective management of credit risk 	<ul style="list-style-type: none"> • Straight-through processing of standardised digital invoices increase overall OTC process efficiency • Integration with accounting system reduces input errors 	<ul style="list-style-type: none"> • Payments received through digital method reduces human errors and time required to process transactions 	<ul style="list-style-type: none"> • Automated payment matching reduces human errors and time required to process transactions 	<ul style="list-style-type: none"> • Advanced analytics methods are applied to predict collectability of debts • Collection management activities are automatically triggered resulting in process efficiencies
Leading practices					

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
- Receipt
- Collection



Credit Risk Management is the process of granting credit and setting the terms it's granted on with the intent of improving revenues and profit by facilitating sales and reducing financial risks. Monitoring and recovery of credit when it is due is covered under the "Analysis and Collection" section of Order to Cash.

CREDIT RISK MANAGEMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	No credit policy in place.	Credit policy that analyses credit risk using financial information provided by the customer only . Risk profiles and credit terms are not monitored regularly	Credit policy that analyses credit risk using financial information provided by the customer only. Risk profiles and credit terms are monitored regularly and updated where necessary	Credit policy that analyses credit risk using financial information provided by the customer and non-financial information (e.g. macroeconomic drivers) Risk profiles and credit terms are monitored regularly and updated where necessary
Technology	-	-	-	-
Recommendation to move to next level	Define credit risk policy in the organisation	Adopt a regular practice to monitor and update (where necessary) customer risk profiles and credit terms	Apply analysis of non-financial drivers to enhance the credit risk management process	-
Job role #1	-	Accountant/Senior Accounts Executive	Accountant/Senior Accounts Executive	Accountant/Senior Accounts Executive
	-	Compile customer financial information to determine customer risk profile and credit terms	Compile customer financial information to determine customer risk profile and credit terms. Monitor customer activities regularly to update for any changes	Determine customers risk profile and credit terms based on financial and non-financial information. Monitor customer activities regularly to update for any changes
Skills and proficiency levels	-	1. Financial Analysis (Level 4) 2. Credit Risk Management (Level 4) 3. Internal Controls (Level 4)	1. Financial Analysis (Level 4) 2. Credit Risk Management (Level 4) 3. Internal Controls (Level 4)	1. Financial Analysis (Level 5) 2. Credit Risk Management (Level 4) 3. Internal Controls (Level 4) 4. Macroeconomic Analysis (Level 4)
Job role #2	-	Finance Manager	Finance Manager	Finance Manager
	-	Review and approve credit risk assessment	Review and approve credit risk assessment	Review and approve credit risk assessment based on financial and non-financial information.
Skills and proficiency levels	-	1. Financial Analysis (Level 5) 2. Credit Risk Management (Level 5) 3. Internal Controls (Level 4)	1. Financial Analysis (Level 5) 2. Credit Risk Management (Level 5) 3. Internal Controls (Level 4)	1. Financial Analysis (Level 5) 2. Credit Risk Management (Level 5) 3. Internal Controls (Level 4) 4. Macroeconomic Analysis (Level 5)

Legend:

Increase in expected skill proficiency

New skill identified at that sophistication level

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
- Receipt
- Collection



Invoice Creation involves the generation of billing invoices with contact details, invoice reference information, payment terms, itemized list of products/services rendered. This can either be manual (i.e. hardcopies) or electronic, and is initiated after contractual obligations have been agreed.

INVOICE CREATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Invoices are manually created external from accounting system</p> <p>Manual intervention is required to input transaction into accounting system (e.g. manual entry, journal upload)</p> <p>Invoices are manually delivered to customer (e.g. mail, email etc.)</p>	<p>Digital invoices are created from a billing system/ platform (e.g. CRM, billing mgt system)</p> <p>Manual intervention is required to input transaction into accounting system (e.g. manual entry, journal upload)</p> <p>Invoices are manually delivered to customer (e.g. mail, email etc.)</p>	<p>Digital invoices are created from a billing system/ platform (e.g. CRM, billing mgt system)</p> <p>Manual intervention is required to input transaction into accounting system (e.g. manual entry, journal upload)</p> <p>Billing invoices created are automatically sent to customers (e.g. email etc.)</p>	<p>Digital invoices are created from a billing system/ platform (e.g. CRM, billing mgt system)</p> <p>Billing transactions are fully integrated with accounting records</p> <p>Billing invoices are automatically transmitted to customers' accounting system</p>
Technology	-	Billing management solutions	Billing management solutions + InvoiceNow (e-invoice)	Billing management solutions, Accounting system + InvoiceNow (e-invoice), Blockchain
Recommendation to move to next level	Implement the use of billing systems to generate digital invoices	<p>For businesses with in-house accounting system, work with access point providers to onboard and connect to the e-invoicing (Peppol) network</p> <p>For businesses without accounting system, adopt a Peppol ready accounting system</p>	<p>For businesses using Peppol ready accounting system, activate the InvoiceNow feature; or</p> <p>Evaluate the use of blockchain technology to further automate the creation of transaction documents, and streamline the OTC process <i>(for industries with high volume, cross-border transactions with multiple parties, e.g. trading, manufacturing, consumer goods, mining, and etc.)</i></p>	-

Financial Accounting

Order To Cash

Overview of Order to Cash:

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Invoice Creation involves the generation of billing invoices with contact details, invoice reference information, payment terms, itemized list of products/services rendered. This can either be manual (i.e. hardcopies) or electronic, and is initiated after contractual obligations have been agreed.

INVOICE CREATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Invoices are manually created external from accounting system Manual intervention is required to input transaction into accounting system (e.g. manual entry, journal upload) Invoices are manually delivered to customer (e.g. mail, email etc.)	Digital invoices are created from a billing system/ platform (e.g. CRM, billing mgt system) Manual intervention is required to input transaction into accounting system (e.g. manual entry, journal upload) Invoices are manually delivered to customer (e.g. mail, email etc.)	Digital invoices are created from a billing system/ platform (e.g. CRM, billing mgt system) Manual intervention is required to input transaction into accounting system (e.g. manual entry, journal upload) Billing invoices created are automatically sent to customers (e.g. email etc.)	Digital invoices are created from a billing system/ platform (e.g. CRM, billing mgt system) Billing transactions are fully integrated with accounting records Billing invoices are automatically transmitted to customers' accounting system
Job role #1	Accounts Executive / Accounts Assistant Record transactions relating to receivables	Accounts Executive / Accounts Assistant Record transactions relating to receivables in the accounting system	Accounts Executive / Accounts Assistant Verify transactions relating to receivables in the accounting system	<i>Displaced task*</i>
Skills and proficiency levels	1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3)	1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3)	1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3)	
Job role #2	Accountant/Senior Accounts Executive Review and verify transactions relating to receivables	Accountant/Senior Accounts Executive Review and verify transactions relating to receivables in the accounting system	Accountant/Senior Accounts Executive Review and verify transactions relating to receivables in the accounting system	
Skills and proficiency levels	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	<i>Displaced task*</i>
Job role #3	Finance Manager Review and approve transactions relating to receivables	Finance Manager Review and approve transactions relating to receivables in the accounting system	Finance Manager Review and approve transactions relating to receivables in the accounting system	
Skills and proficiency levels	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	

* Displaced task as invoice creation will be fully automated and interfaced into accounting system. Therefore Accounts Executive/Accounts Assistant is not required to record or verify billing transactions. Accountant/ Senior Accounts Executive is not required to verify billing transactions. Finance Manager role is also not required to review or approve billing transactions.

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
- Receipt
- Collection



Receiving Payments involves the collection of payments for good or services rendered to customers.

RECEIVING PAYMENTS	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Collections are received through cash or cheques	-	-	Collections are received digitally (e.g. internet bank transfers, SGQR etc.) and directly deposited into the organisation's bank account
Technology	-	-	-	Electronic fund transfers
Recommendation to move to next level	Adopt the use of digital payment methods	-	-	-
Job role #1	Accounts Executive / Accounts Assistant	-	-	Accounts Executive / Accounts Assistant
	Collect payments	-	-	Review payments from online bank statement(s)
Skills and proficiency levels	1. Transactional Accounting (Level 3) 2. Financial Transactions (Level 3)	-	-	1. Transactional Accounting (Level 4) 2. Financial Transactions (Level 3)

Legend: Increase in expected skill proficiency

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
- Receipt
- Collection



Applying Payments involves the process of matching and validating payments received from customers, and billing invoices recorded in the accounting system.

APPLYING PAYMENTS	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Payments are manually traced from bank statement(s) and applied against Accounts Receivable balances	<p>Payments are electronically uploaded into the accounting system</p> <p>Payments are manually matched against Accounts Receivable balances</p>	Payments are electronically uploaded into the accounting system <p>Some payments are automatically matched against Accounts Receivable balances in the accounting system while others are manually matched.</p>	Payments are electronically uploaded into the accounting system <p>Payments are largely automatically matched against Accounts Receivable balances in the accounting system with minimal human intervention in the process.</p>
Technology	-	-	Accounting System	Accounting System, Reconciliation solutions, Blockchain
Recommendation to move to next level	To adopt digitally structured bank files to be uploaded into the accounting system	To leverage on existing accounting system features to automate parts of the AR application process	<p>To adopt reconciliation solutions to automate the AR application process; or</p> <p>Evaluate the use of blockchain technology to further automate the validation of transaction documents, and streamline the OTC process <i>(for industries with high volume, cross-border transactions with multiple parties, e.g. trading, manufacturing, consumer goods, mining, and etc.)</i></p>	-

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
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Applying Payments involves the process of matching and validating payments received from customers, and billing invoices recorded in the accounting system.

APPLYING PAYMENTS	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Payments are manually traced from bank statement(s) and applied against Accounts Receivable balances	Payments are electronically uploaded into the accounting system Payments are manually matched against Accounts Receivable balances	Payments are electronically uploaded into the accounting system Some payments are automatically matched against Accounts Receivable balances in the accounting system while others are manually matched.	Payments are electronically uploaded into the accounting system Payments are largely automatically matched against Accounts Receivable balances in the accounting system with minimal human intervention in the process.
Job role #1	Accounts Executive / Accounts Assistant	Accounts Executive / Accounts Assistant	Accounts Executive / Accounts Assistant	Accounts Executive / Accounts Assistant
	Match and validate collections	Match and validate collections	Verify collections automatically matched in accounting system. Match and validate all other collections	Verify collections automatically matched in accounting system. Match and validate remaining collections
Skills and proficiency levels	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 2) Financial Transactions (Level 2) Transactional Accounting (Level 3) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 2) Financial Transactions (Level 2) Transactional Accounting (Level 3) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 2) Financial Transactions (Level 2) 3. Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 2) Financial Transactions (Level 2) Transactional Accounting (Level 4)
Job role #2	Accountant/ Senior Accounts Executive	Accountant/ Senior Accounts Executive	Accountant/ Senior Accounts Executive	Accountant/ Senior Accounts Executive
	Review and verify collections matched and applied to receivables	Review and verify collections matched and applied to receivables	Review and verify collections matched and applied to receivables	Review and verify collections matched and applied to receivables
Skills and proficiency levels	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4)
Job role #3	Finance Manager	Finance Manager	Finance Manager	Finance Manager
	Review and approve collections matched and applied to receivables	Review and approve collections matched and applied to receivables	Review and approve collections matched and applied to receivables	Review and approve collections matched and applied to receivables
Skills and proficiency levels	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) 	<ol style="list-style-type: none"> Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4)

Legend: Increase in expected skill proficiency

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
- Receipt
- Collection



Analysis & Collection involves the monitoring and recovery of credit extended to customers including assessing the effectiveness of collections, initiating reminders for collections overdue, dunning process etc.

ANALYSIS & COLLECTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	AR reports and analysis (% past due, % collected etc.) are manually prepared from standard system reports Collection management activities (e.g. payment reminders, dunning, internal escalations) are performed, tracked manually	AR reports and analysis (% past due, % collected etc.) can be automatically generated Collection management activities (e.g. payment reminders, dunning, internal escalations) are performed and tracked manually	AR reports and analysis (% past due, % collected etc.) can be automatically generated Collection management activities (e.g. payment reminders, dunning, internal escalations) are automatically triggered, executed and tracked with minimal manual intervention required.	Advanced analytics tools and/or techniques are applied to predict customers' propensity to pay through the analysis of customer payment habits, behavioural patterns, etc. Collection management activities (e.g. payment reminders, dunning, internal escalations) are automatically triggered, executed and tracked with minimal manual intervention required.
Technology	MS Excel	Accounting system	Accounting system, Collection management solutions	Accounting system, Collection management solutions, Data science and advanced analytics
Recommendation to move to next level	Leverage on existing features in accounting systems to automate the creation of AR collection analyses	Adopt/ Enable existing features in accounting systems and/or collection management solutions to automate the AR collection process	Adopt/ Enable collection management solutions and/or data science and advanced analytics tools to proactively manage customer collections	-

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
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Analysis & Collection involves the monitoring and recovery of credit extended to customers including assessing the effectiveness of collections, initiating reminders for collections overdue, dunning process etc.

ANALYSIS & COLLECTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	AR reports and analysis (% past due, % collected etc.) are manually prepared from standard system reports Collection management activities (e.g. payment reminders, dunning, internal escalations) are performed, tracked manually	AR reports and analysis (% past due, % collected etc.) can be automatically generated Collection management activities (e.g. payment reminders, dunning, internal escalations) are performed and tracked manually	AR reports and analysis (% past due, % collected etc.) can be automatically generated Collection management activities (e.g. payment reminders, dunning, internal escalations) are automatically triggered, executed and tracked with minimal manual intervention required.	Advanced analytics tools and/or techniques are applied to predict customers' propensity to pay through the analysis of customer payment habits, behavioural patterns, etc. Collection management activities (e.g. payment reminders, dunning, internal escalations) are automatically triggered, executed and tracked with minimal manual intervention required.
Job role #1	Accounts Executive / Accounts Assistant Prepare AR reports and analysis, and perform collection management process	Accounts Executive / Accounts Assistant Validate AR reports and analysis generated and perform collection management process	Accounts Executive / Accounts Assistant Validate AR reports and analysis generated and initiate automated collection management process	Accounts Executive / Accounts Assistant Review potential risks to AR collections automatically flagged out and initiate appropriate collection management processes to mitigate risks
Skills and proficiency levels	1. Financial Management (Level 2)	1. Financial Management (Level 3)	1. Financial Management (Level 3)	1. Financial Management (Level 3) 2. Data Analytics (Level 3) 3. Digital Problem Solving (Level 3)
Job role #2	Accountant/ Senior Accounts Executive Review and verify AR reports and analysis, and manage collection management process	Accountant/ Senior Accounts Executive Review and verify AR reports and analysis, and manage collection management process	Accountant/ Senior Accounts Executive Review and validate AR reports and analysis, and manage collection management process	Accountant/ Senior Accounts Executive Review and validate potential risks to AR collections automatically flagged out and manage collection management processes
Skills and proficiency levels	1. Financial Management (Level 3)	1. Financial Management (Level 4)	1. Financial Management (Level 4)	1. Financial Management (Level 4) 2. Data Analytics (Level 4) 3. Digital Problem Solving (Level 3)

Legend: **Increase in expected skill proficiency**
New skill identified at that sophistication level

Financial Accounting

Order To Cash

Overview of Order to Cash:

- Credit & Risk
- Billing
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- Collection



Analysis & Collection involves the monitoring and recovery of credit extended to customers including assessing the effectiveness of collections, initiating reminders for collections overdue, dunning process etc.

ANALYSIS & COLLECTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	AR reports and analysis (% past due, % collected etc.) are manually prepared from standard system reports Collection management activities (e.g. payment reminders, dunning, internal escalations) are performed, tracked manually	AR reports and analysis (% past due, % collected etc.) can be automatically generated Collection management activities (e.g. payment reminders, dunning, internal escalations) are performed and tracked manually	AR reports and analysis (% past due, % collected etc.) can be automatically generated Collection management activities (e.g. payment reminders, dunning, internal escalations) are automatically triggered, executed and tracked with minimal manual intervention required.	Advanced analytics tools and/or techniques are applied to predict customers' propensity to pay through the analysis of customer payment habits, behavioural patterns, etc. Collection management activities (e.g. payment reminders, dunning, internal escalations) are automatically triggered, executed and tracked with minimal manual intervention required.
Job role #3	Finance Manager Review and approve AR reports and analysis, and oversee collection management process	Finance Manager Review and approve AR reports and analysis, and oversee collection management process	Finance Manager Review and approve AR reports and analysis, and oversee collection management process	Finance Manager Review and approve AR reports and analysis, and oversee collection management process
Skills and proficiency levels	1. Financial Management (Level 4)	1. Financial Management (Level 4)	1. Financial Management (Level 4)	1. Financial Management (Level 4) 2. Data Analytics (Level 5) 3. Digital Problem Solving (Level 4)

Legend: **New skill identified at that sophistication level**

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report

Record to Report				
L1 Process	Recording Fixed Assets	Close	Consolidate	Report
L2 Sub-process	Fixed Asset Accounting	Reconciliation, Journal Entry, Close Management	Consolidation	Financial Reporting
L3 Task	Fixed Asset Accounting	Reconciliation, Journal Entry, Close Management	Consolidation	Financial Reporting
<i>Challenges today</i>	<ul style="list-style-type: none"> • FA life cycles are managed manually and are not integrated with the accounting system resulting in time-consuming processes 	<ul style="list-style-type: none"> • Delayed close process due to manual reconciliation, journal entry input processes • No defined close process 	<ul style="list-style-type: none"> • Chart of Accounts (CoA) of the group is unstandardised resulting in manual efforts required to aggregate information as a group • Manual process of reconciling and preparing consolidation entries result in a more tedious consolidation process 	<ul style="list-style-type: none"> • Data is manually aggregated from disparate sources • Financial reports and disclosures are prepared manually resulting in a time-consuming financial reporting process
<i>Leading practices</i>	<ul style="list-style-type: none"> • FA life cycles are managed through FA systems that are integrated to the accounting system resulting in overall process efficiencies. • Automatic posting of recurring FA transactions (e.g. depreciation) 	<ul style="list-style-type: none"> • Automated reconciliation, journal entry input processes reduce the time required to close • Continuous close process supported with workflow 	<ul style="list-style-type: none"> • CoA of the group is standardised and automatically aggregated • System rules are used to automate the process of reconciliation and preparing consolidation entries – reducing overall cycle time 	<ul style="list-style-type: none"> • Report data is automatically aggregated and integrated with reporting tools • Financial reports and required disclosures are automatically generated reducing time spent on preparing financial reports

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Fixed Asset Accounting involves the accounting of fixed assets in the organisation from acquisition, to depreciation, to disposal or write off of fixed assets.

FIXED ASSET ACCOUNTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	FA life cycles are managed manually. Accounting entries for all FA transactions (e.g. capitalisation, disposal, transfer, adjustment) are manually prepared and posted in the accounting system Depreciation expenses are manually computed and input into the accounting system	FA life cycles are managed manually. Accounting entries for all FA transactions (e.g. capitalisation, disposal, transfer, adjustment) are manually prepared and posted in the accounting system Depreciation expenses are automatically computed and posted in the accounting system	-	Accounting systems or EAM solutions are used to manage FA life cycle. All FA transactions (e.g. capitalisation, disposal, transfer, adjustment) initiated automatically triggers and posts the relevant accounting entries in the accounting system Depreciation expenses are automatically computed and posted in the accounting system
Technology	-	Accounting systems	-	Accounting systems, EAM solutions
Recommendation to move to next level	Leverage features in accounting system to automate simple recurring FA transactions (e.g. depreciation expenses)	Implement EAM solutions or leverage on existing features in accounting systems to automate the FA accounting	-	-

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Fixed Asset Accounting involves the accounting of fixed assets in the organisation from acquisition, to depreciation, to disposal or write off of fixed assets.

FIXED ASSET ACCOUNTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	FA life cycles are managed manually. Accounting entries for all FA transactions (e.g. capitalisation, disposal, transfer, adjustment) are manually prepared and posted in the accounting system Depreciation expenses are manually computed and input into the accounting system	FA life cycles are managed manually. Accounting entries for all FA transactions (e.g. capitalisation, disposal, transfer, adjustment) are manually prepared and posted in the accounting system Depreciation expenses are automatically computed and posted in the accounting system	-	Accounting systems or EAM solutions are used to manage FA life cycle. All FA transactions (e.g. capitalisation, disposal, transfer, adjustment) initiated automatically triggers and posts the relevant accounting entries in the accounting system Depreciation expenses are automatically computed and posted in the accounting system
Job role #1	Accounts Executive / Accounts Assistant Manually record all transactions relating to fixed assets in the accounting system	Accounts Executive / Accounts Assistant Manually record all transactions relating to fixed assets in the accounting system except depreciation expenses	-	<i>Displaced task*</i>
Skills and proficiency levels	1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3)	1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3)	-	
Job role #2	Accountant/Senior Accounts Executive Review and validate transactions relating to fixed assets in the accounting system.	Accountant/Senior Accounts Executive Review and validate transactions relating to fixed assets in the accounting system.	-	<i>Displaced task*</i>
Skills and proficiency levels	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	-	
Job role #3	Finance Manager Review and approve transactions relating to fixed assets	Finance Manager Review and approve transactions relating to fixed assets in the accounting system	-	Finance Manager Review and approve transactions relating to fixed assets in the accounting system
Skills and proficiency levels	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4)	-	1. Transactional Accounting (Level 4) 2. Digital Problem Solving (Level 4)

* Displaced task as FA transactions will be automatically posted and calculated. Therefore Accounts Executive / Accounts Assistant is not required to manage accounting entries, manually post transactions and manually compute and enter depreciation expenses. Accountant/Senior Accounts Executive is not required to review and validate transactions, exceptions will be reviewed by the Finance Manager.

Legend: New skill identified at that sophistication level

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Reconciliation, Journal Entry and Close Management process collectively make up the financial close process that ensures all financial transactions are accurately recorded in the organisation's books at a certain point in time. For the purpose of this study, reconciliation includes intercompany, sub-ledger, and bank reconciliations.

CLOSE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Close process is manually driven and usually exceeds the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are manually matched; and</p> <p>Journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system</p>	<p>Close process is manually driven and sometimes exceeds the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched. But journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system; or</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation). But reconciliations (e.g. intercompany transactions, bank balances) are manually matched</p>	<p>Close process is driven by workflows and is completed by the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched. But journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system; or</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation). But reconciliations (e.g. intercompany transactions, bank balances) are manually matched</p>	<p>Close process is driven by workflows and is continuous enabling real-time access to financial information; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched; and</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation)</p>
Technology	Accounting system	Accounting system, Finance close solution	Accounting system, Finance close solution	Accounting system, Finance close solution
Recommendation to move to next level	Leverage on existing features in accounting systems or finance close solutions to automate the reconciliation process or journal entry preparation process	Implement finance close solutions to drive the close process with workflows	Leverage on existing features in accounting systems or finance close solutions to automate the reconciliation process and journal entry preparation process and adopt a continuous close process	-

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Reconciliation, Journal Entry and Close Management process collectively make up the financial close process that ensures all financial transactions are accurately recorded in the organisation's books at a certain point in time. For the purpose of this study, reconciliation includes intercompany, sub-ledger, and bank reconciliations.

CLOSE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Close process is manually driven and usually exceeds the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are manually matched; and</p> <p>Journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system</p>	<p>Close process is manually driven and sometimes exceeds the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched. But journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system; or</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation). But reconciliations (e.g. intercompany transactions, bank balances) are manually matched</p>	<p>Close process is driven by workflows and is completed by the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched. But journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system; or</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation). But reconciliations (e.g. intercompany transactions, bank balances) are manually matched</p>	<p>Close process is driven by workflows and is continuous enabling real-time access to financial information; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched; and</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation)</p>
Job role #1	<p>Accounts Executive/Accounts Assistant</p> <p>Perform reconciliations manually, compute and post journal entries manually</p>	<p>Accounts Executive/Accounts Assistant</p> <p>Validate reconciliations automatically matched and compute and post journal entries manually; or</p> <p>Performs reconciliations manually and validates journal entries populated automatically</p>	<p>Accounts Executive/Accounts Assistant</p> <p>Validate reconciliations automatically matched and compute and post journal entries manually; or</p> <p>Performs reconciliations manually and validates journal entries populated automatically</p>	<p><i>Displaced Task*</i></p>
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3) 3. Financial Closing (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3) 3. Financial Closing (Level 3) 4. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 2) 2. Transactional Accounting (Level 3) 3. Financial Closing (Level 3) 4. Digital Problem Solving (Level 3) 	

* Displaced task as reconciliation and adjustments will be automated, and therefore Accounts Executive / Accounts Assistant is not required to post entries and perform manual reconciliations

Legend: **New skill identified at that sophistication level**

Financial Accounting Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Reconciliation, Journal Entry and Close Management process collectively make up the financial close process that ensures all financial transactions are accurately recorded in the organisation's books at a certain point in time. For the purpose of this study, reconciliation includes intercompany, sub-ledger, and bank reconciliations.

CLOSE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Close process is manually driven and usually exceeds the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are manually matched; and</p> <p>Journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system</p>	<p>Close process is manually driven and sometimes exceeds the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched. But journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system; or</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation). But reconciliations (e.g. intercompany transactions, bank balances) are manually matched</p>	<p>Close process is driven by workflows and is completed by the financial close target set by management; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched. But journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation) are manually computed and input into the accounting system; or</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation). But reconciliations (e.g. intercompany transactions, bank balances) are manually matched</p>	<p>Close process is driven by workflows and is continuous enabling real-time access to financial information; and</p> <p>Reconciliations (e.g. intercompany transactions, bank balances) are automatically matched; and</p> <p>System rules are used to automatically populate journal entries (e.g. recurring accruals, purchase accruals based on GR, forex translation)</p>
Job role #2	<p>Accountant/Senior Accounts Executive</p> <p>Reviews and manages close activities and transactions</p>	<p>Accountant/Senior Accounts Executive</p> <p>Reviews and manages close activities and transactions</p>	<p>Accountant/Senior Accounts Executive</p> <p>Reviews and manages close activities and transactions</p>	<p>Accountant/Senior Accounts Executive</p> <p>Reviews close activities and transactions</p>
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 4. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 4. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 4. Digital Problem Solving (Level 3)
Job role #3	<p>Finance Manager</p> <p>Reviews and approves close activities and transactions</p>	<p>Finance Manager</p> <p>Reviews and approves close activities and transactions</p>	<p>Finance Manager</p> <p>Reviews and approves close activities and transactions</p>	<p>Finance Manager</p> <p>Reviews exceptions and manages close activities through the use of accounting system and/or finance close solutions</p>
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 4. Digital Problem Solving (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 4. Digital Problem Solving (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 3) 2. Transactional Accounting (Level 4) 3. Financial Closing (Level 4) 4. Digital Problem Solving (Level 4)

Legend: New skill identified at that sophistication level

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Consolidation involves the process of combining financial data from entities within a organisational group for the purposes of reporting. Activities include computation of elimination entries, adjustments, equity accounting, preparation of reports etc.

CONSOLIDATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>CoA of the group is not standardised and is manually aggregated at the group level</p> <p>Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated</p> <p>Consolidated financial reports are manually prepared</p>	<p>CoA of the group is standardised and automatically aggregated at the group level</p> <p>Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated</p> <p>Consolidated financial reports are manually prepared</p>	<p>CoA of the group is standardised and automatically aggregated at the group level</p> <p>Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated</p> <p>Consolidated data is uploaded into financial reporting tools to automatically generate consolidated financial reports</p>	<p>CoA of the group is standardised and automatically aggregated at the group level within the financial consolidation solution</p> <p>Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are automatically matched/calculated</p> <p>Consolidated financial reports are automatically generated</p>
Technology	MS Office	Advanced Excel incl. add-ins, VBA, macros	Financial Consolidation solutions	Financial Consolidation solutions
Recommendation to move to next level	Leverage on standard productivity tools to aggregate information for financial consolidation	Implement financial reporting tools to automate the preparation of consolidated financial reports	Implement financial consolidation solutions to automate end-to-end consolidation process	-

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Consolidation involves the process of combining financial data from entities within a organisational group for the purposes of reporting. Activities include computation of elimination entries, adjustments, equity accounting, preparation of reports etc.

CONSOLIDATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	CoA of the group is not standardised and is manually aggregated at the group level Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated Consolidated financial reports are manually prepared	CoA of the group is standardised and automatically aggregated at the group level Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated Consolidated financial reports are manually prepared	CoA of the group is standardised and automatically aggregated at the group level Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated Consolidated data is uploaded into financial reporting tools to automatically generate consolidated financial reports	CoA of the group is standardised and automatically aggregated at the group level within the financial consolidation solution Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are automatically matched/calculated Consolidated financial reports are automatically generated
Job role #1	Accounts Executive/Accounts Assistant Aggregate consolidated financial information, compute consolidation entries and prepare consolidated financial reports	Accounts Executive/Accounts Assistant Compute consolidation entries and prepare consolidated financial reports	Accounts Executive/Accounts Assistant Compute consolidation entries and validate automatically generated consolidated financial reports	<i>Displaced Task*</i>
Skills and proficiency levels	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 2) Transactional Accounting (Level 3) Group Accounting and Consolidation (Level 4) 	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 2) Transactional Accounting (Level 3) Group Accounting and Consolidation (Level 4) 	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 2) Transactional Accounting (Level 3) Group Accounting and Consolidation (Level 4) 5. Digital Problem Solving (Level 3) 	
Job role #2	Accountant/Senior Accounts Executive Review and validate consolidation entries and consolidated financial reports	Accountant/Senior Accounts Executive Review and validate consolidation entries and consolidated financial reports	Accountant/Senior Accounts Executive Review and validate consolidation entries and consolidated financial reports	Accountant/Senior Accounts Executive Validate financial consolidation entries automatically calculated. Validate consolidated financial reports automatically generated
Skills and proficiency levels	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) Group Accounting and Consolidation (Level 4) 	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) Group Accounting and Consolidation (Level 4) 	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) Group Accounting and Consolidation (Level 4) 	<ol style="list-style-type: none"> Accounting Standards (Level 4) Accounting and Tax Systems (Level 3) Transactional Accounting (Level 4) Group Accounting and Consolidation (Level 4) 5. Digital Problem Solving (Level 3)

* Displaced task as consolidation entries will be automatically matched, calculated and posted to the accounting system, which means Accounts Executive/Accounts Assistant is not required to compute or manually post transactions

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Consolidation involves the process of combining financial data from entities within a organisational group for the purposes of reporting. Activities include computation of elimination entries, adjustments, equity accounting, preparation of reports etc.

CONSOLIDATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	CoA of the group is not standardised and is manually aggregated at the group level Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated Consolidated financial reports are manually prepared	CoA of the group is standardised and automatically aggregated at the group level Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated Consolidated financial reports are manually prepared	CoA of the group is standardised and automatically aggregated at the group level Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are manually matched/calculated Consolidated data is uploaded into financial reporting tools to automatically generate consolidated financial reports	CoA of the group is standardised and automatically aggregated at the group level within the financial consolidation solution Reconciliations (e.g. intercompany transactions, equity reconciliation) and consolidation entries (e.g. foreign currency translation, GAAP adjustments) are automatically matched/calculated Consolidated financial reports are automatically generated
Job role #3	Finance Manager Review and manage financial consolidation process and reporting	Finance Manager Review and manage financial consolidation process and reporting	Finance Manager Review and manage financial consolidation process and reporting	Finance Manager Review and validate exceptions in accounting entries and reports generated by financial consolidation solutions
Skills and proficiency levels	1. Accounting Standards (Level 5) 2. Accounting and Tax Systems (Level 4) 3. Group Accounting and Consolidation (Level 5)	1. Accounting Standards (Level 5) 2. Accounting and Tax Systems (Level 4) 3. Group Accounting and Consolidation (Level 5)	1. Accounting Standards (Level 5) 2. Accounting and Tax Systems (Level 4) 3. Group Accounting and Consolidation (Level 5)	1. Accounting Standards (Level 5) 2. Accounting and Tax Systems (Level 4) 3. Group Accounting and Consolidation (Level 5)
Job role #4	Financial Controller Review and manage financial consolidation process and reporting	Financial Controller Review and manage financial consolidation process and reporting	Financial Controller Review and manage financial consolidation process and reporting	Financial Controller Review and manage financial consolidation process and reporting
Skills and proficiency levels	1. Accounting Standards (Level 6) 2. Accounting and Tax Systems (Level 5) 3. Group Accounting and Consolidation (Level 5)	1. Accounting Standards (Level 6) 2. Accounting and Tax Systems (Level 5) 3. Group Accounting and Consolidation (Level 5)	1. Accounting Standards (Level 6) 2. Accounting and Tax Systems (Level 5) 3. Group Accounting and Consolidation (Level 5)	1. Accounting Standards (Level 6) 2. Accounting and Tax Systems (Level 5) 3. Group Accounting and Consolidation (Level 5)

Legend: New skill identified at that sophistication level

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Financial Reporting involves the preparation and disclosure of the organisation's financial results and related information in accordance with the applicable regulatory requirements.

FINANCIAL REPORTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Financial reporting data is manually collated from disparate sources Financial reports are prepared manually Disclosure reporting is prepared manually	Standard productivity tools (e.g. MS Excel with Macro) are used to aggregate financial reporting data Financial reports are prepared manually Disclosure reporting is prepared manually	Data is automatically aggregated in a central location and is integrated to financial reporting tool Financial reporting tools are used to automatically generate financial reports in the required regulatory format Disclosure reporting is prepared manually	Data is automatically aggregated in a central location and is integrated to financial reporting tool Financial reporting tools are used to automatically generate financial reports in the required regulatory format Disclosure reporting is automatically generated based on regulatory requirements
Technology	Accounting system + Basic Excel	Accounting system + Advanced Excel incl. add-ins, VBA, macros	Accounting system + Financial Reporting solutions	Accounting system + Financial Reporting solutions
Recommendation to move to next level	Leverage on accounting system and standard productivity tools to collate information for financial reporting	Implement financial reporting tools to automate the preparation of financial reports	Apply features in financial reporting tools to automatically generate disclosures	-

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Financial Reporting involves the preparation and disclosure of the organisation's financial results and related information in accordance with the applicable regulatory requirements.

FINANCIAL REPORTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Financial reporting data is manually collated from disparate sources Financial reports are prepared manually Disclosure reporting is prepared manually	Standard productivity tools (e.g. MS Excel with Macro) are used to aggregate financial reporting data Financial reports are prepared manually Disclosure reporting is prepared manually	Data is automatically aggregated in a central location and is integrated to financial reporting tool Financial reporting tools are used to automatically generate financial reports in the required regulatory format Disclosure reporting is prepared manually	Data is automatically aggregated in a central location and is integrated to financial reporting tool Financial reporting tools are used to automatically generate financial reports in the required regulatory format Disclosure reporting is automatically generated based on regulatory requirements
Job role #1	Accountant/Senior Accounts Executive Collate financial reporting information and prepare financial reports and disclosures	Accountant/Senior Accounts Executive Prepare financial reports and disclosures	Accountant/Senior Accounts Executive Validate financial reports automatically generated and prepare report disclosures	Accountant/Senior Accounts Executive Validate financial reports and disclosures automatically generated
Skills and proficiency levels	1. Accounting Standards (Level 4) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 4) 4. Financial Reporting (Level 4) 5. Financial Reporting Quality (Level 4) 6. Financial Statements Analysis (Level 4)	1. Accounting Standards (Level 4) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 4) 4. Financial Reporting (Level 4) 5. Financial Reporting Quality (Level 4) 6. Financial Statements Analysis (Level 4)	1. Accounting Standards (Level 5) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 4) 4. Financial Reporting (Level 5) 5. Financial Reporting Quality (Level 4) 6. Financial Statements Analysis (Level 5) 7. Digital Problem Solving (Level 3)	1. Accounting Standards (Level 5) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 4) 4. Financial Reporting (Level 5) 5. Financial Reporting Quality (Level 4) 6. Financial Statements Analysis (Level 5) 7. Digital Problem Solving (Level 3)
Job role #2	Finance Manager Review financial report prepared including changes in regulatory requirements	Finance Manager Review financial report prepared including changes in regulatory requirements	Finance Manager Review financial report prepared including changes in regulatory requirements	Finance Manager Review financial report generated including changes in regulatory requirements
Skills and proficiency levels	1. Accounting Standards (Level 5) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 5) 4. Financial Reporting (Level 5) 5. Financial Reporting Quality (Level 6) 6. Financial Statements Analysis (Level 5)	1. Accounting Standards (Level 5) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 5) 4. Financial Reporting (Level 5) 5. Financial Reporting Quality (Level 6) 6. Financial Statements Analysis (Level 5)	1. Accounting Standards (Level 6) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 5) 4. Financial Reporting (Level 5) 5. Financial Reporting Quality (Level 6) 6. Financial Statements Analysis (Level 6)	1. Accounting Standards (Level 6) 2. Audit Compliance (Level 4) 3. Audit Framework (Level 5) 4. Financial Reporting (Level 5) 5. Financial Reporting Quality (Level 6) 6. Financial Statements Analysis (Level 6)

Legend: Increase in expected skill proficiency
 New skill identified at that sophistication level

Financial Accounting

Record To Report

Overview of Record to Report:

- Recording Fixed Assets
- Close
- Consolidate
- Report



Financial Reporting involves the preparation and disclosure of the organisation's financial results and related information in accordance with the applicable regulatory requirements.

FINANCIAL REPORTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Financial reporting data is manually collated from disparate sources Financial reports are prepared manually Disclosure reporting is prepared manually	Standard productivity tools (e.g. MS Excel with Macro) are used to aggregate financial reporting data Financial reports are prepared manually Disclosure reporting is prepared manually	Data is automatically aggregated in a central location and is integrated to financial reporting tool Financial reporting tools are used to automatically generate financial reports in the required regulatory format Disclosure reporting is prepared manually	Data is automatically aggregated in a central location and is integrated to financial reporting tool Financial reporting tools are used to automatically generate financial reports in the required regulatory format Disclosure reporting is automatically generated based on regulatory requirements
Job role #3	Financial Controller Review financial report prepared including changes in regulatory requirements	Financial Controller Review financial report prepared including changes in regulatory requirements. Manage adoption of new technology and change process	Financial Controller Review financial report prepared including changes in regulatory requirements. Manage adoption of new technology and change process	Financial Controller Review financial report prepared including changes in regulatory requirements. Manage adoption of new technology and change process
Skills and proficiency levels	1. Accounting Standards (Level 6) 2. Audit Compliance (Level 5) 3. Financial Reporting (Level 6) 4. Financial Reporting Quality (Level 6) 5. Financial Statements Analysis (Level 6)	1. Accounting Standards (Level 6) 2. Audit Compliance (Level 5) 3. Financial Reporting (Level 6) 4. Financial Reporting Quality (Level 6) 5. Financial Statements Analysis (Level 6)	1. Accounting Standards (Level 6) 2. Audit Compliance (Level 5) 3. Financial Reporting (Level 6) 4. Financial Reporting Quality (Level 6) 5. Financial Statements Analysis (Level 6)	1. Accounting Standards (Level 6) 2. Audit Compliance (Level 5) 3. Financial Reporting (Level 6) 4. Financial Reporting Quality (Level 6) 5. Financial Statements Analysis (Level 6)

Management Accounting

Master Data Management

Overview of Master Data Management:

- Managing Data

L1 Process	Master Data Management
L2 Sub-process	Managing Data*
L3 Task	Master Data Governance (GL, Vendor, Customer & Fixed Asset)

Challenges today	<ul style="list-style-type: none"> • No restrictions on users who are able to update master data • No defined or clear responsibility on who owns, use and maintains master data • Accounting function does not have purview to the updates made to master data, leading to downstream impact on financials in accounting system • Systems that utilize master data are not automatically updated as and when master data changes happen
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Leading practices	<ul style="list-style-type: none"> • Clear, defined roles and responsibilities on who is accountable to master data • A centralised team that owns enterprise's common data dictionary and definitions • Master data changes are integrated to downstream tools and systems that utilize the same master data
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**Data transformation related activities such as data preparation, blending and wrangling are covered in relevant process areas*

Management Accounting

Master Data Management

Overview of Master Data Management:
 • Managing Data



Activities to establish and manage changes to company's master data such as GL / chart of accounts, vendor, customer, fixed asset, etc. Master Data Management include creation of master data through to disposal, where its governance helps to deliver master data that is understood, trusted, controlled, and fit of purpose. Good master data also ensures that the quality of financial reporting is increased and benefits from better traceability

MASTER DATA GOVERNANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Any user can access and update master data i.e. limited user access restrictions</p> <p>Decentralised master data management across multiple lines of business or changes to master data is owned by IT. F&A has no oversight over changes and does not have rights to approve any changes made to master data leading to downstream impact over data</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>Decentralised master data management across multiple lines of business or changes to master data is owned by IT. F&A has no oversight over changes and does not have rights to approve any changes made to master data leading to downstream impact over data</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>Individual process areas (e.g. AP, AR, GL, FA) have oversight over any changes made on their respective / relevant master data, and reviews and approves all changes. IT consults with F&A on any changes made</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>A centralised function owns definitions, templates and QA on master data, and works with functional areas of Finance and the business during QA process. Functional area within F&A may be consulted on any changes made</p> <p>Where master data is updated, these updates will automatically update all downstream tools / systems that utilize the same master data</p>
Technology	-	-	-	-
Recommendation to move to next level	Restrict user access to master data	Functional teams in Finance should have oversight and be able to approve any changes to master data	A centralised function owns the master data definitions, templates and QA on master data with Finance having oversight over master data changes. Master data changes are automatically linked to all downstream technologies	-

Management Accounting

Master Data Management

Overview of Master Data Management:
 • Managing Data



Activities to establish and manage changes to company's master data such as GL / chart of accounts, vendor, customer, fixed asset, etc. Master Data Management include creation of master data through to disposal, where its governance helps to deliver master data that is understood, trusted, controlled, and fit of purpose. Good master data also ensures that the quality of financial reporting is increased and benefits from better traceability

MASTER DATA GOVERNANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Any user can access and update master data i.e. limited user access restrictions</p> <p>Decentralised master data management across multiple lines of business or changes to master data is owned by IT. F&A has no oversight over changes and does not have rights to approve any changes made to master data leading to downstream impact over data</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>Decentralised master data management across multiple lines of business or changes to master data is owned by IT. F&A has no oversight over changes and does not have rights to approve any changes made to master data leading to downstream impact over data</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>Individual process areas (e.g. AP, AR, GL, FA) have oversight over any changes made on their respective / relevant master data, and reviews and approves all changes. IT consults with F&A on any changes made</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>A centralised function owns definitions, templates and QA on master data, and works with functional areas of Finance and the business during QA process. Functional area within F&A may be consulted on any changes made</p> <p>Where master data is updated, these updates will automatically update all downstream tools / systems that utilize the same master data</p>
Job role #1	<i>No F&A roles related at this maturity level</i>		Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Supports master data changes, and consult with IT on any QA issues and findings	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Supports master data changes, and consult with IT on any QA issues and findings
Skills and proficiency levels	<i>No F&A roles related at this maturity level</i>		1. Accounting & Tax System (Level 3) 2. Data Governance (Level 3)	1. Accounting & Tax System (Level 3) 2. Data Governance (Level 3)
Job role #2	<i>No F&A roles related at this maturity level</i>		Financial Planning and Analysis Manager Approves master data changes, and consult with IT on any QA issues and findings	Financial Planning and Analysis Manager Work with specialist data engineers in IT, and respective finance process teams to manage master data, and undertake QA
Skills and proficiency levels	<i>No F&A roles related at this maturity level</i>		1. Accounting & Tax System (Level 4) 2. Data Governance (Level 3)	1. Accounting & Tax System (Level 5) 2. Data Governance (Level 5) 3. Project Management (Level 4) 4. Stakeholder Management (Level 4)

Legend: Increase in expected skill proficiency
 New skill identified at that sophistication level

Management Accounting

Master Data Management

Overview of Master Data Management:
 • Managing Data



Activities to establish and manage changes to company's master data such as GL / chart of accounts, vendor, customer, fixed asset, etc. Master Data Management include creation of master data through to disposal, where its governance helps to deliver master data that is understood, trusted, controlled, and fit of purpose. Good master data also ensures that the quality of financial reporting is increased and benefits from better traceability

MASTER DATA GOVERNANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Any user can access and update master data i.e. limited user access restrictions</p> <p>Decentralised master data management across multiple lines of business or changes to master data is owned by IT. F&A has no oversight over changes and does not have rights to approve any changes made to master data leading to downstream impact over data</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>Decentralised master data management across multiple lines of business or changes to master data is owned by IT. F&A has no oversight over changes and does not have rights to approve any changes made to master data leading to downstream impact over data</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>Individual process areas (e.g. AP, AR, GL, FA) have oversight over any changes made on their respective / relevant master data, and reviews and approves all changes. IT consults with F&A on any changes made</p> <p>Where master data is updated, these updates do not automatically update all downstream tools / systems that utilize the same master data</p>	<p>User access to master data is restricted to defined users within functional areas</p> <p>A centralised function owns definitions, templates and QA on master data, and works with functional areas of Finance and the business during QA process. Functional area within F&A may be consulted on any changes made</p> <p>Where master data is updated, these updates will automatically update all downstream tools / systems that utilize the same master data</p>
Job role #3	<i>No F&A roles related at this maturity level</i>		Business Controller/Finance Director Reviews and approves master data changes	Business Controller/Finance Director Reviews and approves master data changes
Skills and proficiency levels	<i>No F&A roles related at this maturity level</i>		1. Accounting & Tax System (Level 5) 2. Data Governance (Level 4)	1. Accounting & Tax System (Level 6) 2. Data Governance (Level 5) 3. Project Management (Level 5) 4. Stakeholder Management (Level 5)

Legend: Increase in expected skill proficiency
 New skill identified at that sophistication level

Management Accounting

Financial Planning and Analysis

Overview of Financial Planning and Analysis:

- Planning, Budgeting and Forecasting
- Management Reporting

L1 Process	Financial Planning and Analysis			
L2 Sub-process	Planning, Budgeting and Forecasting (PBF)			Management Reporting
L3 Task	Data Aggregation	Preparation and Tracking	Modelling Techniques	Management Reporting
Challenges today	<ul style="list-style-type: none"> • Large amount of time spent on collecting / aggregating and ultimately transforming / blending data prior to use for PBF 	<ul style="list-style-type: none"> • Heavy reliance on spreadsheets in the preparation of plans, budgets and forecasts • Actuals vs. plan / budget / forecast are tracked in a spreadsheet 	<ul style="list-style-type: none"> • PBF is based on historical or direct input from the business • PBF inputs are typically static and based on one outcome • PBF is a check-the-box exercise • Assumptions are not effectively challenged 	<ul style="list-style-type: none"> • Overreliance on static spreadsheets • Long cycle times where management reports are created far too late after financial close to allow for any effective decision making
Leading practices	<ul style="list-style-type: none"> • Source data automatically integrated, cleansed and transformed automatically prior to use in PBF models preparation 	<ul style="list-style-type: none"> • EPM; or BI & Visualisation Tool used to support automated preparation of PBF models • Actuals vs. plan/budget/forecast are automatically tracked 	<ul style="list-style-type: none"> • Implement driver-based PBF based on key financial/business drivers • Implement rolling forecast that is extended beyond fiscal year • Leverage what-if analysis and scenario planning 	<ul style="list-style-type: none"> • Dynamic dashboards that allow management to drill down organisational KPIs, metrics and financial data • Automation of standard report and commentaries

Management Accounting

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Data Aggregation refers to the collation, cleansing and aggregation of data from one or more disparate sources of data prior to use for analytics or modelling.

DATA AGGREGATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Data manually downloaded and collated from different sources e.g. disparate source system, emails, external data with no central information repository used Data is then manually aggregated on Standard Productivity tool (e.g. Excel)	Data is received and stored on centralised information repository or team collaboration platform e.g. SharePoint Excel with Macro ran automatically to aggregate data	-	Data is either: <ul style="list-style-type: none"> • Automatically cleansed, integrated and aggregated via data integration tool (e.g. data warehouse); and/ or • Wrangled, blended, prepared via DSML platform prior to use
Technology	Basic Excel	Advanced Excel incl. add-ins, VBA, macros	-	Data Integration Tool; or Data Science & Machine Learning Platforms
Recommendation to move to next level	Implement VBA / Macro to collate data centrally from a shared drive / SharePoint	Integration of source data to EPM or leverage data science techniques to prepare, cleanse and aggregate data	-	-

Management Accounting Financial Planning and Analysis

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DATA AGGREGATION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Data manually downloaded and collated from different sources e.g. disparate source system, emails, external data with no central information repository used Data is then manually aggregated on Standard Productivity tool (e.g. Excel)	Data is received and stored on centralised information repository or team collaboration platform e.g. SharePoint Excel with Macro ran automatically to aggregate data	-	Data is either: <ul style="list-style-type: none"> • Automatically cleansed, integrated and aggregated via data integration tool (e.g. data warehouse); and/ or • Wrangled, blended, prepared via DSML platform prior to use
Job role #1	Accounting Executive	Accounting Executive	-	<i>Displaced task*</i>
	Collect data and identify data exceptions	Run macro and identify data exceptions	-	
Skills	1. Accounting and Tax Systems (Level 4) 2. Data Governance (Level 3)	1. Accounting and Tax Systems (Level 4) 2. Data Governance (Level 3)	-	
Job role #2	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst	-	<i>Displaced task*</i>
	Review data exceptions and work with business to manage exceptions	Review data exceptions and work with business to manage exceptions	-	
Skills and proficiency levels	1. Accounting and Tax Systems (Level 4)** 2. Data Governance (Level 3)	1. Accounting and Tax Systems (Level 4)** 2. Data Governance (Level 3)	-	
Job role #3	Financial Planning and Analysis Manager	Financial Planning and Analysis Manager	-	Financial Planning and Analysis Manager
	Review data exceptions and work with business to manage exceptions	Review data exceptions and work with business to manage exceptions	-	Review data exceptions incl. work with business to manage any data exceptions
Skills and proficiency levels	1. Accounting and Tax Systems (Level 4) 2. Data Governance (Level 3)	1. Accounting and Tax Systems (Level 4) 2. Data Governance (Level 3)	-	1. Accounting and Tax Systems (Level 4) 2. Data Governance (Level 4) 3. Data Analytics (Level 4) 4. Programming and Coding (Level 2)

* *Displaced task as data will be fully automated i.e. data automatically refreshed and interfaced. Therefore Accounting Executive role not required to refresh or map data manually*

** *In SFw, Accounting Executive and Management Accountant requires Accounting and Tax Systems skills at Level 2 & 3. Level 2 defined as input of journals and Level 3 as review and approval of journals / transactions. Level 4 definition refers to download / retrieve of data, which is more relevant here for this task*

Legend:

Increase in expected skill proficiency
New skill identified at that sophistication level

Management Accounting

Financial Planning and Analysis

Overview of Financial Planning and Analysis:

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Preparation and Tracking refers to the preparation, collation and aggregation of annual strategic plans, financial operational targets, detailed plans, budgets and forecasts, as well as period tracking of actuals vs. performance metrics for performance management purposes.

PREPARATION & TRACKING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Strategic / financial / departmental / operational plans and budget incl. business case / project investments are prepared by management and individual business units. Consolidation across the entire organisation is performed manually via standard productivity tool (e.g. Excel) Actuals are tracked manually against performance metrics using basic tools as underlying technology	Strategic / financial / departmental / operational plans and budget incl. business case / project investments are prepared by management and individual business units. Consolidation is automatically performed using Excel macros Actuals are tracked manually against performance metrics using basic tools as underlying technology	Strategic / financial / departmental / operational plans and budget incl. business case / project investments are prepared by management and individual business units on standardised templates and linked to consolidated dashboards on a Business Intelligence & Visualisation tools Actuals are tracked manually against performance metrics using Business Intelligence & Visualisation tools	Single enterprise planning platform used to facilitate planning, budgeting and forecasting, and connects and consolidates strategic / financial / departmental / operational plans and budget incl. business case / project investments across the entire organisation. AI/ML capabilities generates analysis for FP&A consideration with Finance able to generate on-demand insights Actuals are tracked in real time automatically against performance metrics through dashboards
Technology	Basic Excel	Advanced Excel incl. add-ins, VBA, macros	Business Intelligence & Visualisation	Enterprise / Corporate Performance Management (EPM / CPM) with Machine Learning
Recommendation to move to next level	Leverage Macros and VBAs to automatically collate and consolidate across standardised source templates and spreadsheets	Leverage visualisation tools with dashboards that are linked to standardised source templates submitted	Leverage existing Enterprise/Corporate Performance Management tools for connected / integrated planning and real time performance management	-

Management Accounting Financial Planning and Analysis

Overview of Financial Planning and Analysis:

- Planning, Budgeting and Forecasting
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Preparation and Tracking refers to the preparation, collation and aggregation of annual strategic plans, financial operational targets, detailed plans, budgets and forecasts, as well as period tracking of actuals vs. performance metrics for performance management purposes.

PREPARATION & TRACKING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Strategic / financial / departmental / operational plans and budget incl. business case / project investments are prepared by management and individual business units. Consolidation across the entire organisation is performed manually via standard productivity tool (e.g. Excel) Actuals are tracked manually against performance metrics using basic tools as underlying technology	Strategic / financial / departmental / operational plans and budget incl. business case / project investments are prepared by management and individual business units. Consolidation is automatically performed using Excel macros Actuals are tracked manually against performance metrics using basic tools as underlying technology	Strategic / financial / departmental / operational plans and budget incl. business case / project investments are prepared by management and individual business units on standardised templates and linked to consolidated dashboards on a Business Intelligence & Visualisation tools Actuals are tracked manually against performance metrics using Business Intelligence & Visualisation tools	Single enterprise planning platform used to facilitate planning, budgeting and forecasting, and connects and consolidates strategic / financial / departmental / operational plans and budget incl. business case / project investments across the entire organisation. AI/ML capabilities generates analysis for FP&A consideration with Finance able to generate on-demand insights Actuals are tracked in real time automatically against performance metrics through dashboards
Job role #1	Accounting Executive Collect data, manual PBF report & charts and input actuals into spreadsheet	Accounting Executive Collect data, manual PBF report & charts and input actuals into spreadsheet	Accounting Executive Run dashboards via Visualisation tool and manually input actuals into spreadsheet / tracker to compare against budget / plan/ forecast / KPI	Displaced task*
Skills and proficiency levels	1. Data Governance (Level 3) 2. Finance Business Partnering (Level 2)	1. Data Governance (Level 3) 2. Finance Business Partnering (Level 2)	1. Data Governance (Level 3) 2. Finance Business Partnering (Level 3) 3. Digital Problem Solving (Level 3)	
Job role #2	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Review draft PBF report and monitor actuals vs. budget / plan incl. recommending actions	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Review draft PBF report and monitor actuals vs. budget / plan incl. recommending actions	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Review draft PBF report and monitor actuals vs. budget / plan incl. recommending actions	Displaced task*
Skills and proficiency levels	1. Data Governance (Level 3) 2. Finance Business Partnering (Level 3) 3. Performance Management (Level 3)	1. Data Governance (Level 3) 2. Finance Business Partnering (Level 3) 3. Performance Management (Level 3)	1. Data Governance (Level 3) 2. Finance Business Partnering (Level 4) 3. Performance Management (Level 4) 4. Digital Problem Solving (Level 3)	
Job role #3	Financial Planning and Analysis Manager Review actuals vs. KPI with business stakeholders	Financial Planning and Analysis Manager Review actuals vs. KPI with business stakeholders	Financial Planning and Analysis Manager Review actuals vs. KPI with business stakeholders	Financial Planning and Analysis Manager Review actuals vs. KPI with business stakeholders
Skills and proficiency levels	1. Finance Business Partnering (Level 4) 2. Performance Management (Level 4) 3. Stakeholder Management (Level 4)	1. Finance Business Partnering (Level 4) 2. Performance Management (Level 4) 3. Stakeholder Management (Level 4)	1. Finance Business Partnering (Level 5) 2. Performance Management (Level 5) 3. Stakeholder Management (Level 5) 4. Digital Problem Solving (Level 4)	1. Finance Business Partnering (Level 5) 2. Performance Management (Level 5) 3. Stakeholder Management (Level 5) 4. Digital Problem Solving (Level 4)

* Displaced task as data will be fully automated i.e. data automatically refreshed and interfaced. Therefore Accounting Executive is not required to refresh or map data manually. Management Accountant/FPA Analyst/Business Analyst is not required to review reports manually. Exceptions will be flagged for additional monitoring.

Management Accounting

Financial Planning and Analysis

Overview of Financial Planning and Analysis:

- Planning, Budgeting and Forecasting
- Management Reporting



Planning, Budgeting and Forecasting (PBF) Modelling techniques refer to modelling methods by which planning, budgeting and forecasting are derived to support management in understanding financials, aligning resources with strategy, measuring progress and adapting to changing conditions.

MODELLING TECHNIQUES	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Planning and budgeting are derived from general ledger, top down management input or from direct inputs from the business , and are typically static figures Relies primarily on budgeting exercise with minimal forecasting done	Planning, budgeting and forecasting are derived from historical, incremental trending covering mainly macroeconomic drivers (e.g. inflation, GDP growth) Forecasting / re-forecasting is done half-yearly/annual basis	Planning, budgeting and forecasting are driver-based which takes into account a series of inputs that are based on key financial and business drivers (e.g. volume, price) Forecasting / re-forecasting is done on a quarterly basis	Planning, budgeting and forecasting are based on statistical and predictive modelling techniques where key dependent variables for the P&L, B/S and C/F are forecasted and supports what-if analysis, scenario planning, times series and stress testing . Machine learning capabilities may also be leveraged, for automated model building and model management Rolling forecast is done which extends through current and next fiscal year
Technology	-	-	Enterprise Performance Management (EPM / CPM)	Enterprise Performance Management (EPM / CPM) with Machine Learning or Data Science, Machine Learning & Advanced Analytics
Recommendation to move to next level	Leverage historical financial data and apply macroeconomic drivers to forecast growth of business, and consequently budget required to meet the plan	Identify key business drivers e.g. business segments, geographies products, pricing, etc. Limit churn by focusing on top 80% drivers using 80/20 rule to cover majority of revenue or cost values	Implement statistical and predictive modelling techniques leveraging pre-built models or custom models on analytics platforms	-

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MODELLING TECHNIQUES	SOPHISTICATION LEVELS			
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Sophistication	Planning and budgeting are derived from general ledger, top down management input or from direct inputs from the business , and are typically static figures Relies primarily on budgeting exercise with minimal forecasting done	Planning, budgeting and forecasting are derived from historical, incremental trending covering mainly macroeconomic drivers (e.g. inflation, GDP growth) Forecasting / re-forecasting is done half-yearly/annual basis	Planning, budgeting and forecasting are driver-based which takes into account a series of inputs that are based on key financial and business drivers (e.g. volume, price) Forecasting / re-forecasting is done on a quarterly basis	Planning, budgeting and forecasting are based on statistical and predictive modelling techniques where key dependent variables for the P&L, B/S and C/F are forecasted and supports what-if analysis, scenario planning, times series and stress testing . Machine learning capabilities may also be leveraged, for automated model building and model management Rolling forecast is done which extends through current and next fiscal year
Job role #1	Management Accountant/Financial Planning and Analysis Analyst / Business Analyst Review aggregated inputs from the business and conduct basic financial analysis for high level validation	Management Accountant/Financial Planning and Analysis Analyst / Business Analyst Review initial calculation, validate if macroeconomic drivers applied are accurate / appropriate	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Work with working level stakeholders across the business to identify 80/20 drivers, and conduct financial analysis based of drivers agreed	Management Accountant/Financial Planning and Analysis Analyst/Business Analyst Work with working level stakeholders across the business to identify drivers required for modelling, and work with Expert Data Scientists' to build custom models. Ability to use pre-build models in EPM solutions
Skills and proficiency levels	1. Management Decision Making (Level 3) 2. Financial Analysis (Level 4) 3. Performance Management (Level 2)	1. Management Decision Making (Level 3) 2. Financial Analysis (Level 4) 3. Performance Management (Level 3) 4. Macroeconomic Analysis (Level 3)	1. Management Decision Making (Level 3) 2. Financial Analysis (Level 5) 3. Performance Management (Level 3) 4. Macroeconomic Analysis (Level 4) 5. Cross-functional acumen (Level 4) 6. Business, Product and Portfolio Acumen (Level 4) 7. Financial Modelling (Level 3)	1. Management Decision Making (Level 3) 2. Financial Analysis (Level 5) 3. Macroeconomic Analysis (Level 4) 4. Performance Management (Level 3) 5. Cross-functional acumen (Level 5) 6. Business, Product and Portfolio Acumen (Level 5) 7. Financial Modelling (Level 5) 8. Data Governance (Level 3) 9. Data Analytics (Level 5) 10. Programming and Coding (Level 3) 11. Scenario Planning and Analysis (Level 3)

1. Expert Data Scientists may not necessarily sit in Finance, and may be part of a wider organisation AI or Data Science COE – reporting to CDO

Legend: Increase in expected skill proficiency
 New skill identified at that sophistication level

Management Accounting

Financial Planning and Analysis

Overview of Financial Planning and Analysis:

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Planning, Budgeting and Forecasting (PBF) Modelling techniques refer to modelling methods by which planning, budgeting and forecasting are derived to support management in understanding financials, aligning resources with strategy, measuring progress and adapting to changing conditions.

MODELLING TECHNIQUES	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Planning and budgeting are derived from general ledger, top down management input or from direct inputs from the business, and are typically static figures</p> <p>Relies primarily on budgeting exercise with minimal forecasting done</p>	<p>Planning, budgeting and forecasting are derived from historical, incremental trending covering mainly macroeconomic drivers (e.g. inflation, GDP growth)</p> <p>Forecasting / re-forecasting is done half-yearly/annual basis</p>	<p>Planning, budgeting and forecasting are driver-based which takes into account a series of inputs that are based on key financial and business drivers (e.g. volume, price)</p> <p>Forecasting / re-forecasting is done on a quarterly basis</p>	<p>Planning, budgeting and forecasting are based on statistical and predictive modelling techniques where key dependent variables for the P&L, B/S and C/F are forecasted and supports what-if analysis, scenario planning, times series and stress testing. Machine learning capabilities may also be leveraged, for automated model building and model management</p> <p>Rolling forecast is done which extends through current and next fiscal year</p>
Job role #2	<p>Financial Planning and Analysis Manager</p> <p>Review any exceptions highlighted and work with business to resolve any discrepancies in inputs</p>	<p>Financial Planning and Analysis Manager</p> <p>Review accuracy and reasonableness of macroeconomic drivers chosen and calculations. Work with stakeholders and management to resolve any discrepancies / supplement financial analysis with additional context</p>	<p>Financial Planning and Analysis Manager</p> <p>Work with business unit validate key financial and business drivers, and to resolve any discrepancies / supplement financial analysis with additional context</p>	<p>Financial Planning and Analysis Manager</p> <p>Work with Expert Data Scientists to validate reasonableness of assumptions that form the basis of financial models. Work with management and business unit to validate variables, drivers and / or scenarios, and to resolve any discrepancies / supplement financial analysis with additional context</p>
Skills and proficiency levels	<p>1. Management Decision Making (Level 5) 2. Financial Management (Level 4) 3. Performance Management (Level 4)</p>	<p>1. Management Decision Making (Level 5) 2. Financial Management (Level 4) 3. Performance Management (Level 4) 4. Macroeconomic Analysis (Level 3) 5. Financial Planning (Level 3)</p>	<p>1. Management Decision Making (Level 5) 2. Financial Management (Level 5) 3. Performance Management (Level 4) 4. Macroeconomic Analysis (Level 4) 6. Cross-functional acumen (Level 5) 7. Business, Product and Portfolio Acumen (Level 4) 8. Business Planning (Level 4) 9. Financial Modelling (Level 4)</p>	<p>1. Management Decision Making (Level 5) 2. Financial Management (Level 5) 3. Macroeconomic Analysis (Level 4) 4. Performance Management (Level 4) 5. Cross-functional acumen (Level 5) 6. Business, Product and Portfolio Acumen (Level 5) 7. Business Planning (Level 4) 8. Data Governance (Level 4) 9. Data Analytics (Level 5) 10. Programming and Coding (Level 4) 11. Financial Modelling (Level 5) 12. Scenario Planning and Analysis (Level 4)</p>

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Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

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	Basic	Developing	Mature	Leading
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Job role #3	Business Controller/Finance Director Review consolidated plan, budget and forecast and present / triangulate analysis with management	Business Controller/Finance Director Review consolidated plan, budget and forecast and present / triangulate analysis with management	Business Controller/Finance Director Review consolidated plan, budget and forecast and present / triangulate analysis with management	Business Controller/Finance Director Review and work with management to identify assumptions and variables, and review model results incl. appropriate what-if / scenarios to stress test assumptions
Skills and proficiency levels	1. Disruption Management (Level 5) 2. Finance Business Partnering (Level 5) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Performance Management (Level 5)	1. Disruption Management (Level 5) 2. Finance Business Partnering (Level 5) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Performance Management (Level 5) 6. Cross-functional acumen (Level 5)	1. Disruption Management (Level 5) 2. Finance Business Partnering (Level 5) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Performance Management (Level 5) 6. Cross-functional acumen (Level 5) 7. Business, Product and Portfolio Acumen (Level 6) 8. Business Planning (Level 5) 9. Financial Modelling (Level 5)	1. Disruption Management (Level 5) 2. Finance Business Partnering (Level 5) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Performance Management (Level 5) 6. Cross-functional acumen (Level 5) 7. Business, Product and Portfolio Acumen (Level 6) 8. Business Planning (Level 5) 9. Scenario Planning and Analysis (Level 5) 10. Financial Modelling (Level 5)

Legend: New skill identified at that sophistication level

Management Accounting

Financial Planning and Analysis

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Management Reporting enables strategic decision-making and prioritisation of strategic actions by executive management that helps them address more specific questions on how to better manage the business, leveraging both financial and non-financial information across entities, products and / or business units.

MGMT REPORTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Content of management reports is not standardised. Different business units and function use different analysis dimensions</p> <p>Manual preparation of management reports with static graphs/charts done on standard productivity tools such as MS PowerPoint or MS Excel</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Manual preparation of management reports with static graphs/charts done on standard productivity tools such as MS PowerPoint or MS Excel</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Dynamic dashboards links to financial data with drill-down and jump-to functionality available for management to analyse</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Dynamic dashboards links to financial data with drill-down and jump-to functionality available for management to analyse</p> <p>Financial-related commentaries are automatically generated using Natural Language. Additional non-financial relate commentaries are manually added to supplement financial commentaries</p>
Technology	MS Office (Excel & PowerPoint)	MS Office (Excel & PowerPoint)	Enterprise/Corporate Performance Management; or Business Intelligence & Visualisation Tools	Natural Language Generation (NLG) with Enterprise Performance Management Tool or Business Intelligence & Visualisation Tools
Recommendation to move to next level	Standardise and document management reporting analysis dimensions across business units	Implement Enterprise/Corporate Performance Management (EPM/CPM) or Business Intelligence Tools	Implement Natural Language Generation (NLG) to automatically generate commentaries on key financials	-

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Job role #1	<p>Accounting Executive</p> <p>Collate data, prepare first draft management report and create first level commentary based on financial data</p>	<p>Accounting Executive</p> <p>Collate data, prepare first draft management report and create first level commentary based on financial data</p>	<p>Accounting Executive</p> <p>Exception handling for data and create first level commentaries based on financial data</p>	<p>Displaced task*</p>
Skills and proficiency levels	<p>1. Accounting and Tax Systems (Level 4)**</p> <p>2. Financial Analysis (Level 3)</p> <p>3. Management Decision Making (Level 3)</p>	<p>1. Accounting and Tax Systems (Level 4)**</p> <p>2. Financial Analysis (Level 3)</p> <p>3. Management Decision Making (Level 3)</p>	<p>1. Financial Analysis (Level 3)</p> <p>2. Management Decision Making (Level 3)</p> <p>3. Performance Management (Level 2)</p> <p>4. Digital Problem Solving (Level 3)</p> <p>5. Data Storytelling & Visualisation (Level 3)</p>	
Job role #2	<p>Management Accountant/Financial Planning and Analysis Analyst / Business Analyst</p> <p>Review draft management report, review first level financial commentary and create second level non-financial commentary</p>	<p>Management Accountant/Financial Planning and Analysis Analyst / Business Analyst</p> <p>Review draft management report, review first level financial commentary and create second level non-financial commentary</p>	<p>Management Accountant/Financial Planning and Analysis Analyst/Business Analyst</p> <p>Review data exceptions, review first level financial commentary and create second level non-financial commentary</p>	<p>Management Accountant/Financial Planning and Analysis Analyst/Business Analyst</p> <p>Review data exceptions, review first level financial commentary and create second level non-financial commentary</p>
Skills and proficiency levels	<p>1. Financial Analysis (Level 4)</p> <p>2. Management Decision Making (Level 4)</p>	<p>1. Financial Analysis (Level 4)</p> <p>2. Management Decision Making (Level 4)</p>	<p>1. Financial Analysis (Level 4)</p> <p>2. Management Decision Making (Level 4)</p> <p>3. Performance Management (Level 3)</p> <p>4. Digital Problem Solving (Level 3)</p> <p>5. Data Storytelling & Visualisation (Level 4)</p>	<p>1. Financial Analysis (Level 4)</p> <p>2. Management Decision Making (Level 4)</p> <p>3. Performance Management (Level 3)</p> <p>4. Digital Problem Solving (Level 3)</p> <p>5. Data Storytelling & Visualisation (Level 5)</p>

* Displaced task as data will be fully automated i.e. data automatically refreshed and interfaced. Therefore Accounting Executive role not required to refresh or map data manually

** In SFw, Accounting Executive and Management Accountant requires Accounting and Tax Systems skills at Level 2 & 3. Level 2 defined as input of journals and Level 3 as review and approval of journals / transactions. Level 4 definition refers to download / retrieve of data, which is more relevant here for this task

Legend: Increase in expected skill proficiency
 New skill identified at that sophistication level

Management Accounting

Financial Planning and Analysis

Overview of Financial Planning and Analysis:

- Planning, Budgeting and Forecasting
- Management Reporting



Management Reporting enables strategic decision-making and prioritisation of strategic actions by executive management that helps them address more specific questions on how to better manage the business, leveraging both financial and non-financial information across entities, products and / or business units.

MGMT REPORTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Content of management reports is not standardised. Different business units and function use different analysis dimensions</p> <p>Manual preparation of management reports with static graphs/charts done on standard productivity tools such as MS PowerPoint or MS Excel</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Manual preparation of management reports with static graphs/charts done on standard productivity tools such as MS PowerPoint or MS Excel</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Dynamic dashboards links to financial data with drill-down and jump-to functionality available for management to analyse</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Dynamic dashboards links to financial data with drill-down and jump-to functionality available for management to analyse</p> <p>Financial-related commentaries are automatically generated using Natural Language. Additional non-financial relate commentaries are manually added to supplement financial commentaries</p>
Job role #3	<p>Financial Planning and Analysis Manager</p> <p>Review draft management report and tailor all commentaries and storyboarding. Engage stakeholders and management where necessary</p>	<p>Financial Planning and Analysis Manager</p> <p>Review draft management report and tailor all commentaries and storyboarding. Engage stakeholders and management where necessary</p>	<p>Financial Planning and Analysis Manager</p> <p>Review draft management report and tailor all commentaries and storyboarding. Engage stakeholders and management where necessary</p>	<p>Financial Planning and Analysis Manager</p> <p>Review draft management report and tailor all commentaries and storyboarding including what-if / scenarios and stress test assumptions. Engage stakeholders and management where necessary</p>
Skills and proficiency levels	<p>1. Finance Business Partnering (Level 4)</p> <p>2. Financial Management (Level 4)</p> <p>3. Management Decision Making (Level 5)</p> <p>4. Performance Management (Level 4)</p> <p>5. Stakeholder management (Level 4)</p>	<p>1. Finance Business Partnering (Level 4)</p> <p>2. Financial Management (Level 4)</p> <p>3. Management Decision Making (Level 5)</p> <p>4. Performance Management (Level 4)</p> <p>5. Stakeholder management (Level 4)</p>	<p>1. Finance Business Partnering (Level 4)</p> <p>2. Financial Management (Level 4)</p> <p>3. Macroeconomic Analysis (Level 5)</p> <p>4. Management Decision Making (Level 5)</p> <p>5. Non-Financial Reporting (Level 4)</p> <p>6. Performance Management (Level 4)</p> <p>7. Stakeholder management (Level 4)</p> <p>8. Data Storytelling and Visualisation (Level 5)</p> <p>9. Digital Problem Solving (Level 4)</p>	<p>1. Finance Business Partnering (Level 4)</p> <p>2. Financial Management (Level 4)</p> <p>3. Macroeconomic Analysis (Level 5)</p> <p>4. Management Decision Making (Level 5)</p> <p>5. Non-Financial Reporting (Level 4)</p> <p>6. Performance Management (Level 4)</p> <p>7. Stakeholder management (Level 4)</p> <p>8. Data Storytelling and Visualisation (Level 5)</p> <p>9. Digital Problem Solving (Level 4)</p>

Legend: New skill identified at that sophistication level

Management Accounting

Financial Planning and Analysis

Overview of Financial Planning and Analysis:

- Planning, Budgeting and Forecasting
- Management Reporting



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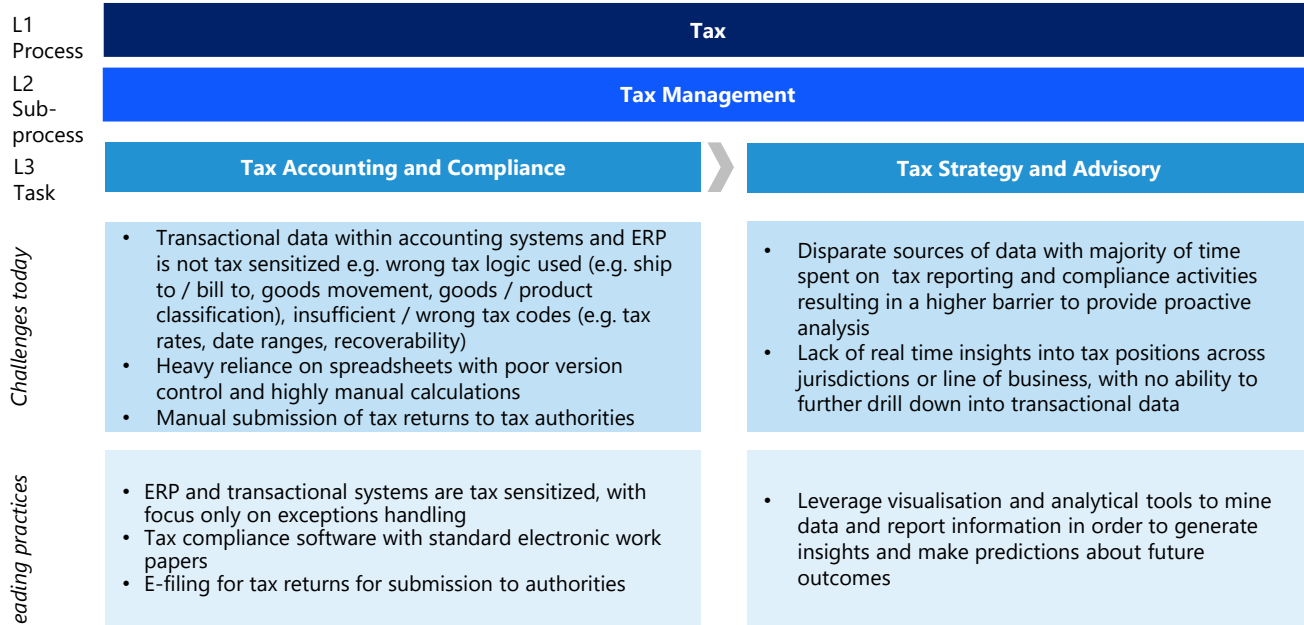
MGMT REPORTING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Content of management reports is not standardised. Different business units and function use different analysis dimensions</p> <p>Manual preparation of management reports with static graphs/charts done on standard productivity tools such as MS PowerPoint or MS Excel</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Manual preparation of management reports with static graphs/charts done on standard productivity tools such as MS PowerPoint or MS Excel</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Dynamic dashboards links to financial data with drill-down and jump-to functionality available for management to analyse</p> <p>Commentaries based on financial and non-financial data are manually created</p>	<p>Content of management reports is standardised with clear definition of analysis dimensions available across all business units</p> <p>Dynamic dashboards links to financial data with drill-down and jump-to functionality available for management to analyse</p> <p>Financial-related commentaries are automatically generated using Natural Language. Additional non-financial relate commentaries are manually added to supplement financial commentaries</p>
Job role #4	Business Controller/Finance Director	Business Controller/Finance Director	Business Controller/Finance Director	Business Controller/Finance Director
	Review final report and present to management	Review final report and present to management	Review final report and present to management	Review final report and present to management
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Disruption Management (Level 4) 2. Finance Business Partnering (Level 4) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Non-Financial Reporting (Level 6) 6. Performance Management (Level 6) 7. Data storytelling and visualisation (Level 5) 8. Stakeholder Management (Level 5) 	<ol style="list-style-type: none"> 1. Disruption Management (Level 4) 2. Finance Business Partnering (Level 4) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Non-Financial Reporting (Level 6) 6. Performance Management (Level 6) 7. Data storytelling and visualisation (Level 5) 8. Stakeholder Management (Level 5) 	<ol style="list-style-type: none"> 1. Disruption Management (Level 5) 2. Finance Business Partnering (Level 5) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Non-Financial Reporting (Level 6) 6. Performance Management (Level 6) 7. Data storytelling and visualisation (Level 5) 8. Stakeholder Management (Level 5) 	<ol style="list-style-type: none"> 1. Disruption Management (Level 6) 2. Finance Business Partnering (Level 6) 3. Macroeconomic Analysis (Level 5) 4. Management Decision Making (Level 6) 5. Non-Financial Reporting (Level 6) 6. Performance Management (Level 6) 7. Data storytelling and visualisation (Level 5) 8. Stakeholder Management (Level 5)

Legend: Increase in expected skill proficiency

Tax Tax Management

Overview of Tax Management:

- Tax Accounting and Compliance
- Tax Strategy and Advisory



Tax Tax Management

Overview of Tax Management:

- Tax Accounting and Compliance
- Tax Strategy and Advisory



Tax Accounting and Compliance refers to the data collation, preparation / calculation of tax returns and supporting schedules, as well as the filing of returns to tax authorities and managing any inquiries from tax authorities regarding specific returns that were submitted.

TAX ACCTG & COMPLIANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Heavy reliance on spreadsheets in the preparation of tax calculations, supporting schedules and final tax returns</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>	<p>ERP is fully tax sensitized with time spent on exception handling only and Tax is able to make updates to tax logic / tax codes on ERP and master data as required</p> <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>
Technology	Accounting System + Basic Excel	Accounting System + Tax Compliance Software	Accounting System + Tax Compliance Software	Accounting System + Tax Compliance Software
Recommendation to move to next level	Implement tax compliance software that automates the preparation of tax returns and calculations	Leverage accounting systems with APIs to IRAS or leverage third party tax providers with EVN	Ensure ERP is sufficiently tax sensitized, and Tax teams engaged during any accounting system or ERP implementations and upgrades	-

Tax Management

- Overview of Tax Management:
- Tax Accounting and Compliance
 - Tax Strategy and Advisory



Tax Accounting and Compliance refers to the data collation, preparation / calculation of tax returns and supporting schedules, as well as the filing of returns to tax authorities and managing any inquiries from tax authorities regarding specific returns that were submitted.

TAX ACCTG & COMPLIANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Heavy reliance on spreadsheets in the preparation of tax calculations, supporting schedules and final tax returns</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>	<p>ERP is fully tax sensitized with time spent on exception handling only and Tax is able to make updates to tax logic / tax codes on ERP and master data as required</p> <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>
Job role #1	Tax Associate/Tax Executive Collate, cleanse and aggregate data. Prepare first draft of tax computations on spreadsheets. Filed tax returns manually	Tax Associate/Tax Executive Collate, cleanse and aggregate data. Prepared first draft of returns on tax compliance software. File tax returns manually	Tax Associate/Tax Executive* Collate, cleanse and aggregate data. Review first draft of returns on software	Tax Associate/Tax Executive* Manage data exceptions. Review first draft of returns in tax compliance software
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Tax Compliance (Level 3) 5. Tax Computation (Level 3) 6. Taxation Laws (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Tax Compliance (Level 3) 5. Tax Computation (Level 3) 6. Taxation Laws (Level 3) 7. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Tax Compliance (Level 3) 5. Tax Computation (Level 3) 6. Taxation Laws (Level 3) 7. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Tax Compliance (Level 3) 5. Tax Computation (Level 3) 6. Taxation Laws (Level 3) 7. Digital Problem Solving (Level 3)
Job role #2	Tax Senior/Tax Senior Executive Manages all tax compliance work, reviews draft computations and monitors payments, refunds and inquiries from tax authorities	Tax Senior/Tax Senior Executive Manages all tax compliance work, reviews draft computations and monitors payments, refunds and inquiries from tax authorities	Tax Senior/Tax Senior Executive Manages all tax compliance work, reviews draft computations and monitors payments, refunds and inquiries from tax authorities	Tax Senior/Tax Senior Executive Manages all tax compliance work, reviews draft computations and monitors payments, refunds and inquiries from tax authorities
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 5) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Tax Compliance (Level 4) 5. Tax Computation (Level 4) 6. Tax Controversy Management (Level 4) 7. Taxation Laws (Level 4) 8. Stakeholder Management (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 5) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Tax Compliance (Level 4) 5. Tax Computation (Level 4) 6. Tax Controversy Management (Level 4) 7. Taxation Laws (Level 4) 8. Stakeholder Management (Level 4) 9. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 5) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Tax Compliance (Level 4) 5. Tax Computation (Level 4) 6. Tax Controversy Management (Level 4) 7. Taxation Laws (Level 4) 8. Stakeholder Management (Level 4) 9. Digital Problem Solving (Level 3) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 5) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Tax Compliance (Level 4) 5. Tax Computation (Level 4) 6. Tax Controversy Management (Level 4) 7. Taxation Laws (Level 4) 8. Stakeholder Management (Level 4) 9. Digital Problem Solving (Level 3)

Legend: New skill identified at that sophistication level

Tax Management

Overview of Tax Management:

- Tax Accounting and Compliance
- Tax Strategy and Advisory



Tax Accounting and Compliance refers to the data collation, preparation / calculation of tax returns and supporting schedules, as well as the filing of returns to tax authorities and managing any inquiries from tax authorities regarding specific returns that were submitted.

TAX ACCTG & COMPLIANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Heavy reliance on spreadsheets in the preparation of tax calculations, supporting schedules and final tax returns</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>	<p>ERP is fully tax sensitized with time spent on exception handling only and Tax is able to make updates to tax logic / tax codes on ERP and master data as required</p> <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>
Job role #3	Tax Manager Approve tax computations, tax returns, other drafted statutory e-filings, tax advice. Manages relationships and inquiries from tax authorities	Tax Manager Approve tax computations, tax returns, other drafted statutory e-filings, tax advice. Manages relationships and inquiries from tax authorities	Tax Manager Approve tax computations, tax returns, other drafted statutory e-filings, tax advice. Manages relationships and inquiries from tax authorities and tax agents	Tax Manager Approve tax computations, tax returns, other drafted statutory e-filings, tax advice. Manages relationships and inquiries from tax authorities and tax agents
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 5) 3. Tax Advisory (Level 5) 4. Tax Computation (Level 5) 5. Tax Controversy Management (Level 4) 6. Stakeholder Management (Level 5) 7. Taxation Laws (Level 5) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 5) 3. Tax Advisory (Level 5) 4. Tax Computation (Level 5) 5. Tax Controversy Management (Level 4) 6. Stakeholder Management (Level 5) 7. Taxation Laws (Level 5) 8. Digital Problem Solving (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 5) 3. Tax Advisory (Level 5) 4. Tax Computation (Level 5) 5. Tax Controversy Management (Level 4) 6. Stakeholder Management (Level 5) 7. Taxation Laws (Level 5) 8. Digital Problem Solving (Level 4) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 5) 3. Tax Advisory (Level 5) 4. Tax Computation (Level 5) 5. Tax Controversy Management (Level 4) 6. Stakeholder Management (Level 5) 7. Taxation Laws (Level 5) 8. Digital Problem Solving (Level 4)

Legend: New skill identified at that sophistication level

Tax Management

Overview of Tax Management:

- Tax Accounting and Compliance
- Tax Strategy and Advisory



Tax Accounting and Compliance refers to the data collation, preparation / calculation of tax returns and supporting schedules, as well as the filing of returns to tax authorities and managing any inquiries from tax authorities regarding specific returns that were submitted.

TAX ACCTG & COMPLIANCE	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Heavy reliance on spreadsheets in the preparation of tax calculations, supporting schedules and final tax returns</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>Tax filings & submissions are manual where numbers are directly inputted on myTax portal</p>	<p>ERP or accounting system is not tax-sensitized, resulting in manual reconciliation and entries to correct any wrong classification of transactions due to:</p> <ul style="list-style-type: none"> • Incorrect or insufficiently granular tax codes used • Incorrect tax logic built into ERP <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>	<p>ERP is fully tax sensitized with time spent on exception handling only and Tax is able to make updates to tax logic / tax codes on ERP and master data as required</p> <p>Tax Compliance Software is used for tax calculations, computations and schedules and are prepared on pre-formatted templates that are set according to regulatory requirements</p> <p>E-filing of tax returns via APIs or via companies' tax providers' secure network to Tax Authorities (i.e. External Value Network)</p>
Job role #4	Tax Director/ Tax Vice President/Head of Tax	Tax Director/ Tax Vice President/Head of Tax	Tax Director/ Tax Vice President/Head of Tax	Tax Director/ Tax Vice President/Head of Tax
	Responsible for overall tax function including overseeing tax obligations and compliance, and managing relationships with management and tax authorities	Responsible for overall tax function including overseeing tax obligations and compliance, and managing relationships with management and tax authorities	Responsible for overall tax function including overseeing tax obligations and compliance, and managing relationships with management and tax authorities	Responsible for overall tax function including overseeing tax obligations and compliance, and managing relationships with management and tax authorities
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 6) 3. Tax Advisory (Level 6) 4. Tax Controversy Management (Level 6) 5. Stakeholder Management (Level 6) 6. Tax Compliance (Level 6) 7. Taxation Laws (Level 6) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 6) 3. Tax Advisory (Level 6) 4. Tax Controversy Management (Level 6) 5. Stakeholder Management (Level 6) 6. Tax Compliance (Level 6) 7. Taxation Laws (Level 6) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 6) 3. Tax Advisory (Level 6) 4. Tax Controversy Management (Level 6) 5. Stakeholder Management (Level 6) 6. Tax Compliance (Level 6) 7. Taxation Laws (Level 6) 	<ol style="list-style-type: none"> 1. Accounting and Tax Systems (Level 6) 2. Corporate & Business Law (Level 6) 3. Tax Advisory (Level 6) 4. Tax Controversy Management (Level 6) 5. Stakeholder Management (Level 6) 6. Tax Compliance (Level 6) 7. Taxation Laws (Level 6)

Tax Tax Management

Overview of Tax Management:

- Tax Accounting and Compliance
- Tax Strategy and Advisory



Tax Strategy and Advisory relates to ability to develop and analyse tax strategies for the enterprise to mitigate tax risks and optimise efficiency across products and structure. This includes partnering with lines of business to provide tax advice to discuss technical issues and tax response to specific business scenarios.

TAX STRATEGY & ADVISORY	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Tax strategy and advisory exercise limited to static, historical analysis only, where tax advisors support the business reactively by reviewing historical trends and financial information while accounting for current tax regulations	-	Dynamic dashboards are linked to financial data and are used to support tax advisors and management in understanding tax impact on business decisions	Statistical and predictive modelling are used to support tax advice for tax planning and strategy purposes (e.g. projections of ETR, cash tax, book income, etc.) across multiple scenarios
Technology	MS Office (Excel & PowerPoint)	-	Business Intelligence & Visualisation Tools	Data Science, Machine Learning & Advanced Analytics Tools
Recommendation to move to next level	Leverage visualisation tools and dashboards to run more proactive analysis and support better insights, and reduce time spent on preparation on Excel charts, graphs, etc.	-	Leverage Data Science, Machine Learning & Advanced Analytics Platforms to create custom statistical and predictive models	-

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Job role #1	Tax Associate/Tax Executive	-	Tax Associate/Tax Executive	Tax Associate/Tax Executive
	Cleanse / aggregate data on Excel, and create draft report with charts on PowerPoint. Support additional tax research to support insights	-	Upload data to pre-defined dashboards and review any data exceptions, and where required create additional analysis using drag and drop functionality. Support additional tax research to support insights	Conduct additional tax research to support insights. Develop and refine tax models
Skills and proficiency levels	1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Taxation Laws (Level 3)	-	1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Taxation Laws (Level 3) 5. Data Storytelling & Visualisation (Level 3) 6. Digital Problem Solving (Level 3)	1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 3) 3. Tax Advisory (Level 3) 4. Taxation Laws (Level 3) 5. Data Storytelling & Visualisation (Level 4) 6. Digital Problem Solving (Level 3) 7. Financial Modelling (Level 3)
Job role #2	Tax Senior/Tax Senior Executive	-	Tax Senior/Tax Senior Executive	Tax Senior/Tax Senior Executive
	Review draft report and supplement insights with additional commentaries or research. Partner with business to provide tax advice and / or participate in special tax projects	-	Review dashboard, identify initial areas for focus and draft initial insights with additional commentaries and / or research where necessary. Partner with business to provide tax advice and / or participate in special tax projects	Develop and refine tax models, and provide additional insights and partner with business to provide tax advice and / or participate in special tax projects
Skills and proficiency levels	1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Taxation Laws (Level 4) 5. Stakeholder Management (Level 4)	-	1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Taxation Laws (Level 4) 5. Stakeholder Management (Level 4) 8. Data Storytelling & Visualisation (Level 3) 7. Digital Problem Solving (Level 3)	1. Accounting and Tax Systems (Level 4) 2. Corporate & Business Law (Level 4) 3. Tax Advisory (Level 4) 4. Taxation Laws (Level 4) 5. Stakeholder Management (Level 4) 8. Data Storytelling & Visualisation (Level 4) 7. Digital Problem Solving (Level 3) 8. Financial Modelling (Level 3)

Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

Tax

Tax Management

Overview of Tax Management:

- Tax Accounting and Compliance
- Tax Strategy and Advisory



Tax Strategy and Advisory relates to ability to develop and analyse tax strategies for the enterprise to mitigate tax risks and optimise efficiency across products and structure. This includes partnering with lines of business to provide tax advice to discuss technical issues and tax response to specific business scenarios.

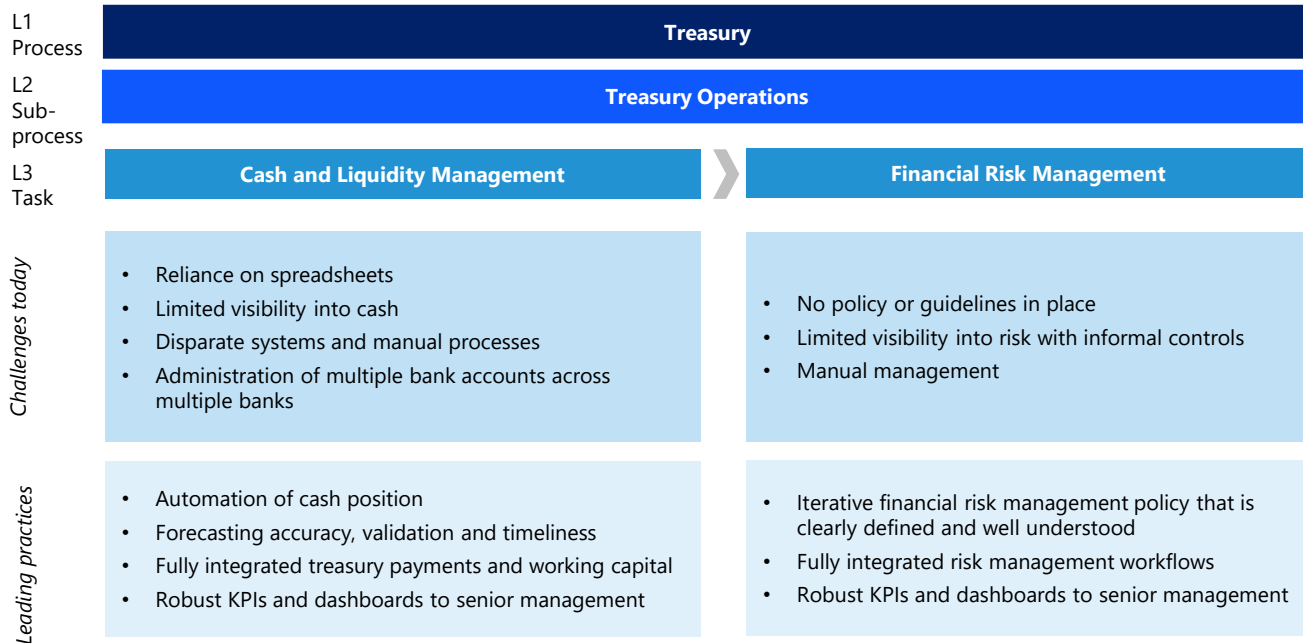
TAX STRATEGY & ADVISORY	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Tax strategy and advisory exercise limited to static, historical analysis only, where tax advisors support the business reactively by reviewing historical trends and financial information while accounting for current tax regulations	-	Dynamic dashboards are linked to financial data and are used to support tax advisors and management in understanding tax impact on business decisions	Statistical and predictive modelling are used to support tax advice for tax planning and strategy purposes (e.g. projections of ETR, cash tax, book income, etc.) across multiple scenarios
Job role #3	Tax Manager	-	Tax Manager	Tax Manager
	Partner with business to provide tax advice and / or participate in special tax projects	-	Partner with business to provide tax advice and / or participate in special tax projects	Partner with business to provide tax advice and / or participate in special tax projects
Skills and proficiency levels	1. Corporate & Business Law (Level 5) 2. Tax Advisory (Level 5) 3. Taxation Laws (Level 5) 4. Stakeholder Management (Level 5) 5. Tax Risk Management (Level 5)	-	1. Corporate & Business Law (Level 5) 2. Tax Advisory (Level 5) 3. Taxation Laws (Level 5) 4. Stakeholder Management (Level 5) 5. Tax Risk Management (Level 5) 6. Data Storytelling & Visualisation (Level 5)	1. Corporate & Business Law (Level 5) 2. Tax Advisory (Level 5) 3. Taxation Laws (Level 5) 4. Stakeholder Management (Level 5) 5. Tax Risk Management (Level 5) 6. Data Storytelling & Visualisation (Level 5) 7. Financial Modelling (Level 4)
Job role #4	Tax Director/ Tax Vice President/Head of Tax	-	Tax Director/ Tax Vice President/Head of Tax	Tax Director/ Tax Vice President/Head of Tax
	Review and approves tax advice. Works with management to identify tax impact and provide tax advice on specific business decisions	-	Review and approves tax advice. Works with management to identify tax impact and provide tax advice on specific business decisions	Review and approves tax advice. Works with management to identify tax impact and provide tax advice on specific business decisions
Skills and proficiency levels	1. Corporate & Business Law (Level 6) 2. Tax Advisory (Level 6) 3. Taxation Laws (Level 6) 4. Stakeholder Management (Level 6) 5. Tax Risk Management (Level 6)	-	1. Corporate & Business Law (Level 6) 2. Tax Advisory (Level 6) 3. Taxation Laws (Level 6) 4. Stakeholder Management (Level 6) 5. Tax Risk Management (Level 6) 6. Data Storytelling & Visualisation (Level 5)	1. Corporate & Business Law (Level 6) 2. Tax Advisory (Level 6) 3. Taxation Laws (Level 6) 4. Stakeholder Management (Level 6) 5. Tax Risk Management (Level 6) 6. Data Storytelling & Visualisation (Level 5) 7. Financial Modelling (Level 4)

Legend: ■ New skill identified at that sophistication level

Treasury

Treasury Operations

- Overview of Treasury Operations:
- Cash and Liquidity Management
 - Financial Risk Management



Treasury Treasury Operations

- Overview of Treasury Operations:
- Cash and Liquidity Management
 - Financial Risk Management



Cash and Liquidity Management is core to the treasury department's roles within the business. Efficient use of cash ensures the organisation can meet its obligations to lenders, suppliers and governments, without becoming over-reliant on external sources of finance.

CASH & LIQUIDITY MANAGEMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Minimal visibility of cash positions due to manual collation of cash balances from various bank portals into spreadsheets. No cash pools in place</p> <p>Cash forecasts are performed using spreadsheets, with insufficient controls to ensure data integrity. Stress testing / scenario analysis is not performed or performed infrequently</p>	<p>Cash positions from bank portals are manually consolidated into the accounting system. Cash is concentrated manually through deposits with the centre, and cash positions are optimised through short-term investing and borrowing activities</p> <p>Cash forecasts are performed using data consolidated in the accounting system. Minimal stress testing / scenario analysis with inconsistency and lack of standardisation</p> <p>Some KPIs are identified, but only monitored on an ad-hoc basis</p>	<p>Automated, daily visibility of cash positions via treasury management system (TMS) that is connected/integrated with all banks. Leverage liquidity management structures (e.g. netting, re-invoicing, cash pooling) where possible to optimise cash balances</p> <p>Automated, periodic cash forecasts via TMS with interactive, drill down capabilities. Some stress testing / scenario analysis with inconsistency and lack of standardisation</p> <p>KPIs are established on liquidity and the ability to deposit (invest) funds and the returns on these funds.</p>	<p>Automated, real-time visibility of cash positions via treasury management system (TMS) that is connected/integrated with all banks. Leverage liquidity management structures (e.g. netting, re-invoicing, cash pooling) where possible to optimise cash balances</p> <p>Automated, real-time rolling cash forecasts that is accurate to actuals. Cash forecasts developed using data from various sources, e.g. sales projections, purchase budgets, capex, projects, etc. with stress testing and scenario analysis embedded</p> <p>Clear KPIs and dashboards are created to measure performance on liquidity, cost of funds and the average cost of capital, taking into account risk exposures</p>
Technology	Basic Excel	Accounting system + Excel	Treasury Management System (TMS)	Treasury Management System (TMS); or Cash forecasting tool
Recommendation to move to next level	Leverage accounting system to produce cash forecasts based on receipts and payments data from the accounts receivable and payable ledgers, interest and tax information, and net profit/performance reporting	<p>Explore solutions that are connected/integrated with your banks, and develop dashboards to monitor cash positions and generate cash forecasts</p> <p>For organisations with multiple entities, evaluate the use of liquidity management structures to optimise the use of group cash as efficiently as possible</p>	Use TMS or cash forecasting tool with advanced analytics capabilities to simulate cash forecasts	-

Treasury Treasury Operations

- Overview of Treasury Operations:
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	Basic	Developing	Mature	Leading
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Job role #1	Treasury Executive / Treasury Senior Executive Consolidate cash position and support cash forecast	Treasury Executive / Treasury Senior Executive Consolidate cash position and support cash forecast	Treasury Executive / Treasury Senior Executive Review cash position and cash forecast, and leverage data analytics capabilities to facilitate more reliable cash forecast. Support the implementation of treasury technology solutions and bank relationship management	Treasury Executive / Treasury Senior Executive Review and handle exceptions of automated cash and liquidity outputs. Support the implementation of treasury technology solutions and bank relationship management
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Cash Flow Management (Level 3) 2. Financial Management (Level 3) 3. Business Planning (Level 4) 	<ol style="list-style-type: none"> 1. Cash Flow Management (Level 3) 2. Financial Management (Level 3) 3. Business Planning (Level 4) 4. Data Analytics (Level 3) 	<ol style="list-style-type: none"> 1. Cash Flow Management (Level 3) 2. Financial Management (Level 3) 3. Business Planning (Level 4) 4. Data Analytics (Level 4) 5. User Centric Approach & Testing (Level 4) 6. Vendor Relationship Management (Level 4) 	<ol style="list-style-type: none"> 1. Cash Flow Management (Level 3) 2. Financial Management (Level 3) 3. Business Planning (Level 4) 4. Data Analytics (Level 4) 5. User Centric Approach & Testing (Level 4) 6. Vendor Relationship Management (Level 4)

Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

Treasury Treasury Operations

- Overview of Treasury Operations:
- Cash and Liquidity Management
 - Financial Risk Management



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Job role #2	Treasury Manager Review and monitor cash position, and forecast funding requirements	Treasury Manager Review and monitor cash position, forecast funding requirements, and develop plans to address gaps in cash flow positions and liquidity management	Treasury Manager Review and monitor cash position, forecast funding requirements, and develop plans to address gaps in cash flow positions and liquidity management	Treasury Manager Review and monitor cash position, develop cash forecasts, and develop plans to optimise the financial position
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 4) 3. Financial Management (Level 4) 4. Business Planning (Level 4) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 4) 3. Financial Management (Level 4) 4. Regulatory Compliance (Level 4) 5. Business Planning (Level 4) 6. Data Analytics (Level 3) 7. Macroeconomic Analysis (Level 3) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 4) 3. Financial Management (Level 4) 4. Regulatory Compliance (Level 4) 5. Business Planning (Level 5) 6. Data Analytics (Level 4) 7. Macroeconomic Analysis (Level 4) 8. Business Acumen (Level 3) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 4) 3. Financial Management (Level 4) 4. Regulatory Compliance (Level 4) 5. Business Planning (Level 5) 6. Data Analytics (Level 5) 7. Macroeconomic Analysis (Level 5) 8. Business Acumen (Level 4)

Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

Treasury Treasury Operations

- Overview of Treasury Operations:
- Cash and Liquidity Management
 - Financial Risk Management



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Job role #3	<p>Head of Treasury</p> <p>Oversee financial position of the organisation</p>	<p>Head of Treasury</p> <p>Establish cash management strategies and oversee financial position of the organisation</p>	<p>Head of Treasury</p> <p>Establish structure to ensure efficient use of organisation's cash</p>	<p>Head of Treasury</p> <p>Review models to ensure that the forecasts and simulations are reasonable for decision making</p>
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 5) 3. Financial Management (Level 5) 4. Business Planning (Level 4) 5. Macroeconomic Analysis (Level 4) 6. Business Acumen (Level 4) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 5) 3. Financial Management (Level 5) 4. Regulatory Compliance (Level 4) 5. Business Planning (Level 4) 6. Macroeconomic Analysis (Level 4) 7. Business Acumen (Level 4) 8. Capital Raising (Level 3) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 5) 3. Financial Management (Level 5) 4. Regulatory Compliance (Level 4) 5. Business Planning (Level 5) 6. Macroeconomic Analysis (Level 5) 7. Business Acumen (Level 5) 8. Capital Raising (Level 4) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Cash Flow Management (Level 5) 3. Financial Management (Level 5) 4. Regulatory Compliance (Level 4) 5. Business Planning (Level 5) 6. Macroeconomic Analysis (Level 5) 7. Business Acumen (Level 5) 8. Capital Raising (Level 5)

Legend: Increase in expected skill proficiency
New skill identified at that sophistication level

Treasury Treasury Operations

- Overview of Treasury Operations:
- Cash and Liquidity Management
 - Financial Risk Management



Financial Risk Management includes foreign exchange and interest rate risk, as well as, in some companies, commodity price risk and credit risk. Each organisation should have a financial risk management policy that reflects its broader appetite for risk, and supported by a series of operating procedures.

FINANCIAL RISK MANAGEMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>No policy in place to guide the objectives of financial risk management, the approach and tools to manage these exposures.</p> <p>No authorisation to engage in financial risk management activities. Limited and irregular reporting of Treasury activities to the Board</p> <p>Manages each position as it arises, or hedge positions above a certain value by listing and measuring financial risk exposures over time with limited technology input</p>	<p>Policies, procedures and approved mandates in place that clearly establish guidelines supporting financial risk management, and defining hedging approach and the tools permitted to manage these exposures. As a cost centre, hedge operational exposures at a cost.</p> <p>Manages the net exposure monthly/quarterly by using cash flow forecasts to build up cash positions for each currency over the period of the forecast, using data from the accounting system.</p>	<p>Policies, procedures and approved mandates in place that clearly establish guidelines supporting financial risk management, and defining hedging approach and the tools permitted to manage these exposures. As a value-added centre, allowed discretion about when to hedge, with a view to add value to the organisation by reducing net costs.</p> <p>Manages the net exposure daily by using cash flow forecasts to build up cash positions for each currency over the period of the forecast, using data from the accounting system and TMS</p> <p>TMS is integrated with the accounting system. However, trades are manually executed on the dealing/trading platform, and journal entry for hedge accounting manually created in the accounting system</p>	<p>Policies and procedures are systematically monitored, updated, approved and deployed dynamically, and use of TMS to track and manage policy compliance. As a value-added centre, allowed discretion about when to hedge, with a view to add value to the organisation by reducing net costs.</p> <p>Prioritise the exposures to protect daily by using sensitivity analysis and modelling cash-flow-at-risk (CFaR) to highlight the positions with the largest impact in different scenarios, using data from accounting system, TMS and external sources, i.e. market data provider</p> <p>Evaluate hedging recommendations proposed by the TMS. Once the trades are approved, the trades are automatically execute within the built-in controls and limits on the dealing/trading platform. Automated hedge accounting journal entry integrated to the accounting system</p>
Technology	Basic Excel	Accounting system + Excel	Treasury Management System (TMS) + Dealing/Trading Platform	Treasury Management System (TMS) with hedge assessment and accounting functionalities + Dealing/Trading Platform + Market Data Provider
Recommendation to move to next level	<p>The organisation needs to recognise the value of financial risk management, and define a policy to trigger a more proactive approach towards financial risk management</p> <p>Use existing accounting system to highlight financial risk exposures</p>	<p>Implement TMS that is integrated with your accounting system</p> <p>Leverage dealing/trading platform to execute trades based on Board mandate to manage financial risk</p>	<p>Periodically review effectiveness of financial risk management policy, and perform amendments when needed, and regularly provide update to the Board</p> <p>Leverage external data from market data provider for real-time analysis, and use TMS to support hedging strategies by providing hedge effectiveness assessment tools and hedge accounting functionalities</p>	-

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FINANCIAL RISK MANAGEMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>No policy in place to guide the objectives of financial risk management, the approach and tools to manage these exposures. No authorisation to engage in financial risk management activities. Limited and irregular reporting of Treasury activities to the Board</p> <p>Manages each position as it arises, or hedge positions above a certain value by listing and measuring financial risk exposures over time with limited technology input</p>	<p>Policies, procedures and approved mandates in place that clearly establish guidelines supporting financial risk management, and defining hedging approach and the tools permitted to manage these exposures. As a cost centre, hedge operational exposures at a cost.</p> <p>Manages the net exposure monthly/quarterly by using cash flow forecasts to build up cash positions for each currency over the period of the forecast, using data from the accounting system.</p>	<p>Policies, procedures and approved mandates in place that clearly establish guidelines supporting financial risk management, and defining hedging approach and the tools permitted to manage these exposures. As a value-added centre, allowed discretion about when to hedge, with a view to add value to the organisation by reducing net costs.</p> <p>Manages the net exposure daily by using cash flow forecasts to build up cash positions for each currency over the period of the forecast, using data from the accounting system and TMS</p> <p>TMS is integrated with the accounting system. However, trades are manually executed on the dealing/trading platform, and journal entry for hedge accounting manually created in the accounting system</p>	<p>Policies and procedures are systematically monitored, updated, approved and deployed dynamically, and use of TMS to track and manage policy compliance. As a value-added centre, allowed discretion about when to hedge, with a view to add value to the organisation by reducing net costs.</p> <p>Prioritise the exposures to protect daily by using sensitivity analysis and modelling cash-flow-at-risk (CFaR) to highlight the positions with the largest impact in different scenarios, using data from accounting system, TMS and external sources, i.e. market data provider</p> <p>Evaluate hedging recommendations proposed by the TMS. Once the trades are approved, the trades are automatically execute within the built-in controls and limits on the dealing/trading platform. Automated hedge accounting journal entry integrated to the accounting system</p>
Job role #1	Treasury Manager Monitor and manage financial risk exposures in a reactive manner	Treasury Manager Develop plans to mitigate financial risk and exposure in-line with treasury policies	Treasury Manager Develop plans to mitigate financial risk and exposure in-line with treasury policies and best practices	Treasury Manager Develop plans to mitigate financial risk and exposure in-line with treasury policies and best practices
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 4) 3. Treasury Management (Level 4) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 4) 3. Treasury Management (Level 4) 4. Credit Risk Management (Level 4) 5. Regulatory Risk Assessment (Level 4) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 4) 3. Treasury Management (Level 4) 4. Credit Risk Management (Level 4) 5. Regulatory Risk Assessment (Level 5) 6. Macroeconomic Analysis (Level 4) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 4) 3. Treasury Management (Level 4) 4. Credit Risk Management (Level 4) 5. Regulatory Risk Assessment (Level 5) 6. Macroeconomic Analysis (Level 5) 7. Data Analytics (Level 5)

Legend:

Increase in expected skill proficiency

New skill identified at that sophistication level

Treasury Treasury Operations

- Overview of Treasury Operations:
- Cash and Liquidity Management
 - Financial Risk Management



Financial Risk Management includes foreign exchange and interest rate risk, as well as, in some companies, commodity price risk and credit risk. Each organisation should have a financial risk management policy that reflects its broader appetite for risk, and supported by a series of operating procedures.

FINANCIAL RISK MANAGEMENT	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>No policy in place to guide the objectives of financial risk management, the approach and tools to manage these exposures. No authorisation to engage in financial risk management activities. Limited and irregular reporting of Treasury activities to the Board</p> <p>Manages each position as it arises, or hedge positions above a certain value by listing and measuring financial risk exposures over time with limited technology input</p>	<p>Policies, procedures and approved mandates in place that clearly establish guidelines supporting financial risk management, and defining hedging approach and the tools permitted to manage these exposures. As a cost centre, hedge operational exposures at a cost.</p> <p>Manages the net exposure monthly/quarterly by using cash flow forecasts to build up cash positions for each currency over the period of the forecast, using data from the accounting system.</p>	<p>Policies, procedures and approved mandates in place that clearly establish guidelines supporting financial risk management, and defining hedging approach and the tools permitted to manage these exposures. As a value-added centre, allowed discretion about when to hedge, with a view to add value to the organisation by reducing net costs.</p> <p>Manages the net exposure daily by using cash flow forecasts to build up cash positions for each currency over the period of the forecast, using data from the accounting system and TMS</p> <p>TMS is integrated with the accounting system. However, trades are manually executed on the dealing/trading platform, and journal entry for hedge accounting manually created in the accounting system</p>	<p>Policies and procedures are systematically monitored, updated, approved and deployed dynamically, and use of TMS to track and manage policy compliance. As a value-added centre, allowed discretion about when to hedge, with a view to add value to the organisation by reducing net costs.</p> <p>Prioritise the exposures to protect daily by using sensitivity analysis and modelling cash-flow-at-risk (CFaR) to highlight the positions with the largest impact in different scenarios, using data from accounting system, TMS and external sources, i.e. market data provider</p> <p>Evaluate hedging recommendations proposed by the TMS. Once the trades are approved, the trades are automatically execute within the built-in controls and limits on the dealing/trading platform. Automated hedge accounting journal entry integrated to the accounting system</p>
Job role #2	Head of Treasury Lead strategy to mitigate financial exposure and risk, and develop responses and plans when unusual activities arise	Head of Treasury Lead strategy to mitigate financial exposure and risk, and develop responses and plans when unusual activities arise	Head of Treasury Lead strategy to mitigate financial exposure and risk, and develop responses and plans when unusual activities arise	Head of Treasury Lead strategy to mitigate financial exposure and risk, and develop responses and plans when unusual activities arise
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 5) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 5) 3. Treasury Management (Level 5) 4. Credit Risk Management (Level 5) 5. Regulatory Risk Assessment (Level 5) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 5) 3. Treasury Management (Level 5) 4. Credit Risk Management (Level 5) 5. Regulatory Risk Assessment (Level 5) 6. Macroeconomic Analysis (Level 5) 	<ol style="list-style-type: none"> 1. Management Decision Making (Level 5) 2. Financial Management (Level 5) 3. Treasury Management (Level 5) 4. Credit Risk Management (Level 5) 5. Regulatory Risk Assessment (Level 5) 6. Macroeconomic Analysis (Level 5) 7. Stakeholder Management (Level 5)

Legend:

New skill identified at that sophistication level

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring

		Internal Audit	
L1 Process		Internal Audit	
L2 Sub-process		Audit Plan, Risk Assessment and Execution	Reporting and Monitoring
		<p><i>*For internal audit, we will cover the process at a higher level only (i.e. L2 sub-process) due to the breadth of activities that may not relate to Finance (e.g. systems audit, warehouse audit)</i></p>	
Challenges today		<ul style="list-style-type: none"> • Risk assessment and audit plans are performed and updated on a rotational basis • Audit execution and reporting are driven by manual processes 	<ul style="list-style-type: none"> • Audit reports are prepared manually • Monitoring activities are tracked and updated manually
	Leading practices	<ul style="list-style-type: none"> • Risk assessment and monitoring process is continuous enabling real-time updates to the audit plan • Data analytics are integrated into the risk assessment process to proactively identify threats • Analytics tools are incorporated into the audit execution process to improve process efficiency and better identify exceptions 	<ul style="list-style-type: none"> • Audit results are automatically generated on dashboards to better identify business insights • Audit reports are automatically generated • Workflows are used to manage audit findings, remediation plans and exceptions.

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Audit Plan and Risk Assessment involves the identification of risks and determination of audit scope through the analysis of the organisation's processes. Execution involves the performance of internal audit procedures to identify any gaps in internal controls.

AUDIT PLAN, RISK ASSESSMENT & EXECUTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Risk assessment and audit plans are performed and updated on a rotational basis Data analytics are not used to develop the audit plan or risk assessment	-	Risk assessment and audit plans are performed and updated on a rotational basis Audit plan and risk assessment are driven by the use of data analytics to profile risk across the organisation	Continuous risk assessment and monitoring process enabled by automation technologies facilitates real-time updates to the risk assessment process and audit plan Applies advanced statistical modelling techniques (e.g. predictive analytics, AI) to simulate and identify emerging threats in the organisation
	Audit procedures are performed manually (e.g. manual sample selection, manual information gathering) Gaps in business processes are identified manually	Standard productivity tools (e.g. MS Excel) are used as point solutions to enhance the efficiency in parts of the audit execution process Gaps in business processes are identified manually	Analytics tools are used to automate repeatable and shared tasks (e.g. information gathering, regulatory reporting requirements) throughout the audit execution process Gaps in business processes are identified manually	Analytics tools are used to automate repeatable audit procedures (e.g. information gathering, regulatory reporting requirements) and shared data used across several tests Data analytics are used to better highlight deviations from expected process flows and/or pinpoint the root cause of failed transactions or ineffective controls/ processes
Technology	-	Basic Excel	Data Science, Machine Learning & Advanced Analytics	Data Science, Machine Learning & Advanced Analytics
Recommendation to move to next level	Leverage productivity tools to enhance operational efficiencies during the audit execution process	Apply the use of analytics tools in the risk assessment and audit execution process	Apply advanced statistical techniques and leverage on advanced analytics tools to perform the audit in a more proactive approach and to enhance identification of gaps in business processes/ controls	-

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Audit Plan and Risk Assessment involves the identification of risks and determination of audit scope through the analysis of the organisation's processes. Execution involves the performance of internal audit procedures to identify any gaps in internal controls.

AUDIT PLAN, RISK ASSESSMENT & EXECUTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Risk assessment and audit plans are performed and updated on a rotational basis Data analytics are not used to develop the audit plan or risk assessment	-	Risk assessment and audit plans are performed and updated on a rotational basis Audit plan and risk assessment are driven by the use of data analytics to profile risk across the organisation	Continuous risk assessment and monitoring process enabled by automation technologies facilitates real-time updates to the risk assessment process and audit plan Applies advanced statistical modelling techniques (e.g. predictive analytics, AI) to simulate and identify emerging threats in the organisation
Job role #1	Senior Internal Auditor/Internal Auditor Performs internal audit procedures manually	Senior Internal Auditor/Internal Auditor Performs internal audit procedures while leveraging standard productivity tools	Senior Internal Auditor/Internal Auditor Uses data analytics and analytics tools to identify risks and drive internal audit procedures	Senior Internal Auditor/Internal Auditor Uses data analytics to proactively identify risks and continuously drive risk assessment. Investigate outliers identified through analytics.
Skills and proficiency levels	1. Business Process Analysis (Level 3) 2. Fraud Risk Management (Level 4) 3. Infocomm Security and Data Privacy (Level 3) 4. Internal Audit Engagement Execution (Level 4) 5. Internal Audit Engagement Planning (Level 4) 6. Internal Controls (Level 3) 7. Project Execution and Control (Level 3)	1. Business Process Analysis (Level 3) 2. Fraud Risk Management (Level 4) 3. Infocomm Security and Data Privacy (Level 3) 4. Internal Audit Engagement Execution (Level 4) 5. Internal Audit Engagement Planning (Level 4) 6. Internal Controls (Level 3) 7. Project Execution and Control (Level 3) 8. Programming and Coding (Level 2)	1. Business Process Analysis (Level 3) 2. Data Analytics (Level 4) 3. Data Governance (Level 3) 4. Fraud Risk Management (Level 4) 5. Infocomm Security and Data Privacy (Level 3) 6. Internal Audit Engagement Execution (Level 4) 7. Internal Audit Engagement Planning (Level 4) 8. Internal Controls (Level 3) 9. Project Execution and Control (Level 3) 10. Digital Problem Solving (Level 3) 11. Programming and Coding (Level 3)	1. Business Process Analysis (Level 3) 2. Data Analytics (Level 4) 3. Data Governance (Level 3) 4. Fraud Risk Management (Level 4) 5. Infocomm Security and Data Privacy (Level 3) 6. Internal Audit Engagement Execution (Level 4) 7. Internal Audit Engagement Planning (Level 4) 8. Internal Controls (Level 3) 9. Project Execution and Control (Level 3) 10. Digital Problem Solving (Level 3) 11. Programming and Coding (Level 3) 12. Scenario Planning and Analysis (Level 3)

Legend: Increase in expected skill proficiency
 New skill identified at that sophistication level

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Audit Plan and Risk Assessment involves the identification of risks and determination of audit scope through the analysis of the organisation's processes. Execution involves the performance of internal audit procedures to identify any gaps in internal controls.

AUDIT PLAN, RISK ASSESSMENT & EXECUTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Risk assessment and audit plans are performed and updated on a rotational basis Data analytics are not used to develop the audit plan or risk assessment	-	Risk assessment and audit plans are performed and updated on a rotational basis Audit plan and risk assessment are driven by the use of data analytics to profile risk across the organisation	Continuous risk assessment and monitoring process enabled by automation technologies facilitates real-time updates to the risk assessment process and audit plan Applies advanced statistical modelling techniques (e.g. predictive analytics, AI) to simulate and identify emerging threats in the organisation
Job role #2	Internal Audit Assistant Manager Develop audit procedures and programmes based on internal audit engagement objectives and scope. Reviews the execution of internal audit procedures	Internal Audit Assistant Manager Develop audit procedures with standard productivity tools based on internal audit engagement objectives and scope. Reviews the execution of internal audit procedures	Internal Audit Assistant Manager Develop audit procedures with analytics tools based on internal audit engagement objectives and scope. Reviews the execution of internal audit procedures	Internal Audit Assistant Manager Develop audit procedures with analytics tools based on internal audit engagement objectives and scope. Reviews the execution of internal audit procedures
Skills and proficiency levels	1. Business Process Analysis (Level 4) 2. Fraud Risk Management (Level 4) 3. Infocomm Security and Data Privacy (Level 4) 4. Internal Audit Engagement Execution (Level 5) 5. Internal Audit Engagement Planning (Level 4) 6. Internal Audit Function Management (Level 4) 7. Internal Controls (Level 4) 8. Project Execution and Control (Level 4)	1. Business Process Analysis (Level 4) 2. Fraud Risk Management (Level 4) 3. Infocomm Security and Data Privacy (Level 4) 4. Internal Audit Engagement Execution (Level 5) 5. Internal Audit Engagement Planning (Level 4) 6. Internal Audit Function Management (Level 4) 7. Internal Controls (Level 4) 8. Project Execution and Control (Level 4)	1. Business Process Analysis (Level 4) 2. Data Analytics (Level 4) 3. Data Governance (Level 4) 4. Fraud Risk Management (Level 4) 5. Infocomm Security and Data Privacy (Level 4) 6. Internal Audit Engagement Execution (Level 5) 7. Internal Audit Engagement Planning (Level 4) 8. Internal Audit Function Management (Level 4) 9. Internal Controls (Level 4) 10. Project Execution and Control (Level 4) 11. Digital Problem Solving (Level 3)	1. Business Process Analysis (Level 4) 2. Data Analytics (Level 4) 3. Data Governance (Level 4) 4. Fraud Risk Management (Level 4) 5. Infocomm Security and Data Privacy (Level 4) 6. Internal Audit Engagement Execution (Level 5) 7. Internal Audit Engagement Planning (Level 4) 8. Internal Audit Function Management (Level 4) 9. Internal Controls (Level 4) 10. Project Execution and Control (Level 4) 11. Digital Problem Solving (Level 3) 12. Scenario Planning and Analysis (Level 4)

Legend: **New skill identified at that sophistication level**

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Audit Plan and Risk Assessment involves the identification of risks and determination of audit scope through the analysis of the organisation's processes. Execution involves the performance of internal audit procedures to identify any gaps in internal controls.

AUDIT PLAN, RISK ASSESSMENT & EXECUTION	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Risk assessment and audit plans are performed and updated on a rotational basis Data analytics are not used to develop the audit plan or risk assessment	-	Risk assessment and audit plans are performed and updated on a rotational basis Audit plan and risk assessment are driven by the use of data analytics to profile risk across the organisation	Continuous risk assessment and monitoring process enabled by automation technologies facilitates real-time updates to the risk assessment process and audit plan Applies advanced statistical modelling techniques (e.g. predictive analytics, AI) to simulate and identify emerging threats in the organisation
Job role #3	Internal Audit Senior Manager/ Internal Audit Manager Determines objectives and scope of internal audit engagements based on risk assessments.	-	Internal Audit Senior Manager/ Internal Audit Manager Determines objectives and scope of internal audit engagements based on risk assessments driven by analytics.	Internal Audit Senior Manager/ Internal Audit Manager Determines objectives and scope of internal audit engagements based on risk assessments driven by analytics.
Skills and proficiency levels	1. Business Process Analysis (Level 5) 2. Fraud Risk Management (Level 5) 3. Infocomm Security and Data Privacy (Level 4) 4. Internal Audit Engagement Execution (Level 5) 5. Internal Audit Engagement Planning (Level 5) 6. Internal Audit Function Management (Level 5) 7. Internal Controls (Level 5) 8. Project Execution and Control (Level 5)	-	1. Business Process Analysis (Level 5) 2. Data Analytics (Level 5) 3. Data Governance (Level 5) 4. Fraud Risk Management (Level 5) 5. Infocomm Security and Data Privacy (Level 4) 6. Internal Audit Engagement Execution (Level 5) 7. Internal Audit Engagement Planning (Level 5) 8. Internal Audit Function Management (Level 5) 9. Internal Controls (Level 5) 10. Project Execution and Control (Level 5) 11. Digital Problem Solving (Level 4)	1. Business Process Analysis (Level 5) 2. Data Analytics (Level 5) 3. Data Governance (Level 5) 4. Fraud Risk Management (Level 5) 5. Infocomm Security and Data Privacy (Level 4) 6. Internal Audit Engagement Execution (Level 5) 7. Internal Audit Engagement Planning (Level 5) 8. Internal Audit Function Management (Level 5) 9. Internal Controls (Level 5) 10. Project Execution and Control (Level 5) 11. Digital Problem Solving (Level 4) 12. Scenario Planning and Analysis (Level 5)

Legend: **New skill identified at that sophistication level**

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Reporting and Monitoring involves the communication of the internal audit results through the preparation of reports and the subsequent tracking and management of issues identified during the audit.

REPORTING & MONITORING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	<p>Audit results and reports are prepared manually</p> <p>Audit findings, remediation plans and exceptions are managed and tracked manually</p>	<p>Standard productivity tools (e.g. MS Excel) are used to generate visualisations to supplement audit results and reports</p> <p>Audit reports are prepared manually</p> <p>Audit findings, remediation plans and exceptions are managed and tracked manually</p>	<p>Audit Management solutions / Visualisation tools are used to automatically generate dashboards to enhance identification of business insights</p> <p>Audit reports are prepared manually</p> <p>Workflows are used to manage audit findings, remediation plans and exceptions</p>	<p>Audit Management solutions / Visualisation tools are used to automatically generate dashboards to enhance identification of business insights</p> <p>Natural Language is used to automatically generate audit reports</p> <p>Workflows are used to manage audit findings, remediation plans and exceptions.</p>
Technology	-	Basic Excel	Audit Management solutions	Audit Management solutions + NLG
Recommendation to move to next level	Implement standard productivity tools to supplement audit results and report with visualisations	Implement audit management solutions to enhance the reporting process and manage audit findings, remediation plans, and exceptions	Implement NLG to automate the audit report preparation process	-

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Reporting and Monitoring involves the communication of the internal audit results through the preparation of reports and the subsequent tracking and management of issues identified during the audit.

REPORTING & MONITORING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Audit results and reports are prepared manually Audit findings, remediation plans and exceptions are managed and tracked manually	Standard productivity tools (e.g. MS Excel) are used to generate visualisations to supplement audit results and reports Audit reports are prepared manually Audit findings, remediation plans and exceptions are managed and tracked manually	Audit Management solutions / Visualisation tools are used to automatically generate dashboards to enhance identification of business insights Audit reports are prepared manually Workflows are used to manage audit findings , remediation plans and exceptions	Audit Management solutions / Visualisation tools are used to automatically generate dashboards to enhance identification of business insights Natural Language is used to automatically generate audit reports Workflows are used to manage audit findings, remediation plans and exceptions.
Job role #1	Senior Internal Auditor/Internal Auditor Prepares audit reports manually. Audit findings, remediation plans and exceptions are tracked manually.	Senior Internal Auditor/Internal Auditor Prepares audit reports manually. Audit findings, remediation plans and exceptions are tracked manually.	Senior Internal Auditor/Internal Auditor Analyses audit dashboards to identify business insights and audit findings. Prepares audit reports manually. Uses workflows to manage Audit findings, remediation plans and exceptions.	Senior Internal Auditor/Internal Auditor Analyses audit dashboards to identify business insights and audit findings. Reviews and handles exceptions from automatically generated audit reports. Uses workflows to manage Audit findings, remediation plans and exceptions.
Skills and proficiency levels	1. Internal Audit Engagement Execution (Level 4) 2. Project Execution and Control (Level 3)	1. Internal Audit Engagement Execution (Level 4) 2. Project Execution and Control (Level 3)	1. Data Analytics (Level 4) 2. Internal Audit Engagement Execution (Level 4) 3. Project Execution and Control (Level 3) 4. Digital Problem Solving (Level 3)	1. Data Analytics (Level 4) 2. Internal Audit Engagement Execution (Level 4) 3. Project Execution and Control (Level 3) 4. Digital Problem Solving (Level 3)
Job role #2	Internal Audit Assistant Manager Review the audit reports prepared and manage the tracking of audit findings, remediation plans and exceptions.	Internal Audit Assistant Manager Review the audit reports prepared and manage the tracking of audit findings, remediation plans and exceptions.	Internal Audit Assistant Manager Review the audit reports prepared and manage the tracking of audit findings, remediation plans and exceptions through workflows.	Internal Audit Assistant Manager Review the audit reports generated and manage the tracking of audit findings, remediation plans and exceptions through workflows.
Skills and proficiency levels	1. Internal Audit Engagement Execution (Level 5) 2. Internal Audit Function Management (Level 4) 3. Project Execution and Control (Level 4)	1. Internal Audit Engagement Execution (Level 5) 2. Internal Audit Function Management (Level 4) 3. Project Execution and Control (Level 4)	1. Data Analytics (Level 4) 2. Data Storytelling and Visualisation (Level 4) 3. Internal Audit Engagement Execution (Level 5) 4. Internal Audit Function Management (Level 4) 5. Project Execution and Control (Level 4)	1. Data Analytics (Level 4) 2. Data Storytelling and Visualisation (Level 4) 3. Internal Audit Engagement Execution (Level 5) 4. Internal Audit Function Management (Level 4) 5. Project Execution and Control (Level 4) 6. Digital Problem Solving (Level 3)

Legend: **New skill identified at that sophistication level**

Internal Audit

Overview of Internal Audit:

- Audit Plan, Risk Assessment and Execution
- Reporting and Monitoring



Reporting and Monitoring involves the communication of the internal audit results through the preparation of reports and the subsequent tracking and management of issues identified during the audit.

REPORTING & MONITORING	SOPHISTICATION LEVELS			
	Basic	Developing	Mature	Leading
Sophistication	Audit results and reports are prepared manually Audit findings, remediation plans and exceptions are managed and tracked manually	Standard productivity tools (e.g. MS Excel) are used to generate visualisations to supplement audit results and reports Audit reports are prepared manually Audit findings, remediation plans and exceptions are managed and tracked manually	Audit Management solutions / Visualisation tools are used to automatically generate dashboards to enhance identification of business insights Audit reports are prepared manually Workflows are used to manage audit findings , remediation plans and exceptions	Audit Management solutions / Visualisation tools are used to automatically generate dashboards to enhance identification of business insights Natural Language is used to automatically generate audit reports Workflows are used to manage audit findings, remediation plans and exceptions.
Job role #3	Internal Audit Senior Manager/ Internal Audit Manager Review the audit reports prepared and oversees status of audit findings, remediation plans and exceptions.	Internal Audit Senior Manager/ Internal Audit Manager Review the audit reports prepared and oversees status of audit findings, remediation plans and exceptions.	Internal Audit Senior Manager/ Internal Audit Manager Review the audit reports prepared and oversees status of audit findings, remediation plans and exceptions.	Internal Audit Senior Manager/ Internal Audit Manager Review the audit reports generated and oversees status of audit findings, remediation plans and exceptions.
Skills and proficiency levels	<ol style="list-style-type: none"> 1. Internal Audit Engagement Execution (Level 5) 2. Internal Audit Function Management (Level 5) 3. Project Execution and Control (Level 5) 	<ol style="list-style-type: none"> 1. Internal Audit Engagement Execution (Level 5) 2. Internal Audit Function Management (Level 5) 3. Project Execution and Control (Level 5) 	<ol style="list-style-type: none"> 1. Data Analytics (Level 5) 2. Data Storytelling and Visualisation (Level 5) 3. Internal Audit Engagement Execution (Level 5) 4. Internal Audit Function Management (Level 5) 5. Project Execution and Control (Level 5) 	<ol style="list-style-type: none"> 1. Data Analytics (Level 5) 2. Data Storytelling and Visualisation (Level 5) 3. Internal Audit Engagement Execution (Level 5) 4. Internal Audit Function Management (Level 5) 5. Project Execution and Control (Level 5)

Legend: New skill identified at that sophistication level



6.2 Technology solution overview



Appendix 6.2 Technology solution overview

In the technology solution overview section, additional information of technology enablers in the sophistication maps are highlighted to provide Finance & Accounting (F&A) with a greater appreciation of specific technology solutions available in Singapore.

Figure 6.2 : Illustration of technology solution overview

1 Financial Accounting Procure To Pay (PTP)

Solution Overview:

- eProcurement System
- Invoice Now (e-invoice)
- OCR & ML
- Vendor Portal
- Blockchain Platform
- Core Accounting Systems
- Host-to-Host Payments

2 eProcurement System is a dedicated tool with automated workflow to support the purchasing process from supplier management, contract management, catalogue management, requisition, purchase order to vendor portal, and etc.

3 FEATURES	BENEFITS
<ul style="list-style-type: none"> • Self-service solution for requisitioning and ordering goods and services • Requisition is routed for approval through a predefined rule-based workflow • Once approved, the requisition is converted to one or more purchase orders • Purchase orders transmitted to suppliers via email, Electronic Data Interchange (EDI) or the vendor portal • Supplier management and contract management 	<ul style="list-style-type: none"> • Standardised purchasing process and procedures with automated workflows • Eliminate manual effort and paperwork • centralised repository for all contracts • Increased productivity in the downstream accounts payable process

4 OPTION CONSIDERATION

- Many eProcurement systems started as point solutions and have expanded their functionalities to address the full PTP process
- Additional effort to build and maintain integration between the eProcurement solution and existing accounting system
- Implementation of eProcurement solution may be complex and may involve substantial time and costs
- Work closely with procurement leaders during the implementation to achieve straight through processing
- Evaluate the suppliers in the provider's network against your own supplier base to ensure alignment

The technology solution overview comprises of:

- 1 A list of technology enablers relevant to each F&A process area;
- 2 A description of each technology enabler;
- 3 The features and benefits of each technology enabler; and
- 4 Adoption considerations in implementing each technology enabler

Technology solution overview

- Procure to Pay [158](#)
- Travel and Expense [162](#)
- Order to Cash [163](#)
- Record to Report [168](#)
- Financial Planning and Analysis [171](#)
- Tax [174](#)
- Treasury [176](#)
- Internal Audit [178](#)



Financial Accounting

Procure To Pay (PTP)

Solution overview:

- eProcurement System
- Invoice Now (e-invoice)
- OCR and ML
- Vendor Portal
- Blockchain Platform
- Core Accounting Systems
- Host-to-Host Payments

eProcurement System is a dedicated tool with automated workflow to support the purchasing process from supplier management, contract management, catalogue management, requisition, purchase order to vendor portal, and etc.

FEATURES

- Self-service solution for requisitioning and ordering goods and services
- Requisition is routed for approval through a predefined rule-based workflow
- Once approved, the requisition is converted to one or more purchase orders
- Purchase orders transmitted to suppliers via email, Electronic Data Interchange (EDI) or the vendor portal
- Supplier management and contract management

BENEFITS

- Standardised purchasing process and procedures with automated workflows
- Eliminate manual effort and paperwork
- centralised repository for all contracts
- Increased productivity in the downstream accounts payable process

ADOPTION CONSIDERATION

- Many eProcurement systems started as point solutions and have expanded their functionalities to address the full PTP process
- Additional effort to build and maintain integration between the eProcurement solution and existing accounting system
- Implementation of eProcurement solution may be complex and may involve substantial time and costs
- Work closely with procurement leaders during the implementation to achieve straight through processing
- Evaluate the suppliers in the provider's network against your own supplier base to ensure alignment

InvoiceNow is an e-invoicing method that facilitates the direct transmission of invoices in a structured digital format across accounting systems through a secure network. InvoiceNow operates on the open standard Peppol network.

FEATURES

- Direct transmission of invoices in structured digital format from one accounting system to another without human intervention
- Universal standard in e-invoicing across 14 countries
- Invoice details automatically updated in the accounting system
- Flip InvoiceNow invoices to payment (PayNow)

BENEFITS

- Eliminate manual data input and reduction in error rate
- Real-time data integration
- Improved invoice processing turnaround
- Reduce costs to businesses (e.g. storage and retrieval of hardcopy invoices)

ADOPTION CONSIDERATION

- Government grants are available for registration to the Peppol e-invoicing network
- Businesses on accounting system that are Peppol ready just need to activate the feature. Otherwise, consider subscribing to one of the Peppol ready solutions, which best fit your requirements. For enterprises with your own in-house accounting system, get in touch with an Access Point provider and get connected to the Peppol network. There may be additional implementation costs to integrate your existing accounting system to the e-invoicing network compared to the Peppol ready solutions
- Organisations who transact with suppliers outside the Peppol network are not able to realize the benefits of e-invoicing. For those with huge volume of inbound invoices, consider using OCR and ML technologies to digitize the invoices into Peppol format

Financial Accounting

Procure To Pay (PTP)

Solution overview:

- eProcurement System
- Invoice Now (e-invoice)
- **OCR and ML**
- **Vendor Portal**
- Blockchain Platform
- Core Accounting Systems
- Host-to-Host Payments

The combination of **Optical Character Recognition (OCR) and Machine Learning (ML)** technology is used to convert hardcopy or scanned invoices into structured digital formats with greater accuracy, to achieve straight through processing.

FEATURES

- Capture invoices of multiple sources and multiple document types from handwritten, printed to PDF invoices
- Automatically recognise and extract text from images into structured digital formats, supporting multiple languages
- Intelligently classify the invoice data into the relevant fields with high accuracy by "learning" from exception handling by humans
- Invoice data automatically input into the accounting system

BENEFITS

- Eliminate manual data entry
- Enable conversion from different languages and document types
- Improved invoice processing turnaround with better precision

ADOPTION CONSIDERATION

- Organisations with huge volume of inbound invoices benefit most from OCR and ML technology
- These solutions are usually charged based on your actual monthly volumes, and the costs per invoice come down with scale
- Manual intervention (e.g. scanning and exception handling) is still required in parts of the process unless outsourced
- Implementation costs of OCR and ML technology could be significant, and requires integration to your accounting system
- As more of your vendors send Peppol invoices, your usage of OCR and ML technology to process invoice will reduce

Vendor Portal is a web-based, vendor self-service solution that allows you to collaborate with your suppliers in a secure, online environment. It helps businesses that network with many suppliers in significantly streamlining their procurement process. Some portals leverage blockchain technology to further expand the network and use cases.

FEATURES

- Self-service invoice entry by vendor
- Upfront validation of invoice details during invoice creation or through "flip PO" functionality
- Invoice details automatically updated in the accounting system

BENEFITS

- Eliminate manual data input and reduction in error rate
- Real-time data integration
- Transparent log of transaction history
- Improved invoice processing turnaround

ADOPTION CONSIDERATION

- Implementation of vendor portal may be complex and may involve substantial costs (e.g. vendor master maintenance costs, vendor data validation costs etc.)
- Vendors will have to be on-boarded to the organisation's choice of vendor portal network
- Comprehensive suite of features and capabilities of the Vendor Portal will be better used in more complex procurement and/or larger volume business operations
- Some accounting systems may offer vendor portal functionality as part of their procurement module

Financial Accounting

Procure To Pay (PTP)

Solution overview:

- eProcurement System
- Invoice Now (e-invoice)
- OCR and ML
- Vendor Portal
- **Blockchain Platform**
- **Core Accounting Systems**
- Host-to-Host Payments

Blockchain is a distributed ledger technology that enables integration and seamless data transfer between parties, which could reduce effort, errors and delays, and increase transparency and trust. The record it keeps is permanent and irreversible.

FEATURES

- Digital contracts
- Multi-party network for trade operations
- Counterparty and business partner set-up
- Document digitisation and consensus
- Dashboard for all transactions

BENEFITS

- Transparent communication platform with verified and aligned data across entities
- Unique single source of truth between the buyer, the seller and others
- Full and verified record of transactions in a chronological format, shared in real-time
- Reduce reliance on paper documents and potential fraud

ADOPTION CONSIDERATION

- Organisations with huge volume of cross-border transactions with multiple parties (e.g. buyers, sellers, banks, logistics providers, insurers, freight forwarders) could consider using blockchain platforms to digitize the entire Procure to Pay process
- With smart contracts, paper-intensive and manual invoice validation can be automated with the various digitised trade documents exchanged on the blockchain platform
- These transaction records would then need to be integrated into the accounting system

Accounting Systems may come with eProcurement functionalities. Where applicable, the recommendation would be to enable those functionalities in your existing Accounting System to achieve a streamlined Procure to Pay process.

FEATURES

- Self-service solution for requisitioning and ordering goods and services
- Requisition is routed for approval through a predefined rule-based workflow
- Once approved, the requisition is converted to one or more purchase orders
- Purchase orders transmitted to suppliers via email, EDI or the vendor portal

BENEFITS

- Standardised purchasing process and procedures with automated workflows
- Eliminate manual effort and paperwork
- centralised repository for all contracts
- Increased productivity in the downstream accounts payable process

ADOPTION CONSIDERATION

- Functionalities in the procurement module of the accounting system may not be as comprehensive as a specialist eProcurement system
- End-to-end platform with pre-built integrations available
- May not require additional licensing fees if the eProcurement functionalities (e.g. electronic purchase orders) are included in the existing licensing fees of the accounting system
- More suitable for organisations with less complex purchasing needs and lower purchasing volume

Financial Accounting

Procure To Pay (PTP)

Solution overview:

- eProcurement System
- Invoice Now (e-invoice)
- OCR and ML
- Vendor Portal
- Blockchain Platform
- **Core Accounting Systems**
- **Host-to-Host Payments**

Most **Accounting System** supports **2-way match** or **3-way match** for invoice validation. Prerequisite to automate invoice validation is the availability of purchase order, invoice and goods/services receipt information in the accounting system.

FEATURES

- 2-way match of purchase order and invoice
- 3-way match of purchase order, invoice and goods/services receipt
- Setup tolerance percentage or amount such that matching occurs within the defined limits
- Automatically route exceptions to be reviewed and approved

BENEFITS

- Improved productivity and efficiency with automated invoice validation upon successful 2-way match or 3-way match
- Improved invoice processing turnaround with straight through invoice processing
- Protect against fraudulent and duplicate payments
- Stronger controls with full audit trail

ADOPTION CONSIDERATION

- Relatively easy to implement if features are available in your existing accounting system
- PO and GRN information, where applicable, needs to be integrated within the accounting system to enable automated invoice validation
- In cases where the 2-way or 3-way match fails, manual investigation of the discrepancies is required, and may result in delayed payments if the information is not readily available

Host-to-Host (H2H) is an automated solution for secure electronic data transfer between banks and their corporate clients. H2H connectivity enables banks to exchange information in their corporate clients' preferred file formats, network protocols, and security standards.

FEATURES

- Online platform with service support
- Transaction log of payments
- Enhanced security
- Integration with accounting system

BENEFITS

- Real-time data integration and access to information 24/7
- Remote customer service support
- Visibility and traceability of payment statuses
- More efficient transfer of funds as compared to manual payment methods
- Integration with accounting system eliminates manual intervention from the payment process

ADOPTION CONSIDERATION

- Dependent on capabilities of existing accounting system
- Implementation of host-to-host connectivity may involve substantial costs and effort, where host-to-host capabilities are not part of the existing accounting system features
- Organisations may also consider building their own host-to-host integration where capabilities are not part of the existing accounting systems

Financial Accounting

Travel and Expense

Solution overview:

- [T&E System](#)
- [Travel Booking Application](#)

Travel and Expense (T&E) System facilitates the process of submitting, approving and reimbursing expenses incurred by employees while conducting business on behalf of their employer. Common expenses include business travel, travel allowances, mileage, client entertainment/meals, and reimbursable expenses incurred day to day.

FEATURES

- Mobile application to support submission and approval
- OCR and Machine Learning (ML) to capture receipts
- Expense reporting and approval workflows
- Business rules setup based on T&E policies
- Access to prepaid virtual or physical cards

BENEFITS

- Better compliance to organisation's T&E policies (e.g. expense limits)
- Seamless submission and approval of expenses
- Faster processing of expense claims (reduces time to reimburse employee out-of-pocket expenses)
- Greater visibility into travel and expenses (what is being spent, on what and by whom)

ADOPTION CONSIDERATION

- T&E systems can be purchased as part of an integrated business application suite (e.g. Accounting, HR or Procurement suite) or a standalone application that is then integrated into the Accounting and HR systems
- Evaluate how well the T&E system can improve efficiency, improve user experience as well as meet current and future needs
- Standalone T&E systems tend to be richer in innovative functionalities and features as the R&D is focused on a single process
- T&E system with AI and ML capabilities (e.g. Concur, Fyle, RIP Expenses) automatically scans receipt for fraud, duplicates, and non-compliant spends, and highlight those that are high risk for review
- If well integrated with commonly used travel booking application, expense report creation and submission can be automated

Travel Booking Application serves as a platform for business travellers to book and manage their travel itinerary. This service is usually provided by a travel management company, and if well integrated with your T&E system, can significantly improve your employee expense claims experience.

FEATURES

- Platform for business travellers to book and manage their travel itinerary
- Directly integrating with merchants and providers commonly used by business travellers (e.g. ride-share companies, hotels, and F&B companies)
- Travellers can choose from the pre-approved options based on your organisation's T&E policies
- Integration with T&E solutions

BENEFITS

- Automated expense report creation and submission after trip is completed
- More accurate expense data and itemisation with virtually zero-touch needed by end users
- Improved efficiency and auditability for travel and accommodation-related expenses

ADOPTION CONSIDERATION

- Evaluate the nature of employee expenses in your organisation. For example, if your employees rely heavily on local transport, you can consider either Grab for Business or Cabcharge to reduce paper receipt submissions
- Organisations may allow employees to charge the trip to the organisation's account, hence eliminating need for reimbursement
- By integrating travel booking applications with your T&E system, expense report creation and submission can be automated

Financial Accounting

Order To Cash

Solution overview:

- InvoiceNow (e-invoice)
- Core Accounting Systems
- Billing Management Solutions
- Collection Management Solutions
- Blockchain Platform
- Electronic Fund Transfers
- Reconciliation Solutions
- Data Science, Machine Learning & Advanced Analytics

InvoiceNow is an e-invoicing method that facilitates the direct transmission of invoices in a structured digital format across accounting systems through a secure network. InvoiceNow operates on the open standard Peppol network and is catered for Business-to-Business operations.

FEATURES

- Direct transmission of invoices in structured digital format from one accounting system to another without human intervention
- Universal standard in e-invoicing across 14 countries
- Invoice details automatically updated in the accounting system

BENEFITS

- Invoices are automatically delivered to the customer
- Real-time data integration
- Transparent log of transaction history
- Increase invoice processing turnaround
- Reduce costs to businesses (e.g. storage and retrieval of hardcopy invoices)

ADOPTION CONSIDERATION

- Type of business operations (e.g. B2B, B2C)
- Number of customers in total and/or number of customers on the Peppol network
- InvoiceNow can be relatively easy to implement/ enable if functionality is embedded in accounting system (e.g. Xero Business Edition)
- Accounting systems that are not Peppol-Ready can get in touch with an Access Point provider to get connected
- Government grants are available for registration to the Peppol e-invoicing network

Some **Accounting Systems** may include **billing creation functionalities** or have available add-ons. The recommendation would be to enable those features or purchase add-ons if necessary.

FEATURES

- Invoice templates with customizable fields (e.g. company logo)
- Integration to customer master data

BENEFITS

- Standardised invoice format with necessary billing information
- Reduces human errors from manual information entry
- Enhances invoice processing cycle time through the reduction of data entry

ADOPTION CONSIDERATION

- Relatively easy to implement – features are typically available as part of the finance/ accounting modules of the accounting system
- Potentially low cost – may not require additional licensing fees if the functionality is included in the existing licensing fees of the accounting system
- The complexity of the organisation's revenue model (e.g. subscription-based revenue, consumption-based revenue, reseller/partner revenue sharing relationships) and adequacy of accounting system billing features

Financial Accounting

Order To Cash

Solution overview:

- InvoiceNow (e-invoice)
- **Core Accounting Systems**
- Billing Management Solutions
- Collection Management Solutions
- **Blockchain Platform**
- Electronic Fund Transfers
- Reconciliation Solutions
- Data Science, Machine Learning & Advanced Analytics

Blockchain is a distributed ledger technology that enables integration and seamless data transfer between parties, which could reduce effort, errors and delays, and increase transparency and trust. The record it keeps is permanent and irreversible.

FEATURES

- Digital contracts
- Multi-party network for trade operations
- Counterparty and business partner set-up
- Document digitisation and consensus
- Dashboard for all transactions

BENEFITS

- Transparent communication platform with verified and aligned data across entities – identify & eliminate exceptions to contracts (e.g. pricing variances)
- Unique single source of truth between the buyer, the seller and others
- Full and verified record of transactions in a chronological format, shared in real-time
- Reduce reliance on paper documents and potential fraud

ADOPTION CONSIDERATION

- Organisations with huge volume of cross-border transactions with multiple parties (e.g. buyers, sellers, banks, logistics providers, insurers, freight forwarders) could consider using blockchain platforms to digitize the Order to Cash process
- With smart contracts, paper-intensive and manual invoice creation processes can be automated with the various digitised trade documents exchanged on the blockchain platform
- These transaction records would then need to be integrated into the accounting system

Some **Accounting Systems** may already include **reconciliation features**. The recommendation would be to enable those features or purchase add-ons if necessary.

FEATURES

- Automatically matches payments against Accounts Receivable balances

BENEFITS

- Automated reconciliation of payments received against Accounts Receivable balances
- Reduces human errors
- Increased workflow efficiency by eliminating manual effort of reconciliation

ADOPTION CONSIDERATION

- Relatively easy to implement if features are available in existing accounting system
- May not require additional licensing fees if the functionality is included in the existing licensing fees of the accounting system

Financial Accounting

Order To Cash

Solution overview:

- InvoiceNow (e-invoice)
- **Core Accounting Systems**
- Billing Management Solutions
- **Collection Management Solutions**
- Blockchain Platform
- Electronic Fund Transfers
- Reconciliation Solutions
- Data Science, Machine Learning & Advanced Analytics

Some **Accounting Systems** may already have dashboard features for the collection process. The recommendation would be to enable those features or purchase add-ons if necessary.

FEATURES

- Dashboards reflecting customer payment trends, performance and risks
- Guided and prioritized task lists
- Automated notification of overdue AR triggering dunning process (incl. debt escalation to debt collector agency)
- Automated communications to customers (e.g. email, SMS reminders, phone call reminders)

BENEFITS

- Visibility and traceability of payments made by customers and required follow-up actions
- Increase workflow efficiency by eliminating the need to identify overdue AR and initiate dunning process
- Eliminate effort of creating communications to customers during collection process

ADOPTION CONSIDERATION

- Number of customers in total and history of collection issues
- Relatively easy to implement if features are available in existing accounting system
- May not require additional licensing fees if the functionality is included in the existing licensing fees of the accounting system
- Integration compatibility if add-ons are chosen

Collection Management Solutions target the AR analysis and collection process in the order to cash cycle. These solutions help organisations identify risks in the collection process and manage subsequent collection activities (e.g. reminders, dunning etc.).

FEATURES

- Dashboards reflecting customer payment trends, performance and risks
- Guided and prioritized task lists
- Automated notification of overdue AR triggering dunning process (incl. debt escalation to debt collector agency)
- Automated communications to customers (e.g. email, SMS reminders, phone call reminders)

BENEFITS

- Visibility and traceability of payments made by customers and required follow-up actions
- Increase workflow efficiency by eliminating the need to identify overdue AR and initiate dunning process
- Eliminate effort of creating communications to customers during collection process

ADOPTION CONSIDERATION

- Number of customers in total and history of collection issues
- Integration compatibility to existing accounting system
- Additional effort to integrate data from collection management solution to accounting system
- Collection management solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of collection management solutions may require additional training to business users

Financial Accounting

Order To Cash

Solution overview:

- InvoiceNow (e-invoice)
- Core Accounting Systems
- **Billing Management Solutions**
- Collection Management Solutions
- Blockchain Platform
- **Electronic Fund Transfers**
- Reconciliation Solutions
- Data Science, Machine Learning & Advanced Analytics

Billing Management Solutions are designed to handle time and billing tracking as well as invoicing customer for services and products. These solutions are typically used in organisations with more complex revenue models.

FEATURES

- Digitally created invoices with preconfigured product options
- Transparent log of transaction history
- Invoice details automatically updated in the accounting system (if integration is in place)

BENEFITS

- Improves productivity of billing process and eliminates error from manual processes
- Visibility and traceability of statements and billing statuses
- Increase invoice processing turnaround
- Reduce costs to businesses (e.g. storage and retrieval of hardcopy invoices)

ADOPTION CONSIDERATION

- The complexity of the organisation's revenue model (e.g. subscription-based revenue, consumption-based revenue, reseller/partner revenue sharing relationships)
- Implementing of billing management solutions may be complex and may involve substantial costs
- Integration compatibility with existing accounting system

An **Electronic Fund Transfer** is the transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, via computer-based systems, without the direct intervention of bank staff. For the purposes of this study, this includes online bank transfers, digital wallets, unified payment QR codes and mobile banking.

FEATURES

- Electronically captured and stored collection information
- Online platform with service support
- Transaction log of payments
- Enhanced security

BENEFITS

- Real-time data integration and access to information 24/7
- Remote customer service support
- Visibility and traceability of payment statuses
- More efficient transfer of funds as compared to manual payment methods
- Several available options to suit business needs (e.g. internet banking transfers, direct debit, third party transfer platforms)
- Efficient access to collection information
- Traceability and visibility of collections received

ADOPTION CONSIDERATION

- Relatively easy to implement via your existing relationships with banks
- Integration compatibility with accounting system
- **Initiatives** are available for F&B and retail businesses to onboard PayNow Corporate as part of the Digital Resilience Bonus
- Depending on business needs (e.g. cross-border transfers), organisations may consider alternative, third party fund transfer platforms, e.g. TransferWise, Revolut, which offer more competitive foreign exchange rates to traditional banks
- Type of business operations (e.g. B2B, B2C, customer types etc.) and suitability of collection mode

Financial Accounting

Order To Cash

Solution overview:

- InvoiceNow (e-invoice)
- Core Accounting Systems
- Billing Management Solutions
- Collection Management Solutions
- Blockchain Platform
- Electronic Fund Transfers
- **Reconciliation Solutions**
- **Data Science, Machine Learning & Advanced Analytics**

Reconciliation Solutions automate and standardises the reconciliation process to produce accurate financial information.

FEATURES

- Automated account transaction matching
- Reporting capabilities for unreconciled entries
- Issue management

BENEFITS

- Improves productivity of reconciliation process and eliminates error from manual processes
- Increase collection application turnaround

ADOPTION CONSIDERATION

- Complexity of reconciliation process (i.e. number of customers, types of transactions, collection modes, etc.) in the organisation
- Integration compatibility with accounting system
- Standalone reconciliation solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of standalone reconciliation solutions may require additional training to business users

Data Science, Machine Learning & Advanced Analytics platforms offers a mixture of basic and advanced functionality essential incl. data ingestion, data preparation, data exploration, and predictive modelling. Its primary users are data science professionals

FEATURES

- Data filtering, wrangling and manipulation component that helps to prepare data so that it is usable subsequently for analytics.
- Visualisation features that help users understand data and better enables decision-making
- Variety on types of analytics / modelling, ranging from advanced descriptive and predictive analytics to machine learning, simulation, optimisation and other forms of advanced analytics.

BENEFITS

- Automates more tasks such as complex data preparation/manipulation and thus companies can focus on differentiating work
- More custom modelling that fits business needs and business nuances that may not be sufficient under pre-built models/ tools

ADOPTION CONSIDERATION

- Scalability based on users, data and complexity of organisation
- Ease and cost of implementation, use and maintenance
- Whether customisation of financial models would be required by the organisation
- Data scientists skillset within the company who would be able to fully leverage the data science platforms (avoid paying for capabilities that cannot be used / will not be used)

Financial Accounting

Record To Report

Solution overview:

- Core Accounting Systems
- Enterprise Asset Management Solutions
- Standalone Finance Close Solutions
- Financial Consolidation Solutions
- Financial Reporting Solutions

Some **Accounting Systems** may already include features to record and account for fixed assets. The recommendation would be to enable those features or purchase add-ons if necessary.

FEATURES

- Centralised digital fixed asset register
- Automated depreciation computation

BENEFITS

- Access to real-time data with action items on a particular asset in order to prevent long down times and unnecessary expenses
- Increased visibility and organisation of fixed assets
- Increased workflow efficiency from automating recurring transactions (e.g. depreciation)

ADOPTION CONSIDERATION

- Relatively easy to implement if features are available in existing accounting system
- May not require additional licensing fees if the functionality is included in the existing licensing fees of the accounting system
- Complexity of fixed assets accounting in the organisation

Enterprise Asset Management (EAM) Solutions enable a holistic view of an organisation's fixed assets throughout their entire lifecycle, from design, commission, or procurement, through to operation, maintenance, disposal, and replacement.

FEATURES

- Cloud-based platform and/or mobile access
- Centralised digital fixed asset register
- Automated depreciation computation
- Full set of core EAM functionality

BENEFITS

- Access to real-time data with action items on a particular asset in order to prevent long down times and unnecessary expenses
- Increased visibility and organisation of fixed assets
- Increased workflow efficiency from automating recurring transactions (e.g. depreciation)
- Enables scalability as organisations fixed assets accounting become more complex

ADOPTION CONSIDERATION

- Complexity of fixed assets accounting in the organisation (e.g. complex asset life cycles, leased assets)
- Integration compatibility with accounting system
- Standalone EAM solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of EAM solutions may require additional training to business users

Financial Accounting

Record To Report

Solution overview:

- **Core Accounting Systems**
- Enterprise Asset Management Solutions
- **Standalone Finance Close Solutions**
- Financial Consolidation Solutions
- Financial Reporting Solutions

Some **Accounting Systems** may already include **reconciliation features**. The recommendation would be to enable those features or purchase add-ons if necessary.

FEATURES

- Automatic reconciliation management (bank, intercompany, sub-ledger)
- Automated journal entry posting for recurring transactions

BENEFITS

- Increased process efficiency from automated activities (reconciliation, journal entry)
- Reduction in errors from manual interventions

ADOPTION CONSIDERATION

- Relatively easy to implement if features are available in existing accounting system
- May not require additional licensing fees if the functionality is included in the existing licensing fees of the accounting system
- Complexity of fixed assets accounting in the organisation

Standalone Finance Close Solutions manage the financial close and apply appropriate controls throughout the accounting cycle. For the purposes of this study, Finance Close process includes reconciliation (bank, sub-ledger, intercompany), journal entries and close activities.

FEATURES

- Automatic reconciliation management (bank, intercompany, sub-ledger)
- Automated journal entry posting for recurring transactions
- Interactive dashboards to track status of close process
- centralised closing calendar

BENEFITS

- Increased process efficiency from automated activities (reconciliation, journal entry, workflow)
- Reduction in errors from manual interventions
- Enhanced traceability and visibility of finance close process

ADOPTION CONSIDERATION

- Complexity of close process (i.e. reconciliation processes, close management) in the organisation
- Integration compatibility with accounting system
- Standalone Finance Close solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of Finance Close solutions may require additional training to business users

Financial Accounting

Record To Report

Solution overview:

- Core Accounting Systems
- Enterprise Asset Management Solutions
- Standalone Finance Close Solutions
- **Financial Consolidation Solutions**
- **Financial Reporting Solutions**

Financial Consolidation Solutions enable the management of the consolidation workflow and apply appropriate controls throughout the accounting cycle.

FEATURES

- Centralised data collection – Chart of Account mapping/ aggregation
- Automated consolidation processes (e.g. eliminations, adjustments/ journal entries, equity accounting, foreign exchange revaluations etc.)
- Dashboards to track status of consolidation process

BENEFITS

- Single source of truth
- Greater process efficiency due to automated activities
- Reduction in errors from manual interventions
- Enhanced traceability and visibility of finance consolidation process

ADOPTION CONSIDERATION

- Complexity of consolidation process in the organisation (number of entities, complexity of group structure, etc.)
- Integration compatibility with accounting system
- Standalone Financial Consolidation solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of Financial Consolidation solutions may require additional training to business users

Financial Reporting Solutions enable an organisation's reporting process through data connectivity and report automation.

FEATURES

- Centralised and automated data collection
- Automated report preparation processes (e.g. primary statements, notes to disclosures etc.)
- Cloud-based solution

BENEFITS

- Single source of truth
- Greater process efficiency due to automated activities
- Reduction in errors from manual interventions
- Enhanced traceability and visibility of financial reporting process
- Real-time access to reporting information and reporting status

ADOPTION CONSIDERATION

- Complexity of financial reporting process in the organisation (e.g. number of entities, levels of review, data sources, complexity of disclosures etc.)
- Integration compatibility with accounting system
- Standalone Financial Reporting solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of Financial Reporting solutions may require additional training to business users

Management Accounting

Financial Planning and Analysis

Solution overview:

- **Data Science, Machine Learning & Advanced Analytics** • Data Integration Tool
- **Business Intelligence & Visualisation Tools (BI)**
- Enterprise / Corporate Performance Mgmt.
- Natural Language Generation (NLG)

Data Science, Machine Learning & Advanced Analytics platforms offers a mixture of basic and advanced functionality essential incl. data ingestion, data preparation, data exploration, and predictive modelling

FEATURES

- Data filtering, wrangling and manipulation component that helps to prepare data so that it is usable subsequently for analytics.
- Visualisation features that help users understand data and better enables decision-making
- Variety on types of analytics / modelling, ranging from advanced descriptive and predictive analytics to machine learning, simulation, optimisation and other forms of advanced analytics.

BENEFITS

- Automates more tasks such as complex data preparation/manipulation and thus companies can focus on differentiating work
- More custom modelling that fits business needs and business nuances that may not be sufficient under pre-built models within EPM tools

ADOPTION CONSIDERATION

- Scalability based on users, data and complexity of organisation
- Ease and cost of implementation, use and maintenance
- Whether customisation of financial models would be required by the organisation
- Data scientists skillset within the company who would be able to fully leverage the data science platforms (avoid paying for capabilities that cannot be used / will not be used)

Business Intelligence (BI) & Visualisation Tools refers to process of collation, preparation and formatting information for delivery to appropriate audience. Compared to EPM, BI tools are reactive as it focuses more on bringing relevant information about the business for decision-makers to react based on the information presented.

FEATURES

- Dynamic dashboard feature that allows drill-down of data and provides jump-to functionality
- Allows users to easily aggregate data from various sources that links to dashboards
- Provides transactional-level analysis to understand performance that will then inform forecasting / planning activities

BENEFITS

- Less manual effort to create charts, graphs or visualisations for management reporting purposes
- Charts and dashboards will be dynamic vs. static nature of management reports created on MS PowerPoint
- Ease of use by end-users and ability to quickly query, drill down and jump to various analyses

ADOPTION CONSIDERATION

- Cost of deployment
- Flexibility of deployment
- Ease of use for visualisation and data manipulation
- Self service capabilities that allows users to directly drill down, combine data and build specific charts / dashboards
- Volume of data required to link to the platform for analysis purposes

Management Accounting

Financial Planning and Analysis

Solution overview:

- Data Science, Machine Learning & Advanced Analytics
- Business Intelligence & Visualisation Tools (BI)
- Enterprise / Corporate Performance Mgmt. (EPM/CPM)
- Natural Language Generation (NLG)
- Data Integration Tool

EPM / CPM combines business intelligence (BI) with financial management and forecasting. Compared to pure BI tools, CPM / EPM focuses much more on the financial planning and forecasting, and are therefore proactive where it has functionality that can plan, monitor, and take action in order to improve business performance.

FEATURES

- Connects data from financial close to Financial Planning and Analysis
- Ability to track and measure actuals vs. plan / budget and forecast / KPIs
- Ability to leverage pre-built models or create customized models

BENEFITS

- Integrating planning, with reporting, analysis and BI / visualisation
- Financial modelling capabilities – pre-built and customized models available
- Automation of planning, budgeting, forecasting and consolidation processes
- Improves planning, budgeting and forecasting cycle times thus freeing time for more value added business partnering and additional analysis activities
- Connects finance with business through integrated planning, which results in higher transparency between strategy, financial planning and business goals
- Aggregating and comparing plans and actuals from multiple sources

ADOPTION CONSIDERATION

- Complexity of planning, budgeting and forecasting needs will determine whether EPM / CPM solution required or a BI solution would be sufficient incl. complexity of process, high number of users and number of source systems
- Ease and cost of implementation, use and maintenance
- Whether customisation of financial models would be required by the organisation
- Scalability based of users, data and complexity of organisation

Natural language generation (NLG) is a subset of Artificial Intelligence (AI) that automatically generates a context-sensitive, linguistically-rich narrative from structured data or numbers with narrative changing dynamically to explain key findings or the meaning of charts or dashboards.

FEATURES

- Converts structured data from spreadsheet models, visualisation software or enterprise performance management tools to create text-based narrative for decision-support purposes

BENEFITS

- Decision support: Improves decision-making by accelerating time-to-insight
- Insights generation: First level commentary could be generated where NLG interprets financial figures
- Time savings: Less manual, human intervention required to translate or generate initial narratives
- Consistency: Narratives generated would be consistent with the same semantic rules
- Self-service: Augment NLG for on-demand insights for senior stakeholders to find answers to their questions when exploring data and dashboards

ADOPTION CONSIDERATION

- Complexity of finance data sources and data quality
- Degree and quality of narrative generation required
- Ease of use by non-developers and F&A specialists
- Pre-built integration or add-ins with business intelligence / visualisation platforms and / or enterprise performance management
- Pricing models vary (per word, volume based, or unlimited / enterprise / application licensing)

Management Accounting

Financial Planning and Analysis

Solution overview:

- Data Science, Machine Learning & Advanced Analytics
 - Business Intelligence & Visualisation Tools (BI)
 - Enterprise / Corporate Performance Mgmt. (EPM/CPM)
 - Natural Language Generation (NLG)
- **Data Integration Tool**

Data Integration Tool allows organisations to ingest, transform, combine and provision data to meet requirements across a multiple, disparate data sources, within the organisation.

FEATURES

- Enables extraction, transformation and loading of data
- Enables data integration across the lines of business and across segments such as products, customers, vendors, employees. Data integration tools can be used to build the data access and synchronisation processes to support various MDM tools and initiatives

BENEFITS

- Automates data preparation to enable faster access to the right data required without having to manually collate, aggregate and cleanse data prior to usage
- Unifies multiple disparate sources of data with different nomenclature and transformed and stored in one single source to subsequent use by the business

ADOPTION CONSIDERATION

- Scalability based on users, data and complexity of organisation
- Number of source systems to be extracted, transformed and integrated via data warehouse / integration tools, as well as expected volume of data to be transformed / stored
- Ease and cost of implementation, use and maintenance

Tax Management

Solution overview:

- Tax Compliance Software
- Core Accounting Systems
- Data Science, Machine Learning & Advanced Analytics
- Business Intelligence & Visualisation Tools (BI)

Tax Compliance Software helps automate tax calculations, process tax returns and track tax regulation compliance. They also provide organisations with a centralised location for all of their important tax-related documents, creating a paper trail / audit trail, as well as in-built e-filing capability.

FEATURES

- Produce tax documents compliant to Singapore's regulation
- Generate tax computation worksheet and file Corporate Income Tax Return (Form C-S/ C) to IRAS
- For GST-registered businesses*, compute GST accurately with transactions input from accounting system and file GST return (Form 5 detailed / summary and IRAS audit file [IAF]) to IRAS

BENEFITS

- Move away from preparation of tax computations on multiple versions of spreadsheets; instead data is integrated automatically from transactional systems to compliance software that contains standardised, pre-formatted returns
- E-filing of returns directly to IRAS website via accounting system APIs thus reducing risk of erroneous inputs on myTax portal

ADOPTION CONSIDERATION

- Whether existing accounting system can be leveraged to prepare returns directly with ability to e-file to IRAS directly
- Ease and cost of implementation, use and maintenance
- Whether third party tax agents are involved in the preparation of tax returns and computations, in which case companies may not need to adopt standalone tax compliance software

Some **Accounting Systems** may already have **tax sensitised and e-filing features** that address the challenges faced today. The recommendation would be to enable those features or purchase add-ons if necessary.

FEATURES

- E-filing and transmission of GST returns and transactions listing via IRAS API. Other recommended features for GST on accounting system as denoted by IRAS: reverse charge mechanism, overseas vendor registration regime, GST registration reminder, GST filing reminder and GST automated blocked input claims
- For E-filing and transmission of CIT returns, accounting system should be able to generate draft documents for review: Form C-S, P&L, Tax computations and supporting schedules
- In-built tax compliance / logic that is applied automatically to invoices and other documents according to local tax rules
- Generation of IRAS Audit File (IAF) in the format prescribed by the IRAS to conduct audits of GST accounts.

BENEFITS

- Automated e-filing
- Little manual intervention of data with more focus on exception handling

ADOPTION CONSIDERATION

- Relatively easy to implement if features are available in existing accounting system and tax regulations are accounted for during implementation of ERP or accounting system
- May not require additional licensing fees if the functionality is included in the existing licensing fees of the accounting system
- Complexity of tax operations and organisation structure incl. geographical footprint

Tax

Tax Management

Solution overview:

- Tax Compliance Software
- Core Accounting Systems
- **Data Science, Machine Learning & Advanced Analytics**
- **Business Intelligence & Visualisation Tools (BI)**

Data Science, Machine Learning & Analytics platforms offers a mixture of basic and advanced functionality essential incl. data ingestion, data preparation, data exploration, and predictive modelling.

FEATURES

- Data filtering, wrangling and manipulation component that helps to prepare data so that it is usable subsequently for analytics.
- Visualisation features that help users understand data and better enables decision-making
- Variety on types of analytics / modelling, ranging from advanced descriptive and predictive analytics to machine learning, simulation, optimisation and other forms of advanced analytics.

BENEFITS

- Automates more tasks such as complex data preparation/manipulation and thus companies can focus on differentiating work
- More custom modelling that fits business needs and business nuances that may not be sufficient under pre-built models within EPM tools

ADOPTION CONSIDERATION

- Scalability based on users, data and complexity of organisation
- Ease and cost of implementation, use and maintenance
- Whether customisation of financial models would be required by the organisation
- Data scientists skillset within the company who would be able to fully leverage the data science platforms (avoid paying for capabilities that cannot be used / will not be used)

Business Intelligence (BI) & Visualisation Tools refers to process of collation, preparation and formatting information for delivery to appropriate audience. Compared to EPM, BI tools are reactive as it focuses more on bringing relevant information about the business for decision-makers to react based on the information presented.

FEATURES

- Dynamic dashboard feature that allows drill-down of data and provides jump-to functionality
- Allows users to easily aggregate data from various sources that links to dashboards
- Provides transactional-level analysis to understand performance that will then inform forecasting / planning activities

BENEFITS

- Less manual effort to create charts, graphs or visualisations for management reporting purposes
- Charts and dashboards will be dynamic vs. static nature of management reports created on MS PowerPoint
- Ease of use by end-users and ability to quickly query, drill down and jump to various analyses

ADOPTION CONSIDERATION

- Cost of deployment
- Flexibility of deployment
- Ease of use for visualisation and data manipulation
- Self service capabilities that allows users to directly drill down, combine data and build specific charts / dashboards
- Volume of data required to link to the platform for analysis purposes

Treasury

Treasury Operations

Solution overview:

- Treasury Management System (TMS)
- Cash Forecasting Tool
- Dealing/ Trading Platform
- Market Data Provider

Most **TMS** provide sufficient functionality to operate treasury activity for all but the most complex multinational companies. Services provided range from core payments management through to debt and investment management and complex hedge accounting solutions. Some companies use the treasury module of their ERP system as their TMS.

FEATURES

- Cash & liquidity management – cash position management, in-house banking and cash pooling, financial instrument management, netting and reinvoicing, cash forecasting
- Bank administration & relationship management – bank account signatory management, bank fee analysis and performance management
- Financial risk management – exposure identification and management, exposure measurement, hedging

BENEFITS

- Productivity gain by streamlining and automating manual processes
- Increased accessibility, transparency and visibility of bank accounts, cash flows and financial exposures
- Enhanced controls and segregation of duties across the Treasury organisation
- Reduction in bank fees and costs

ADOPTION CONSIDERATION

- For new users, evaluate first whether the treasury module that is part of your ERP platform is able to meet your requirements
- Many TMS are now delivered via the cloud as SaaS (subscription based) solutions rather than installed on premise
- Implementation timeline for SaaS solutions are usually shorter as compared to on-premise solutions
- SaaS solutions have more frequent upgrades, providing continual incremental change, and have the flexibility to scale when business requirements change
- Understand how your data is protected and secured by the vendor given the increasing cybersecurity threats

Cash Forecasting Tool combines data from multiple sources and leverages advanced analytics, machine learning and visualisation capabilities to improve forecast accuracy and identify the optimal solution for your organisation.

FEATURES

- Visualisation features that help users understand data and better enables decision-making
- Simulate multiple scenarios based on different assumptions
- Forecast vs. actuals comparison to identify root cause of a potential delta and “learn” from these differences
- Use of advanced statistical models to simulate various cash management solutions and quantify the underlying benefits and costs

BENEFITS

- Automates more tasks such as complex data consolidation and thus Treasury team can focus on analysis and reporting
- Real-time insights into positions across banks, accounts, entities and region
- More accurate and reliable cash forecast through machine learning techniques
- optimise your cash balances

ADOPTION CONSIDERATION

- Whether cash forecasts vs. actuals in existing TMS or accounting system are accurate
- Suitable for complex organisations and forecasts: multi-entity, multi-ERP, multi-currency, multi-banks, etc.
- If your organisation’s “cash impacting” data reside in different systems, from TMS, multiple ERP / accounting systems to payment applications, niche cash forecasting tools can automate the data collection to one single platform
- Looking to further optimise cash management using advanced analytics and machine learning capabilities

Treasury

Treasury Operations

Solution overview:

- Treasury Management System (TMS)
- Cash Forecasting Tool
- **Dealing/ Trading Platform**
- Market Data Provider

Dealing/Trading Platform is intended solely for the purpose of trading operations, including executing, managing and processing the trading of different asset classes, e.g. foreign exchange (FX), money market fund, derivatives, and etc.

FEATURES

- Trader decision support tools and market and trade analytics
- Connected with bank and alternative market makers
- Ability to trade in a wide range of instruments
- Configurable so that users can only access market makers or funds that are approved in your dealing/trading mandate
- Trade history analysis and reporting
- Exposure management

BENEFITS

- Real time pricing, enabling faster and automated price discovery
- Streamlined services across the entire trading workflow
- Reduced operational costs and risk in all parts of the trading life cycle
- Enhanced compliance and transparency
- Strong audit trail with separation of duties and controls in place

ADOPTION CONSIDERATION

- Integration capabilities to your existing TMS and accounting system to record transactions and accounting journals
- Based on your treasury requirements, there are solutions that support more than one asset classes
- Appropriate for treasury organisation that has to initiate a number of different transactions on a daily basis

Market Data Provider enables access to real-time market prices across a wide range of instruments, including commodities, derivatives, equities, fixed income, foreign exchange, funds, indices, and loans used by financial market participants.

FEATURES

- Data feed into TMS as well as spreadsheets to help evaluate exposure to interest rate, FX and commodity price risk
- Data can also be used to measure treasury performance over time
- Monitor historical trends

BENEFITS

- Real time market prices across a wide range of instruments across asset classes

ADOPTION CONSIDERATION

- Generally of most importance to treasury organisation that have a high volume of foreign exchange and money market transactions in different locations
- Direct live rates feed into TMS can be expensive; however, few organisations need this service and a scheduled download via a spreadsheet at regular intervals (daily, hourly, etc.) is usually considered sufficient for translation exposure reporting

Internal Audit

Solution Overview:

- Audit Management solutions
- Natural Language Generation (NLG)
- Data Science, Machine Learning & Advanced Analytics

Audit Management Solutions provide core internal audit operations management capabilities. These include audit-related risk assessments and finding remediation functions. These solutions facilitate audit planning, audit scoping, internal audit performance management and audit committee reporting.

FEATURES

- Single system for audit management requirements (e.g. risk assessment, workpapers, issue management, etc.)
- Prioritize activities based on business imperatives and risk assessments using aggregated risk and control information from across the organisation
- Dynamic dashboards to manage and monitor audit issues

BENEFITS

- Enhanced control over audit lifecycles
- Improved collaboration across functions
- Increased visibility into key risks and under-performing controls with access to information, resources and results
- Easily track issues and action plans

ADOPTION CONSIDERATION

- Availability of relevant data from organisation information systems (where integration to Audit Management solutions are required)
- Audit Management solutions can be complex to deploy, have longer implementation timelines, and may involve substantial costs
- Complexity of Audit Management solutions may require additional training to business users

Natural Language Generation (NLG) is a subset of Artificial Intelligence (AI) that automatically generates a context-sensitive, linguistically-rich narrative from structured data or numbers with narrative changing dynamically to explain key findings or the meaning of charts or dashboards.

FEATURES

- Converts structured data from spreadsheet models, visualisation software or enterprise performance management tools to create text-based narrative for decision-support purposes

BENEFITS

- Time savings: Less manual, human intervention required to translate or generate initial narratives
- Consistency: Narratives generated would be consistent with the same semantic rules
- Self-service: Augment NLG for on-demand insights for senior stakeholders to find answers to their questions when exploring financial information

ADOPTION CONSIDERATION

- Complexity of finance data sources and data quality
- Degree and quality of narrative generation required
- Ease of use by non-developers and F&A specialists
- Pre-built integration or add-ins with business intelligence / visualisation platforms and / or enterprise performance management
- Pricing models vary (per word, volume based, or unlimited / enterprise / application licensing)

Internal Audit

Solution overview:

- Audit Management solutions
- Natural Language Generation (NLG)
- **Data Science, Machine Learning & Advanced Analytics**

Data Science, Machine Learning & Analytics platforms offers a mixture of basic and advanced functionality essential incl. data ingestion, data preparation, data exploration, and predictive modelling.

FEATURES

- Data filtering, wrangling and manipulation component that helps to prepare data so that it is usable subsequently for analytics
- Visualisation features that help users understand data and better enables decision-making
- Variety on types of analytics / modelling, ranging from advanced descriptive and predictive analytics to machine learning, simulation, optimisation and other forms of advanced analytics

BENEFITS

- Automates more tasks such as complex data preparation/manipulation and thus companies can focus on differentiating work
- More custom modelling that fits business needs and business nuances that may not be sufficient under pre-built models within EPM tools

ADOPTION CONSIDERATION

- Scalability based on users, data and complexity of organisation
- Ease and cost of implementation, use and maintenance
- Whether customisation of financial models would be required by the organisation
- Data scientists skillset within the company who would be able to fully leverage the data science platforms (avoid paying for capabilities that cannot be used / will not be used)



6.3 Skills library



Appendix 6.3 Skills library

The skills library contains the definitions of 105 technical skills and competencies (TSC) and 16 critical core skills (CCS) identified in the Skills Framework for Accountancy, and 7 additional TSC and 3 additional CCS identified in this study.

112 TSC are segmented into 7 categories, namely Assurance, Business Management, Digital and Data Management, Financial and Transaction Management, Internal Audit, Risk, Compliance and Governance, and Taxation. 19 CCS are divided into 3 categories namely, Thinking Critically, Interacting with Others, and Staying Relevant.

Figure 6.3 : Illustration of skills library

Glossary definition of technical skills and competencies (TSC)		
1 Category	2 Technical skills and competencies (TSC)	3 Skills Definition
Assurance	Audit Framework	Develop quality assurance frameworks to meet regulatory requirements
	Auditing and Assurance Standards	Use applicable auditing and assurance standards to carry out auditing and assurance activities
	Auditor Independence	Possess the state of mind and appearance whereby integrity, objectivity or professional scepticism are not compromised
	Engagement Completion & Reporting	Perform procedures involved prior to expressing an opinion
	Engagement Execution	Perform assurance procedures in accordance with the engagement plans
	Engagement Planning	Develop engagement plans which describe the nature, timing and extent of planned engagement procedures
	Engagement Quality Control	Set up control procedures for an assurance engagement
	Engagement Review	Review evidence obtained, procedures performed, and conclusions reached for the engagement
Business Management	Benchmarking	Compare organisational performance to other organisations and industries
	Business Acumen	Assess the impact of changes in the business organisation, environment, and industry
	Business Continuity Management	Develop business continuity strategies to manage risks in response to disruptive events
	Business Development	Develop and implement plans to enhance organisation's business performance and growth
	Business Innovation and Improvement	Transform businesses through innovation and embrace changes to drive improvements
	Business Negotiation	Conduct negotiations to establish win-win outcomes for the organisation
	Business Planning	Design and formulate business plans to achieve business goals
	Business Process Analysis	Analyse business processes for improvement, optimisation and efficiency
	Business Process Management	Manage and optimise an organisation's business processes for efficiency and effectiveness
	Change Management	Manage changes and developments within teams and organisation
	Conflict Management	Build consensus, maintain the best interests of the organisation and utilise knowledge of conflict management techniques to diffuse tensions and achieve resolutions effectively
Corporate and Business Law	Respond to the changes in business laws and regulations	
Disruption Management	Lead radical changes in industry or business strategies involving new products or services that create new markets and challenge the incumbent business models	
Finance Business Partnering	Generate finance-related insights to support the business in a strategic manner	

The skills library consists of:

- 1 The category of the TSC or CCS;
- 2 The description of the TSC or CCS; and
- 3 The definition of the TSC or CCS

Skills library

- Technical skills and competencies (TSC) 183
- Critical core skills (CCS) 195



Glossary definition of technical skills and competencies (TSC)

Category	Technical skills and competencies (TSC)	Skills definition
Assurance	Audit Framework	Develop quality assurance frameworks to meet regulatory requirements
	Auditing and Assurance Standards	Use applicable auditing and assurance standards to carry out auditing and assurance activities
	Auditor Independence	Possess the state of mind and appearance whereby integrity, objectivity or professional scepticism are not compromised
	Engagement Completion & Reporting	Perform procedures involved prior to expressing an opinion
	Engagement Execution	Perform assurance procedures in accordance with the engagement plans
	Engagement Planning	Develop engagement plans which describe the nature, timing and extent of planned engagement procedures
	Engagement Quality Control	Set up control procedures for an assurance engagement
	Engagement Review	Review evidence obtained, procedures performed, and conclusions reached for the engagement
Business Management	Benchmarking	Compare organisational performance to other organisations and industries
	Business Acumen	Assess the impact of changes in the business organisation, environment, and industry
	Business Continuity Management	Develop business continuity strategies to manage risks in response to disruptive events
	Business Development	Develop and implement plans to enhance organisation's business performance and growth
	Business Innovation and Improvement	Transform businesses through innovation and embrace changes to drive improvements
	Business Negotiation	Conduct negotiations to establish win-win outcomes for the organisation
	Business Planning	Design and formulate business plans to achieve business goals
	Business Process Analysis	Analyse business processes for improvement, optimisation and efficiency
	Business Process Management	Manage and optimise an organisation's business processes for efficiency and effectiveness
	Change Management	Manage changes and developments within teams and organisation
	Conflict Management	Build consensus, maintain the best interests of the organisation and utilise knowledge of conflict management techniques to diffuse tensions and achieve resolutions effectively
	Corporate and Business Law	Respond to the changes in business laws and regulations
	Disruption Management	Lead radical changes in industry or business strategies involving new products or services that create new markets and challenge the incumbent business models
	Finance Business Partnering	Generate finance-related insights to support the business in a strategic manner

Glossary definition of technical skills and competencies (TSC)

Category	Technical skills and competencies (TSC)	Skills definition
Business Management	Financial Crime Laws and Regulations	Utilise laws and regulations governing white-collar crime in the process of forensic services
	Information Gathering and Analysis	Collect and analyse information and data to obtain business insights for business activities
	Litigation Support	Provide evidence and testimonies to be used in litigation
	Macroeconomic Analysis	Evaluate impact of external factors on the organisation
	Management Decision Making	Make financial decisions based on management reports
	Non-Financial Reporting	Prepare sustainability and integrated reports of the organisation
	Performance Management	Measure and manage business performance
	Professional Scepticism and Judgment	Assess evidence to make informed decisions about the appropriate course of action
	Professional Standards	Advocate standards development to promote public confidence and build trust in society
	Project Execution and Control	Implement projects in accordance with project plan and deliverables, and monitoring and controlling processes performed to influence project outcomes
	Project Feasibility	Study project feasibility to meet project outcomes and objectives
	Project Management	Execute projects by managing stakeholder engagement, resources, budgets and resolving problems
	Stakeholder Management	Manage stakeholder expectations to ensure continuous levels of engagement by identifying and addressing needs, setting service standards and resolving issues in accordance with organisational procedures
	Systems Thinking	Understand complexity of cause-and-effect relationships of systems and processes across the organisation, as well as evaluate systems based on the value-creation and contribution to specific issues
	Business, Product and Portfolio Acumen ¹	Understand the organisation's business including its products and portfolios principles and strategies to develop and implement strategic plans to transform and grow the business; able to measure and evaluate investment scenarios portfolio
Vendor Relationship Management ¹	Manage vendor activities including identifying suitable vendors to support Finance (incl. outsourcing), and ensuring vendors fulfil their service level agreements and KPIs; Leverages extensive negotiation and conflict management abilities to create favourable contracts (for example cost effective, timely, high quality solutions)	

1. Additional TSC skills appended referencing to Deloitte's Finance Maturity Model and analysis based on job posting data across five-year horizon

Glossary definition of technical skills and competencies (TSC)

Category	Technical skills and competencies (TSC)	Skills definition
Business Management	Agile Project Delivery ¹	Understanding of agile project management principles incl. ability to self-organise, collaborate with cross-functional teams for project delivery and / or systems implementation projects and iterative / continuous feedback loop
	Cross-Functional Acumen ⁽⁴⁾	Ability to connect with and understand nuances of other functions outside finance and / or business units to support financial planning, budgeting, forecasting and strategy / investment decisions of its business partners (e.g. Sales Operations & Planning / Supply Chain)
Digital and Data Management	Accounting and Tax Systems	Implement accounting or tax software systems in the organisation
	Cyber Security	Develop awareness of cyber security threats
	Data Analytics	Apply data extraction and analytic methods to analyse and evaluate financial and non-financial information and provide business intelligence
	Data Governance	Develop, implement and practice guidelines, laws, and regulations across the organisation for the handling of data at various stages in its lifecycle as well as the provision of advice on proper data handling and resolution of data breaches
	Data Storytelling and Visualisation	Combine data insights, dynamic visual displays with illustrative and interactive graphics and narrative representative formats to present patterns, trends, meaning, messages and analytical insights from data or new concepts in a strategic manner
	Digital Forensics	Use forensic technologies in the delivery of forensic services
	Digital Technology Adoption and Innovation	Develop digital technology enhancement projects to support the organisational objectives
	Digital Technology Environment Scanning	Evaluate the digital technology environment and the impact of digital technology development
	Evidence Management	Employ forensic research methodologies to collect and manage data
	Forensic Data Analytics	Interpret and analyse data using statistical techniques to uncover trends and patterns in finance and accounting documentation which are indicative of fraudulent activities
	Infocomm Security and Data Privacy	Develop awareness of various risks related to Infocomm Technology (IT), information security and data privacy
	Programming and Coding	Develop technical capabilities to understand, design and write instructions to be processed by computers as software programmes to achieve desired outcomes
	Digital Problem Solving ¹	Ability to leverage existing digital tools to modify, refine and integrate new information into existing body of knowledge to innovate business processes and products. Problem solving via modern digital toolkits should be first priority and leveraged as much as possible, rather than defaulting into traditional productivity tools

1. Additional TSC skills appended referencing to Deloitte's Finance Maturity Model and analysis based on job posting data across five-year horizon

Glossary definition of technical skills and competencies (TSC)

Category	Technical skills and competencies (TSC)	Skills definition
Digital and Data Management	User Centric Approach and Testing	Ability to manage, plan and provide feedback on user acceptance testing results against agreed functional and non-functional requirements. This also includes continuous collaboration with functional Finance process stakeholders to identify their needs for specific system implementations, and working with IT stakeholders
Financial and Transaction Management	Accounting Standards	Apply financial reporting framework prescribed by the relevant governing body to ensure all transactions meet regulatory requirements
	Capital Expenditure and Investment Evaluation	Assess investments based on alignment with strategies, affordability, acceptable returns and prioritisation of options
	Capital Raising	Acquire or raise capital and funds to carry out organisational goals and objectives
	Cash Flow Management	Manage and maintain business units' cash flow by consolidating data and performing analysis on cash inflow and outflow
	Claims Management	Coordinate and carry out timely and accurate adjudication, validation and disbursement of claims proceeds to creditors
	Cost Management	Analyse, plan and manage costs for cost efficiency and expense reduction
	Credit Risk Management	Establishing the organisation's financial and credit policies and frameworks to identify, assess and manage the organisation's credit risk exposure
	Debt Restructuring	Assess processes to address risk of default on existing debt or evaluate opportunities to take advantage of lower available interest rates through debt restructuring
	Financial Analysis	Analyse the financial statements and data to provide insights about the financial performance and position of the organisation over time
	Financial Closing	Carry out month-end closing and reconciliation to ensure financial records are maintained properly
	Financial Management	Ensure healthy finance to aid business growth and operations
	Financial Modelling	Develop financial models and valuation models to arrive at a valuation conclusion
	Financial Planning	Evaluate and develop budget in line with organisation's strategies and plans
	Financial Reporting Quality	Prepare general-purpose financial statements and disclosure notes in accordance with applicable financial reporting framework
	Financial Reporting	Establish internal control framework for audit purposes
Financial Statements Analysis	Analyse financial statements in accordance with the applicable frameworks	
Financial Transactions	Prepare business documentation and cash balances	
Group Accounting and Consolidation	Apply group accounting and consolidation of separate organisations to create a single entity	

1. Additional TSC skills appended referencing to Deloitte's Finance Maturity Model and analysis based on job posting data across five-year horizon

Glossary definition of technical skills and competencies (TSC)

Category	Technical skills and competencies (TSC)	Skills definition
Financial and Transaction Management	Post-deal Integration Management	Ensure all aspects of post-merger integration activities are well-coordinated, to achieve the desired synergies and declared business goals
	Restructuring Insolvency Advisory	Advise on restructuring and insolvency processes to ensure statutory deadlines are met and review the treatment of debtors to align with insolvency proceedings
	Transaction Due Diligence	Perform reviews to verify details on investors, investments, products and deals prior to finalising transactions
	Transactional Accounting	Apply transactional accounting to record financial events
	Treasury Management	Balance and optimise the organisation's cash needs and cash balances and determine the optimal financing of working capital
	Valuation Approaches and Methodologies	Develop valuation reports for the valuation engagement
	Valuation Conclusion and Reporting	Perform valuation of different classes of interests
	Valuation of Different Classes of Interest	Research and analyse information to arrive at a valuation conclusion
	Valuation Research and Analysis	Perform valuation for business and financial assets for deal structuring
Internal Audit	Due Professional Care	Apply care and skill expected of a prudent and competent internal auditor
	Internal Audit Engagement Execution	Execute and review internal audit engagements, document and communicate findings in accordance with the International Professional Practices Framework
	Internal Audit Engagement Planning	Determine priorities of the internal audit and plan the timing and scope of audit procedures and resources
	Internal Audit Function Management	Develop and manage the Internal Audit function
	Internal Audit Quality Assurance	Develop the Quality Assurance and Improvement Programme
Risk, Compliance & Governance	Scenario Planning and Analysis ¹	Define problem statements and analyse data to simulate impact to business operations and propose suitable follow-up actions to sustain operations and achieve business objectives
	Audit Compliance	Ensure compliance with corporate policies and guidelines
	Enterprise Risk Management	Assess the adequacy of risk management process and frameworks
	Environment and Social Governance	Understand the latest industry and/or client standards regarding Environment and Social Governance (ESG) and undertake ESG research activities
	Fraud Detection and Prevention	Perform review of internal controls and systems to detect and prevent potential fraud
	Fraud Investigation Planning and Execution	Perform review of internal controls and systems to determine if fraudulent activities have occurred
	Fraud Risk Management	Evaluate organisation's potential for occurrence of fraud and develop fraud risk awareness throughout the organisation

1. Additional TSC skills appended referencing to Skills Framework for Financial Services

Glossary definition of technical skills and competencies (TSC)

Category	Technical skills and competencies (TSC)	Skills definition
Risk, Compliance and Governance	Governance	Evaluate and improve governance practices in the organisation
	Internal Controls	Evaluate effectiveness and efficiency of internal controls in the organisation
	Professional and Business Ethics	Foster strong ethical standards and resolve ethical conflicts in accordance with the relevant principles and processes
	Regulatory Compliance	Comply with policies, procedures, and external regulations
	Regulatory Risk Assessment	Analyse the impact of latest global regulatory developments and relevant laws on overall audit and/or engagement strategies
	Regulatory Strategy	Align regulatory activities with business strategies
	Risk Advisory	Provide customised risk management advice to organisations to manage and optimise risks
	Risk Assessment	Perform assessment of risks, including fraud risks, through understanding the client's business
	Risk Management	Apply organisational policies and procedures to manage and control financial and non-financial risks
	Risk Appetite and Goal Setting	Determine and manage the organisation's risk appetite in alignment with strategic objectives
Taxation	Tax Advisory	Apply relevant and holistic tax advisories for better strategic management
	Tax Compliance	Evaluate tax computations and systems to ensure compliance with statutory tax obligations
	Tax Computation	Compute Goods and Services Tax, and tax liabilities
	Tax Controversy Management	Respond to tax queries from the authorities with completeness, relevance and accuracy
	Tax Implications	Assess tax implication of changes in tax laws
	Tax Risk Management	Review tax risk frameworks to ensure risks are minimized and managed properly
	Taxation Laws	Analyse impact of evolving tax legislation on business environment
	Transfer Pricing	Determine the price for goods and services at which different divisions of a company transact with each other

Proficiency ruler for technical skills and competencies (TSC)

Level	Responsibility (degree of supervision and accountability)	Autonomy (degree of decision-making)	Complexity (degree or difficulty of situations and tasks)	Knowledge and abilities (required to support work as described under responsibility, autonomy and complexity)
6	Accountable for significant area of work, strategy or overall direction	Empower to chart direction and practices within and outside of work (including professional field/ community), to achieve/ exceed work results	Complex	<ul style="list-style-type: none"> • Synthesise knowledge issues in a field of work and the interface between different fields, and create new forms of knowledge • Employ advanced skills, to solve critical problems and formulate new structures, and/or to redefine existing knowledge or professional practice • Demonstrate exemplary ability to innovate, and formulate ideas and structures
5	Accountable for Achieving assigned objectives, decisions made by self and others	Provide leadership to achieve desired work results; Manage resources, set milestones and drive work	Complex	<ul style="list-style-type: none"> • Evaluate factual and advanced conceptual knowledge within a field of work, involving critical understanding of theories and principles • Select and apply an advanced range of cognitive and technical skills, demonstrating mastery and innovation, to devise solutions to solve complex and unpredictable problems in a specialised field of work • Manage and drive complex work activities
4	Work under broad direction Hold accountability for performance of self and others	Exercise judgment; Adapt and influence to achieve work performance	Less routine	<ul style="list-style-type: none"> • Evaluate and develop factual and conceptual knowledge within a field of work • Select and apply a range of cognitive and technical skills to solve non-routine/ abstract problems • Manage work activities which may be unpredictable • Facilitate the implementation of innovation

Proficiency ruler for technical skills and competencies (TSC)

Level	Responsibility (degree of supervision and accountability)	Autonomy (degree of decision-making)	Complexity (degree or difficulty of situations and tasks)	Knowledge and abilities (required to support work as described under responsibility, autonomy and complexity)
3	<p>Work under broad direction</p> <p>May hold some accountability for performance of others, in addition to self</p>	<p>Use discretion in identifying and responding to issues, work with others and contribute to work performance</p>	Less routine	<ul style="list-style-type: none"> Apply relevant procedural and conceptual knowledge, and skills to perform differentiated work activities and manage changes Able to collaborate with others to identify value-adding opportunities
2	<p>Work with some supervision</p> <p>Accountable for a broader set of tasks assigned</p>	<p>Use limited discretion in resolving issues or enquiries. Work without frequently looking to others for guidance</p>	Routine	<ul style="list-style-type: none"> Understand and apply factual and procedural knowledge in a field of work Apply basic cognitive and technical skills to carry out defined tasks and to solve routine problems using simple procedures and tools Present ideas and improve work
1	<p>Work under direct supervision</p> <p>Accountable for tasks assigned</p>	<p>Minimal discretion required. Expected to seek guidance</p>	Routine	<ul style="list-style-type: none"> Evaluate and develop factual and conceptual knowledge within a field of work Select and apply a range of cognitive and technical skills to solve non-routine/ abstract problems Manage work activities which may be unpredictable Facilitate the implementation of innovation

Additional recommended technical skills and competencies (TSC)

The following are descriptions of additional recommended skills and proficiencies identified in addition to the current Skills Framework for Accountancy:

TSC category	Business Management					
TSC	Business, Product and Portfolio Acumen					
TSC description	Understand the organisation's business including its products and portfolios principles and strategies to develop and implement strategic plans to transform and grow the business; able to measure and evaluate investment scenarios portfolio					
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				High level understanding of the current business model, the products and services offered	Evaluate and measure investment scenarios across products, services and decisions	Lead advisory from a financial perspective and challenge investment decisions across products, services

TSC category	Business Management					
TSC	Agile Project Delivery					
TSC description	Understanding of agile project management principles incl. ability to self-organise, collaborate with cross-functional teams for project delivery and / or systems implementation projects and iterative / continuous feedback loop					
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				Understanding of the specific business units and functions that are directly being supported	Understanding of end-to-end value chain and interdependencies across multiple business units and functions to support decision-making of business partners	

Additional recommended technical skills and competencies (TSC)

The following are descriptions of additional recommended skills and proficiencies identified in addition to the current Skills Framework for Accountancy:

TSC category		Business Management					
TSC	Vendor Relationship Management						
TSC description	Manage vendor activities including identifying suitable vendors to support Finance (incl. outsourcing), and ensuring vendors fulfil their service level agreements and KPIs; Leverages extensive negotiation and conflict management abilities to create favourable contracts (for example cost effective, timely, high quality solutions)						
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
			Monitor service quality through regular service reviews with Finance vendors / service providers incl. tracking and follow up service escalations and action items	Hold regular service reviews and communicate with Finance vendors to resolve service escalations incl. communicating Finance stakeholders' feedbacks to vendors	Manage Finance vendor contract negotiations, renewal and terminations incl. working with procurement and legal on contractual matters. Manage vendor risk assessment (incl. BCP)	Lead and evaluate Finance outsourcing / offshoring and service management strategy incl. investment and contract decisions (incl. performance based credit / penalty decisions per contract terms)	

TSC category		Business Management					
TSC	Cross-Functional Acumen						
TSC description	Ability to connect with and understand nuances of other functions outside finance and / or business units to support financial planning, budgeting, forecasting and strategy / investment decisions of its business partners (e.g. Sales Operations & Planning / Supply Chain)						
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
				Understanding of agile values and principles, incl. ability to manage projects delivered under agile methodology	Evaluate, advocate and decide appropriate project methodologies to leverage according to initiatives (e.g. waterfall vs. agile method)		

Additional recommended technical skills and competencies (TSC)

The following are descriptions of additional recommended skills and proficiencies identified in addition to the current Skills Framework for Accountancy:

TSC category		Risk Management, Governance and Regulatory Compliance					
TSC	Scenario Planning and Analysis (existing SFw for Financial Services)						
TSC description	Define problem statements and analyse data to simulate impact to business operations and propose suitable follow-up actions to sustain operations and achieve business objectives						
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
				Interpret scenario results and conduct preliminary analyses to measure scenario outcomes and identify interdependencies	Analyse data to test problems statements and scenarios to determine impact on business operations and objectives	Establish roles and responsibilities in the scenario planning processes, and develop and evaluate plausible scenario outcomes for implications to the business	

TSC category		Digital and Data Management					
TSC	Digital Problem Solving						
TSC description	Ability to leverage existing digital tools to modify, refine and integrate new information into existing body of knowledge to innovate business processes and products. Problem solving via modern digital toolkits should be first priority and leveraged as much as possible, rather than defaulting into traditional productivity tools						
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
			Use existing digital tools to resolve technical problems within current scope of work	Use existing digital tools to innovate existing analysis, streamline business processes and / or create body of knowledge for Finance and business partners			

Additional recommended technical skills and competencies (TSC)

The following are descriptions of additional recommended skills and proficiencies identified in addition to the current Skills Framework for Accountancy:

TSC category	Digital and Data Management					
TSC	User Centric Approach and Testing					
TSC description	Ability to manage, plan and provide feedback on user acceptance testing results against agreed functional and non-functional requirements. This also includes continuous collaboration with functional Finance process stakeholders to identify their needs for specific system implementations, and working with IT stakeholders					
TSC proficiency description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			Use existing digital tools to resolve technical problems within current scope of work	Use existing digital tools to innovate existing analysis, streamline business processes and / or create body of knowledge for Finance and business partners		

Glossary definition of critical core skills (CCS)

Category	Critical core skills (CCS)	Skills definition
Thinking Critically	Creative Thinking	Adopt diverse perspectives in combining ideas or information and making connections between different fields to create different ideas, improvements and solutions
	Decision Making	Choose a course of action from various alternatives using a reasoned process to achieve intended goals.
	Problem Solving	Generate feasible and efficient solutions to solve problems and capitalise on new opportunities.
	Sense Making	Organise and analyse data and information accurately to identify relationships and detect patterns and trends to gain insights for decision-making.
	Transdisciplinary Thinking	Understanding of concepts across multiple disciplines, with the capacity to synthesise the knowledge and insights to guide decisions and foster cooperation.
	Critical Finance Thinking ¹	Defines and uses logical and innovative approaches to evaluate and deconstruct accounting and business situations. Identifies alternatives, compiles and links analytical information, experience and insights using quantitative and qualitative reasoning skills. Identifies alternatives and proposes recommendations based upon potential business impacts. Drives effective decision-making processes.
Interacting with Others	Building Inclusivity	Work well with people from different ethnic, social, cultural and educational backgrounds and understand the concerns and interests of diverse work groups.
	Collaboration	Manage relationships efficiently and communicate with others effectively to achieve mutual consensus and outcomes.
	Communication	Convey and exchange thoughts, ideas and information effectively through various mediums and approaches.
	Customer Orientation	Identify the needs of customers, both internal and external, to deliver an effective customer experience
	Developing People	Help others to learn and develop their capabilities to enhance their performance and achieve personal or professional goals.
	Influence	Influence behaviours, beliefs or attitudes in order to achieve desired outcomes and solutions
	Process Mindset ¹	Demonstrates ability to determine the best process to achieve goals using continuous improvement principles and creative thinking. Knows how to organise people and activities. Knows what to measure and how to measure it. Can see opportunities for synergy, integration and improvement. Can simplify complex processes and achieve more with fewer resources. Understands how each transaction is impacted by other sources of information and meets deadlines.

1. Additional CCS skills appended referencing to Deloitte's Finance Maturity Model and analysis based on job posting data across five-year horizon

Glossary definition of critical core skills (CCS)

Category	Critical core skills (CCS)	Skills definition
Staying Relevant	Adaptability	Exercise flexibility in behaviours or approaches to respond to changes and evolving contexts
	Digital Fluency	Use ICT tools, equipment and software to create, evaluate and share information digitally with others.
	Global Perspective	Awareness of diversity across global cultures and markets. Seek opportunities to adopt successful practices and ideas.
	Learning Agility	Seek out opportunities to enhance one's knowledge and skills. Access and acquire new knowledge and skills actively for continual learning.
	Self Management	Take ownership of managing one's personal effectiveness, personal brand and holistic physical, mental, emotional and social well-being
	Thinks and Acts Strategically ¹	With an understanding of the organisation's vision, thinks broadly and on long time horizons about future possibilities; understands implications of strategic decisions

1. Additional CCS skills appended referencing to Deloitte's Finance Maturity Model and analysis based on job posting data across five-year horizon

Proficiency ruler for critical core skills (CCS)

Proficiency level	Responsibility	Autonomy	Complexity	Knowledge & abilities	Typical sample action words
Advanced	Accountable for significant area of work, strategy or overall direction	Empower to chart direction and practices to exceed objectives/ results	Complex	<p>Synthesise breadth and depth of knowledge to influence thinking, present new ideas and push boundaries</p> <p>Drive innovation and solution development to address complex issues or problems</p> <p>Role model the competency across complex, varied situations</p>	Direct, Evaluate, Assess, Guide, Formulate, Drive, Design, Synchronise, Establish, Lead
Intermediate	<p>Work under broad direction</p> <p>Accountable for performance of self and others</p>	<p>Exercise judgment</p> <p>Adapt and influence stakeholders to achieve work performance</p>	Less Routine	<p>Evaluate diverse information and demonstrate advanced knowledge within a broad work area</p> <p>Facilitate the implementation of innovation and integrate ideas to solve less routine problems</p> <p>Share knowledge, guiding others where required</p>	Plan, Develop, Monitor, Analyse, Review, Implement, Recommend
Basic	<p>Work under supervision and guidance</p> <p>Accountable for a set of broader tasks or performance of self</p>	<p>Use limited discretion to respond to issues</p> <p>Work with others to contribute to work performance</p>	Routine	<p>Apply understanding and knowledge when performing differentiated work activities</p> <p>Follow instructions and guidelines to carry out activities and solve routine problems</p>	Consolidate, Conduct, Collate, Operate, Support, Prepare, Perform, Deploy



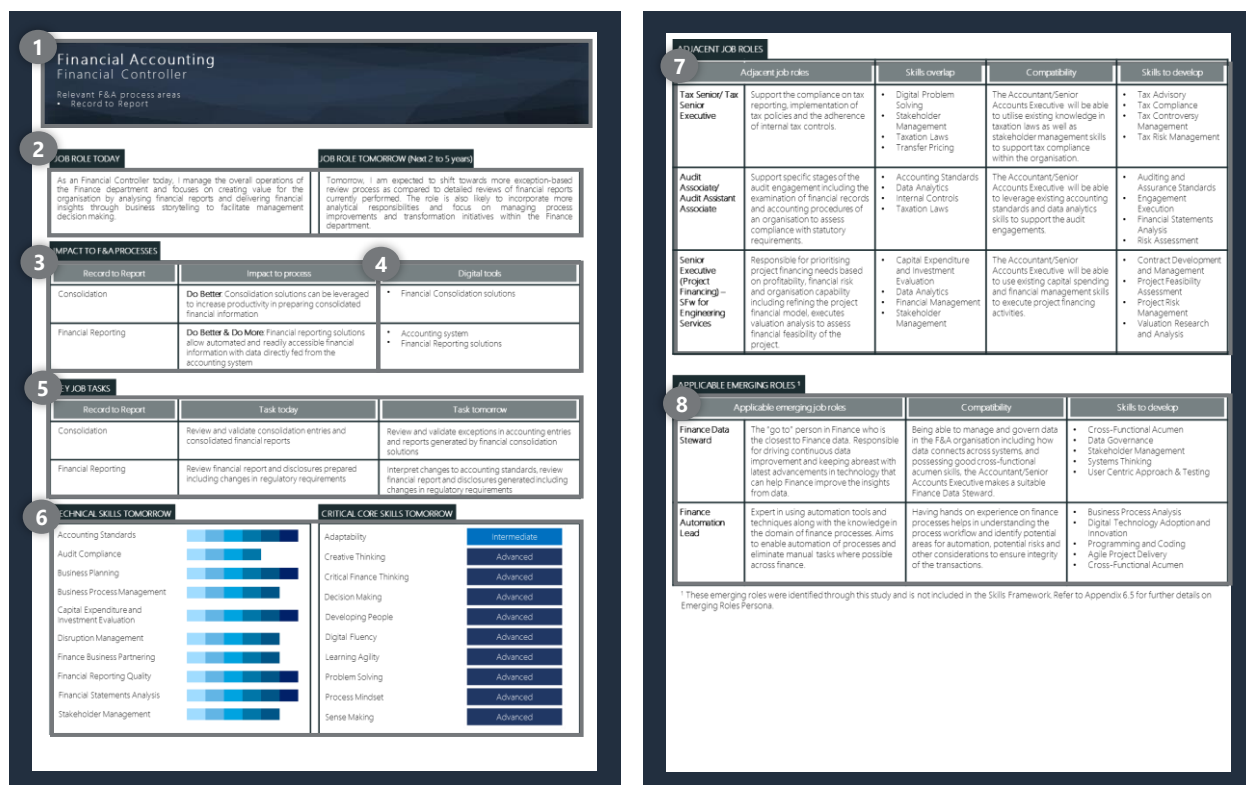
6.4 Job canvas



Appendix 6.4 Job canvas

In this section, existing Finance & Accounting (F&A) job roles are presented in job canvasses to illustrate the evolution of these roles as a result of the megatrends.

Figure 6.4 : illustration of job canvas



Each job canvas will:

- 1 Outline the relevant F&A process areas of the job role impacted;
- 2 Describe how the job role today is expected to evolve tomorrow;
- 3 Hypothesise how each process area can Do Better, Do More and/or Do Different (see Slide 201 for definition);
- 4 Identify relevant digital tools to help enable F&A tasks in the future;
- 5 Illustrate the changes in key job tasks between today and tomorrow;
- 6 Skills (both technical and critical core skills) required by the role tomorrow;

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



- 7 Propose adjacent job roles F&A professionals can transition to; and
- 8 Propose emerging job roles F&A professionals can transition to

Job canvas

- **Financial Accounting**
 - Accounts Executive/Accounts Assistant 202
 - Accountant/Senior Accounts Executive 205
 - Finance Manager 209
 - Financial Controller 214

- **Management Accounting**
 - Accounting Executive 217
 - Management Accountant/Financial Planning and Analysis Analyst/
Business Analyst 220
 - Financial Planning and Analysis Manager 224
 - Business Controller/ Finance Director 228

- **Tax**
 - Tax Associate / Tax Executive 231
 - Tax Senior / Tax Senior Executive 233
 - Tax Manager 236
 - Tax Director / Tax Vice President / Head of Tax 239

- **Treasury**
 - Treasury Executive / Treasury Senior Executive 241
 - Treasury Manager 244
 - Head of Treasury 247

- **Internal Audit**
 - Senior Internal Auditor/Internal Auditor 250
 - Internal Audit Assistant Manager 253
 - Internal Audit Senior Manager/ Internal Audit Manager 256
 - Chief Audit Executive/ Head of Internal Audit 259

- **In-house F&A Leader**
 - Chief Financial Officer 262



Do Better, Do More & Do Different

**DO
BETTER**

Ability to deliver the "Same task with the Same Outcomes" more efficiently

**DO
MORE**

Ability to deliver the "Same task with Enhanced Outcomes" more effectively

**DO
DIFFERENT**

Ability to deliver "New tasks with Enhanced Outcomes" with new capabilities



Financial Accounting

Accounts Executive/ Accounts Assistant

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

JOB ROLE TODAY

As an Accounts Executive/ Accounts Assistant today, I support the finance department in carrying out the responsibilities specific to accounts receivable, accounts payable, tax filing, data compilation, billing, payroll or other accounting tasks.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, tasks traditionally performed by me are likely to be automated. As a result, I will be expected to shift my focus towards exception management tasks.

IMPACT TO F&A PROCESSES

Procure to Pay	Impact to process	Digital tools
Invoice Entry	Do Better: Digitally created invoices automatically captured in accounting systems can be used to eliminate manual efforts of inputting invoices details into the accounting system	<ul style="list-style-type: none"> • Accounting System • InvoiceNow (e-invoice) • Vendor Portal
Invoice Validation	Do Better & Do More: To improve efficiency and accuracy by applying information matching capabilities to automate invoice validation	<ul style="list-style-type: none"> • Accounting System
Payments	Do Better: Adoption of accounting systems with integrated banking services can help eliminate manual efforts in preparing and reconciling payments	<ul style="list-style-type: none"> • Accounting System with host-to-host bank connectivity
Travel and Expense	Impact to process	Digital tools
Expense Audit	Do Different: Analytics capabilities can be used to analyse claims and payment data to identify trends and potential risks	<ul style="list-style-type: none"> • T&E system with AI and ML capabilities, integrated with accounting system
Order to Cash	Impact to process	Digital tools
Invoice Creation	Do Better & Do More: To increase productivity and improve quality, technologies can be leveraged to automatically create billing accounting entries	<ul style="list-style-type: none"> • Billing management solutions • Accounting system • InvoiceNow (e-invoice)
Receiving Payments	Do Better: To enhance productivity, electronic banking services can be used to capture transactions	<ul style="list-style-type: none"> • Electronic Fund Transfer
Applying Payments	Do Better & Do More: To increase productivity and improve quality, information matching technologies can be utilised to automate the process	<ul style="list-style-type: none"> • Accounting System • Reconciliation solutions
Analysis & Collection	Do Different: Analytics tools and/or techniques may be used to identify signs of default to trigger collection management processes	<ul style="list-style-type: none"> • Accounting system • Collection management solutions • Data science and advanced analytics
Record to Report	Impact to process	Digital tools
Fixed Asset Accounting	Do Better: To increase efficiency, Enterprise Asset Management systems or Accounting systems can be used to automate fixed asset accounting entries	<ul style="list-style-type: none"> • Accounting systems • Enterprise Asset Management (EAM) solutions
Reconciliation, Journal Entry, Close Management	Do Better & Do More: Productivity and quality can be enhanced by applying financial close solutions to automate reconciliation and journal entry postings	<ul style="list-style-type: none"> • Accounting system • Finance close solution
Consolidation	Do Better: Consolidation solutions can be leveraged to increase productivity in preparing consolidated financial information	<ul style="list-style-type: none"> • Financial Consolidation solutions

Financial Accounting

Accounts Executive/ Accounts Assistant

- Relevant F&A process areas
- Procure to Pay
 - Travel and Expense
 - Order to Cash
 - Record to Report

KEY JOB TASKS

Procure to Pay	Task today	Task tomorrow
Invoice Entry	Record transactions relating to payables in the accounting system	N/A – Manual efforts in inputting invoices are expected to be minimised significantly with digitally created invoices on self-service online platforms
Invoice Validation	Match and validate invoices for payment	N/A – Manual efforts to match and validate invoice details are expected to be minimised significantly with automated reconciliation technologies
Payments	Prepare payment proposal, process cash or cheques for payment, and reconcile payments to invoices	N/A – Manual efforts to prepare and reconcile payments are expected to be minimised significantly with system generated payment proposals and integrated banking services
Travel and Expense	Task today	Task tomorrow
Expense Audit	Audit transactions relating to expense reimbursement to ensure adherence to T&E policies	N/A – Manual efforts to audit expense reimbursements are expected to be minimised significantly with the use of workflow technologies and advanced analytics-powered T&E systems
Order to Cash	Task today	Task tomorrow
Invoice Creation	Record transactions relating to receivables in the accounting system	N/A – Manual efforts in creating invoices are expected to be minimised significantly with digitally created invoices on billing systems
Receiving Payments	Collect payments	Review payments from online bank statement(s)
Applying Payments	Match and validate collections	Verify collections matched in accounting system
Analysis & Collection	Prepare AR reports and analysis, and perform collection management process	Review potential risks to AR collections automatically flagged out and initiate collection management processes
Record to Report	Task today	Task tomorrow
Fixed Asset Accounting	Manually record all transactions relating to fixed assets in the accounting system	N/A – Manual efforts in recording fixed asset transactions are expected to be minimised significantly with automated postings executed through Enterprise Asset Management systems or Accounting systems
Reconciliation, Journal Entry, Close Management	Perform reconciliations manually, compute and post journal entries manually	N/A – Manual efforts in performing reconciliations and posting accounting entries are expected to be reduced with automated reconciliation technologies
Consolidation	Aggregate consolidated financial information, compute consolidation entries and prepare consolidated financial reports	N/A – Manual efforts in aggregating and preparing consolidated financial information are expected to be minimised with the use of consolidation solutions

Financial Accounting

Accounts Executive/ Accounts Assistant

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Tax Associate/ Tax Executive	<ul style="list-style-type: none"> • Accounting and Tax Systems • Professional and Business Ethics • Taxation Laws • Transfer Pricing 	The Accounts Executive/ Accounts Assistant will be able to use existing knowledge in taxation laws as well as Accounting and Tax system skills to support the delivery of tax services.	<ul style="list-style-type: none"> • Data Storytelling & Visualisation • Tax Advisory • Tax Compliance • Tax Risk Management
Senior Internal Auditor/ Internal Auditor	<ul style="list-style-type: none"> • Business Innovation and Improvement • Data Analytics • Digital Problem Solving • Internal Controls 	The Accounts Executive/ Accounts Assistant will be able to use existing knowledge of internal controls and data analytics skills to support the execution of internal audit engagements.	<ul style="list-style-type: none"> • Cyber Security • Business Process Analysis • Enterprise Risk Management • Fraud Risk Management
Audit Associate/ Audit Assistant Associate	<ul style="list-style-type: none"> • Accounting Standards • Data Analytics • Internal Controls • Taxation Laws 	The Accounts Executive/ Accounts Assistant will be able to leverage existing accounting standards and data analytics skills to support the audit engagements.	<ul style="list-style-type: none"> • Auditing and Assurance Standards • Engagement Execution • Financial Statements Analysis • Risk Assessment

Financial Accounting

Accountant/ Senior Accounts Executive

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

JOB ROLE TODAY

As an Accountant/Senior Accounts Executive today, I am responsible for most, if not all, aspects of accounting and oversees the day-to-day activities of the accounting team including producing timely and accurate financial statements, thus achieving compliance with corporate policies and statutory requirements.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift towards more exception handling tasks as compared to detailed reviews of transactions and/or financial reports currently performed. I am also expected to focus more on driving business process improvements and transformation initiatives within the Finance department.

IMPACT TO F&A PROCESSES

Procure to Pay	Impact to process	Digital tools
Invoice Entry	Do Better: Digitally created invoices automatically captured in accounting systems can be used to eliminate manual efforts of inputting invoices details into the accounting system	<ul style="list-style-type: none"> • Accounting System • InvoiceNow (e-invoice) • Vendor Portal
Invoice Validation	Do Better & Do More: To improve efficiency and accuracy by applying information matching capabilities to automate invoice validation	<ul style="list-style-type: none"> • Accounting System
Payments	Do Better: Adoption of accounting systems with integrated banking services can help eliminate manual efforts in preparing and reconciling payments	<ul style="list-style-type: none"> • Accounting System with host-to-host bank connectivity
Travel and Expense	Impact to process	Digital tools
Expense Audit	Do Different: Analytics capabilities can be used to analyse claims and payment data to identify trends and potential risks	<ul style="list-style-type: none"> • T&E system with AI and ML capabilities, integrated with accounting system
Order to Cash	Impact to process	Digital tools
Credit Risk Management	Do Different: Incorporate non-financial information in determining customers' risk profile and credit terms, and regularly monitor and update customer credit terms	<ul style="list-style-type: none"> • N/A
Invoice Creation	Do Better & Do More: To increase productivity and improve quality, technologies can be leveraged to automatically create billing accounting entries	<ul style="list-style-type: none"> • Billing management solutions • Accounting system • InvoiceNow (e-invoice)
Applying Payments	Do Better & Do More: To increase productivity and improve quality, information matching technologies can be utilised to automate the process	<ul style="list-style-type: none"> • Accounting System • Reconciliation solutions
Analysis & Collection	Do Different: Analytics tools and/or techniques may be used to identify signs of default to trigger collection management processes	<ul style="list-style-type: none"> • Accounting system • Collection management solutions • Data science and advanced analytics

Financial Accounting

Accountant/ Senior Accounts Executive

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

IMPACT TO F&A PROCESSES (CONT'D)

Record to Report	Impact to process	Digital tools
Fixed Asset Accounting	Do Better: To increase efficiency, Enterprise Asset Management systems or Accounting systems can be used to automate fixed asset accounting entries	<ul style="list-style-type: none"> • Accounting systems • Enterprise Asset Management (EAM) solutions
Reconciliation, Journal Entry, Close Management	Do Better & Do More: Productivity and quality can be enhanced by applying financial close solutions to automate reconciliation and journal entry postings	<ul style="list-style-type: none"> • Accounting system • Finance close solution
Consolidation	Do Better: Consolidation solutions can be leveraged to increase productivity in preparing consolidated financial information	<ul style="list-style-type: none"> • Financial Consolidation solutions
Financial Reporting	Do Better & Do More: Financial reporting solutions allow automated and readily accessible financial information with data directly fed from the accounting system	<ul style="list-style-type: none"> • Accounting system • Financial Reporting solutions

KEY JOB TASKS

Procure to Pay	Task today	Task tomorrow
Invoice Entry	Review and verify transactions relating to payables	N/A – Manual efforts in verifying transactions are expected to be minimised significantly with digitally created invoices on self-service online platforms
Invoice Validation	Review and approve transactions relating to payables	N/A – Manual efforts to review and verify invoice details are expected to be minimised significantly with automated reconciliation technologies
Payments	Review payment proposal	Review exceptions in payment proposal generated through accounting systems and/or banking applications
Travel and Expense	Task today	Task tomorrow
Expense Audit	Review and verify transactions relating to expense reimbursement to ensure adherence to T&E policies	Review and verify exceptions from T&E system to ensure adherence to T&E policies
Order to Cash	Task today	Task tomorrow
Credit Risk Management	Compile customer financial information to determine customer risk profile and credit terms	Determine customers risk profile and credit terms based on financial and non-financial information. Monitor customer activities regularly to update for any changes
Invoice Creation	Review and verify transactions relating to receivables	Review and verify transactions relating to receivables in the accounting system
Applying Payments	Review and verify collections matched and applied to receivables	Review and verify exceptions of unmatched collections
Analysis & Collection	Review and verify AR reports and analysis, and manage collection management process	Review and validate potential risks to AR collections automatically flagged out and manage collection management processes

Financial Accounting

Accountant/ Senior Accounts Executive

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

KEY JOB TASKS (CONT'D)

Record to Report	Task today	Task tomorrow
Fixed Asset Accounting	Review and validate transactions relating to fixed assets in the accounting system	N/A – Manual efforts in reviewing and validating fixed asset transactions are expected to be minimised significantly with automated postings executed through Enterprise Asset Management systems or Accounting systems
Reconciliation, Journal Entry, Close Management	Review and manage close activities and transactions	Review exceptions and manage close activities through the use of accounting system and/or finance close solutions
Consolidation	Review and validate consolidation entries and consolidated financial reports	Review and validate exceptions in accounting entries and reports generated by financial consolidation solutions
Financial Reporting	Collate financial reporting information and prepare financial reports and disclosures	Validate exceptions in financial reports and disclosures generated through accounting systems and/or financial reporting solutions

TECHNICAL SKILLS TOMORROW

Accounting Standards	
Audit Compliance	
Audit Framework	
Digital Problem Solving	
Financial Analysis	
Financial Closing	
Financial Reporting Quality	
Financial Statements Analysis	
Group Accounting and Consolidation	
Macroeconomic Analysis	

CRITICAL CORE SKILLS TOMORROW

Adaptability	Intermediate
Collaboration	Intermediate
Communication	Intermediate
Creative Thinking	Intermediate
Digital Fluency	Intermediate
Learning Agility	Intermediate
Problem Solving	Intermediate
Process Mindset	Intermediate
Sense Making	Intermediate

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

Financial Accounting

Accountant/ Senior Accounts Executive

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Tax Senior/ Tax Senior Executive	Support the compliance on tax reporting, implementation of tax policies and the adherence of internal tax controls.	<ul style="list-style-type: none"> • Digital Problem Solving • Stakeholder Management • Taxation Laws • Transfer Pricing 	The Accountant/Senior Accounts Executive will be able to utilise existing knowledge in taxation laws as well as stakeholder management skills to support tax compliance within the organisation.	<ul style="list-style-type: none"> • Tax Advisory • Tax Compliance • Tax Controversy Management • Tax Risk Management
Audit Associate/ Audit Assistant Associate	Support specific stages of the audit engagement including the examination of financial records and accounting procedures of an organisation to assess compliance with statutory requirements.	<ul style="list-style-type: none"> • Accounting Standards • Data Analytics • Internal Controls • Taxation Laws 	The Accountant/Senior Accounts Executive will be able to leverage existing accounting standards and data analytics skills to support the audit engagements.	<ul style="list-style-type: none"> • Auditing and Assurance Standards • Engagement Execution • Financial Statements Analysis • Risk Assessment
Senior Executive (Project Financing) – SFW for Engineering Services	Responsible for prioritising project financing needs based on profitability, financial risk and organisation capability including refining the project financial model, executes valuation analysis to assess financial feasibility of the project.	<ul style="list-style-type: none"> • Capital Expenditure and Investment Evaluation • Data Analytics • Financial Management • Stakeholder Management 	The Accountant/Senior Accounts Executive will be able to use existing capital spending and financial management skills to execute project financing activities.	<ul style="list-style-type: none"> • Contract Development and Management • Project Feasibility Assessment • Project Risk Management • Valuation Research and Analysis

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Finance Data Steward	The "go to" person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Accountant/Senior Accounts Executive makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Having hands on experience on finance processes helps in understanding the process workflow and identify potential areas for automation, potential risks and other considerations to ensure integrity of the transactions.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Agile Project Delivery • Cross-Functional Acumen

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Financial Accounting

Finance Manager

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

JOB ROLE TODAY

As an Finance Manager today, I am the lead finance business partner for the organisation and have responsibilities covering all aspects of financial management, performance management, financial accounting, budgeting, corporate reporting etc.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift towards more exception-based review process as compared to detailed reviews of financial reports currently performed. I am expected to incorporate more analytical responsibilities and focus on driving process improvements and transformation initiatives within the Finance department.

IMPACT TO F&A PROCESSES

Procure to Pay	Impact to process	Digital tools
Invoice Entry	Do Better: Digitally created invoices automatically captured in accounting systems can be used to eliminate manual efforts of inputting invoices details into the accounting system	<ul style="list-style-type: none"> • Accounting System • InvoiceNow (e-invoice) • Vendor Portal
Invoice Validation	Do Better & Do More: To improve efficiency and accuracy by applying information matching capabilities to automate invoice validation	<ul style="list-style-type: none"> • Accounting System
Payments	Do Better: Adoption of accounting systems with integrated banking services can help eliminate manual efforts in preparing and reconciling payments	<ul style="list-style-type: none"> • Accounting System with host-to-host bank connectivity
Travel and Expense	Impact to process	Digital tools
Expense Audit	Do Different: Analytics capabilities can be used to analyse claims and payment data to identify trends and potential risks	<ul style="list-style-type: none"> • T&E system with AI and ML capabilities, integrated with accounting system
Order to Cash	Impact to process	Digital tools
Credit Risk Management	Do Different: Incorporate non-financial information in determining customers' risk profile and credit terms, and regularly monitor and update customer credit terms	<ul style="list-style-type: none"> • N/A
Invoice Creation	Do Better & Do More: To increase productivity and improve quality, technologies can be leveraged to automatically create billing accounting entries	<ul style="list-style-type: none"> • Billing management solutions • Accounting system • InvoiceNow (e-invoice)
Applying Payments	Do Better & Do More: To increase productivity and improve quality, information matching technologies can be utilised to automate the process	<ul style="list-style-type: none"> • Accounting System • Reconciliation solutions
Analysis & Collection	Do Different: Analytics tools and/or techniques may be used to identify signs of default to trigger collection management processes	<ul style="list-style-type: none"> • Accounting system • Collection management solutions • Data science and advanced analytics

Financial Accounting

Finance Manager

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

IMPACT TO F&A PROCESSES (CONT'D)

Record to Report	Impact to process	Digital tools
Fixed Asset Accounting	Do Better: To increase efficiency, Enterprise Asset Management systems or Accounting systems can be used to automate fixed asset accounting entries	<ul style="list-style-type: none"> • Accounting systems • Enterprise Asset Management (EAM) solutions
Reconciliation, Journal Entry, Close Management	Do Better & Do More: Productivity and quality can be enhanced by applying financial close solutions to automate reconciliation and journal entry postings	<ul style="list-style-type: none"> • Accounting system • Finance close solution
Consolidation	Do Better: Consolidation solutions can be leveraged to increase productivity in preparing consolidated financial information	<ul style="list-style-type: none"> • Financial Consolidation solutions
Financial Reporting	Do Better & Do More: Financial reporting solutions allow automated and readily accessible financial information with data directly fed from the accounting system	<ul style="list-style-type: none"> • Accounting system • Financial Reporting solutions

KEY JOB TASKS

Procure to Pay	Task today	Task tomorrow
Invoice Entry	Review and verify transactions relating to payables	Verify transactions relating to payables in the accounting system
Invoice Validation	Review and approve transactions relating to payables	Review and approve transactions relating to payables through the use of accounting system and/or validation solutions
Payments	Review payment proposal	Review exceptions in payment proposal generated through accounting systems and/or banking applications
Travel and Expense	Task today	Task tomorrow
Expense Audit	Review and verify transactions relating to expense reimbursement to ensure adherence to T&E policies	Review and verify exceptions from T&E system to ensure adherence to T&E policies
Order to Cash	Task today	Task tomorrow
Credit Risk Management	Review and approve credit risk assessment based on customers' financial information	Review and approve credit risk assessment based on financial and non-financial information
Invoice Creation	Review and verify transactions relating to receivables	Review and verify transactions relating to receivables in the accounting system
Applying Payments	Review and verify collections matched and applied to receivables	Review and verify exceptions of unmatched collections
Analysis & Collection	Review and verify AR reports and analysis, and manage collection management process	Review and validate potential risks to AR collections automatically flagged out and manage collection management processes

Financial Accounting Finance Manager

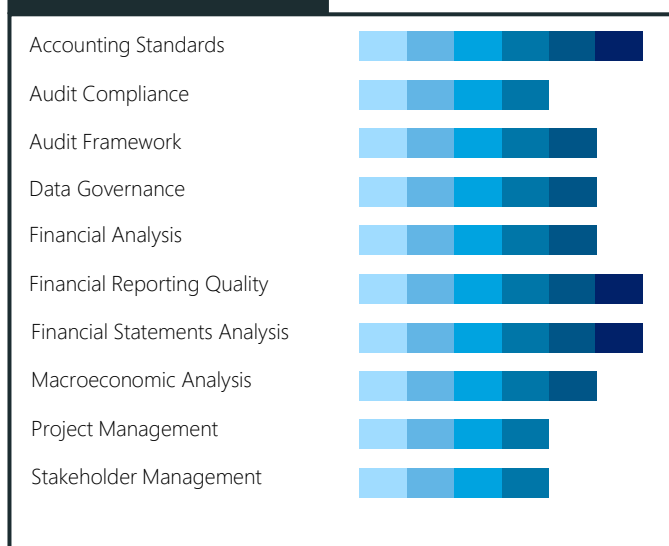
Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

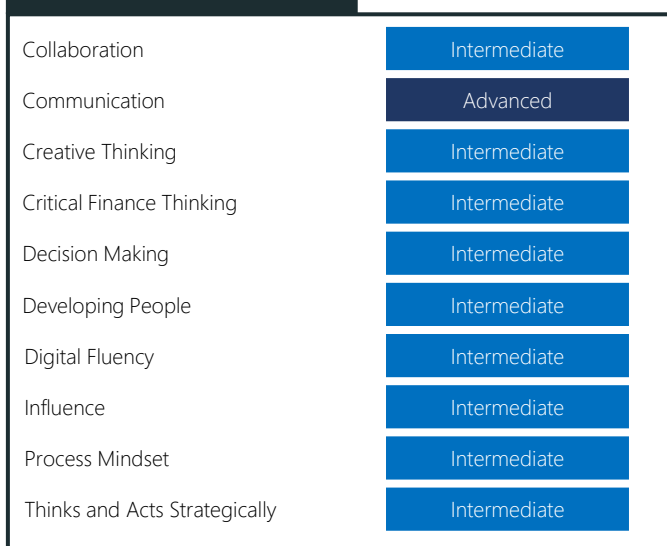
KEY JOB TASKS (CONT'D)

Record to Report	Task today	Task tomorrow
Fixed Asset Accounting	Review and validate transactions relating to fixed assets in the accounting system	Review and validate transactions automatically posted in the accounting system
Reconciliation, Journal Entry, Close Management	Review and manage close activities and transactions	Review exceptions and manage close activities through the use of accounting system and/or finance close solutions
Consolidation	Review and validate consolidation entries and consolidated financial reports	Review and validate exceptions in accounting entries and reports generated by financial consolidation solutions
Financial Reporting	Review financial report and disclosures prepared including changes in regulatory requirements	Review financial report and disclosures generated including changes in regulatory requirements

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

Financial Accounting

Finance Manager

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop	
Financial Planning and Analysis Manager	<p>Oversee the activities of the FP&A team including the preparation of timely and accurate management accounts. Analyses the financial performance and position of the organisation and performs variance analysis and identifies key causes of business variances for performance measurement.</p>	<ul style="list-style-type: none"> • Business Planning • Finance Business Partnering • Financial Planning • Stakeholder Management 	<p>The Finance Manager will be able to use existing planning and collaborative skills to drive the analysis of the financial performance and position of the organisation.</p>	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Financial Modelling • Management Decision Making
Treasury Manager	<p>Manage the organisation's daily positions, cash flows and financial returns on investments.</p>	<ul style="list-style-type: none"> • Business Planning • Financial Management • Regulatory Compliance • Stakeholder Management 	<p>The Finance Manager will be able to use existing business planning and financial management skills to manage the organisation's daily positions, cash flows and financial returns on investments.</p>	<ul style="list-style-type: none"> • Capital Expenditure and Investment Evaluation • Capital Raising • Cash Flow Management • Treasury Management
Compliance Advisory Manager – SFw for Financial Services	<p>Responsible for overseeing and advising on all compliance matters (e.g. implementation of compliance controls, responses to emerging regulatory changes and regulatory compliance).</p>	<ul style="list-style-type: none"> • Data Analytics • Regulatory Compliance • Regulatory Risk Assessment • Stakeholder Management 	<p>The Finance Manager will be able to utilise existing skills in regulatory compliance and risk assessment to manage the overall regulatory compliance of the organisation.</p>	<ul style="list-style-type: none"> • Regulatory and Legal Advisory • Risk and Compliance Reporting • Scenario Planning and Analysis • Strategy Planning

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles	Compatibility	Skills to develop	
Finance Data Steward	<p>The "go to" person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.</p>	<p>Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Finance Manager makes a suitable candidate for Finance Data Steward.</p>	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Transformation Lead	<p>Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.</p>	<p>The Finance Manager will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.</p>	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management
Governance, Risk and Compliance (GRC) Lead	<p>Protect the organisation from various risks and inform against future events that may negatively impact the business. Works closely with the leaders of the organisation to advise on risk management and risk appetites.</p>	<p>Familiarity with the business from a finance angle helps in identifying risks faced by the business as well as the regulations leading to compliance risks. Strong reporting knowledge can also help in developing risks metrics and profiles for risk reporting.</p>	<ul style="list-style-type: none"> • Enterprise Risk Management • Cyber Security • Regulatory Compliance • Business Continuity Management • Risk assessment

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Financial Accounting

Finance Manager

Relevant F&A process areas

- Procure to Pay
- Travel and Expense
- Order to Cash
- Record to Report

APPLICABLE EMERGING ROLES ¹ (CONT'D)

Applicable emerging job roles		Compatibility	Skills to develop
Vendor Relationship Manager	Manage all of Finance’s relationships with vendors who provide accounting and finance services for Finance. Typically present in organisations with large outsourcing footprint. Oversee service quality, service escalations and vendor risk governance.	Leveraging on experience with managing external stakeholders including contract negotiations and service standards assessments, the Finance Manager will have the right experiences to perform the Vendor Relationship Manager role.	<ul style="list-style-type: none"> • Business Negotiation • Change Management • Conflict Management • Project Management • Stakeholder Management
Environmental, Social and Governance (ESG) Lead	Provide financial insights and streamline reporting for environmental, social and governance topics. Support Finance and the business, by bringing the Finance lens on how to find the right balance between financial, social and environmental priorities.	Familiarity with the collection and reporting of data in accordance with legal/reporting requirements, as well as the ability to derive insights to the organisation’s performance will benefit the Finance Manager in the ESG Reporting & Insights role.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Cross-Functional Acumen • Data Analytics • Financial Reporting • Macroeconomic Analysis
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Having extensive experience on finance processes helps in understanding the process workflow and identify potential areas for automation, potential risks and other considerations to ensure integrity of the transactions.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Cross-Functional Acumen

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Financial Accounting

Financial Controller

Relevant F&A process areas

- Record to Report

JOB ROLE TODAY

As an Financial Controller today, I manage the overall operations of the Finance department and focuses on creating value for the organisation by analysing financial reports and delivering financial insights through business storytelling to facilitate management decision making.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift towards more exception-based review process as compared to detailed reviews of financial reports currently performed. The role is also likely to incorporate more analytical responsibilities and focus on managing process improvements and transformation initiatives within the Finance department.

IMPACT TO F&A PROCESSES

Record to Report	Impact to process	Digital tools
Consolidation	Do Better: Consolidation solutions can be leveraged to increase productivity in preparing consolidated financial information	<ul style="list-style-type: none"> Financial Consolidation solutions
Financial Reporting	Do Better & Do More: Financial reporting solutions allow automated and readily accessible financial information with data directly fed from the accounting system	<ul style="list-style-type: none"> Accounting system Financial Reporting solutions

KEY JOB TASKS

Record to Report	Task today	Task tomorrow
Consolidation	Review and validate consolidation entries and consolidated financial reports	Review and validate exceptions in accounting entries and reports generated by financial consolidation solutions
Financial Reporting	Review financial report and disclosures prepared including changes in regulatory requirements	Interpret changes to accounting standards, review financial report and disclosures generated including changes in regulatory requirements

TECHNICAL SKILLS TOMORROW

Accounting Standards	
Audit Compliance	
Business Planning	
Business Process Management	
Capital Expenditure and Investment Evaluation	
Disruption Management	
Finance Business Partnering	
Financial Reporting Quality	
Financial Statements Analysis	
Stakeholder Management	

CRITICAL CORE SKILLS TOMORROW

Adaptability	Intermediate
Creative Thinking	Advanced
Critical Finance Thinking	Advanced
Decision Making	Advanced
Developing People	Advanced
Digital Fluency	Advanced
Learning Agility	Advanced
Problem Solving	Advanced
Process Mindset	Advanced
Sense Making	Advanced

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

Financial Accounting

Financial Controller

Relevant F&A process areas

- Record to Report

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Business Controller/ Finance Director	Business partner for all the business units in the organisation. Provides advice to stakeholders to maximise the organisation's value and minimises risks.	<ul style="list-style-type: none"> Business Planning Business Process Management Financial Management Stakeholder Management 	The Financial Controller can leverage on existing skills in business planning and stakeholder management to advise stakeholders on maximising organisational value.	<ul style="list-style-type: none"> Business, Product and Portfolio Acumen Cross-functional Acumen Financial Modelling Performance Management
Restructuring and Insolvency Partner/ Restructuring and Insolvency Director	Responsible for the quality of technical output, and risk management for the business. Provides recommendations to ensure that restructuring and insolvency proceedings are aligned with strategic objectives.	<ul style="list-style-type: none"> Capital Raising Financial Statements Analysis Regulatory Compliance Valuation 	The Financial Controller will be able to utilise existing skills in regulatory compliance and valuation to advise on restructuring and insolvency proceedings.	<ul style="list-style-type: none"> Business Negotiation Debt Restructuring Restructuring Insolvency Advisory Transaction Due Diligence
Head of Financial Crime Compliance – SFw for Financial Services	Setting policies and establishing governance relating to financial crimes which includes leading the establishment and maintenance of robust financial crime prevention strategies, and ensuring that methodologies and the reporting of results are relevant and in line with regulatory expectations.	<ul style="list-style-type: none"> Data Analytics Regulatory Compliance Stakeholder Management 	The Financial Controller will be able to utilise existing skills in regulatory compliance and stakeholder management to develop financial crime policies and governance frameworks.	<ul style="list-style-type: none"> Policy Implementation and Revision Risk and Compliance Reporting Risk Management Strategy Planning

Financial Accounting

Financial Controller

Relevant F&A process areas
 • Record to Report

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Finance Controller will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management
Environmental, Social and Governance (ESG) Lead	Provide financial insights and streamline reporting for environmental, social and governance topics. Support Finance and the business, by bringing the Finance lens on how to find the right balance between financial, social and environmental priorities.	Familiarity with the collection and reporting of data in accordance with legal/reporting requirements, as well as the ability to derive insights to the organisation's performance will benefit the Financial Controller in the ESG Reporting & Insights role.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Cross-Functional Acumen • Data Analytics • Financial Reporting • Macroeconomic Analysis
Regional Controller	Shape the regional finance operations of the business and works closely with C-suite and other business functions to advise on various finance implications and support strategic decision-making from a finance perspective.	Financial Controllers have extensive experience and knowledge across finance operations. These experience can be augmented to take on this regional role by expanding on cross-border knowledge regarding financial reporting, financial systems and overseas finance operations.	<ul style="list-style-type: none"> • Financial Planning • Internal Control • Accounting and Tax Systems • Group Accounting and Reporting • Regulatory Compliance
Governance, Risk and Compliance (GRC) Lead	Protect the organisation from various risks and inform against future events that may negatively impact the business. Works closely with the leaders of the organisation to advise on risk management and risk appetites.	Familiarity with the business from a finance angle helps in identifying risks faced by the business as well as the regulations leading to compliance risks. Strong reporting knowledge can also help in developing risks metrics and profiles for risk reporting.	<ul style="list-style-type: none"> • Enterprise Risk Management • Cyber Security • Regulatory Compliance • Business Continuity Management • Risk Assessment

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Management Accounting

Accounting Executive

Relevant F&A process areas

- Financial Planning and Analysis

JOB ROLE TODAY

As an Accounting Executive today, I support the finance department in carrying out the responsibilities specific to preliminary cost analysis, profit and loss analysis, balance sheet analysis and reconciliations, and report preparation.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift towards monitoring exceptions out of automated processes as compared to the manual preparation of Planning, Budgeting and Forecasting reports currently performed.

IMPACT TO F&A PROCESSES

Financial Planning and Analysis	Impact to process	Digital tools
Data Aggregation	Do Better & Do More: To increase productivity and improve quality, data integration tools can be applied to aggregate data necessary for the FP&A process	<ul style="list-style-type: none"> • Data Integration Tool • Data Science & Machine Learning Platforms
Preparation and Tracking	Do Better & Do More: To enhance productivity and visibility, technology can be leveraged to prepare and track actual vs. budget/ plan	<ul style="list-style-type: none"> • Enterprise / Corporate Performance Management (EPM / CPM) with Machine Learning
Management Reporting	Do More: Prebuilt dashboards and commentaries are used to allow management to access financial information readily	<ul style="list-style-type: none"> • Natural Language Generation (NLG) with Enterprise Performance Management Tool • Natural Language Generation (NLG) with Business Intelligence (BI) & Visualisation Tools

KEY JOB TASKS

Financial Planning and Analysis	Task today	Task tomorrow
Data Aggregation	Collect data and identify data exceptions	N/A – Manual efforts in collecting data are expected to be automated with data integration tools and/or Data Science, Machine Learning & Advanced Analytics
Preparation and Tracking	Collect data, manually prepare Planning, Budgeting and Forecasting report & charts and input actuals into spreadsheet	N/A – Manual efforts in preparing and tracking Planning, Budgeting and Forecasting reports & charts are expected to be automated with EPM/CPM systems
Management Reporting	Collate data, prepare first draft management report and create first level commentary based on financial data	N/A – Manual efforts in preparing management reports and first level commentaries are expected to be automated with NLG and EPM/BI tools

Management Accounting

Accounting Executive

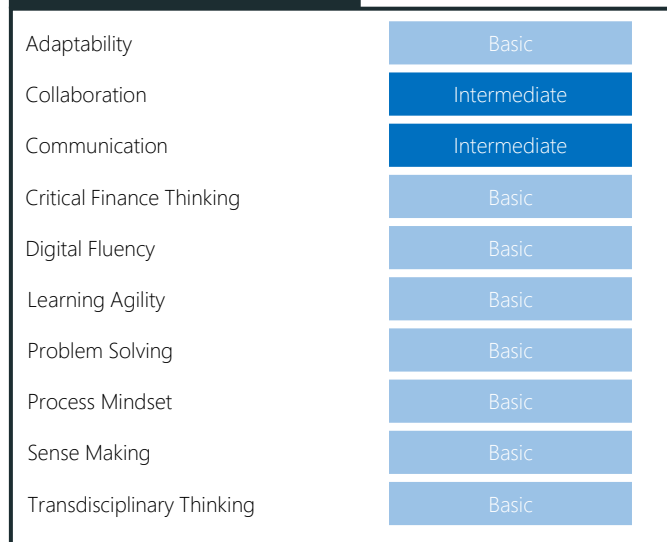
Relevant F&A process areas

- Financial Planning and Analysis

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Enterprise Risk Mgmt. Associate/ Enterprise Risk Mgmt. Executive	<ul style="list-style-type: none"> Data Analytics Data Governance Financial Analysis Macroeconomic Analysis Risk Management 	The Accounting Executive will be able to use existing data analytics and risk management skills to support the implementation of Enterprise Risk Management activities.	<ul style="list-style-type: none"> Cyber Security Fraud Risk Management Risk Advisory Systems Thinking
Business Valuation Associate/ Business Valuation Executive	<ul style="list-style-type: none"> Benchmarking Corporate and Business Law Data Analytics Financial Analysis Macroeconomic Analysis 	The Accounting Executive will be able to use existing data analytics and financial analysis skills to support business valuation activities.	<ul style="list-style-type: none"> Financial Modelling Stakeholder Management Valuation Approaches and Methodologies Valuation Research and Analysis
Executive (Project Financing) – SFw for Engineering Services	<ul style="list-style-type: none"> Cost Management Data Analytics Financial Analysis Risk Management 	The Accounting Executive will be able to use existing cost management and financial analysis skills to support project financing activities.	<ul style="list-style-type: none"> Contract Development and Management Project Feasibility Assessment Project Risk Management Valuation Research and Analysis

Management Accounting

Accounting Executive

Relevant F&A process areas

- Financial Planning and Analysis

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Accounting Executive to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Management Accounting

Management Accountant/ Financial Planning and Analysis Analyst/ Business Analyst

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

JOB ROLE TODAY

As a Management Accountant/Financial Planning and Analysis Analyst/Business Analyst today, I am responsible for a segment of the overall management accounting system including analysing financial statements and making forecasts, budgets, performance measurements and plans, and presenting them to senior management to assist in operational decision-making.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift towards more exception handling tasks as compared to detailed reviews of Planning, Budgeting and Forecasting reports currently performed. I am also likely to focus more on analytical and modelling responsibilities in the Finance department.

IMPACT TO F&A PROCESSES

Master Data Management	Impact to process	Digital tools
Master Data Governance	Do Different: A centralised function that owns definitions, templates and QA on master data, and works with each functional area for any changes made	<ul style="list-style-type: none"> • N/A
Financial Planning and Analysis	Impact to process	Digital tools
Data Aggregation	Do Better & Do More: To increase productivity and improve quality, data integration tools can be applied to aggregate data necessary for the FP&A process	<ul style="list-style-type: none"> • Data Integration Tool • Data Science & Machine Learning Platforms
Preparation and Tracking	Do Better & Do More: To enhance productivity and visibility, technology can be leveraged to prepare and track actual vs. budget/ plan	<ul style="list-style-type: none"> • Enterprise / Corporate Performance Management (EPM / CPM) with Machine Learning
Modelling Techniques	Do Different: Statistical and predictive modelling techniques in EPM solutions enable PBF to remain current and adapt to changing business circumstances	<ul style="list-style-type: none"> • Enterprise Performance Management (EPM / CPM) with Machine Learning or Data Science • Machine Learning & Advanced Analytics
Management Reporting	Do More: Prebuilt dashboards and commentaries are used to allow management to access financial information readily	<ul style="list-style-type: none"> • Natural Language Generation (NLG) with Enterprise Performance Management Tool • Natural Language Generation (NLG) with Business Intelligence & Visualisation Tools

KEY JOB TASKS

Master Data Management	Task today	Task tomorrow
Master Data Governance	Support master data changes, and consult with IT on any QA issues and findings	Support master data changes, and consult with centralised data management function on any QA issues and findings

Management Accounting

Management Accountant/ Financial Planning & Analysis Analyst/ Business Analyst

Relevant F&A process areas

- Master Data Management
- Financial Planning & Analysis

KEY JOB TASKS (CONT'D)

Financial Planning & Analysis	Task today	Task tomorrow
Data Aggregation	Review data downloaded and work with business to manage anomalies	N/A – Manual efforts in reviewing data accuracy are expected to be significantly automated with data integration tools and/or Data Science, Machine Learning & Advanced Analytics
Preparation and Tracking	Review draft PBF report and monitor actuals vs. budget / plan incl. recommending actions	N/A – Manual efforts in reviewing the accuracy of PBF reports prepared are expected to be automated with data integration tools and/or Data Science, Machine Learning & Advanced Analytics
Modelling Techniques	Review aggregated inputs from the business and conduct basic financial analysis for high level validation	Work with working level stakeholders across the business to identify drivers required for modelling, and work with Expert Data Scientists ¹ to build custom models. Ability to use pre-build models in EPM solutions
Management Reporting	Review draft management report, review first level financial commentary and create second level non-financial commentary	Review data exceptions, review first level financial commentary and create second level non-financial commentary

TECHNICAL SKILLS TOMORROW

Business, Product and Portfolio Acumen	
Cross-functional acumen	
Data Analytics	
Data Storytelling & Visualisation	
Digital Problem Solving	
Finance Business Partnering	
Financial Analysis	
Financial Modelling	
Macroeconomic Analysis	
Management Decision Making	

CRITICAL CORE SKILLS TOMORROW

Adaptability	Intermediate
Collaboration	Advanced
Communication	Advanced
Critical Finance Thinking	Intermediate
Digital Fluency	Intermediate
Learning Agility	Intermediate
Problem Solving	Intermediate
Process Mindset	Intermediate
Sense Making	Intermediate
Transdisciplinary Thinking	Intermediate

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

Management Accounting

Management Accountant/ Financial Planning & Analysis Analyst/ Business Analyst

Relevant F&A process areas

- Master Data Management
- Financial Planning & Analysis

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Enterprise Risk Mgmt. Senior/ Enterprise Risk Mgmt. Senior Executive	Responsible for implementing enterprise risk management (ERM) activities in collaboration with various business units, as well as identifying and escalating routine and emerging enterprise risks through the execution of ERM framework procedures.	<ul style="list-style-type: none"> • Data Governance • Financial Analysis • Macroeconomic Analysis • Risk Management 	The Management Accountant/Financial Planning & Analysis Analyst/Business Analyst will be able to apply existing risk management and analysis skills to implement ERM framework activities.	<ul style="list-style-type: none"> • Cyber Security • Fraud Risk Management • Risk Advisory • Systems Thinking
Senior Executive (Project Financing) – SFw for Engineering Services	Responsible for prioritising project financing needs based on profitability, financial risk and organisation capability including refining the project financial model, executes valuation analysis to assess financial feasibility of the project.	<ul style="list-style-type: none"> • Cost Management • Data Analytics • Financial Analysis • Financial Modelling 	The Management Accountant/Financial Planning & Analysis Analyst/Business Analyst will be able to use existing cost management and financial analysis skills to execute project financing activities.	<ul style="list-style-type: none"> • Contract Development and Management • Project Feasibility Assessment • Project Risk Management • Valuation Research and Analysis
Data Analyst – SFw for Financial Services	Collect, blend and conduct analyses on data from various sources to interpret and draw meaningful insights to support decision-making on business, products and solutions.	<ul style="list-style-type: none"> • Data Analytics • Data Governance • Data Storytelling and Visualisation • Stakeholder Management 	The Management Accountant/Financial Planning & Analysis Analyst/Business Analyst will be able to utilise existing skills to collect and analyse data, and present valuable business insights to management for decision-making.	<ul style="list-style-type: none"> • Data Analytics and Computational Modelling • Programming & Coding • Data Mining & Modelling

Management Accounting

Management Accountant/ Financial Planning & Analysis Analyst/ Business Analyst

Relevant F&A process areas

- Master Data Management
- Financial Planning & Analysis

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Management Accountant/Financial Planning & Analysis Analyst/Business Analyst to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Management Accountant/Financial Planning & Analysis Analyst/Business Analyst makes a suitable candidate for Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Environmental, Social and Governance (ESG) Lead	Provide financial insights and streamline reporting for environmental, social and governance topics. Support Finance and the business, by bringing the Finance lens on how to find the right balance between financial, social and environmental priorities.	Familiarity with the collection and reporting of data in accordance with legal/reporting requirements, as well as the ability to derive insights to the organisation’s performance will benefit the Management Accountant/Financial Planning & Analysis Analyst/Business Analyst in the ESG Reporting & Insights role.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Cross-Functional Acumen • Data Analytics • Financial Reporting • Macroeconomic Analysis
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Familiarity and acumen in analysing financial figures derives from various finance processes can help in understanding process objectives to drive automation. In addition, experience in financial planning and analysis allows potential automation to be added to these areas.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Management Accounting

Financial Planning and Analysis Manager

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

JOB ROLE TODAY

As a Financial Planning and Analysis Manager today, I oversee the day-to-day activities of the FP&A team in the preparation of timely and accurate management accounts. Analyse the financial performance and position of the organisation and perform variance analysis and identifies key causes of business variances for performance measurement.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to focus more on corroborating and validating the drivers, assumptions and/or scenarios that form the basis of financial models and management reports. Greater emphasis will be placed on generating insights by predicting possible business scenarios rather than retrospective reporting.

IMPACT TO F&A PROCESSES

Master Data Management	Impact to process	Digital tools
Master Data Governance	Do Different: A centralised function that owns definitions, templates and QA on master data, and works with each functional area for any changes made	<ul style="list-style-type: none"> • N/A
Financial Planning and Analysis	Impact to Process	Digital Tools
Data Aggregation	Do Better & Do More: To increase productivity and improve quality, data integration tools can be applied to aggregate data necessary for the FP&A process	<ul style="list-style-type: none"> • Data Integration Tool • Data Science & Machine Learning Platforms
Preparation and Tracking	Do Better & Do More: To enhance productivity and visibility, technology can be leveraged to prepare and track actual vs. budget/ plan	<ul style="list-style-type: none"> • Enterprise / Corporate Performance Management (EPM / CPM) with Machine Learning
Modelling Techniques	Do Different: Statistical and predictive modelling techniques in EPM solutions enable PBF to remain current and adapt to changing business circumstances	<ul style="list-style-type: none"> • Enterprise Performance Management (EPM / CPM) with Machine Learning or Data Science • Machine Learning & Advanced Analytics
Management Reporting	Do More: Prebuilt dashboards and commentaries are used to allow management to access financial information readily	<ul style="list-style-type: none"> • Natural Language Generation (NLG) with Enterprise Performance Management Tool • Natural Language Generation (NLG) with Business Intelligence & Visualisation Tools

KEY JOB TASKS

Master Data Management	Task today	Task tomorrow
Master Data Governance	Approve master data changes, and consult with IT on any QA issues and findings	N/A – As a result of centralising the data management function, the Finance Data Steward role would work with specialist data engineers in IT, and respective finance process teams to manage master data, and undertake QA

Management Accounting

Financial Planning and Analysis Manager

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

KEY JOB TASKS (CONT'D)

Financial Planning and Analysis	Task today	Task tomorrow
Data Aggregation	Review data downloaded and work with business to manage anomalies	Review data exceptions and work with business to manage exceptions
Preparation and Tracking	Review draft PBF report and monitor actuals vs. budget / plan incl. recommending actions. Review actuals vs. KPI with business stakeholders	Review PBF dashboard and monitor actuals vs. budget / plan incl. recommending actions. Review actuals vs. KPI with business stakeholders
Modelling Techniques	Review any exceptions highlighted and work with business to resolve any discrepancies in inputs	Work with Expert Data Scientists ¹ to validate reasonableness of assumptions that form the basis of financial models. Work with management and business unit to validate variables, drivers and / or scenarios, and to resolve any discrepancies / supplement financial analysis with additional context
Management Reporting	Review draft management report and tailor all commentaries and storyboarding. Engage stakeholders and management where necessary	Review draft management report and tailor all commentaries and storyboarding including what-if / scenarios and stress test assumptions. Engage stakeholders and management where necessary

TECHNICAL SKILLS TOMORROW

Business Planning	
Business, Product and Portfolio Acumen	
Cost Management	
Data Analytics	
Data Storytelling & Visualisation	
Finance Business Partnering	
Financial Modelling	
Financial Planning	
Management Decision Making	
Stakeholder Management	

CRITICAL CORE SKILLS TOMORROW

Adaptability	Advanced
Collaboration	Advanced
Communication	Advanced
Critical Finance Thinking	Advanced
Customer Orientation	Intermediate
Decision Making	Intermediate
Developing People	Intermediate
Influence	Intermediate
Thinks and Acts Strategically	Intermediate
Transdisciplinary Thinking	Intermediate

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

Management Accounting

Financial Planning and Analysis Manager

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Finance Manager	Lead finance business partner responsible for all aspects of financial management, performance management, financial accounting, budgeting, corporate reporting etc.	<ul style="list-style-type: none"> • Business Planning • Cost Management • Financial Planning • Finance Business Partnering 	The Financial Planning and Analysis Manager can leverage on existing planning and cost accounting skills to drive financial management, performance management, financial accounting, budgeting, corporate reporting etc.	<ul style="list-style-type: none"> • Accounting Standards • Audit Frameworks • Financial Reporting Quality • Financial Statements Analysis
Financial Crime Compliance Manager – SFw for Financial Services	Oversee the implementation of the organisation’s compliance programmes to manage risk exposure and combat financial crime.	<ul style="list-style-type: none"> • Data Storytelling and Visualisation • Financial Modelling • Risk management • Stakeholder Management 	The Financial Planning and Analysis Manager will be able to use existing analytics and risk management skills to implement financial crime risk programmes.	<ul style="list-style-type: none"> • Policy Implementation and Revision • Regulatory and Legal Advisory • Regulatory Compliance • Strategy Planning
Risk Strategy Manager – SFw for Financial Services	Responsible for coordinating the management of enterprise-wide risks including establishing risk criteria, developing risk reporting mechanisms and proposing controls that support risk mitigation plans.	<ul style="list-style-type: none"> • Data Storytelling and Visualisation • Risk Management • Scenario Planning and Analysis • Stakeholder Management 	The Financial Planning and Analysis Manager will be able to use existing analytics and risk management skills to manage enterprise-wide risk strategies.	<ul style="list-style-type: none"> • Policy Implementation and Revision • Regulatory Risk Assessment • Risk and Compliance Reporting • Strategy Planning

Management Accounting

Financial Planning and Analysis Manager

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Financial Planning and Analysis Manager to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Financial Planning and Analysis Manager makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Financial Planning and Analysis Manager will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management
Vendor Relationship Manager	Manage all of Finance’s relationships with vendors who provide accounting and finance services for Finance. Typically present in organisations with large outsourcing footprint. Oversee service quality, service escalations and vendor risk governance.	Leveraging on experience with managing external stakeholders including contract negotiations and service standards assessments, the Financial Planning and Analysis Manager will have the right experiences to perform the Vendor Relationship Manager role.	<ul style="list-style-type: none"> • Business Negotiation • Change Management • Conflict Management • Project Management • Stakeholder Management
Environmental, Social and Governance (ESG) Lead	Provide financial insights and streamline reporting for environmental, social and governance topics. Support Finance and the business, by bringing the Finance lens on how to find the right balance between financial, social and environmental priorities.	Familiarity with the collection and reporting of data in accordance with legal/reporting requirements, as well as the ability to derive insights to the organisation’s performance will benefit the Financial Planning and Analysis Manager in the ESG Reporting & Insights role.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Cross-Functional Acumen • Data Analytics • Financial Reporting • Macroeconomic Analysis
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Familiarity and acumen in analysing financial figures derives from various finance processes can help in understanding process objectives to drive automation. In addition, experience in financial planning and analysis allows potential automation to be added to these areas.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Management Accounting

Business Controller/ Finance Director

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

JOB ROLE TODAY

As a Business Controller/ Finance Director today, I am the business partner for all the business units in the organisation. I provide advice to stakeholders to maximise the organisation's value and minimise risks. I support key management decisions which includes providing operational risk management support and ensuring proper business performance management through profitability and operational analysis.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to focus more on validating the variables, assumptions, drivers and/or scenarios that form the basis of financial models and management reports. Emphasis on delivering business insights through effective data storytelling is expected.

IMPACT TO F&A PROCESSES

Master Data Management	Impact to process	Digital tools
Master Data Governance	Do Different: A centralised function that owns definitions, templates and QA on master data, and works with each functional area for any changes made	<ul style="list-style-type: none"> • N/A
Financial Planning and Analysis	Impact to Process	Digital Tools
Modelling Techniques	Do Different: Statistical and predictive modelling techniques in EPM solutions enable PBF to remain current and adapt to changing business circumstances	<ul style="list-style-type: none"> • Enterprise Performance Management (EPM / CPM) with Machine Learning or Data Science • Machine Learning & Advanced Analytics
Management Reporting	Do More: Prebuilt dashboards and commentaries are used to allow management to access financial information readily	<ul style="list-style-type: none"> • Natural Language Generation (NLG) with Enterprise Performance Management Tool • Natural Language Generation (NLG) with Business Intelligence & Visualisation Tools

KEY JOB TASKS

Master Data Management	Task today	Task tomorrow
Master Data Governance	Approve master data changes, and consult with IT on any QA issues and findings	N/A – As a result of centralising the data management function, the Finance Data Steward role would work with specialist data engineers in IT, and respective finance process teams to manage master data, and undertake QA
Financial Planning and Analysis	Task today	Task tomorrow
Modelling Techniques	Review consolidated plan, budget and forecast and present / triangulate analysis with management	Review and work with management to identify assumptions and variables, and review model results incl. appropriate what-if / scenarios to stress test assumptions
Management Reporting	Review final report and present to management	Review final report including what-if / scenarios and assumptions and present to management

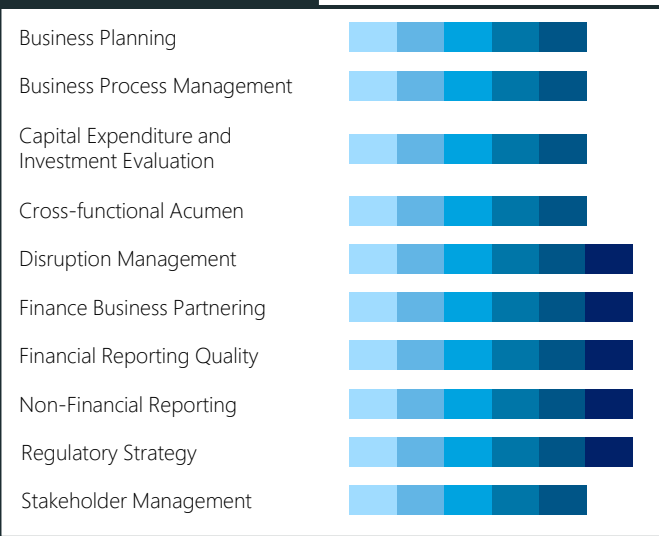
Management Accounting

Business Controller/ Finance Director

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW

Creative Thinking	Advanced
Customer Orientation	Advanced
Decision Making	Advanced
Developing People	Advanced
Digital Fluency	Advanced
Learning Agility	Advanced
Problem Solving	Advanced
Process Mindset	Advanced
Sense Making	Advanced
Transdisciplinary Thinking	Advanced

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Financial Controller	<ul style="list-style-type: none"> • Business Process Management • Finance Business Partnering • Financial Planning • Regulatory Strategy 	The Business Controller/ Finance Director will be able to use existing business partnering and financial planning skills to manage the overall operations of the Finance department.	<ul style="list-style-type: none"> • Financial Analysis • Financial Statements Analysis • Regulatory Compliance • Regulatory Risk Assessment
Chief Risk Officer/ Risk Partner/ Head of Risk/ Enterprise Risk Mgmt. Director	<ul style="list-style-type: none"> • Data Governance • Macroeconomic Analysis • Risk management • Stakeholder Management 	The Business Controller/ Finance Director will be able to use existing risk management and analytics skills to develop and define enterprise-level risk policies and frameworks.	<ul style="list-style-type: none"> • Cyber Security • Fraud Risk Management • Risk Advisory • Systems Thinking
Head of Financial Crime Compliance – SFW for Financial Services	<ul style="list-style-type: none"> • Data Analytics • Risk Management • Scenario Planning and Analysis • Stakeholder Management 	The Business Controller/ Finance Director will be able to apply existing skills in risk management to set policies and establish governance related to financial crimes.	<ul style="list-style-type: none"> • Corporate Governance • Regulatory and Legal Advisory • Risk and Compliance Reporting • Strategy Planning

Management Accounting

Business Controller/ Finance Director

Relevant F&A process areas

- Master Data Management
- Financial Planning and Analysis

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Business Controller/ Finance Director will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management
Environmental, Social and Governance (ESG) Lead	Provide financial insights and streamline reporting for environmental, social and governance topics. Support Finance and the business, by bringing the Finance lens on how to find the right balance between financial, social and environmental priorities.	Familiarity with the collection and reporting of data in accordance with legal/reporting requirements, as well as the ability to derive insights to the organisation's performance will benefit the Business Controller/ Finance Director in the ESG Reporting & Insights role.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Cross-Functional Acumen • Data Analytics • Financial Reporting • Macroeconomic Analysis
Regional Controller	Shapes the regional finance operations of the business and works closely with C-suite and other business functions to advise on various finance implications and support strategic decision-making from a finance perspective.	Extensive experience and knowledge in financial planning and analysis can help in taking on the regional role to look at financial performance and planning across the region. Cross-border knowledge on financial reporting, financial systems and finance operations can be picked up.	<ul style="list-style-type: none"> • Accounting Standards • Accounting and Tax Systems • Group Accounting and Reporting • Regulatory Compliance • Internal Control

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Tax

Tax Associate/ Tax Executive

Relevant F&A process areas

- Tax

JOB ROLE TODAY

As a Tax Associate / Tax Executive today, I support the tax team in the preparation of tax computation, tax schedules, statutory filings, and assisting liaison between internal stakeholders, external tax agents and authorities

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift towards analysis and exception handling as manual and laborious tasks, such as data collection, assessment, and reporting for tax compliance are supported by technology. With increased efficiency in generating tax reports, more focus can be placed on managing data exceptions and providing quality outputs

IMPACT TO F&A PROCESSES

Tax	Impact to process	Digital tools
Tax Accounting and Compliance	Do Better & Do More: To increase productivity and improve quality, tools such as tax compliance software and features in existing accounting systems can help support monitoring and review work	<ul style="list-style-type: none"> • Tax Compliance Software • Features in Existing Accounting systems
Tax Strategy and Advisory	<p>Do More: Leverage on Business Intelligence and visualisation tools to provide additional insights and partner with business to provide tax advice and / or participate in special tax projects</p> <p>Do Different: Explore Machine Learning and Advanced analytics tools to support current analysis and recommendations</p>	<ul style="list-style-type: none"> • Data Science, Machine Learning & Advanced Analytics Tools

KEY JOB TASKS

Tax	Task today	Task tomorrow
Tax Accounting and Compliance	Collate, cleanse and aggregate data. Prepare first draft of tax computations on spreadsheets. File tax returns manually	Manage data exceptions. Review first draft of returns in tax compliance software
Tax Strategy and Advisory	Cleanse / aggregate data on Excel, and create draft report with charts on PowerPoint. Support additional tax research to support insights	Conduct additional tax research to support insights. Collaborate with other teams and provide inputs to help refine tax models

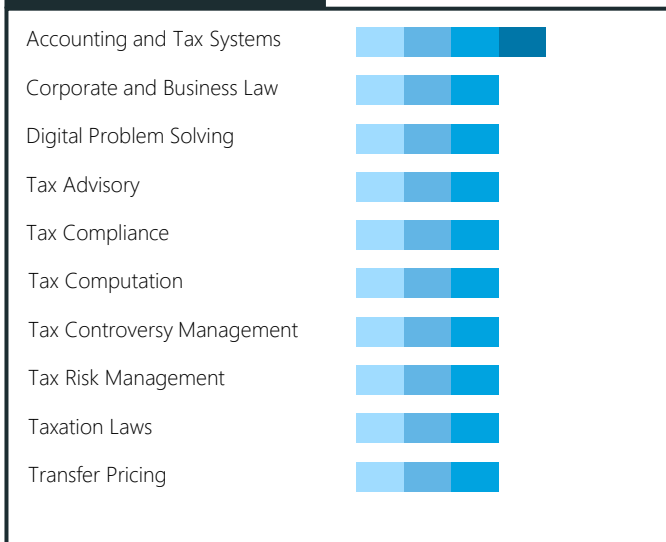
Specialised Finance – Tax

Tax Associate/ Tax Executive

Relevant F&A process areas

- Tax

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Restructuring and Insolvency Associate/ Restructuring and Insolvency Executive	Conduct initial market research and financial analyses required to support the restructuring and insolvency processes.	<ul style="list-style-type: none"> Corporate and Business Law Data Storytelling & Visualisation Financial Modelling Professional and Business Ethics Stakeholder Management 	The Tax Associate / Tax Executive can utilise existing knowledge in corporate and business law, and skills in financial modelling and data storytelling to support the restructuring and insolvency processes.	<ul style="list-style-type: none"> Debt Restructuring Restructuring Insolvency Advisory Transaction Due Diligence Valuation
Business Valuation Associate/ Business Valuation Executive	Perform valuation analysis with adherence to standards of ethics and maintains quality assurance in processes. Participates in business development and stakeholder interaction.	<ul style="list-style-type: none"> Corporate and Business Law Digital Technology Environment Scanning Professional and Business Ethics Stakeholder Management Taxation Laws 	The Tax Associate / Tax Executive can leverage on knowledge in corporate, business and taxation law, as well as stakeholder management skills to support the business valuation process.	<ul style="list-style-type: none"> Benchmarking Business Planning Financial Analysis Financial Modelling Macroeconomic Analysis
Trust Administrator – SFw for Financial Services	Assist with client onboarding and maintaining compliance with regulatory guidelines and the organisation's policies. Monitors and updates client accounts.	<ul style="list-style-type: none"> Corporate and Business Law Tax Risk Management Stakeholder Management 	The Tax Associate / Tax Executive can build on his/her knowledge in corporate and business law, tax risk management and stakeholder management to perform the Trust Administrator role.	<ul style="list-style-type: none"> Customer Experience Management Market Specialisation Regulatory Compliance Service Challenges Trust Structuring

Specialised Finance – Tax

Tax Senior/ Tax Senior Executive

Relevant F&A process areas

- Tax

JOB ROLE TODAY

As a Tax Senior / Tax Senior Executive today, I support the tax activities in the organisation including the compliance on tax reporting, implementation of tax policies and the adherence of internal tax controls.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to play a bigger role in the management of tax compliance work, review of draft computations and monitoring of payments, refunds and inquiries from tax authorities. Augmented by technology, the I can focus more efforts on value-added tasks such as reviews and analyses, where my tax knowledge can better utilised.

IMPACT TO F&A PROCESSES

Tax	Impact to process	Digital tools
Tax Accounting and Compliance	Do Better & Do More: To increase productivity and improve quality, tools such as tax compliance software and features in existing accounting systems can help support monitoring and review work	<ul style="list-style-type: none"> • Tax Compliance Software • Features in Existing Accounting systems
Tax Strategy and Advisory	<p>Do More: Leverage on Business Intelligence and visualisation tools to provide additional insights and partner with business to provide tax advice and / or participate in special tax projects</p> <p>Do Different: Explore Machine Learning and Advanced analytics tools to support current analysis and recommendations</p>	<ul style="list-style-type: none"> • Data Science, Machine Learning & Advanced Analytics Tools

KEY JOB TASKS

Tax	Task today	Task tomorrow
Tax Accounting and Compliance	Manage tax compliance work, review draft computations and monitors payments, refunds and inquiries from tax authorities	Review computation, analyses data and provide insights to businesses as tax subject-matter specialists
Tax Strategy and Advisory	Review draft report and supplement insights with additional commentaries or research. Partner with business to provide tax advice and / or participate in special tax projects	Collaborate and provide inputs to various teams (e.g. for FP&A to refine tax models) and insights to business partners to facilitate decision-making

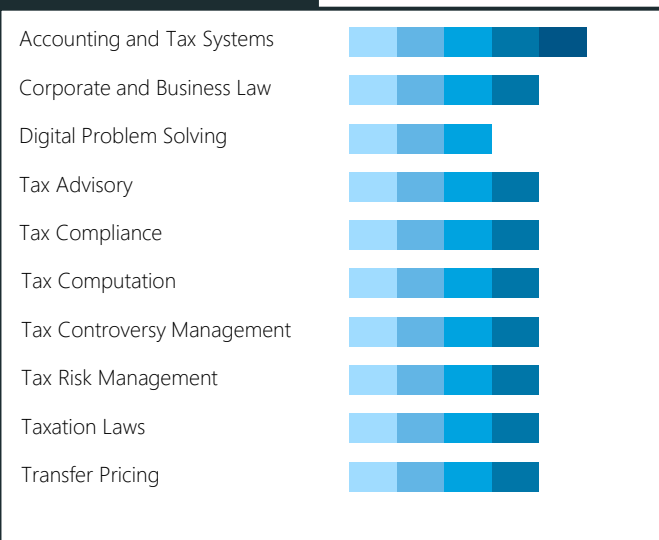
Specialised Finance – Tax

Tax Senior/ Tax Senior Executive

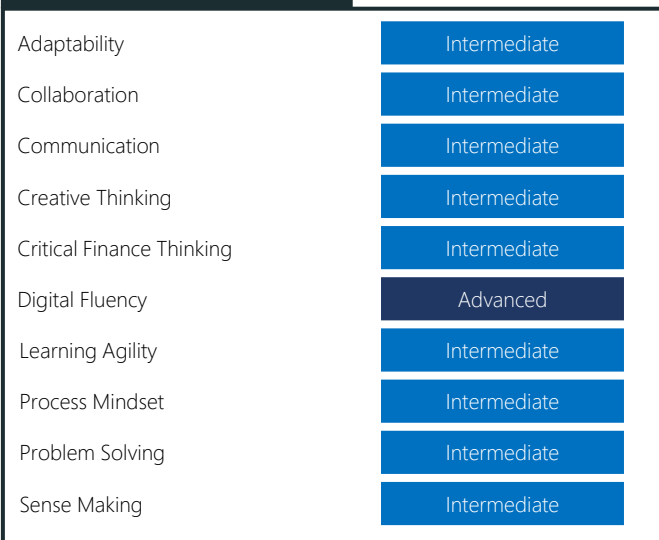
Relevant F&A process areas

- Tax

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Restructuring and Insolvency Senior/ Restructuring and Insolvency Senior Executive	Manage the restructuring and insolvency processes for client engagements and is in charge of day-to-day operations from a restructuring and insolvency perspective.	<ul style="list-style-type: none"> • Corporate and Business Law • Data Storytelling & Visualisation • Financial Modelling • Professional and Business Ethics • Stakeholder Management 	The Tax Senior / Tax Senior Executive can leverage on existing knowledge in corporate and business law, and skills in financial modelling and data storytelling to manage the restructuring and insolvency processes.	<ul style="list-style-type: none"> • Debt Restructuring • Restructuring Insolvency Advisory • Transaction Due Diligence • Valuation
Business Valuation Senior / Business Valuation Senior Executive	Manage the valuation exercise for the client engagements. Participates in business development and stakeholder interaction to manage project deliverables and timeline.	<ul style="list-style-type: none"> • Corporate and Business Law • Digital Technology Environment Scanning • Professional and Business Ethics • Stakeholder Management • Taxation Laws 	The Tax Senior / Tax Senior Executive can utilise his/her knowledge in corporate, business and taxation law, as well as experience in stakeholder management to perform basic expectations of the role while further honing his/her technical skills in business valuation.	<ul style="list-style-type: none"> • Benchmarking • Business Planning • Financial Analysis • Financial Modelling • Macroeconomic Analysis
Trust Administrator – SFw for Financial Services	Assist with client onboarding and maintaining compliance with regulatory guidelines and the organisation's policies. Monitors and updates client accounts.	<ul style="list-style-type: none"> • Corporate and Business Law • Tax Risk Management • Stakeholder Management 	The Tax Senior / Tax Senior Executive can build on his/her knowledge and experience in corporate and business law, tax risk management and stakeholder management to perform and step up to a senior Trust Administrator role.	<ul style="list-style-type: none"> • Customer Experience Management • Market Specialisation • Regulatory Compliance • Service Challenges • Trust Structuring

Specialised Finance – Tax

Tax Senior/ Tax Senior Executive

Relevant F&A process areas

- Tax

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Tax Senior / Tax Senior Executive to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Tax Senior / Tax Senior Executive makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Familiarity and acumen in analysing financial figures derives from various finance processes for tax preparations can help in understanding process objectives to drive automation. In addition, experience in tax reporting and analysis allows potential automation to be added to these areas.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Tax

Tax Manager

Relevant F&A process areas

- Tax

JOB ROLE TODAY

As a Tax Manager today, I provide key technical expertise and leadership to ensure that the tax function provides high quality tax deliverables and that they operate in line with the organisation's overall tax strategy.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I will need to understand the dynamic tax environment analyse the impact and communicate to senior stakeholders. I will need to provide tactical support to business changes like regional expansion, change in trade flows and advice on tax frameworks, governance and controls.

IMPACT TO F&A PROCESSES

Tax	Impact to process	Digital tools
Tax Accounting and Compliance	Do Better & Do More: To increase productivity and improve quality, tools such as tax compliance software and features in existing accounting systems can help support monitoring and review work	<ul style="list-style-type: none"> • Tax Compliance Software • Features in Existing Accounting systems
Tax Strategy and Advisory	<p>Do More: Leverage on Business Intelligence and visualisation tools to provide additional insights and partner with business to provide tax advice and / or participate in special tax projects</p> <p>Do Different: Explore Machine Learning and Advanced analytics tools to support current analysis and recommendations</p>	<ul style="list-style-type: none"> • Data Science, Machine Learning & Advanced Analytics Tools

KEY JOB TASKS

Tax	Task today	Task tomorrow
Tax Accounting and Compliance	Approve tax computations, tax returns, other drafted statutory e-filings, tax advice. Manage relationships and inquiries from tax authorities	With technology complementing existing operations, more focus will be placed on managing the tax team and relationships with tax authorities and agents
Tax Strategy and Advisory	Partner with business to provide tax advice and / or participate in special tax projects	Leverage on technology and experience to provide strategic insights and communicate ideas or opportunities with stakeholders

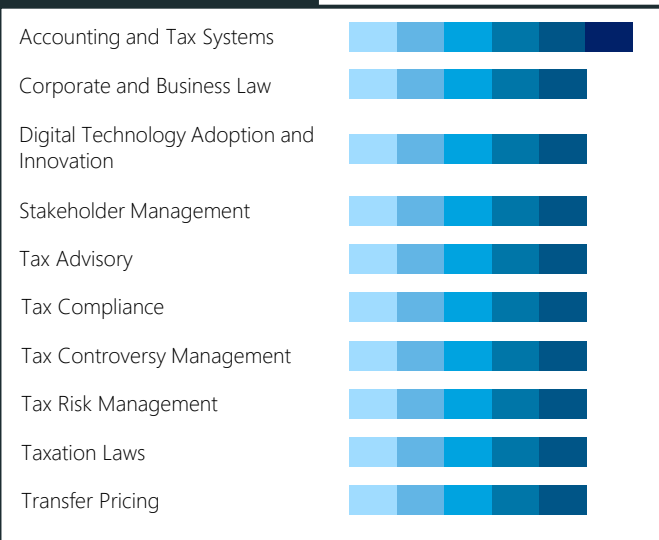
Specialised Finance – Tax

Tax Manager

Relevant F&A process areas

- Tax

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Tax Manager (Professional Services) Provide operational management support and is the go-to person for a portfolio of clients to deliver high quality tax services. Review and provides key technical expertise and operational leadership to ensure the performance and quality of all tax work.	<ul style="list-style-type: none"> • Tax Advisory • Tax Compliance • Tax Controversy Management • Tax Risk Management 	The in-house Tax Manager will be able to apply existing knowledge in tax to deliver high quality tax services to clients.	<ul style="list-style-type: none"> • Business Development • Project Execution and Control

Specialised Finance – Tax

Tax Manager

Relevant F&A process areas

- Tax

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Tax Manager to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Tax Manager makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Tax Manager will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management
Vendor Relationship Manager	Manage all of Finance’s relationships with vendors who provide accounting and finance services for Finance. Typically present in organisations with large outsourcing footprint. Oversee service quality, service escalations and vendor risk governance.	Leveraging on experience with managing external stakeholders including contract negotiations and service standards assessments, the Tax Manager will have the right experiences to perform the Vendor Relationship Manager role.	<ul style="list-style-type: none"> • Business Negotiation • Change Management • Conflict Management • Project Management • Stakeholder Management
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Familiarity and acumen in analysing financial figures derives from various finance processes for tax preparations can help in understanding process objectives to drive automation. In addition, experience in tax reporting and analysis allows potential automation to be added to these areas.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Tax

Tax Director/ Tax Vice President/ Head of Tax

Relevant F&A process areas

- Tax

JOB ROLE TODAY

As a Tax Director / Tax Vice President / Head of Tax today, I lead the tax team and makes strategic tax decisions such as developing and overseeing the implementation of tax strategy and managing its government incentives and filings. I ensure tax obligations and operations are in line with the organisation's global tax strategies.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I will develop and lead a team of tax professional with technical capabilities to drive and make strategic business decisions backed by data. As part of the leadership team, I will foster closer relationships with stakeholders, cross-geographical teams and partners to ensure a global alignment of tax strategies.

IMPACT TO F&A PROCESSES

Tax	Impact to process	Digital tools
Tax Accounting and Compliance	Do Better & Do More: To increase productivity and improve quality, tools such as tax compliance software and features in existing accounting systems can help support monitoring and review work	<ul style="list-style-type: none"> • Tax Compliance Software • Features in Existing Accounting systems
Tax Strategy and Advisory	<p>Do More: Leverage on Business Intelligence and visualisation tools to provide additional insights and partner with business to provide tax advice and / or participate in special tax projects</p> <p>Do Different: Explore Machine Learning and Advanced analytics tools to support current analysis and recommendations</p>	<ul style="list-style-type: none"> • Data Science, Machine Learning & Advanced Analytics Tools

KEY JOB TASKS

Tax	Task today	Task tomorrow
Tax Accounting and Compliance	Responsible for overall tax function including overseeing tax obligations and compliance, and managing relationships with management and tax authorities	Provide leadership and guidance to the tax function through a complete oversight of information and Manage the relationships with stakeholders
Tax Strategy and Advisory	Review and approve tax advice. Works with management to identify tax impact and provide tax advice on specific business decisions	Review and approve tax advice. Communicate and work with management to formulate strategies and make data-driven business decisions
Oversight of Tax Function	Manage the activities in the tax function, and oversee the performance of the organisation to develop and strengthen the organisation's tax position	<p>In addition to managing activities in the Tax function, continually drive process improvement and champion digital tax technology adoption. Require domain and technical expertise to determine how best to apply the technology</p> <p>Lead collaborations with internal functions to unlock the full potential of technology implementation</p>

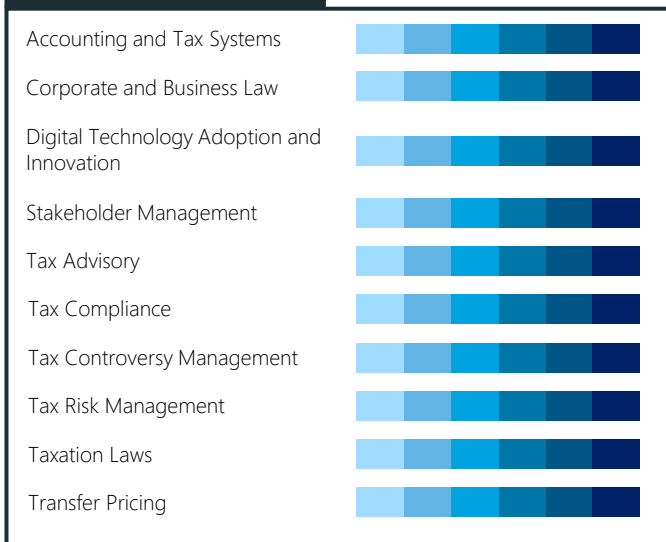
Specialised Finance – Tax

Tax Director/ Tax Vice President/ Head of Tax

Relevant F&A process areas

- Tax

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW

Adaptability	Advanced
Communication	Advanced
Critical Finance Thinking	Advanced
Customer Orientation	Intermediate
Decision Making	Intermediate
Developing People	Intermediate
Digital Fluency	Advanced
Global Perspective	Advanced
Influence	Intermediate
Thinks and Acts Strategically	Advanced

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Tax Partner/ Tax Director/ Tax Vice President/ Head of Tax (Professional Services)	<ul style="list-style-type: none"> • Tax Advisory • Tax Compliance • Tax Controversy Management • Tax Risk Management 	The in-house Tax Manager will be able to apply existing knowledge in tax to deliver high quality tax services to clients.	<ul style="list-style-type: none"> • Business Development • Project Execution and Control

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles	Compatibility	Skills to develop
Finance Transformation Lead	The Tax Director / Tax Vice President / Head of Tax will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Treasury

Treasury Executive/ Treasury Senior Executive

Relevant F&A process areas

- Treasury

JOB ROLE TODAY

As a Treasury Executive / Treasury Senior Executive today, I am responsible for supporting the treasury team in reviewing and monitoring the organisation's cash positions and liquidity management, including consolidating cash position, preparing cash forecast and supporting in liaising with financial institutions to implement the organisation's cash management strategies.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift my focus to reviewing cash positions and cash forecast, and execute cash management strategies for the organisation. With a greater use of data analytics, I will produce more reliable cash forecasts. I will also support the implementation of treasury technology solutions, including testing and communications to relevant stakeholders, and support management in maintaining strong relationships with financial institutions.

IMPACT TO F&A PROCESSES

Treasury	Impact to process	Digital tools
Cash and Liquidity Management	<p>Do More: Dashboards from TMS are built to allow management to review and monitor the cash position in real-time</p> <p>Do Different: Use of stress testing and scenario analysis in TMS or cash forecasting tool to generate reliable cash forecast for management decision making</p>	<ul style="list-style-type: none"> • Treasury management system (TMS) • Cash forecasting tool

KEY JOB TASKS

Treasury	Task today	Task tomorrow
Cash and Liquidity Management	Work closely with internal stakeholders to consolidate cash position and prepare cash forecast. Liaise with financial institutions to implement cash management strategies	Review cash position and cash forecast automatically generated from TMS or cash forecasting tool, and leverage data analytics capabilities to produce more reliable cash forecast. Execute cash management strategies more effectively through enhanced connectivity between financial institutions and TMS. Provide input (e.g. business and technical requirements, testing etc.) during the implementation of treasury technology solutions

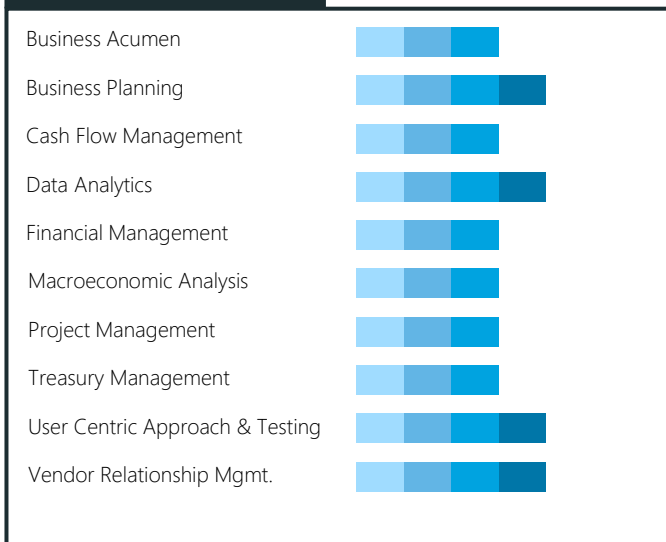
Specialised Finance – Treasury

Treasury Executive/ Treasury Senior Executive

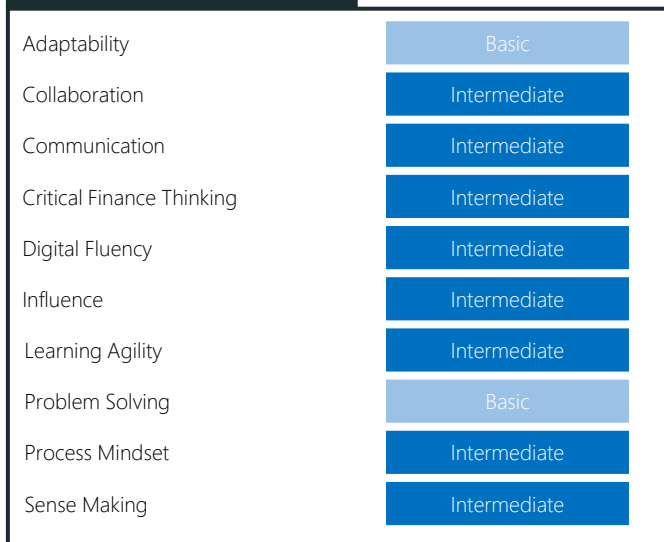
Relevant F&A process areas

- Treasury

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Restructuring and Insolvency Associate/ Restructuring and Insolvency Executive	Conduct initial market research and financial analyses required to support the restructuring and insolvency processes.	<ul style="list-style-type: none"> Capital Raising Corporate and Business Law Data Analytics Financial Management Regulatory Compliance 	The Treasury Executive / Treasury Senior Executive will be able to use existing skills in financial management and regulatory compliance to support the restructuring and insolvency processes.	<ul style="list-style-type: none"> Debt Restructuring Restructuring Insolvency Advisory Transaction Due Diligence Valuation
Restructuring and Insolvency Senior/ Restructuring and Insolvency Senior Executive	Manage the restructuring and insolvency processes for client engagements and is in charge of day-to-day operations from a restructuring and insolvency perspective.	<ul style="list-style-type: none"> Capital Raising Corporate and Business Law Data Analytics Financial Management Regulatory Compliance 	The Treasury Executive / Treasury Senior Executive will be able to use existing skills in financial management and regulatory compliance to manage the restructuring and insolvency processes.	<ul style="list-style-type: none"> Debt Restructuring Restructuring Insolvency Advisory Transaction Due Diligence Valuation
Market Research Analyst / Market Analyst – SFW for Wholesale Trade	Identify areas for new business development opportunities by gathering data, analysing information and generating reports based on industry and market trends.	<ul style="list-style-type: none"> Business Acumen Business Planning Data Analytics Macroeconomic Analysis Project Management 	The Treasury Executive / Treasury Senior Executive will be able to use existing skills to perform the analyses required to support decision making.	<ul style="list-style-type: none"> Business Opportunity Development Data Mining and Modelling Market Research Solutions Design Thinking

Specialised Finance – Treasury

Treasury Executive/ Treasury Senior Executive

Relevant F&A process areas

- Treasury

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Treasury Executive / Treasury Senior Executive to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Treasury Executive / Treasury Senior Executive makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Treasury

Treasury Manager

Relevant F&A process areas

- Treasury

JOB ROLE TODAY

As a Treasury Manager today, I am responsible for reviewing and monitoring the organisation's cash positions and investment portfolio, providing advice and updates to management and other stakeholders in the organisation and identifying opportunities for financing and investment as well as developing plans to address gaps in organisation's cash flow positions and liquidity management.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to leverage technology and data, and embed advanced analytics to better manage cash & liquidity as well as financial risk in the organisation. Where required, work closely with Expert Data Scientists to produce reliable cash forecasts and review areas of potential risks. I will continue to manage and collaborate with internal and external stakeholders, ensure compliance to the organisation's treasury policies and guidelines, and flag potential risks to stakeholders.

IMPACT TO F&A PROCESSES

Treasury	Impact to process	Digital tools
Cash and Liquidity Management	<p>Do More: Dashboards from TMS are built to allow management to review and monitor the cash position in real-time</p> <p>Do Different: Use of stress testing and scenario analysis in TMS or cash forecasting tool to generate reliable cash forecast for management decision making</p>	<ul style="list-style-type: none"> • Treasury management system (TMS) • Cash forecasting tool
Financial Risk Management	<p>Do Better: To ensure compliance, TMS can be used to track and manage policy compliance</p> <p>Do Different: Exposures are managed and prioritised using sensitivity analysis and modelling cash-flow-at-risk (CFaR)</p>	<ul style="list-style-type: none"> • Treasury Management System (TMS) with hedge assessment and accounting functionalities • Dealing/Trading Platform • Market Data Provider

KEY JOB TASKS

Treasury	Task today	Task tomorrow
Cash and Liquidity Management	Review and monitor cash position, and forecast funding requirements	Review and monitor cash position, work with Expert Data Scientists to develop cash forecasts, and develop plans to optimise the organisation's financial position
Financial Risk Management	Monitor and manage financial risk exposures in a reactive manner	Develop plans to mitigate financial risk and exposure in-line with treasury policies and best practices, and manage the exposure in a proactive manner

Specialised Finance – Treasury

Treasury Manager

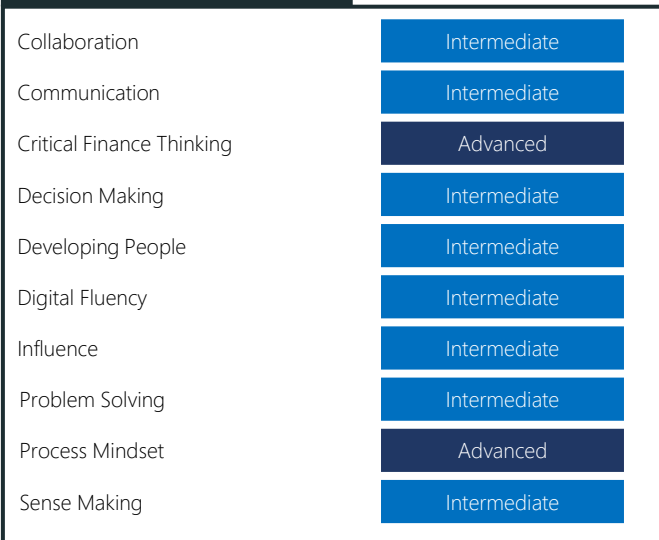
Relevant F&A process areas

- Treasury

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Finance Manager	Lead finance business partner responsible for all aspects of financial management, performance management, financial accounting, corporate reporting etc.	<ul style="list-style-type: none"> Financial Management Regulatory Compliance Regulatory Risk Assessment Stakeholder Management 	The Treasury Manager will be able to use existing financial management and stakeholder management skills to lead the finance team in delivering to its stakeholders.	<ul style="list-style-type: none"> Audit Frameworks Financial Analysis Financial Reporting Quality Financial Statements Analysis
Compliance Advisory Manager – SFw for Financial Services	Oversee and advises on all compliance related inquiries within the organisation.	<ul style="list-style-type: none"> Internal Controls Regulatory Compliance Regulatory Risk Assessment Stakeholder Management 	The Treasury Manager will be able to use existing skills to ensure successful implementation of compliance controls, responses to emerging regulatory changes and regulatory compliance is achieved.	<ul style="list-style-type: none"> Compliance Mindset Development Corporate Governance Risk and Compliance Reporting Risk Management
Credit/ Market and Liquidity/ Operational Risk Manager – SFw for Financial Services	Implements policies and procedures within the organisation's financial risk management frameworks in the financial services sector.	<ul style="list-style-type: none"> Business Planning Credit Risk Mgmt. Internal Controls Regulatory Compliance Regulatory Risk Assessment Stakeholder Management 	The Treasury Manager will be able to use existing skills to manage the risk in a financial services organisation.	<ul style="list-style-type: none"> Corporate Governance Risk Analytics Risk and Compliance Reporting Scenario Planning and Analysis

Specialised Finance – Treasury

Treasury Manager

Relevant F&A process areas

- Treasury

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Treasury Manager to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Treasury Manager makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Treasury Manager will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management
Vendor Relationship Manager	Manage all of Finance’s relationships with vendors who provide accounting and finance services for Finance. Typically present in organisations with large outsourcing footprint. Oversee service quality, service escalations and vendor risk governance.	Leveraging on experience with managing external stakeholders including contract negotiations and service standards assessments, the Treasury Manager will have the right experiences to perform the Vendor Relationship Manager role.	<ul style="list-style-type: none"> • Business Negotiation • Change Management • Conflict Management • Project Management • Stakeholder Management
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Familiarity with financial figures pertaining to cash and liquidity management can help in understanding process objectives to drive automations. In addition, extensive experience in treasury can also help in identifying potential automation opportunities there.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Treasury

Head of Treasury

Relevant F&A process areas

- Treasury

JOB ROLE TODAY

As the Head of Treasury today, I am responsible for establishing cash management strategies and overseeing the financial position of the organisation to ensure steady growth and sufficient capital, including pursuing opportunities for financing and investment, managing responses to unusual activities and directs compliance to regulations, and also seeking opportunities for financing and investment and potential revenue opportunities.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to understand changing local and global regulatory requirements and existing and emerging financing opportunities in the market, to take the lead role in developing strategies for cash forecasting, financial risk management and investments, and to provide advice around working capital, payments, FX, etc. that inform and facilitate strategic decisions. I will need to be agile, and drive innovation and incorporation of new digital tools and technologies into the treasury function. I will need to embrace change and spearhead change management initiatives to maximise the benefits within the function, and spearhead collaboration initiatives across the organisation.

IMPACT TO F&A PROCESSES

Treasury	Impact to process	Digital tools
Cash and Liquidity Management	<p>Do More: Dashboards from TMS are built to allow management to review and monitor the cash position in real-time</p> <p>Do Different: Use of stress testing and scenario analysis in TMS or cash forecasting tool to generate reliable cash forecast for management decision making</p>	<ul style="list-style-type: none"> • Treasury management system (TMS) • Cash forecasting tool
Financial Risk Management	<p>Do Better: To ensure compliance, TMS can be used to track and manage policy compliance</p> <p>Do Different: Exposures are managed and prioritised using sensitivity analysis and modelling cash-flow-at-risk (CFaR)</p>	<ul style="list-style-type: none"> • Treasury Management System (TMS) with hedge assessment and accounting functionalities • Dealing/Trading Platform • Market Data Provider

KEY JOB TASKS

Treasury	Task today	Task tomorrow
Cash and Liquidity Management	Establish cash management strategies and oversee financial position of the organisation	<p>Leverage real-time dashboards and alerts to oversee financial position of the organisation and establish structures to ensure efficient use of organisation's cash</p> <p>Access to insights generated from advanced analytics models/forecasts/simulations to drive enhanced decision making</p>
Financial Risk Management	Lead strategy to mitigate financial exposure and risk, and develop responses and plans when unusual activities arise	<p>Lead strategy to mitigate financial exposure and risk, and develop responses and plans when unusual activities arise</p> <p>Provide inputs and recommendations to the advanced analytics models, and endorse hedging requirements of the organisation</p>
Oversight of Treasury Function	Manage the cash management activities in the treasury function, and oversee the financial position of the organisation to ensure steady growth and sufficient capital	<p>In addition to managing the activities in the Treasury function, continually drive process improvement and champion digital treasury technology adoption. Require domain and technical expertise to determine how best to apply the technology</p> <p>Lead collaborations with internal functions to unlock the full potential of technology implementation</p>

Specialised Finance – Treasury

Head of Treasury

Relevant F&A process areas

- Treasury

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW

Collaboration	Advanced
Communication	Advanced
Critical Finance Thinking	Advanced
Decision Making	Advanced
Developing People	Advanced
Digital Fluency	Advanced
Influence	Advanced
Problem Solving	Advanced
Process Mindset	Advanced
Sense Making	Advanced

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Head of Compliance – SFW for Financial Services	Lead the development of the organisation's compliance strategies, policies and frameworks, and oversees compliance controls activities, compliance reviews and investigations.	<ul style="list-style-type: none"> Internal Controls Regulatory Compliance Regulatory Risk Assessment Stakeholder Management 	The Head of Treasury will be able to use existing skills to provide guidance and advisory on compliance matters to the organisation.	<ul style="list-style-type: none"> Change Management Corporate Governance Policy Implementation and Revision Risk and Compliance Reporting Risk Management Scenario Planning and Analysis
Head of Credit/Market and Liquidity/Operational Risk Mgmt. – SFW for Financial Services	Lead the management of financial risk exposure across the financial services organisation.	<ul style="list-style-type: none"> Business Planning Credit Risk Mgmt. Internal Controls Regulatory Compliance Regulatory Risk Assessment Stakeholder Management 	The Head of Treasury will be able to use existing skills to lead and manage the risk in a financial services organisation.	<ul style="list-style-type: none"> Corporate Governance Crisis Management Policy Implementation and Revision Risk and Compliance Reporting Scenario Planning and Analysis

Specialised Finance – Treasury

Head of Treasury

Relevant F&A process areas

- Treasury

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Head of Treasury will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> • Change Management • Digital Tech Adoption & Innovation • Project Execution and Control • Project Management • Stakeholder Management

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Internal Audit

Senior Internal Auditor/ Internal Auditor

Relevant F&A process areas

- Internal Audit

JOB ROLE TODAY

As a Senior Internal Auditor/Internal Auditor today, I execute internal audit engagements in accordance with audit procedures and applicable frameworks on governance, risk management and control. I support the team in providing advice and business insights to the organisation by identifying opportunities and making recommendations for change.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to focus more on applying analytics in audit engagements. I am expected to shift towards more exception handling tasks, especially in the Audit Execution process area, as compared to the process today.

IMPACT TO F&A PROCESSES

Internal Audit	Impact to process	Digital tools
Audit Plan, Risk Assessment and Execution	<p>Do More: Adopt Advanced Analytics technologies that enable real-time updates to the risk assessment process and audit plan</p> <p>Do Different: To identify emerging threats, advanced statistical modelling techniques can be used to simulate potential risks</p>	<ul style="list-style-type: none"> Data Science, Machine Learning & Advanced Analytics
Reporting and Monitoring	<p>Do More: Dashboards with basic commentaries are built to allow real-time access to progress of the audit plan and audit reports</p>	<ul style="list-style-type: none"> Audit Management solutions (AMS) Natural Language Generation (NLG)

KEY JOB TASKS

Internal Audit	Task today	Task tomorrow
Audit Plan, Risk Assessment and Execution	Perform internal audit procedures manually	Use data analytics to proactively identify risks and continuously drive risk assessment. Investigate outliers identified through analytics when executing the audit
Reporting and Monitoring	Prepare audit reports manually. Audit findings, remediation plans and exceptions are tracked manually	Analyse audit dashboards to identify business insights and audit findings. Review and handles exceptions from automatically generated audit reports. Uses workflows to manage Audit findings, remediation plans and exceptions.

Specialised Finance – Internal Audit

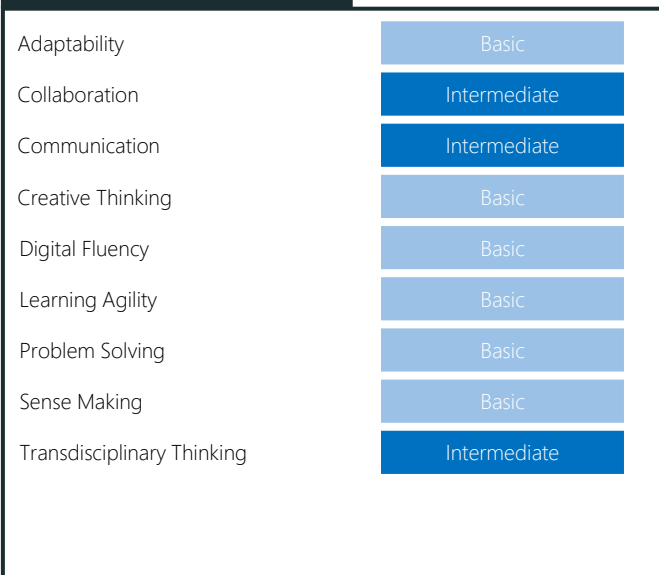
Senior Internal Auditor/ Internal Auditor

Relevant F&A process areas
 • Internal Audit

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Enterprise Risk Mgmt. Associate/ Enterprise Risk Mgmt. Executive	<ul style="list-style-type: none"> Business Process Analysis Cyber Security Internal Controls Project Execution and Control 	The Senior Internal Auditor/Internal Auditor will be able to use existing risk management and governance skills to support the implementation of ERM activities.	<ul style="list-style-type: none"> Environmental and Social Governance Regulatory Risk Assessment Risk Advisory Systems Thinking
Technology, Information and Cyber Security Risk Analyst – SFw for Financial Services	<ul style="list-style-type: none"> Cyber Security Data Analytics Data Governance Risk Management 	The Senior Internal Auditor/Internal Auditor will be able to apply existing skills in data analytics and risk management to identify and report technology, information and/or cybersecurity risks and recommend appropriate mitigating controls.	<ul style="list-style-type: none"> Business Continuity Planning Risk and Compliance Reporting Security Governance Stakeholder Management
Financial Crime Compliance Executive – SFw for Financial Services	<ul style="list-style-type: none"> Data Analytics Professional and Business Ethics Risk Management 	The Senior Internal Auditor/Internal Auditor will be able to apply existing skills in data analytics and risk management to execute financial crime risk management and regulatory compliance activities.	<ul style="list-style-type: none"> Regulatory and Legal Advisory Regulatory Compliance Risk and Compliance Reporting Stakeholder Management

Specialised Finance – Internal Audit

Senior Internal Auditor/ Internal Auditor

Relevant F&A process areas

- Internal Audit

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	The experience in analysis and testing of finance process can be used in identifying potential areas of automation. The knowledge in internal controls and process governance can also help in assessing the integrity of automations and its reliability.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Internal Audit

Internal Audit Assistant Manager

Relevant F&A process areas

- Internal Audit

JOB ROLE TODAY

As a Internal Audit Assistant Manager today, I am responsible for developing audit procedures and programmes based on internal audit engagement objectives and scope including the supervision of internal audit engagements.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to rely more on analytics to develop audit procedures based on the audit plan and risk assessment. Reporting and monitoring tasks are likely to be more exceptions-based and driven by automated workflows as compared to the process today.

IMPACT TO F&A PROCESSES

Internal Audit	Impact to process	Digital tools
Audit Plan, Risk Assessment and Execution	<p>Do More: Adopt Advanced Analytics technologies that enable real-time updates to the risk assessment process and audit plan</p> <p>Do Different: To identify emerging threats, advanced statistical modelling techniques can be used to simulate potential risks</p>	<ul style="list-style-type: none"> • Data Science, Machine Learning & Advanced Analytics
Reporting and Monitoring	<p>Do More: Dashboards with basic commentaries are built to allow real-time access to progress of the audit plan and audit reports</p>	<ul style="list-style-type: none"> • Audit Management solutions (AMS) • Natural Language Generation (NLG)

KEY JOB TASKS

Internal Audit	Task today	Task tomorrow
Audit Plan, Risk Assessment and Execution	Develop audit procedures and programmes based on internal audit engagement objectives and scope. Review the execution of internal audit procedures	Develop audit procedures with analytics tools based on internal audit engagement objectives and scope. Review the execution of internal audit procedures
Reporting and Monitoring	Review the audit reports prepared and manage the tracking of audit findings, remediation plans and exceptions	Review the audit reports generated by AMS and NLG, and manage the tracking of audit findings, remediation plans and exceptions through workflows

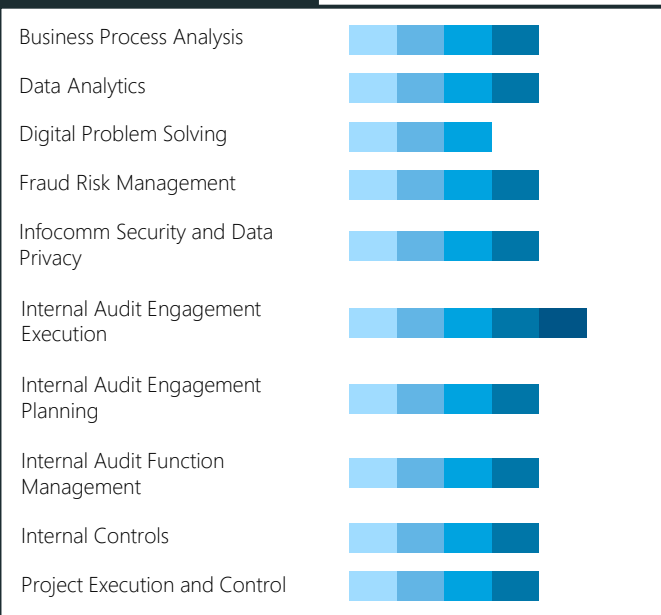
Specialised Finance – Internal Audit

Internal Audit Assistant Manager

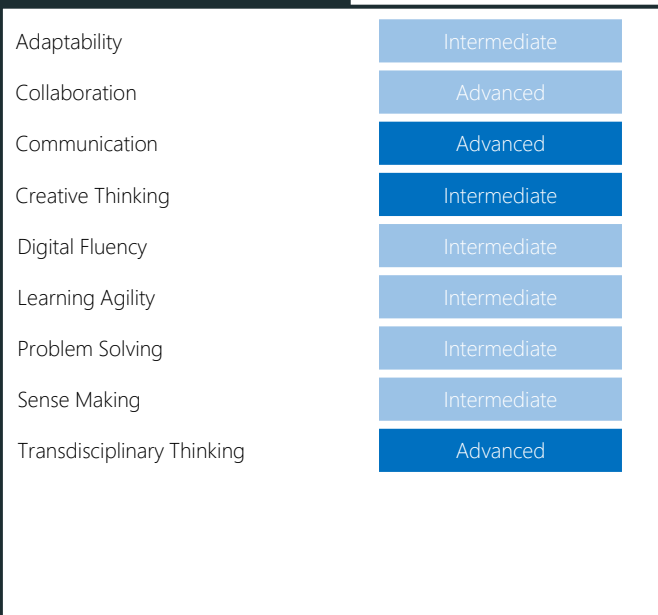
Relevant F&A process areas

- Internal Audit

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Enterprise Risk Mgmt. Senior/ Enterprise Risk Mgmt. Senior Executive	<ul style="list-style-type: none"> Business Process Analysis Cyber Security Fraud Risk Management Governance 	The Internal Audit Assistant Manager will be able to use existing risk management and governance skills to implement ERM framework procedures.	<ul style="list-style-type: none"> Environmental and Social Governance Regulatory Risk Assessment Risk Advisory Systems Thinking
Financial Crime Compliance Manager – SFw for Financial Services	<ul style="list-style-type: none"> Data Analytics Data Storytelling and Visualisation Risk Management Scenario Planning and Analysis 	The Internal Audit Assistant Manager will be able to apply existing skills in data storytelling and risk management to implement financial crime risk programmes.	<ul style="list-style-type: none"> Regulatory and Legal Advisory Regulatory Compliance Risk and Compliance Reporting Strategy Planning
Technology, Information and Cyber Security Risk Manager – SFw for Financial Services	<ul style="list-style-type: none"> Cyber Security Data Governance Risk Management Scenario Planning and Analysis 	The Internal Audit Assistant Manager will be able to apply existing skills in cyber security and risk management to guide the assessment of technology, information and/or cybersecurity risks and recommend appropriate mitigating controls.	<ul style="list-style-type: none"> Business Continuity Planning Risk and Compliance Reporting Security Governance Strategy Planning

Specialised Finance – Internal Audit

Internal Audit Assistant Manager

Relevant F&A process areas

- Internal Audit

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Internal Audit Assistant Manager to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> • Business, Product and Portfolio Acumen • Data Storytelling & Visualisation • Data Analytics • Financial Analysis • Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Internal Audit Assistant Manager makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> • Cross-Functional Acumen • Data Governance • Stakeholder Management • Systems Thinking • User Centric Approach & Testing
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Extensive experience in analysis and testing of finance process can be used in identifying potential areas of automation. The knowledge in internal controls and process governance can also help in assessing the integrity of automations and its reliability.	<ul style="list-style-type: none"> • Business Process Analysis • Digital Technology Adoption and Innovation • Programming and Coding • Systems Thinking • Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Internal Audit

Internal Audit Senior Manager/ Internal Audit Manager

Relevant F&A process areas

- Internal Audit

JOB ROLE TODAY

As a Internal Audit Senior Manager/ Internal Audit Manager today, I am responsible for determining the objectives and scope of internal audit engagements based on risk assessments, staff and other resources including the supervision of internal audit activities with the use of new and emerging technological tools to achieve intended objectives.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to utilise analytics more to better analyse business processes and changes and drive objectives and scope of audit engagements. Reporting and monitoring tasks are likely to be more exceptions-based and driven by automated workflows as compared to the process today.

IMPACT TO F&A PROCESSES

Internal Audit	Impact to process	Digital tools
Audit Plan, Risk Assessment and Execution	<p>Do More: Adopt Advanced Analytics technologies that enable real-time updates to the risk assessment process and audit plan</p> <p>Do Different: To identify emerging threats, advanced statistical modelling techniques can be used to simulate potential risks</p>	<ul style="list-style-type: none"> Data Science, Machine Learning & Advanced Analytics
Reporting and Monitoring	<p>Do More: Dashboards with basic commentaries are built to allow real-time access to progress of the audit plan and audit reports</p>	<ul style="list-style-type: none"> Audit Management solutions (AMS) Natural Language Generation (NLG)

KEY JOB TASKS

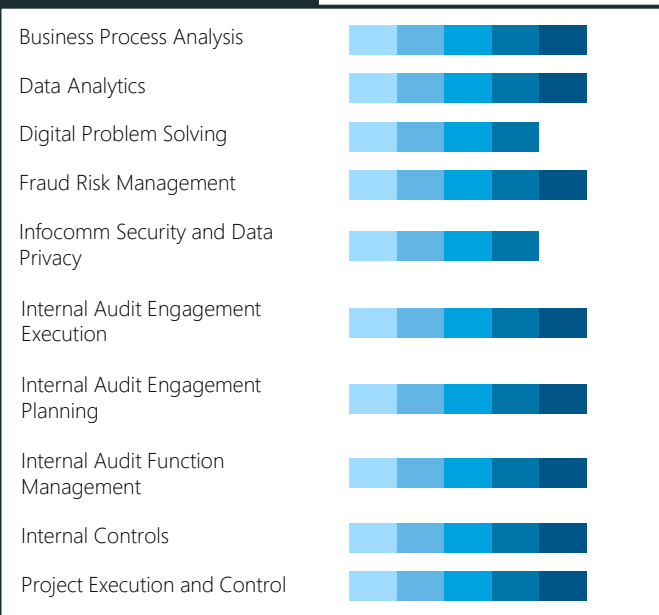
Internal Audit	Task today	Task tomorrow
Audit Plan, Risk Assessment and Execution	Determine objectives and scope of internal audit engagements based on risk assessments	Determine objectives and scope of internal audit engagements based on risk assessments driven by analytics
Reporting and Monitoring	Review the audit reports prepared and oversees status of audit findings, remediation plans and exceptions	Review the audit reports generated and oversees status of audit findings, remediation plans and exceptions.

Specialised Finance – Internal Audit

Internal Audit Senior Manager/ Internal Audit Manager

Relevant F&A process areas
 • Internal Audit

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW



Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Enterprise Risk Mgmt. Manager	<ul style="list-style-type: none"> Business Process Analysis Cyber Security Fraud Risk Management Governance Internal Controls 	The Internal Audit Senior Manager/ Internal Audit Manager will be able to use existing risk management and governance skills to manage enterprise-wide risks.	<ul style="list-style-type: none"> Business Continuity Management Regulatory Risk Assessment Risk Advisory Systems Thinking
Financial Crime Compliance Manager – SFw for Financial Services	<ul style="list-style-type: none"> Data Analytics Data Storytelling and Visualisation Risk Management Scenario Planning and Analysis 	The Internal Audit Senior Manager/ Internal Audit Manager will be able to apply existing skills in data storytelling and risk management to implement financial crime risk programmes.	<ul style="list-style-type: none"> Regulatory and Legal Advisory Regulatory Compliance Risk and Compliance Reporting Strategy Planning
Technology, Information and Cyber Security Risk Manager – SFw for Financial Services	<ul style="list-style-type: none"> Cyber Security Data Governance Risk Management Scenario Planning and Analysis 	The Internal Audit Senior Manager/ Internal Audit Manager will be able to apply existing skills in cyber security and risk management to guide the assessment of technology, information and/or cybersecurity risks and recommend appropriate mitigating controls.	<ul style="list-style-type: none"> Business Continuity Planning Risk and Compliance Reporting Security Governance Strategy Planning

Specialised Finance – Internal Audit

Internal Audit Senior Manager/ Internal Audit Manager

Relevant F&A process areas

- Internal Audit

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles		Compatibility	Skills to develop
Citizen Data Scientist	Power user responsible for extracting meaning from data with moderate coding knowledge. Go beyond data analysis and create predictive models as a digital power user. Aim to tell a story with data, making analysis intuitive, and to work with business partners.	Having a good understanding of the business operations and organisational goals, coupled with the ability to manage, understand and interpret data are key traits that will enable the Internal Audit Senior Manager/ Internal Audit Manager to provide useful insights as a Citizen Data Scientist.	<ul style="list-style-type: none"> Business, Product and Portfolio Acumen Data Storytelling & Visualisation Data Analytics Financial Analysis Financial Modelling
Finance Data Steward	The “go to” person in Finance who is the closest to Finance data. Responsible for driving continuous data improvement and keeping abreast with latest advancements in technology that can help Finance improve the insights from data.	Being able to manage and govern data in the F&A organisation including how data connects across systems, and possessing good cross-functional acumen skills, the Internal Audit Senior Manager/ Internal Audit Manager makes a suitable Finance Data Steward.	<ul style="list-style-type: none"> Cross-Functional Acumen Data Governance Stakeholder Management Systems Thinking User Centric Approach & Testing
Finance Transformation Lead	Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Internal Audit Senior Manager/ Internal Audit Manager will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> Change Management Digital Tech Adoption & Innovation Project Execution and Control Project Management Stakeholder Management
Vendor Relationship Manager	Manage all of Finance’s relationships with vendors who provide accounting and finance services for Finance. Typically present in organisations with large outsourcing footprint. Oversee service quality, service escalations and vendor risk governance.	Leveraging on experience with managing external stakeholders including contract negotiations and service standards assessments, the Internal Audit Senior Manager/ Internal Audit Manager will have the right experiences to perform the Vendor Relationship Manager role.	<ul style="list-style-type: none"> Business Negotiation Change Management Conflict Management Project Management Stakeholder Management
Governance, Risk and Compliance (GRC) Lead	Protect the organisation from various risks and inform against future events that may negatively impact the business. Works closely with the leaders of the organisation to advise on risk management and risk appetites.	Familiarity with the business from a business process perspective helps in identifying risks faced by the business as well as the regulations leading to compliance risks. With understanding of frameworks in risk management, internal control and fraud deterrence, this is a suitable transition to GRC lead.	<ul style="list-style-type: none"> Enterprise Risk Management Cyber Security Regulatory Compliance Business Continuity Management Risk assessment
Finance Automation Lead	Expert in using automation tools and techniques along with the knowledge in the domain of finance processes. Aims to enable automation of processes and eliminate manual tasks where possible across finance.	Extensive experience in analysis and testing of finance process can be used in identifying potential areas of automation. The knowledge in internal controls and process governance can also help in assessing the integrity of automations and its reliability.	<ul style="list-style-type: none"> Business Process Analysis Digital Technology Adoption and Innovation Programming and Coding Systems Thinking Agile Project Delivery

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

Specialised Finance – Internal Audit

Chief Audit Executive/ Head of Internal Audit

Relevant F&A process areas

- Internal Audit

JOB ROLE TODAY

As a Internal Audit Senior Manager/ Internal Audit Manager today, I am responsible for determining the objectives and scope of internal audit engagements based on risk assessments, staff and other resources including the supervision of internal audit activities with the use of new and emerging technological tools to achieve intended objectives.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to utilise analytics more to better analyse business processes and changes and drive objectives and scope of audit engagements. Reporting and monitoring tasks are likely to be more exceptions-based and driven by automated workflows as compared to the process today.

IMPACT TO F&A PROCESSES

Internal Audit	Impact to process	Digital tools
Audit Plan, Risk Assessment and Execution	<p>Do More: Adopt Advanced Analytics technologies that enable real-time updates to the risk assessment process and audit plan</p> <p>Do Different: To identify emerging threats, advanced statistical modelling techniques can be used to simulate potential risks</p>	<ul style="list-style-type: none"> • Data Science, Machine Learning & Advanced Analytics
Reporting and Monitoring	<p>Do More: Dashboards with basic commentaries are built to allow real-time access to progress of the audit plan and audit reports</p>	<ul style="list-style-type: none"> • Audit Management solutions (AMS) • Natural Language Generation (NLG)

KEY JOB TASKS

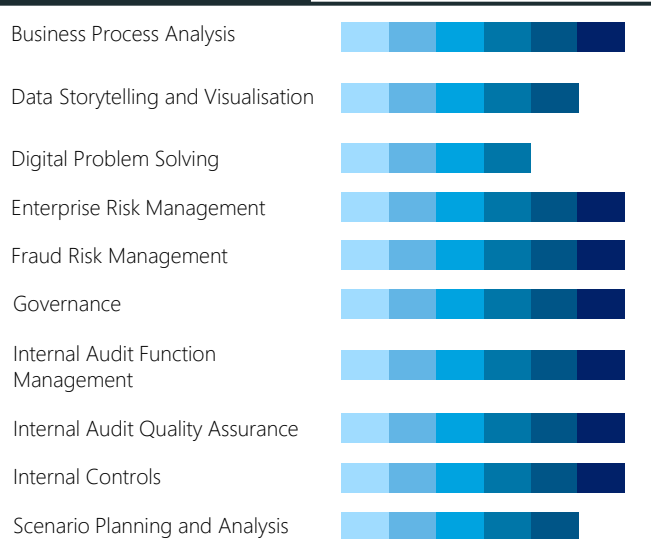
Internal Audit	Task today	Task tomorrow
Audit Plan, Risk Assessment and Execution	Manage the resources, policies and procedures of the internal audit function to ensure completion of audit plans and alignment to organisation objectives	Drive a proactive (“what could go wrong”) culture in the internal audit function when developing audit plans, risk assessment and audit procedures that anticipates risks in the organisation. Influences the use of technology to enhance the breadth and timeliness of audit activities
Reporting and Monitoring	Presents audit findings and recommendations to audit committee and/or other relevant stakeholders	Presents audit findings and recommendations to audit committee and/or other relevant stakeholders. Advises and challenges management’s approach on control effectiveness, change initiatives and risk management policies
Oversight of Internal Audit Function	Manage the assurance activities in the Internal Audit function, and oversee the internal controls of the organisation to ensure good corporate governance	<p>In addition to managing the Internal Audit activities in the organisation, continually drive process improvement and champion digital Internal Audit technology adoption. Require domain and technical expertise to determine how best to apply the technology</p> <p>Lead collaborations with internal functions to unlock the full potential of technology implementation</p>

Specialised Finance – Internal Audit

Chief Audit Executive/ Head of Internal Audit

Relevant F&A process areas
 • Internal Audit

TECHNICAL SKILLS TOMORROW



CRITICAL CORE SKILLS TOMORROW

Adaptability	Advanced
Creative Thinking	Advanced
Decision Making	Advanced
Developing People	Advanced
Digital Fluency	Advanced
Global Perspective	Advanced
Influence	Advanced
Learning Agility	Advanced
Problem Solving	Advanced
Thinks and Acts Strategically	Advanced

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.

ADJACENT JOB ROLES

Adjacent job roles		Skills overlap	Compatibility	Skills to develop
Chief Risk Officer/ Risk Partner/ Head of Risk/ Enterprise Risk Mgmt. Director	Manage the overall risk exposure in collaboration with relevant business units and senior stakeholders by developing and defining enterprise-level policies and frameworks which establishes acceptable risk appetite and strategies to maintain the organisation's collective risk exposure.	<ul style="list-style-type: none"> Business Process Analysis Governance Internal Controls Risk Management 	The Chief Audit Executive/ Head of Internal Audit will be able to use existing risk management and governance skills to develop and define enterprise-level risk policies and frameworks.	<ul style="list-style-type: none"> Business Continuity Management Regulatory Risk Assessment Risk Advisory Systems Thinking
Head of Technology, Information and Cyber Security Risk Mgmt. – SFw for Financial Services	Develops and drive risk management efforts for technology, information and cybersecurity within the organisation including the enforcement of technology, information and cybersecurity risk models, standards and policies.	<ul style="list-style-type: none"> Cyber Security Data Governance Risk Management Scenario Planning and Analysis 	The Chief Audit Executive/ Head of Internal Audit will be able to apply existing skills in cyber security and risk management to develop and drive technology, information and/or cybersecurity risk management in the organisation.	<ul style="list-style-type: none"> Business Continuity Planning Security Governance Strategy Planning Technology Application

Specialised Finance – Internal Audit

Chief Audit Executive/ Head of Internal Audit

Relevant F&A process areas

- Internal Audit

ADJACENT JOB ROLES (CONT'D)

Adjacent job roles	Skills overlap	Compatibility	Skills to develop
Head of Financial Crime Compliance – SFW for Financial Services Setting policies and establishing governance relating to financial crimes which includes leading the establishment and maintenance of robust financial crime prevention strategies, and ensuring that methodologies and the reporting of results are relevant and in line with regulatory expectations	<ul style="list-style-type: none"> Data Storytelling and Visualisation Governance Risk Management Scenario Planning and Analysis 	The Chief Audit Executive/ Head of Internal Audit will be able to apply existing skills in corporate governance and risk management to set policies and establish governance related to financial crimes	<ul style="list-style-type: none"> Regulatory and Legal Advisory Regulatory Compliance Risk and Compliance Reporting Strategy Planning

APPLICABLE EMERGING ROLES ¹

Applicable emerging job roles	Compatibility	Skills to develop
Finance Transformation Lead Drive integration across Finance. Possesses in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. Aims to embed a culture of operational excellence and agility across the Finance organisation.	The Chief Audit Executive/ Head of Internal Audit will require strong project management skills, good understanding of project and business risk and complexities to lead F&A transformation initiatives as a Finance Transformation Lead.	<ul style="list-style-type: none"> Change Management Digital Tech Adoption & Innovation Project Execution and Control Project Management Stakeholder Management
Governance, Risk and Compliance (GRC) Lead Protect the organisation from various risks and inform against future events that may negatively impact the business. Works closely with the leaders of the organisation to advise on risk management and risk appetites.	Familiarity with the business from a business process perspective helps in identifying risks faced by the business as well as the regulations leading to compliance risks. With understanding of frameworks in risk management, internal control and fraud deterrence, this is a suitable transition to GRC lead.	<ul style="list-style-type: none"> Enterprise Risk Management Cyber Security Regulatory Compliance Business Continuity Management Risk assessment

¹ These emerging roles were identified through this study and is not included in the Skills Framework. Refer to Appendix 6.5 for further details on Emerging Roles Persona.

In-house F&A Function

Chief Financial Officer

Relevant F&A process areas

- Financial Accounting
- Management Accounting
- Specialised Finance

JOB ROLE TODAY

As a Chief Financial Officer today, I am responsible for supporting the organisation as a strategic business advisor and champion change within the F&A function. I steer strategic planning and talent development initiatives, drive process improvement and resource allocation across the organisation, as well as head the investor relations for the organisation.

JOB ROLE TOMORROW (2 TO 5 YEARS)

Tomorrow, I am expected to shift from being the custodian of historical financial reporting to becoming an enabler of future growth opportunities. By cultivating a digitally-enabled and agile F&A, I will continue to utilise the benefits of digital tools to analyse, communicate and drive change across F&A, and partner with the CEO to optimise resources to grow the organisation further.

KEY JOB TASKS

Critical work functions	Task today	Task tomorrow
Lead financial accounting and corporate reporting function	<ul style="list-style-type: none"> • Translate highly complex information in financial reports into useful information for stakeholders • Ensure compliance with regulations of financial statements • Assess technical and quality aspects of financial reporting 	<ul style="list-style-type: none"> • Enhance financial reporting quality to reflect non-historical information and the organisation's potential future performance • Lead the organisation in the requirements and effectiveness of sustainability reporting and integrated reporting
Drive tax efficiency	<ul style="list-style-type: none"> • Oversee tax planning, evaluate effect of transfer prices • Recommend transfer pricing systems and drive down effective tax rates 	<ul style="list-style-type: none"> • Drive transformation efforts for tax to leverage on Data Science, Machine Learning and Advanced Analytics tools to yield deeper insights to construct tax strategies and advice
Support the organisation as a strategic business	<ul style="list-style-type: none"> • Guide the organisation's long term financial strategy, steer the organisation towards its vision • Formulate a clearer perspective of the bigger picture 	<ul style="list-style-type: none"> • Perform highly complex scenario analysis using Advanced Analytics/Big Data to create possible actions for various forecasting outcomes
Drive strategic planning and talent development for the organisation	<ul style="list-style-type: none"> • Lead organisation to develop strategic priorities, culture, and governance • Formulate clear strategic plans and takes planned actions to achieve long term goals • Drive forecasting and budgeting to align strategic vision of F&A 	<ul style="list-style-type: none"> • Formulate business direction and resolve complex organisational issues with analytical thinking • Leverage on AI to sustain organisation's performance
Drive process improvement and resource allocation to enhance effectiveness and efficiency of organisation	<ul style="list-style-type: none"> • Oversee effective cash flow management across the organisation to aid business growth and operation • Guide F&A to identify areas for cost and expense reduction 	<ul style="list-style-type: none"> • Lead efforts in the redesign of core business processes to improve productivity and efficiency • Advise on the role of sustainability to improve environmental, social and financial business performance
Lead in governance, compliance and risk management	<ul style="list-style-type: none"> • Manage risks by taking an integrated view of all the uncertainties that exists across an organisation Provides executive support to Board of Directors with financial and non-financial information • Lead implementation and compliance of control policies • Ensure conformance of laws and regulations on the business strategy and organisation's business 	<ul style="list-style-type: none"> • Drive innovation and strategic changes to audit practices, nurture an ethical culture across the organisation • Lead resolution to ethical dilemmas

In-house F&A Function

Chief Financial Officer

- Relevant F&A process areas
- Financial Accounting
 - Management Accounting
 - Specialised Finance

KEY JOB TASKS

Critical work functions	Task today	Task tomorrow
Drive change in the F&A function	<ul style="list-style-type: none"> • Break down complex numbers into good intelligence to support business growth and drive value creation • Lead the development of innovative finance and other processes to build value-adding capabilities in the organisation 	<ul style="list-style-type: none"> • Use analytics to support business growth and needs, and identifies potential risks • Connect underlying complex non-financial drivers of a business to financial information through analytics • Leverage on predictive analytics as an enabler to forecast future performance and perform stress testing on business lines • Develop innovative ways to attract new talent, inspire and transform skills of existing F&A function
Head the investor relations for the organisation	<ul style="list-style-type: none"> • Communicate organisation's financial and business information to investor community • Lead the engagement of stakeholders for matters arising from risks, controls and compliance 	<ul style="list-style-type: none"> • Manage working relationships with various stakeholders

TECHNICAL SKILLS TOMORROW

Agile Project Delivery	
Business Innovation and Improvement	
Business Planning	
Business, Product and Portfolio Acumen	
Capital Expenditure and Investment Evaluation	
Change Management	
Cross-Functional Acumen	
Digital Technology Adoption and Innovation	
Disruption Management	
Finance Business Partnering	

CRITICAL CORE SKILLS TOMORROW

Adaptability	Advanced
Collaboration	Advanced
Critical Finance Thinking	Advanced
Communication	Advanced
Decision Making	Advanced
Influence	Advanced
Problem Solving	Advanced
Process Mindset	Advanced
Thinks and Acts Strategically	Advanced
Transdisciplinary Thinking	Advanced

Note: Listed above are some of the key Technical and Critical Core skills for the role. Please refer to Skills Framework for Accountancy for the exhaustive list of skills required for the role and further details of the proficiency levels of the Technical Skills.



6.5 Emerging roles persona



Emerging roles persona

- Regional Controller [267](#)
- Citizen Data Scientist [268](#)
- Finance Data Steward [269](#)
- Vendor Relationship Manager [270](#)
- Finance Transformation Lead [271](#)
- Finance Automation Lead [272](#)
- Environmental, Social and Governance (ESG) Lead [273](#)
- Governance, Risk and Compliance (GRC) Lead [274](#)



Appendix 6.5 Emerging roles persona

This section comprises of 8 personas of Finance & Accounting (F&A) job roles that are emerging in in-house F&A as a result of the megatrends.

Figure 6.5: Illustration of emerging roles persona



Each emerging role persona includes:

- 1 A description of the role including alternative job titles used in similar roles;
- 2 The scope of work of the role;
- 3 "A day in the Life" of the role which illustrates the day-to-day activities performed by the role;
- 4 The key technical skills and competencies (TSC) required of the role; and
- 5 Digital enablers that might be used by the role



Nice to meet you, my name's Valencia, and I am the...

Regional Controller

May also be known as: Regional Financial Controller

I am the person-in-charge of shaping the regional finance operations of the business. I work closely with C-suite and other business functions to advise on various finance implications and support strategic decision-making from a finance perspective.

WHO AM I

Valencia Regional Controller

"I am a highly experienced finance professional and I ensure that the business meets both statutory and regulatory requirements in the region. Where needed, I am also hands-on in my approach in leading and mentoring junior finance professionals. I have a strong understanding in various reporting standards and financial governance frameworks so that a robust reporting process and control environment can be achieved. I also lead with other experienced finance professionals in specialised areas of tax, treasury and corporate finance in optimising the financial performance of the business."

MY ROLE

To function effectively in my role, I have:

- Knowledge of financial reporting standards and disclosure such as General Accepting Accounting Principles (GAAP), International Financial Reporting Standards (IFRS), Sarbanes-Oxley (SOX). etc.
- Understanding of the business other regulatory requirements in the region that may impact finance

I am responsible for:

- Developing and implementing F&A policies, controls and procedures
- Providing technical accounting advice and oversight of F&A operations
- Coordinate and prepare consolidated financial reports, ensuring compliance to the region's regulations and company policy
- Coordinate and prepare regional annual budgets, budget processing, budget forecasts and tax reporting
- Define financial performance KPIs and analyse financial data to present performance results to C-suite
- Initiate financial projects and work with Finance Transformation Lead to improve regional finance operations

MY SKILLS

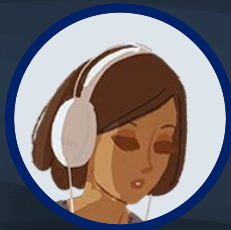


DAY IN MY LIFE

- 9:00 Review emails and arrange list of meeting with various finance staff for the week. A regulation has been implemented in one of the countries within the region and impacts the region's finance operations which needs to be assessed and incorporated into existing operations.
- 10:00 Attend meeting with external auditors and finance team to kickstart the financial audit for the region's entities.
- 11:00 Review the latest performance and financial reports received from the region's finance team in preparation for discussions with C-suite
- 1:00 Meet with appointed finance representatives and IT for new finance project in progress to streamline system processes and incorporate new internal controls. Issues are discussed and resolutions are proposed for approval.
- 3:00 Meet with finance team to go through latest financial and business performance for the period. Abnormalities are raised for investigation and progress of quarterly reporting is discussed.
- 5:00 Attend meeting with C-suite to update on and discuss periodic financial and business performance figures

MY TOOLBOX

- Core Accounting system is the foundation used to capture and record financial accounting transactions. Regional Controllers need to understand the functionalities and system process within.
- Financial Consolidation Solutions enable the management of the consolidation workflow and apply appropriate controls throughout the accounting cycle. This allows single source of truth and automate consolidation processes that can provide Regional Controllers obtain a centralised view of reporting figures for the region
- Enterprise / Corporate Performance Management (EPM/CPM) combines BI with financial management and forecasting. Compared to pure BI tools, it focuses more on financial planning and forecasting, to plan, monitor, and take action in order to improve business performance.



Hi, I am Amy! I am a...

Citizen Data Scientist

May also be known as Financial Analyst, Data Analyst or Decision Support Specialist

I'm a power user responsible for extracting meaning from data with moderate coding knowledge. I go beyond data analysis and create predictive models. I aim to tell a story with data, making analysis intuitive, and to work with business partners.

WHO AM I

Amy
Citizen Data Scientist

"I am an insight generator. I provide insightful analysis to aid decision making. I have a strong understanding of how my company operates, I know the issues and challenges that they face, so that I can provide them with analysis and advice. I lead integrated conversations with business partners and am a power user of pre-built dashboards and a data storyteller with finance background. I leverage analytics and modelling for planning, budgeting and forecasting. I strive to fully utilise technologies to improve the user experience by getting to know what they want and providing analytical expertise."

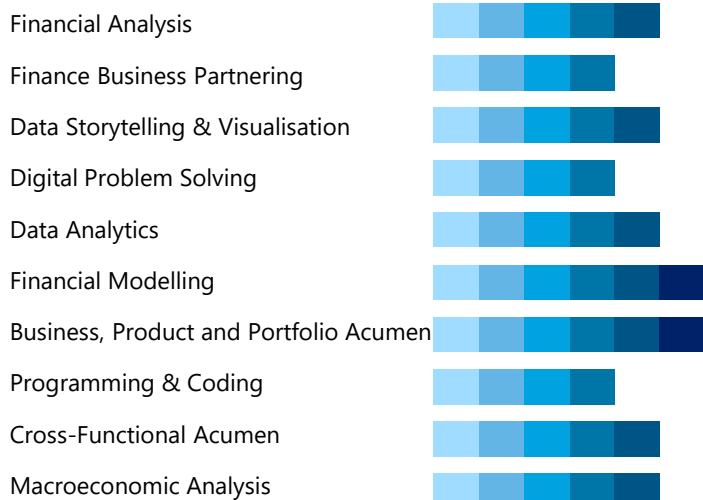
MY ROLE

Work with Business Controllers **alongside stakeholders across Finance and across the organisations with business partners** such as Sales, HR, Marketing, etc. to advise and support their decision-making through insights that drive better performance.

The work I carry out includes:

- Providing **financial insights and analysis** (e.g. financial modelling, impact assessment, scenario / sensitivity analysis) to facilitate operational and strategic decisions
- **Work with Expert Data Scientists to build custom models** for the purposes of financial analysis
- Leverage **utilise existing pre-built models** in FP&A tools via **software features like drag-and-drop tools and prebuilt models to create models without code**
- **Analysing performance reports** and producing analysis and recommendations
- Supporting management to deliver a more robust, efficient **future focused** and accurate **planning, budgeting, and forecasting**
- Understand the **ins and outs of the business**: strategy, products, customers and technology stack




MY SKILLS



DAY IN MY LIFE

- 9:00 Review emails and set to-do list for the day and the upcoming week, including meetings and milestones to consider ahead of time
- 10:00 Log into the finance system remotely and **pull up the real-time financial modelling dashboards**. The dashboard can be filtered by each entity within the agency, spend levels against budget, etc.
- 11:00 Attend 11am meeting designed to **discuss requests from stakeholders, current status of data via sprints**, and quality of data pulls. During the meeting, the daily briefing for leaders is finalised.
- 1:00 An automated batch job runs that currently **assess financial datasets for outliers, red flag conditions, and "normal" spend patterns by the company**. Meet with the Sales to **discuss the outliers and red flags** on their spend patterns, and discuss KPIs to date
- 3:00 **Attend briefing with CFO and Business Controller**, where you meet for a discussion to **review rolling forecasts**, and **assess if drivers** would need to change to account for industry and organisation updates
- 5:00 Attend 1-1 coaching of executive on FP&A to **augment technical skills on leveraging existing pre-built models in EPM** to analyse a use case

MY TOOLBOX

-  **Business Intelligence & Visualisation** tools help gather, consolidate, and make sense of data. These tools allow you to analyse data in depth, improving decision making from the C-suite level down.
-  **Enterprise / Corporate Performance Management (EPM/CPM)** combines BI with financial management and forecasting. Compared to pure BI tools, EPM focuses much more on the financial planning and forecasting, to plan, monitor, and take action in order to improve business performance.
-  **Data Science & Machine Learning (DSML)** platforms offers a mixture of basic and advanced functionality including data ingestion, data preparation, data exploration, and predictive modelling



Hello there! I am Bobby, a...

Finance Data Steward

May also be known as: Data Evangelist or Data Governance Analyst

I am the "go to" person in Finance who is the closest to Finance data. I am passionate about driving continuous data improvement and am responsible for keeping abreast with latest advancements in technology that can help Finance improve the insights from data.

WHO AM I

Bobby Finance Data Steward

"I am the data expert in the organisation and my role is to help to ensure that the right data is available to the right people at the right time. I collaborate with other areas of Finance as well as IT to ensure that data is being used interpreted correctly. I can provide access to more detailed data from Finance Systems to enrich analysis. I have a deep understanding of how data connects across the different finance systems and other operational systems that impacts financials. My role is to also ensure ongoing fitness and conformance of transformation initiatives with Finance and enterprise wide data policies."

MY ROLE

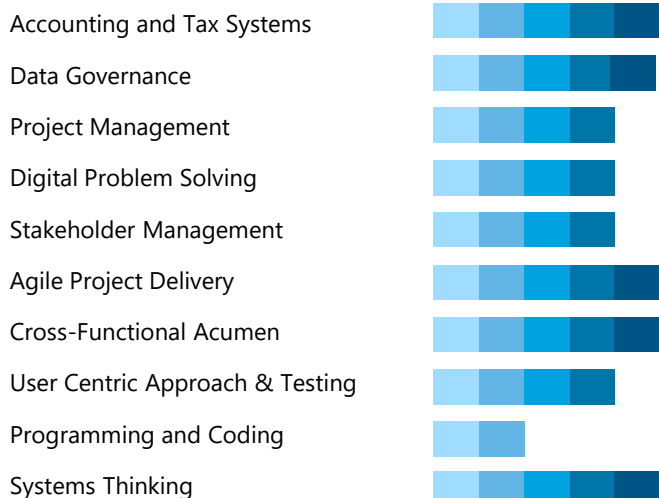
In my role, I am required to have:

- Deep knowledge of available **data, definitions, and interactions within systems and environments**
- Knowledge of **how different user groups are using data** and for what purposes
- **Strong relationships** with the Finance Business Partners, IT and the wider **business**

My responsibilities include:

- Ensuring **data integrity and continuous data improvement**
- Lead **self service analytics capability and culture**
- Provide innovative **solutions on how to best derive insights and information from data**, based on my knowledge of the data flows and data available across the systems
- Take lead in **advocating for and implementing appropriate analytics toolkits** to better manage and transform data and it's application across the business
- Lead initiatives around **validation and building consistent data** across different systems in Finance
- Support **resolution of stakeholders' problems/queries on data**




MY SKILLS



DAY IN MY LIFE



MY TOOLBOX

-  **Core Accounting system** is the foundation used to capture and record financial accounting transactions. Data stewards would need to understand data available and how data flows between accounting system to both upstream and downstream systems
-  **Data Integration Tools** such as data warehouse allows organisations to ingest, transform, and provision data to meet requirements across a multiple, disparate data sources, within the organisation across the lines of business such as products, customers, vendors, employees
-  **Data Science & Machine Learning (DSML)** platforms offers a mixture of basic and advanced functionality including data ingestion, data preparation, data exploration, and predictive modelling



Hi, I am Charlie, the...

Vendor Relationship Manager

May also be known as: Vendor Management Lead

I manage all of Finance's relationships with vendors who provide accounting and finance services for Finance. My role is typically present in organisations with large outsourcing footprint. I oversee service quality, service escalations and vendor risk governance.

WHO AM I

Charlie
Vendor Relationship Manager

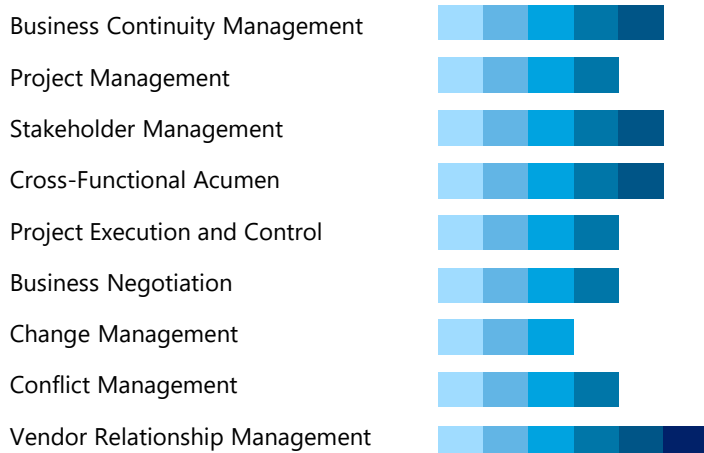
"I manage Finance relationships with vendors such as outsourcing and accounting/tax service providers. I am the mediator of Finance and multiple service providers. I manage and lead periodic service review to ensure the highest standard of service quality provided by the vendors, and ensure all escalations are managed appropriately. I also work with Legal and Procurement on contract matters such as the negotiations and renewal of master outsourcing services agreement / contracts."

MY ROLE

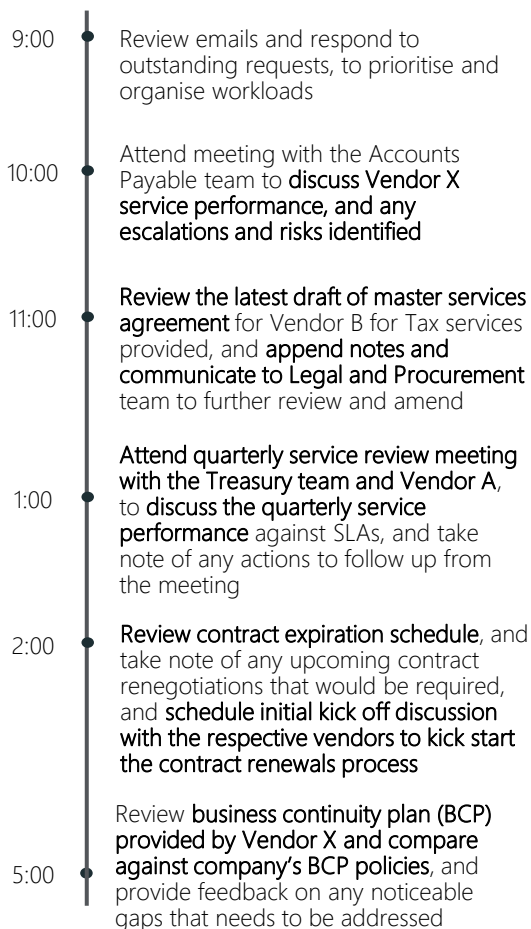
My responsibilities as the Vendor Relationship Manager include:

- **Handling change of scopes of service** including understanding and leading discussions with Finance stakeholders to **align and firm up business requirements** with relevant vendors
- **Working with procurement and legal teams** to amend any contracts, and ensure follow up until the amendments takes effect
- **Monitoring and tracking of contracts** expiration, and **kick start any contract renewal and renegotiation processes** with Finance stakeholders and the vendor
- Managing **all regular service review** (quarterly and annually) with vendors including **collecting feedback from Finance stakeholders, reviewing vendor performance** against contractual service level agreements (SLA) and where available, **discuss any performance-based credit** as contractually stipulated
- **Managing all escalations and inquiries** from Finance stakeholders and internal stakeholders, and **communicate and work with vendors to ensure the highest standard of service quality**
- Support the **global vendor risk assessment**, as well as **ensuring appropriate business continuity planning (BCP) policies are in place** by vendors that align to the organisation's BCP policy

MY SKILLS



DAY IN MY LIFE



MY TOOLBOX



Business Intelligence & Visualisation tools help gather, consolidate, and make sense of data. These tools can be used to track service performance of vendors against target SLAs, and to be used during vendor performance reviews and discussions



Business Process Management (BPM) tools contain human task management, workflow and collaboration functionalities to enable various users and project teams to collaborate, track and manage tasks and workflows to achieve business outcomes.



I'm Debbie, and I am the...

Finance Transformation Lead

May also be known as: Finance Project Manager or Finance Systems Solution Manager
 I am the integrator driving integration across Finance. I have in-depth knowledge of project management methodologies such as Waterfall, Agile, Scrum, Kanban, etc. My aim is to embed a culture of process efficiency and agility across the Finance organisation

WHO AM I

Debbie
 Finance Transformation Lead

"I am the Finance Transformation Lead and I lead transformation initiatives for Finance. I also represent Finance in communicating any impact on Finance systems and outputs for initiatives that originate outside of the Finance organisation. From a project management perspective, I lead planning and execution of projects to meet objectives and ensure adherence to approved scope, time, and budget. I have a strong understanding of the project and business risk and complexity, as well as visibility over day to day challenges to better advocate digital technologies to work around those challenges"

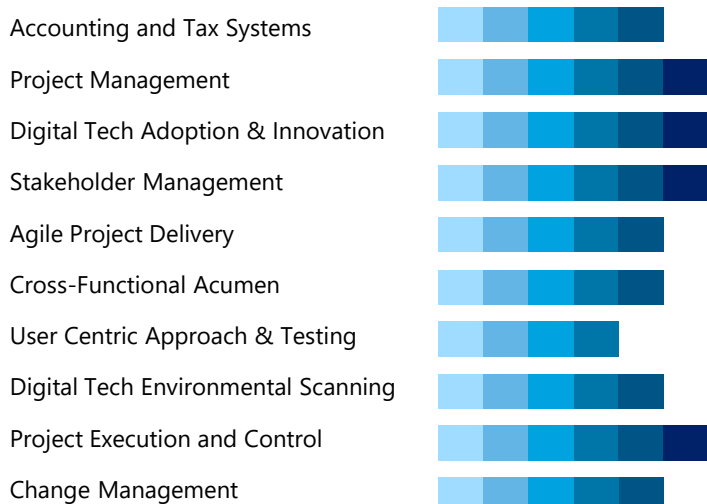
MY ROLE

I ensure that **all transformation and project activities are aligned with goals** based on the **agreed-upon schedule and scope**.

Several activities that I am responsible for are as follows:

- Align project outcome with vision
- **Drive agility** to adapt to shifting needs
- An **integrator to drive understanding of integration points** between different departments and disciplines
- Enable **sharing of resources, methodologies, tools and techniques for project success** across Finance
- Responsible for **creating budget, plans, schedules, resource allocation, track project performance**
- **Identify and develop project management methodology**, best practices and standards
- **Advocate for digitalisation, process improvement and process standardisation**, where reasonable
- Coach, mentor, train and provide oversight for project team
- **Train Finance users** on implemented software and technologies

MY SKILLS



DAY IN MY LIFE

- 9:00 Meet with Project Team A for **daily scrum meeting** to run through the **progress against Sprint Goal** and **adapt the Sprint Backlog** as necessary
- 10:00 Schedule **meeting with IT** (i.e. the team identified as owner during the scrum meeting) on the recent system issues and to discuss the roadblocks on system availability preventing Finance from working effectively
- 11:00 **Review** the team's **estimate of work**, assess the need to request product owner to review scope
- 1:00 Review project risks, issues and dependencies tracked on project dashboard / task management system and **escalate project risks and issues** as required
- 2:00 Schedule and plan for the upcoming **sprint planning session** for Project Team B including drafting the initial work to be performed for the Sprint, to be discussed with Project Team B during the sprint planning session
- 5:00 **Facilitate Brown Bag session** for Finance users on the **Lean principles and methodology** with the aim of **embedding operational excellence** in their day to day work

MY TOOLBOX



Business Process Management (BPM) tools contain human task management, workflow and collaboration functionalities to enable various users and project teams to collaborate, track and manage tasks and workflows to achieve business outcomes. BPM solutions are typically self-service, enabling users to raise cases and incidents directly, with more advanced BPM tools powered by AI-driven chatbots to identify and triage critical incidents and escalate as appropriate



Hello, I'm James and I am the... Finance Automation Lead

May also be known as: Operational Excellence Lead or RPA Manager

I am an expert in using automation tools and techniques along with the knowledge in the domain of finance processes. My goal is to enable automation of processes and eliminate manual tasks where possible. It is my dream to bring my organisation's finance operations to a new level.

WHO AM I

James Finance Automation Lead

"As a Finance Automation Lead, I am the brains of automating finance processes to help the finance function achieve greater efficiency. I spent most of my time working closely with finance process owners to translate manual tasks into automated processes, relieving capacity for these finance experts to take on more analytical work. I am excited about the use of automation in different areas. I have the help of project managers to keep the projects on track so I can focus on developing the automation together with my team of developers or automation experts. I am constantly aware of developments in the market for automations and its related approaches and tools."

MY ROLE

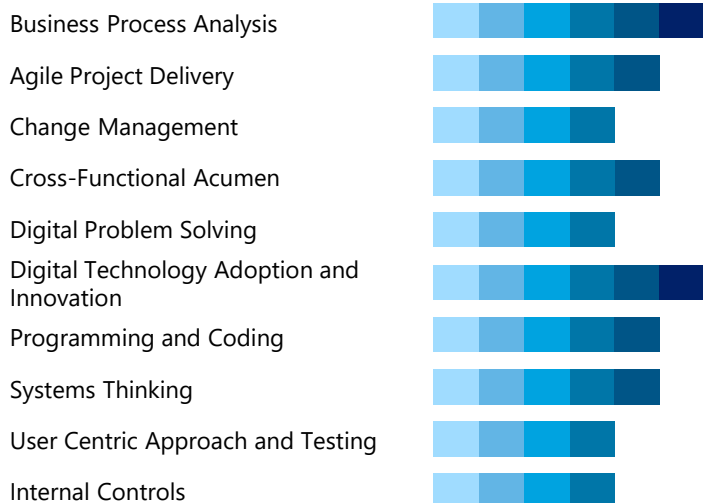
To be a Finance Automation Lead, I need to have:

- Knowledge of automation tools and solutions with an understanding of Finance operations
- Experience in programming, application development and implementation work

The responsibilities of my job includes:

- Identify opportunities and drive automation of processes in finance function by assessing ROI, automation tools and approach
- Organise workshops to gather requirements and map business processes for automation
- Develop proof of concept and demonstrate RPA capabilities to garner project support for automation
- Work with finance process owners and IT to implement automations as per organisation's standards for automations.
- Perform end-to-end testing, troubleshooting and end-user education and support
- Maintain documentation of automations and support operational issues after go-live
- Stay updated on automation tools and solutions in the market

MY SKILLS



DAY IN MY LIFE

- 9:00 Meet with project manager, process owners and other developers of Project A for **daily scrum meeting to run through the progress against Sprint Goal and adapt the Sprint Backlog as necessary**
- 10:00 Schedule meeting with other **developers or automation experts to discuss roadblocks in development of automation project A and next steps going forward.**
- 11:00 Attend meeting with finance representatives to understand **new areas of finance process that can be potentially automated.**
- 1:00 Work on **proof of concept for new project B** that can potentially automate finance process and **prepare business case** for project initiation. Further queries are raised to the finance process owners.
- 3:00 Continue to work on **development of automation** for project A which is ongoing. Check to ensure that **work has been documented in a centralised project documentation.**
- 5:00 **Support user queries and issues** from automation that has been implemented

MY TOOLBOX



Robotic Process Automation (RPA) tools are technologies that can mimic how end users interacts with applications to perform repeatable and high-volume tasks. RPA tools can be software programs or bots that can access applications to enter data, complete tasks, and copy information between different applications.



Business Process Management (BPM) tools contain human task management, workflow and collaboration functionalities to enable various users and project teams to collaborate, track and manage tasks and workflows to achieve business outcomes. BPM solutions are typically self-service, enabling users to raise cases and incidents directly, with more advanced BPM tools powered by AI-driven chatbots to identify and triage critical incidents and escalate as appropriate



Nice to meet you, I'm Samantha, I am the... Environmental, Social and Governance (ESG) Lead

May also be known as: Sustainability Reporting Lead

My role is to provide financial insights and streamline reporting for environmental, social and governance topics. I support Finance and the business, by bringing the Finance lens on how to find the right balance between financial, social and environmental priorities.

WHO AM I

Samantha Environmental, Social and Governance (ESG) Lead

"I am the Finance point-of-contact for environmental, social and governance-related reporting. I support collection and reporting of greenhouse gas (GHG) data, GHG calculations, carbon tax liabilities calculations and emissions data for legal/reporting requirements. Apart from compliance aspects, I support the business in actively forecasting ESG components vis-à-vis business drivers across our lines of products and businesses by providing insights from our available ESG-related models and data. My aim is to provide transparency and insights over the company's sustainability performance."

MY ROLE

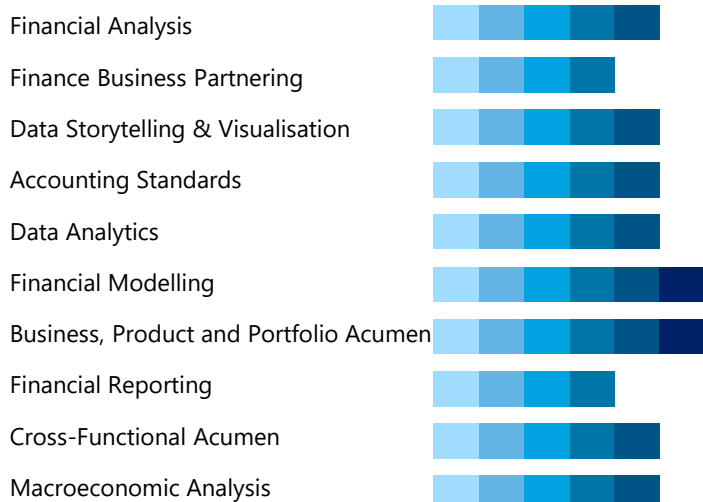
In my role, I am required to have:

- **Knowledge of reporting standards and disclosures** including Sustainability Accounting Standards Board (SASB), Global Reporting Initiative (GRI), Taskforce on Climate-related Disclosures (TCFD), Climate Disclosure Standards Board (CDSB) and more
- **Understanding of the organisation's value chain** across various lines of business, products and portfolio including sustainability and environmental impacts on financial performance

My responsibilities include:

- Streamline and **enhance reporting process on sustainability**
- **Provide insights to enable transparency** and better decision-making through **information on sustainability performance**
- **Drive initiatives to ensure greater accuracy over ESG reporting**
- **Stay up-to-date on ESG reporting and compliance standards**, and communicate these updates to Finance and the wider business
- **Ensure compliance with regulatory and reporting requirements** and determine accessible data that can be used for metrics
- **Determine models to support forecasting and insights on performance across scenarios** (e.g. impact of floods on portfolio)

MY SKILLS



DAY IN MY LIFE



MY TOOLBOX

- Business Intelligence & Visualisation** tools help gather, consolidate, and make sense of data. These tools allow you to analyse and track ESG data and performance in depth, improving decision making from the C-suite level down.
- Data Science & Machine Learning (DSML)** platforms offers a mixture of basic and advanced functionality including data ingestion, data preparation, data exploration, and predictive modelling



Hi! My name's Anson and I am the...

Governance, Risk and Compliance (GRC) Lead

May also be known as: Operational Risk Lead or Enterprise Risk Management Lead

My role is to protect the organisation from various risks and inform against future events that may negatively impact the business. I work closely with the leaders of the organisation to advise on risk management and risk appetites.

WHO AM I

Anson Governance, Risk and Compliance (GRC) Lead

"I am the organisation's expert in navigating through various business risks. I work with various business functions and external stakeholders to understand the risk environment of a business and put in place a structured framework to safeguard the organisation. This includes developing risk criteria and profiles, risk reporting mechanisms and risk recovery and resolutions across business functions. I also educate employees on our risk management framework. In times of volatile business environment, where possible, I also take proactive actions to identify potential risks and propose feasible measures to protect the business in advance."

MY ROLE

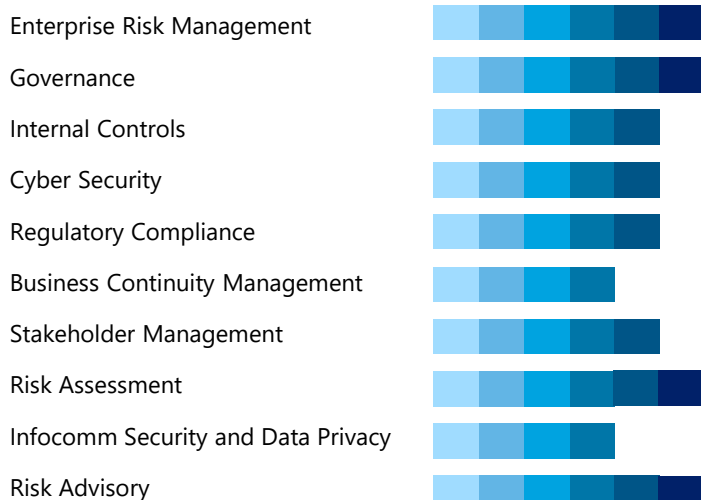
As a GRC Manager, I am required to have:

- Knowledge of Enterprise Risk Management (ERM) framework and experience in risks specific to the business' industry or specific domain such as IT or transaction services

The responsibilities that I have are:

- Developing and implementing risk management frameworks and policies in handling various risks across the organisation and support desired business outcomes
- Manage relationship with external regulators and with other business functions to understand and communicate compliance requirements
- Identify and develop risk metrics to monitor risks and its potential implications and report on risks
- Assess and research on events or regulations internal and external to the business and take proactive steps in proposing measures to safeguard the business' interests
- Advise and educate business functions on various risks and potential measures that can be put in place for mitigation
- Implement systems in ERM and IT access control, etc.

MY SKILLS




DAY IN MY LIFE

- 9:00 Review emails and respond to any queries on GRC from business functions. Get updates of the business environment and any internal developments within the organisation that might flag risks.
- 10:00 Review risk reports and data from ERM system and check for risk alerts. Meeting are set up with relevant business functions to investigate risks and develop mitigation measures.
- 11:00 Attend 11am meeting with the IT function to discuss recent issues on IT access and control as a result of system upgrades and rectifications to be performed.
- 1:00 Facilitate brown bag to educate management staff from different business function on updates to risk management framework and policies
- 2:00 Attend external session with regulators to brief on new business regulation for the impacted industries.
- 4:00 Meet with GRC colleagues in an internal discussion to assess new business regulation and potential actions that the business can undertake, Assess for potential revisions needed to existing risk management framework.
- 5:00 Review performance and effectiveness of new policies and controls put in place

MY TOOLBOX

 ERM software helps businesses identify and monitor financial, strategic, and operational risks for mitigations to prevent losses and subsequent business failure. Alerts can be analysed and used to develop risk management policies, avoid high-risk procedures reduce repeated exposure to risks.

 Data Science & Machine Learning (DSML) platforms offers a mixture of basic and advanced functionality including data ingestion, data preparation, data exploration, and predictive modelling



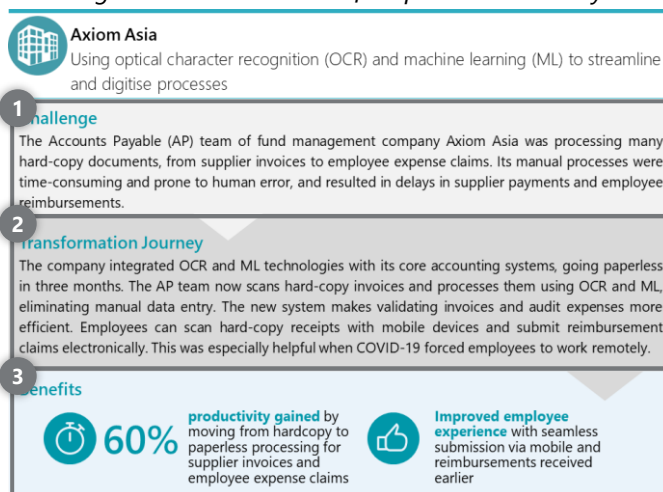
6.6 Case studies



Appendix 6.6 Case studies

In this section, case studies of industry participants who were engaged in this study are compiled to showcase their successes in progressing up the sophistication levels in their Finance & Accounting (F&A) function (for corporates) or successfully upskilled/ reskilled to increase the value of their role (for F&A professionals).

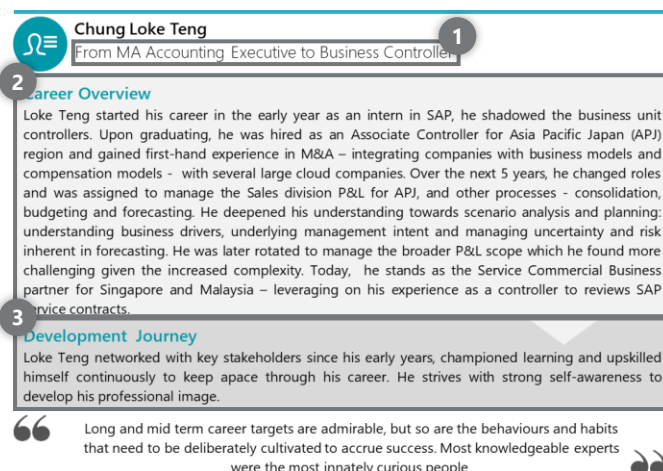
Figure 6.6 : Illustration of corporate case study



The case studies gathered from corporate F&A leaders include:

- 1 A description of challenges faced by the organisation prior to adopting transformation initiatives;
- 2 A description of the transformation journey; and
- 3 Benefits realised from the respective transformation initiatives

Figure 6.7 : Illustration of individual case study



The case studies gathered from F&A professionals include:

- 1 Current role of the F&A professional;
- 2 A description of the F&A professional’s career journey; and
- 3 A description of efforts taken to upskill or enhance individual capabilities

Case studies

- Corporate case studies [278](#)
- Individual case studies [295](#)





Axiom Asia

Using optical character recognition (OCR) and machine learning (ML) to streamline and digitise processes

Challenge

The Accounts Payable (AP) team of fund management company Axiom Asia was processing many hard-copy documents, from supplier invoices to employee expense claims. Its manual processes were time-consuming and prone to human error, and resulted in delays in supplier payments and employee reimbursements.

Transformation journey

The company integrated OCR and ML technologies with its core accounting systems, going paperless in three months. The AP team now scans hard-copy invoices and processes them using OCR and ML, eliminating manual data entry. The new system makes validating invoices and audit expenses more efficient. Employees can scan hard-copy receipts with mobile devices and submit reimbursement claims electronically. This was especially helpful when COVID-19 forced employees to work remotely.

Benefits



60%

Productivity gained by moving from hard-copy to paperless processing for supplier invoices and employee expense claims



Improved employee experiences, with seamless expenses submission via mobile devices, and faster reimbursement payments



Coda Payments

Building treasury capabilities to support business growth

Challenge

The treasury team was set up a year ago with relatively simple treasury processes in place. Hence there was a solid need to evolve our existing practices and keep pace with the growth and evolving needs of the company. Cash visibility was managed using Excel sheets, and this practice was not sustainable as the operations scaled up. As a fintech payment aggregator across 34 countries, treasury has an essential and strategic role in contributing to the company's growth.

Transformation journey

The treasury team first looked at building strong banking relationships that will be able to support us with our global expansion. We worked closely with banking partners to optimise the collections process via the adoption of instant payments across the globe, e.g., PayNow, FPS, DuitNow, PromptPay, InstaPay, and many more. The team is in the processing of implementing a cloud-based Treasury Management System (TMS) that is flexible and scalable to meet the company's growing Treasury needs.

Benefits



Reduced transaction costs and number of days to received funds



Improved cash visibility and liquidity position via real-time, instant payments



Increased returns on its cash and FX positions



DFS Group

Creating an efficient finance operations and organisation

Challenge

The accelerating pace of disruption has increased the urgency to leverage on technology to reduce current repetitive and labour-intensive tasks and shift its focus on delivery of quality services, business partnering and further value-added with business insights

Transformation journey

In order to fulfil its vision of being a data-driven intelligent enterprise, DFS embarked on a journey to transform its centralised Global Controller function in Singapore by (i) Engaging in business process re-engineering, (ii) Re-culturing current workforce with upskilling and new ways of working, and (iii) Scaling up innovation and partnerships with technology vendors to digitize processes, integrate systems and implement tools (e.g. RPA) in areas such as Procure-to-Pay and Travel and Expenses, to build a lean and efficient F&A function.

Benefits



20,000 annual man-hour savings with RPA across 16 finance processes



Over \$5M of CAPEX projects delivered in the midst of Covid-19 challenges to transform nearly the entire suite of legacy finance systems



Increased A/P Merchandising automation to 68% from static rate of 35% for the last 10 years



EtonHouse International

Leveraging T&E applications to streamline and digitise T&E processes

Challenge

The F&A function was processing hardcopy travel receipts in batches every 3-6 months. By the time travel receipts were processed, some of the receipts had faded and the F&A function faced difficulties in verifying the accuracy of travel claims. Recording hardcopy travel expenses in the Accounting System and validating the expenses were also time consuming and labour intensive.

Transformation journey

EtonHouse collaborated with a ride-hailing company to establish a business portal that enabled employees to more efficiently and seamlessly capture their travel expenses. The business portal allowed the company to incorporate and automate company T&E policies and digitise payments. The business portal is also integrated with the Human Resource Management System and Accounting System – improving the overall productivity of the F&A function in the T&E process.

Benefits



Improved productivity throughout the organisation in the T&E process by eliminating hardcopy travel documents and leveraging on technology



Enhanced employee experience by saving time and effort in expense reporting



EtonHouse International

Leveraging BI & visualisation tools to enable timely and better insights

Challenge

The F&A function was spending a significant amount of time extracting information from student management systems and manually creating management reports. The manual management reporting process made the delivery of timely insights to stakeholders challenging.

Transformation journey

EtonHouse adopted BI and visualisation tools to facilitate better insights and real-time visibility in their management reporting process. Equipped with dashboards that allow them to drill down into details, stakeholders can make quicker and better-informed decisions. The transformation also integrated information from student management systems, reducing the time and effort the F&A function needs to spend generating reports and enabling it to focus on supporting business partnering activities.

Benefits



~25%

of time saved by using visualisation tools and shifting away from manually produced management reports



Enhanced insights and visibility in the management reporting process, facilitating better-informed decisions



GE Healthcare

Elevating the role of the controller

Challenge

The controllership team in Singapore is responsible to drive controllership activities within the region. Therefore, the team is expected to expand its capabilities to support organisational initiatives and provide value added service and strategic advise to the business. The team developed a roadmap towards becoming a more proficient, effective and insightful business partner.

Transformation journey

Critical skill gaps have been identified and closed through training and development to increase proficiency in strategic thinking and execution, communication, technology and data governance. As strategic business partners, the team now drives consistent and effective policies and procedures, provides guidance on requirements for local statutory reporting, and drives system process improvements and digitalisation initiatives across the region.

Benefits



Improved compliance within the business



Improved quality of roles within the controllership team



Trusted and valued business partner with a 'seat at the table'



General Electric

Creating a centralised Treasury hub in Asia

Challenge

General Electric (GE) established a regional treasury hub in Singapore to expand its treasury footprint among its businesses and banks in the region. The challenge was to meet the global liquidity needs of GE businesses across a complex market landscape involving many legal entities and bank accounts across the region.

Transformation journey

GE embarked on a journey to create a Regional Treasury Centre (RTC) in Singapore due to the country's open and robust financial ecosystem, ease of doing business and wide talent pool. In creating an RTC in Singapore, its Treasury team worked closely with its banking partners to implement a structure for liquidity mobilisation and risk management. This structure enabled automated cash consolidation and an efficient funding mechanism. Implementing an efficient and sustainable cross-currency, cross-border structure helps GE tackle the complexity of the region, which covers more than 10 currencies and countries. GE's RTC structure, enabled by its Treasury Management System platform, has equipped the company to effectively manage risks in the region. The team has embraced a Lean mindset and used Lean principles and tools to drive successful transformation in its businesses across the region, and has received multiple awards recognising their efforts and accomplishments.

Benefits



Optimised cost of funding and yield uptick while making cash available for the organisation



Automated and sustainable cross-currency and cross-border liquidity structures



Greater certainty over liquidity and risk planning through improved visibility of cash and risk



GlobalFoundries

Embarking on a multi-year digitalisation journey to streamline labour-intensive manual processes

Challenge

GlobalFoundries was processing a huge volume of hard-copy supplier invoices, which were delivered via a trolley. The process was very manual and labour-intensive, and prone to human error such as incorrect data entry and missing invoices. GlobalFoundries had to spend a considerable amount of time managing vendor enquiries, and auditing individual employee expense claims with hard-copy receipts attached.

Transformation journey

GlobalFoundries first introduced optical character recognition (OCR) to digitalise and process the invoices more efficiently, but accuracy levels were still not ideal. The organisation implemented a self-service supplier portal to enable suppliers to submit invoices and view their invoice status online. It also implemented Concur and Appzen to automate expense audits. The artificial intelligence (AI)-powered system looks for duplicates, errors, unexpectedly high expenses, fraudulent entries and out-of-policy spending, automatically approving low-risk transactions and routing high-risk entries for

Benefits



Lean and automated Procure to Pay and Travel and Expense processes that only require a small team to manage exceptions



Increased value add to the business, freeing up capacity for FP&A and MA activities



Johnson & Johnson

Developing future-ready F&A capabilities to become a valued partner of the business

Challenge

The FP&A team at Johnson & Johnson (J&J) faced initial challenges in optimising the FP&A process. Processes within the function were not standardised, which made digital adoption difficult. The data structure within the FP&A process was also not optimised for reporting, which affected the overall user experience within the organisation.

Transformation journey

Recognising the value and importance of FP&A within the organisation, J&J took significant strides in developing its FP&A capabilities. J&J started by simplifying and standardising current processes and data structures within the FP&A function. This significantly improved the overall productivity and user experience within the FP&A function, and enabled the team to scale up its use of analytics tools and dashboards. J&J then continued to sharpen the FP&A team's capabilities by developing digital skills and stronger FP&A capabilities, including in predictive and cognitive analytics. This transformation has elevated the FP&A function as a valued partner of the organisation – one that partners with business units and supports the senior leadership team in making key strategic decisions. Automation and simplification have resulted in double-digit improvements in data accuracy and consistency across all sectors.

Benefits



5,000+ hours of productivity gains within the FP&A function due to standardisation and automation



75% employees trained in advanced analytics tools to provide quality insights to the business



80+ employees trained in visualisation tools to provide enhanced visibility for FP&A reporting



Microsoft

Accelerating treasury capabilities uplift using digital technology

Challenge

Microsoft has a very lean and centralised treasury team in Singapore, managing the treasury needs for the APAC region. It augurs well with the follow the sun model. The team was looking at digital technologies to enable them to effectively manage 700+ subsidiaries across different geographies, with over 1,200+ bank accounts, 30 different currencies and half a trillion dollars of transactions

Transformation journey

The treasury team has successfully implemented a world-class treasury management system (TMS) that enables all business data and tasks to be integrated on one common, centralised platform. The TMS has equipped the team with strong visibility of cash positions daily, allowing the team to expand its coverage across the different geographies without additional resources. The team also leveraged cash pooling structure, supported by banking partners to optimise returns on cash. In addition, Power BI was used to deliver dashboards and reports to management. Data scientists were recruited, to build statistical models for more accurate cash forecasts and data-driven business insights.

Benefits



95%

visibility of cash positions daily with the use of SWIFT and constant effort to integrate systems that report on cash



Superior financial models delivering data driven-insights for better informed decision making



Increased returns on its cash



NICE Systems Singapore Pte Ltd

Transforming FP&A in the organisation

Challenge

FP&A was organised by sub-regions and each region will create reports to support the business. Initiatives were done in-region using excel to link data from multiple business applications. There was less forward-looking actionable data as the focus was on KPI to measure results, thus resulting in multiple workarounds to provide the required manual excel reports.

Transformation journey

The following strategies were adopted to transform FP&A: (i) Review the current FP&A process to identify improvement opportunities (e.g. standardise, automate and consolidate reporting and forecast preparation to a central location instead of in-region), (ii) Upskill existing capabilities of the FP&A team with continuous training (e.g. in cloud and analytics) and opportunities to be involved in or lead global initiatives, and (iii) Grow the FP&A team by hiring technical professionals to bridge the skills gap and shorten the learning curve.

Benefits



40%

Capacity created in FP&A, channelled to better support business partnerships, market expansion initiatives, deal structuring, commercial negotiation, and strategy for customer and business growth



Elevated F&A function with greater involvement in strategic planning initiatives and became a trusted partner to senior management



Olam International

Finance for Sustainability (F4S) to maximise long-term value

Challenge

ESG issues have been top of mind for consumers, regulators and investors in recent years. Food and agri-business company, Olam International believes that sustainability should sit at the heart of the business and has made it one of 4 key enablers in delivering the company's strategic plan. However, the 6 non-financial capitals – social, human, manufactured, natural, intangible and intellectual – are not universally assessed under the current reporting framework, despite driving a significant portion of a company's market value.

Transformation journey

In 2018, the Integrated Reporting (IR) Task Force (a cross-functional team with representatives from Finance, Risk, Human Resources (HR) and Sustainability) was formed to evaluate the company's approach to Multiple Capital Accounting (MCA). The task force developed a decision-making tool – the Integrated Impact Statement (IIS) – at the profit centre level to establish a numerical link to sustainability. In late 2019, Olam established a dedicated Finance for Sustainability (F4S) department in the Finance function as a CoE for MCA methodologies and to help embed MCA within the organisation. F4S leverages the expertise of the Finance function to uncover hidden costs and benefits not previously reported. Olam is now better informed about its natural, social and human capital impacts, and able to provide actionable management information.

- ✓ **2017:** Began reporting against 6 non-financial capitals in its first integrated annual report
- ✓ **2018:** Established the IR Task Force
- ✓ **2018:** Piloted its IIS tool with 3 businesses – Dairy, Cocoa and Palm
- ✓ **2019:** Created the F4S department
- ✓ **2019:** Piloted first natural capital accounting case study, for its Cocoa business unit
- ✓ **2020:** Completed full-scale natural capital accounting for the Cocoa business unit for 2018 (baseline), 2019 and 2020
- ✓ **2020:** Piloted a human capital accounting case study for its Vietnam operation

Olam's IIS aims to provide all business units and functions with an understanding of the company's impacts and dependencies, from a monetary perspective. This allows business units and functions to manage a broad set of drivers beyond just financial capital, and help bring about net positive change.

F4S aspires to become a best-in-class business partner responsible for maximising long-term intrinsic value



Internalisation of externalities

- Bridge finance and sustainability concepts
- Support strategic financial business decisions via business units



Accountants' culture and mindset change

- Formalise approach to measure, quantify and report on the organisation's long-term 'invisible' value
- Create partnerships and collaborations to grow this mindset



Common financial currency

- Use common language that everyone can understand, evaluate and articulate
- Communicate both stakeholder and shareholder value



Singtel

Building a future-ready digital workforce

Challenge

Singtel stands as an innovative organisation – with F&A leaders leading transformation projects to enable digital transition of finance and accounting processes and encouraging employees to acquire new skills to drive change and apply digital tools. Singtel’s senior management acknowledges the importance of digital transformation and a ‘future-ready’ workforce to build a resilient organisation, especially amidst the pandemic.

Transformation journey

The F&A function has designed workforce frameworks centred on ‘job roles of the future’ – entails skillsets needed to operate in a digital environment and applicable training curriculum that would equip employees with the required skills. Singtel’s F&A leaders and employees have also partook in finance transformation projects together. For instance, regular forums were held to discuss digital transformation initiatives with the workforce – learnings and experiences were shared to encourage employees to embrace a growth mind-set. Employees also attended classroom training sessions to learn and polish new skills.

Benefits



Futuristic learning and development framework

designed – enabling employees to grow, explore and upskill through curated content and curriculum, and hands-on on-the-job experiences.



Change Agents are formed within the organisation

upon engaging in digital transformation projects to explore and adopt new skills and act as a ‘motivator’ to encourage others to embark on the transformation journey



An international bank

Digital budgeting enabling F&A to project better and faster

Challenge

A global bank was going through an ambitious digital transformation across the enterprise, and had been working with F&A to disrupt its operations and bring them into the future. Not only did the bank want to update its operating model, it was transforming its entire technology landscape. The bank was facing a few key roadblocks: a wide variance of forecasting, a dependence on human judgment, and a lack of tools that could provide accurate projections. The bank considered to leverage on artificial intelligence and machine learning to help F&A create better projections and make stronger decisions around this key facet of their business, and maybe even make those projections and decisions faster.

Transformation journey

To pivot the disruption, the bank engaged a professional service provider to deliver a digital budgeting solution that would improve accuracy the accuracy and quality of their non-interest, fee-based income projections. Design thinking workshops were held to exemplify how the bank can leverage on AI to do effectuate digital budgeting. The tool delivered leverages on 5 billion data points drawing from client risk profiles, industry indicators, government policies and more. The tools has improved the accuracy of non-interest income from 12% to 20%, and it now takes 5 minutes to create a projection that previously took the bank up to a day to develop. For complex models that requires billions of data points, the tool churns out results in less than 2 hours. As a result, the bank now able to efficiently develop monthly and quarterly rolling forecast models. The Finance function is now positioned as a business partner – providing strategic insights for management decision making.

Benefits



5 minutes to create forecast models that previously took the bank up to a day to build



12% to 20% Improved accuracy of non-interest income recorded



Trusted and valued business partner with a 'seat at the table'



A multinational pharmaceutical manufacturer

Accurate reporting across a global supply chain

Challenge

A multinational pharmaceutical manufacturer was working through a large finance transformation project that would allow the company to attain major cost savings – close to a 100 million dollars annually. The company manages complex supply chains which connect goods and processes across dozens of countries, however their F&A function suffered from aging technologies and siloed processes. F&A could not do reporting and analytics at the right level of detail to have confidence that the transactions were being accurately reported. As the organisation noticed gaps within its reporting process, they were not able to optimise their effective tax rates.

Transformation journey

The organisation collaborated with a professional service provider to identify their most pressing reporting and analytics needs across the supply chain team. The F&A function created a data model at the level of detail needed to provide the reporting and analytics the finance organisation required. Furthermore, the team pulled together all transactional data into one centralised location, addressed data quality concerns and assessed the factors that would improve calculation performance and analytics usability. F&A also created a custom calculation engine that could process hundreds of thousands of transactions on a monthly basis, each with dozens of metrics and direct links to steps in the supply chain. Using that data, the team successfully built dashboards and analytics that enabled the F&A function to identify, address cost and pricing issues sooner in the close process with far less manual work. As a result, the solution automated journal entries, vastly improved data quality, simplified existing processes – enabling a self-service Finance function.

Benefits



50%

Reduction in financial report processing time



Optimised operations as the organisation is able to manage its effective tax rate, fulfil legal compliance requirements and optimise shareholder returns



Increased visibility of F&A function into transactions throughout the supply chain with better confidence in financial reporting accuracy



A European financial institution

Using natural language generation (NLG) to enhance reporting

Challenge

F&A professionals at a European financial institution were tasked with writing monthly progress reports for more than 100 branch offices. That meant a great deal of manual labour, and increased risk of repetition and error, especially given growth in the volume and complexity of data.

Transformation journey

To manage the vast number of complex records, the organisation implemented a cloud-based NLG system that could securely and automatically translate branch performance data into plain-language expressions of key metrics, which could then be delivered in useful visual formats. Agile prototyping helped manage software validation and enabled the 15-member F&A team to learn to use the system more quickly. With its new cloud-based tools, the team has been able to automate processes and increase its capacity to handle other work. It now spends 94 percent less time compiling monthly reports – and the reports contain richer detail and better analysis. The number of errors has decreased, and the employee experience has improved.

Benefits



94%

Reduction in time spent compiling monthly reports



Reports are more accurate and the employee experience has improved



A European telecommunications company

Paving the way for robotics by putting the human factor front & centre

Challenge

A European telecommunications company had embarked on a process of robotic process automation (RPA) in its finance function and core business units. The aim was to find efficiencies in cost centre processes, provisioning, and similar functions. However, the company's embrace of the technology wasn't matched by a parallel effort to reengineer processes or to assess how the change would affect its workforce. Senior Management in the affected business areas did not have a clear view of the value the company was trying to realize. As a result, the project was having difficulty capturing the intended operational savings.

Transformation journey

The organisation collaborated with a professional service providers to examine its people and process challenges to parallel the technology challenges it had already signed up for with RPA. By working to overcome resistance through guided conversations and a stronger flow of information, the project set out to "jump the wall" and turn process stakeholders into RPA advocates. The leadership leveraged on team tools to show that increasing the velocity of processes could make the company more efficient, while the improved transparency of the new approach could help strengthen compliance and reduce penalties. With positive collaboration from the F&A function, within three months, the organisation identified more than 120 new RPA opportunities, and 35 of them that were put in place during that period resulted to more than 10 million Euro in savings.

Benefits



\$10 mil. cost savings attained upon leveraging 120 new RPA opportunities within the Finance function and other core business units



A fast-moving technology company

The CFO wants insights available yesterday, that means real-time closing

Challenge

A fast-moving technology company was growing so quickly that traditional reporting processes could not keep up. To continue to innovate and make more effective decisions, leadership needed financial and performance information on a real-time basis. Therefore, the CFO acknowledged that it was necessary for the F&A function to shift from an end-of-month closing process to continuous close to enable the organisation to leverage upon the value of real-time closing.

Transformation journey

To facilitate the need for real-time closing, the organisation worked with external consultants to create scenarios using cloud dashboards with real-time data. The F&A function initially focused on financial positioning, and then progressed to look into the day-in-the-life of process owners, ensuring that transaction details reported were not only fast but accurate. The organisation defined three pillars of real-time closing: continuous accounting, real-time reporting, and predictive analytics. Although this shift was driven from the top down, work started at the grassroots. F&A leaders were engaged to imagine how real-time insights could change their day-to-day operations. As a result, real-time financial and predictive information easily accessible across the organisation.

Benefits



Real-time and specific insights required by the leadership delivered by the F&A function via a cloud dashboard to facilitate business decision making



A large public organisation

A Fortune 50 CFO leverages on technology to power business transformation

Challenge

A CFO at a large public organisation realised the need to drive digital transformation – particularly in how digital disruptions could bring leading-edge Finance processes to the organisation to remain competitive. The CFO strived to elevate the F&A function, where work can be completed more efficiently, hence relying on the right digital tools to do so such as robotics and blockchain.

Transformation journey

The organisation started with a widespread capabilities' assessment and a series of finance and digital labs to determine where they stood in comparison to other competitors. The organisation then gathered concrete examples of how each technology could affect change in F&A, from automation in billing to natural language generation in reporting and built a business case for each. Thereafter, the F&A function worked together with external consultants to establish an innovation centre to identify opportunities for change across four key disruptors: robotics, cognitive, analytics, and blockchain. In the first year, the organisation successfully deployed dozens of bots in F&A, introduced agile methods of delivery, and sped up time-to-market. As the most powerful advocate for this transformation, the CFO continuously championed and motivated the F&A function to embrace the change. The organisation has also spent several months socializing these efforts, using road shows and trainings to explain how the disruptors worked. F&A professionals were uncertain towards the change initiated, for example, about how automation would change their jobs moving forward. Nonetheless, the success of the transformation was due to effective change management strategies, as well as the CFO spearheading and motivating employees to upskill and be future-ready.

Benefits



Enhanced F&A function as the team leveraged on the digital disruptions and pivoted to a more strategic direction, enabling F&A to deliver insights and support organisation-wide transformation initiatives



A large limited enterprise in United States

Investing in F&A leads to true business partnerships

Challenge

A fast-growing client with outlets across the nation was struggling with the roles and responsibilities of their finance business partners within the commercial finance function. The client had worked for a couple of years to make sure Finance had the skills and mindset to work effectively with other units of the company, to help drive decisions and unlock new value, but they knew they needed to dig deeper. Finance employees felt hampered and constrained by the lack of definition around their roles and expectations, as well as the insufficient data, tools, and processes they were provided. Employees were compelled to do work that didn't add value to the business, such as tedious manual transaction processing and generating reports that could be automated. As such, the client knew that they would need to invest more strategically in their Finance function, enabling their employees to understand the skills and capabilities required to provide value to the business moving forward.

Transformation journey

The organisation worked together to assess the current workforce's maturities and capabilities, thereafter developed a roadmap to how to progress to a future-ready Finance workforce. Upon assessing skills that needed to be enhanced, the organisation noticed that while Finance employees' technical skills were critical, it was the soft skills like building relationships, and presenting with impact that business stakeholders really valued. Therefore, the organisation developed a playbook that created a set of 'Business Partner' personas to form the basis of a capability uplift program. These were delivered via a two day workshop to multiple teams across Finance.

The organisation has rolled out five instalments of training to enhance employee's problem-solving capabilities. As such, the employees have diligently embedded the skills and behaviours into their day-to-day operations. By investing in their employees, the organisation has doubled down on business insights, progressing towards a future-ready Finance workforce.

As a result, more than 120 Finance employees have improved their qualitative performance rating, rapidly built stronger relationships with internal customers, and raised its profile across the enterprise.

Benefits



Improved qualitative performance rating of the F&A function



Increased value add to the business with Finance employees equipped with 'Business Partner' skills – enhanced problem solving capabilities hence providing more value-adding business insights for a Future-ready Finance workforce



A leading telecommunications organisation

Transforming F&A human capital for the future

Challenge

The CFO of a leading telecommunications firm had a broad mandate for digital transformation across the organisation. Leadership was working to understand and decipher specific challenges faced, and concluded the need to transform the workforce. The transformed F&A function would ideally be relying on newly implemented digital tools to increase efficiency, the CFO recognised that that such deep adjustment would require a cultural change, as well as a revising of organisational and individual capabilities. The CFO acknowledged the need to cultivate problem solving capabilities within the F&A function.

Transformation journey

The F&A function examined their current workforce size and visionary goal. Leadership was well aware that specialised finance functions like tax and treasury would be augmented by technologies like visualisations, and F&A's new delivery models would become a hybrid of a more decentralized workforce, global business services, and humans with machines. The organisation also examined how capabilities like robotics and artificial intelligence (AI) could fundamentally change how the F&A worked. After aligning the organisation's vision for the future, the F&A function worked with external consultants to create a digital finance awareness campaign, to enable F&A professionals to understand the opportunities and give them a common foundation of knowledge and vocabulary to talk about the future.

The organisation used a multichannel approach to roll out the awareness campaign, including videos featuring leadership, emails to the entire F&A function, and animations to explain technologies such as blockchain and robotics that served to educate and excite F&A professionals about new ways of working. Organised curriculum were developed around the technologies so that F&A professionals could see how AI and blockchain could transform their jobs, as well as unlock new opportunities for them.

As a result, the F&A function now possesses deeper digital savviness and understand the future-state the F&A function strived to attain. The CFO was able to share the mandate for digital transformation, building up buy-in for the initiative.

Benefits



Future-ready workforce as the organisation reevaluates the impact on technology towards the workforce – transforming the hiring and F&A professional development processes



Beverly Pao

From Audit Associate to Citizen Data Scientist

Career overview

Upon graduating with a degree in accountancy, Beverly started her career as an auditor in one of the 'Big Four' accounting firms where she honed her foundational Finance skills. She later moved on to a new role as a Fraud Specialist in a company within the hospitality industry. As a fraud specialist, she took a keen interest in learning new technologies and tools in order to be more effective and efficient in her work. With this new-found knowledge, she had stints in the quality assurance and business process improvement teams before transitioning into a Data Scientist role, where she could pursue her interest while leveraging on her traditional Finance skillsets to analyse data and derive insights for her company.

Development journey

Fuelled by a personal interest in technology and data science, Beverly embarked on her upskilling journey with a strong support from the company. As an individual with traditional Finance skillsets, the transition into a Data Science role was a daunting one but this was made possible by internal initiatives such as job rotation, guidance from experienced seniors in team and opportunities to apply the new-found knowledge to live projects.



Never stop learning – it is a journey. Take new challenges every day, make great friends and create experiences you like to remember.



Cecilia Chong

From FA Accounts Executive to Finance Automation Specialist

Career overview

Cecilia began her career in a start-up where she handled day-to-day tasks for Finance, HR and Admin. After 2 years, she left to join DFS under its Master Data Management team, maintaining supplier and customer information. After 8 months, she was rotated to the Sales Accounting team, matching payments received to sales recorded, processing refunds and accounting for variances in the O/S account.

Development journey

Having attended a course on VBA for Excel, Cecilia learnt to write simple scripts to reduce the volume of repetitive tasks in her daily work. However, the level of automation Cecilia could apply with VBA for Excel was limited. When she was given the opportunity to participate in the organisation's Robotic Process Automation (RPA) initiative, Cecilia seized the chance to acquire new skills to further her capabilities in process automation. As a junior developer, Cecilia supported the development of codes that enabled automatic data extraction, data aggregation and reporting within the F&A function. Picking up new skills has allowed Cecilia to continuously engage her mind and concentrate her efforts towards more value-adding tasks. The support Cecilia received from her team has allowed her to continuously upskill and improve herself throughout her career journey.



There is always a better way to work. Do not be contented with the status quo, have the courage to be inquisitive.





Chung Loke Teng

From MA Accounting Executive to Business Controller

Career overview

Loke Teng started his career in the early year as an intern in SAP, he shadowed the business unit controllers. Upon graduating, he was hired as an Associate Controller for Asia Pacific Japan (APJ) region and gained first-hand experience in M&A – integrating companies with business models and compensation models - with several large cloud companies. Over the next 5 years, he changed roles and was assigned to manage the Sales division P&L for APJ, and other processes - consolidation, budgeting and forecasting. He deepened his understanding towards scenario analysis and planning: understanding business drivers, underlying management intent and managing uncertainty and risk inherent in forecasting. He was later rotated to manage the broader P&L scope which he found more challenging given the increased complexity. Today, he stands as the Service Commercial Business partner for Singapore and Malaysia – leveraging on his experience as a controller to reviews SAP service contracts.

Development journey

Loke Teng networked with key stakeholders since his early years, championed learning and upskilled himself continuously to keep pace through his career. He strives with strong self-awareness to develop his professional image.



Long and mid term career targets are admirable, but so are the behaviours and habits that need to be deliberately cultivated to accrue success. Most knowledgeable experts were the most innately curious people.



Deline Loke

From FA Accounts Executive to Finance Automation Specialist

Career overview

Deline started her career with DFS as a graduate in the Accounts Receivable team. As an Accounts Officer, she was involved in tasks such as sending invoices, analysing vendor statements and preparing recurring monthly reports. Technology was a topic commonly discussed in school, but Deline didn't have much firsthand experience in applying technology in her day-to-day tasks.

Development journey

Deline was introduced to Excel VBA Macros, which showed her how automation could help in her daily work, freeing her to focus on more value-adding tasks. After her initial experience with automation, Deline kept a constant lookout for opportunities to upskill so she could work more efficiently and effectively, and add more value to the team. She jumped at the opportunity to participate in the organisation's Robotic Process Automation initiative and after only two weeks of training, she was able to code simple robots to execute her daily tasks. With each successful robot she built, Deline was more motivated to automate complex tasks and help the rest of the team automate their work so the whole department could function more efficiently. Today, Deline is the go-to person for process automation in the F&A function. The support Deline received from her organisation throughout her upskilling journey has given her opportunities to learn and progress further.



Keep an open mind and look for ways to upskill. Leverage resources around you (be resourceful) in developing your career journey.





Edwin Chua

From MA Accounting Executive to Financial Controller

Career overview

After graduating, Edwin started his career as a Commission Analyst with SAP. He was involved in standardising the key processes of the function, hence realising the importance of a structured compensation plan to ease integration with digital solutions to streamline and automate complex processes. Later, he transitioned as a Regional Commercial Finance Analyst, where he was responsible for managing approval systems, analysing key commercial finance KPIs and the rollout of quotation discounting application that was backed by machine learning. His experience allowed him to acknowledge the impact of intelligent solutions towards organisational success. Today, Edwin has progressed as the Regional Field Finance Controller where he is responsible for coordinating the budgeting and forecasting processes across the global team.

Development journey

Edwin strives with his curiosity to continuously upskill himself – he has invested additional time to learn visual basic applications.



Story telling is a key aspect of every job and any improvement in any shape or form will go a long way. Intelligence solution is the future and the ability to be agile in a VUCA world is essential in this time and day.



Oh Boon Long

From Treasury Executive to Finance Transformation Specialist

Career overview

Boon Long started his career with a Dutch MNC as a project associate managing its Treasury Transformation Project. This role provided him with a great opportunity to learn about project management as well as to gain insights on how the Treasury function creates value to corporates. 3 years into the role, he took on a contract role in a global Treasury department of a semiconductor business to expand my knowledge in cash, debt, working capital, FX and counterparty risk management. Boon Long thoroughly enjoyed his stint there as he gained valuable exposure to a wide scope of Treasury activities. After his contract ended, he joined a US Piping MNC where he was given the opportunity to advise senior stakeholders on various aspects of Treasury such as project financing, cash & liquidity management and trade finance. He found meaning in my work and become highly-motivated in applying his knowledge to support the business. When the opportunity presented itself, he joined one of the largest petrochemicals manufacturer to drive its Treasury Transformation Project. It has been a highly rewarding experience as he witnessed how the Treasury function transformed into a key business partner within the organisation.

Development journey

Continuous post-tertiary education is essential to remain successful. Boon Long earned the Certified Treasury Professional (CTP) credential to enhance his Treasury management skills. Companies recognise the CTP credential as a benchmark of competency, and it provided his employers the assurance of his professionalism and skills to support their Treasury activities. Managing projects has taught him the importance of interpersonal skills and communication.



Work on your communication. It is a test of your leadership attributes.





Melvin Lim

From Audit Associate to Internal Audit Manager to Regional Controller

Career overview

Melvin joined one of the Big 6 audit firms as an Audit Associate after graduating with a diploma in Accountancy. During this time, he attained his ACCA and Chartered Accountant qualifications, gained experience in financial audits for clients of varying size and industries, and eventually got promoted to the role of Audit Manager. After public accounting, Melvin joined an MNC as an IA Manger, where he managed the Internal Controls function across the APAC region. He then became a Regional BC, providing commercial support and reviewing key financial metrics. Following this, Melvin joined another MNC as a Regional Commercial Controller, providing guidance on revenue recognition and helping business leaders identify and mitigate financial and business risks in commercial strategies and deals. He then joined the organisation's Global Technical Controllership CoE team, where he provided leadership in delivering global excellence in commercial controllership, established global policies and provided technical accounting consultation services. Melvin is currently a Regional Controller with a pharmaceutical MNC, where is he responsible for driving technical accounting compliance, financial and operational internal controls, process simplification, and operational excellence, all driving accurate actual financial reporting and analysis. In this role, he uses his understanding of industry trends; interprets internal and external business challenges; and recommends best practices to improve products, processes and services.

Development journey

Melvin sees his tenure in public accounting as a good foundation learning experience. The ability to learn quick and adapt is a skill he still practices today. In his role, he develops deep domain expertise through self-learning, and wide knowledge by learning from peers across functions. And as a leader, he shares his learning experience while continuing to learn from those around him.



Keep an open mind and keep learning everyday – there are lessons to be learnt from everything and everyone. Understand why you are doing what you are doing – this helps you see the objective and value.





Patricia Sng

From FA Accounts Executive to FP&A Analyst to Treasury Manager

Career overview

Upon graduating with a diploma in Accounting and Finance, Patricia started her career as an Accountant, focusing mostly on transactional financial accounting work. She later moved into the banking industry as a Portfolio Accountant, where she was exposed to banking operations and ignited her interest in Treasury. After 3 years, Patricia transitioned into FP&A, which she enjoyed as it steered away from her transactional processing role and allowed her to cultivate a strategic and analytical mindset. Not only did she realise the importance of using visualisation tools to deliver better insights, she also realised also the value for stakeholders and business decision making. Upon completing her bachelor's degree, she embarked on a new career path in Treasury with an LLE in the coworking industry. She leveraged her knowledge of banking products and supported the establishment of the organisation's RTC in Singapore.

Development journey

Patricia upskilled herself with a bachelor's degree in banking and finance, to ease her transition from FP&A to Treasury. She relied on on-the-job training to close skill gaps, as well as guidance from experienced mentors, especially in establishing herself in the Treasury function.



An 'open-mind-set', strong collaboration skills and thorough understanding of treasury is essential for treasury professionals to excel in their roles.



Pulat Yunusmetov

From Treasury Executive to Treasury Manager

Career overview

Pulat started his career as a Treasury Analyst covering the Eastern European region. He gained a thorough understanding of corporate Treasury and controlling functions, and polished his stakeholder management skills – managing collaboration between the regional F&A function and external stakeholders, including banks, auditors, regulators and others. In doing so, he gained an understanding of the elements and benefits of an RTC. He progressed as a Senior Treasury Analyst in a FinTech company, where he was exposed to global Treasury management, and debt and working capital management. Later, he took up the role as a Treasury Manager in an MNC in the fast-moving consumer goods industry, covering APAC and the Middle East. He initiated many improvement projects and brought several industry awards to the MNC's regional Treasury team.

Development journey

Pulat has extensive experience within the Treasury function. As he progresses in his career, he realises the importance of being open to learning new skills, taking up responsibilities beyond the job scope and using technology to improve efficiency. He has upskilled himself by attending EuroFinance courses, and gained accreditation as a Chartered Financial Analyst and Certified Treasury Professional. He has also completed Six Sigma Green Belt certification to facilitate his management role across multiple Treasury projects.



Individuals should be open to new challenges, be willing to learn and continuously apply the new knowledge gained.





Rachel Lee

From FA Accountant to Vendor Relationship Manager

Career overview

Upon graduating with a Accounting and Finance degree, Rachel started her career as an Accounts and Admin Assistant, thereafter moved into a medium sized audit firm as an auditor. She then completed her ACCA level 2 certification and progressed into an Accountant role – managing the financial close, financial planning and budgeting, and internal processes of the organisation. Rachel later transitioned into a new organisation as a Senior Accountant and subsequently offered the opportunity as the Operational Lead of the shared service team. As team lead, she noticed the importance of business partnering skills to collaborate, digital adoption and project management skills. Leveraging on her prior experiences on closing and reporting, she was able to value-add to management decision making. Rachel was also involved in the ERP transformation journey hence enabling her to gain first-hand experience in finance system implementation.

Development journey

Through her years within the A&F function, Rachel upskilled herself through various internal trainings, professional development programmes and mentorship enabling her to elevate her technical and soft skills. Job rotations were beneficial for her career progression to-date as she gained exposure across end-to-end finance activities.

“ F&A individuals should upskill themselves or complete professional certifications early on in their careers. ”



Wan Wei Han

From Audit Associate to Finance Automation Lead

Career overview

With a background in Accountancy and Finance, Wei Han joined Paul Wan & Co. and served in the audit and assurance department. During his tenure, he led the execution of many audit engagements in the shipping industry. Wei Han was later appointed as the automation lead to head the transform effort as the organisation aims to be more efficient and competitive in the market through technology and innovation. Starting with the audit team, he has implemented RPA to increase its efficiency, and building onto this success, he followed through the deployment for other process areas (e.g. Tax).

Development journey

Driven by an interest in automation and aligning with the organisation's need to adopt technology in its transformation journey, Wei Han picked up an RPA course offered by ISCA. After upskilling in RPA, he established a partnership with Singapore Polytechnic to get support for improvement ideas and development of prototypes. Motivated by the tangible benefits achieved, he continuously updated his knowledge and also explored other process areas for improvement opportunities. With upskilling, Wei Han was able add another dimension to complement his business and finance knowledge and drive greater value for his organisation.

“ Technology now plays a big part in transformation. Individuals, especially mid-career professionals, need to adopt technology in order to stay relevant and further value-add to their organisations. ”



Seah Chee Im

From FA Accounts Executive to Finance Manager

Career overview

With her previous background in accounting and audit, Seah Chee Im joined Infineon Technologies Asia Pacific (IFAP) as a contract AP accountant, responsible for processing invoices and payments. Chee Im later progressed to a permanent role, where she was tasked with higher-value responsibilities such as GST and profit and loss reporting, managing intercompany processes and transfer pricing margin compliance for IFAP. With the knowledge and experience gained, she was entrusted with new and larger projects. She was also given the opportunity to work collaboratively in cross-functional teams to drive transformation initiatives in Asia Pacific (APAC) sites. This included leading process harmonisation for AP and intercompany payments, and implementing global tools such as a lifecycle management and master data management tool, and an accounting performance dashboard. She worked with Treasury and IT teams to automate payment processes, and contributed to the successful roll-out of an employee claims system. Given her exposure and experience, Chee Im is now part of the regional project team, implementing SAP S/4HANA across various sites in APAC.

Development journey

Chee Im has progressed through her career with an open mind and strives to explore new areas, including leading and managing finance transformation initiatives. Her involvement in various projects has equipped her with project management and digital skills, which complement her experience in transactional accounting. Chee Im has also enrolled in project management courses to polish her skills, and actively pursues internal training offered by the firm.



F&A individuals should stay curious, have an open mind and strive to explore new areas beyond their current roles.



Wilson Wong

From MA Accounting Executive to FP&A Analyst

Career overview

Starting out 3 years in accounting but also possessing a background in IT, Wilson saw an opportunity to move to the FP&A field. He is now with TechSource for four years as the lead FP&A analyst, handling variance analysis, sales performance reporting, efficiency analysis and host of other tasks around budgeting and forecasting.

Development journey

Wilson believe that FP&A is a growing and emerging area, and wanted to do more forward-looking work. He chose to earn the Certified Corporate FP&A Professional designation because he felt that it was important and beneficial to distinguish himself in his professional career. Since there's no standardisation for FP&A in Singapore, he felt that having a relevant professional certification would help him make the move from accounting to FP&A. The certification has provided him with the skills, knowledge and professional credibility to succeed in FP&A. He was also recently promoted from senior FP&A analyst to lead FP&A analyst. Although the promotion was not solely due to the certification, he believes that obtaining it was a big factor.



FP&A requires a lot of insights into the business; you have to learn to ask the right questions.





Wong Sock Ling

From Accounting and Bookkeeping Clerk to Senior Accounts Executive

Career overview

Sock Ling started her career in her early years as a store clerk. Later, she upskilled herself by completing the LCCI certification and increased her proficiency with computer skills and transitioned into the AP function of Global Foundries. The AP processes were manual and labour-intensive. As she grew in the company, Sock Ling rotated across different roles within the AP function where she gained exposure to managing international invoices, and got involved in transformation initiatives to go paperless, leveraging on vendor portal and OCR tools.

Development journey

Sock Ling has extensive experience within the AP function – rotating across different roles and witnessing the transformation AP journey from a manual to streamlines process. This resulted to a reduced headcount in the AP function, hence the vacancy in the GL function appealed to her where she can explore and adopt new skills. Amidst the AP transformation and transitioning into the GL function, she has received strong company support – where the organisation has provided GST and Microsoft courses to upskill employees for to ease adoption of the new technologies.



There is increasing importance for individuals to keep learning – staying updated with emerging technologies and enhancing soft skills. This would help them adapt to the dynamic changes in the market.





6.7 Industry participants



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Professional bodies

- Association for Financial Professionals (AFP)
- Association of Corporate Treasurers (Singapore) (ACTS)
- CPA Australia
- Institute of Internal Auditors (IIA) Singapore
- Institute of Management Accountants (IMA)
- Institute of Singapore Chartered Accountants (ISCA)
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- Singapore Accountancy Commission (SAC)
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