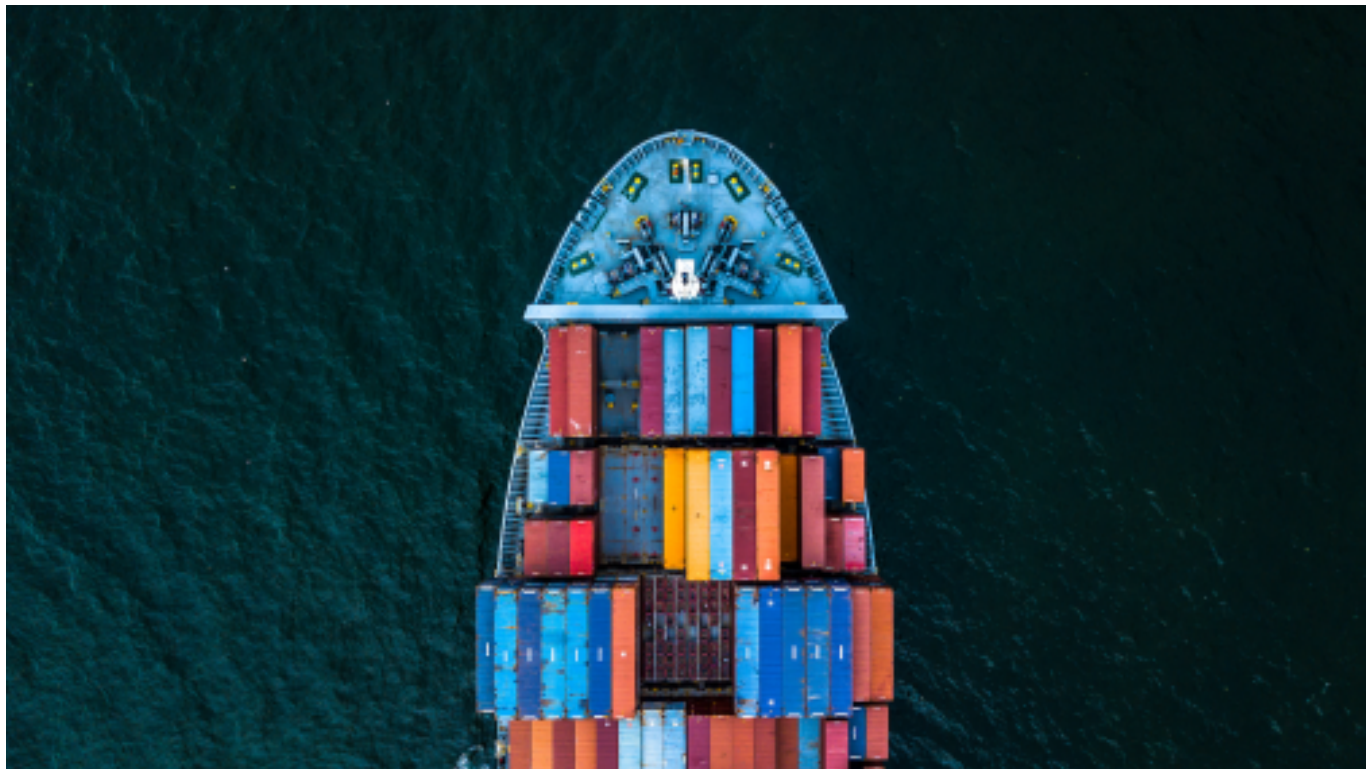


Future of Jobs and Skills in Singapore's Wholesale Trade Sector

November 2021

Preface



Enterprise Singapore (ESG) has partnered with Willis Towers Watson (WTW) to study the future of jobs and skills in Singapore's Wholesale Trade Sector.

The Wholesale Trade (WST) sector is an essential pillar of Singapore's economy, comprising of more than 50,000 organisations offering business-to-business (B2B) trading and distribution in verticals ranging from commodities to industrial and consumer products. This sector represents agricultural materials, household goods, fuels & chemicals, general merchandise, machinery & equipment and generates close to 300,000 jobs in Singapore.

As the current business landscape shifts rapidly, organisations in the WST sector will have to rethink business and operating models, adapt to new ways of working and, most importantly, focus on reskilling their workforce for the future.

This study aims to:

1. synthesise how economic volatility, technology breakthroughs, and focus on sustainability will underpin and influence wholesale trade jobs in the future,
2. assess how jobs will change, i.e., jobs and tasks that will be displaced; those that will be augmented, and new jobs and tasks that will emerge, and
3. identify skills that will be critical to performing these jobs.

The study is focused on a 3 to 5 years' time frame and aims to identify strategies to ensure that the workforce is future-ready.

Led by:

**Enterprise
Singapore**

In collaboration with:



In partnership with:



SKILLSfuture SG

WillisTowersWatson 

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Executive summary

1

Paradigm of businesses in the WST sector is changing swiftly. Trends that are responsible for this shift are:

2

Accelerated digitalisation is the big change catalyst



Evolving operating models

Business needs as well as changing customer expectations are driving the change



Data analytics becoming fundamental

Maturity of the organisation dictates the tools and platforms used for analytics



Heightened focus on Environment, Sustainability & Governance (ESG)

ESG norms are emerging as a strong influence on business and investment decisions



Accelerated technology adoption

Improved productivity, reduced costs, and better engagement with stakeholders are key drivers



Advanced Data Analytics



Digital Marketplace



Artificial Intelligence



Robotics Process Automation



Business Intelligence Applications

Adoption timeline

- Already in adoption
- Within 3 years

3

To meet new business requirements, jobs and ways of working are evolving

Jobs are expected to transform as the business landscape shifts. While the level and type of transformation may vary, all jobs will undergo some form of change.

Type of impact

>80% jobs will have increased expectations with enhanced augmented job scope

6% jobs will have a new and/or significantly changed job scope

15% jobs have a risk of displacement/merging with other jobs

9% jobs may potentially get offshored in the medium to long term

The analysis includes the study of the 53 most unique jobs found in the WST sector. [The WST skills framework](#) was used as the basis for selecting these jobs.

Percentages will not add to 100% as one job may undergo multiple types of impact.

4

For employees, acquisition of new/augmented skills is becoming a foundational requirement for success

New business demands will have new expectations from employees. Acquisition of new and augmented skills will be a prerequisite for success.

Employees will be required to acquire new and augmented technical skills and refine critical core skills.

Given the change in the business environment, some of the technical skills will be universally required by employees across all functions and job families. These are called **Common WST skills**.

- Application of ESG Trends and Regulations
- Data Assimilation and Analytics
- Technology Adoption

However, some new and augmented technical skills will be job family – specific. Examples below:

Technology and automation skills

- Omnichannel Strategy Development / Implementation
- Trade Automation

Data skills

- Advanced Data Analytics
- Data Management/Security

Business domain skills

- Counterparty Risk Management
- Customer Experience Transformation

ESG related skills

- Carbon Footprint Management

High impact jobs

- Assistant/Coordinator, Marketing
- Assistant/Coordinator, Sales
- Associate, Sales/Brand
- Business Analyst/Market Research Analyst/Market Analyst
- Assistant/Coordinator, Operations
- Assistant/Coordinator, Procurement
- Senior Analyst/Analyst, Risk
- Senior Analyst/Analyst, Credit

Call to action for employers: Getting ready for the future

- When you think transformation – **think beyond technology adoption**. Redefine culture, capabilities and organisation model, including key business processes, jobs, and skills
- The need for **digital transformation** and **job redesign** is inevitable. Get the team together and build a detailed implementation plan for transformation. Key action areas include (but are not limited to):
 - Synergise business strategy with the technology roadmap
 - Build the right HR capability to deliver and sustain transformation
 - Seek consulting support where there is a gap in technical knowledge and /or relevant experience
- Educate employees** and **take proactive** actions. Communicate plans openly and prepare employees for change
- Be **innovative** in your **manning strategy**. Consider employing mature workers who have a wealth of institutional knowledge and experience. For short-term need of specific hot skills, consider leveraging the gig-workforce

Executive summary

Technological breakthroughs, economic volatility, and a heightened focus on sustainability are changing how wholesale trade is conducted. The pandemic has accelerated these changes. As businesses adapt to these unprecedented times, their structures and operating models will transform. As a result, the workforce will need to evolve, master new technologies and skills, while adapting to constant change.

The study on the future of jobs and skills in Singapore's wholesale trade sector systematically looked at the changes affecting the WST sector. Four key themes emerged:



Business requirements, technological advancements, and growing customer expectations are leading the evolution of the WST sector



Jobs and ways of working are evolving to meet new business requirements



Acquisition of new/augmented skills is becoming a foundational requirement for success



Collective action across stakeholders will be critical for sustained growth



Business requirements, technological advancements, and growing customer expectations are leading the evolution of the WST sector

The paradigm of businesses in the WST sector is changing swiftly. Trends that are responsible for this shift are:

Evolving operating models

Operating models are evolving swiftly. Business needs (such as improved efficiency, productivity) and changing customer expectations (such as the desire for personalised experiences) are key drivers. One key development is in the growth of the omnichannel.

Many large organisations and SMEs across the WST sector are either evaluating or have already adopted an omnichannel approach to marketing and sales to provide flexibility to customers on their chosen channel to purchase or communicate.

We also observed increased disintermediation within the sector. The need to improve margins while building better relationships with the end consumer is driving this change. Both of these trends are expected to gain momentum in the coming years.

Data analytics is becoming fundamental

Data analytics is becoming fundamental to decision making. Depending on the maturity of the organisation, tools and platforms used for analytics vary between simple tools such as Microsoft Excel to more advanced software for sophisticated data analysis.

While the usage of data is quite widely felt, we observed the prevalence of advanced data analytics in functions like marketing and business development, trading and risk management and regulation & control.

As the sector evolves and organisations mature, decision making based on robust data will become the norm.

Heightened focus on Environmental, Social and Governance (ESG)

ESG is emerging as a strong influencer on business and investment decisions. It is impacting product offerings, business processes, partnerships, and overall governance structures.

However, we observed that some jobs, such as those in risk management, regulation & control, trading, procurement and operations are feeling the influence of ESG more strongly. The impact across sub-sectors are varied.

For example, organisations in the mining and metals or oil and gas sectors have a far more streamlined ESG strategy than some of the others. As ESG norms become more mainstream, we anticipate that it will influence more functions, jobs, and related skills across the WST sector.

Accelerated technology adoption

The most significant change catalyst is the increased use of technology to improve productivity, reduce cost, and better engage with customers, suppliers, and employees. Not only is technology changing the way of work, but it is also heavily impacting the three change drivers discussed earlier. For example, technologies like digital platforms and channels are bringing the omnichannel strategy to life. Similarly, big data analytics, artificial intelligence and business intelligence applications are disrupting how decisions are made. Technology is also influencing how new and evolving ESG norms are monitored and incorporated into the business strategy.

Most organisations in Singapore (irrespective of size, sub-sector or overall maturity level) have started making progress in their digital journey. The facts below are evidence of the significant change that is coming.

44%

of organisations are expecting a high level of digitalisation to impact key or all functions

31%

of organisations plan to increase the level of digital investments in key functions

20%

of organisations plan to invest in technology across of functions

Exhibit 1: Technology is the big change catalyst



Jobs and ways of working are evolving to meet new business requirements

Our research included the study of 53 jobs most unique to the Singapore WST sector. The WST skills framework was used as the basis for selecting these jobs. Almost 83% of jobs studied as part of this research are expected to have a medium to high impact within the next three years. These changes include:

- The emergence of new or significantly changed job scope
- The emergence of jobs with enhanced/augmented job scope
- Jobs at the risk of displacement/merging with other jobs
- Potential offshoring of jobs

We observed that most jobs will experience a positive impact. Over 80% of the jobs (covered as part of the research) will add new, complex and value-adding tasks to their current job scope. On the other hand, many repetitive tasks will start getting substituted by technology. As a result, these modernised job scopes will offer more satisfaction to employees, while increasing their career and pay progressions in the future. Only a tiny fraction of jobs may experience an untoward impact. No job within the WST sector is expected to become redundant in the next three years. However, some jobs may merge. Skills overlap will play a crucial role in deciding what kind of jobs will merge.

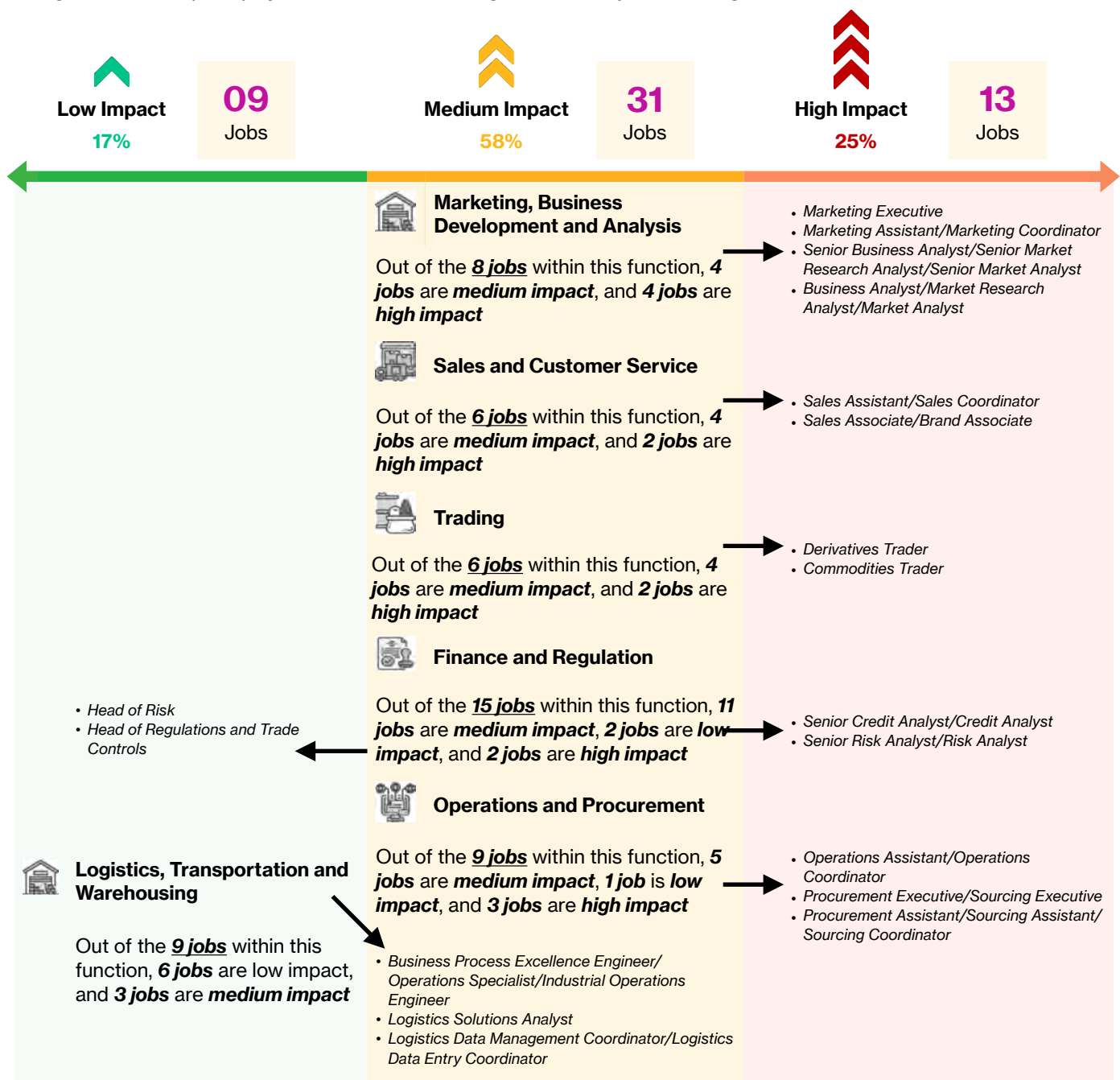


Exhibit 2 : Level of impact by functions and jobs

While all functions and job families are expected to change, some will transform faster than others.

Marketing & Business Development is one of the function that is expected to transform at a rapid pace, thanks to significant investments in customer-centric jobs. Similarly, Operations & Procurement is also fast transforming. Investments in backend operations is driving productivity, which in turn is easing cost pressure.



Acquisition of new / augmented skills is becoming a foundational requirement for success

As jobs evolve, employees will need to acquire new/augmented skills to better deliver their tasks and jobs.

Our study identified 3 distinct forms of skills necessary for sustained growth in the WST sector.

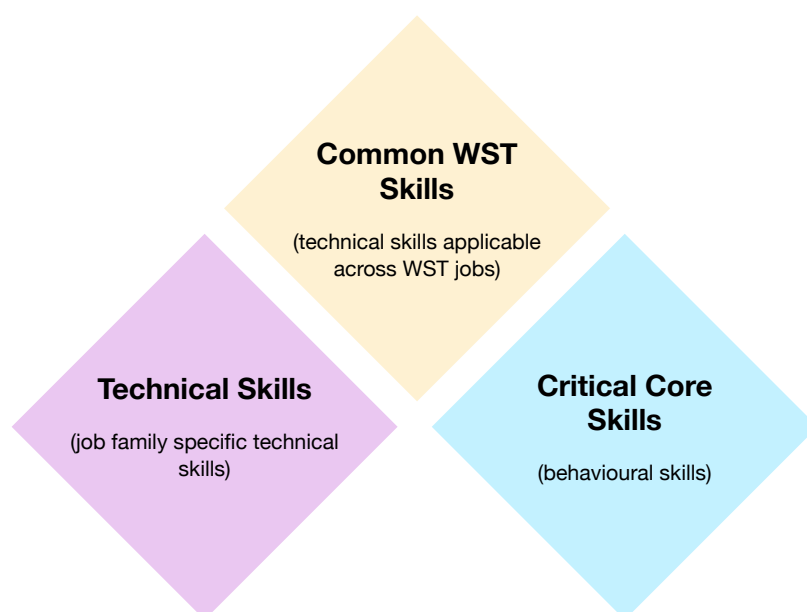


Exhibit 3: Types of skills

Common WST Skills: Skills that apply to all functions/job families and/or jobs

Technical Skills: New/augmented skills, necessary for the success of new and augmented jobs

Critical Core Skills: Universal, transferable skills that facilitate career mobility and employability

Maximum shifts occurred in the Technical Skills category, where 42 new/augmented skills emerged. These skills span across technology and business-led requirements.

Overall list of new/augmented technical skills required by the WST sector

Function and job family specifications determine the need for these skills.

Technology and automation skills

- Automated Inventory Management
- Digital Channel Development
- Digital Freight Brokerage & Matching
- Distributed Ledger Technologies Application
- E-Chartering
- E-Contract Negotiation
- E-Document Management
- E-Marketplace Enablement
- E-Procurement Management
- Machine to Machine (M2M) Technology Application
- Marketing Automation
- Omnichannel Strategy Development / Implementation
- Online Feedback Management
- Trade Automation

Data skills

- Advanced Data Analytics
- Data Management / Security
- Electronic Data Interchanges (EDI)
- Predictive Buying

Business domain skills

- Agile Logistics
- Counterparty Risk Management
- Cross-Cultural Competence
- Customer Experience Transformation
- Freight Rate Hedging Management
- Government / Regulatory Affairs
- Loss Reduction Management
- Narrative Marketing
- Performance Monitoring and Analysis
- Pilot Programme Management
- Position Management
- Predictive Maintenance Planning
- Product Authentication
- Regulatory Compliance
- Risk-Adjusted Value Forecasting
- Route Optimisation
- Scenario Modelling
- Sourcing Portfolio Analysis
- Structured Financing
- Volume Analysis

ESG related skills

- Carbon Footprint Management
- Sustainable Engineering
- Sustainable Sourcing and Procurement
- Sustainable Warehouse Management

Exhibit 4: List of new/augmented technical skills

Presented in an alphabetic manner

Many large organisations in the WST sector have started hiring for new/augmented skills across technology and business domains. Some SMEs are also building their digital portfolio and are actively looking for technology-related skills, apart from specific function-led business skills.

While there is interest, not many SMEs are hiring for ESG-related skills at present. Interestingly, critical core skills (e.g., creative thinking, decision making, learning agility) are garnering interest among WST organisations, irrespective of size or sub-sector.

Educational institutes in Singapore are equipped to meet the new and augmented skills requirements, with courses tailored to meet different needs. Further analysis is provided ahead in the report.



Collective action across stakeholders will be critical for sustained growth

Embracing the future requires a team effort from stakeholders across the board. Given the complexities of digital and job transformation*, employers (organisations), employees, government and educational institutes all play an important role.

While a collective effort is required to address job transformation, employers have to take charge to lead change initiatives.

The infusion of new jobs and skills, more importantly the acceleration of technology adoption; will lead to WST sector jobs becoming attractive for talent both from an aspiration and career standpoint.

We have outlined each stakeholders' responsibilities across the transformation journey.

Government

In recent years, the government has actively supported skills and jobs transformation.

Moving forward, we recommend:

- Educating employers and employees about the benefits of digital and job transformation
- Providing various grants to encourage technology & job transformation and skills acquisition
- Collaborating with educational institutes and consulting firms to train or assist enterprises with their digital and job transformation initiatives

Educational Institutes

Educational institutes in Singapore offer various courses that can build and/or refine technical, common WST and critical core skills. As sector needs evolve, educational institutes should remain nimble in their curriculum development process. In addition, continuous analysis of audience/student profiles is required to innovate new ways of delivering courses.

We recommend educational institutes:

- Stay updated on the latest skills required, in order to build relevant, bite-sized curricula and programmes that adequately prepare student transition into the workforce
- Work with industry players and overseas universities to better prepare students for employment
- Advise organisations (particularly SMEs) on their transformation journey, offering consulting solutions on technology road mapping, job redesign and/or new and augmented skills, etc.

**The process of job transformation allows organisations to rethink new ways of working and understand how the design of jobs can fulfill the strategy and objectives of the organisation.*

Employers

Employers play a pivotal role in the transformation journey. While some large organisations have advanced in their journey, most are still in the early stages. Organisations need to embrace the transformation process as a critical step towards their future success.

This includes:

- Recognising that successful transformation goes beyond just technology adoption. Redefining their culture, capabilities, and organisation model, including critical business processes, structures, jobs, and skills are just as important
- Building a detailed implementation plan while involving relevant teams from the beginning of the transformation journey
- Integrating sustainability and other ESG requirements into business planning to remain competitive locally and globally
- Educating employees about the need for change, and the opportunities that await

Employees

Employees play a pivotal role in any transformation's success. Being able to learn and adapt in a rapidly-changing environment is crucial. In addition, business leaders have shared that while it is vital to build and refine technical skills, employees must also focus on developing critical core skills; skills that many currently lack.

We suggest that employees:

- Seek clarification from the manager/organisation regarding the need for change and how it will benefit the organisation and themselves
- Develop a mindset of continuous learning, upskilling, and reskilling (all three forms of skills) to thrive in an evolving environment
- Build digital acumen and support the adoption of technology to improve performance

02

**Navigating a rapidly
evolving future**

Navigating a rapidly-evolving future

In recent years, the WST sector has undergone unprecedented changes. Changes in the economic, technological and geopolitical landscape have created challenges and opportunities for both business leaders and professionals. There are currently three megatrends that are affecting the sector and responsible for re-envisioning the future of work.

Accelerated digitalisation

There are significant changes in WST organisations' operating model(s), with accelerated digitalisation* and automation at the centre of this change. Technology plays an important role in innovation and integration of demand, supply and experience. Organisations are evaluating advances in technologies like distributed ledger technologies (DLT), artificial intelligence (AI), robotics, and big data and are considering how to leverage them across functions and jobs.

Trends like data-driven decision-making and the implementation of an omnichannel are gaining widespread acceptance in WST organisations. In addition, they are increasing their digital presence to better connect, communicate and engage with their customers, suppliers and employees.

Increased economic volatility

The emergence of trade wars has heightened economic volatility. Geopolitical issues trade processes and conditions. Events like the US-China trade war and BREXIT are forcing organisations to continuously adapt, putting differentiated plans in place to mitigate sudden changes, while continuing to service clients around the world.

In addition, the WST sector often experiences supply chain disruptions, currency fluctuations, and demand shifts which quickly impact business volatility. COVID-19 has further amplified these challenges.

Growing prominence of Environmental, Social and Governance (ESG)

There is an urgency to shift away from business as usual. Government bodies and leading industry associations now promote clean and sustainable business practices. ESG has emerged as a strong influencer on business and investment decisions, affecting different parts of an organisation differently. For example, employees in regulatory and control roles are expected to understand ESG norms like climate impact, anti-corruption and conflict of interest considerations, and ensure that business and disclosures meet regulatory requirements. At the same time, employees in procurement roles need to develop sustainable procurement policies and practices in line with the organisation's overall strategy.

These trends present an opportunity for organisations to rethink and reimagine how they will bring together future-ready resources. From a human resources perspective, though the impact of transformation varies across functions and job families, the need for transformation itself is widely agreed upon.

**Digitalisation is the use of digital technologies to change business model (including offering new products and novel ways of engaging with clients), increase productivity, and build a cost-efficient structure; all with the objective to increase revenue and create*

The paradigm of businesses is changing swiftly

Four trends are responsible for the shift in paradigm for businesses. Their impact on the WST sector and interconnectedness is creating the need for **Job Transformation**.



Evolving operating models

Operating models are swiftly evolving, driven by changing customer expectations and augmented technology.

Omnichannel is gaining popularity as a method to communicate with customers and as a sales channel.

Disintermediation as a trend is gaining momentum, as it helps decrease costs and allows the manufacturer to improve margins, while building better relationships with the end-customer.



Data analytics becoming fundamental

The use of data analytics for making business decisions is becoming paramount. Depending on the organisation's maturity, the usage ranges from doing fundamental trend analysis using tools like excel, google sheets to advanced software for sophisticated data analysis.

Organisations are establishing data-driven frameworks and tools to measure the effectiveness and ROI of various initiatives in achieving organisational objectives.



Accelerated technology adoption

Organisations are increasing their reliance on technology to (a) communicate, engage, and manage customers, suppliers, and employees, (b) reduce cost pressures, improve productivity and performance, and/or (c) reduce human errors.

Artificial intelligence (AI), business intelligence applications, digital marketplaces, robotic process automation (RPA), etc. have started making their mark in day-to-day operations.



Heightened focus on ESG

Complex trade regulations and increased activism around ESG affect product offerings, business processes, partnerships and overall governance structures of organisations.

ESG is emerging as a strong influencer on business and investment decisions, with organisations expected to merge profitability with purpose.

Exhibit 5: Trends leading to job transformation

Job transformation bridges current and future work requirements

The process of Job Transformation (JT) allows organisations to rethink new ways of working and understand how improved job design can fulfil the strategy and objectives of the organisation.

This process of rethinking the design of the job is called Job Redesign. It helps organisations articulate the what (objectives of the job, new tasks and responsibilities to meet new business needs) and the who (full-time employee, freelancer, or even machine/technology) of the job. The process of Job Redesign also helps in articulating new and augmented skills required to perform the redesigned job.

In the section [ahead](#), we present the benefits of Job Redesign for the employer and the employee.

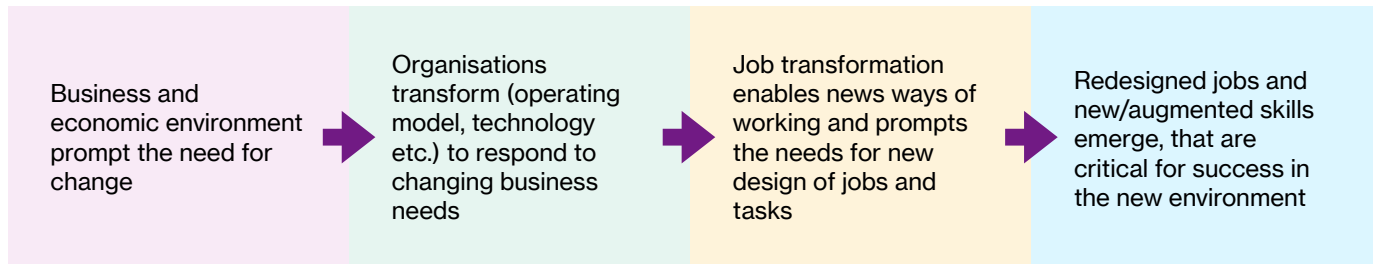


Exhibit 6: Path to transformation



Impact on jobs

The emergence of **new or significantly changed jobs**

As organisations transform, existing jobs may have significantly changed job scopes. For example, commodities traders will be expected to perform trading but will also be heavily assisted by AI, and predictive analytics. At the same time, they will be expected to support business decisions and improve results using quantitative analysis and data modelling.

In some cases, new jobs will emerge to fill in for new requirements. For example, if an organisation seeks to understand ROI on digital and traditional marketing efforts, they will need to hire for new roles such as 'Marketing Analytics Executive'. This is an emerging role that is expected to use data to define and refine marketing efforts.

Impact on jobs (continued)

- Need to perform **new & augmented tasks** within the current job

The most common impact is the emergence of newly defined jobs. With evolving business requirements and the application of automation capabilities on repetitive tasks, employees can focus on more value-adding tasks. The resulting job role is often more complex and enriching. This process is generally referred to as Job Redesign (JR).

For example, many basic trade transaction tasks typically carried out by an Operations Executive can be completed by RPA. This enables the employee to focus on more complex issues or value-creating projects, such as the embarking of supply chain integration projects that further drive efficiency.

The exhibit ahead describes how JR benefits both employers and employees.

- **Displacement** or **merging** of jobs

Many are concerned that technology adoption and automation may replace the need for human workers altogether. However, this is not what we see today nor expect in the short term. Our study has found no jobs within the next three years that are under threat of displacement.

As technology adoption rises, some jobs may merge, as automation solutions reduce workload, creating bandwidth for job holders to take on additional tasks. For example, junior sales roles are often responsible for addressing repetitive queries from clients. With AI-powered chatbots, a large portion of enquiries will be automated. As a result, these jobs will either take up new/augmented tasks or merge with other adjacent jobs.

- Possibility of **off shoring** of jobs

COVID-19 made remote working a reality. The acceptance of work being delivered remotely is a lot higher than what it was in 2019 or before. This phenomenon is being powered by accelerated technology adoption and an increased focus on cost management. However, some highly operational, junior-level jobs may potentially get offshored in the future. These jobs often offer employees limited growth opportunities, both in terms of career as well as compensation. However, our research did not showcase any significant outflow of jobs from Singapore in the immediate future.



Point to note

Some transactional, junior-level jobs can undergo two types of impact. They can either be displaced or be merged due to technology adoption. Alternatively, they can get offshored to a lower-cost location. Factors such as digital maturity, clarity in business processes, and access to low-cost locations will determine the impact applicable in the organisation's context.



Impact on skills and careers

- Need to learn and deploy **new & augmented skills**

As organisations adapt to changing work environments and jobs evolve, employees will need to build or acquire new and augmented skills to deliver their new tasks and jobs successfully. These skills are related to technology (e.g., Machine-to-Machine technology application) and business (e.g., performance monitoring and analysis). Adoption of new and augmented skills will be critical for both employers as well as employees.

- Need to adopt **non – traditional career pathways**

Career pathways are not linear anymore. With changes in organisation dynamics, employees need to be open to non-traditional career pathways and grow vertically within their function and horizontally across other functions. For example, due to skills overlap, a junior operations role can also grow within the sourcing function (Sourcing Coordinator) or sales function (Customer Success Coordinator).

Building on transferable skills relevant across various functions will become critical as it opens new avenues for advancement.

Job redesign creates a win-win situation for employers and employees

Job redesign addresses the **what** and **who** of jobs. This process helps improve employee experience, which in turn impacts the organisation's financial performance.



Job redesign

Employer benefits	Employee benefits	Financial results
Drives agility by broadening the range of sources (technology and/or alternate sources of talent) that can perform tasks as needed and by modelling its impact Breaks down tasks and distributes work across time and space by understanding what work can be done virtually and how to best support it Improves business performance by increasing overall job efficiency and productivity Highlights potential changes by reviewing the type of work at task level and overall job level, as part of a risk management plan	More meaningful work – as transactional/repetitive work gets shifted to other sources (e.g., automated, gig workers, offshored) Learning and growth opportunities – as redesigned jobs result in higher value-added, complex work requiring reskilling, allowing career development opportunities Greater engagement – as one's job title and level adapt to evolving changes in the level of responsibilities, rather than being misaligned New reward opportunities – as a result of learning new skills and career opportunities Trust – through more transparent career opportunities Remain relevant – through adopting new ways of working	Organisations with a more effective employee experience outperform their peers for top-line growth, bottom-line profitability and return to shareholders*.

Exhibit 7: Benefits to employee and employer

*Source: WTW HPEX Research normative database

03

**The prime catalyst -
accelerated digitalisation
and automation**

Accelerated digitalisation is leading the change for the sector

Accelerated digitalisation leading to digital transformation is the prime catalyst for job transformation in the WST sector.

The current environment compels organisations to invest in building their digital transformation strategy. However, successful digital transformation requires organisations to go beyond technology and rethink their organisational and human capital paradigms.

What is digital transformation?

Digital transformation is the process of converting traditional assets (physical, media, content, reports, processes, tools, and systems, etc.) into information assets to enable new sources of value through:

- **Innovative business models, including new products and ways of engaging with customers**
Industry context: Adoption of omnichannel to provide flexibility to B2B customers on their chosen channel to purchase or communicate.
- **Increased productivity**
Industry context: Adoption of digital platforms like CTRM solutions to support business processes associated with trading commodities to enhance efficiency, improve workflows, and increase productivity.
- **A more efficient cost structure**
Industry context: Use of smart contracts to improve efficiency and lower costs by reducing the time to resolve disputes.

Successful digital transformation goes beyond technology adoption, requiring:

- Organisations to redefine their culture, capabilities and organisation model, including critical business processes, structures, roles, jobs and skills required
- New ways of working, behaviors and skills
- New talent reward structures

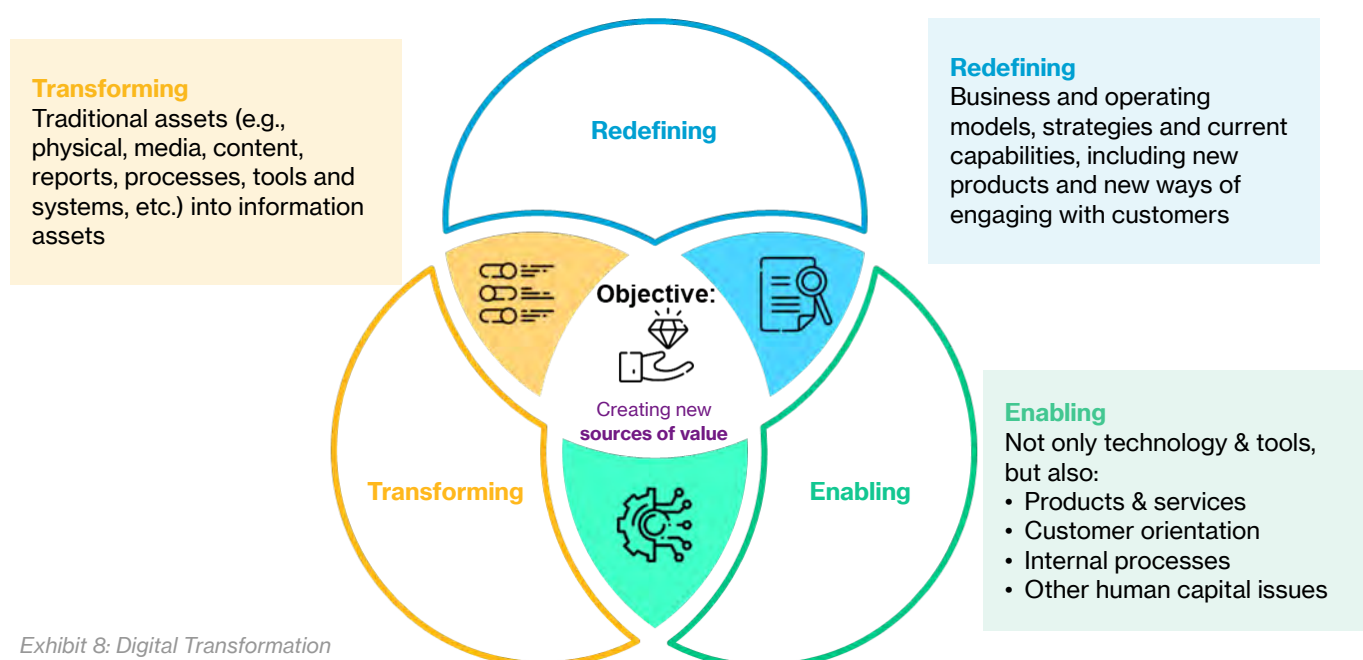


Exhibit 8: Digital Transformation

Digital transformation is gaining momentum

Most organisations in Singapore's WST sector have started making progress in their digital journey. Findings reveal that approximately 44% of organisations expect a high level of digitalisation to impact either key or all functions within their businesses.

The appetite for digital investment has increased significantly. 31% of organisations have committed to increasing technology-led investments for their key functions. However, the digital transformation journey is not without its challenges; organisations share that it will take them at least three years to deploy advanced and more sophisticated digital solutions.

The motivation and appetite for digital investments are diverse and largely depends on organisational readiness to drive positive behaviours within the workplace. Some of the critical determinants of technology adoption are financial capabilities and the ability to respond to the risk that comes with technology adoption. Outside of these, the ability to rethink and synergise technology with new business processes, new structures, augmented/new jobs, skills and behaviours are expected to play a pivotal role in this transformation.

44%

of organisations are expecting a high level of digitalisation to impact key or all functions

31%

of organisations plan to increase the level of digital investments in key functions

20%

of organisations plan to invest in technology across of functions

Exhibit 9: Digital expenditure by Singapore based WST organisations

Source: WTW - WST Sector Visioning Survey 2020

Case study

Home-grown organisation embraces digitalisation across functions to reduce costs, improve efficiency, customer experience, and overall business performance



With over 5,000 different products catered to over 5,000 clients ranging from F&B establishments to hotel chains and more, this organisation is one of the top foodservice distributors, headquartered in Singapore. They are a forward-thinking organisation that aims to revolutionise the foodservice industry with innovative digital solutions. Enclosed below are a few notable initiatives:

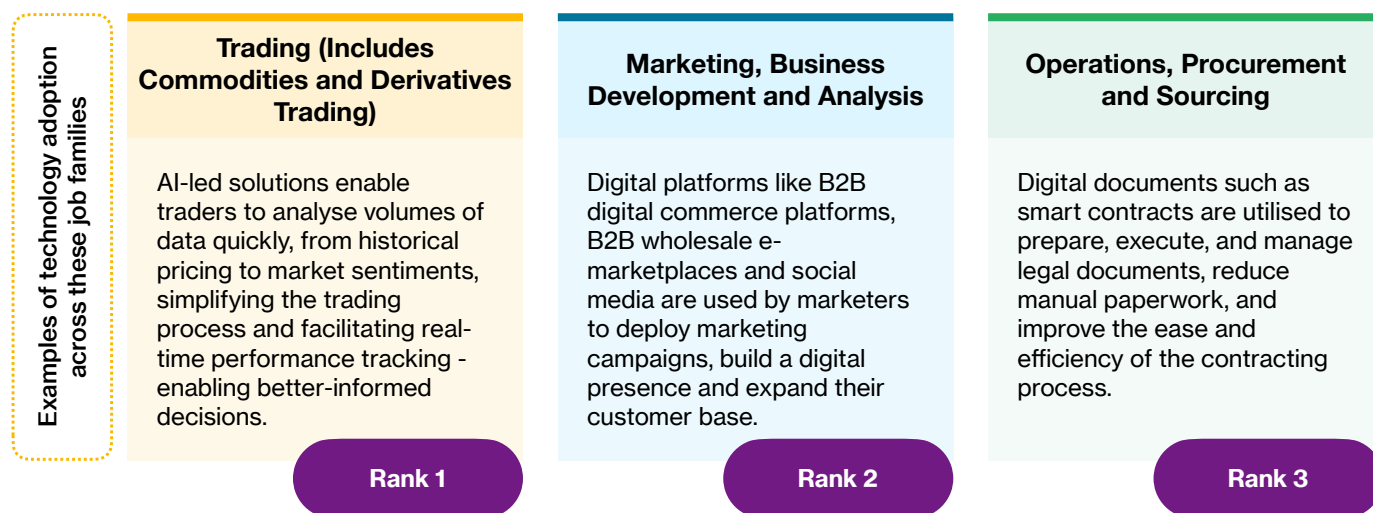
Initiatives	Outcomes and Benefits
Implemented an organisation-wide ERP system to move away from paper-based invoicing	Improved efficiencies in the distribution and invoicing system
Implemented systems like CRM and document management system	Streamlined business processes and reduced operational cost
Implemented an automated storage and retrieval system (AS/RS)	Streamlined storage and order process. Reduced labour cost and improved workplace safety
Introduced digital chatbots and Power BI & Jet Reports	Reduced manual tasks. Created more value-added tasks; improved overall business productivity
Launched an improved digital shopping platform for B2B and B2C customers	Improved revenue for the organisation and convenience for the customers
Expanded coverage of trade finance and currently working with leading payment solutions / P2P lending / fintech partners to provide finance to customers	Improved customer experience and loyalty

To make digitalisation a way of life, this organisation has ingrained learning and development into its culture. There is significant emphasis placed on constant reskilling and upskilling, leading to a positive employee experience. Employees are encouraged to learn on the job and take up structured learning courses offered by IHLs and other vendors. Customised training initiatives are curated to train employees to become experts in their specific work area(s). In addition, they are encouraged to build new skills outside their function or department. What makes this exercise successful is the employer's tolerance, which allows employees to make mistakes when they apply new skills/technologies.

Adoption of digitalisation will vary across functions & job families

The rate of digital adoption differs across functions and job families. Specifically, organisations are steering their digitalisation efforts towards customer-facing and back-office jobs. Front office/customer-facing jobs (e.g., sales) leverage technology to offer customers a more sophisticated experience. On the other hand, technology drives productivity and eases cost pressures for back-office jobs (e.g., operations and procurement).

Top 3 job families with maximum investment in digitalisation and automation



Rank 4 - Finance and Regulations

Rank 5 - Sales and Customer Service

Rank 6 - Logistics, Transportation and Warehousing

Exhibit 10: Investment in automation

Source: WTW - WST Sector Visioning Survey

New technologies have started making their mark

While some new technologies are still at proof-of-concept, many technologies have started making their mark in day-to-day operations. Organisations have started leveraging these technologies to resolve interconnected challenges of ESG, the need to improve business performance and manage economic volatility.

Top 5 prevalent technologies

Adoption Timeline

Advanced Data Analytics

Already in adoption



Encompasses big data analytics, predictive analytics and modelling, including insights (but not limited to) on linkages of various performance metrics with business outcomes and analysis of intangible metrics.

Advanced-Data Analytics produces data-driven insights, aiding decision-making.

Artificial Intelligence (AI)

In the near future



Simulation of human intelligence processes by machines, especially computer systems.

AI helps to streamline business processes, improving overall productivity.

Business Intelligence Applications

Already in adoption



Produces dashboards that can share relevant & timely information. Supports the digital automation of workflows for data entry and data verification, reducing manual error.

BI Applications help consolidate documents, improving operational efficiency.

Digital Marketplaces

Already in adoption

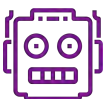


Online venue where information exchange or transactions of goods and services between buyers and sellers take place.

Digital Platforms and Marketplaces help augment physical transactions and interactions.

Robotic Process Automation (RPA)

Already in adoption



A productivity tool that allows users to configure one or more scripts/bots to activate specific keystrokes in an automated fashion.

RPA helps automate manual and repetitive tasks, freeing up time to perform more value-added activities.

Exhibit 11: Prevalent technologies

Three years and beyond, technologies will keep evolving

As organisations start exploring different technologies and solutions, the pace of adoption is expected to vary.

In the early stages of digitalisation, organisations mainly focus on setting up proper infrastructure and systems, which can record data digitally and enable future digital solutions.

On the contrary, organisations in more advanced stages of their digitalisation journey are expected to deploy more intelligent automation solutions leveraging key technologies such as AI, IoT and Blockchain.

Top 10 technologies to be adopted in the WST sector in the next 3-5 years:

Artificial Intelligence	Automated Inventory Management	Blockchain Application	Core ERP Technologies
CTRM System	E-Chartering	Electronic Data Interchanges	Internet of Things (IoT) Application
	Marketing Automation	Predictive Analytics	

Exhibit 12 : Technologies to be adopted in the next 3-5 years

Source: WTW - WST Sector Visioning Survey 2020. Presented in an alphabetic manner

Case study

Large local organisation adopts new technologies and upskills team members to ensure sustainable growth

With expertise in consumer electronics products, this 200+ employee organisation manages over 40 authorised distributorships for close to 180 products. With a focus on improving business performance, they have actively embraced new operating models and technologies. With digitalisation as a critical agenda for the next few years, some of their notable initiatives are:

Adoption of omnichannel and the evolution of the digital marketing team

To combat the challenges posed by COVID-19, this organisation swiftly moved from the traditional channel to an omnichannel model, where they engaged customers through online and offline channels. The marketing team went through a rigorous training process to enable this transition, where they were equipped with digital marketing skills. The expectation was that the marketing team should be able to wear both hats of traditional and digital marketing. To build on this change, the organisation is also hiring specialist roles in e-commerce, who can drive large-scale organisational changes and at the same time refine the skills of the current team members.

Development of Warehouse Management System (WMS)

This organisation is rolling out its in-house developed WMS to automate logistics operations in line with its digital-focused strategy. This system will facilitate paperless transitions and aid in collecting data to optimise space and delivery route planning. In addition, they are also investing in specialist tools and software that will support speeding up inventory data input, which will help in the automation and digitisation process.

Becoming a digital organisation is a step-by-step journey that will impact multiple levers across the organisation

Based on an organisation's approach to digital strategy, there are four stages of digital maturity. To become a truly digital organisation, they need to undertake the journey of being an early-stage adopter of technology and digital platforms to a transforming organisation with a sophisticated and coherent digital strategy that enables the organisation's success.

Four stages of digital maturity

Emerging

Organisation has a very basic, reactive digital strategy developed with rudimentary digital capabilities focused on content, social media, or digital marketing. Other levers such as technology, culture, process and human capital have not changed.

Advancing

Organisation has a digital strategy formulated; current digitalisation efforts are still somewhat fragmented; digital capabilities extend to technology but not beyond. Organisation starts to display behaviours associated with digital culture.

Leading

Digital strategy is fully developed and aligned with business strategy; digital capabilities are well developed and deployed across parts of the business. Organisation's culture and processes are enablers of digital success.

Transforming

Coherent and integrated digital and business strategy enabling new sources of value with digital capabilities embedded in the organisation's value chain. Organisational culture and processes are fully reflective of digital ways of working.

A close comparison to the four stages of digital maturity is the WST's Industry Digital Plan (September 2017). The table below is a logical mapping of the WST IDP against the four stages.

Four stages of digital maturity	Emerging	Advancing	Leading	Transforming
WST IDP Digital Roadmap	Stage 1 Getting digital economy ready	Stage 2 Growing in the digital economy	Stage 3 Leaping ahead with technology	Beyond Stage 3

While technologies mentioned in the IDP have evolved over the last few years, the IDP provides information on various digital solutions, resources, and capabilities required by organisations for different stages of business growth.

04

Impact on jobs and skills



Assessing the impact on jobs – a brief note on the methodology

To assess the impact on jobs and skills, the research team followed a scientific process. Insights from comprehensive primary and secondary research were applied to WTW's proprietary job redesign methodology - [Reinventing Jobs](#). This process helped identify the impact of business change and extensive transformation due to technology adoption on jobs. These insights were then used to design the future of jobs. The goal was to provide recommendations that are practical and can be quickly adopted.

Our research included the study of 53 jobs most unique to the Singapore WST sector. The [WST skills framework](#) was used as the basis for selecting these jobs. Enclosed below is a brief description of how the Job Reinvention methodology was applied. Details about the research methodology are provided in the [annexure](#).

Understand automation potential



Deconstruct jobs into tasks. For example, the job of data entry operator entails tasks such as (1) preparing and sorting documents for data entry, (2) entering data into database software and checking to ensure the accuracy of the data (3) creating data backups.

Understand automation potential based on task type. For example, tasks that are repetitive with limited stakeholder interaction have a high probability of automation.

Understand the driver of change



Understand the driver of change. If the driver is to reduce variation/error, then technology can support the substitution of the task. If the driver is an improvement of performance, technology can support the augmentation of the task.

Assessment of automation type



Depending on the automation potential and critical driver of change, assess the automation type (e.g., RPA, AI, social robotics).

Study market insights to propose technologies that are both relevant and at the same time practical.

Understand level of impact



Understand the level of impact (beyond technology trends) and design the future of the job. Identify new skills that will be required to do the future job successfully.

The transforming world of work promises the evolution of jobs. The level and type of impact may vary

The nature of the job dictates the relationship between the level and type of impact. To codify this relationship, we created the matrix below.

Type of impact	Level of impact		
	High impact	Medium impact	Low impact
New and/or significantly changed job scope	Some strategic jobs may have a significantly new/changed job scope that requires new and augmented skills. Technological advancements primarily prompt these changes and, in some cases evolving ESG norms.	Jobs with new and/or significantly changed scope are not medium-impact jobs.	Jobs with new and/or significantly changed scope are not low-impact jobs.
Enhanced/augmented job scope	Technology is expected to increase efficiencies and augment the performance of jobs, freeing up bandwidth for employees to focus on higher value-added new tasks, which will require new and augmented skills. Changes driven by economic volatility and evolving ESG norms will also demand new tasks. These jobs typically have a combination of strategic and operational expectations and require a moderate to a high level of cognitive capability, relationship building, and communication with stakeholders.		Some jobs may observe an incremental change in job scope. Jobs will be expected to embrace technology and drive higher efficiencies. These jobs are typically strategic. In other cases, the changes for these jobs are not significant for the WST sector yet.
Risk of displacement/merging with other jobs	Highly operational and repetitive jobs with limited interaction with stakeholders may be at risk of displacement/merging with other jobs. Technological advancements primarily prompt these changes.	Jobs at risk of displacement/merging with other jobs are not medium-impact jobs.	Jobs at risk of displacement/merging with other jobs are not low-impact jobs.
Potential offshoring	Highly operational, repetitive and junior-level jobs may potentially be offshored to low-cost destinations.	Jobs at risk of potential offshoring are not medium-impact jobs.	Jobs at risk of potential offshoring are not low-impact jobs.

Exhibit 13 : Matrix - level and type of impact



The research also indicated the need for new and emerging jobs, to meeting evolving business requirements.

83% of WST jobs studied will undergo either a high or medium level of impact



Job

Out of the 53 jobs studied, 25% of the jobs will undergo high impact, and 58% will undergo medium impact. Most jobs will have new tasks added to their current job scope. These tasks will be complex and value-adding in nature. On the other hand, many repetitive tasks will start getting substituted by technology. As a result of this, not only will the new design of the job offer more satisfaction to employees, but it will also increase the probability of earning more compensation in the future.

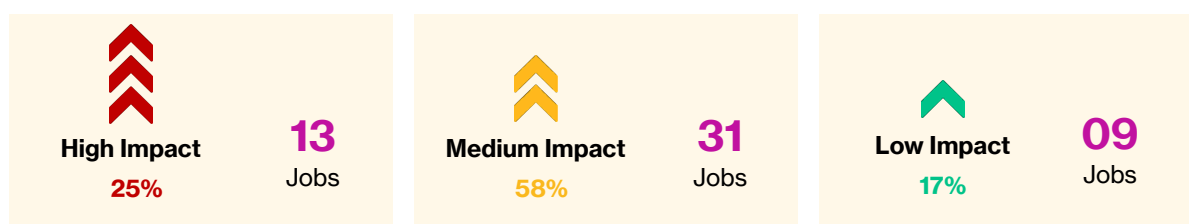


Exhibit 14 : Level of Impact by function and job family

We present different impact classifications across various jobs on the following pages.



Function and job family

When we aggregated the level of impact by jobs at a function and job family level, we saw a medium level of impact in every job family except for **Logistics, Transportation and Warehousing**.

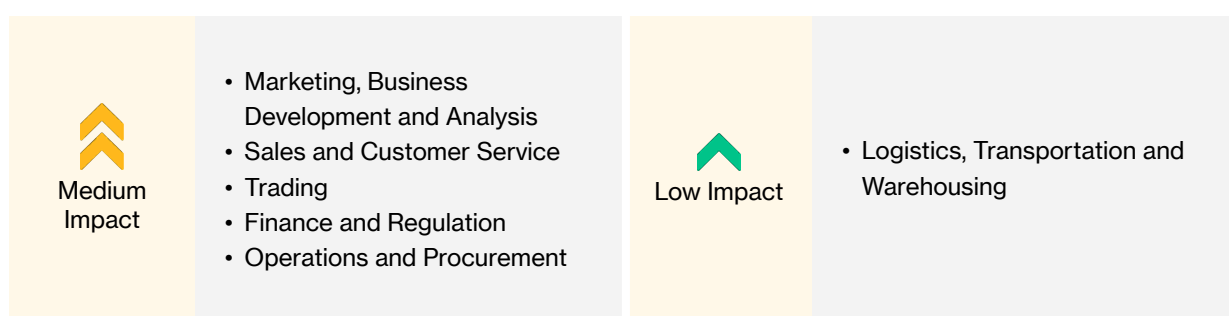


Exhibit 15 : Level of Impact by function and job family

While most job families will undergo a medium level of impact, the pace of impact will be different. Marketing and Business Development is one of the job families that is expected to transform at a rapid pace.

Investments in customer-facing jobs to improve customer experience and improve overall organisation results are driving this change.

Similarly, Operations and Procurement is also anticipated to transform fast. Investments in back-office jobs such as operations are expected to drive productivity and, as a result, ease cost pressure.

  High Impact	Level of impact by jobs		
	Marketing, Business Development and Analysis	Sales and Customer Service	Trading
	• Marketing Executive • Marketing Assistant/Marketing Coordinator • Senior Business Analyst/Senior Market Research Analyst/Senior Market Analyst • Business Analyst/Market Research Analyst/Market Analysts	• Sales Assistant/Sales Coordinator • Sales Associate/Brand Associate	• Derivatives Trader • Commodities Trader
	• Head of Marketing • Marketing Manager • Head of Business Development • Business Development Manager	• Head of Sales • Sales Manager • Sales Executive • Customer Service Officer/Service Quality Analyst	• Head of Derivatives Trading • Derivatives Trading Manager/Senior Derivatives Trader • Head of Commodities Trading • Commodities Trading Manager/Senior Commodities Trader
 Medium Impact	N.A.	N.A.	N.A.
 Low Impact			

Exhibit 16 (a) : Level of impact by function and job family

  High Impact	Level of impact by jobs		
	Finance and Regulations	Operations, Procurement and Sourcing	Logistics, Transportation and Warehousing
	• Senior Analyst / Analyst, Credit Management • Senior Analyst/ Analyst, Risk	• Operations Assistant/ Operations Coordinator • Procurement Executive/ Sourcing Executive • Procurement Assistant/ Sourcing Assistant/ Sourcing Coordinator	• N.A.
	• Head of Trade Finance • Trade Finance Manager • Senior Analyst / Analyst, Trade Finance • Head of Credit • Credit Manager • Head of Treasury • Treasury Manager • Senior Analyst/ Analyst, Treasury • Risk Manager • Regulations and Trade Controls Manager • Senior Analyst / Analyst, Regulations And Trade Controls	• Head of Operations • Operations Manager • Operations Executive • Head of Procurement/ Head of Sourcing • Procurement Manager/ Sourcing Manager	• Business Process Excellence Engineer/ Operations Specialist/ Industrial Operations Engineer • Logistics Solutions Analyst • Logistics Data Management Coordinator/Logistics Data Entry Coordinator
 Medium Impact	• Head of Risk • Head of Regulations and Trade Controls	• Contract Specialist	• Charterer • Freight Officer • Dispatch Operator/ Transport Operator/Last Mile Delivery Driver/ Container Driver • Warehouse Officer/ Inventory Controller/ Quality Control Officer/ Warehouse Facilities Management Officer • Material Handling Equipment Operator/ Forklift Operator/ Warehouse Assistant/ Inventory Assistant • HSE Coordinator
 Low Impact			

Exhibit 16 (b) : Level of impact by function and job family

When it comes to type of impact, most jobs will undergo enhancement/augmentation of job scope

New and significantly changed jobs will emerge; jobs may get displaced or merged. They may even get offshored. However, the most noticeable impact will be the emergence of jobs that are enhanced/augmented in job scope.

We anticipate that organisations will have increased expectations in the immediate future, even for jobs that may get displaced, merged, or offshored later. As a result, new and augmented tasks will be added to the current set of responsibilities.

6%

of jobs will have a new and/or significantly changed job scope

Derivatives Trader, Commodities Trader, Senior Business Analyst/Senior Market Research Analyst/Senior Market Analyst

15%

of jobs have a risk of displacement/merging with other jobs

Marketing Assistant/Marketing Coordinator, Business Analyst/Market Research Analyst/Market Analyst, Sales Assistant/Sales Coordinator, Sales Associate/Brand Associate, Operations Assistant/Operations Coordinator, Procurement Assistant/Sourcing Assistant/Sourcing Coordinator, Senior Credit Analyst/Credit Analyst, Senior Risk Analyst/Risk Analyst

>80%

of jobs will have increased expectations with enhanced/augmented job scope

Marketing Manager, Head of Business Development, Sales Manager, Customer Service Officer, Derivatives Trading Manager, Trade Finance Manager, Head of Risk, Treasury Manager, Head of Operation, Sourcing Manager, Business Process Excellence Engineer, Logistics Solution Analysts*

9%

of jobs may potentially get offshored

Marketing Assistant/Marketing Coordinator, Sales Assistant/Sales Coordinator, Sales Associate/Brand Associate, Business Analyst/Market Research Analyst/Market Analyst, Logistics Data Management Coordinator/Logistics Data Entry Coordinator

Exhibit 17: Type of impact

Percentages will not add to 100% as one job may undergo multiple types of impact.

*List is not exhaustive

Within the same function, different jobs can have different levels and types of impact

As highlighted earlier, the nature of the job defines the level and type of impact. The future of strategic jobs as compared to operational and repetitive jobs (even within the same function and job family), is expected to differ. Illustrated below are examples of how jobs within **Marketing, Business Development and Analysis** can have different levels and types of impact.

Type of impact	Illustration	
New and/or significantly changed job scope	Senior Business Analyst/Senior Market Research Analyst/Senior Market Analyst 	
	Current Expectations - Support business development plans and conduct research reports informing business strategies - Perform quantitative assessments to analyse gaps and opportunities - Conduct research and cost-benefit analysis to support potential business ventures - Conduct due diligence reports and regulatory restrictions on new business ventures	Future expectations (within 3 years) - Support the development of integrated business strategies - Explore potential business opportunities by understanding market conditions, customer segments, cultures, and sustainability-related initiatives - Support business decisions by conducting advanced quantitative and qualitative analysis - Work with stakeholders and partners to provide personalised experiences to various stakeholders
Enhanced/augmented job scope	Head of Marketing    	
	Current Expectations - Guide research parameters on market awareness, brand associations and public perceptions - Focus on marketing strategies to drive marketing efforts - Drive customer intimacy - Lead development of omnichannel initiatives	Future expectations (within 3 years) - Drive marketing efforts by focusing on digital marketing strategies - Drive customer intimacy by leveraging real-time data - Invest time in integrating technology into marketing strategies



High Impact



Medium impact



Low Impact

Trends:



Evolving operating models



Technology adoption



Need for data analytics



ESG and related requirements

Type of impact		Illustration				
Risk of displacement/merging with other jobs	Marketing Executive	  				
	Current Expectations	Future expectations (within 3 years)				
	- Monitor KPIs throughout marketing implementation - Conduct research on brand awareness, associations, and public perceptions - Execute branding implementation plans - Execute omnichannel initiatives - Analyse performance of marketing campaigns	- Monitor KPIs linked to marketing programmes using digital tools and data analytics - Support customer segmentation efforts - Research new technologies to improve customer engagement - Engage existing and new customers by managing communities across digital platforms - Analyse relevant metrics to assess the effectiveness of marketing channels				
Potential offshoring	Marketing Assistant/ Marketing Coordinator	  				
	Current Expectations	Future expectations (within 3 years)				
	- Consolidate research information to support report generation - Update organisation's digital marketing channel content - Support omnichannel initiatives - Consolidate performance data of marketing campaigns	- Generate reports on effectiveness of marketing channels, communication plans and digital marketing technologies - Support customer segmentation efforts - Execute customer experience programmes using technology platforms - Implement branding initiatives across segmented customer - Support customer community management across digital platforms				
 High Impact  Medium impact  Low Impact		Trends:  Evolving operating models  Technology adoption  Need for data analytics  ESG and related requirements				



The merging of jobs

The redesigned job of Marketing Executive is expected to have many additional tasks, such as customer segmentation through data analytics and optimising customer experience at the customer journey. As a result, there is no risk of displacement.

On the other hand, Marketing Assistant/Marketing Coordinator, the future job design remains highly operational, with significant time spent on data collection, cleaning, and report generation. This job will be repetitive and require limited cognitive capability, relationship building, and communication with stakeholders. With an increase in technology adoption, this job faces the risk of displacement.

Due to high skills overlap, Marketing Executive and Marketing Assistant/Marketing Coordinator, may merge in the future. Other similar jobs within the function, such as Business/Market Research Analyst, may also merge with Marketing Executive, resulting in the potential increase in headcount of the role.



The double impact

A job can experience various types of impact. The level of impact varies relative to the availability of technology tools, interaction required between stakeholders, and the nature of that job. For example, jobs like Marketing Assistant/Marketing Coordinator, which are highly transactional and SOP (standard operating procedure) driven can either get merged with other jobs in the function, or be offshored to low-cost destinations.

New jobs will emerge to address business challenges

New business challenges will also lead to the emergence of new jobs. In most cases, data analytics and the adoption of new technologies are driving the need for these jobs. For example, jobs like Marketing Analytics Manager and Supply Chain Performance Manager are expected to combine functional knowledge and an understanding of data analytics to help organisations take timely and data-backed decisions. Evolving operating models and the need for organisations to have a better digital footprint also lead to the emergence of jobs such as Search Engine Optimisation (SEO) Specialists. We also observe evolving ESG norms dictating the need for new specialised jobs.

Globally, these jobs are fast-growing. Closer to home, large Singaporean organisations have slowly started hiring for these jobs. Interestingly, some of the expectations from these emerging jobs are getting added to the tasks of existing jobholders. For example, entry-level marketing job holders are expected to leverage data analytics to support customer segmentation efforts. There is also an expectation of using SEO to enhance the distribution of brand messages and campaigns to various audiences.

Similarly, mid-level finance job holders are expected to be trained in ESG reporting and carbon footprint management and deliver on the ESG agenda. This is in addition to their day-to-day roles and responsibilities. Illustrated below are examples of some emerging jobs in the WST context:

Trends:	 Evolving operating models	 Technology adoption	 Need for data analytics	 ESG and related requirements
Decision Support Analyst				
Freight Operations Analyst				
Inventory & Capacity Specialist				
Supply Chain Performance Manager				
Marketing Analytics Manager				
Search Engine Optimisation Specialist				
Environmental, Social & Governance Lead				
Sustainability Manager				
Sustainable Sourcing Manager				

Click [here](#) to know more about the jobs illustrated above.



In addition to these, there is a growing need to hire specialist technology-led emerging jobs such as those in:

- Artificial Intelligence Application
- Machine Learning
- Cyber Security Development
- Data Sciences and Business Intelligence
- Data Engineering

Skills are the new currency

Acquisition of new and augmented skills will be a prerequisite for success in the new world of work. Success lies in being able to combine the three different types of skills.

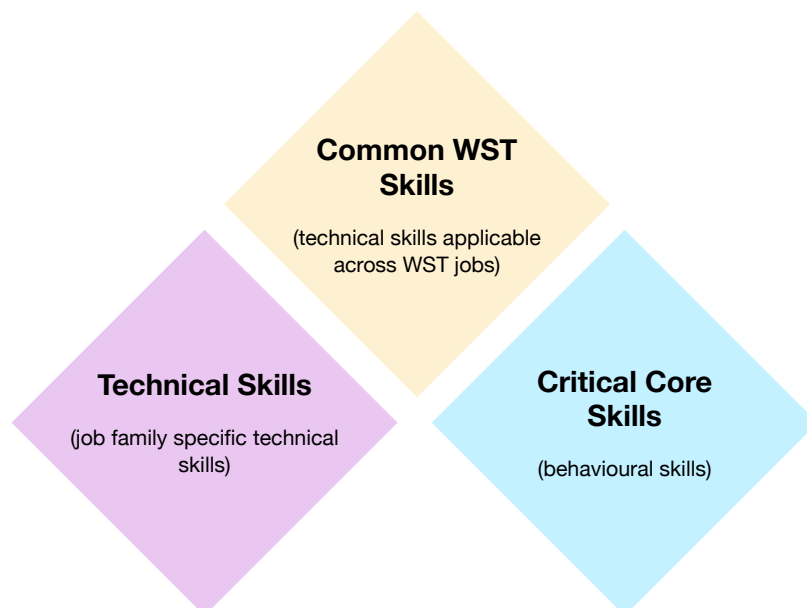


Exhibit 18 : Types of skills

Common WST Skills

We identified 3 **technical skills** applicable to all WST jobs. These skills are common to all functions and job families and are called **Common WST** skills. They represent foundational technical skills required by all WST employees.

Technical Skills

Outside of the current skills articulated for the sector, we identified 42 **new/augmented** skills necessary for the success of future WST jobs. These are function/job family specific technical skills.

Critical Core Skills

Critical core skills are **universal, transferable skills** that enable individuals to be **employable and employed**, facilitate their career mobility, and acquire new skills.



Key findings

Business leaders shared that the Singapore education system equips its students with the necessary technical skills and knowledge for the sector. However, employees need to strengthen their critical core skills, which include (but are not limited to) problem-solving skills, risk-taking capabilities, communication skills, cross-cultural understanding, etc.

**Tip**

Technical skills are quintessential for the long-term strategy and success of an organisation. Nevertheless, it is recommended that while evaluating talent (either during the hiring process or during the annual performance cycle), organisations should not only focus on deep technical knowledge but also critical core skills (CCS).

Research shows that talent who display CCS, such as decision making, possess a positive attitude, demonstrate resilience and/or exhibit a willingness to learn and undergo job rotation have a higher probability of long-term success.

CCS are transferable and applicable across functions. As a result, talent possessing critical core skills can quickly learn new and augmented skills, move around job families/functions without much discomfort, and add value to the organisation and themselves.

Common WST skills that tie all functions and job families

Common WST skills are technical skills common to all jobs across the WST sector. They are agnostic of job families or functions. We identified three such skills:



Application of ESG Trends and Regulations

Given the high focus on ESG trends, functions and job families across the wholesale trade sector are impacted. While some job families may get impacted more than others (e.g., Commodities Trade, Regulation and Control), the need to be ready to address ESG norms and requirements is felt universally.



Data Assimilation and Analytics

Making sense of historical data or using live data (e.g., collected from satellites or social media platforms) is becoming a mantra across all functions and job families. Some of the job families (e.g., Derivatives Trading) leverage data to predict future business scenarios and/or outcomes, while others leverage data and analytics to make data and trend-backed business decisions.



Technology Adoption

All functions and job families are undergoing a transformation phase, where there is a need to synergise the business strategy with the technology roadmap. The need to accelerate the pace of digitalisation is felt universally.

Exhibit 19 : Types of common WST skills (presented alphabetically)

Employees will need to learn skills across the technology and business domain

We identified 42 new/augmented skills necessary for the success of new and augmented jobs. In the coming years, these skills will become foundational. It is important to note that the new and augmented skills are not a replacement but rather extend the traditional skills set requirements.

We identified two distinct forms of technical skill sets. These are technology-led technical skills and business-led technical skills.



Technology-led Technical Skills

Skills where domain knowledge is applied using digital tools and platforms. Requires understanding and usage of new and augmented technology and heightened use of data.



Business-led Technical Skills

New business domain and/or functional skills/job family specific skills that need to be acquired and applied in the context of future WST jobs.



Overall list of new/augmented technical skills required by the WST sector

Function and job family specifications determine the need for these skills.

Technology and automation skills

- Automated Inventory Management
- Digital Channel Development
- Digital Freight Brokerage & Matching
- Distributed Ledger Technologies Application
- E-Chartering
- E-Contract Negotiation
- E-Document Management
- E-Marketplace Enablement
- E-Procurement Management
- Machine to Machine (M2M) Technology Application
- Marketing Automation
- Omnichannel Strategy Development / Implementation
- Online Feedback Management
- Trade Automation

Data skills

- Advanced Data Analytics
- Data Management / Security
- Electronic Data Interchanges (EDI)
- Predictive Buying / Purchasing

Business domain skills

- Agile Logistics
- Counterparty Risk Management
- Cross-Cultural Competence
- Customer Experience Transformation
- Freight Rate Hedging Management
- Government / Regulatory Affairs
- Loss Reduction Management
- Narrative Marketing
- Performance Monitoring and Analysis
- Pilot Programme Management
- Position Management
- Predictive Maintenance Planning
- Product Authentication
- Regulatory Compliance
- Risk-Adjusted Value Forecasting
- Route Optimisation
- Scenario Modelling
- Sourcing Portfolio Analysis
- Structured Financing
- Volume Analysis

ESG related skills

- Carbon Footprint Management
- Sustainable Engineering
- Sustainable Sourcing and Procurement
- Sustainable Warehouse Management

Exhibit 20 : List of new/augmented technical skills

Presented in an alphabetic manner



Out of the 42 skills, we observed that 18 skills are high frequency in nature. This means that two or more functions and/or job families will demand them. As organisations and employees shape their skilling agenda, these high-frequency skills are likely to be taken up as a priority.

The high priority skills have been highlighted in purple.

Click [here](#) to see the new/augmented skills library.

Understanding, analysis and security of data will be a key requirement across functions

The new and augmented skills required by each function and job family are provided below:

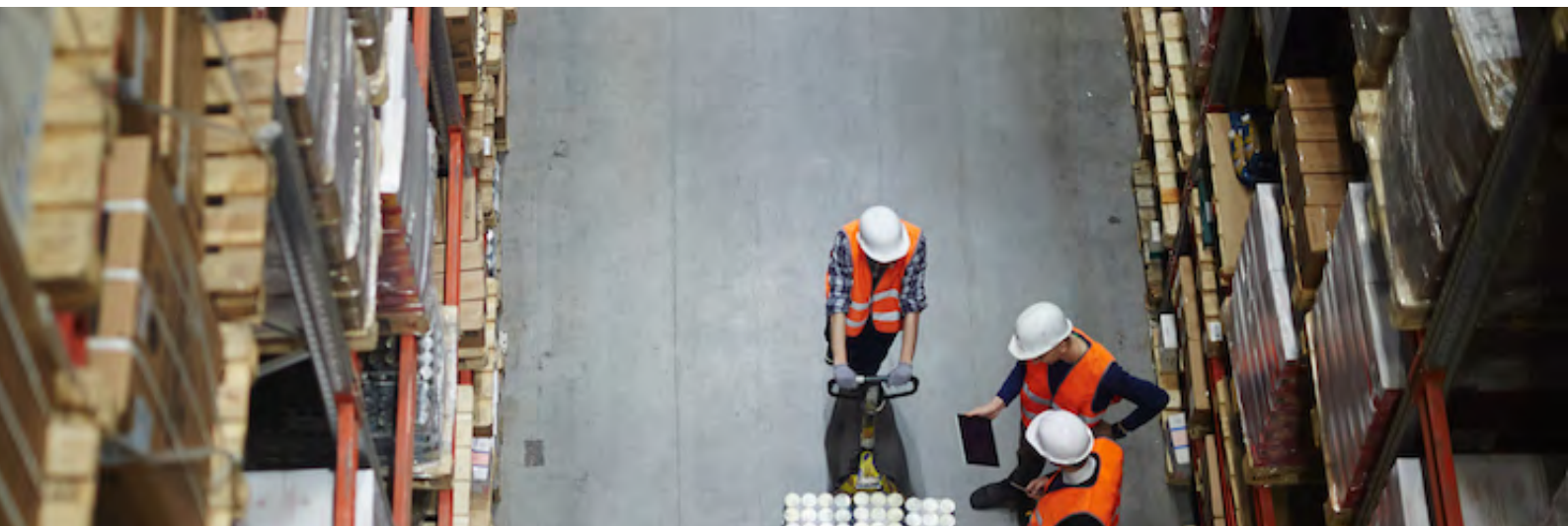
Marketing, Business Development and Analysis	Sales & Customer Service
• Advanced Data Analytics • Data Management / Security • Digital Channel Development • Marketing Automation • Omnichannel Strategy Development / Implementation • Cross-Cultural Competence • Customer Experience Transformation • Narrative Marketing	• E-Document Management • Omnichannel Strategy Development / Implementation • Online Feedback Management • Customer Experience Transformation • Performance Monitoring and Analysis
Trading	Finance and Regulations
• Advanced Data Analytics • Trade Automation • Performance Monitoring and Analysis • Position Management • Sourcing Portfolio Analysis • Volume Analysis	• Advanced Data Analytics • Distributed Ledger Technologies Application • Carbon Footprint Management • Counterparty Risk Management • Government / Regulatory Affairs • Pilot Programme Management • Regulatory Compliance • Risk-Adjusted Value Forecasting • Scenario Modelling • Structured Financing
Operations, Procurement and Sourcing	Logistics, Transportation and Warehousing
• Automated Inventory Management • Data Management / Security • E-Contract Negotiation • E-Document Management • Electronic Data Interchanges (EDI) • E-Marketplace Enablement • E-Procurement Management • Predictive Buying / Purchasing • Carbon Footprint Management • Product Authentication • Sourcing Portfolio Analysis • Sustainable Sourcing and Procurement	• Automated Inventory Management • Data Management / Security • Digital Freight Brokerage & Matching • E-Chartering • E-Contract Negotiation • Machine to Machine (M2M) Technology Application • Agile Logistics • Freight Rate Hedging Management • Loss Reduction Management • Predictive Maintenance Planning • Route Optimisation • Sustainable Engineering • Sustainable Warehouse Management

Exhibit 21 : List of new/augmented technical skills by functions

Technology-led Technical Skills

Business-led Technical Skills

Case in point – skill-based hiring trends



Organisations have already started hiring for new and/or augmented skills in Singapore. See a few examples below:

- We see many commodity trading firms hiring for roles requiring market risk, cybersecurity, data analytics, and AI applications. Their objectives are twofold. First, use technology and data analytics to improve business performance, enhance employees' productivity, and make data-backed decisions across the organisation's value chain. Second, build a sustainable and secure business and control risk exposure.
- We also see large wholesale trading companies/ distributors demand roles such as that of a data scientist. They are also hiring talent with supply chain management, risk management, predictive analytics, programming, and data modelling skills. Given the size of their distribution network, a combination of functional skills such as supply chain management and data and analytical skills are becoming critical for improving the performance of the supply chain function and controlling risk.

Preparing the future workforce

Business leaders expect their employees to be agile, have a learning mindset, and be comfortable in an ever-changing, volatile environment. The new work reality is here.

As organisations adapt to changing work environments and as jobs continue to evolve, employees will need to build or acquire new and augmented skills to deliver their new tasks and jobs successfully. As a result, employees can move and grow within their job family or function, and transit smoothly into non-traditional career pathways.

Traditional view of jobs & career



Premised mainly on the assumption of a traditional life model of 'learn, do, retire'.

Future of jobs & career



Relies on the constant acquisition of skills throughout life course. Employees are expected to re-evaluate and update their skill sets constantly.



Changing view

Exhibit 22: Future of jobs and careers

We studied a combination of historical movements and skills overlap to present insights on potential job adjacencies in the WST context. We observed interesting career pathways offered. Skills overlap plays a critical role in enabling such career pathways. The nature and complexity of the skills that are applicable for both jobs, along with the ease of learning new skills required for the future job make the movement possible.

Illustrated below are examples of non-traditional career pathways.

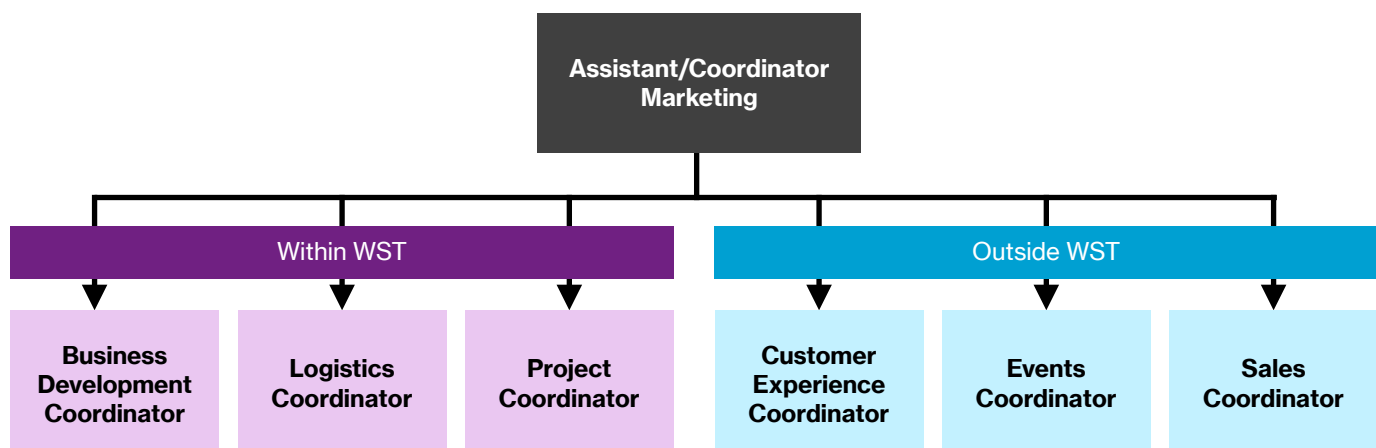


Exhibit 23 : Illustration of job adjacency

Marketing Assistant/Marketing Coordinator, is a highly operational job that faces the risk of displacement in the future, owing to technological advancements which will bring in high levels of productivity. Given the nature of the job, it may potentially even get offshored. These developments will lead to the merging of the job with Marketing Executive. High skills overlap support merging of both jobs.

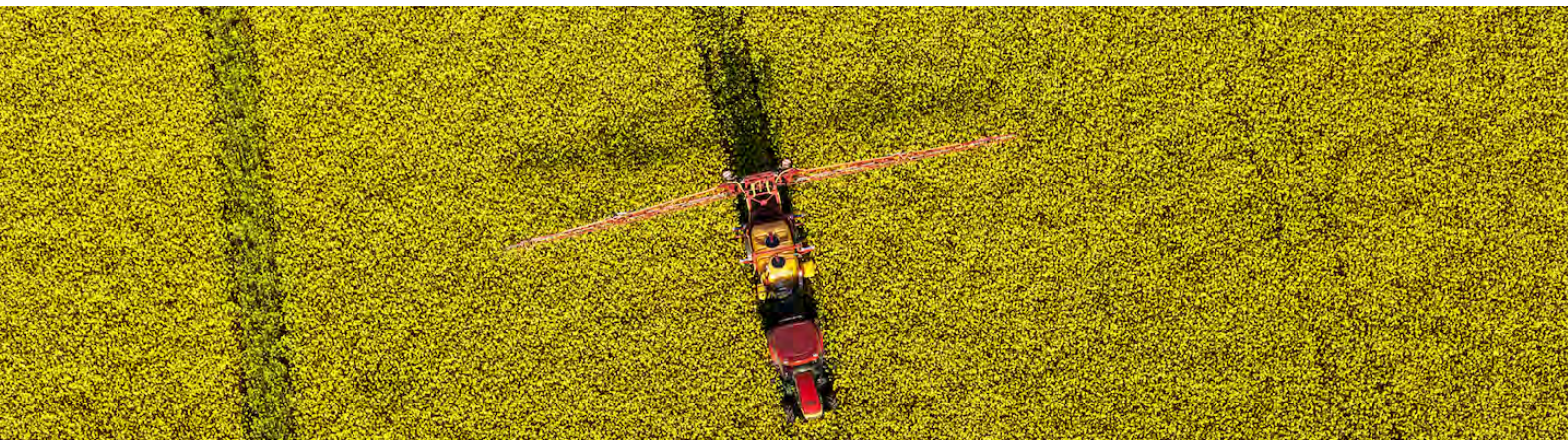
While skills overlaps are common within job families, we also observe skills overlap across job families. The skills required by the Marketing Assistant/Marketing Coordinator, have almost a 60% - 70% overlap with jobs across other job families such as business development and customer service. Overlapping skills such as customer relationship management, digital marketing, data mining and modelling, market research, social media management and stakeholder management support the movement from one job family to another. Coupled with reskilling and upskilling to expand one's skills to the entirety of what is required for the new role, the employee has a higher probability of success as building skills through adjacency is easier, and it helps reinforce and complement one's current knowledge.

Not only are movements possible within the WST sector, but skills overlap will also allow employees to look for opportunities outside the sector.

Please refer to the Impact Skills Analysis section of the report to see the complete analysis.

Case study

Home-grown organisation enables cross-functional movement of employees to build a culture of learning and improve employee experience



In line with its people-centric policies, this Singapore-based agricultural material organisation regularly transfers employees between job families. The objective of these transfers is to nurture a culture of learning within the organisation, so that employees continue to acquire new skills and remain competitive. The benefit of employees enjoying a positive employee experience that keeps them motivated is an added advantage.

For example, in a recent case, a finance employee was transferred to the human resources department despite having limited knowledge and experience. The organisation is willing to rotate employees between functions and job families, provided they can learn. The organisation supports such movements by building specific development growth plans and upskilling employees via structured courses and on-the-job training.

05

**Recommendations:
Getting ready for the
future**

Getting ready for the future

By now, it has been established that job transformation is not a stand-alone initiative. A series of events/activities precede it, giving way to a new set of requirements.

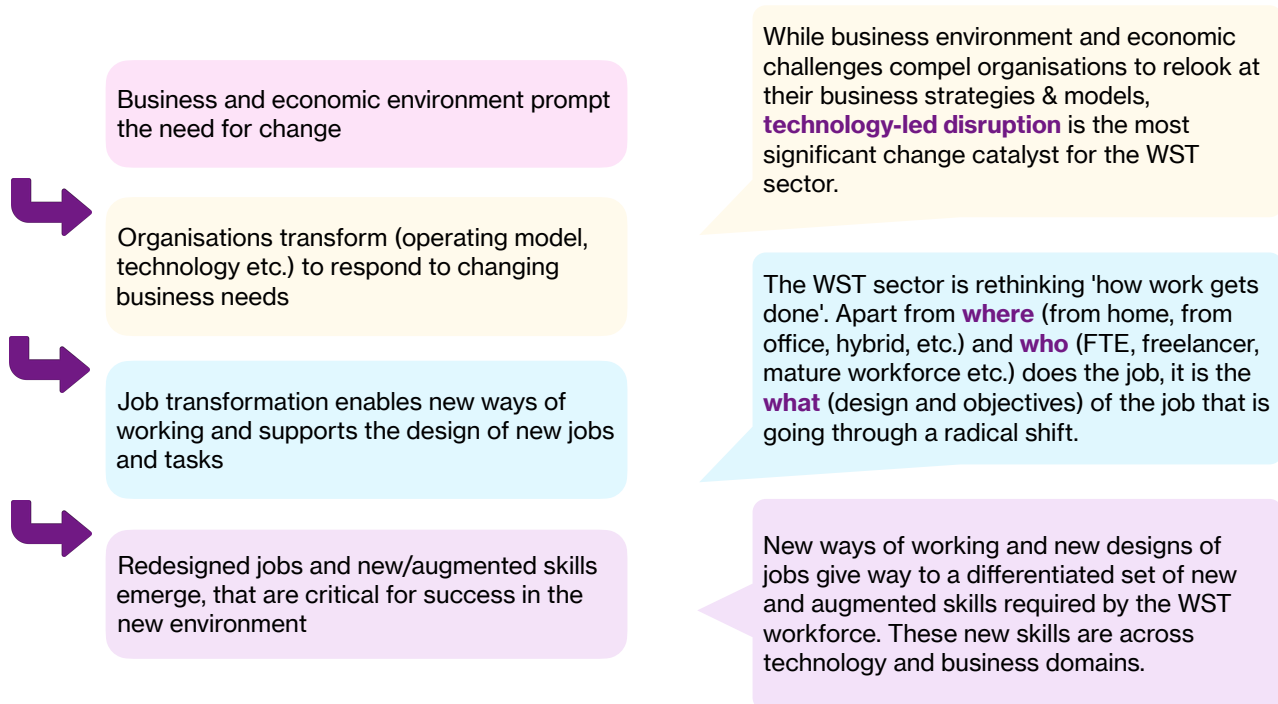


Exhibit 24: Path to transformation (industry context)

The process of getting ready for the future requires a team effort from stakeholders across the board.



The role of the government is to create the necessary ecosystem where digital and job transformation can thrive (e.g., support capability building). For these initiatives to be successful, the government will need the support, collaboration and active participation of affiliates like lead agencies, unions, associations and IHLs.

Call to action



Government

Promote concepts of digital and job transformation

To drive an increasing adoption of digital and job transformation, the government should continue to promote the concepts and their benefits to employers and employees. This can be done via broad-based mass communication platforms or a more personalised one-on-one communication through the account management network of agencies.

Support capability building for enterprises (via IHLs, consulting firms and lead agencies)

The government should engage IHLs and consulting firms to curate and disperse training and/or provide digital and job transformation advisory work. In the early days, multiple partners can provide support such as agencies, educational institutes, consulting firms, etc. This will ensure minimal bottlenecks in the ecosystem, and employers have multiple avenues to seek support and build their capability.

At the same time, to support the learning needs of employees, the government should consider broadening the coverage of SkillsFuture Credit and accredit virtual learning opportunities offered by IHLs or vendors within or outside of Singapore.

Continue providing various grants that encourage technology adoption, job transformation, and skills acquisition

Transformation is an expensive undertaking, and often the lack of resources either stops or delays the process. Subsequently, it also impacts the skills acquisition pace. To avoid this situation, the government should continue to provide various grants. Schemes on engaging consulting partners should also continue. It encourages employers to engage the expertise of a 3rd party when they have knowledge gaps about the concepts.



Educational Institutes

Be up to date with new skills required and build relevant curricula

Educational institutes should build agility in updating curricula and focus on imparting both technical and critical core skills. Further, educational institutes should build flexible and bite-sized programmes and support the learning requirements of working professionals.

Encourage industry interaction and partner with overseas universities

Educational institutes should encourage students to be employment-ready by promoting internships and small-scale projects. They should also increase student interactions with industry experts via guest lectures, webinars, and mentorship programmes. In addition, they should build ties with overseas universities, which offer new and augmented skills training.

Conduct transformation consulting

Given that educational institutes have courses on digital and job transformation and are interacting with the industry (either for research or other industry interaction programmes), they are equipped to advise organisations on the transformation process. They can guide organisations on their technology roadmap, conduct job redesign and/or provide information about new and augmented skills, etc.

Call to action



Employers

Transformation goes beyond technology adoption

Successful transformation goes beyond technology adoption or digital transformation. It requires organisations to redefine their culture, capabilities and organisation model, including critical business processes, structures, jobs, and skills required. Employers must inculcate new ways of working, behaviours and skills and potentially reward people in a differentiated manner.

Transformation requires teamwork and a detailed implementation plan

Transformation is not an isolated exercise. Employers should involve relevant teams from the beginning of the journey and build a detailed implementation plan. This process helps relevant stakeholders understand challenges, identify roadblocks, and find mutually - suitable solutions.

Initiate the process of integrating ESG requirements into business planning

As activism around ESG increases, it will become a critical KPI for organisations. In order to remain relevant and competitive in the local and global economy, employers should proactively integrate ESG requirements as part of the long-term strategy and short-term business planning.

Educate employees and take proactive actions

With employees being a crucial stakeholder in driving change within organisations, employers should prepare them for change. Employers should communicate their plans openly, thereby easing any anxiety employees may have towards change.



Employees

Understand the need and rationale behind the transformation. Have an open mind

Knowing the need for change makes the change process relatively easy. Employees should seek clarification from their manager/organisation regarding the need for change and how it will benefit the organisation and the employees.

Develop a mindset of continuous learning

Whether it is the ease of operating in an ambiguous environment, learning new skills required for a new job, or getting comfortable with rapidly changing technology, the key to success is developing a mindset of continuous learning, upskilling and reskilling. Employees should build a mindset of continuous learning.

Build digital acumen

Being digital is a way of life combining agility with new ways of working, augmented by technology. Employees should build their digital acumen and support the adoption of technology to improve their performance.

In the section ahead, we have presented detailed recommendations for employers and employees on how to get ready for the future of work.

Detailed recommendations for employers and employees

Recommendations for employers

Getting ready for digital transformation

For a successful digital transformation, the role of the employer is crucial. Their first responsibility is the creation of new sources of value via innovative business models, new products and ways of engaging customers using digital tools, technology and data. However, successful digital transformation goes beyond technology adoption. It requires organisations to redefine their culture, capabilities and organisation model, including critical business processes, structures, jobs, and skills required. Employers must inculcate new ways of working, behaviours and skills and potentially reward people in a differentiated manner.

As illustrated in the report earlier, digital transformation has four stages. (1) Emerging (2) Advancing (3) Leading (4) Transforming. As organisations undergo various stages of maturity, they are expected to have different initiatives on various levers (see exhibit below).

Organisation's strategy and strategic focus	Products & services	Customer orientation	
Tools, technology and processes	Technology & tools	Internal processes	
People—structure, culture, human capital practices	Organisation structure	Culture & behaviour	Human capital management

Exhibit 25 : Levers enabling digital transformation

Stages of maturity differentiate the recommendations for employers across all these levers.

Levers of change	Emerging	Advancing	Leading	Transforming
 Organisation's strategy and strategic focus	At this maturity level employers could continue to focus on legacy products and services, which are primarily delivered via traditional channels. However, early initiatives of digital commercialisation (e.g., an e-commerce platform where customers can place an order online, but without any added services such as view of order history or access to invoices) should start at this stage. The customer orientation broadly remains reactive from a digital perspective, with customer feedback having limited influence on product design.	Employers who plan to move towards the advancing stage of digital transformation should start thinking about design of traditional products & services informed by digital insights & capabilities. Customer analysis using data analytics should become an input influencing product design. This may prompt the adoption of agile product development, where the customer is providing rapid feedback, driving better customer responsiveness and experience.	Employers who aim to be at the leading stage should start building digital products, along with traditional products. At this stage customer needs should heavily influence product design and products should be iterated rapidly per customer feedback. Employers should start building an integrated digital strategy that drives a comprehensive customer experience (for both internal and external customers).	To become a transforming organisation, employers should build a well-defined and integrated portfolio of digital and traditional products that work in a synergistic fashion. Employers should start working with the concept of a minimal viable product, with customer feedback driving continuous product innovation. In addition, employers should build a defined strategy around customer segmentation and ways of providing personalised customer experience.
 Tools, technology and processes	Employers who start building digital capabilities for core functions such as IT, Marketing and/or E-commerce. They should start the process of early-stage data analytics using tools like excel, tableau sas, etc. to analyse day to day processes.	At this stage, employers should start adopting technologies and tools that strengthen organisation-wide digital capabilities. For instance, tools like Customer Relationship Management (CRM) systems and standalone ERP (Enterprise Resource Planning) systems such as Human Resources Information System (HRIS) would enhance productivity and data analytics efforts. In addition, employers should prioritise the simplification of internal processes and introduce tools to enhance speed and increase collaboration. Testing of applications of technologies to automate routine processes (e.g., web-based credit applications) should start at this stage.	At this stage, employers should start adopting technologies and tools guided by a well-integrated strategy that impacts multiple functions. Employers should also start the use of advanced data analytics across key functions. To improve internal and external customer experience, employers should extensively use digital tools such as mobile application, chatbots (powered by AI), digital documents & smart contracts. In addition, employers should focus on automating key internal processes to reduce manual effort (e.g., treasury management system).	At this stage, employers should extensively use digital tools such as cloud-based business intelligence applications and IoT in their day-to-day business processes and work activities. Employers should build a fully integrated ecosystem of technology, tools and platforms that can be used by employees, customers and suppliers (e.g., Distributed Ledger Technologies). Employers should focus on driving greater innovation and faster decision-making using technology (e.g., automated inventory management) that enables seamless collaboration across product teams, businesses and geographies. Internal processes must be redesigned to enhance speed and customer focus.

Exhibit 26(a) : Levers of change

Levers of change	Emerging	Advancing	Leading	Transforming
 People-structure, culture, human capital practices	From a people perspective, this stage is traditional with employers focusing on hierarchy, reporting relationships, span of control, etc. Employers should continue to focus on vertical career progression, focus on individual performance, annual evaluation and traditional compensation & benefits practices.	Employers who aim to be at the advancing stage should start focusing on acquiring talent with specific digital skills. Accordingly, they should build separate talent and rewards programmes for digital and/or emerging talent. To aid the process of having the right skills in the organisation, employers should build skill development programmes (structured/unstructured). To support the learning process, they should also start thinking about building cross-functional teams. This also improves the career experience of employees and transparency among functions. There are no major changes expected from an organisation structure perspective. However, at this stage employers should start the process of building shared services for some departments (e.g., payroll, HR services, billing). Apart from operational efficiencies, this improves employee experience.	From a people perspective, employers who aim to be at the leading stage should start considering digital talent (and/or talent with emerging skills) as a source of competitive advantage. Consequently, employers should build various HR programmes to enhance the talent experience of this new talent type. In addition to acquiring new talent, there should be high focus on upskilling and reskilling. This process also helps effective talent development and career growth among employees. Outside of full-time employees, employers should build comfort in using alternative sources of talent such as contract workers. Employers should build programmes that support hiring and sustaining alternative sources of talent. In terms of team structure, employers who aim to be at the leading stage should increase the use of cross-functional teams, that enable fast decision making and improve transparency across the organisation.	Employers at the transforming stage have a talent pool that is well-versed in digital and/or changing processes and capabilities. To keep talent relevant and up-to date with changing business requirements, employers must extensively focus on reskilling and upskilling. Employers at this stage should build programmes and processes that extensively use talent platforms and contract workers. Given the variety of talent and talent sources, employers should build rewards programmes that are flexible in incorporating different talent segments and reflect employee choices in rewards outcomes (e.g., development opportunities). In addition, employers should enable HR programmes that support leading practices such as continuous performance management and digitally enabled employee experiences. In terms of team structure, employers should increase the use of cross-functional teams that are flat in structure and organised around customer opportunities.

Exhibit 26(b) : Levers of change

Getting ready for job transformation



Job transformation requires teamwork. Involve strategy, IT, HR, process design, finance, compliance, and other relevant teams

Job transformation is not an isolated exercise. Employers should involve relevant teams from the beginning of the journey. This process helps the stakeholders understand challenges, identify roadblocks and find mutually-suitable solutions.

For example, if operations roles are getting transformed, it is essential to have all the other teams that interact with operations, for example, sales and procurement, be a part of the transformation discussions and be on board with the changes. Similarly, the emergence of ESG norms will impact jobs and skills required by the organisation.

Planning for such requirements should be HR teams' responsibility and those of strategy, business planning, and related functions.



Build a detailed implementation plan

As discussed earlier, job transformation impacts not only technology but multiple other aspects of the organisation. Therefore, there is a need to develop a detailed plan of implementation, and some key points to develop this plan are as follows:

- **Synergise business strategy with the technology roadmap**

The technology roadmap should depend on the organisation's appetite from a financial and business operations point of view. Employers should configure the technology roadmap to identify technologies that will be adopted and the functions/job families they will impact.

- **Take small steps**

Employers should begin with the transformation of mission-critical functions/job families. Functions/job families that will produce the maximum result or impact a large part of the population are a good starting point. Checking the competitor landscape is also a good indicator. For example, if a critical competitor has moved to an omnichannel model, it becomes a priority for the organisation. It is important to note that instead of embarking upon an organisation-wide transformation journey, breaking up the exercise into smaller steps makes the process of change management easier for the organisation.

- **Build the right HR capability to conduct job transformation**

Job transformation requires specific skills from the HR department. Employers must invest in training relevant HR team members on job redesign, understanding the process of upskilling and reskilling, changing organisational culture, etc. Many of these training programmes are offered by IHLs in Singapore.



Consider engaging consulting services for job transformation initiatives

Technical knowledge and relevant experience in job transformation are critical for the success of any job transformation initiative. Given that the concept is still new, employers should consider consulting services from multiple partners (e.g., educational institutes, consulting firms, lead government agencies). Consulting partners can support organisations on transformative projects such as developing and implementing technology roadmaps, redefining operating models, redesigning jobs and/or providing information on the new and augmented skills required in the future.

To support digital and job transformation initiatives, the government offers multiple programmes. Employers should look out for and apply for programmes most suitable for their needs.



Educate employees and take proactive actions

With employees being a crucial stakeholder in driving change within organisations, employers should prepare them for change. Employers should communicate openly about their plans, thereby easing any anxiety employees may have towards change. Employers should also convey the benefits job transformation provides, including how it's an opportunity to acquire new skills and create bandwidth to deliver higher value-added work.

Educating employees also helps in building buy-in about the need and process of job transformation. This makes the process of change management relatively easy.

In addition, employers can proactively transit employees who could potentially be displaced into adjacent jobs within the organisation. They can also organise job/career fairs, where employees get support from their current employer in looking out for jobs outside their organisation.

Keeping mature workers within the workforce is a win-win solution for all

Data shows an ageing workforce in Singapore, which poses multifaceted challenges. Employers are disadvantaged because a retiring population means a significant loss of institutional knowledge. Mature employees may also face problems such as loss of income or inability to sustain their lifestyles.

Job transformation is an excellent opportunity to resolve this problem. The process of job transformation provides the flexibility to design the 'where', 'who' and 'what' of work. With technology advancement, offering newly designed jobs to the mature workforce has become more accessible.

Enclosed below are some of the ways through which organisations can keep their mature workforce relevant.

Be open to hiring mature workers

Mature workers have a wealth of institutional knowledge and experience. During the hiring process, employers should have an open mind about hiring mature workers. Particularly for jobs that do not require strenuous physical effort, mature workers can be highly relevant.

Employers should make hiring decisions based on skills availability and organisational fit.

Create conducive environment, processes, and policies

Employers should create a conducive environment for mature workers to thrive. Examples of some of the changes that can be made are as follows.

- **Job sharing**

The mature workforce may not be interested or can work the standard 44-hour workweek. Job sharing could be ideal in this situation. Offering part-time jobs where these workers can share the job with a fellow mature worker will help keep mature workers in the workforce. It is however, essential to note that not all jobs can be converted into job sharing. Jobs where there is clear accountability for tasks or can be performed independently (example: accounting, research, product design) can be shared among employees. However, it will be challenging to divide jobs among employees where the tasks are related or require relationship management (for example, relationship management or strategy). Before job sharing, employers need to understand the nature of the job and then decide on it.

- **Project-based work/consulting assignments**

Mature workers can be employed for specific projects and/or on consulting assignments. Unlike job sharing, in a project-based work environment, the worker is responsible for the entire job assigned to him/her and not just a portion of the job. Mature workers can be employed in a contractual fashion (instead of a full-time employee model).

- **Offer flexible work arrangements**

Offering flexible work arrangements where mature workers can choose their working hours and/or location of work can be useful in encouraging them to stay within the workforce.

Technology enablement and training

Flexible work arrangements require technology enablement. Providing laptops and Wi-Fi access will help to keep the mature workforce relevant and always connected. In addition, training on new technologies like accessing a business intelligence platform or understanding the usage of tools that support automation or performing data analytics will be beneficial.

Provide upskilling and reskilling opportunities

In addition to structured, short-term programmes and workshops aimed at reskilling and upskilling, the mature workforce can also learn via reverse mentoring, where a junior team member supports someone senior to learn new skills and acquire new types of knowledge.

Getting ready for skills acquisition



Create a culture of learning

First and foremost, employers should proactively educate employees about the ongoing changes in the business environment and their organisation and how it links to new and augmented skills. This education can happen via town halls, newsletters, manager conversations, etc. A constant focus on the need to build new skills to remain relevant brings about the necessary urgency among employees.

In parallel, employers should create a learning culture by building practices and policies that promote upskilling and reskilling. Benefits like study leave or education allowances encourage learning within the organisation. Employers should build avenues that intentionally promote learning experiences, such as cross-functional team members, conducting internal content curation and training, and hiring external partners and vendors for ongoing training.



Evaluate performance of employees beyond technical KPIs

Employers should try to promote the holistic growth of employees by evaluating their performance on both technical KPIs and critical core skills. They should build programmes to emphasise and promote specific critical core skills expected of employees.



Make learning opportunities a component of total rewards

Instead of focusing on cash and bonuses as tools to recognise good performance, employers can also use training opportunities (both internal and external) as one of the tools to reward good performance.

Recommendations for employees

It is a highly challenging time for employees. The pace of change is extraordinary, and employees are expected to keep up. In the current environment, technology is changing rapidly; expectations from jobs are frequently changing, and at times jobs are ambiguous. In addition, there is a constant need to keep learning new skills to remain relevant.

To succeed and make the most of the opportunities these changes offer, we make the following recommendations for employees:



Ask the right questions. Understand the need and rationale behind the transformation. Have an open mind

This is a fundamental step. Knowing the need for change makes the change process more manageable. Employees should seek clarification from their manager/organisation regarding the need for change and how it will benefit the organisation and the employees.

Digital and job transformation will lead to new expectations regarding job requirements, behaviour, and approach towards tasks and other work-related problems. Understanding the need for transformation and an open mind will help employees embrace these new expectations, experiences and ways of working.



Develop a mindset of continuous learning

Whether it is the ease of operating in an ambiguous environment, learning new skills required for a new job, or getting comfortable with rapidly changing technology, the key to success is developing a mindset of continuous learning, upskilling and reskilling. Employees must remain vigilant and stay up to date on new/augmented skills required to succeed in the future. It is also essential to focus on self-development efforts that go beyond learning technical skills. They should invest in building and refining critical core skills (e.g., problem-solving, cross-cultural acumen) as they support long-term career growth.

Both technical and critical core skills can be acquired through structured or unstructured programmes. There are numerous programmes offered by various institutes of higher learning in Singapore. In addition to these structured programmes, employees can also learn these skills through on-the-job training, mentorship, or self-learning.



Build digital acumen

Being digital is a way of life, combining agility with new ways of working, augmented by technology. Employees should build their digital acumen and support the adoption of technology to improve their performance.

One way to improve digital acumen is to consciously think about using digital tools and workflows to improve productivity and/or engage better with customers/partners. Other ways include building the ability to mine and analyse data across multiple data sources, which can enhance decision making.



Be open to new/non-traditional career growth paths

Job transformation may lead to displacement and/or merging of some jobs. This means that employees should be prepared to take up jobs on a career path that is non – traditional. For example, employees in the risk team may be requested to move to the audit team. To prepare for this shift, once the new/adjacent job is identified, employees should consult their managers/mentors to understand the new technical and critical core skills required to undertake the new job successfully.

Employees who display high proficiency in critical core skills will find this change relatively easy. Hence, investing in building/refining such skills offers a higher probability of success.

06

Annexure



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Abbreviations

Abbreviations

Abbreviation	Term
AI	Artificial Intelligence
AML	Anti-Money Laundering
B2B	Business-to-Business
BI	Business Intelligence
CCM	Continuous Controls Monitoring
CLM	Contract Lifecycle Management
CRM	Customer Relationship Management
CTRM	Commodity Trade and Risk Management
CWF	Critical Work Function
DLT	Distributed Ledger Technology
EDI	Electronic Data Interchange
ERP	Enterprise Resource Planning
ESG	Enterprise Singapore
ESG	Environmental, Social and Governance
FP&A	Financial Planning & Analysis
GIS	Geographic Information System
FTE	Full Time Employee
GVA	Gross Value Added
HSE	Health, Safety And Environmental
IoT	Internet of Things
IHL	Institutes of Higher Learning
JT	Job Transformation
KPI	Key Performance Indicators
KYC	Know Your Customer
M2M	Machine to Machine
MHE	Material Handling Equipment
MIRS	Maritime Intelligence Risk Suite
ML	Machine Learning
NLP	Natural Language Processing
NPE	No Price Established
ODR	Online Dispute Resolution
OTC	Over-The-Counter
PPE	Personal Protective Equipment
QHSE	Quality, Health, Safety & Environment
RFID	Radio Frequency Identification
ROI	Radio Frequency Identification
RPA	Robotic Process Automation
SLA	Service Level Agreement
SOP	Standard Operating Procedure
SRM	Supplier Relationship Management

Exhibit 27(a): Abbreviations

STP	Straight Through Processing
VMI	Vendor Managed Inventory
VR	Virtual Reality
WSH	Workplace Safety and Health
WST	Wholesale Trade
WTW	Willis Towers Watson

Exhibit 27(b): Abbreviations

Glossary

Glossary (1 of 3)

Terms	Definition and Sources/Examples
Advanced Data Analytics	Advanced data analytics encompasses big data analytics, predictive analytics and modelling, including insights on linkages of metrics with business outcomes and analysis of intangible metrics such as reputation, sentiment etc., to provide deeper insights into patterns, trends, and themes that may be hidden within data.
Anti-Money Laundering (AML)	Anti-Money Laundering (AML) refers to regulations, policies and laws that aim to prevent money laundering where criminals disguise illegally-obtained funds as legitimate income. AML actively monitors for and reports any suspicious activities.
Artificial Intelligence (AI)	Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. AI applies advanced analysis and logic-based techniques, including machine learning, to interpret events, support and automate decisions, and take actions.
Automated Dashboards	Automated dashboards, also known as a centralised reporting platform, displays KPIs and metrics in one central location using data that has been automatically collected.
Autonomous Robots	Autonomous robots are intelligent machines that are capable of performing tasks without any human intervention. Some examples include autonomous helicopters and robot vacuum cleaners. These robots are self-reliant and can move without human assistance. They are also able to adapt to their surroundings and avoid any dangerous or harmful situations.
Big Data	Big data refers to large, diverse sets of information that require cost-effective and innovative forms of information processing.
Business Intelligence (BI) Applications	Business Intelligence (BI) applications refer to applications that are designed to retrieve, analyse, transform, and report data for business intelligence. Business intelligence combines business analytics, data mining, data visualisation, data tools and infrastructure, and best practices to help organisations make data-driven decisions.
Chartering Marketplace	The chartering marketplace refers to a platform where cargo owners and ship owners can be matched. Rather than acting through brokers, charterers and vessel owners can come together on a single digital marketplace to charter vessels directly.
Chatbots	A chatbot is an AI software that simulates interactive human conversation (or a 'chat') with a user in natural language through messaging applications, social media, websites, mobile applications or through the phone. This is done by using key pre-calculated user phrases and auditory or text-based signals. These chatbots are often used for basic customer service.
Cloud-based Technologies / Solutions	Cloud-based technologies or solutions refer to technologies based in the 'cloud', in which the 'cloud' can host software from a remote location freely accessed via the Internet and in which data is stored within the 'cloud'.
Commodity Trade and Risk Management (CTRM) Systems	Commodity Trade and Risk Management (CTRM) systems refer to software applications, architectures, and tools that support trading commodities' business processes. It is a specialised ERP and risk management software. CTRM systems generally support commodity traders, processors and purchasers in the various business processes associated with commodity trading.
Continuous Controls Monitoring	Continuous controls monitoring refers to the continuous monitoring of financial transactions and other types of transactional applications using technologies to reduce business losses and audit cost.
Continuous Engagement	Continuous engagement relies on the use of data-driven insights gathered through continuous listening to understand barriers to engagement and introduce initiatives and the use of technology such as nudging etc., to interact with talent regularly and foster an environment that builds an enhanced and high-performing employee experience.
Contract Lifecycle Management (CLM)	Contract Lifecycle Management (CLM) helps automate and streamline contract processes like creating, overseeing, and managing contracts during key stages. Some key stages include negotiation, approval and contract renewal.
Corporate Governance	Corporate governance is a system of rules, practices, and processes that dictate how an organisation's leadership manages and oversees its operations. Corporate governance also provides the framework for attaining an organisation's objectives, encompassing almost every management aspect.
Data Analytics	Data analytics refer to the process of examining/analysing raw datasets to uncover insights, trends and metrics which can guide business decisions.
Data Engineer	Data engineers are generally responsible for collecting relevant data, moving and transforming the data into "pipelines" for data scientists. Data engineers usually build scalable, high-performance infrastructures from raw data sources for the business. Data engineers usually have a background in computer engineering or science. They may occasionally use programming languages such as Java, Scala, C++ or Python.
Data Governance	Data governance is the specification of decision rights and an accountability framework to ensure the appropriate behaviour in the valuation, creation, consumption and control of data and analytics.
Data Scientist	Data scientists are generally responsible for analysing, testing, aggregating and optimising the data before presenting it to the organisation. Data scientists usually have a background in mathematics and statistics. They are also comfortable with creating machine learning and artificial intelligence models.
Distributed Ledger Technology (DLT)	Distributed Ledger Technology (DLT) is a consensually shared database that is synchronised worldwide and accessible by many people. This allows the transactions in the database to be monitored publicly by anyone. The database is decentralised in nature, eliminating the need for an intermediary to process, validate, or authenticate transactions. Blockchain is a type of DLT.
Educational Marketing	Educational marketing is a marketing strategy that educates prospects and potential clients instead of pitching to them. Marketing materials created will usually distinguish the organisation as knowledgeable and educate prospects on the potential benefits of engaging the organisation.
Electronic Data Interchange (EDI)	Electronic Data Interchange (EDI) is the electronic communication of business documents which involves the computer-to-computer exchange of business documents in a standardised electronic format between organisations and business partners.

Exhibit 28(a): Glossary

Glossary (2 of 3)

Terms	Definition and Sources/Examples
Enterprise Resource Planning (ERP)	Enterprise Resource Planning (ERP) is a process used by organisations to manage and integrate the important parts of their businesses. ERP systems are important because they help organisations implement resource planning by integrating all of their business processes within a single system.
Geographic Information System (GIS)	Geographic Information System (GIS) refers to a computer system that captures, analyses and displays geographically referenced information related to positions on Earth's surface. The GIS investigates spatial location data and organises information into visualisations using maps and 3D scenes.
Geolocation	Geolocation refers to the identification of the geographic location of a user or computing device via a variety of data collection mechanisms. Typically, geolocation uses location technologies like GPS and IP addresses to identify and determine the locations of connected electronic devices.
Green Financing	Green financing uses public money, private loans, and micro-lending to support better environmental outcomes. Green financing is a structured financial activity created to encourage change in favour of environmentally friendly actions.
Immersive Virtual Reality (VR)	Immersive Virtual Reality (VR) refers to the presentation of an artificial environment that replaces the users' real-world surroundings, allowing the user to be completely immersed and fully engaged with the computer-generated/synthetic world.
Infomediaries	Infomediaries are websites or organisations that help gather and organise large amounts of data, acting as intermediaries between people who hold personal information and organisations who want or could benefit from personal information.
Intangible Metrics	Intangible metrics are metrics and data that are hard-to-measure and hard-to-value. Examples of intangible metrics include talent sentiments, performance potential, learning effectiveness etc.
Internet of Things (IoT)	The Internet of Things (IoT) refers to the extensive network of physical objects that contain embedded technology (e.g., wearable technology, simple sensors, smartphones) to communicate and interact with the environment.
Know Your Customer (KYC)	Know Your Customer (KYC) refers to the process of knowing your customer to identify and verify the identity of customers before/when conducting business with them. KYC is important in combating financial crime.
Machine Learning (ML)	Machine Learning (ML) is an application of artificial intelligence that provides systems with the ability to recognise patterns and automatically learn and improve from experience with minimal human intervention. The learning process begins with observations of data, such as examples, direct experience, or instruction, to look for patterns in data and make better decisions in the future.
Natural Language Processing (NLP)	Natural Language Processing (NLP) is a form of artificial intelligence that gives machines/computers the ability to read, interpret and derive meaning from human languages. This allows machines/computers to process human language through various forms such as text or voice data.
Omnichannel	Omnichannel is a cross-channel or multichannel content strategy used to improve the customer experience and drive better relationships across all possible channels and touch-points. This includes traditional and digital channels, point-of-sale, and physical and online experiences. This is done by creating a single customer experience across the brand by unifying sales and marketing between channels.
Parametric Algorithms	Parametric algorithms are algorithms that have a fixed/finite number of parameters (strong statistical assumptions), making them fast and straightforward to compute. Some examples include linear regression and logistic regression.
Predictive Analytics	Predictive analytics is a type of data analytics that aim to make predictions. It involves using statistical techniques like data mining, machine learning, and predictive modelling to analyse historical and current data and patterns to make predictions.
Programmatic Marketing	Programmatic marketing is an advanced marketing strategy that uses AI to automate advertisement buying to target more specific audiences in specific contexts, resulting in more effective advertisements and higher conversions. An example would be real-time buying.
Propensity Modelling	Propensity modelling refers to a statistical approach and a set of techniques that attempt to predict the behaviour of a customer base (e.g., the likelihood customers will perform certain actions). This helps organisations identify target customers who are most likely to respond to an offer/sale.
Radio Frequency Identification (RFID)	Radio Frequency Identification (RFID) refers to a technology that uses radio waves or electromagnetic fields to identify and track tagged objects automatically. An example of its use would be tracking items along a supply chain to keep track of items.
Robotic Process Automation (RPA)	Robotic Process Automation (RPA) is a productivity tool that allows a user to configure one or more scripts/bots to activate specific keystrokes in an automated fashion. These 'bots' can be used to mimic or emulate selected tasks. Tasks may include manipulating data, passing data to and from different applications, triggering responses, or executing transactions.
Search Engine Optimisation (SEO)	Search Engine Optimisation (SEO) refers to the process of optimising web pages and online content so that it is ranked higher in search engines, making the content easily discoverable on search engines when users are searching for relevant terms. This helps to improve the quality and quantity of web traffic from search engines to web pages.
Self-service Data and Analytics	Self-service data and analytics is a form of business intelligence in which line managers are enabled and encouraged to perform queries and generate reports on their own with minimal support from HR, or IT systems support teams.
Sentiment Analysis	Sentiment analysis refers to an approach that gathers a large volume of feedback (via emails, internal and external platforms) to capture, quantify, and measure talent perceptions and emotions regarding the organisation or towards a new policy, change decisions, management practices or workplace culture.

Exhibit 28(b): Glossary

Glossary (3 of 3)

Terms	Definition and Sources/Examples
Service-Level Agreement (SLA)	A Service-Level Agreement (SLA) refers to a documented agreement/contract between a service provider/supplier and a client/customer that states the level of service expected. An SLA defines the types of service provided and the service standards the service provider/supplier is obligated to fulfil.
Shadow Slippage	Shadow slippage refers to the undetected changes in the spread between the bid and ask prices that generally occur between a trade's inception and completion.
SMART Targets	SMART targets refer to concrete goals and objectives to work towards with clear, measurable actions within a specific time period. SMART targets are set based on certain criteria to guide goal setting. SMART refers to the different criteria, which are specific, measurable, achievable, relevant and time-bound.
Smart Contracts	Smart contracts are self-executing contracts with the terms of the agreement between buyers and sellers written directly into the code. This is stored across a distributed and decentralised blockchain network. Smart contracts enable trusted agreements to be carried out among different parties without the need for legal enforcement.
Social Robotics	Social robotics are AI-powered robots that are capable of interacting with both humans and other robots. They usually follow social behaviours and rules that are attached to their role and is physically embodied. An example of a social robot would be service desk robots located at information counters.
Social Selling	Social selling refers to the generation of leads or development of business relationships through the use of social media. This involves finding and engaging prospects by interacting with them directly on social networks – answering questions, responding to comments, and sharing content.
Straight Through Processing (STP)	Straight Through Processing (STP) refers to an automated solution for seamless electronic transactions without any human intervention. STP is done through electronic transfers and is used to speed up payment processing.
Supplier Relationship Management (SRM)	Supplier Relationship Management (SRM) is the systematic approach and process of identifying and assessing suppliers critical to the business and implementing a system to manage the relationships between key suppliers.
SWOT Analysis	SWOT analysis is a framework or technique used for strategic planning. SWOT analysis helps organise the organisation's strengths, weaknesses, opportunities, and threats in a simple two-by-two grid, assessing internal and external factors and current and future potential. This allows organisations to be fully aware of all the factors involved in making a business decision.
Vendor Managed Inventory (VMI)	Vendor Managed Inventory (VMI) is a method of inventory management where vendors take care of the products within a retailer's inventory and takes full responsibility for maintaining an agreed inventory.
Volume Analysis	Volume analysis refers to a type of analysis/technique that examines the number of shares or contracts of a traded security in a given time period. This provides insights into the relationship between volume and prices, allowing traders to confirm and predict price trends to make better-informed trading decisions.
Web Crawling Technology	Web crawling technologies, sometimes known as web crawlers or spiders, is a programme or automated script that downloads and indexes content from all over the Internet, usually in a methodical and automated manner. The purpose of such technologies would be to learn all the information on the web to allow easy retrieval of information.
Workplace Safety and Health (WSH)	Workplace Safety and Health (WSH) refers to each employee's right to carry out his/her daily work in a safe environment. There are various laws and regulations on WSH that dictate what organisations must do to facilitate a safe environment and minimise accidents, injuries, and fatalities.

Exhibit 28(c): Glossary

Research process and methodology

Research process and methodology

We adopted a three-phase study process utilising both qualitative and quantitative data to understand the impact of the three key themes on jobs and skills in the WST sector.

1

Landscape review

The landscape review included a landscape scan using AI, web crawling and NLP, substantiated with comprehensive desktop research covering both business and workforce trends in Asia and around the world. The landscape scan focused on four countries/country combinations:

- (1) Singapore
- (2) Indonesia, Malaysia & Thailand
- (3) China & Hong Kong
- (4) United States of America

Datapoints reviewed during landscape scan

- ~10 million data points parsed to review emerging skills in WST sector
- ~200 million data points parsed through to see patterns in job adjacency

This was followed by a deep industry scan, which included discussions with business heads and functional leaders. These discussions were conducted in the following formats:

- (1) One on one interviews
- (2) Visioning surveys
- (3) Visioning workshops

The industry scan included organisations of various sizes (both large corporates and SMEs) and all sub-segments within WST sector.

Industry interactions



2

Impact and Skills analysis

We analysed the impact of key trends on current jobs and tasks to generate the Impact and Skills Analysis report. The analysis of the future design of jobs was built on the foundation of WTW's Job Reinvention methodology.

The Impact and Skills Analysis report provides guidance on how jobs will change over time, the role of technology in augmenting performance, new skill requirements, and possible job adjacencies.

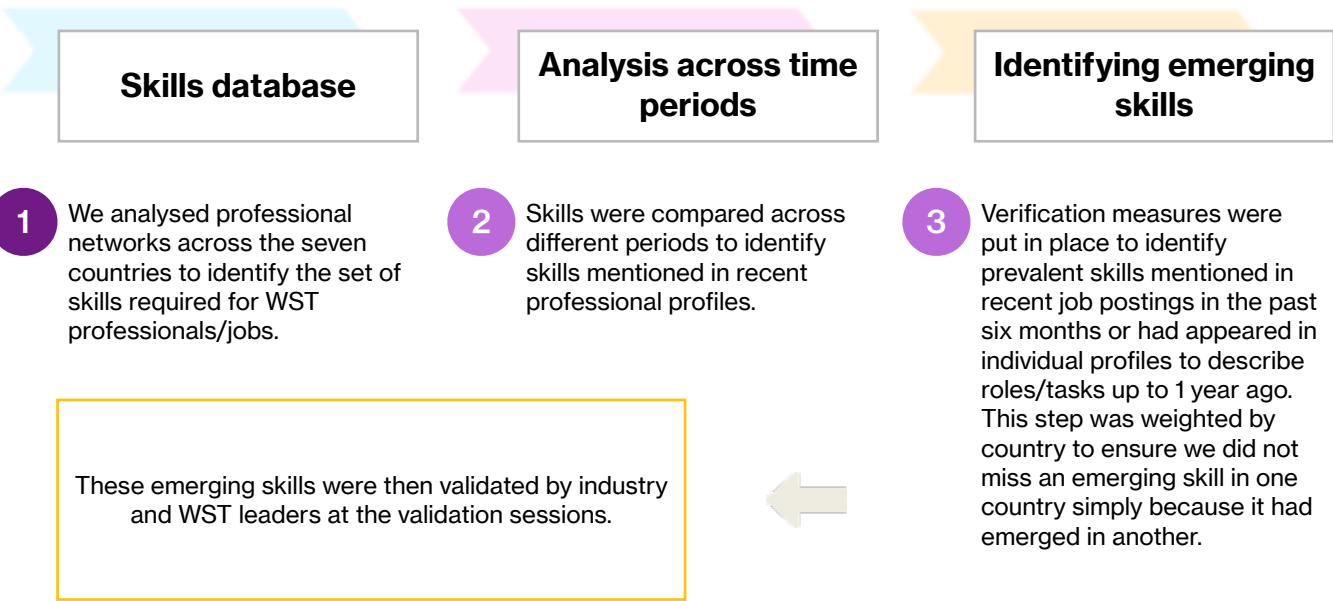
3

Industry validation

Six validation sessions with industry stakeholders were conducted. Their inputs were obtained to refine and finalise the Impact and Skills analysis report.

Methodology for ascertaining new/augmented skills

To ascertain new/augmented skills, a landscape scan using AI-powered web crawling was conducted. This scan focused on the geographies mentioned previously. In addition, we also conducted comprehensive desktop research to understand trends across key markets. The new/augmented skills analysis included the following stages:



Stats: The numbers/data points refer to data points parsed through (focusing on Wholesale Trade, Logistics, Ship Chartering, and Retail Operations) to run the analysis.

Country/Country Combination	Demand (Job Descriptions)	Supply (Professional Profiles & CV)
Singapore, Indonesia, Malaysia & Thailand	979,813	2,536,392
China & Hong Kong	543,110	2,781,331
United States of America	439,488	4,125,365

Exhibit 29 : Data point analysis for new/augmented skills

Finally, a skills library was created. The skills library is a comprehensive list of new/augmented skills required by employees and employers in the WST sector to perform jobs of the future.

Methodology for assessing job adjacencies

We studied skills overlap and historical transitions to identify adjacent jobs where WST professionals can transit into.

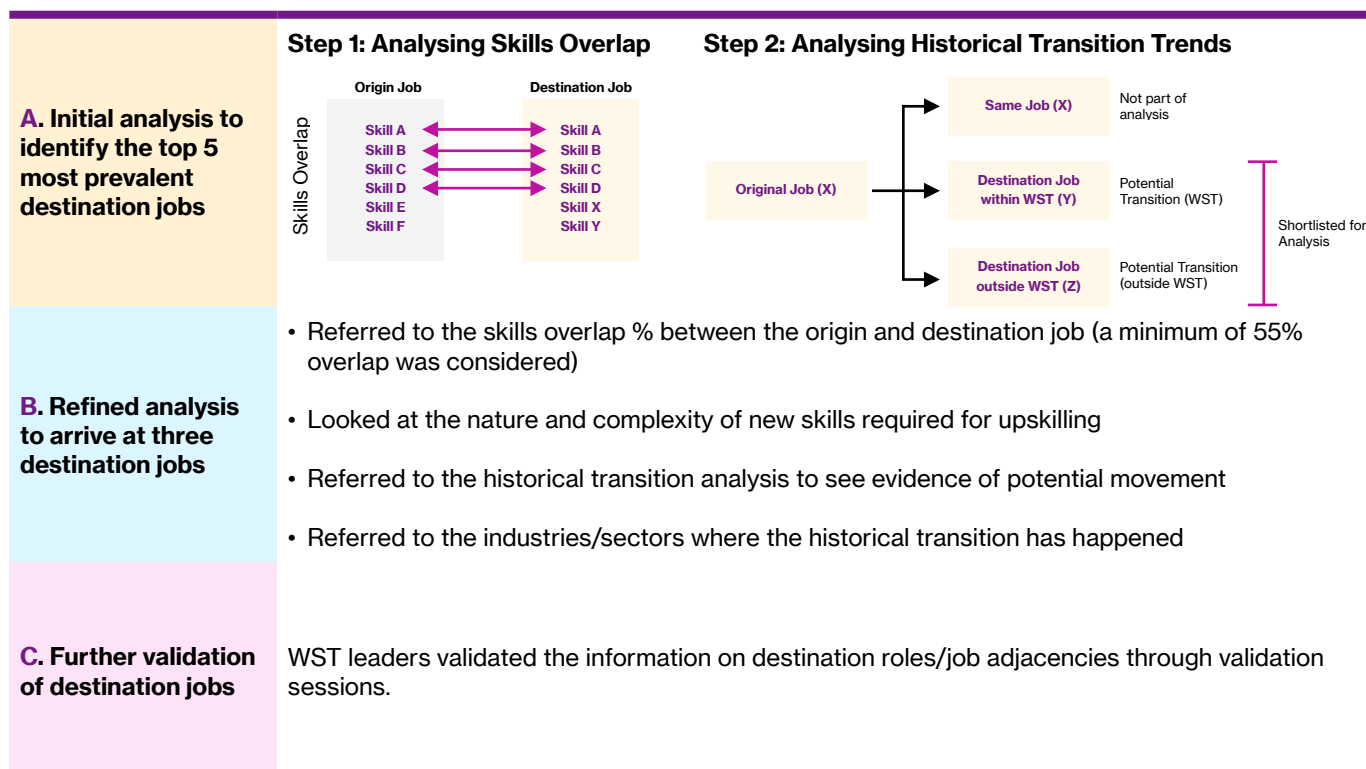


Exhibit 30 : Job adjacency methodology

Sample: Skills Overlap with one of the top 3 jobs: Project Manager

ORIGIN JOB (BD Manager)		DESTINATION JOB (Project Manager)	
Budgeting	Financial Budgeting		
Business Negotiation	Business Negotiation	Singapore	40,3161,874,814
Change Management	Change Management		
Conflict Management	Conflict Resolution		
Contract Development and Management	Contract Development	Singapore, Indonesia, Malaysia & Thailand	260,24924,658,280
Manpower Planning	Manpower Forecasting		
Project Feasibility Assessment	Project Feasibility Assessment		
Stakeholder Management	Stakeholder Management		
Strategy Planning	Strategy Development	China & Hong Kong	818,15256,032,011
Business Opportunities Development	Operational Risk Management		
Enterprise Risk Management	Project Risk Management	United States of America	1,525,396106,239,897
Market Research	Service Excellence		
Solutions Design Thinking	Vendor Management		

Exhibit 31: Data point analysis for job adjacencies

Stats: The numbers/data points refer to data points parsed through (focusing on Wholesale Trade, Logistics, Ship Chartering and Retail Operations) to run the analysis.

Skills library

Skills Library | Common WST skills

Common WST skills represent the foundational skills required by all employees within wholesale trade, irrespective of function or job family.

Application of ESG Trends and Regulations	Formulate strategies to comply with ESG requirements and shape initiatives that enhance the organisation's reputation across diverse stakeholder groups.
Data Assimilation and Analytics	Formulate data-driven approaches to assess business trends, programmes and processes to develop evidence-based strategies.
Technology Adoption	Drive technology adoption across the organisation to improve productivity and performance, taking into consideration new business models, market trends and technological advancements.

Exhibit 32 : Common WST skills

	Level of Proficiency		
	Basic	Intermediate	Advanced
Application of ESG Trends and Regulations	Understand the principles of ESG requirements and execute work processes in alignment with these requirements	Develop and refine policies and work processes to adhere to ESG requirements	Formulate strategies to comply with ESG requirements and shape initiatives that enhance the organisation's reputation across diverse stakeholder groups
Data Assimilation and Analytics	Apply data analytics techniques to analyse linkages between business metrics and suggest areas of improvement	Develop new methods and procedures for collecting data, performing complex data analyses and presenting recommendations to guide business decisions	Formulate data-driven approaches to assess business trends, programmes, and processes to develop evidence-based strategies
Technology Adoption	Support the adoption of technology in work processes and build comfort with the use of new technologies to improve performance	Develop implementation plans to integrate technology into work processes	Drive technology adoption across the organisation to improve productivity and performance, taking into consideration new business models, market trends and technological advancements

Exhibit 33 : Common WST skills – level of proficiency

Common WST skills

Marketing, Business Development and Analysis	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Head of Marketing	Advanced	Advanced	Advanced
Marketing Manager	Intermediate	Intermediate	Intermediate
Marketing Executive	Basic	Basic	Basic
Marketing Assistant/Marketing Coordinator	Basic	Basic	Basic
Head of Business Development	Advanced	Advanced	Advanced
Business Development Manager	Intermediate	Intermediate	Intermediate
Senior Business Analyst / Senior Market Research Analyst / Senior Market Analyst	Basic	Basic	Basic
Business Analyst / Market Research Analyst / Market Analyst	Basic	Basic	Basic
Sales and Customer Service	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Head of Sales	Advanced	Advanced	Advanced
Sales Manager	Intermediate	Intermediate	Intermediate
Sales Executive	Basic	Basic	Basic
Sales Assistant/Sales Coordinator	Basic	Basic	Basic
Customer Service Officer / Service Quality Analyst	Basic	Basic	Basic
Sales Associate/Brand Associate	Basic	Basic	Basic

Exhibit 34(a): Common WST skills mapping by jobs

Common WST skills

Trading	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Head of Derivatives Trading	Advanced	Advanced	Advanced
Derivatives Trading Manager/Senior Derivatives Trader	Intermediate	Intermediate	Intermediate
Derivatives Trader	Basic	Intermediate	Intermediate
Head of Commodities Trading	Advanced	Advanced	Advanced
Commodities Trading Manager/Senior Commodities Trader	Intermediate	Intermediate	Intermediate
Commodities Trader	Intermediate	Intermediate	Intermediate

Exhibit 34(b): Common WST skills mapping by jobs

Common WST skills

Finance & Regulations	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Head of Trade Finance	Advanced	Advanced	Advanced
Trade Finance Manager	Intermediate	Intermediate	Intermediate
Senior Analyst / Analyst, Trade Finance	Basic	Basic	Basic
Head of Credit	Advanced	Basic	Basic
Credit Manager	Intermediate	Advanced	Advanced
Senior Analyst / Analyst, Credit Management	Basic	Basic	Basic
Head of Treasury	Advanced	Advanced	Advanced
Treasury Manager	Intermediate	Intermediate	Intermediate
Senior Analyst / Analyst, Treasury	Basic	Basic	Basic
Head of Risk	Advanced	Advanced	Advanced
Risk Manager	Intermediate	Intermediate	Intermediate
Senior Analyst / Analyst, Risk	Basic	Basic	Basic
Head of Regulations And Trade Controls	Advanced	Advanced	Advanced
Regulations And Trade Controls Manager	Intermediate	Intermediate	Intermediate
Senior Analyst / Analyst, Regulations And Trade Controls	Basic	Basic	Basic
Operations, Procurement and Sourcing	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Head of Operations	Advanced	Advanced	Advanced
Operations Manager	Intermediate	Intermediate	Intermediate

Exhibit 34(c): Common WST skills mapping by jobs

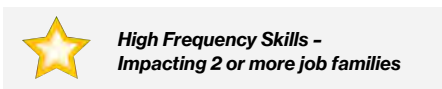
Common WST skills

Operations, Procurement and Sourcing	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Contract Specialist	Intermediate	Intermediate	Intermediate
Operations Executive	Basic	Basic	Basic
Operations Assistant/Operations Coordinator	Basic	Basic	Basic
Head of Procurement/Head of Sourcing	Advanced	Advanced	Advanced
Procurement Manager/Sourcing Manager	Intermediate	Intermediate	Intermediate
Procurement Executive/Sourcing Executive	Basic	Basic	Basic
Procurement Assistant/Sourcing Assistant/Sourcing Coordinator	Basic	Basic	Basic
Logistics, Transportation and Warehousing	Application of ESG Trends and Regulations	Data Assimilation and Analytics	Technology Adoption
Business Process Excellence Engineer / Operations Specialist / Industrial Operations Engineer	Basic	Basic	Basic
Logistics Solutions Analyst	Basic	Basic	Basic
Logistics Data Management Coordinator / Data Entry Coordinator	Basic	Basic	Basic
Charterer	Basic	Intermediate	Intermediate
Freight Officer	Basic	Basic	Basic
Dispatch Operator/Transport Operator/ Last Mile Delivery Driver/Container Driver	Basic	Basic	Basic
Warehouse Officer / Inventory Controller / Quality Control Officer / Warehouse Facilities Management Officer	Basic	Basic	Basic
Material Handling Equipment (MHE) Operator / Forklift Operator / Warehouse Assistant / Inventory Assistant	Basic	Basic	Basic
Health, Safety And Environmental (HSE) Coordinator	Basic	Basic	Intermediate

Exhibit 34(d): Common WST skills mapping by jobs

Skills Library | 18 Technical skills

Technology-Led



Technology-led skills are skills where domain knowledge is applied using digital tools and platforms. Requires understanding and usage of new and augmented technology and heightened use of data.

★	Advanced Data Analytics	Build and review the efficacy of predictive analytics models and evaluate outputs for business and/or functional strategy formulation.
★	Automated Inventory Management	Influence and work with business partners to connect systems that can automate processes like replenishment, order management and delivery to achieve synergies and cost efficiencies.
★	Data Management / Security	Collaborate with technology teams to develop data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
★	E-Contract Negotiation	Strategise and implement the use of digital platforms to facilitate contract negotiations and planning with stakeholders.
★	E-Document Management	Strategise and drive the adoption of e-document systems to optimise information flow, improve efficiency and reduce physical paperwork.
★	Machine to Machine (M2M) Technology Application	Redesign work processes to incorporate intelligent robotics, sensors, and wearable technology to update and track inventory and/or workers' movement in real-time.
★	Omnichannel Strategy Development / Implementation	Develop and implement communication strategies to optimise the use of multi-channel platforms for an integrated and seamless customer experience that provides real-time, personalised interactions and services. Define metrics to monitor the performance of existing platforms and review new platforms to transform the customer experience.
★	Trade Automation	Drive trade automation by identifying the right platform based on the complexity of trade algorithms and platform independence, specific requirements and analytical capabilities. Define the governance framework and monitor trading outcomes for any deviations.
	Digital Channel Development	Formulate and implement digital channel strategies and policies to deliver the organisation's value proposition to the target customer and review the digital channels' effectiveness in terms of returns on investments.

Exhibit 35(a): Technical Skills

Digital Freight Brokerage & Matching	Leverage digital freight online marketplaces' functionalities to connect shippers and transporters, reduce paperwork and intermediaries, and lower freight costs.
Distributed Ledger Technologies Application	Strategise and drive the adoption of distributed ledger technology based on common industry standards and platforms to optimise efficiency, integrity and security of transactions.
E-Chartering	Leverage e-chartering platforms to enhance reach to customers optimise chartering routes, and maximise profitability.
Electronic Data Interchanges (EDI)	Strategise and drive the use of common EDI standards and influence business partners to adopt these standards to improve efficiency and consistency in document handling and records management.
E-Marketplace Enablement	Establish a strategy and implement the development of an e-marketplace to drive customer engagement, trading, payments and aftersales service electronically for buyers and sellers, allowing third-party sellers to market and sell their products on the platform invoice the customer for purchases directly. Define the metrics to track the performance of the e-marketplace.
E-Procurement Management	Guide development of predictive e-procurement systems to automate procurement processes, streamline transactions, and combine real-time and historical data to predict future business needs.
Marketing Automation	Develop and implement frameworks for marketing automation and guide workflows for complex processes such as lead qualification, lead scoring, lead routing, and lead assignment.
Online Feedback Management	Manage customer feedback from digital channels, provide resolution and analyse data to develop insights on customer engagement and behaviours.
Predictive Buying / Purchasing	Strategise and integrate technology in procurement and packaging processes to prevent product counterfeiting and fraud to improve product authentication. Define the framework for supplier quality risk assessment.

Exhibit 35(b): Technical Skills

Skills Library | 24 Technical skills

Business-Led



High Frequency Skills -
Impacting 2 or more job families



Business-led skills are new business domain skills that need to be acquired and applied in the context of future WST jobs.

★	Carbon Footprint Management	Analyse organisation's carbon footprint through specialist assessment tools and develop organisational carbon footprint reduction implementation plans.
★	Counterparty Risk Management	Develop new risk criteria and mitigation approaches to managing risk while considering evolving macroeconomic factors.
★	Customer Experience Transformation	Develop a well-defined customer experience strategy. Eliminate pain points in the customer journey while enhancing the moments that matter. Strategise and implement the roadmap for the customer experience and define the governance framework to track implementation.
★	Performance Monitoring and Analysis	Collaborate with other business leaders to strategise the design of data-driven frameworks and dashboards to monitor business performance for better decision-making.
★	Pilot Programme Management	Conceptualise and implement relevant pilot programmes and evaluate the effectiveness of small-scale experiments before full-scale deployment of projects.
★	Position Management	Develop trade position management framework, hedging strategies, and risk thresholds to reduce the risk of financial losses due to market volatility.
★	Predictive Maintenance Planning	Develop technical preventive maintenance workflows and procedures based on analysis of machines/equipment performance to provide just-in-time maintenance and reduce the likelihood of failure.
★	Scenario Modelling	Evaluate plausible scenario modelling outcomes and their impact on business outcomes to make trade-offs about the future course of action.
★	Sourcing Portfolio Analysis	Oversee the sourcing portfolio analysis. Develop and implement strategies to concentrate or diversify supply, manage risks, enhance speed to market, and reduce costs.
★	Structured Financing	Strategise and drive the adoption of innovative approaches to enhance credit risk assessment for complex structured financing instruments.
	Agile Logistics	Analyse logistics processes, identify ways to address gaps, and provide a real-time flexible response to organisations and customer requirements.

Exhibit 35(c): Technical Skills

	Cross-Cultural Competence	Develop cultural intelligence and sensitivity to foster strong relationships with customers and business partners.
	Freight Rate Hedging Management	Analyse economic factors to determine optimum freight rates for cargo delivery and deploy hedging strategies to minimise the risk of losses.
	Government / Regulatory Affairs	Influence government and regulatory bodies to promote business interests and efforts to transform the industry ecosystem.
	Loss Reduction Management	Implement processes to reduce product losses in warehouse operations.
	Narrative Marketing	Develop and implement marketing strategies for various customer segments, which involves empathising with customers and developing customer-centric content to create engagement and association with the brand.
	Product Authentication	Strategise and integrate technology in procurement and packaging processes to prevent product counterfeiting and fraud to improve product authentication. Define the framework for supplier quality risk assessment.
	Regulatory Compliance	Enforce regulatory compliance within the organisation through the establishment of policies, compliance programmes and management systems.
	Risk-Adjusted Value Forecasting	Evaluate risk-adjusted forecasts and drive the adoption of innovative ways of risk forecasting.
	Route Optimisation	Analyse route variables to optimise route planning and delivery times.
	Sustainable Engineering	Develop and implement life cycle assessments and engineering solutions by incorporating sustainability principles and trends aligned with organisational sustainability outcomes and requirements.
	Sustainable Sourcing and Procurement	Develop goals for sustainable sourcing and procurement and influence suppliers to be environmentally and socially responsible. Define and implement a framework for monitoring suppliers to adhere to sustainable sourcing and procurement guidelines.
	Sustainable Warehouse Management	Conduct work activities in adherence to sustainable warehousing practices and guidelines.
	Volume Analysis	Apply volume analysis concepts such as volume inferences and volume indicators to understand asset liquidity and price momentum to guide trade decisions.

Exhibit 35(d): Technical Skills

Skills acquisition best practices and course availability

Skills acquisition is a lifelong journey

The acquisition of new/augmented skills will be the foundation of success in the future. However, skills acquisition is not a one-time effort. It is a lifelong journey. While it is common for employees to slow down the process of skills acquisition via structured programmes after Stage 2, it may prove to be disadvantageous in the future. As organisations ask employees to deliver new types of work via new ways of working, on-the-job skills acquisition may not be sufficient. Employees must also focus on learning and refining new technical and critical core skills using other tools like structured training programmes (offered by IHLs), webinars and seminars, etc. In the section ahead, we have presented the skills acquisition matrix.

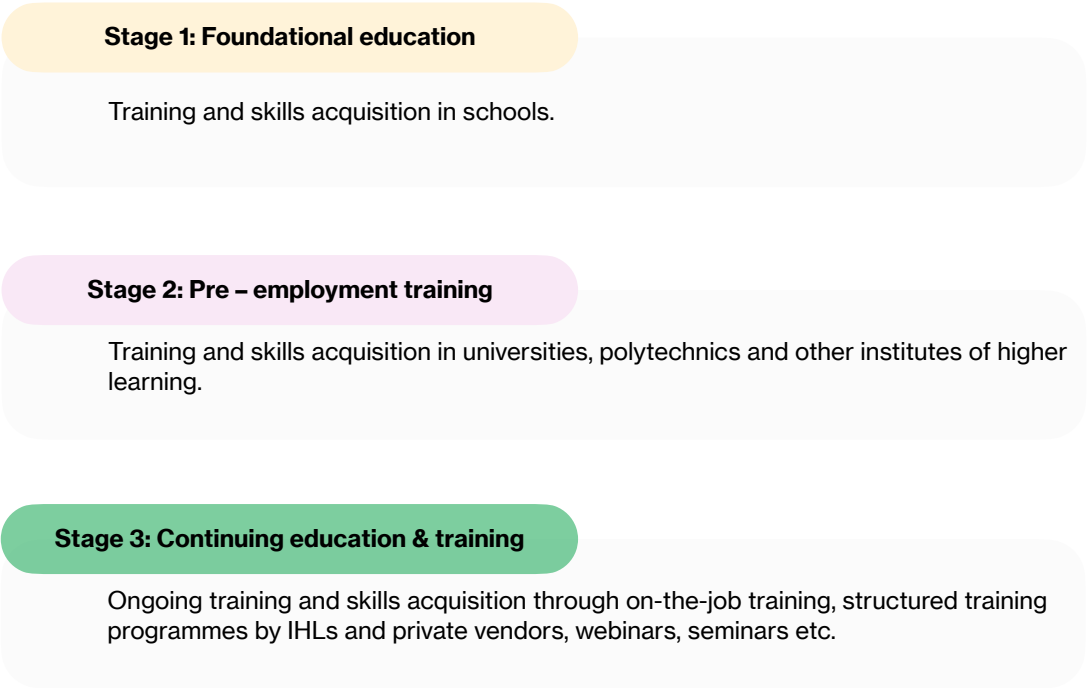


Exhibit 36 : Skills acquisition stages

	Foundational Education	Pre-Employment Training	Continuing Education & Training
Common WST Skills (technical skills applicable for all WST jobs)	Some introduction of common technical skills at the foundational education level, especially on data analytics and technology adoption	- Structured training programmes* (short-term or long-term) by IHLs and private vendors (SG and/or overseas) - Industry-relevant interactions (via webinars, seminars, industry leadership visits, etc.)	- Structured training programmes* by IHLs and private vendors (SG and/or overseas) - Bite-sized, flexible programmes by IHLs and private vendors (SG and/or overseas) - External webinars and seminars - Internal content curation and training - On-the-job training - Cross-functional mobility
Technical Skills (job family specific technical skills)	Some introduction of technical skills at the foundational education level	- Structured training programmes (short-term or long-term) by IHLs and private vendors (SG and/or overseas) - Flexible courses that allow students to mix and match courses, allowing them to pick up industry-relevant skills - Industry-relevant interactions (via webinars, seminars, industry leadership visits, etc.)	- Structured training programmes by IHLs and private vendors (SG and/or overseas) - Bite-sized, flexible programmes by IHLs and private vendors (SG and/or overseas) - External webinars and seminars - Internal content curation and training - On-the-job training - Cross-functional mobility
Critical Core Skills (behavioral Skills)	Workshops, group projects, and experiential learning-based programmes focusing on critical core skills	- Workshops, group projects, and experiential learning-based programmes focusing on critical core skills embedded within the curriculum - Industry-relevant interactions (via webinars, seminars, internships, industry leadership visits, etc.)	- Short term, bite-sized, flexible programmes by IHLs and private vendors (SG and/or overseas) - External webinars and seminars - Stretch assignments and coaching - Internal content curation on critical core skills and training - On-the-job training

Exhibit 37: Skills acquisition matrix



Foundational education is the most appropriate education level to build **critical core (behavioural) skills**. These skills are developed over a long time and are best cultivated from a young age.

*Training programmes can be both F2F and/or Virtual

An overview of training programmes in Singapore

In order to develop the talent pipeline for the WST sector, institutes of higher learning have developed WST sector-specific long-term programmes that provide professionals and students with the opportunity to strengthen knowledge in international trade and business management. A few examples are illustrated below.

Undergraduate Programmes		
Institution	Programme name	Brief programme description
Nanyang Technological University	Bachelor of Business with minor in International Trading	The International Trading Programme (ITP) offered by the Centre of Excellence International Trading (CEIT) equips students with business and technical knowledge for commodity trading. For more information, click here
Singapore Management University	International Trading Track (ITT)	International Trading Track (ITT) – specialisation under Finance major from Lee Kong Chian School of Business (LKCSB) grooms finance majors for WST sector. For more information, click here
Singapore University of Social Sciences	International Trade Management – Modular Undergraduate Course	International Trade Management – a Minor in the School of Business provides students with a sound foundation in trade and logistics. For more information, click here
Ngee Ann Polytechnic	Diploma in International Trade and Business	A diploma in International Trade and Business provides a solid grounding in business, trade and logistics, and an opportunity to deepen knowledge in emerging technologies under the new Business Digitalisation track. For more information, click here

Exhibit 38(a): List of undergraduate/post graduate programmes

Please note that this list is non - exhaustive

Post-graduate Programmes		
Institution	Programme name	Brief programme description
Nanyang Technological University	Nanyang Professional MBA with International Trading Specialisation	The PMBA (International Trading) provides core modules in Leadership, Business, and specialisation electives. For more information, click here

Exhibit 38(b): List of undergraduate/post graduate programmes

Mid-career Programmes

Institution/Partner Agency	Programme name	Brief programme description
Singapore Management University	Career Conversion Programme (CCP) for International Trading Executives	The CCP for International Trading Executives aims to help mid-career PMETs re-skill with the necessary competencies to take on new job roles such as Trade Operations, Risk Compliance, Trade Finance or Supply Chain Management jobs. It integrates job matching and training and includes facilitated classroom training and structured On-the-Job Training (OJT), which happens concurrently. For more information, click here
Singapore Business Federation	Career Conversion Programme (CCP) for Internationalisation Professionals	The CCP for Internationalisation Professionals aims to help mid-career PMETs re-skill with the necessary competencies to take on new job roles focusing on overseas market expansion, such as Business Development, Sales & Marketing, B2B e-Commerce job roles. The CCP also offers a redeployment mode for organisations that redeploy their existing workers to take on new job roles in support of their market expansion plans. For more information, click here
Workforce Singapore	Capability Transfer Programme (CTP)	The CTP aims to improve local foreign workforce complementarity by supporting companies, associations and professional bodies in speeding up the transfer of global capabilities into Singapore. This programme will consider existing capability development programmes by other relevant sector agencies to ensure capability transfer, whether at the company or industry level. For more information, click here
Supply Chain and Logistics Academy	Career Conversion Programme (CCP) for Supply Chain Professionals	The CCP for Supply Chain Professionals is a company-sponsored programme that supports mid-career PMETs to transition to supply chain professionals. The syllabus includes topics such as Customer Management, Supply Chain Solutioning, Strategy Planning, Logistics Solution Design Thinking, Innovation Management, Material Flow Modelling, Business Development and Data Analysis. For more information, click here

Exhibit 39(a) : List of WST mid-career programmes

Please note that this list is non - exhaustive

Mid-career Programmes

Institution/Partner Agency	Programme name	Brief programme description
Supply Chain and Logistics Academy	Career Conversion Programme (CCP) for e-Commerce Supply Chain Professionals	The CCP for e-Commerce Supply Chain Professionals aims to help companies equip their new mid-career e-Commerce hires with relevant skills to better transit into their new roles. The syllabus includes Understanding e-Commerce and its Impact on Supply Chains, End-to-end e-Commerce Supply Chain Models and Strategies, e-Commerce Platforms, Technology and Innovations, Digital Marketing, Customer Acquisitions and Sales Operations, and Omnichannel Logistics, Last Mile Fulfilment and Supply Chain Management Operations. For more information, click here
Supply Chain and Logistics Academy	Career Conversion Programme (CCP) for Logistics Professionals	The CCP for Logistics Professionals is a company-sponsored programme to support mid-career PMETs employed in a supply chain or logistics role. The syllabus covers Supply Chain Solutioning, Logistics Operations Research and Planning, Automation Design, Material Management, Transport Management Systems Administration, Warehouse Layout Design, Warehouse Inventory Control and Audit, and Environmental Protection Management. For more information, click here
Lithan Academy	Career Conversion Programme (CCP) for Digital Marketing Specialist	The CCP for Digital Marketing Specialist is a company-sponsored programme targeted at mid-career switchers to equip them with the skills necessary for their new role. The provider, Lithan Academy, has a structured 6-month training programme comprising classroom training and on-the-job training. For more information, click here
SGTech QuickDesk Singapore Management University	Career Conversion Programme (CCP) for Digital Sales Executives	The 6-month CCP for Digital Sales Executives is a partnership between QuickDesk Pte Ltd, National University of Singapore, and SGTech, aiming to reskill mid-career switchers for digital sales and business development roles. The targeted skills will enable participants to build personal and company brand awareness, plan and implement integrated marketing activities across digital channels within allocated budgets, evaluate and address customer needs, quality and convert prospective clients, and effectively engage clients to set appointments and close deals. For more information, click here

Exhibit 39(b) : List of WST mid-career programmes

Please note that this list is non - exhaustive

Here are some other initiatives that support the training of experienced WST employees.

Other Relevant Programmes

Programme name	Brief programme description
Wholesale Trade Placement Accelerator (WSTPA)	Launched in 2018, the Wholesale Trade Placement Accelerator aims to drive placement efforts and ease the job-matching process in the sector. A collaboration between ESG, WSG and e2i, the WSTPA provides PMETs with opportunities to step into the Wholesale Trade sector in various business functions such as Business Development, Finance, Operations, Marketing, Logistics, Procurement, Sales and Accounting, etc. e2i organises job fairs for the WST industry to refer employment seekers to companies. For more information, click here
TechSkills Accelerator (TeSA)	A SkillsFuture initiative, TeSA helps companies meet manpower needs to thrive in the Digital Economy. The initiative enables companies to hire and train new employees, including fresh polytechnic and ITE graduates, ICT professionals, mid-level professionals and mid-career switchers for entry-level and specialist tech roles. Additionally, companies can upskill existing employees to take on tech roles through a professional conversion programme or maintain skills relevancy for employees via short-form tech courses and certifications. For more information, click here
Global Ready Talent Programme	The Global Ready Talent Programme (GRT) aims to build a pipeline of global-ready talent for Singapore enterprises by exposing more Singaporeans to internships and overseas work opportunities. This programme comprises of two key components: (i) Local and Overseas Internships: Support for Singapore enterprises that are keen to build their talent pipeline to support business expansion plans. Overseas internships will focus on opportunities in Southeast Asia, China, and India. (ii) Management Associate Programme (MA): Support for Singapore enterprises keen to train and invest in overseas work exposure for young Singaporeans to deepen in-market knowledge. The programme will focus on overseas work placements in Southeast Asia, China, and India. For more information, click here
Job Redesign under Productivity Solutions Grant (PSG-JR)	For more information, click here

Exhibit 39 (c) : List of other programmes relevant for WST professionals

Please note that this list is non - exhaustive

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Fundamentals of Cybersecurity	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Advanced Data Analytics (CET)	S202: Machine Learning & AI (Artificial Intelligence)	Coding Lab	Short Course			
	NICF - Big Data Analytics (SF)	COMAT	Short Course	X	X	X
	Graduate Certificate in Predictive Analytics – Part-time	Curtin Singapore	Graduate Certificate			
	Data Science Immersive: Singapore	General Assembly	Bootcamp			
	Machine Learning using Python (2 Days) Singapore	General Assembly	Short Course			
	Certified Machine Learning Specialist (Full Time)	IMDA / Global ICT Training & Certification	Certification Programme			
	Deep Learning & Azure Machine Learning Course	InspizOne	Short Course			
	Artificial Intelligence Course in Singapore	Intellipaat	Short Course			
	Machine Learning using Python	Kaplan	Short Course			
	Specialist Diploma In Applied Artificial Intelligence	Nanyang Polytechnic	Specialist Diploma		X	X
	Specialist Diploma In Business & Big Data Analytics	Nanyang Polytechnic	Specialist Diploma		X	X
	Artificial Intelligence And Machine Learning	Nanyang Technological University	Lifelong Learning	X	X	X
	Data Analytics and Mining	Nanyang Technological University	Lifelong Learning	X	X	X
	Predictive Analytics	Nanyang Technological University	Lifelong Learning	X	X	X
	Machine Learning	Nanyang Technological University	Lifelong Learning	X	X	X
	Artificial Intelligence	Nanyang Technological University	Lifelong Learning	X	X	X
	Natural Language Processing (NLP)	Nanyang Technological University	Lifelong Learning	X	X	X
	Industrial Internet of Things (IoT)	Nanyang Technological University	Lifelong Learning	X	X	X
	Internet of Things (IoT)	Nanyang Technological University	Lifelong Learning	X	X	X
	Big Data and Data Analytics	Nanyang Technological University	Lifelong Learning	X	X	X
	Predictive Analytics for Marketing	National University of Singapore	Executive Course	X	X	X
	Data Analytics for IT Professionals	National University of Singapore	Executive Course	X	X	X
	Advanced Machine Learning: Deep Learning	National University of Singapore	Executive Course	X	X	X
	Future-proof Businesses with Artificial Intelligence	National University of Singapore	Executive Course	X	X	X
	Applied Machine Learning	National University of Singapore	Executive Course	X	X	X
	Applied Artificial Intelligence	National University of Singapore	Executive Course	X	X	X
	NICF – Big Data Analytics (SF)	New Horizons	Short Course	X	X	X
	Advanced Diploma in Machine Learning	Ngee Ann Polytechnic	Advanced Diploma		X	X

Exhibit 40(a): Course availability

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Fundamentals of Cybersecurity	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Advanced Data Analytics (CET)	Predictive Analytics	Ngee Ann Polytechnic	Lifelong Learning		X	X
	Master of Science in Data Science, Part-time	SIM GE / University of London	Masters Degree	X	X	X
	Machine Learning I: An Introduction for Absolute Beginners	Singapore Institute of Technology	Short Course			X
	Data Analytics Using Power BI	Singapore Management University	Short Course			X
	5-Day Big Data Bootcamp	Singapore Management University	Bootcamp	X	X	X
	5-Day AI Bootcamp	Singapore Management University	Bootcamp	X	X	X
	Master of IT in Business (Analytics Track)	Singapore Management University	Masters Degree	X	X	X
	Data Driven Design: Harnessing the Power of Predictive Analytics	Singapore Management University	Short Course			X
	Advanced Data Analytics: Making Better Customer Decisions Using Analytics (A Competency Development Programme)	Singapore Management University	Short Course	X	X	X
	Advanced Diploma in Data Analytics and Machine Learning	Singapore Management University	Advanced Diploma	X	X	X
	The Future of Work – Harnessing the Limitless Potential of AI and IOT	Singapore Management University	Short Course	X	X	X
	Professional Certificate in Machine Learning (Python)	Singapore Management University	Professional Certificate	X	X	X
	Essentials of Cloud Computing	Singapore Management University	Short Course	X	X	X
	SMU Certificate in Artificial Intelligence	Singapore Management University	SMU Certificate	X	X	X
	Introduction to AI and Machine Learning	Singapore Polytechnic	Short Course	X	X	X
	Specialist Diploma in Data Science (Predictive Analytics)	Singapore Polytechnic	Specialist Diploma	X	X	X
	Specialist Diploma in Data Science (Data Analytics)	Singapore Polytechnic	Specialist Diploma	X	X	X
	Fundamentals of Data Mining (ANL303)	Singapore University of Social Sciences	Short Course	X		
	Introduction to Artificial Intelligence	Singapore University of Technology & Design	Short Course		X	X
	Data Mining Fundamentals	Temasek Polytechnic	Short Course			
	Machine Learning Courses	Tertiary Courses	Short Course			
	Advanced Data Analytics and Machine Learning with R (CITREP+ Funded)	Tertiary Courses	Short Course			
	Predictive Analytics with Orange	Tertiary Courses	Short Course			
	Deep Learning & Machine Learning Course Singapore	Training Singapore	Short Course			
	Data Mining Training Courses in Singapore	Various Training Providers	Short Course			
	SkillsFuture Series (Data Analytics)	Various Training Providers	Short Course	X		

Exhibit 40(b): Course availability

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Fundamentals of Cybersecurity	Type of course	SkillsFuture Eligible	Enhanced Training Support	SkillsFuture Mid-Career Enhanced
Advanced Data Analytics (PET)	Bachelor of Science in Data Science and Artificial Intelligence	Nanyang Technological University	Bachelor's Degree			X
	Bachelor of Science (Honours) with Major in Data Science and Analytics.	National University of Singapore	Bachelor's Degree			X
	Bachelor of Science in Data Science and Artificial Intelligence	Nanyang Technological University	Bachelor's Degree			X
Automated Inventory Management (CET)	Cyber Security Foundation+Practitioner™	ALC Training	Short Course			
	CISSP® Certified Information Systems Security Professional	ALC Training	Certification Programme			
	Cyber Attack & Data Breach Preparedness, Response & Compliance Workshop	Aventis Learning	Short Course			
	CoC in Digital Warehousing Solutions	Institute of Technical Education	Certificate of Competency	X		
	CoC in Warehouse Essentials & Automation	Institute of Technical Education	Certificate of Competency	X		
	Inventory Mgt & Control in Supply Chains, Warehouse Automation & Operations Strategy Development	National University of Singapore	Short Course		X	X
	Logistics Automation 1 – Pallet Handling Technologies (New!)	The Logistics Academy	Short Course			
Data Management / Security (CET)	Cyber Security Foundation+Practitioner™	ALC Training	Short Course			X
	Cyber Security Foundation+Practitioner™	ALC Training	Certification Programme			X
	Cyber Attack & Data Breach Preparedness, Response & Compliance Workshop	Aventis Learning	Short Course			X
	Cyber Security Associates and Technologists (CSAT) Programme	CSA Singapore	Special Course			
	MSc in Data Management & Business Analytics	EDHEC Business School	Masters Degree			
	Cyber Security 101	Hackwagon	Short Course			
	Data Governance Overview (2 Day Course)	Informatics Academy	Short Course			
	Certified Network Defender (CND)	Kaplan / EC-Council	Short Course			
	Cyber Security Course for Managers	London School of Business & Finance	Executive Course			
	Cloud Computing Security	Nanyang Technological University	Lifelong Learning	X	X	X
	Software Security	Nanyang Technological University	Lifelong Learning	X	X	X
	Computer Security (System Security)	Nanyang Technological University	Lifelong Learning	X	X	X
	Computer Systems Security	Nanyang Technological University	Lifelong Learning	X	X	X
	Software Security	Nanyang Technological University	Lifelong Learning	X	X	X
	Computer Security (System Security)	Nanyang Technological University	Lifelong Learning	X	X	X
	Computer Systems Security	Nanyang Technological University	Lifelong Learning	X	X	X
	Fundamentals of Cybersecurity	Nanyang Technological University	Executive Course	X	X	

Exhibit 40(c): Course availability

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Data Management / Security (CET)	Managing Cybersecurity Risk	National University of Singapore	Executive Course	X	X	X
	Cyber Security for ICT Professionals	National University of Singapore	Executive Course	X	X	X
	Developing Cybersecurity Architecture	National University of Singapore	Executive Course	X	X	
	Modern Cyber Security Technologies for Senior Managers	National University of Singapore	Lifelong Learning	X	X	X
	Data Governance & Protection	National University of Singapore	Executive Course	X	X	
	Cybersecurity for Business Managers	National University of Singapore	Lifelong Learning	X	X	X
	Executive Cyber Security Awareness Training Course	NobleProg	Short Course			
	Master of Science in Cyber Security and Management, Full-time & Part-time	SIM GE / University of Warwick	Masters Degree			
	Data Management	Singapore Management University	Short Course	X	X	X
	Advanced Certificate in Data Protection Principles	Singapore Management University	Advanced Certificate	X	X	X
	Advanced Certificate in Data Protection Operational Excellence	Singapore Management University	Advanced Certificate	X	X	X
	Managing Cyber Security Risks, Threats & Vulnerabilities	Singapore Management University	Short Course	X	X	X
	Advanced Certificate in Governance, Risk Management and Data Compliance	Singapore Management University	Advanced Certificate	X	X	X
	Advanced Cyber Risk Management	Singapore Management University	Short Course	X	X	X
	Advanced Diploma in Information and Cybersecurity Management	Singapore Management University	Advanced Diploma	X	X	X
	Advanced Certificate in Data Protection Operational Excellence Module 2: Information & Cyber Security for Managers - EXIN Certification	Singapore Management University	Advanced Certificate	X	X	X
	SMU Advanced Certificate in Cybersecurity	Singapore Management University	Short Course	X	X	X
	Cybersecurity Programme and Risk Management	Singapore Management University	Short Course	X	X	X
	Strategies for Effective Data and Information Management	Singapore Polytechnic	Specialist Diploma	X	X	X
	Specialist Diploma in Cyber Security Management	Singapore Polytechnic	Lifelong Learning	X	X	X
	Introduction to Cybersecurity (CET102)	Singapore University of Social Sciences	Certification Programme	X	X	X
	ModularMaster Certificate in Cybersecurity	Singapore University of Social Sciences	Short Course	X	X	X
	Basic Cyber Security Course	Tertiary Courses	Lifelong Learning			
	Advanced Diploma in Cyber Security	Training Vision	Advanced Diploma			
	Advanced Diploma in Cyber Security	Training Vision	Advanced Diploma	X		X
	SkillsFuture Series (Cybersecurity)	Various	Short Course	X		

Exhibit 40(d): Course availability

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Advanced Data Analytics (CET)	Bachelor Of Information Technology In Cyber Security And Forensics And Business Information Systems (Double Major)	Kaplan / Murdoch University	Bachelor's Degree			
	Bachelor Of Science (Hons) Cybersecurity And Networks	MDIS / Teesside University	Bachelor's Degree			
	Bachelor Of Computer Science (Cyber Security), Full-Time	SIM GE / University of Wollongong Australia	Bachelor's Degree			
	Diploma In Cybersecurity & Digital Forensics	Ngee Ann Polytechnic	Diploma			
	Diploma In Cybersecurity & Digital Forensics	Ngee Ann Polytechnic	Diploma			
	Diploma In Network Defense And Forensic Countermeasures	PSB Academy	Diploma			
	Diploma In Cybersecurity & Digital Forensics (T62)	Temasek Polytechnic	Diploma			
Digital Channel Development (CET)	Digital Marketing - Gaining Customer Insights With Digital Marketing Analytics!	Nanyang Technological University	Lifelong Learning	X	X	X
	Digital Marketing - Delivering Results In The Digital Age	Nanyang Technological University	Lifelong Learning	X	X	X
	Digital Marketing - A Practical Approach To Search Engine Optimization (SEO)	Nanyang Technological University	Lifelong Learning	X	X	X
	NTU SGUnited Skills Programme in Digital Marketing	Nanyang Technological University	Lifelong Learning	X		
	Digital Media Marketing	Nanyang Technological University	Lifelong Learning	X	X	X
	Professional Certificate in Digital Marketing	Singapore Management University	Professional Certificate	X	X	X
	Digital Marketing - Creating and Curating Display Content In Your Digital Strategy	Singapore Management UniversitySingapore	Short Course	X	X	X
	Advanced Certificate in Digital Business Module 3: Smart Retail and Marketing	Singapore Management University	Advanced Certificate	X	X	X
	Digital Outreach: Marketing To The Digital Consumer	Singapore Management University	Short Course	X	X	X
Distributed Ledger Technologies Application (CET)	Certified Blockchain Professional (C BP)	ClickAcademy Asia	Certification Programme			
	Making Contracts Smart with Blockchain	Global ICT Training & Certification Pte Ltd	Certification Programme			
	E-Document Management Courses	Intellipaath	Short Course			
	Electronic Document Management System (EDMS) Training	Kaplan / IIB Council	Certification Programme			
	Procurement and Contract Management in Projects	Nanyang Technological University	Lifelong Learning	X	X	X
	Professional Certificate in Purchasing Management	National University of Singapore	Lifelong Learning	X	X	X
	Advanced Diploma in Strategic Procurement	National University of Singapore	Lifelong Learning	X	X	X

Exhibit 40(e): Course availability

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

Name of course		Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Advanced Data Analytics (CET)	Making Contracts Smart with Blockchain	National University of Singapore	Lifelong Learning	X	X	X
	Blockchain for Wholesale Trade	Ngee Ann Polytechnic	Lifelong Learning		X	X
	Blockchain Certification Training Course in Singapore	Simplilearn	Bootcamp			
	Advanced Certificate in Blockchain for Business	Singapore Management University	Advanced Certificate	X	X	X
	Demystifying Blockchain in Commodity Trading Industry	Singapore Management University	Short Course	X	X	X
	Blockchain for Business Application and Strategy	Singapore Management University	Short Course	X	X	X
	SGUS Blockchain Talent Programme	Singapore Polytechnic	SGUS Programme			
	FinTech – Blockchain (Beginners)	Singapore Polytechnic	Short Course	X	X	X
	A Beginner's Introduction To Blockchain Technology With Ethereum & Solidity Smart Contracts	Temasek Polytechnic	Short Course	X		X
	Blockchain	Tertiary Courses	Short Course			
Distributed Ledger Technologies Application (PET)	50.037 Blockchain Technology	Singapore University of Technology & Design	Course part of Degree			
E-Contract Negotiation (CET) Predictive Buying / Purchasing (PET)	Essentials of Preparing & Negotiating Contract Terms	Marketing Institute of Singapore	Short Course	X		
	Procurement and Contract Management in Projects	Nanyang Technological University	Lifelong Learning	X	X	X
	Making Contracts Smart with Blockchain	National University of Singapore	Lifelong Learning	X	X	X
	A Beginner's Introduction To Blockchain Technology With Ethereum & Solidity Smart Contracts	Temasek Polytechnic	Short Course	X		X
	Contract Negotiation Training	The Knowledge Academy	Short Course			
E-Document Management (CET)	The Essentials of EDMS, E-Archiving	Blackbird Training	Short Course			
	Making Contracts Smart with Blockchain	National University of Singapore	Lifelong Learning	X	X	X
	E-Document Management Courses	Various	Short Course			
	Electronic Document Management System (EDMS) Training	Zoe Talent Solutions	Short Course			
E-Contract Negotiation (CET)	Procurement and Contract Management in Projects	Nanyang Technological University	Lifelong Learning	X	X	X
	Professional Certificate in Purchasing Management	Singapore Institute of Purchasing and Materials Management (SIPMM)	Professional Certificate			
	Advanced Diploma in Strategic Procurement	Singapore Management University	Advanced Diploma	X	X	X
	Advanced Certificate in Strategic Sourcing Module 2: Digital Procurement - Past, Present and Future	Singapore Management University	Advanced Certificate	X	X	X
	E-Procurement Learning (Self-Paced)	World Bank Group	Online Course			

Exhibit 40(f): Course availability

Course Availability | Technical skills

Technology-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Machine to Machine (M2M) Technology Application (CET)	Internet of Things: Technology & Applications	Singapore Management University Academy	Short Course	X	X	X
	Machine-To-Machine (M2M): Technologies and Applications	Telefocal Pte Ltd	Short Course			
	Machine-to-Machine Communication via Ethernet Protocol – Profinet (Foundational to IIoT & I4.0)	Temasek Polytechnic	Short Course	X	X	
Machine to Machine (M2M) Technology Application (PET)	Diploma in Logistics and Supply Management	Singapore Institute of Purchasing and Materials Management (SIPMM)	Diploma			
Distributed Ledger Technologies Application (CET)	Certified Digital Marketing Strategist (CDMS) Programme	Equinet Academy	Certificate	X	X	X
	Integrated Digital Marketing Strategies Course	Marketing Institute of Singapore	Short Course	X		
	Digital Marketing: Strategies, Models and Frameworks	National University of Singapore	Short Course			
	Professional Certificate in Digital Marketing	Singapore Management University	Professional Certificate	X	X	X
	Digital Marketing	Tertiary Courses	Short Course			
Marketing Automation (PET)	Professional Diploma in Digital Marketing	Lithan	Diploma	X	X	X
	Diploma in Business Administration (Digital Marketing)	PSB Academy	Diploma			
Omnichannel Strategy Development / Implementation (CET)	Professional Certificate in Digital Marketing	Singapore Management University	Professional Certificate	X	X	X
Online Feedback Management (PET)	Customer Relationship Management	Singapore University of Social Sciences	Course part of Degree	X		
Predictive Buying / Purchasing (CET)	Advanced Diploma in Procurement and Supply Management	Singapore Institute of Purchasing and Materials Management (SIPMM)	Advanced Diploma	X		
	Advanced Certificate in Strategic Sourcing Module 4: Finance and Data Analytics for Procurement	Singapore Management University	Advanced Certificate	X	X	X
Predictive Buying / Purchasing (PET)	Predictive Modelling	Singapore University of Social Sciences	Course part of Degree	X		
Trade Automation (CET)	Data & Automation for Ops & Automation Specialist in Wholesale Trade + Bridging	Ngee Ann Polytechnic	Short Course			

Exhibit 40(g): Course availability

Course Availability | Technical skills

Business-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

Name of course		Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Agile Logistics (CET)	Transformational Strategies for Supply Chain and Logistics Management	National University of Singapore	Executive Course	X	X	X
	Project-Based Training in Logistics/Supply Chain Innovation & Solutioning	National University of Singapore	Short Course	X	X	X
	Optimization, Simulation & Modelling in Supply Chain & Logistics Management	National University of Singapore	Masters Degree			
	Advanced Certificate in Supply Chain Innovation and Transformation	Singapore Management University Academy	Advanced Certificate	X	X	X
	Industry 4.0 & Supply Chain Transformation: Developing a Digital Supply Chain Strategic Mindset	Singapore Management University Academy	Course part of Degree			
	Advanced Certificate in Digital Business Module 5: Smart Logistics and Supply Chain Management	Singapore Management University Academy	Lifelong Learning	X	X	X
	Advanced Diploma in Logistics and Supply Chain Management and Transformation	Singapore Management University Academy	Bachelor's Degree			
	Masterclass in Transformational Strategies for Supply Chain and Logistics Management	Supply Chain & Logistics Academy	Course part of Degree	X		
Carbon Footprint Management (CET)	Apply Integrated Carbon Footprint Assessment Methodology	Singapore Institute of Manufacturing Technology	Modular Class	X	X	X
	Ethics, Law and Sustainability	Singapore University of Social Sciences	Modular Class			
	Sustainability Reporting - Global Frameworks and Implementation Roadmap	Singapore University of Social Sciences	Short Course	X	X	X
	Greenhouse Gas (GHG) Emission, Carbon Tax and Energy Efficiency	Temasek Polytechnic	Short Course	X	X	
Counterparty Risk Management (CET)	Enterprise Risk Management	London School of Business & Finance	Short Course			
	Financial & Risk Analytics I	Nanyang Technological University	Lifelong Learning	X	X	X
	Financial & Risk Analytics II	Nanyang Technological University	Lifelong Learning	X	X	X
	Principles and Applications of Risk Management	National University of Singapore	Lifelong Learning	X	X	X
	Corporate Governance and Risk Management	National University of Singapore	Lifelong Learning			
	Supply Chain Risk Management	National University of Singapore	Lifelong Learning	X	X	X
	Financial Risk Manager (FRM®) Certification Training Program - Part I and Part II	National University of Singapore	Certification Programme	X		
	Credit Risk Management Seminar Training Program	PI ETA Consulting Company	Short Course			
	Executive Certificate in Risk Management Leadership	Singapore Management University Academy	Executive Certificate	X	X	X
	Commodity Price Risk Management	Singapore Management University Academy	Short Course	X	X	X
	Managing International Trade Financing Risks	Singapore Management University Academy	Short Course	X	X	X

Exhibit 40(h): Course availability

Course Availability | Technical skills

Business-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Cross-Cultural Competence (CET)	The Glocal Business Landscape: Navigating A Multicultural Environment	Imageworks	Short Course	X	X	X
	Cross Cultural Intelligence	Knowles Training Institute	Short Course			
	Cross Cultural Communications	Marketing Institute of Singapore	Short Course			
	Culture & Society	National University of Singapore	Lifelong Learning			
	Effective Communication in the Globalised Workplace Specialization	National University of Singapore / Courses	Short Course			
	Cross-Cultural Intelligence at the Workplace (HBC263)	Singapore University of Social Sciences	Lifelong Learning	X		
Counterparty Risk Management (CET)	Data-Driven Customer Experience	National University of Singapore	Bachelor's Degree	X	X	X
	Customer Insights Begins With Me	National University of Singapore	Course part of Degree	X	X	X
	Sentiment Analysis in Social Media	National University of Singapore		X	X	X
	Know Your Customers: Mapping Customer Experience and Journey	Republic Polytechnic	Modular Class	X	X	
	Advanced Certificate in Transformation through Corporate Innovation Module 6: Digital Customer Experience	Singapore Management University	Modular Class	X	X	X
	Design Thinking: Designing A Competitive Customer Experience	Singapore Management University	Short Course	X	X	X
	Digital Transformation - Building The Digital Brand Experience For Your Business	Singapore Management University	Short Course	X	X	X
	Digital Strategy: Building Digital Capabilities to Transform Customer Experiences	Singapore Management University	Short Course	X	X	X
	Customer Experience Management (MGT554)	Singapore University of Social Sciences	Lifelong Learning	X		
Digital Freight Brokerage & Matching (PET)	Ocean Freight Management (LOG353)	Nanyang Technological University	Lifelong Learning	X		
Freight Rate Hedging Management (PET)	Ocean Freight Management (LOG353)	National University of Singapore	Lifelong Learning	X		
Government / Regulatory Affairs (CET)	Advanced Certificate in Transformation through Corporate Innovation Module 5: Corporate Governance in the Digital Age	National University of Singapore	Lifelong Learning	X	X	X
Loss Reduction Management (CET)	Customer Experience Management (MGT554)	National University of Singapore	Lifelong Learning			
Government / Regulatory Affairs (CET)	Story Selling – Create High Impact Sales & Marketing Stories	National University of Singapore	Certification Programme			
	Foundations Of Brand Storytelling	PI ETA Consulting Company	Short Course	X	X	X
	Storytelling Online & Offline	Singapore Management University Academy	Executive Certificate		X	X

Exhibit 40(i): Course availability

Course Availability | Technical skills

Business-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Performance Monitoring and Analysis (CET)	Data Analytics Deployment & Performance Monitoring	National University of Singapore	Executive Course	X	X	X
Performance Monitoring and Analysis (CET)	Introduction to Predictive Analytics for Maintenance	Singapore Polytechnic	Short Course	X	X	X
Risk-Adjusted Value Forecasting (CET)	MSc Financial Engineering	Nanyang Technological University	Masters Degree			
	Certificate in Value Investing - Advanced Market and Global Macro Investment Strategies for Tomorrow	Singapore Management University Academy	Certificate	X	X	X
Risk-Adjusted Value Forecasting (PET)	Financial Risk Management	National University of Singapore	Course part of Degree			
Route Optimisation (CET)	Optimisation, Simulation & Modelling in Supply Chain & Logistics Management	National University of Singapore	Lifelong Learning	X	X	X
Route Optimisation (PET)	BSC Logistics & Supply Chain Management	Singapore University of Social Sciences	Bachelor's Degree			
	Transport Management (LOG205)	Singapore University of Social Sciences	Course part of Degree	X		
Scenario Modelling (CET)	IT038v : Practical Financial Modeling & Analysis with Excel (Live Webinar)	Institute of Singapore Chartered Accountants	Online Course			
	Making Sense of a Complex World	National University of Singapore	Executive Course	X	X	X
Sourcing Portfolio Analysis (CET)	Advanced Certificate in Strategic Sourcing	Singapore Management University Academy	Advanced Certificate	X	X	X
Sourcing Portfolio Analysis (PET)	DSC3202 Purchasing and Materials Management	National University of Singapore	Course part of Degree			
Structured Financing (CET)	BF3212 Trade, Structured & Supply Chain Finance	Nanyang Technological University	Programme			
	SMU Executive Certificate in Structured Trade & Commodity Finance	Singapore Management University Academy	Executive Certificate	X	X	X
Structured Financing (PET)	FIN4113 Personal Finance and Private Wealth Management	National University of Singapore	Course part of Degree			
	Trade Finance (LOG323)	Singapore University of Social Sciences	Course part of Degree	X		

Exhibit 40(j): Course availability

Course Availability | Technical skills

Business-Led

The table below shows some of the courses available for new and augmented skills identified. This list is non-exhaustive.

	Name of course	Educational Provider	Type of course	SkillsFuture Eligible	Enhanced Training Support for SMEs (ETSS)	SkillsFuture Mid-Career Enhanced Subsidy (MCES)
Sustainable Engineering (CET)	Energy Resources Management	Nanyang Technological University	Specialist Certificate		X	X
	Industrial Energy Efficiency	National University of Singapore	Modular Course		X	
	Lighting Systems Energy Efficient Design : Audit and Analysis	Singapore Institute of Technology	Short Course	X		X
	Environmental Management and Sustainable Development	Singapore University of Social Sciences	Lifelong Learning			
Sustainable Sourcing and Procurement (CET)	Advanced Certificate in Sustainability & Sustainable Businesses: Module 3: Sustainable Supply Chain and the Circular Economy	Singapore Management University	Advanced Certificate	X	X	X
	Advanced Certificate in Strategic Sourcing Module 6: Procurement Fraud, Ethics and Sustainability	Singapore Management University	Advanced Certificate	X	X	X
Sustainable Warehouse Management (CET)	ISO50001: 2018 Energy Management System Implementation	Sustainable Energy Association of Singapore (SEAS)	Advanced Certificat			
Volume Analysis(CET)	MSc Accountancy	Nanyang Technological University	Masters Degree			
	Nanyang Executive MBA	Nanyang Technological University	Masters Degree			
	Financial Analysis and Business Decisions for Non-Finance Manager	National University of Singapore	Executive Course	X	X	X
Volume Analysis (PET)	Management Accounting & Finance	Temasek Polytechnic	Short Course	X	X	
	ACCT102 Management Accounting	Singapore Management University	Course part of Degree			

Exhibit 40(k): Course availability

Grants available to support skills acquisition

The table below shows some available grants that the government gives to encourage professionals to take ownership of their skills development and lifelong learning.

Self-Sponsored	
Summary of Grant	Brief Description
SkillsFuture Mid-Career Enhanced Subsidy (MCES)	The SkillsFuture MCES encourages mid-career Singaporeans to upskill and reskill. <i>Eligibility Criteria:</i> All Singaporeans aged 40 and above. Find out more here.
Workfare Skills Support (WSS) Scheme	The WSS scheme encourages low-wage workers to undertake training that leads to more impactful employment outcomes. Find out more here.
Union Training Assistance Programme (UTAP)	This scheme under The NTUC-Education and Training Fund (NETF) helps working people in skills upgrading and re-skilling. Find out more here.
Organisation Sponsored	
Summary of Grant	Brief Description
Absentee Payroll (AP) Funding	AP funding is a grant to help employers defray the manpower cost incurred when they send their employees for certifiable skills training. Courses which are supported by AP funding will be pre-approved. Find out more here.
Enhanced Training Support for SMEs (ETSS)	The ETSS aims to encourage and support SMEs to send their employees for training with higher grants. Find out more here.
Senior Worker Early Adopter Grant (SWEAG)	The SWEAG supports organisations to increase their specific retirement and re-employment ages ahead of legislative increases.
Part-time Re-employment Grant (PTRG)	The PTRG supports organisations to offer part-time re-employment arrangement to eligible workers who request it.
<i>Eligibility Criteria for both SWEAG and PTRG:</i> Employers will need to adopt the Tripartite Standard on age-friendly Workplace Practices (TS-AWP). Find out more here.	
NETF Collaborative Fund (NCF)	NCF provides training support to organisations who send their employees (NTUC members) for training programmes that enhance their employment and employability. Find out more here.

Exhibit 41 : Grants available

Please note that this list is non - exhaustive

Compensation management best practices

Sound market information and recognition of critical talent are key inputs for compensation decisions

Compensation decisions must be based on the following critical inputs:



Base compensation decisions on sound market information

Given the business environment, there is high scrutiny on compensation spending. As a result, the need for sound market compensation data is essential. Understanding of the market helps organisations to:

- Review market pay data to reward essential/critical talent competitively
- Ensure compensation plans are aligned with business strategy
- Optimise compensation and benefits spend
- Evaluate temporary actions versus permanent changes to compensation
 - For example, 2020 market reports show that COVID – 19 resulted in pay cuts/reduction in compensation of some jobs. However, 2021 reports show that the pay level of these jobs is drawing closer to 2019 pay levels.

Organisations should continually refer to market intelligence to determine responses and payout levels through formal and/or informal channels. Many HR consulting firms offer annual compensation surveys. These surveys are a rich source of market data. In addition to these, some websites consolidate market information about compensation.



Recognise and reward critical talent

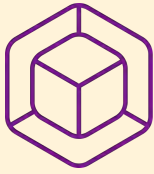
The pandemic intensified the ongoing pressure on cost management. As we emerge from this crisis, the pressure is expected to continue. In this context, organisations should try and adopt an approach that disproportionately rewards their critical and/or essential talent.

The critical talent pool comprises both high performing and high potential talent. In addition, talent who possess skills that are limited in supply (i.e., difficult to hire or difficult to replace) also form part of the critical talent pool.

Differentiated rewards may be offered to this talent segment in the form of higher base pay, higher bonuses or other non - monetary rewards such as meal benefits, shorter or flexible working hours and/or enhanced benefits for illness or disability.

Organisations must adopt a targeted compensation and benefits strategy for various workforce segments.

Some of the other considerations include:



Affordability

HR should work closely with Finance and Business departments to determine the overall impact of the pandemic, both on revenue and profitability (2020 and beyond). One should remember that while market benchmarks are critical, it is vital to maintain a balance between market insights and affordability. This translates into organisations choosing to invest disproportionately in functions and people expected to produce the highest returns.



Fair and equitable compensation for all

Organisations must prioritise transparent and timely communication on compensation. Ensuring that compensation decisions are fair, equitable, and devoid of bias (e.g., gender, nationality, age etc.).

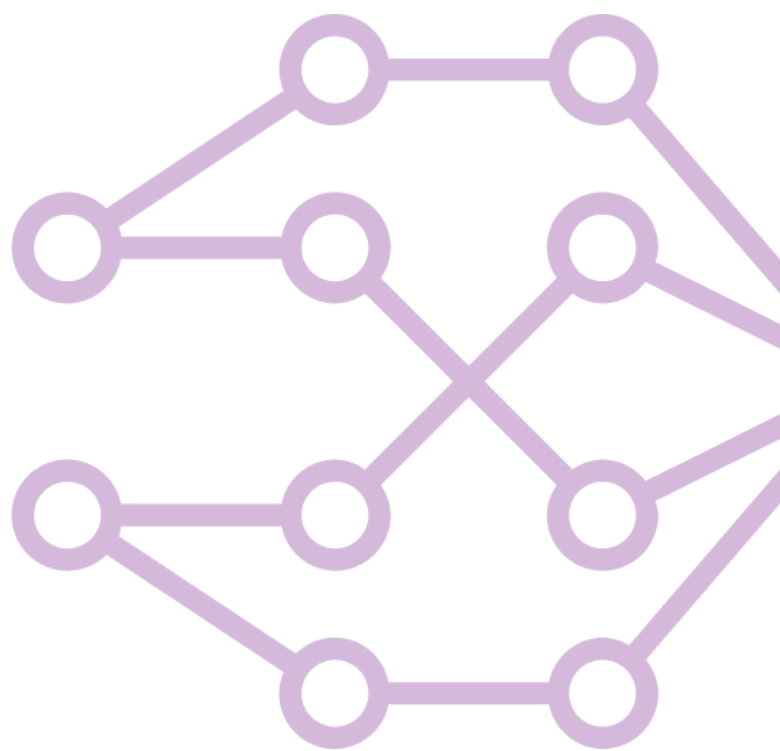
As far as possible, organisations should provide autonomy to managers to manage compensation expectations through uncertain times.

Critical talent with hot skills are receiving compensation premiums during hiring and annual salary increase cycle

Compensation is determined by demand and supply for labour. From time to time, there is demand for a new hot skill, which helps increase the pay levels of employees disproportionately possessing those skills.

The average base salary increase for the overall general industry (including the WST sector) was approximately 4% in the last few years. WTW research indicates, in the coming decade, the average base salary increase of the overall population will remain in the range of 3% - 4%. However, WTW's Total Compensation Survey data points out that employees with new and critical technology-led skills will receive above-average compensation. Due to 2 reasons:

- 1 The skills are niche and critical for the organisation's growth, and hence there are disproportionate investments in them. To recognise and retain current employees with these skill sets, they get a higher base salary increase percentage during the annual salary increase cycle.
- 2 The supply of this new, niche skill set is limited. Many organisations are competing for qualified talent. As a result, during the hiring process, they are ready to offer a compensation premium.



Technology skills are getting the highest pay premium

Technology skills are getting the highest pay premium in the Singapore market. A similar trend is observed across the globe. Enclosed below is a list of top technology skills in Singapore. These skills demand a 10%+ higher base salary than Singapore's general market pay level.

Top 10 Technology led skills



Represents percentage of organisations hiring for top technology skill in Singapore

Exhibit 42 : Top 10 Technology led skills

Source: (1) 2020 Willis Towers Watson General Industry and High-Tech Compensation Survey

Pay Premium of Digital Roles

Managerial Roles							
	IS & Cyber Security Development	Technology Strategy	Information Technology/ Project Management	Digital Strategy	Data Science & Business Intelligence	Application Development	Internet / Web/ Mobile Application Development
General Market Pay line (=100%)	+ 25%	+ 16%	+ 13%	+ 12%	+ 11%	+ 9%	+ 6%

Individual Contributor Roles						
	Agile/Scrum Master/ Programme Management	Information Technology Project Management	Functional/ Business Area – ERP application Customisation	Full Stack Development	IS & Cyber Security Development	Data Engineering
General Market Pay line (=100%)	+ 28%	+ 19%	+ 18%	+ 17%	+ 16%	+ 15%

Exhibit 43: Pay premium for digital roles in Singapore

*Note: Average pay premium across ten selected key digital roles compared against general market pay level for the same career level.

Increasing wage bill is not the only solution to build a talent pipeline

Automation, digitalisation and the creation of new augmented jobs are posing a new set of talent challenges. There is a gap in the demand and supply of jobs and skills. The gap in skills availability is increasing the compensation levels of some of the most critical skills organisations require today. As a result, it is causing additional cost pressures. While paying compensation premiums is the most common strategy for hiring new talent/retaining talent with in-demand, hot skills, it is certainly not the only way forward. Organisations are rethinking their manning strategies and are using innovative ways to combat this challenge.

The gig approach	The build (talent) approach
To meet the skills gap, organisations are opening up to the concept of bringing in talent for a short-term period (for specific projects), popularly known as leveraging the gig economy. For example, the scrum master is a role frequently adopted by specialist gig workers. Using gig workers is helping organisations in multiple ways. They can hire experts for specific projects only when required. Scaling up and scaling down headcount is easy. It also helps control costs as organisations are not expected to pay for any benefits (e.g. retirement-linked, healthcare etc.). In the Singapore context, we see this gaining attention; however, it is still conceptual for more traditional organisations.	Once the skills and knowledge required to deliver business results are understood, organisations can address the skills gap. To bridge the skills gap, organisations have the option to buy talent (external talent acquisition). This option is often expensive, but the turnaround time is faster. The other option is to build talent (internal upskilling, reskilling, continuous learning, skill-building work experiences). This option is suitable when there is less urgency. Many approved training courses are subsidised by SkillsFuture Singapore and can help build a long-term talent pipeline. The build approach is cost-efficient and creates greater employee engagement and loyalty, as it addresses the development and career growth aspirations of employees. In Singapore, we observe organisations across the large corporate and SME spectrum adopting the build talent approach.



Years of research have consistently shown that, among other reasons, the top drivers for employee attraction and retention revolve around two key themes: (1) pay progression and (2) career progression. While fair and competitive pay attracts talent in the short term, the potential of career progression creates longevity in an organisation. Career progression does not necessarily mean promotion or the next big title. It means having a robust career framework that provides the proper foundation and clarity for conversations around career growth, new skills to acquire, and new ways to contribute, providing more meaningful and challenging work opportunities.

Brief descriptor – new/emerging jobs

Decision Support Analyst:

With the development of Big Data and data analytics, data-driven decision-making is becoming more accessible and critical for the sector. This has led to the emergence of an analyst role that provides advanced data analytics, such as predictive analysis, to provide insight by assessing historical and current business performance, thereby highlighting areas of opportunity for improvement that supports the organisation's various functions. The role is responsible for gathering and maintaining data and digital assets, partnering with other functional teams, and establishing the ongoing development of financial/management reporting that supports business decisions and strategic goals. The goal is to bring more robust data to all stakeholders as quickly and as efficiently as possible.

Freight Operations Analyst:

With more goods being shipped internationally across the entire supply chain and freight costs increasing as a proportion of business costs have brought about the role of the Freight Operations Analyst. The analyst's goal is to determine the most cost-effective method of freight shipping to meet the evolving needs of the organisation, which may include factors such as costs between different freight organisations, storage fees and fuel costs while maintaining the service quality levels. Skills required include data analytics to improve business operations and financial reporting to determine costs.

Inventory & Capacity Specialist:

Today's fast-paced consumer market requires organisations to ensure items are in the right location at the right time to meet the needs of the consumer. The role will forecast and prioritise inventory flow based on current and projected demand trends, collaborating cross-functionally and communicating the organisation's needs to suppliers. The specialist will be responsible for performing inventory analysis to optimise stock levels, and any inventory issues are expected to be investigated and resolved in a timely manner. The specialist will also seek to improve supply chain performance such as inventory turnaround and on-time delivery, and manage risks while managing suppliers through tracking performance metrics and driving them to improve their service, cost, quality and delivery levels.

Supply Chain Performance Manager:

Historically, the planning, procurement, logistics and transportation departments within organisations tend to work in silos. As customers increase their expectations for reliability and flexibility in purchases, this role improves the effectiveness and efficiency of all supply chain processes by integrating data between these departments and analysing the data to achieve lower inventory costs while still meeting the varying demands for production. The analysis of supply chain management processes is examined through key performance indicators, which are both qualitative (e.g., customer satisfaction and product quality) and quantitative (e.g., the time it takes for a product to get delivered).

Marketing Analytics Manager:

As more digital marketing channels emerge with increased competition across the sector, the Marketing Analytics Manager is responsible for measuring the success of marketing campaigns, evaluating their effectiveness, and enhancing their returns on investment. The manager uses their technical expertise in Excel and data visualisation tools like Tableau and other programming languages like SQL or Python for data mining, modelling and management. Strong communication skills are also a must to present their insights on the data and suggest strategic recommendations through collaboration with various departments across the organisation.

Search Engine Optimisation (SEO) Specialist:

The internet has quickly become the top place for consumers to search for commodities, and explicit searches help them sieve out potential suppliers. An SEO specialist helps organisations reach out to their target markets by making their website easy to find among the vast competition in the industry. To do so, the specialist will have a clear understanding of the company's goals and target audience to create content tailored to their needs and demands. This could include adding specific keywords, building website links, rewriting HTML tags, and using new marketing and advertising techniques such as social media marketing or pay-per-click advertising. As the company website ranks higher on the search page, the wider the audience and thus the higher the possibility of sales conversion.

Environmental, Social & Governance Lead:

As stakeholders are increasingly concerned with the long-term positioning of an organisation, the ESG Lead focuses on developing and implementing strategic sustainability practices that increase the organisation's value to customers, investors, and business partners. The role will require a good understanding of the sustainability-related concerns of external stakeholders, like customers and investors, to devise solutions and build a sustainability framework for the organisation. The lead will also be responsible for measuring the impact of the ESG efforts of the organisation and communicating these impacts to internal and external stakeholders, from employees to business leaders and suppliers to customers to investors and non-governmental organisations.

Brief descriptor – new/emerging jobs

Sustainability Manager

To ensure that business practices, products, and services comply with government rules and regulations, the Sustainability Manager will lead research and analysis to develop corporate sustainability strategies. The role will comprise innovative strategies to improve the organisation's sustainability programmes; marketing these strategies to internal and external stakeholders such as colleagues, vendors and customers; and tracking the organisation's sustainability efforts through context-based metrics and KPIs.

Sustainable Sourcing Manager

As stakeholders grow in their expectations of companies to take responsibility for their suppliers' environmental, social and ethical practices, the Sustainable Sourcing Manager must fulfill environmental and societal commitments while still improving the bottom line under procurement. The role will develop, manage, monitor and promote responsible sourcing practices, with responsibilities such as implementing end-to-end supplier due to diligence processes and building metrics to inform and support responsible vendor selection and procurement decisions. The goal is to build solid and long-term relationships with suppliers and advocate for sustainable practices that will extend the organisation's commitment to corporate responsibility.

Study participants

Study Participants (1/2)

S.No	Company Name	S.No	Company Name
1	A.MGR CO Pte Ltd	51	Foh Foh Co Pte Ltd
2	Aastar Trading Pte Ltd	52	FoodXervices Inc. Pte Ltd
3	ADM Asia-Pacific Trading Pte Ltd	53	Franco-Asian Enterprises Singapore Pte Ltd
4	AFCO Energy Pte Ltd	54	Freshmart Singapore Pte Ltd
5	Agrocorp International	55	Future Electronics
6	Ameropa Asia Pte Ltd	56	Glencore Agriculture Pte Ltd
7	Ampol Management Services Pte Ltd	57	Global Trade Well
8	Anglo American Marketing Limited	58	Golden Agri International
9	April Fine Paper Holdings	59	Golden Agri Maritime Pte Ltd
10	Archroma Singapore Pte Ltd	60	Goodyear Orient Co Pte Ltd
11	Aries Fertilizers Group Pte Ltd	61	Graceland Industry Pte Ltd
12	Asiatic Agricultural Industries	62	GrupoKaybee
13	Awin Resource International	63	H. L. Yong Company Pte Ltd
14	BB Energy Asia Pte Ltd	64	Hanwell Holdings Limited
15	Ban Choon Marketing Pte Ltd	65	Helm Asia Pte Ltd
16	Ban Leong	66	Hengyi Industries International Pte Ltd
17	Bando Singapore	67	Hin Hin Trading
18	Barry Callebaut	68	Hock Huat Trading
19	BCP Trading Pte Ltd	69	HRGA (part of Marubeni)
20	BHP Billiton Marketing Asia	70	Hydro Aluminium Asia Pte Ltd
21	Borouge Pte Ltd	71	Idemitsu International (Asia) Pte Ltd
22	BP Singapore Pte Ltd	72	Iffco Singapore Pte Ltd
23	Brenntag Pte Ltd	73	INEOS Singapore Pte Ltd
24	Cabral Trading Pte Ltd	74	Inter-Continental Oils & Fats Pte Ltd
25	Cargill International Trading Pte Ltd	75	Interflour Group Pte Ltd
26	Chee Fatt Co. Pte Ltd	76	International Bearing Pte Ltd
27	ChemChina (Singapore) Pte Ltd	77	Inter-United Enterprises Pte Ltd
28	Chevron Phillips Chemicals Asia Pte Ltd	78	Itochu Petroleum Co., (Singapore) Pte Ltd
29	China Aviation Oil (Singapore) Corporation Ltd	79	Itochu Plastics Pte Ltd
30	CITIC Commodities Pte Ltd	80	JERA Global Markets Pte Ltd
31	Clementcorp Trading Pte Ltd	81	JSL Global Commodities Pte Ltd
32	Coca-Cola Singapore Beverages Pte Ltd	82	Just Oil & Grain Pte Ltd
33	Concord Energy Pte Ltd	83	K.D. Feddersen Singapore Pte Ltd
34	Connell Bros Co. Singapore Pte Ltd	84	K+S Asia Pacific Pte Ltd
35	Crystal Wines Pte Ltd	85	KM Marketing Pte Ltd
36	Deetansa Singapore Pte Ltd	86	Koch Refining International Pte Ltd
37	Dole Asia Holdings Pte Ltd	87	Kolmar Singapore
38	DR WHO GLOBAL WATERTech (S) PTE LTD	88	Lam Soon Singapore Pte Ltd
39	Dreymoor Fertilizers Overseas Pte Ltd	89	Lau Choy Seng
40	E2i	90	LEDVANCE Singapore Pte Ltd
41	Eastern Green Marketing Pte Ltd	91	Lee Fung International Pte Ltd
42	Eastern Harvest Foods Pte Ltd	92	Lian Hap Xing Kee Edible Oil Trading Pte Ltd
43	Enerfo Pte Ltd	93	Lianfeng International Pte Ltd
44	ENGIE	94	Liaoh River Petroleum Co Ltd
45	Equentia Natural Resources	95	Lidl Singapore Pte Limited
46	Excelpoint Systems Pte Ltd	96	Lobb Heng Pte Ltd
47	ExxonMobil	97	Logixtics Inc Pte Ltd
48	First Resources Limited	98	Louis Dreyfus Company Asia Pte Ltd
49	First Resources Trading Pte Ltd	99	LP Foods Pte Ltd
50	Fish International Sourcing House Pte Ltd	100	M.A.P.L.

Study Participants (2/2)

S.No	Company Name	S.No	Company Name
101	Maersk Oil Trading	145	Shell Eastern Trading Pte Ltd
102	Manitou Asia Pte Ltd	146	SHV Gas Supply and Risk Management
103	Marubeni ASEAN Pte Ltd	147	Singapore Bora Petroleum Pte Ltd
104	Marubeni-Itochu Steel Pte Ltd	148	Singapore Business Federation
105	MEDs Technologies Pte Ltd	149	Singapore International Chamber of Commerce
106	Menlon Agency Pte Ltd	150	Singapore Fruits and Vegetables Importers and Exporter
107	Mercuria Asia Group Holdings	151	Singapore Jinteng International Pte Ltd
108	Mercuria Energy Trading Pte Ltd	152	Singapore Management University
109	Mewah International Inc	153	SK Energy International Pte Ltd
110	Mitsubishi Corporation RtM International	154	SLS Bearings (S) Pte Ltd
111	Mitsubishi Gas Chemical (S) Pte Ltd	155	Smith & Nephew Pte Limited
112	Mitsui & Co. (Asia Pacific) Pte Ltd	156	SMPT (under Michelin Group)
113	Mitsui & Co. Energy Trading Singapore Pte Ltd	157	Stemcor (S.E.A.) Pte Ltd
114	MST Golf (S) Pte Ltd	158	Stonex Asia Pte Ltd
115	Nanyang Technology University	159	Strong Petroleum Singapore Pte Ltd
116	NOBLE	160	SLS Bearings (S) Pte Ltd
117	Nova Furnishing Centre Pte Ltd	161	Stryker Singapore Pte Ltd
118	Novatek Gas & Power Asia Pte Ltd	162	Sudima International Pte Ltd
119	NTC Wismettac Singapore Pte Ltd	163	Sumitomo Corporation Asia & Oceania Pte Ltd
120	Olam International Limited	164	Summit Energy & Resources Pte Ltd
121	OM Materials (S) Pte Ltd	165	Sunfield Global Pte Ltd
122	Oriental Energy Pte Ltd	166	Swagelok
123	PaC Components Pte Ltd	167	Synesys Technologies Holdings Pte Ltd
124	Pamarine Pte Ltd	168	The Chemours Company Singapore Pte Ltd
125	Petredec International Pte Ltd	169	Thyssenkrupp Materials Trading Asia Pte Ltd
126	Petrochina International (S) Pte Ltd	170	Tionale Pte Ltd
127	Petroeast Singapore Pte Ltd	171	Tong Seng Produce Pte Ltd
128	Petrolimex Singapore Pte Ltd	172	Total Trading Asia Pte Ltd
129	Prosperity Steel United Singapore Pte Ltd	173	Trafigura Pte Ltd
130	PTT International Trading Pte Ltd	173	Tubetech Pte Ltd
131	Raffemet Pte Ltd	175	Unifine Chemical Pte Ltd
132	Recheer Resources (Singapore) Pte Ltd	176	United China Professional Insurance Brokers Ltd
133	Repsol Trading Singapore Pte Ltd	177	Vale International SA
134	Robust International Pte Ltd	178	Valency International Pte Ltd
135	Roche Singapore Pte Ltd	179	Viant Pte Ltd
136	ROHM Semiconductor Singapore Pte Ltd	180	Virgoz Oils & Fats Pte Ltd
137	Royal Golden Eagle	181	Vital Solutions Pte Ltd
138	RWE Supply & Trading Pte Ltd	182	Wah Joo Seng International Trading Pte Ltd
139	S.S. Balbir Bros. Pte Ltd	183	Wanxiang Sg Pte Ltd
140	Samsung Electronics		
141	Sealoud Asia Pte Ltd		
142	Serial System Pte Ltd		
143	Shagang International Singapore Pte Ltd		
144	Shanti Overseas Pte Ltd		
144	Sheer Technology Pte Ltd		

Impact skills analysis report

The Report: Impact and Skills Analysis

The next section covers the following jobs. Please click on the **PURPLE** box to go to the track directly.

MARKETING & BUSINESS DEVELOPMENT AND ANALYSIS

- HEAD OF MARKETING
- MARKETING MANAGER
- MARKETING EXECUTIVE
- MARKETING ASSISTANT/MARKETING COORDINATOR
- HEAD OF BUSINESS DEVELOPMENT
- BUSINESS DEVELOPMENT MANAGER
- SENIOR BUSINESS ANALYST / SENIOR MARKET RESEARCH ANALYST / SENIOR MARKET ANALYST
- BUSINESS ANALYST / MARKET RESEARCH ANALYST / MARKET ANALYST

SALES AND CUSTOMER SERVICE

- HEAD OF SALES
- SALES MANAGER
- SALES EXECUTIVE
- SALES ASSISTANT/SALES COORDINATOR
- CUSTOMER SERVICE OFFICER / SERVICE QUALITY ANALYST
- SALES ASSOCIATE/BRAND ASSOCIATE

TRADING

- HEAD OF DERIVATIVES TRADING
- DERIVATIVES TRADING MANAGER/SENIOR DERIVATIVES TRADER
- DERIVATIVES TRADER
- HEAD OF COMMODITIES TRADING
- COMMODITIES TRADING MANAGER/SENIOR COMMODITIES TRADER
- COMMODITIES TRADER

FINANCE AND REGULATION

- HEAD OF TRADE FINANCE
- TRADE FINANCE MANAGER
- SENIOR ANALYST / ANALYST, TRADE FINANCE
- HEAD OF CREDIT
- CREDIT MANAGER
- SENIOR ANALYST / ANALYST, CREDIT MANAGEMENT
- HEAD OF TREASURY
- TREASURY MANAGER
- SENIOR ANALYST/ ANALYST, TREASURY
- HEAD OF RISK
- RISK MANAGER
- SENIOR ANALYST/ ANALYST, RISK
- HEAD OF REGULATIONS AND TRADE CONTROLS
- REGULATIONS AND TRADE CONTROLS MANAGER
- SENIOR ANALYST/ ANALYST, REGULATIONS AND TRADE CONTROLS

OPERATIONS, PROCUREMENT AND SOURCING

- HEAD OF OPERATIONS
- OPERATIONS MANAGER
- CONTRACT SPECIALIST
- OPERATIONS EXECUTIVE
- OPERATIONS ASSISTANT/OPERATIONS COORDINATOR
- HEAD OF PROCUREMENT/HEAD OF SOURCING
- PROCUREMENT MANAGER/SOURCING MANAGER
- PROCUREMENT EXECUTIVE/SOURCING EXECUTIVE
- PROCUREMENT ASSISTANT/SOURCING ASSISTANT/ SOURCING COORDINATOR

LOGISTICS AND WAREHOUSE MANAGEMENT

- BUSINESS PROCESS EXCELLENCE ENGINEER / OPERATIONS SPECIALIST / INDUSTRIAL OPERATIONS ENGINEER
- LOGISTICS SOLUTIONS ANALYST
- LOGISTICS DATA MANAGEMENT COORDINATOR / DATA ENTRY COORDINATOR
- CHARTERER
- FREIGHT OFFICER
- DISPATCH OPERATOR/TRANSPORT OPERATOR/LAST MILE DELIVERY DRIVER/CONTAINER DRIVER
- WAREHOUSE OFFICER / INVENTORY CONTROLLER / QUALITY CONTROL OFFICER / WAREHOUSE FACILITIES MANAGEMENT OFFICER
- MATERIAL HANDLING EQUIPMENT (MHE) OPERATOR / FORKLIFT OPERATOR / WAREHOUSE ASSISTANT / INVENTORY ASSISTANT
- HEALTH, SAFETY AND ENVIRONMENTAL (HSE) COORDINATOR

A quick snapshot of how the analysis is presented (1/3)

For each job, the Impact Skills Analysis report will specify changes to its constituent tasks, how we foresee these tasks to be performed in the future, and the augmented skills required.



A quick snapshot of how the analysis is presented (2/3)

Job Name

Critical Work Functions (CWFs) are the **critical areas of responsibility** currently performed by the job

Description of **tasks** currently performed by the job

* Possible career transitions and movements within the WST sector; based on skills overlap and historical transition trends

HEAD OF MARKETING		
Level of Impact	Medium Impact	
Job Expectations within the next 3 years		
Critical Work Functions	Today	Within 3 Years
Develop marketing strategies	Establish marketing strategies for the development of KPIs to ensure alignment with overall organisational strategy	[NEW] Develop a marketing technology roadmap that includes marketing automation strategies that leverage AI, data analytics, CRM systems and mobile applications - Create opportunities for the disintermediation of the value chain through electronic media and digital commerce, aimed at increasing distribution efficiency and infomediaries that facilitate business-to-business traffic - Drive collaboration with other functional leaders from sales, business development and product teams to establish holistic marketing strategies that can maximise the organisation's value proposition [NEW] Leverage data analytics to identify customer segments and design customer experience strategies to improve touchpoints across the customer journey
Manage organisation and product branding	- Guide research parameters on market awareness, brand associations and public perceptions - Drive branding strategies and the development of guidelines to enhance brand reputation - Drive collaboration with Corporate Communications to develop mitigation strategies for external brand reputation risks	- Develop marketing methods that demonstrate clear linkages to business, brand associations, social media presence and public perceptions that demonstrate clear linkages to business outcomes - Drive the use of data analytics to develop customer-centric brands. Understand customer segments' reactions to update and or modify marketing strategies [AUGMENTED] Leverage data analytics and social media sentiment analysis to anticipate potential brand reputation risks and develop mitigation strategies in collaboration with Corporate Communications and Regulatory functions
Manage marketing channels	- Lead development of omni-channel initiatives in collaboration with internal and external stakeholders - Lead development of digital marketing strategies and marketing plans for adoption of digital marketing	- Develop multi-channel (digital and physical) marketing strategies to provide greater flexibility to customers while engaging the organisation. Build an omni-channel experience that seamlessly connects multiple channels to build customer loyalty and provide personalised customer experiences [NEW] Establish data-driven frameworks to measure effectiveness and ROI of physical & digital marketing channels in meeting performance goals

Illustration Only

Level of impact at a job family level

Description of future expectations. Tasks that **will be performed** by the role in the **next three years**. This will also include:

- Tasks that will be **augmented** i.e., enhanced
- Tasks that will be **substituted** and will no longer require human intervention
- New** emerging tasks

There are tasks with no tagging. These are tasks that will continue to take place over the next three years. However, some of these tasks will become more efficient due to technology adoption.

Job Adjacency					
WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Brand and Communication	Head of Business Development	Head of Operations	Head of Innovation	Head of Sales	Head of Strategy

* Possible career transitions and movements outside the WST sector; based on skills overlap and historical transition trends

*Given that the sector is diverse, readers should consider the nature of their sector while assessing the feasibility of listed job adjacencies. The adjacent jobs are presented in alphabetical order. Do note that the designation provided is for reference only. What is critical to note is the potential movement to other job families/sub tracks.

A quick snapshot of how the analysis is presented (3/3)

SKILL DIFFERENTIATORS	
Roles Specific	
SKILL	DESCRIPTIONS
Customer Experience Transformation	Develop the customer experience strategy defining the ideal customer experience. Eliminate pain points in the customer journey and enhance moments that matter. Strategise and guide the implementation roadmap for the customer experience and define the governance framework to track implementation.
Data Management / Security	Lead collaboration with technology teams to develop data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
Marketing Automation	Develop frameworks for marketing automation and guide workflows for complex processes such as lead qualification, lead scoring, lead routing and lead assignment.
Narrative Marketing	Develop marketing strategies for various customer segments, which involves engaging with customers and developing customer-centric content to create engagement and association with the brand.
Omni-channel Strategy Development	Develop communication strategies to optimise the use of multi-channel platforms to create an integrated and seamless customer experience that provides real-time, personalised interactions and services. Define metrics to monitor and evaluate the effectiveness of existing platforms and review new platform options.

Shows differentiated skills required in the next 3 years.

Brief description on changes expected beyond the next three years

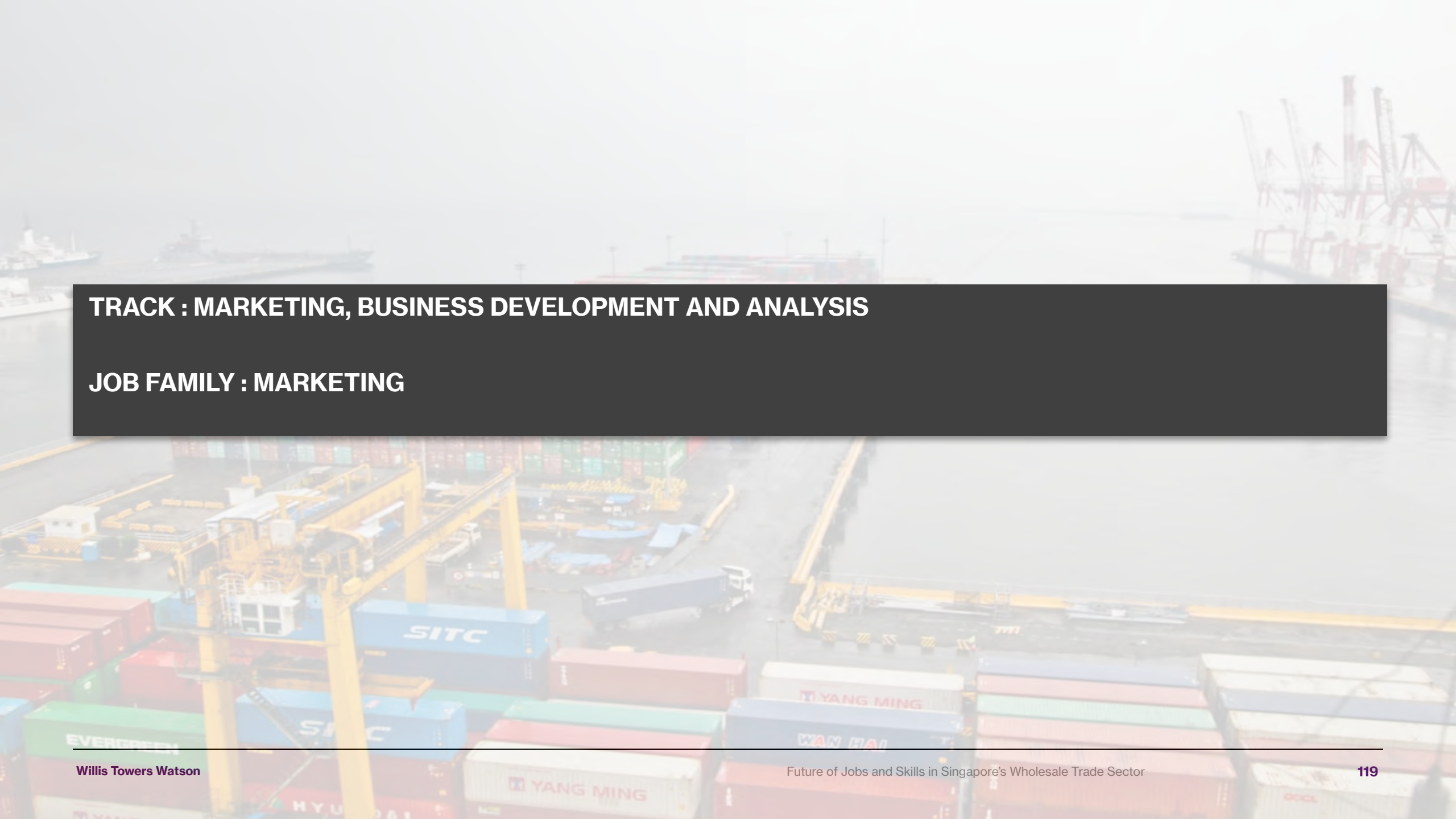
IN THE NEXT 3-5 YEARS...	The role will continue to focus on digital marketing strategies to drive marketing performance. The role will be expected to drive real-time data collation, which helps in understanding customer insights and information by integrating cloud technology and analytics, leading to an improved customer experience. As digital marketing acceptance and as electronic media becomes the primary form of communication with customers, the role will be expected to accelerate the move towards digital marketing.

Illustration Only

Important Note:

This section represents new/augmented skills required by the job holder.

The job holder will also be expected to possess traditional skills, as presented in the relevant Skills Framework.



TRACK : MARKETING, BUSINESS DEVELOPMENT AND ANALYSIS

JOB FAMILY : MARKETING

Job Family

MARKETING

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

In the age of global competition, earning customers' loyalty is becoming increasingly challenging. With increased access to information and technology, customers expect quicker response times to facilitate purchasing decisions. While wholesale trade is largely a B2B business, customers today are expecting a personalised experience that is similar to B2C businesses, with customised products as well as customised communication. The need for a personalised experience is causing marketing teams in B2B businesses to move away from one size fits all marketing and branding programmes.

In the coming years, the Marketing job family will be expected to take on innovative approaches to transform customer experience through enhanced marketing strategies that consider various customer segments, adopting technology and sustainable practices.

Digital platforms will gain momentum as a tool for delivering marketing campaigns that can provide real-time information on marketing strategies' efficacy. Increased adoption of AI and BI applications will reduce time spent handling basic customer service enquiries through chatbots and automated responses. AI and BI applications will also help analyse large volumes of data to better understand the target market and customer preferences, allowing marketing roles to focus on higher-value tasks. Examples of higher value tasks include increasing touchpoints with customers and improving the quality of services by leveraging data-driven insights.

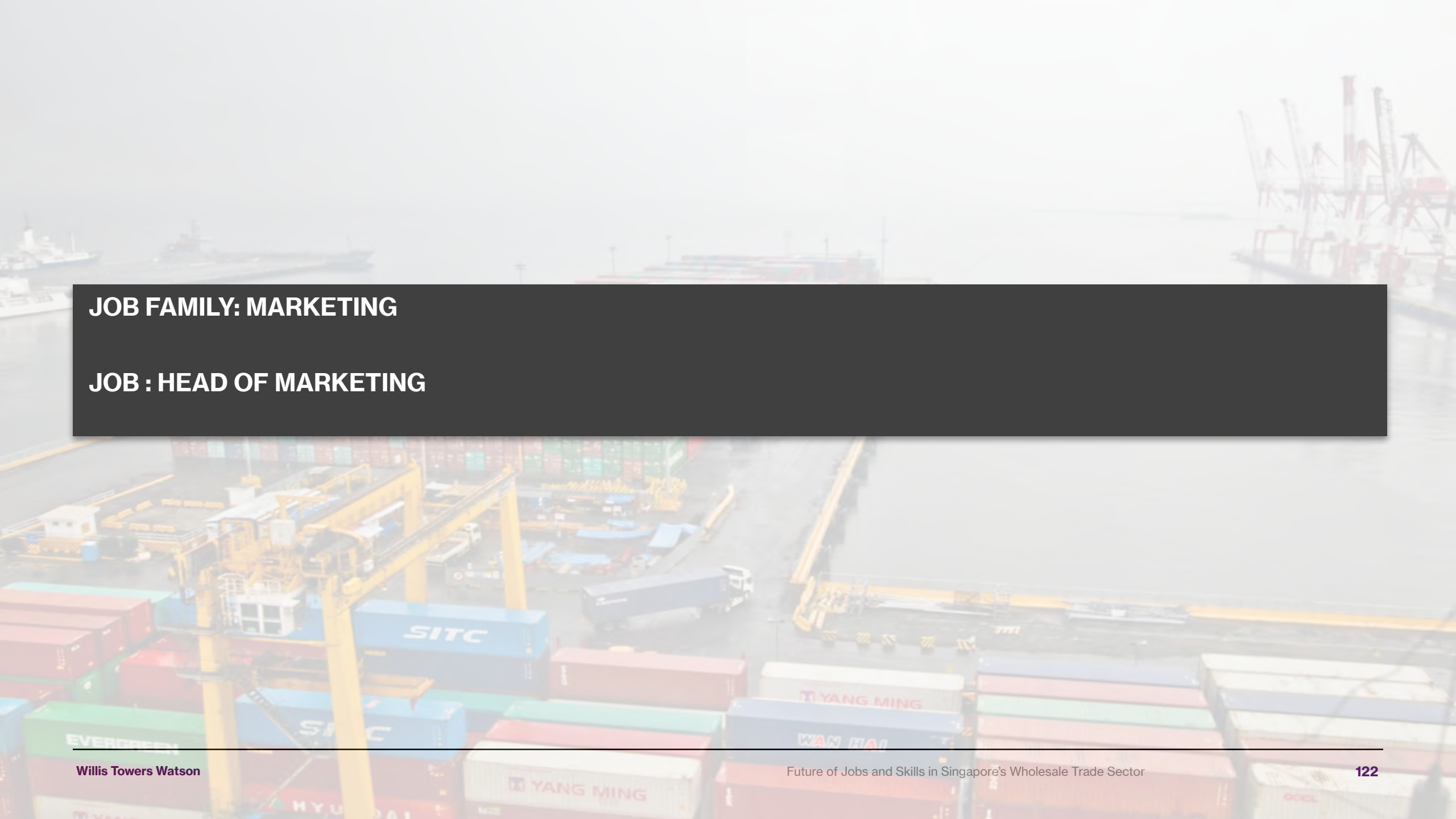
Omni-channel is expected to gain popularity as organisations move towards providing flexibility to customers on their chosen channel to purchase or communicate. The job family is expected to support the transformation of omni-channel sales and uncover new business opportunities. As digital commerce gains wider acceptance and as electronic media becomes the primary form of communication in the long-term future, the job family will be expected to not just remain as an enabling function but ensure it continues to provide sufficient value to clients.

Marketing campaigns that highlight the organisation's sustainability policies and practices will become essential for organisation branding. Examples of such marketing campaigns include highlighting the products' environmental friendliness, the organisation's local community outreach efforts, and its workplace safety and health policies.

These business changes will lead to changes in skills required. New or augmented skills like marketing automation, narrative marketing and omni-channel implementation are expected to become important.

Prevalent Technologies & Impact on Job Roles

	Artificial Intelligence	AI can be used for programmatic marketing as well as lead generation. Using AI, marketers can segment the customer database by analysing their purchasing behaviours and patterns to promote their goods.
	Business Intelligence Applications	BI applications can support report generation on the effectiveness of marketing channels, communication plans and digital marketing technologies. Data-driven insights from BI applications can help set wholesale product prices. BI applications can also measure the distribution channel's performance and help uncover new business opportunities.
	Customer Relationship Management System	CRM systems can be utilised by marketers to filter and segment the customer database, which aids in targeting profitable customers for future sales opportunities. This improves marketing outreach efforts and enhances engagement with wholesale customers, driving loyalty and retention.
	Digital Platform and Marketplaces	Digital platforms like B2B digital commerce platforms, B2B wholesale e-marketplaces and social media can be used by marketers to deploy marketing campaigns, build a digital presence and expand their customer base.
	Mobile Application	Mobile applications can be utilised by marketers to enable real-time communication and obtain feedback from business partners and customers on marketing campaigns, thus improving customer communication and experience.



JOB FAMILY: MARKETING

JOB : HEAD OF MARKETING

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop marketing strategies	Establish marketing strategies for the development of KPIs to ensure alignment with overall organisational strategy	[NEW] Develop a marketing technology roadmap that includes marketing automation strategies that leverage AI, data analytics, CRM systems and mobile applications - Create opportunities from the disintermediation of the value chain through electronic media and digital commerce, aimed at increasing distribution efficiency and infomediaries that facilitate business-to-business traffic - Drive collaboration with other functional leaders from the sales, business development and product teams to establish holistic marketing strategies that can differentiate the organisation's value proposition [NEW] Leverage data analytics to identify key customer segments and design customer experience strategies to improve touchpoints across the customer journey
Manage organisation and product branding	- Guide research parameters on market awareness, brand associations and public perceptions - Drive branding strategies and the development of guidelines to enhance brand reputation - Drive collaboration with Corporate Communications to develop mitigation strategies for external brand reputation risks	- Develop marketing metrics like market awareness, brand associations, social media presence and public perceptions that demonstrate clear linkages to business outcomes - Drive the use of data analytics to develop customer-centric brands. Understand customer segments' reactions to update and or modify various branding strategies [AUGMENTED] Leverage data analytics and social media sentiment analysis to anticipate potential brand reputation risks. Develop risk mitigation strategies in collaboration with Corporate Communications and Regulatory functions
Manage marketing channels	- Lead development of omni-channel initiatives in collaboration with internal and external stakeholders - Lead development of digital commerce strategies and marketing communication plans for adoption of digital platforms	- Design multi-channel (digital and physical) marketing strategies to provide greater flexibility to customers while engaging with the organisation. Build an omni-channel experience that seamlessly connects multiple channels to build customer intimacy and provide personalised customer experiences [NEW] Establish data-driven frameworks to measure effectiveness and ROI of physical & digital marketing channels in meeting performance goals

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage marketing campaigns	- Drive collaboration with business functions to develop marketing campaigns for new products - Lead development of marketing campaigns and oversee improvements based on feedback from business partners	[NEW] Drive educational marketing campaigns to raise customer awareness on the impact of products on the environment while highlighting the organisation's focus on social and environmental concerns and other emerging themes valued by customers - Drive the use of technology and data-driven insights to develop personalised marketing campaigns based on targeted customer groups, enhancing the effectiveness of marketing campaigns and digital commerce - Leverage mobile applications to obtain real-time feedback from business partners and customers, to modify and enhance marketing campaigns - Deploy marketing campaigns, build a digital presence and expand customer base through digital platforms and marketplaces
Drive collaboration of human resource, technology and finance initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in the organisation, allowing for useful and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives to uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Brand and Communication	Head of Business Development	Head of Operations	Head of Innovation	Head of Sales	Head of Strategy

SKILL DIFFERENTIATORS

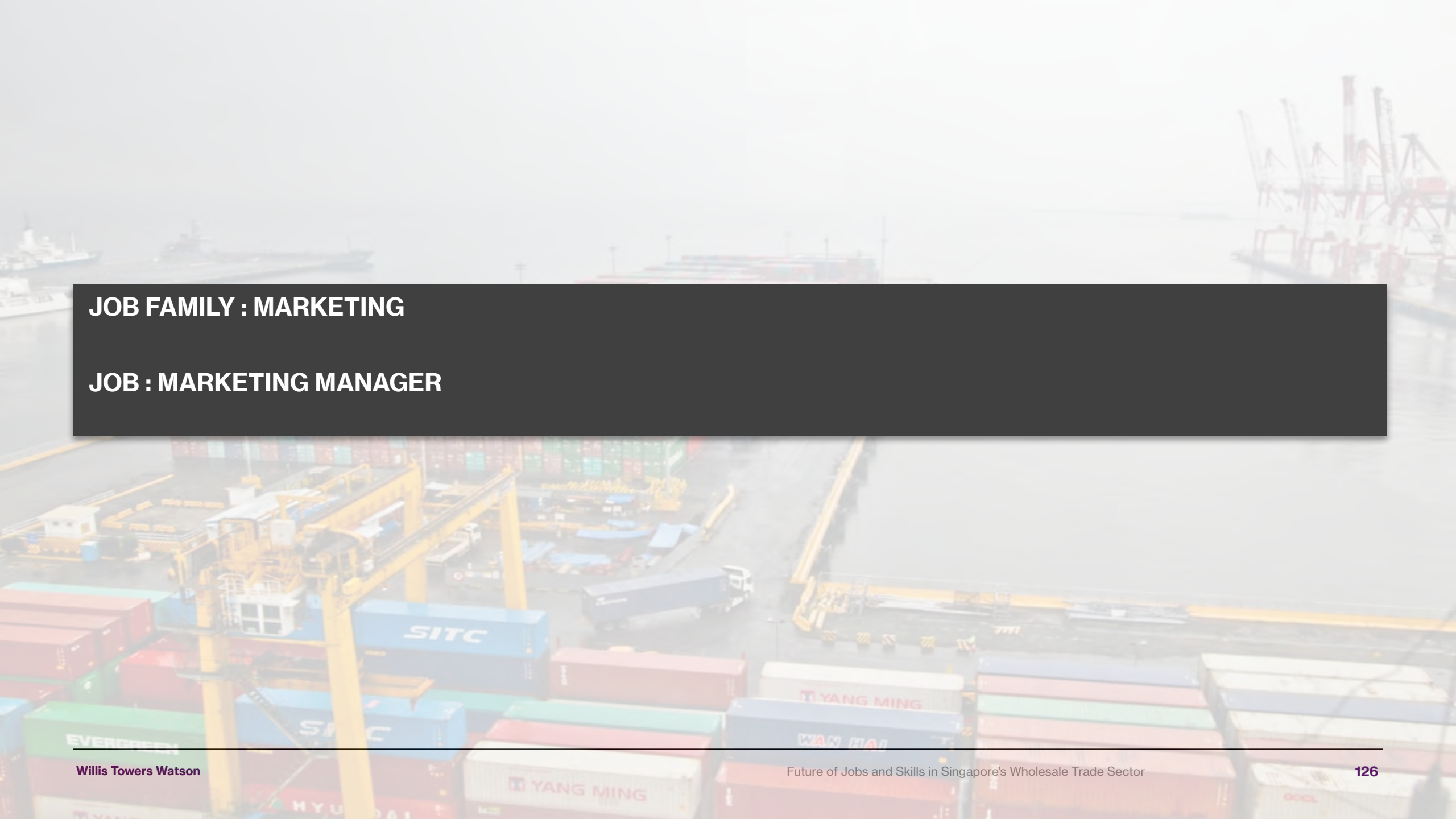
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Develop the customer experience strategy defining the ideal customer experience. Eliminate pain points in the customer journey and enhance moments that matter. Strategise and guide the implementation roadmap for the customer experience and define the governance framework to track implementation.
Data Management / Security	Lead collaboration with technology teams to develop data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
Marketing Automation	Develop frameworks for marketing automation and guide workflows for complex processes such as lead qualification, lead scoring, lead routing and lead assignment.
Narrative Marketing	Develop marketing strategies for various customer segments, which involves empathising with customers and developing customer-centric content to create engagement and association with the brand.
Omni-channel Strategy Development	Develop communication strategies to optimise the use of multi-channel platforms for an integrated and seamless customer experience that provides real-time, personalised interactions and services. Define metrics to monitor the performance of existing platforms and review new platforms to transform the customer experience.

IN THE NEXT
3-5 YEARS...

The role will continue to focus on digital marketing strategies to drive marketing efforts. The role will be expected to drive real-time data collation, which helps to provide real-time customer insights and information by integrating cloud technology in marketing strategies, leading to an improved customer experience. As digital commerce gains wider acceptance and as information transparency enables end customers to be better informed, the role will be expected to create value and opportunities from the disintermediation of the value chain.

[BACK TO LIST OF JOBS](#)

An aerial view of a busy port. In the foreground, there are stacks of colorful shipping containers (blue, red, green, white) with logos like SITC, EVERGREEN, and YANG MING. Yellow gantry cranes are positioned over the containers. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is hazy.

JOB FAMILY : MARKETING

JOB : MARKETING MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop marketing strategies	- Develop marketing implementation plans and KPIs in alignment with marketing strategies - Develop industry findings to establish target profiles, marketing and engagement strategies	[NEW] Perform customer segmentation through data analytics and implement customer experience strategies [NEW] Explore opportunities to optimise the customer experience across various touchpoints along the customer journey - Evaluate the feasibility of adopting technologies such as AI, data analytics, CRM systems and mobile applications in marketing strategies and efforts - Define relevant metrics and KPIs to assess the effectiveness of customer experience programmes in meeting customers' needs - Develop marketing implementation plans that differentiate the organisation's value proposition and ensure sufficient value is created through usage of electronic media, digital commerce and infomediaries - Engage other functional leaders from the sales, business development and product teams to obtain buy-in on marketing implementation plans that align with holistic marketing strategies and future needs
Manage organisation and product branding	- Develop research parameters on market awareness, brand associations and public perceptions - Develop branding implementation plans and guidelines in alignment with branding strategies - Collaborate with Corporate Communications to manage brand reputation risks	- Support the development of marketing metrics like market awareness, brand associations, social media presence and public perceptions that demonstrate clear linkages to business outcomes - Apply data analytics to understand the response of various customer segments to branding strategies, enabling programmes that are in-tune with customers' needs and desires - Leverage data analytics and social media sentiment analysis to identify and mitigate potential brand reputation risks. Implement risk mitigation strategies in collaboration with Corporate Communications and Regulatory functions
Manage marketing channels	- Develop omni-channel initiatives for engagement with internal and external stakeholders - Develop digital commerce and marketing communication plans to increase engagement and use of technology	- Develop plans to implement multi-channel strategies (digital and physical) and build an omni-channel experience where multiple channels are seamlessly connected to enhance customer intimacy and provide personalised customer experiences - Leverage digital tools, systems, platforms and marketplaces to support the needs of marketing channels, increase engagement and enable real-time communication [NEW] Propose relevant metrics and ROI indicators to assess the effectiveness of physical and digital marketing technologies in meeting performance goals

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage marketing campaigns	- Facilitate collaboration with business functions to conceptualise marketing approaches for new products - Review campaign collaterals for alignment with marketing campaign themes	[NEW] Develop and manage educational marketing campaigns to raise customers awareness on the impact of products on the environment while highlighting the organisation's focus on social and environmental concerns, sustainable sourcing practices, and other emerging themes valued by customers - Apply technology such as digital marketing and data-driven insights to develop personalised marketing campaigns based on targeted customer groups for effective marketing campaigns and digital commerce - Deploy marketing campaigns, build a digital presence and expand customer base through digital platforms and marketplaces - Use mobile applications to gather feedback on marketing campaigns proactively
Drive collaboration of human resource, technology and finance initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Key Account Manager	Operations Manager	Sales Manager	Data Analytics Lead	Product Manager	Program/Project Manager

SKILL DIFFERENTIATORS

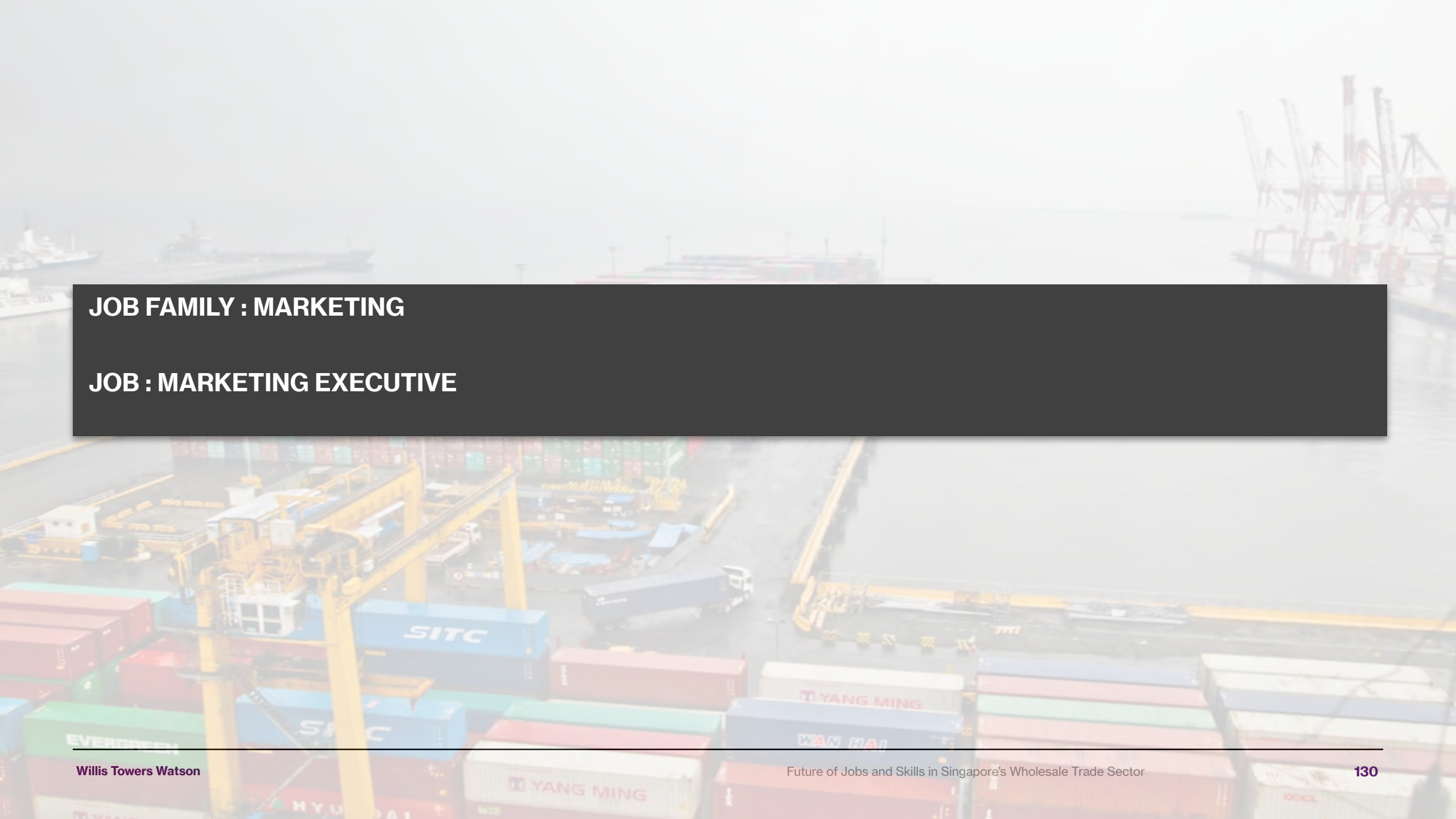
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Develop the roadmap for implementing the customer experience strategy, including process changes, technology investments and capabilities required. Lead the implementation initiatives as per the roadmap and define the metrics to track customer experience.
Data Management / Security	Collaborate with technology teams to understand data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
Marketing Automation	Develop automation workflows across campaigns and initiatives, providing insights on tools and techniques to enhance the movement of leads and defining metrics for measuring campaign performance.
Narrative Marketing	Develop a detailed understanding of the needs, wants, and aspirations of the different customer segments to guide the development of narratives and content and ensure alignment across all platforms.
Omni-channel Strategy Development	Adopt omni-channel communication approaches across various programmes and initiatives to drive real-time, personalised customer experience. Develop insights from the measurement of engagement, conversion, service delivery costs and efficiency across channels and modify the communication approach accordingly.

IN THE NEXT
3-5 YEARS...

The role will be proficient in developing digital marketing plans and initiatives that integrate new technologies. The role will be expected to identify ways to automate routine marketing tasks and develop automated processes that can deliver targeted campaigns to customers and, at the same time, reach a wider base. The role will also be expected to manage real-time data collation to enable real-time customer insights and information by leveraging cloud technology in marketing strategies, leading to an improved customer experience. As digital commerce gains wider acceptance and as information transparency enables end customers to be better informed, the role will be expected to support value creation from the disintermediation of the value chain.

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JOB FAMILY : MARKETING

JOB : MARKETING EXECUTIVE

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement marketing strategies	- Monitor KPIs throughout marketing implementation - Analyse industry landscape and buyer and seller demographics to support the development of findings	[AUGMENTED] Leverage AI-enabled platforms and data analytics to monitor KPIs linked to marketing programmes - Analyse various metrics and variables such as customer needs and engagement levels to derive insights on customer experience and support the development of personalised marketing initiatives [NEW] Support customer segmentation efforts and provide suggestions on improvement opportunities [NEW] Research new technologies that can improve customer engagement and automate marketing processes. Support the automation of administrative and operational marketing activities and processes [NEW] Research sustainability trends that enhance marketing initiatives and impact
Manage organisation and product branding	- Conduct research on brand awareness, associations and public perceptions - Execute branding implementation plans per guidelines across internal and external stakeholders - Work with Corporate Communications to support mitigation plans on reputation risks	[AUGMENTED] Leverage AI and ML to monitor brand perception messages across marketing platforms. Use SEO to enhance the distribution of brand messages and campaigns to various audiences [AUGMENTED] Identify insights through data analytics to understand the response of various customer segments towards branding strategies and support the development of branding initiatives aligned with customers' needs and desires [NEW] Engage existing and new customers by building and managing communities across digital platforms such as social media - Work with Corporate Communications and Regulatory functions to identify potential reputation risks by combining real-time data with social media sentiment analysis
Manage marketing channels	- Execute omni-channel initiatives and support working-level relationships with stakeholders - Execute digital commerce implementation and marketing communication plans as well as maintain digital platforms - Analyse marketing channel performance to propose enhancements	- Create customised narratives and communication content for physical and digital marketing channels to enhance customer engagement - Support omni-channel initiatives and the deployment of marketing communication plans across digital platforms and marketplaces to increase customer engagement and obtain real-time feedback [NEW] Analyse relevant metrics and ROI indicators to assess the effectiveness of physical and digital marketing channels and propose enhancements accordingly

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage marketing campaigns	- Collaborate with business functions and agencies to develop marketing campaign collaterals - Analyse performance of marketing campaigns to identify areas of improvement	[NEW] Develop content for educational marketing campaigns to raise customer awareness on the impact of products on the environment while highlighting the organisation's focus on social and environmental concerns, sustainable sourcing practices, and other emerging themes valued by customers - Work with business functions and agencies to create marketing content and implement programmatic marketing campaigns [NEW] Implement personalised marketing campaigns based on data-driven insights to enhance customer engagement [NEW] Analyse and measure the impact and effectiveness of marketing campaigns based on SEO and real-time feedback obtained through mobile applications and social media
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects and advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Accounts Executive	Business Development Executive	Customer Relations Executive	Accounts Executive	Business Intelligence Executive	Corporate Communications Executive

SKILL DIFFERENTIATORS

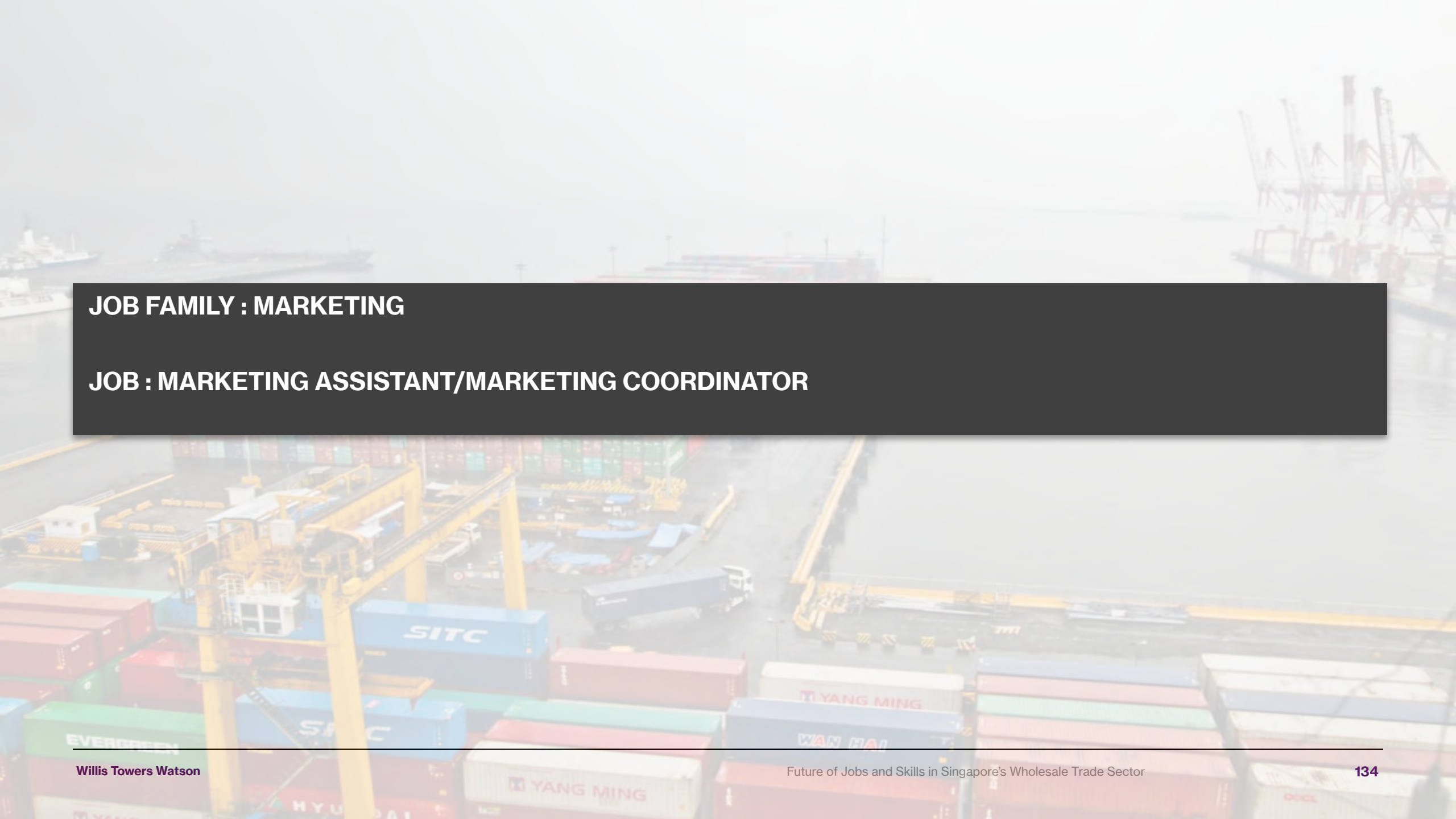
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Data Management / Security	Utilise data securely and follow protocols to protect it from unauthorised access and cybersecurity risks.
Marketing Automation	Apply marketing automation tools and techniques to convert prospects into customers by monitoring customers' response and qualifying leads by measuring their engagement. Review the campaign performance, such as open or click-through rates, conversion rates etc., to suggest improvements.
Narrative Marketing	Develop data-based insights to provide inputs for the needs, wants and aspirations of the different customer segments and develop drafts of the narrative and content for various marketing initiatives.
Omni-channel Strategy Implementation	Apply principles of omni-channel communication to ensure integrated and seamless customer experience across the interactions and services. Monitor the communications and suggest changes to enhance experience and engagement through new content or channels.

IN THE NEXT
3-5 YEARS...

The role will execute digital marketing initiatives. Technologies such as AI and ML will significantly augment role expectations with the automation of routine processes. The role will, therefore, have more time to analyse marketing campaigns and obtain insights. To value-add, the role will focus on identifying ways to increase the organisation's reach in target markets and customer segments and drive demand-generation campaigns.

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JOB FAMILY : MARKETING

JOB : MARKETING ASSISTANT/MARKETING COORDINATOR

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement marketing strategies	Consolidate research information to support report generation on industry landscape, demographics and customer touchpoints	[AUGMENTED] Leverage BI applications to support report generation on the effectiveness of marketing channels, communication plans and digital marketing technologies - Create dashboards that provide actionable insights into marketing campaigns' performance, which can enhance marketing initiatives. [NEW] Support customer segmentation efforts and execute customer experience programmes using technology, such as mobile applications and social media
Manage organisation and product branding	- Support branding implementation plans per guidelines and collects feedback - Assist in updating the organisation's digital marketing channel content in alignment with brand guidelines	[AUGMENTED] Use SEO to enhance the distribution of brand messages and campaigns to various audiences. - Use AI and ML to collate, clean and check data to support research on brand awareness, association and public perceptions [NEW] Support the development and implementation of branding initiatives across segmented customer groups using various communication platforms [NEW] Support customer community management across digital platforms such as social media
Manage marketing channels	- Support omni-channel initiatives and marketing channel enhancements - Support digital commerce implementation and marketing communication plans, and generate reports on performance - Support internal stakeholder engagement to adopt digital marketing technologies	- Support the creation of customised narratives and communication content for various marketing channels based on the needs of customers - Support omni-channel initiatives and marketing communication plans delivered via digital platforms and marketplaces - Analyse the effectiveness of marketing channels, communication plans and technologies using real-time data

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement marketing campaigns	- Support the development of marketing campaign themes and collaterals - Consolidate performance data of marketing campaigns	[NEW] Support the development of materials for educational marketing campaigns to raise customer awareness on the impact of products on the environment while highlighting the organisation's focus on social and environmental concerns, sustainable sourcing practices, and other emerging themes valued by customers - Support the implementation of personalised marketing campaigns to enhance customer engagement - Support the analysis of marketing campaigns' effectiveness and provide suggestions for improvement
Support application initiatives	- Operate new technologies, electronic tools and devices to improve operations in own work areas - Support the review of work processes and procedures to improve work performance	- Operate new technologies, electronic tools and devices to improve operations in own work areas - Support the review of work processes and procedures using data analytics to provide data-driven insights on work performance

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Development Coordinator	Logistics Coordinator	Project Coordinator	Customer Experience Coordinator	Events Coordinator	Sales Coordinator

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Data Management / Security	Utilise data securely and follow protocols to protect it from unauthorised access and cybersecurity risks.
Marketing Automation	Apply marketing automation tools and techniques to convert prospects into customers by monitoring customers' response and qualifying leads by measuring their engagement. Review the campaign performance, such as open or click-through rates, conversion rates etc., to suggest improvements.
Narrative Marketing	Develop data-based insights to provide inputs for the needs, wants and aspirations of the different customer segments and develop drafts of the narrative and content for various marketing initiatives.
Omni-channel Strategy Implementation	Apply principles of omni-channel communication to ensure integrated and seamless customer experience across the interactions and services. Monitor the communications and suggest changes to enhance experience and engagement through new content or channels.

IN THE NEXT 3-5 YEARS...

Technologies such as AI and ML will significantly augment role expectations with the automation of routine processes, enabling the role to focus more on developing insights from real-time data to enhance marketing initiatives and channels' effectiveness. As more tasks within the role become substituted or highly augmented by technology, the role could become redundant, be outsourced to a cheaper location, or even merged with another role.

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An aerial view of a busy port. In the foreground, there are stacks of colorful shipping containers (red, blue, green, white) with logos like SITC, EVERGREEN, and YANG MING. Yellow gantry cranes are positioned over the containers. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is hazy.

TRACK : MARKETING, BUSINESS DEVELOPMENT AND ANALYSIS

JOB FAMILY : BUSINESS DEVELOPMENT AND ANALYSIS

Job Family

BUSINESS DEVELOPMENT AND BUSINESS PLANNING AND ANALYSIS

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

As more B2B customers seek a high-quality experience, providing a personalised experience to business partners is expected to become a priority for this job family so that the business remains competitive. As a result, roles within this job family will be expected to develop and implement targeted business development strategies that align with the organisation's goals and strategy and are also closely aligned to the needs and requirements of business partners and customers.

Sales and relationship management via digital channels will gain greater acceptance, and hence there will be a need to formalise digital channel strategies and policies to deliver the organisation's value propositions to target customers. The business development job family will also be expected to proactively consider social and environmental concerns when forming business partnerships to ensure partners, suppliers, and vendors share similar values.

Given the requirement around personalised experience to stakeholders, the job family is expected to have an in-depth knowledge of stakeholder needs and various technologies to support these needs. The function will be expected to utilise quantitative and qualitative data to generate insights on business development strategies. Technologies like AI and BI applications will assist in data collection and drive data-driven insights to aid decision-making on business opportunities. There will be a significant focus on building cross-selling opportunities by analysing customers' buying patterns and behavioural data. Given the universal cost pressures, the job family will need to build data-driven frameworks to measure business development initiatives' effectiveness and ROI in achieving organisational objectives.

As the dependence on technology increases, skills and knowledge in advanced data analytics, data management/security and digital channel development will become integral. Cross-cultural competence will also gain importance as roles within this job family engage in partnerships beyond the local market.

Prevalent Technologies & Impact on Job Roles

	Artificial Intelligence	AI can be used to identify trends that can substantiate research on new markets, customer segments, partners and product categories. AI is adept at processing and analysing troves of data very quickly, therefore, it can also be used to forecast demand as it predicts a customer's likely purchase based on past data. With AI, business development roles will be able to better manage their time and follow up on priority accounts that have a higher probability of conversion (from leads to customers).
	Advanced Data Analytics	Advanced data analytics can be leveraged to identify cross-selling opportunities based on customers' buying patterns and behaviours. Advanced data analytics allows business development roles to understand business dynamics better, enabling faster decision-making.
	Business Intelligence Applications	BI applications can generate insights into the effectiveness of business development strategies through dashboards and reports. BI applications can also be deployed to perform a SWOT analysis and conduct performance tracking, allowing business development roles to be informed of any potential business problems and establish SMART targets.
	Customer Relationship Management system	CRM systems can be utilised by business development teams to improve organisations' relationships with new and existing customers, driving a more productive conversation. Business development roles can use CRM systems to receive real-time updates on customer intelligence, insights, and trend reports to drive regular and relevant customer engagements programmes. CRM systems can also be used to improve the visibility of sales pipelines.
	Digital Communication Platform	Digital communication platforms can be used to enhance the effectiveness of new business development initiatives. These platforms can also be used to form strong partnerships with industry partners and formalise new business agreements and ventures.



JOB FAMILY : BUSINESS DEVELOPMENT AND ANALYSIS

JOB : HEAD OF BUSINESS DEVELOPMENT

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions

Today

Within 3 Years

Develop business development strategies

- Establish business development strategies and KPIs to ensure alignment with overall organisational strategy
- Guide development of business intelligence frameworks for research on potential opportunities and threats
- Lead internal collaborations to develop plans for new business opportunities

- Leverage **data analytics** to design and drive business development plans. Build KPIs that are in alignment with the overall organisation strategy
- **[NEW]** Collaborate closely with other business leaders on **build vs buy decisions** on the integration of technology tools and systems
- Guide the integration of tools, systems and processes to enhance the decision-making process for business development
- Lead developmental plans for **new value propositions**, enabling greater customer outreach through technology and cross-cultural/regional understanding
- **[NEW]** Establish **data-driven frameworks** to measure the effectiveness and ROI of business development initiatives in achieving organisational objectives

Enhance current business portfolio

- Drive collaboration to identify opportunities for portfolio enhancement and business processes optimisation
- Lead discussions with Trading departments on trading research parameters
- Lead relationship building with industry players and leverage network for business opportunities

- Drive the use of **data analytics** to identify opportunities for portfolio enhancement and business processes optimisation. Collaborate with various stakeholders to build new business opportunities and drive process changes
- Leverage real-time insights on the economy and market obtained from **AI platforms** and **data analytics** to lead discussions with the trading department on trading research parameters that support exploration and diversification of portfolio
- Develop strong partnerships with industry partners for potential ventures in the future
- Drive the implementation of **CRM systems** for **real-time updates** on customer intelligence. Use insights to drive regular customer engagements and improved business development results
- **[NEW]** Establish a **digital channel strategy** to drive the use of technology, such as **mobile applications**, to provide a seamless service experience for business partners

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Explore new business opportunities	- Lead new business opportunity initiatives and strategise on approaches to drive cost-benefit analysis - Drive product offerings research initiatives to predict future impacts on production - Formalise new business agreements and ventures with identified stakeholders, considering regulatory restrictions	- Strategise entry and penetration into new markets through cost-benefit analysis and understanding of cultural, geopolitical and local market nuances - Drive product research, with a focus on sustainable products, to diversify business portfolios and manage risks [NEW] Strategise cross-selling opportunities through the analysis of customers' buying patterns and behavioural data, as well as product insights - Drive the use of various digital communication platforms like CRM to manage customer interaction and generate insights and trend reports to formalise new business agreements and ventures
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives to uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Commercial Office	Head of Customer Analytics	Head of Strategy	Head of Customer Success	Head of Partnerships / Alliances	Head of Transformation

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Review the efficacy of predictive analytics models and evaluate outputs for business and/or functional strategy formulation.
Cross-Cultural Competence	Drive strategies to develop cultural intelligence and sensitivity to foster strong relationships with customers and business partners.
Customer Experience Transformation	Develop the customer experience strategy defining the ideal customer experience. Eliminate pain points in the customer journey and enhance moments that matter. Strategise and guide the implementation roadmap for the customer experience and define the governance framework to track implementation.
Data Management / Security	Lead collaboration with technology teams to develop data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
Digital Channel Development	Formulate digital channel strategies and policies to deliver the organisation's value proposition to the target customer and review the digital channels' effectiveness in terms of returns on investments.

IN THE NEXT
3-5 YEARS...

There will be an increased emphasis on the role to develop integrated business strategies that use technology for communication and relationship building. The key focus of the role would be on driving continuous research on new products and exploring new business opportunities which consider sustainability and market changes. There will be an expectation for this role to drive personalised experiences for business partners in the future. This role will require an in-depth understanding of technologies and data to understand stakeholders' needs to develop targeted business development initiatives. In the future, the role will continue to require overseas exposure as companies pursue their international business expansion goals.

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JOB FAMILY : BUSINESS DEVELOPMENT AND ANALYSIS

JOB : BUSINESS DEVELOPMENT MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop business development strategies	- Develop business development plans and business reports to ensure alignment with business development strategies - Assess the feasibility of business development pursuits and KPIs for integration into implementation plans - Facilitate internal stakeholders' engagement to support implementation plans for new portfolio adoption	[AUGMENTED] Leverage data analytics to develop business development plans. Guide the articulation of intelligent business reports that provide insights and recommendations to improve business results [NEW] Work closely with the team to assess the requirements of technology tools and solutions to implement new business development initiatives - Support the integration of tools, systems and processes to enhance the decision-making process for business development - Develop new value propositions which enable greater customer outreach through technology and cross-cultural/regional understanding - Identify relevant metrics and ROI indicators to assess the feasibility and effectiveness of business development initiatives
Enhance current business portfolio	- Collaborate with internal stakeholders and obtain their feedback to assess gaps and business opportunities, - Integrate new technologies for enhancing business performance and processes - Develop demand creation strategies. Expand the business network to meet market demands and support partnership strategies	- Leverage data analytics to identify business gaps, opportunities for portfolio enhancement and business process optimisation. Build a working level relationship with stakeholders to support new business opportunities and process changes - Build strong relationships with industry players for potential ventures in the future [AUGMENTED] Lead the use of CRM systems to access real-time customer intelligence. Use insights to conduct regular and relevant customer engagements for business development [NEW] Leverage communication platforms, such as mobile applications and social media, to communicate and provide a seamless service experience for business partners and at the same time, obtain a real-time understanding of stakeholders' needs

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Explore new business opportunities	- Leverage business networks to identify new business opportunities and developments in product offering - Review cost-benefit analyses to inform new business venture proposals and decisions - Review due diligence reports and regulatory restrictions and engage with identified stakeholders on new business ventures	- Review business development decisions based on cost-benefit analyses and understanding of cultural, geopolitical and local market nuances - Leverage business networks as well as real-time market insights to diversify business portfolios and manage risks [NEW] Identify cross-selling opportunities through the analysis of customers' buying patterns and behavioural data, as well as product insights [SUBSTITUTED] Regulatory technology to help automate compliance checking and reduce risks while speeding up the process of new business ventures - Use digital communication platforms like CRM to manage customer interaction and generate insights and trend reports to convert new business opportunities
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that align with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Customer Experience Manager	Lead Business Analyst	Product Manager	Brand Manager	Marketing Manager	Project Manager

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Develop predictive analytics models using statistics, data mining, modelling, machine learning and data visualisation to develop insights to influence stakeholders' decision making and improve business/functional performance.
Cross-Cultural Competence	Facilitate cultural intelligence programmes and share own experiences to provide practical approaches for managing complex situations such as negotiations and complaint handling with customers and business partners from other cultures.
Customer Experience Transformation	Develop the roadmap for implementing the customer experience strategy, including process changes, technology investments and capabilities required. Lead the implementation initiatives as per the roadmap and define the metrics to track customer experience.
Data Management / Security	Collaborate with technology teams to understand data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
Digital Channel Development	Evaluate various digital channels' potential and develop plans for developing these channels to build awareness, engagement, conversion, and loyalty among customers. Analyse the performance of the digital channels to identify opportunities for improvement.

IN THE NEXT 3-5 YEARS...

As business development digitalises, the role will support the development of integrated business strategies and the adoption of new technologies for communication and relationship building. The role will lead product and market research to diversify business portfolios and explore potential business opportunities by understanding market conditions, customer segments, cultures and sustainability-related initiatives. The role will use various communication tools to provide personalised experiences to business partners while leading the implementation of business development and partnership initiatives. In the future, the role will have an enhanced need for overseas exposure as companies pursue their international business expansion goals.

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JOB FAMILY : BUSINESS DEVELOPMENT AND ANALYSIS

JOB : SENIOR BUSINESS ANALYST / SENIOR MARKET RESEARCH ANALYST / SENIOR MARKET ANALYST

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement business development strategies	- Support business development plans and conduct research reports informing business strategies - Develop quantitative measures and analyse the impact on business and KPIs - Build business intelligence frameworks and provide working-level support, to execute implementation plans for new business opportunities	- Build intelligent business reports that provide insights and recommendations using BI applications to improve business results [AUGMENTED] Support the integration of business systems and processes to enhance the decision-making process for business development [NEW] Work closely with other business functions to set up data integration tools that support business development initiatives - Provide working-level support in the assessment of technologies like CRM systems, dashboard software and digital communication platforms to enhance the effectiveness of new business development initiatives
Enhance current business portfolio	- Perform quantitative assessments to analyse gaps and opportunities - Conduct scenario analysis to assess the suitability of new technologies and simulate optimised business processes - Analyse market trends and buyer and seller data to support demand creation strategies. Provide relevant insights to the trading department	- Perform quantitative and qualitative assessments based on data-driven insights and metrics to identify business gaps and opportunities - Conduct scenario analysis using real-time data and advanced analytics to assess the suitability and effectiveness of new technologies in optimising business processes [AUGMENTED] Use AI-powered systems and ML to conduct web crawling of market data and automate report generation informing buy, sell or hold recommendations for trading department - Analyse reports based on trading research parameters and provide inputs to support demand creation strategies and trade decisions [NEW] Leverage communication platforms, such as mobile applications and social media, to communicate and provide a seamless service experience for business partners and at the same time, obtain a real-time understanding of stakeholders' needs
Explore new business opportunities	- Conduct research on the market and economic landscape, as well as new developments in product offerings, to identify new business opportunities - Conduct research and cost-benefit analysis to support potential business ventures - Conduct due diligence reports and regulatory restrictions on new business ventures	- Leverage BI applications to analyse reports on the market and economic landscape, as well as stakeholders' needs, to obtain data-driven insights on potential business opportunities - Conduct product research and cost-benefit analysis to support the growth of potential business ventures [NEW] Leverage data analytics and ML for regulatory monitoring to conduct of initial compliance checks and reduce risks

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Propose the department's financial budgeting process and fund's utilisation against department work plan - Implement department's training (on-the-job of new hires) and recruitment initiatives - Manage corporate governance measures - Recommend the use of technology for process improvement and innovation	- Support the department's financial budgeting process and fund's utilisation through data analytics and the use of BI applications to automate reporting - Collaborate closely with the HR function to implement training (on-the-job of new hires) and recruitment initiatives - Implement initiatives that align with the organisation's ESG strategy - Apply technology and design thinking for process improvement and innovation

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Assistant Manager, Operations	Assistant Manager, Sales	Data Analytics Specialist	Assistant Manager, Operations	Senior Change Analyst	Senior Marketing Analyst

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Produce data-driven insights to improve business and/or functional performance by cleaning and organising large datasets and applying data mining and analytics techniques.
Cross-Cultural Competence	Develop an awareness of other cultures and use techniques to build trust, credibility and relationships with customers and business partners.
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Data Management / Security	Utilise data securely and follow protocols to protect it from unauthorised access and cybersecurity risks.
Digital Channel Development	Execute digital channel activities across platforms and analyse the defined metrics for measuring the channels' effectiveness. Proactively seek and evaluate innovative opportunities to enhance customer engagement through the use of digital channels.

IN THE NEXT
3-5 YEARS...

As business development digitalises, the role will continue to conduct quantitative and qualitative analysis using data to support the development of integrated business strategies. The role will support product and market research to assist with the diversification of business portfolios and explore potential business opportunities by understanding market conditions, customer segments, cultures and sustainability-related initiatives. The role will use various communication tools to enable real-time, easy-to-access feedback from stakeholders and partners for analysis to improve personalised experiences for various stakeholders iteratively.

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JOB FAMILY : BUSINESS DEVELOPMENT AND ANALYSIS

JOB : BUSINESS ANALYST / MARKET RESEARCH ANALYST / MARKET ANALYST

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement business development strategies	- Consolidate information to support the analysis of quantitative impacts on the business for reporting - Support the execution of implementation plans for new business opportunities - Collect business data to support business intelligence framework development	- Support the adoption and use of integrated business systems and processes to continually update customer data, enabling data-driven decision-making for business development - Leverage BI applications to automate the generation of business intelligence reports [AUGMENTED] Support the execution of business development initiatives using digital channels
Enhance current business portfolio	- Collate and prepare data on business performance for analysis - Support research on market trends and buyer and seller data to support analysis	[SUBSTITUTED] Use AI and ML to collate, clean and check data in order to analyse business performance - Provide initial inputs on business gaps and opportunities through data-driven insights obtained from continuous real-time feedback [AUGMENTED] Use AI-powered systems and ML to conduct web crawling and research on market trends and buyer and seller data to provide information on buy, sell or hold recommendations for the trading department - Utilise CRM systems to access real-time customer information and support targeted customer engagement [NEW] Use digital communication platforms such as mobile applications to provide a seamless service experience for business partners and address their needs
Explore new business opportunities	- Generate reports on findings gathered from market research activities - Consolidate and prepare data on new developments in product offerings, to support market demand research reports - Consolidate and prepare data to support cost-benefit analysis and due diligence reports on new business ventures	[SUBSTITUTED] Use AI and ML to collate, clean and check data to analyse product offerings and due diligence reports [NEW] Provide suggestions on potential cross-selling opportunities based on customers' buying patterns and behavioural data, as well as product insights

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Analyst	Operations Analyst	Product Analyst	Consulting Analyst	Data Analyst	Project Analyst

SKILL DIFFERENTIATORS

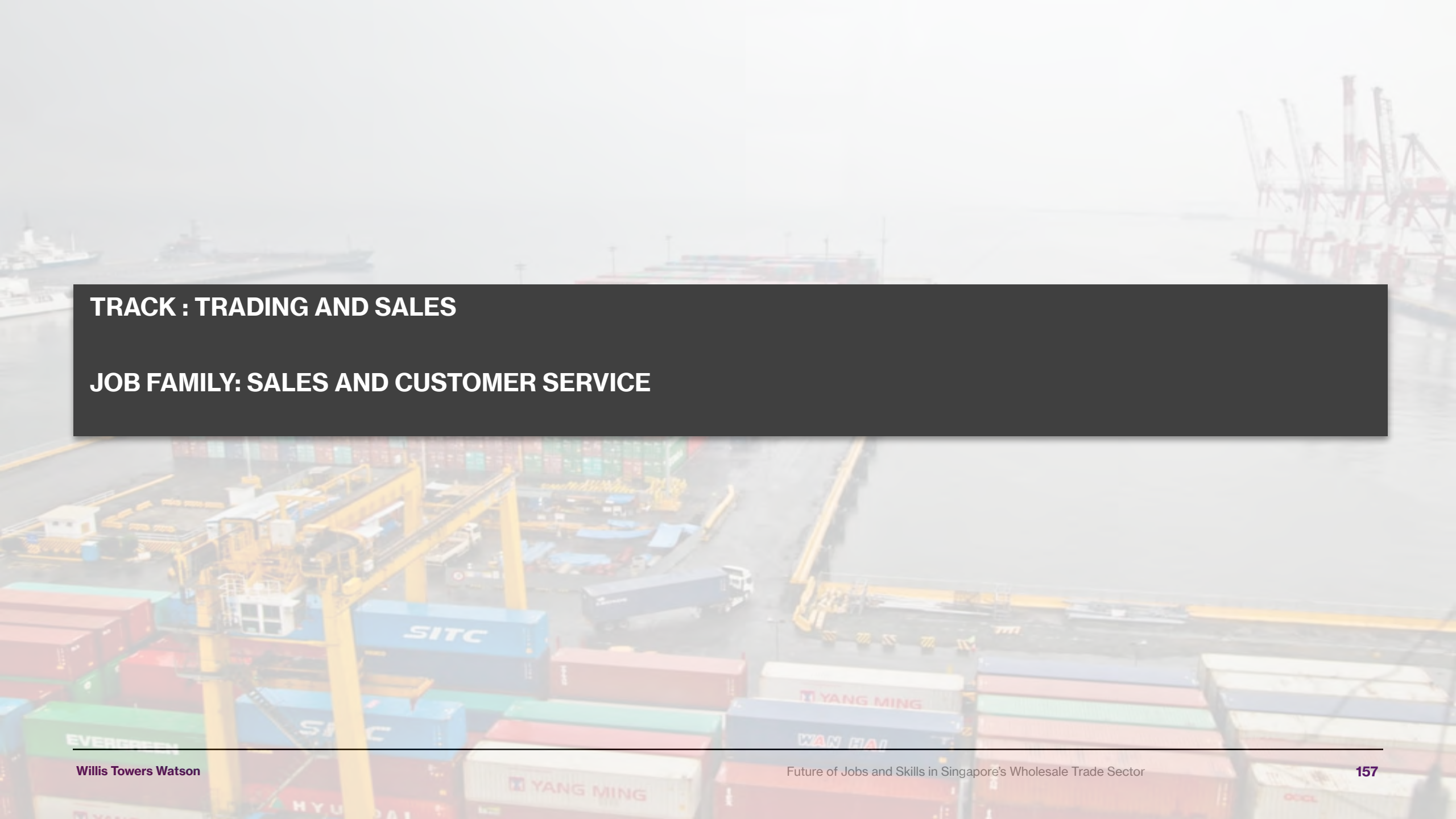
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Produce data-driven insights to improve business and/or functional performance by cleaning and organising large datasets and applying data mining and analytics techniques.
Cross-Cultural Competence	Develop an awareness of other cultures and use techniques to build trust, credibility and relationships with customers and business partners.
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Data Management / Security	Utilise data securely and follow protocols to protect it from unauthorised access and cybersecurity risks.
Digital Channel Development	Execute digital channel activities across platforms and analyse the defined metrics for measuring the effectiveness of the channels. Proactively seek and evaluate innovative opportunities to enhance customer engagement through the use of digital channels.

IN THE NEXT
3-5 YEARS...

As more administrative and routine processes become substituted by technologies like AI and ML, the role will be required to take on more value-adding tasks and tasks from other functions like Marketing. The role will leverage data analytics and other technologies to provide initial insights into new business development opportunities. The role will also be expected to take on other tasks like relationship and partnership development. The role might be outsourced to low-cost markets or relocated to key markets where the organisation trades.

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TRACK : TRADING AND SALES

JOB FAMILY: SALES AND CUSTOMER SERVICE

Job Family

SALES AND CUSTOMER SERVICE

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

The importance of digital channels for B2B organisations has grown significantly in the past few years. This has radically increased since the recent pandemic. Today, customers expect to stay connected and informed about new products and/or services from their preferred brands. For sales and customer service roles, this means providing a consistent experience, ensuring customers are always engaged through campaigns delivered either virtually or through traditional methods. While wholesale trade is largely a B2B business, customers today are expecting a 'retail' experience that is similar to B2C businesses, where the sales and service process is highly customised for them.

Given the expectation around personalised experience to customers, organisations are expected to invest time in social selling to maintain meaningful relationships with customers. The sales and customer service job family will be expected to answer direct and complex questions, curate content and provide real-time solutions.

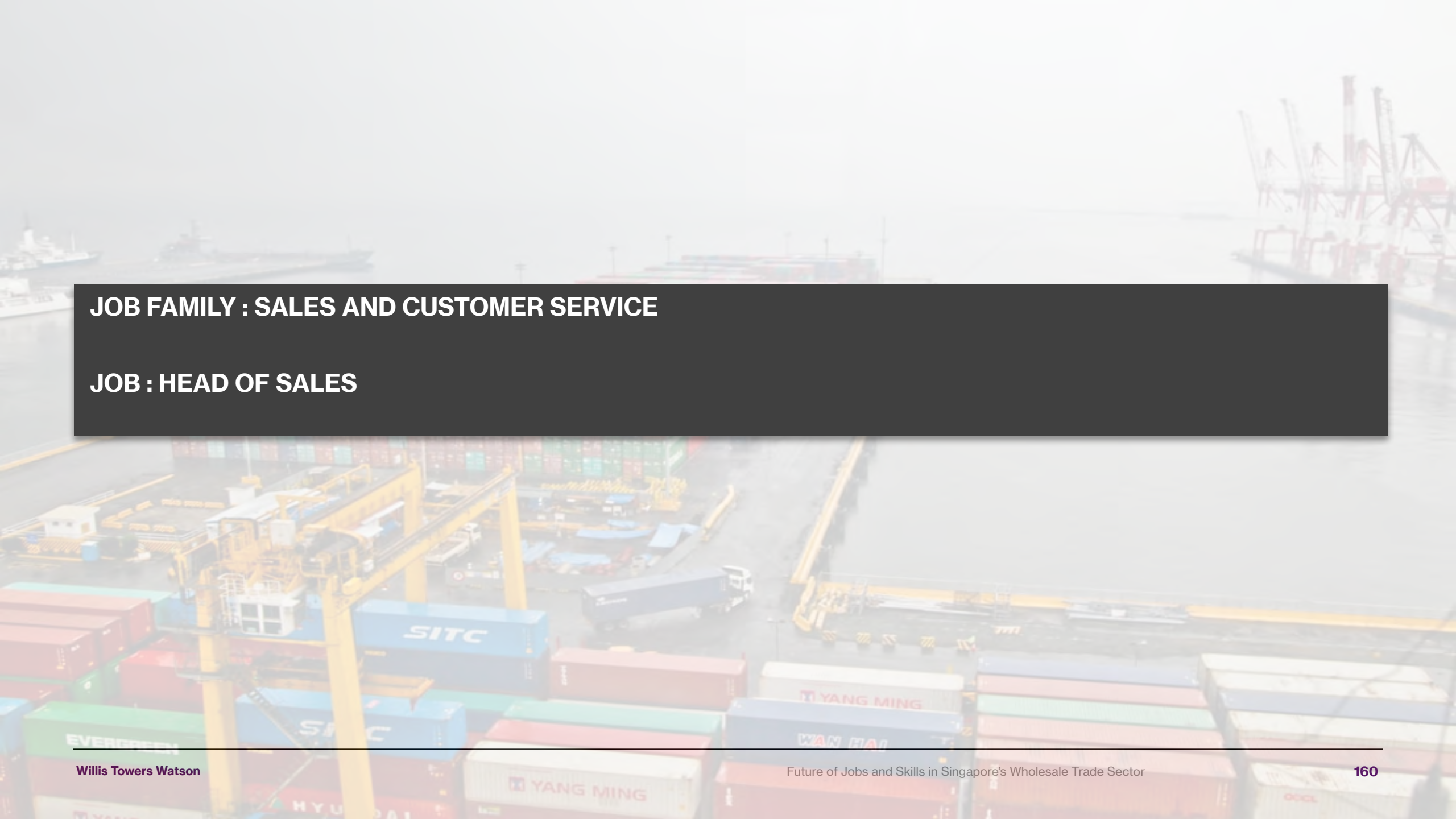
Today more and more B2B organisations are gradually adopting the omni-channel model that leverages traditional and virtual sales channels. The use of omni-channel distribution methods is expected to help organisations enhance their reach to broader customer segments and effectively interact with them.

The Sales and Customer Service job family will see an increased use of technologies like AI, BI applications and data analytics to speed up data collection and generate insights. The increasing volume of data and the growing sophistication of AI models are expected to provide accurate and valuable insights necessary for improved sales forecasting and demand planning. Insights such as customer sentiment analysis will also help organisations extract value from product reviews and social media interactions. These insights are expected to support smarter decision making that will enhance customer satisfaction. The job family will also explore the use of immersive Virtual Reality (VR) to showcase product features and workflows to shorten long sales cycle.

Despite the growing focus on digitalisation and growth in organisations embracing digital sales transformation, human interactions will continue to remain key for this job family, especially for relationship-building, networking and communications. Skills and knowledge in customer experience transformation and multi-channel platforms will be vital to the job family to provide a seamless customer experience that includes real-time and personalised interactions and services.

Prevalent Technologies & Impact on Job Roles

	Artificial Intelligence	AI can be used to automate the real-time collection, monitoring and analysis of data to provide insights on trends, competitive landscape and buyer behaviour to predict trends that will affect sales. AI-enabled systems such as Chatbots can be used to address standard customer queries on products and provide also provide quotations.
	Business Intelligence Applications	BI applications can be used to measure the impact of sales strategies, initiatives and campaigns. Tools like CRM systems can be utilised to improve organisations' relationships with new and existing customers, enhance engagements with customers and uncover new business opportunities.
	Digital Platform and Channels	Digital platforms and channels like digital-commerce, social media and communication devices can be leveraged to deploy sales campaigns, build a digital presence to enhance the overall business performance.
	Mobile Applications	Mobile applications can be used to enable real-time communication with customers. Mobile applications can help obtain feedback from business partners and customers on marketing campaigns, improving communication and experiences. Mobile applications can also be used to provide product demonstrations, which can enhance the customer experience.
	Robotic Process Automation	RPA can be deployed to automate data collation, data cleaning, research of buyer profiles, and sales transaction documentation. RPA can help to provide self-service options to customers and automate standard fulfilment orders and generate sales reports. It can also be used to automate standardised billing and payment processes with minimal human intervention.



JOB FAMILY : SALES AND CUSTOMER SERVICE

JOB : HEAD OF SALES

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop sales strategies	- Develop sales strategies, targets and key performance metrics - Set market positioning strategies and plans to strengthen product portfolios and market segments - Review sales channel performance, competitor landscape and customer demand to revise targets and identify sales opportunities	[NEW] Collaborate with the technology, marketing and business development teams to develop sales strategies that integrate technologies while considering industry trends and competitor landscape - Formulate sales strategies, targets and key performance metrics that take into consideration plans to sell via traditional and digital channels [AUGMENTED] Leverage data analytics to generate more in-depth insights into past performance, sales trends, customer behaviour, and identify key customer segments. Design evidence-based and targeted strategies for a personalised experience across touchpoints in the customer journey [NEW] Drive the use of omni-channel distribution methods to enhance reach to broader customer segments and streamline the buying process for customers [NEW] Guide the development of customer self-service channels like chatbots and virtual agents that interact with customers round-the-clock, providing continuous and reliable omni-channel support - Drive collaboration with other business leaders to create new products, customer segments and go-to-market strategies that are aligned with organisational strategic direction and future needs
Create sales opportunities	- Develop strategic business partner relationships and buyer acquisition strategies - Formulate ROI measurements of customer acquisition programmes	[AUGMENTED] Advocate personal brand building to foster connections and relationships with customers - Drive the creation of regular web content to maintain an active online presence and enable social selling [AUGMENTED] Leverage data analytics to forecast trends and events related to sales. Measure the effectiveness of sales strategies, customer experience and customer acquisition programmes using insights from data and make necessary changes in plans and strategies
Acquire sales accounts	- Lead review of buyers' overall business cycle to meet their needs - Direct overall negotiation strategy and conduct sales proposal presentations to acquire sales accounts - Synthesise patterns and changes in buyer's technical requirements and direct development of technical solutions	[AUGMENTED] Leverage customer data analytics and sentiments analysis to obtain data-driven insights on customers' buying patterns and analyse customers' reactions to new products or services in real-time. Identify feedback and make necessary edits in plans to mitigate reputational and operational risk - Lead sales proposal presentations, negotiate and close sales through physical or virtual interactions [NEW] Explore the use of immersive VR to showcase products' features and workflows to shorten sales cycle

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage buyer relationships	- Develop buyers' relationship management strategies, trade relationship opportunities and customer relationship models to create value and enhance customer loyalty - Lead identification of trends, competitive landscape and buyer expectations - Guide resolution approaches to address buyer requests and reach mutually agreed outcomes in accordance with organisational policies and procedures - Lead high-level clients' post-sales support on technical nuances	[NEW] Streamline sales efforts and processes through CRM systems to enable a positive customer experience [AUGMENTED] Leverage AI-enabled platforms and data analytics to uncover insights on trends, competitive landscape and buyer behaviour [NEW] Partner with customers to shape omni-channel communication and distribution strategies [NEW] Leverage digital channels such as mobile applications and social media to build brand loyalty and create personal connections with customers looking for support, delivering a better customer experience [NEW] Drive the use of platforms that curate real-time feedback and provide customised interactions to various customer segments - Lead the development of SOPs to provide efficient and timely support on customers' technical issues - Act as an advisor to lead complex customer post-sales support [NEW] Leverage data analytics to measure the effectiveness of post-sales activities in meeting customers' needs
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives to uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Marketing	Head of Operations	Head of Strategic Partnership	General Manager	Head of Account Management	Head of Marketing

SKILL DIFFERENTIATORS

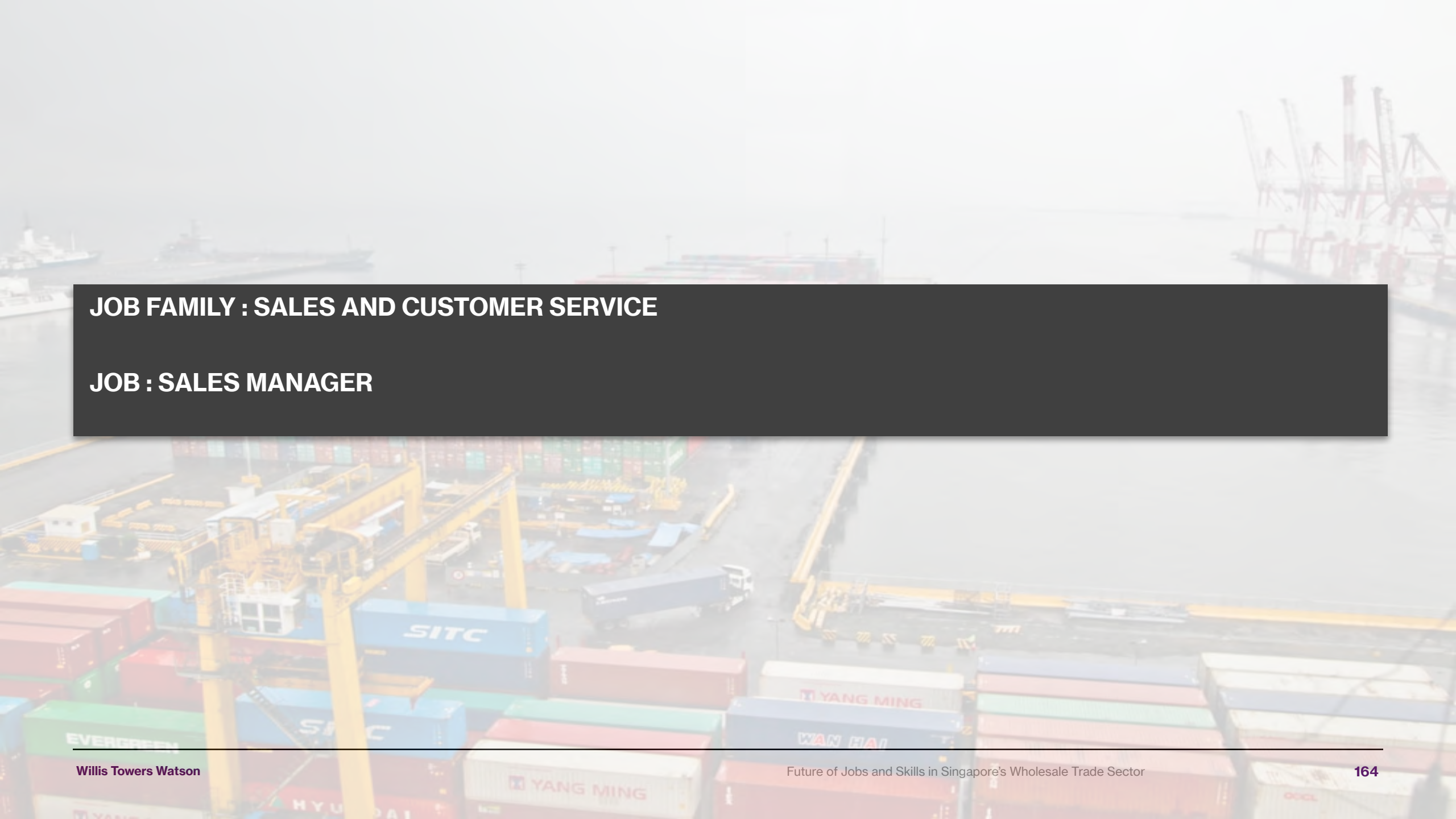
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Develop the customer experience strategy defining the ideal customer experience. Eliminate pain points in the customer journey and enhance moments that matter. Strategise and guide the implementation roadmap for the customer experience and define the governance framework to track implementation.
Omni-channel Strategy Development	Develop communication strategies to optimise the use of multi-channel platforms for an integrated and seamless customer experience that provides real-time, personalised interactions and services. Define metrics to monitor the performance of existing platforms and review new platforms to transform the customer experience.
Performance Monitoring and Analysis	Collaborate with other business leaders to strategise the design of data-driven frameworks and dashboards to enable monitoring of business performance for better decision-making.

IN THE NEXT
3-5 YEARS...

In addition to traditional sales models, the role will increasingly focus on driving digital sales. The role will shift from a seller-centric orientation to a customer-centric orientation and from an analogue sales process to an automated, digital-first engagement with customers. The role will advocate the use of predictive analytics and AI through multi-channel sales strategies, to improve sales conversion rates.

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JOB FAMILY : SALES AND CUSTOMER SERVICE

JOB : SALES MANAGER

Level of Impact

Medium Impact

Job expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop sales strategies	- Develop a sales plan to achieve sales targets - Develop market segments and identify factors that affect sales performance to develop appropriate recommendations - Analyse sales channel performance, competitor landscape and customer demand to identify sales opportunities	[NEW] Evaluate the feasibility of integrating technologies such as AI and mobile applications into sales strategies and support their adoption - Analyse industry trends and competitor landscape to provide insights on potential sales opportunities [AUGMENTED] Leverage data analytics to generate deeper insights on past performance, sales trends, customer behaviour and perform customer segmentation. Provide a personalised experience across touchpoints in the customer journey [NEW] Implement omni-channel distribution methods to enhance reach to broader customer segments and streamline the buying process for customers [NEW] Develop customer self-service channels like chatbots and virtual agents that interact with customers round-the-clock, providing continuous and reliable omni-channel support - Engage other business managers to gather and share inputs on new products and execute go-to-market strategies
Create sales opportunities	- Attend industry events and activities to build networks and obtain leads - Establish and enhance buyer and customer acquisition plans	[NEW] Build a personal brand to foster connections and relationships with customers [NEW] Create regular web content to maintain an active online presence and enable social selling [AUGMENTED] Leverage data analytics to forecast trends and events related to sales. Measure the effectiveness of sales strategies, customer experience and customer acquisition programmes using data and propose changes in plans and strategies
Acquire sales accounts	- Review buyers' overall business cycle to identify business needs - Diagnose buyer's technical product needs to present suitable technical solutions - Facilitate the negotiation of sales agreements and present sales proposal to buyers - Facilitate follow-up discussions for sales closure and payment fulfilment activities	[AUGMENTED] Use customer data analytics and sentiment analysis to obtain data-driven insights on customers' buying patterns and analyse customers' interactions and reactions to new products or services in real-time. Identify feedback and respond quickly to mitigate reputational and operational risk - Conduct sales presentations and negotiations through physical and virtual interactions [NEW] Research and make recommendations on the use of immersive VR to showcase products' features and workflows to shorten sales cycle [AUGMENTED] Leverage technologies such as mobile applications to schedule follow-up discussions, ensure sales closure and payment fulfilment

Job expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage buyer relationships	- Develop buyers' relationship management programmes and trade opportunities for value creation - Gather insights from buyer feedback and market sentiments for product enhancements - Analyse customer data and purchasing behaviour to enhance buyers' retention and loyalty - Develop actions to address buyer requests and dissatisfaction with goods	[NEW] Support the streamlining of sales efforts and processes through CRM systems to enable a positive customer experience [AUGMENTED] Use AI-enabled platforms and data analytics to gather insights on trends, competitive landscape and buyer behaviour [NEW] Engage with customers to understand their needs and implement omni-channel communication and distribution strategies [NEW] Use digital channels such as mobile applications and social media to build brand loyalty and create personal connections with customers looking for support, delivering a better customer experience [NEW] Curate real-time feedback and provide customised interactions to various customer segments - Develop SOPs to provide efficient and timely support on customers' technical issues - Manage and solve complex customer post-sales support [NEW] Leverage data analytics to measure the effectiveness of post-sales activities in meeting customers' needs
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives aligned with the organisation's ESG strategy - Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE

Business Strategist

Logistics Manager

Operations Manager

OUTSIDE WHOLESALE TRADE

Management Consultant

Marketing Manager

Product Manager

SKILL DIFFERENTIATORS

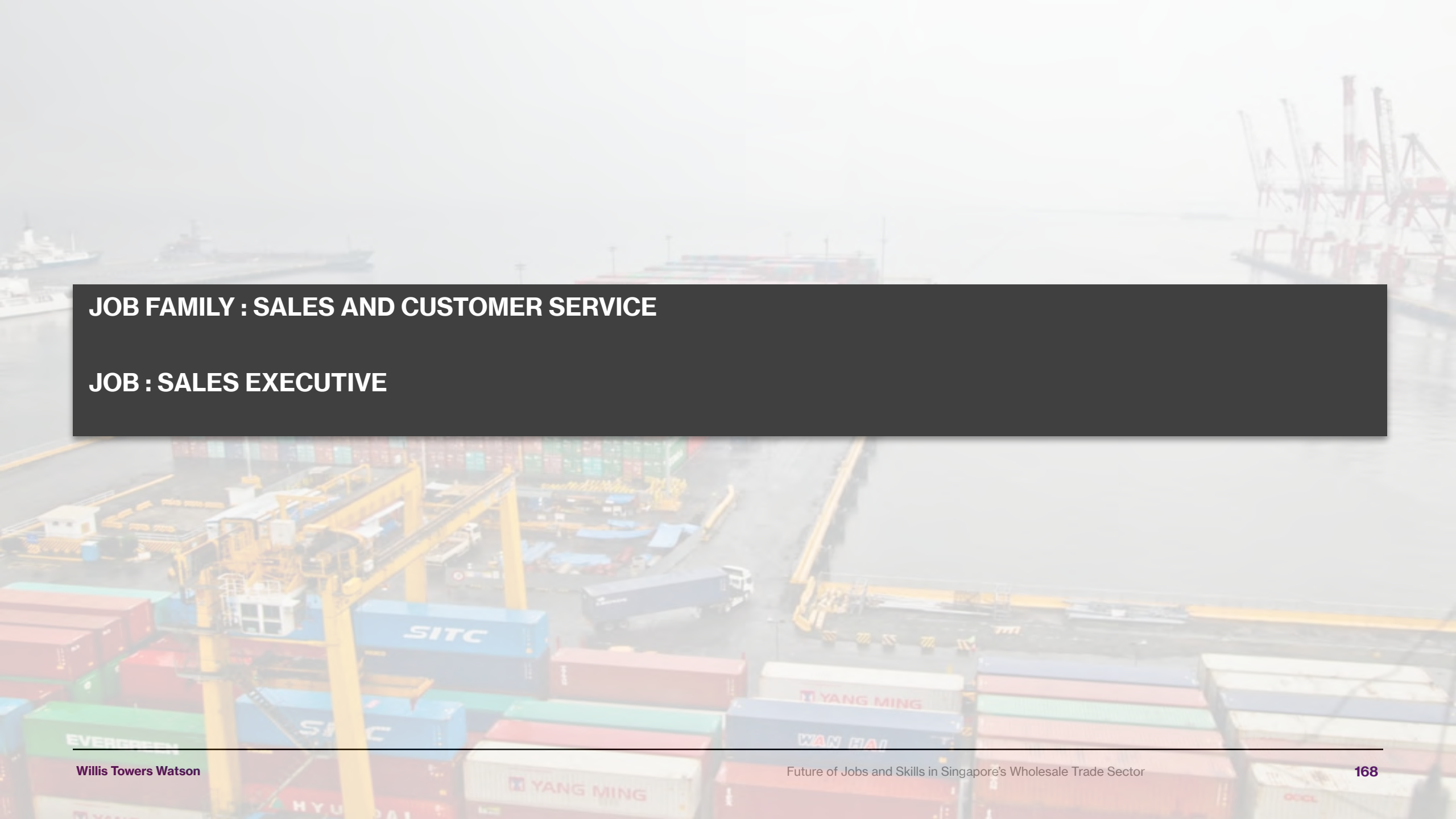
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Develop the roadmap for implementing the customer experience strategy, including process changes, technology investments and capabilities required. Lead the implementation initiatives as per the roadmap and define the metrics to track customer experience.
Omni-channel Strategy Development	Adopt omni-channel communication approaches across various programmes and initiatives to drive real-time, personalised customer experience. Develop insights from the measurement of engagement, conversion, service delivery costs and efficiency across channels and modify the communication approach accordingly.
Performance Monitoring and Analysis	Develop data-driven frameworks and automated dashboards by defining the linkages across relevant business metrics to track, analyse and improve business performance.

IN THE NEXT
3-5 YEARS...

Apart from traditional physical channels, this role will be expected to perform sales activities through digital channels. The role will be expected to implement sales strategies that integrate physical and digital tools and channels. The role will continue to focus on building a strong customer-centric orientation and an automated, digital-first engagement with customers. Additionally, the role will be expected to leverage predictive analytics and AI to improve sales conversion rates. Driving sales through networking and relationships will continue to remain critical for this role.

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JOB FAMILY : SALES AND CUSTOMER SERVICE

JOB : SALES EXECUTIVE

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement sales strategies	- Analyse sales channels against market segments and buyer profiles to improve sales performance - Relay feedback from buyers to improve sales target development - Monitor competitor landscape and customer demand to support strategy development	[NEW] Research on new technologies such as AI and mobile applications to provide inputs on potential improvement in sales initiatives and digital sales [NEW] Support the implementation of technologies like chatbots and virtual agents to automate manual sales activities and processes - Use technologies like AI to monitor changes in the industry and competitor landscape and proactively identify solutions to maximise sales performance [AUGMENTED] Analyse data to generate deeper insights on past performance, sales trends and customer behaviour. Provide a personalised experience across touchpoints in the customer journey
Create sales opportunities	- Initiate working-level relationships and follow up with leads to support sales objectives - Implement enhanced customer acquisition programmes	[NEW] Identify tools to build a personal brand to foster connections and relationships with customers [NEW] Post regular web content to maintain an active online presence and enable social selling [AUGMENTED] Leverage omni-channel communications and platforms such as mobile applications to engage with customers and generate leads
Acquire sales accounts	- Support identification of buyers' business needs - Analyse buyers' requests and explain technical nuances to meet requirements - Conduct negotiation of sales agreements and follow-up actions to close sales - Collaborate with other departments to facilitate payment processes	- Analyse data to uncover insights on customers' needs and collaborate with other teams to meet customers' technical product requirements [AUGMENTED] Use AI-enabled systems to automate report generation on components and quotations - Provide timely and relevant information to stakeholders for sales proposal development using data that is automatically collated, cleaned and processed - Conduct sales presentations and negotiations through physical and virtual interactions - Use technologies such as videotelephony software and mobile applications to schedule follow-up discussions, ensure sales closure and payment fulfilment - Use technology to facilitate complex payment processes and enhance the efficiency of the entire payment process

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage buyer relationships	- Implement buyers' relationship management programmes and identify mutually beneficial trades - Analyse buyer feedback, purchasing behaviours and market sentiments for product enhancements - Identify responses and escalate buyers' requests and issues - Provide post-sales support	[NEW] Support the streamlining of sales efforts and processes by supporting the implementation of CRM systems to enable a positive customer experience [AUGMENTED] Use AI-enabled platforms and data analytics to provide insights on trends, competitive landscape and buyer behaviour - Implement customer relationship management programmes based on segmented customer groups [SUBSTITUTED] Use AI chatbots to automate the resolution of standard product-related enquiries - Address complex queries and customers' dissatisfaction by leveraging depth knowledge of products and engagement skills
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Executive	Project Executive	Supply Chain Executive	Account Executive	Business Intelligence Executive	Product Executive

SKILL DIFFERENTIATORS

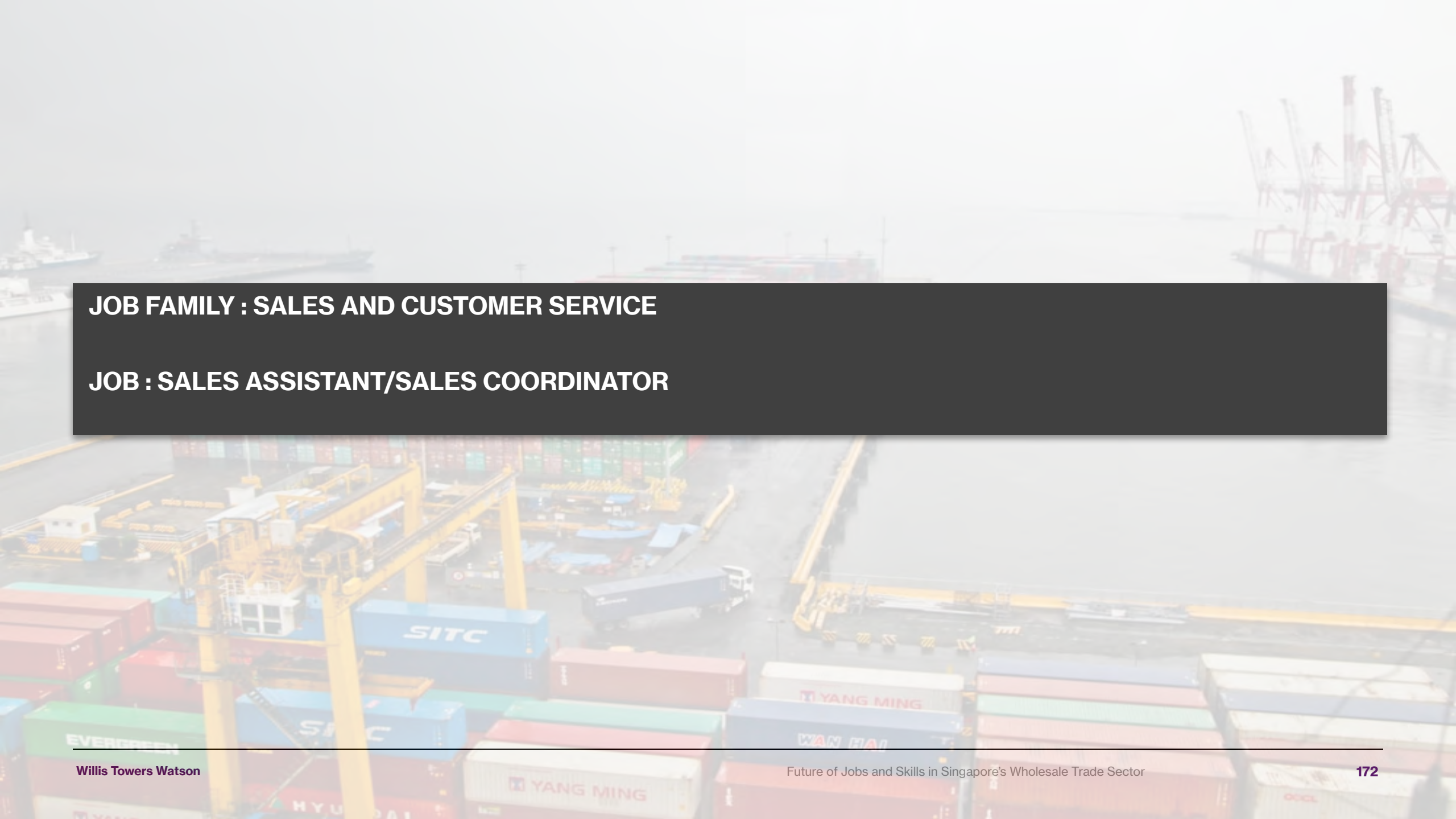
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Omni-channel Strategy Implementation	Apply principles of omni-channel communication to ensure integrated and seamless customer experience across the interactions and services. Monitor the communications and suggest changes to enhance experience and engagement through new content or channels.
Performance Monitoring and Analysis	Interpret performance data to develop insights to improve business performance.

IN THE NEXT
3-5 YEARS...

Apart from traditional physical channels, this role will also execute sales through digital channels. New technologies will help to automate sales activities and processes, substituting non-value-added tasks within the role. The role will be expected to implement customer-centric sales programmes and leverage data analytics to understand customer needs, motivations and behaviours. The role will perform virtual selling and support in the planning of strategic sales and metric development.

[BACK TO LIST OF JOBS](#)

An aerial view of a busy port. In the foreground, there are numerous stacked shipping containers in various colors (blue, red, green, white). Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow gantry cranes are visible, some with containers being loaded or unloaded. In the background, several large cargo ships are docked at the pier. The sky is overcast and hazy.

JOB FAMILY : SALES AND CUSTOMER SERVICE

JOB : SALES ASSISTANT/SALES COORDINATOR

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement sales strategies	- Collect demographic data of buyer profiles and assist in analysis to enhance the performance of sales channels - Assist in collating feedback to improve sales target development	[SUBSTITUTED] Leverage AI-enabled platforms and RPA to automate data collation, data cleaning, research of buyer profiles, and collate feedback from various customer segments [AUGMENTED] Leverage data analytics to generate insights on the effectiveness of sales channels, initiatives and product development [AUGMENTED] Support the execution of personalised sales initiatives across physical, digital and customer self-service channels. Provide a personalised experience across touchpoints in the customer journey [NEW] Develop ideas to improve sales activities and processes by understanding unique customer needs and behaviours
Create sales opportunities	- Coordinate programme activities to drive acquisition targets - Coordinate leads on potential new buyers	[NEW] Use tools to build a personal brand to foster connections and relationships with customers - Leverage CRM software to generate lists of target customers and market segments [NEW] Analyse real-time data to gather insights on the effectiveness of customer acquisition programmes - Support the development of communication materials for omni-channel platforms to provide continuous real-time engagement with targeted customers
Acquire sales accounts	- Consolidate information on buyers' requirements and assist in the preparation of sales proposals - Communicate technical details of products to buyers - Support sales and finance departments to process payment	[NEW] Utilise integrated technology to obtain real-time feedback and support analysis of customers' needs - Communicate technical details of products through physical and virtual interactions - Support sales proposal development by using data that is automatically collated, cleaned and processed [SUBSTITUTED] Use AI chatbots to automate first-level communication and query handling on products [SUBSTITUTED] Use RPA to automate standardised billing and payment processes with minimal human intervention

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage buyer relationships	- Maintain records and documentation of buyers' data and buyer engagements to facilitate downstream tracking - Escalate buyers' dissatisfaction with products and assist in resolving technical requests	[NEW] Use CRM systems to generate insights on enhancing customer relationships [SUBSTITUTED] Use AI and RPA-enabled platforms to automate records and documentation of customers' data and engagements [SUBSTITUTED] Use AI chatbots to facilitate first-level support and resolution of routine technical enquiries - Address complex technical enquiries by leveraging an in-depth knowledge of products [NEW] Provide initial inputs on ways to improve post-sales activities
Support application initiatives	- Operate new technologies, electronic tools and devices to improve operations in own work areas - Support the review of work processes and procedures to improve work performance	- Operate new technologies, electronic tools and devices to improve operations in own work areas - Support the review of work processes and procedures using data analytics to provide insights on work performance

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Development Coordinator	Marketing Coordinator	Operations Coordinator	Business Development Coordinator	Business Intelligence Coordinator	Logistics Coordinator

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Omni-channel Strategy Implementation	Apply principles of omni-channel communication to ensure integrated and seamless customer experience across the interactions and services. Monitor the communications and suggest changes to enhance experience and engagement through new content or channels.
Performance Monitoring and Analysis	Interpret performance data to develop insights to improve business performance.

IN THE NEXT
3-5 YEARS...

The role will support sales activities across physical and digital channels. Technologies such as AI and RPA, will help to automate most routine sales processes, as well as handle queries and follow-ups. This will allow the role to focus more on performing data analytics, modelling and sales analytics to obtain data-driven insights. As more tasks within the role become substituted, the role could become redundant, be outsourced to a cheaper location or be merged with another role within the organisation.

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JOB FAMILY : SALES AND CUSTOMER SERVICE

JOB : CUSTOMER SERVICE OFFICER / SERVICE QUALITY ANALYST

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Customer Service Tasks	- Gain an understanding of customers' needs through customer knowledge management to guide the implementation of appropriate solutions. Address queries and improve customer relationships - Monitor lapses in the delivery of logistics services to customers	- Interact and engage with customers regularly to ensure seamless customer experience across physical and/or digital channels [AUGMENTED] Analyse customer data to forecast and anticipate customers' needs [AUGMENTED] Use AI chatbots to resolve routine queries and address complex customer queries
Perform Business Continuous Improvement Activities	- Follow situational factors that promote and inhibit changes - Understand risks associated with different approaches to process changes - Perform identification and documentation of business requirements - Understand business process improvements through workflow analysis methods to support system developments throughout the project life cycle	- Support the development of customer service SOPs [AUGMENTED] Identify the risks associated with process changes such as technology enhancements. Support customers in managing change by providing timely and effective solutions and query resolution [AUGMENTED] Collate customer service protocols in digital formats for seamless distribution across teams [NEW] Collate and analyse customer suggestions and complaints from online feedback platforms to generate insights on potential process improvement opportunities [NEW] Support and contribute towards the development of customer onboarding programmes and metrics - Monitor service levels through dashboards to identify gaps and perform business improvement activities to ensure on-track performance [NEW] Manage online and digital messaging platforms which enable self-service for customers
Perform Business Development Tasks	- Conduct targeted conversations with customers to improve customer relationships and better understand logistics services needs - Collaborate with stakeholders to grow relationships that assist in revenue generation within assigned verticals	- Conduct personalised customer onboarding - Identify cross-selling and upselling opportunities through analysis of customer interactions

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Strategy and Planning Executive	Pricing Executive	Tender Management Executive	Business Development Executive	Market Research Executive	Operations Executive

SKILL DIFFERENTIATORS

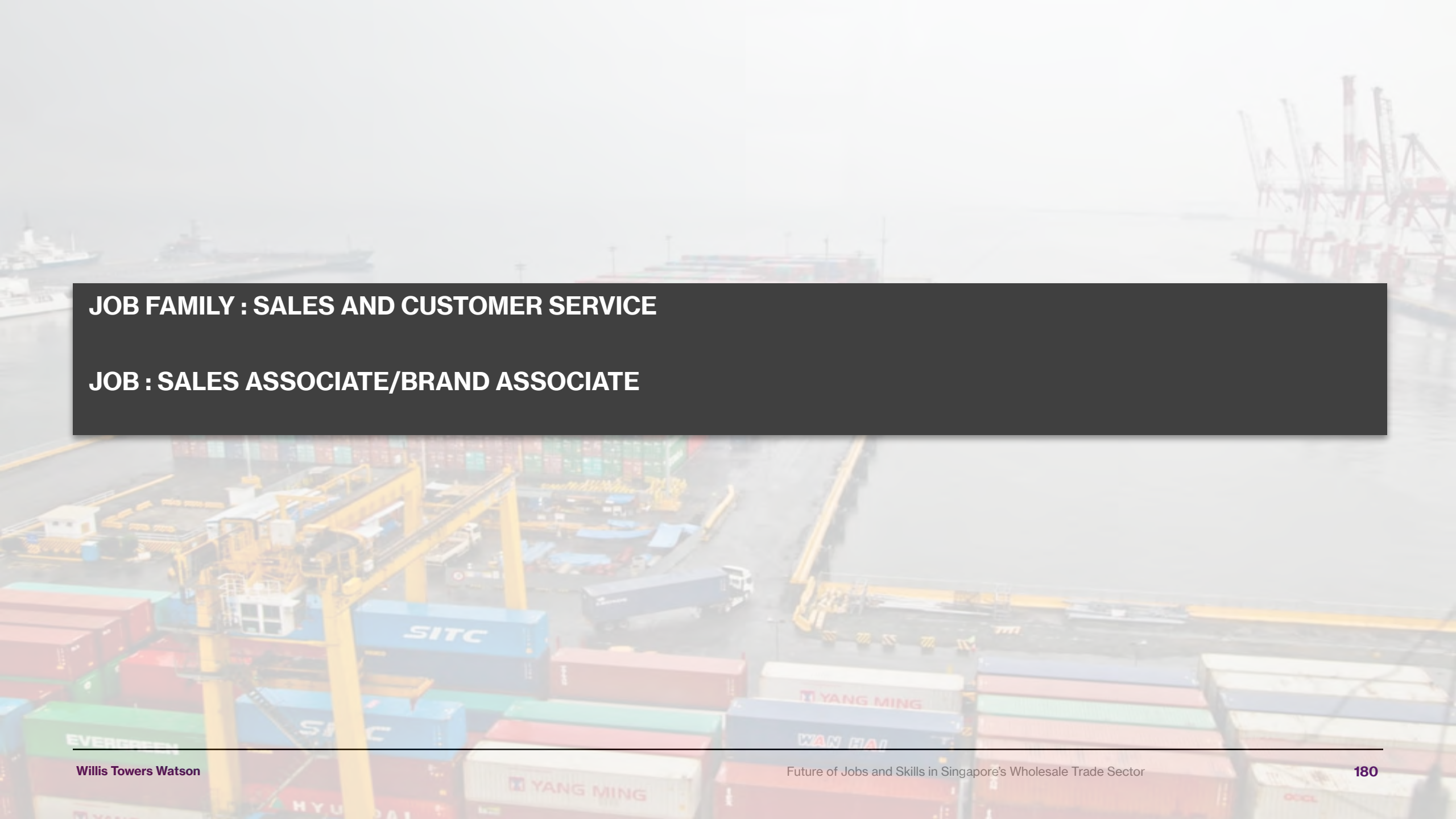
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey
E-Document Management	Use e-document platforms to facilitate tracking and updating of information in an integrated system
Online Feedback Management	Manage customer feedback from digital channels, provide resolution and analyse data to develop insights on customer engagement and behaviours

IN THE NEXT
3-5 YEARS...

Apart from customer servicing, the role will take on other responsibilities like customer engagement, success and empowerment. The role will leverage data analytics to understand customer needs and proactively implement solutions to address them. The role will continue to enhance customer lifetime value and loyalty to the organisation by identifying upselling and cross-selling opportunities.

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JOB FAMILY : SALES AND CUSTOMER SERVICE

JOB : SALES ASSOCIATE/BRAND ASSOCIATE

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Achieve sales	- Interact with customers to sell products and services - Handle after-retail sales services and provide advice on products and services - Document sales transactions	[NEW] Support the streamlining of the buying process for customers across physical and digital channels [NEW] Leverage data analytics to understand customer needs and purchase patterns to provide product recommendations and personalised services - Utilise technologies such as mobile applications to provide product demonstrations and enhance customer experience [SUBSTITUTED] Use RPA and AI-enabled platforms to automate documentation of sales transactions [SUBSTITUTED] Use AI chatbots to facilitate first-level support on routine enquiries regarding products and services - Support in addressing complex enquires by leveraging an in-depth knowledge of products and services [NEW] Analyse customers' feedback to improve after-retail sales services
Deliver service excellence	- Respond to service challenges and provide go-the-extra-mile services - Deliver excellent customer service - Acquire industry information and engage in service innovation initiatives	- Deliver service while ensuring professional image and persona aligns with organisation's service commitment - Guide customers on the use of self-service technologies to enhance customer experience [SUBSTITUTED] Use AI-enabled systems and RPA to automate data collation, cleaning and checking of customer information [NEW] Anticipate customer needs by obtaining insights from CRM systems to deliver personalised services
Deliver operations excellence	- Perform stock control operations - Apply security, workplace emergency, safety and health, and hygiene policies and procedures - Handle merchandise display and operations of promotions and events	[SUBSTITUTED] Leverage predictive analytics to track and forecast stock levels [NEW] Support the integration of technologies between business systems of suppliers and partners to manage purchasing, stockholding and distribution efficiencies [AUGMENTED] Leverage autonomous technology such as robots to perform physically challenging tasks, minimising WSH risks - Apply creative thinking to manage merchandise display, roadshows, promotions and events to increase sales potential

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Execute customer order fulfilment	Handle the fulfilment of customers' orders across store pick or delivery service	[SUBSTITUTED] Use AI-enabled systems and RPA to enable self-service and automate standard fulfilment orders - Handle the fulfilment of complex orders from key customers
Engage in innovative and productivity initiatives	Generate ideas and support the implementation of productivity and innovation initiatives	Support the review of work processes using data analytics to provide insights on performance as well as generate new ideas to enhance productivity

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Process Improvement Coordinator	Data Coordinator	Senior Excellence Coordinator	Customer Insights Coordinator	Product Coordinator (Sales)	Social Media Coordinator

SKILL DIFFERENTIATORS

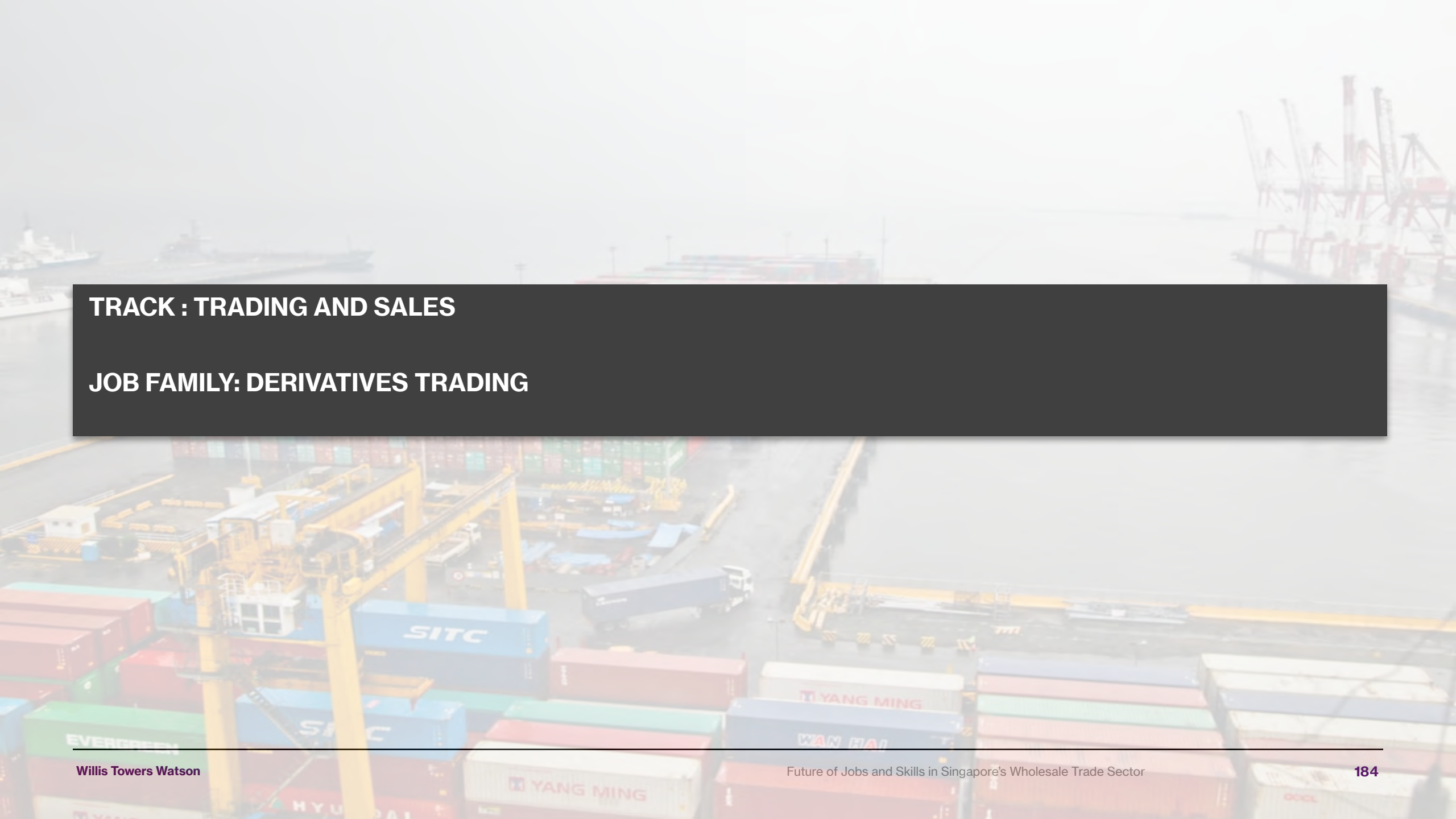
Roles Specific

SKILL	DESCRIPTIONS
Customer Experience Transformation	Conduct research and identify potential touchpoints and key moments that matter across the customer journey. Synthesise insights on gaps to provide recommendations for enhancement for various customer segments. Identify innovative technologies and recommend initiatives for enhancing the customer experience journey.
Omni-channel Strategy Implementation	Apply principles of omni-channel communication to ensure integrated and seamless customer experience across the interactions and services. Monitor the communications and suggest changes to enhance experience and engagement through new content or channels.
Performance Monitoring and Analysis	Interpret performance data to develop insights to improve business performance.

IN THE NEXT
3-5 YEARS...

This role will be expected to empower customers in making purchase decisions across both physical and digital channels. There will be a growing focus on understanding customer needs through data analytics and human interactions. As more tasks within the role become substituted, there is a possibility that the role could become redundant, be outsourced to a cheaper location or be merged with another role within the organisation.

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TRACK : TRADING AND SALES

JOB FAMILY: DERIVATIVES TRADING

Job Family

DERIVATIVES TRADING

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

The global economic crisis and the subsequent regulatory changes have transformed the way OTC and exchange-based derivatives are processed and traded. The complex nature of derivatives, increased market volatility, and a heightened focus on risk management has compelled the Derivatives Trading job family to seek solutions that reduce inefficiencies and associated operational risks.

With trade volumes increasing, there is now a greater emphasis on accuracy and pressure to process derivatives transactions quickly and efficiently. Hence in the coming years, the job family will see a high adoption of ML technologies in developing trading strategies, identifying trading opportunities and executing hedging approaches to improve profitability. Technologies that utilise analytics and RPA will simplify data processing and provide key information on pricing and valuations, reducing human errors and increasing efficiency during trade transactions.

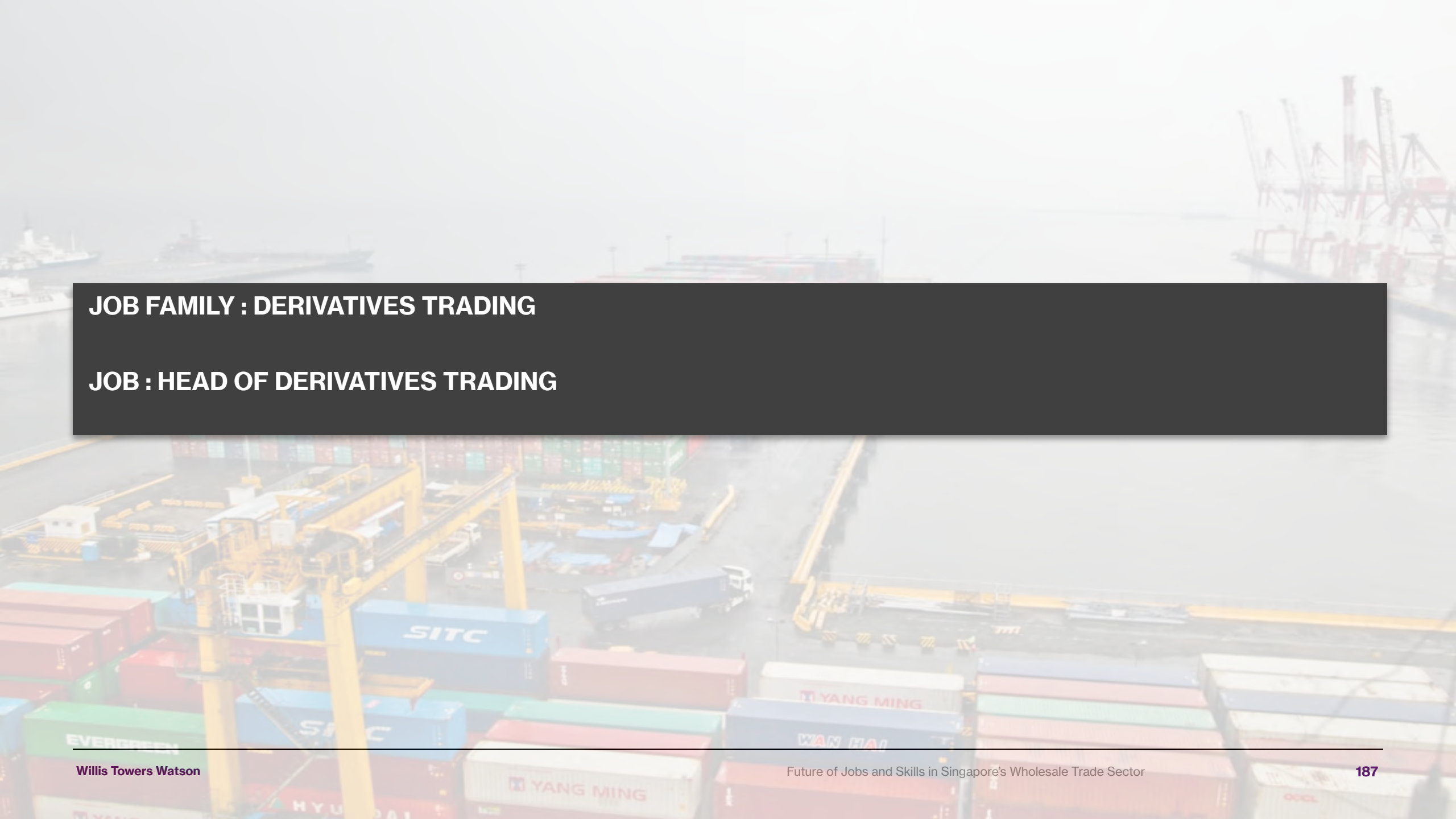
With increasing levels of data accessed from diverse sources like satellite imagery and GIS, algorithmic and high-frequency trading are expected to increase at a brisk pace.

While big data and algorithms are expected to become more prevalent, human intervention and supervision will remain critical during trade execution. The use of analytics and algorithms will hugely supplement the trader's execution capabilities while offering the flexibility to model and predict scenarios based on different market conditions.

Derivative traders will be expected to have a good understanding of data analysis techniques and basic programming skills. The knowledge of different platforms to automate trades and monitor trading outcomes will become critical. It will be important for traders to be equipped with the right skills and knowledge to undertake change since the job family is expected to undergo significant digital transformation.

Prevalent Technologies & Impact on Job Roles

	Artificial Intelligence	AI can be leveraged to help traders understand price trends and peaks and troughs of the market to identify the right time to enter and exit the market. AI can identify complex trading patterns across multiple markets in real-time, saving traders' time searching and sifting through financial data and transaction histories.
	Advanced Data Analytics	Advanced data analytics such as big data can help augment human-led trading and help traders identify profitable trading opportunities and capitalise on them. Big data can help analyse large-scale data from internet scanning, social media, market information and news analysis to generate insights and predict opportunities.
	Business Intelligence Applications	BI tools and dashboards can be utilised to monitor and assess derivatives portfolio performance, helping traders in their trading decisions.
	Digital Documents & Smart Contracts	Digital documents such as smart contracts can improve transparency, reduce human errors and increase efficiency during trade transactions. Smart contracts can be utilised to prepare, execute, and manage legal documents, reduce manual paperwork, improve the ease of usage, and lower cost by reducing the time taken to resolve disputes.
	Robotic Process Automation	RPA can be leveraged to extract and link counterparty trade data and simplify data processing such as trade reconciliation and prepare portfolio status reports.



JOB FAMILY : DERIVATIVES TRADING

JOB : HEAD OF DERIVATIVES TRADING

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage derivatives positions	• Drive the development of derivative portfolio strategies to account for various market trends or economic conditions • Collaborate with the Commodity Trading team to manage risks • Direct compliance with trade controls to safeguard the organisation's derivative positions • Evaluate the performance of the derivative portfolio against strategic objectives	• [NEW] Drive business performance by investing in technology and automation that provides significant information exchanges between market participants, which can improve trading strategies • [AUGMENTED] Direct the use of BI tools and dashboards to monitor and assess derivatives portfolio performance against strategic objectives and anticipate future price movements • [NEW] Drive collaboration with the commodities trading and data sciences teams to manage structured trades and execute trading decisions that lower risks and financial liabilities, safeguarding derivatives portfolio positions • [AUGMENTED] Drive the adoption of AI to evaluate and solve current process inefficiencies and seek new trading opportunities • [NEW] Drive collaboration with internal stakeholders to direct small-scale, short-term pilot programmes, such as the introduction of new technologies in Derivative Trading
Perform derivatives trading activities	• Drive derivative trading strategies based on identified trading and market-making opportunities • Drive collaboration with OTC parties to structure bespoke derivative trades and build a relationship with trade counterparties • Approve trades beyond the rates or limits • Guide the modification of assumptions to increase derivative valuation accuracy • Direct compliance with trading regulations and guidelines	• [AUGMENTED] Drive the use of AI and predictive analytics to establish derivatives trading strategies, and risk management and compliance policies • [NEW] Drive the implementation of technology that helps extract information from new alternative data sources like satellite imagery and GIS to provide key information on pricing and valuations • [AUGMENTED] Drive the use of RPA to extract and link counterparty trade data with the organisation's trade data. Deploy automated bots to look up and reconcile key trade attributes to ensure trade details match and the trade confirmation process is accurate • [AUGMENTED] Direct the use of smart contracts to improve efficiency and lower cost by reducing the time taken to resolve disputes • Leverage trade networks in markets across the world to build and maintain relationships with existing and potential trade counterparties

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive the initiatives that uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Commodity Trading	Head of Risk Management	Head of Technology	Data Architect	Management Consultant	Technology Product Leader

SKILL DIFFERENTIATORS

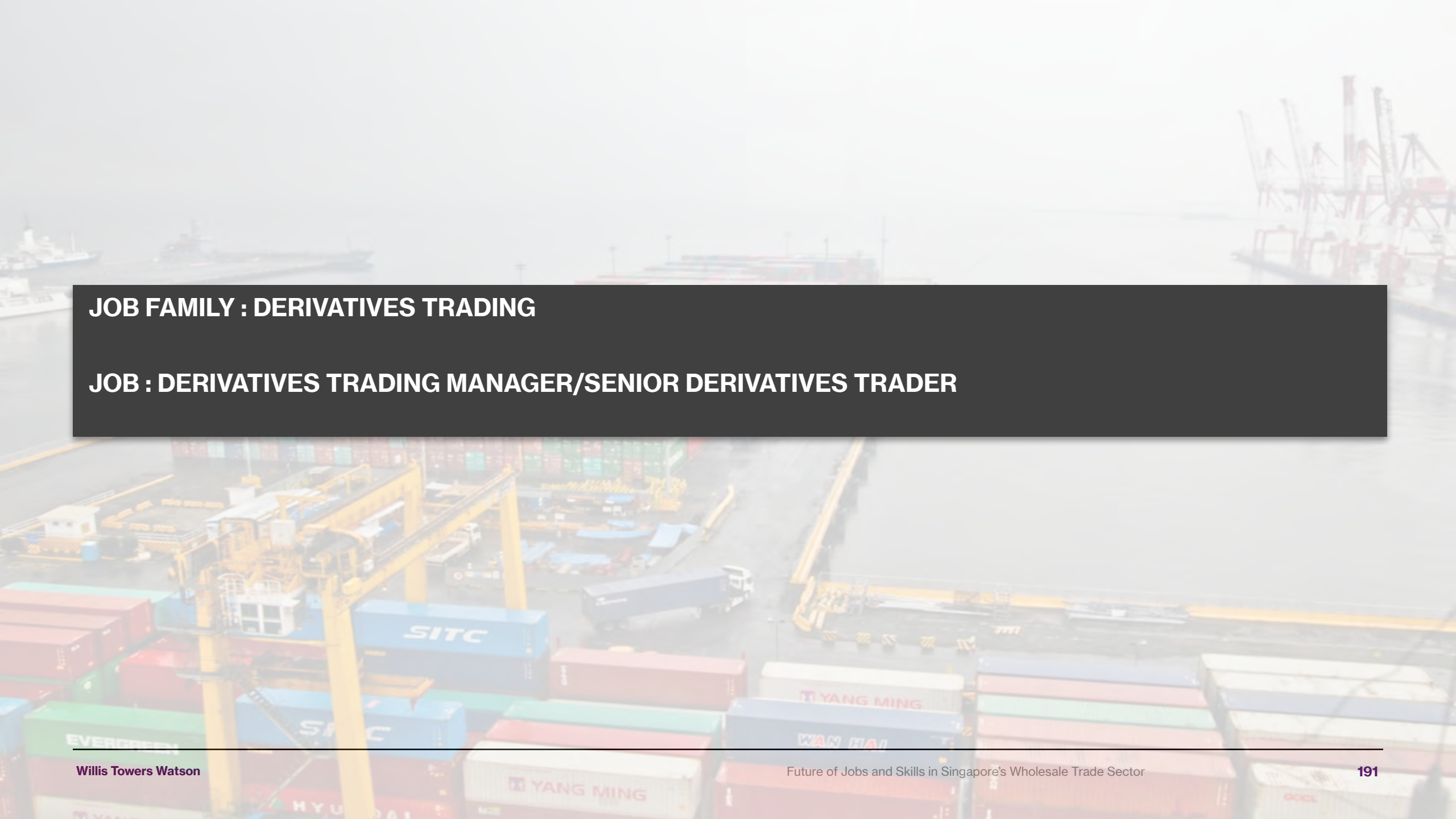
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Review the efficacy of predictive analytics models and evaluate outputs for business and/or functional strategy formulation.
Performance Monitoring and Analysis	Collaborate with other business leaders to strategise the design of data-driven frameworks and dashboards to enable monitoring of business performance for better decision-making.
Position Management	Develop trade position management framework, hedging strategies and risk thresholds to reduce the risk of financial losses due to market volatility.
Sourcing Portfolio Analysis	Oversee the sourcing portfolio analysis and develop strategies to concentrate or diversify supply, manage risks, enhance speed to market, and reduce costs.
Trade Automation	Drive trade automation by identifying the right platform based on the complexity of trade algorithms and platform independence, specific requirements and analytical capabilities. Define the governance framework and monitor the trading outcomes for any deviations.

IN THE NEXT 3-5 YEARS...

The role will continue to manage human-led derivatives trading but will be heavily assisted by AI, predictive analytics and automation. The role will play a key part in driving technology adoption to enhance human trading capabilities and trade decisions. This role will be expected to liaise with and influence both internal and external stakeholders to adopt common standards to introduce DLTs. The role will also be responsible for striking a balance between using technology and building relationships with trading partners to retain the sense of personal touch. Given the sizeable impact of technology, the role will work with internal/external teams to develop strategies for upskilling and reskilling the workforce.

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JOB FAMILY : DERIVATIVES TRADING

JOB : DERIVATIVES TRADING MANAGER/SENIOR DERIVATIVES TRADER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage derivatives positions	- Develop derivative portfolio strategies to account for various market trends or economic conditions - Facilitate the application of trade controls to safeguard the organisation's derivative positions and review periodic portfolio status reports - Review the performance of the derivative portfolio to support commodities trading in managing risk from positions	[NEW] Implement technology and strategies that leverage big data and predictive analytics. Implement platforms that scan for data from the internet, social media, market information and news analysis and generate insights to predict opportunities that traders can leverage to improve derivatives trading decisions [AUGMENTED] Leverage BI tools and dashboards to monitor and assess derivatives portfolio performance against strategic objectives and anticipate future price movements [NEW] Collaborate with commodities trading & data sciences teams to manage structured trades and execute trading decisions that lower risks, financial liabilities, safeguarding derivatives portfolio positions [AUGMENTED] Leverage AI to evaluate and solve current process inefficiencies and find new trading opportunities [NEW] Collaborate with internal IT stakeholders to implement small-scale, short-term pilot programmes before full deployment of any new product initiatives or platform
Perform derivatives trading activities	- Propose market-making opportunities in derivative exchange through patterns found from market data - Execute and approve derivative trades beyond the rates or limits and per the portfolio objectives - Check customised contracts are aligned with agreed derivative trades and review derivative valuation models and assumptions used - Structure bespoke derivative trades with OTC parties - Enhance relationships with trade counterparties - Escalate trades with potential risks to trade compliance and develop rectification measures	[AUGMENTED] Implement AI and predictive analytics to establish structures, processes and risk management frameworks for derivatives trading [NEW] Obtain key information on pricing and valuations using new alternative data sources like satellite imagery and GIS [NEW] Execute and approve derivatives trades assisted by AI and big data analytics [AUGMENTED] Leverage RPA to extract and link counterparty trade data with the organisation's trade data. Leverage automated bots to look up and reconcile key trade attributes to ensure trade details match, and the trade confirmation process is accurate [AUGMENTED] Direct the use of smart contracts to improve efficiency and lower costs by reducing the time taken to resolve disputes - Build and maintain relationships with existing and possible trade counterparties through trade networks in markets across the world - Escalate trades with potential risks to trade compliance and develop rectification measures

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that are aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Commodity Trading Manager	Lead Business Analyst	Technology Program Manager	Data Scientist	Technology Consultant	Transformation / Change Lead

SKILL DIFFERENTIATORS

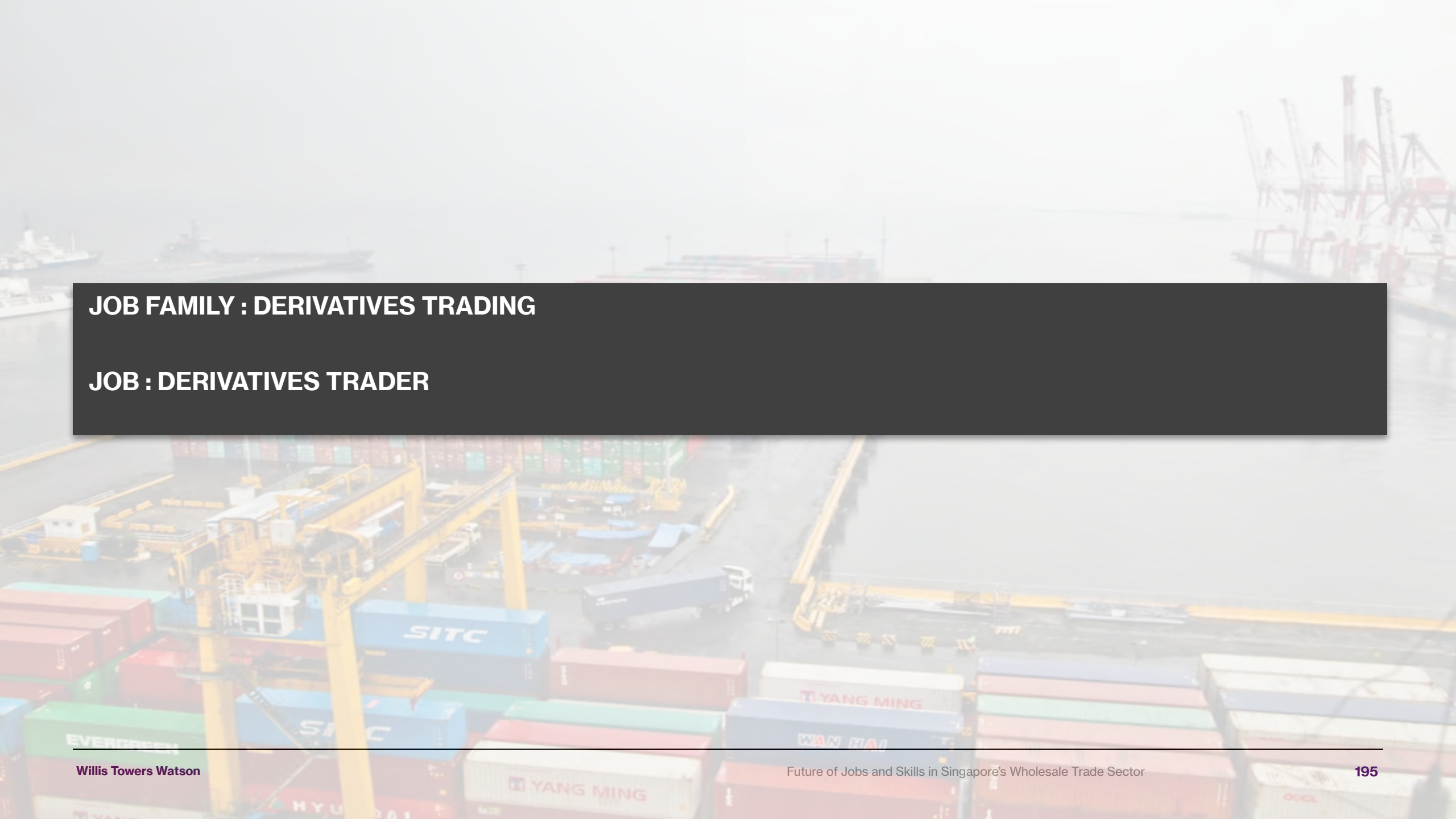
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Develop predictive analytics models using statistics, data mining, modelling, machine learning and data visualisation to develop insights to influence stakeholders' decision making and improve business/functional performance.
Performance Monitoring and Analysis	Develop data-driven frameworks and automated dashboards by defining the linkages across relevant business metrics to track, analyse and improve business performance.
Position Management	Execute trade position management and hedging plans while continuously improvising the strategy based on data-driven insights and market volatility.
Sourcing Portfolio Analysis	Manage the process of segmenting sourcing portfolios based on the strategic importance of the goods to the business to provide inputs for each segment's specific sourcing strategy.
Trade Automation	Explore trade automation platforms to provide inputs on the most suitable system. Propose trading rules and conditions and monitor trading outcomes.
Volume Analysis	Apply volume analysis concepts such as volume inferences and volume indicators to understand asset liquidity and price momentum to guide trade decisions.

IN THE NEXT
3-5 YEARS...

The role will continue to perform human-led derivatives trading but at the same time be expected to help strategise and operationalise the implementation of new technologies. The role will be expected to work closely with risk and regulatory teams to ensure compliance to trade regulations, using technologies such as smart contracts and DLT. The role will also be expected to develop familiarity with programming skills. Overall, the role will need to strike a balance between using technology and building relationships with trading partners to retain a sense of personal touch.

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The background image shows a large-scale port operation. In the foreground, there are stacks of colorful shipping containers (red, blue, green, white) with logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI' visible. Yellow gantry cranes are positioned over the containers. In the background, several large container ships are docked at the pier, and more cranes are visible on the right side. The sky is hazy or foggy.

JOB FAMILY : DERIVATIVES TRADING

JOB : DERIVATIVES TRADER

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage derivatives positions	• Apply relevant derivative portfolio strategies to guide positions during various market trends or economic conditions • Adhere to trade controls guidelines to safeguard the organisation's derivative positions and prepare periodic portfolio status reports • Perform derivative trades that support the commodities trading team to manage risk from positions	• [NEW] Apply big data and predictive analytics to scan and predict changes in markets and regulations to guide derivative trading positions • [AUGMENTED] Develop automated portfolio status reports using RPA and BI tools to monitor and assess the portfolio performance against strategic objectives • [NEW] Collaborate with commodities trading and data sciences teams to execute trade decisions that lower risks, financial liabilities, safeguarding derivatives portfolio positions • Apply trade controls to safeguard derivatives portfolio positions • [NEW] Support small-scale, short-term pilot programmes before full deployment of any new product initiatives or platform
Perform derivatives trading activities	• Consult contracts team to customise contracts aligned with agreed derivative trades • Structure bespoke derivative trades with OTC parties • Build a working-level relationship with trade counterparties • Monitor derivative exchanges by tracking movements in exchange indices and real-time news to spot intra-day, short-term and long-term trading • Apply trade guidelines to ensure compliance with regulatory requirements and legislations	• Execute derivative trades that are within allowed rates or limit in accordance with portfolio objectives • [AUGMENTED] Perform electronic clearing of OTC trades by using electronic platforms and STP • [NEW] Execute hedging strategies that help to optimise the timing of trades and reduce shadow slippage by deploying parametric algorithms • [NEW] Obtain key information on pricing and valuations using new alternative data sources like satellite imagery and GIS • [AUGMENTED] Use AI to collect and analyse real-time data feeds from exchanges and other sources as well as track movements in exchange indices to spot intra-day, short-term and long-term patterns • [AUGMENTED] Use RPA to extract and link counterparty trade data with the organisation's trade data. Leverage automated bots to look up and reconcile key trade attributes to ensure trade details match and that the trade confirmation process is accurate • [AUGMENTED] Perform changes or customisation of contracts in consultation with the contracts team. Use smart contracts to improve efficiency and lower costs by reducing the time taken to resolve disputes • Apply trade regulations and guidelines to ensure compliance • Build strong relationships with existing and potential trade counterparties and establish relationships in trade networks

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Development Analyst	Marketing Analyst	Risk Analyst	Business Intelligence Analyst	Client Service Analyst	Technology Product Specialist

SKILL DIFFERENTIATORS

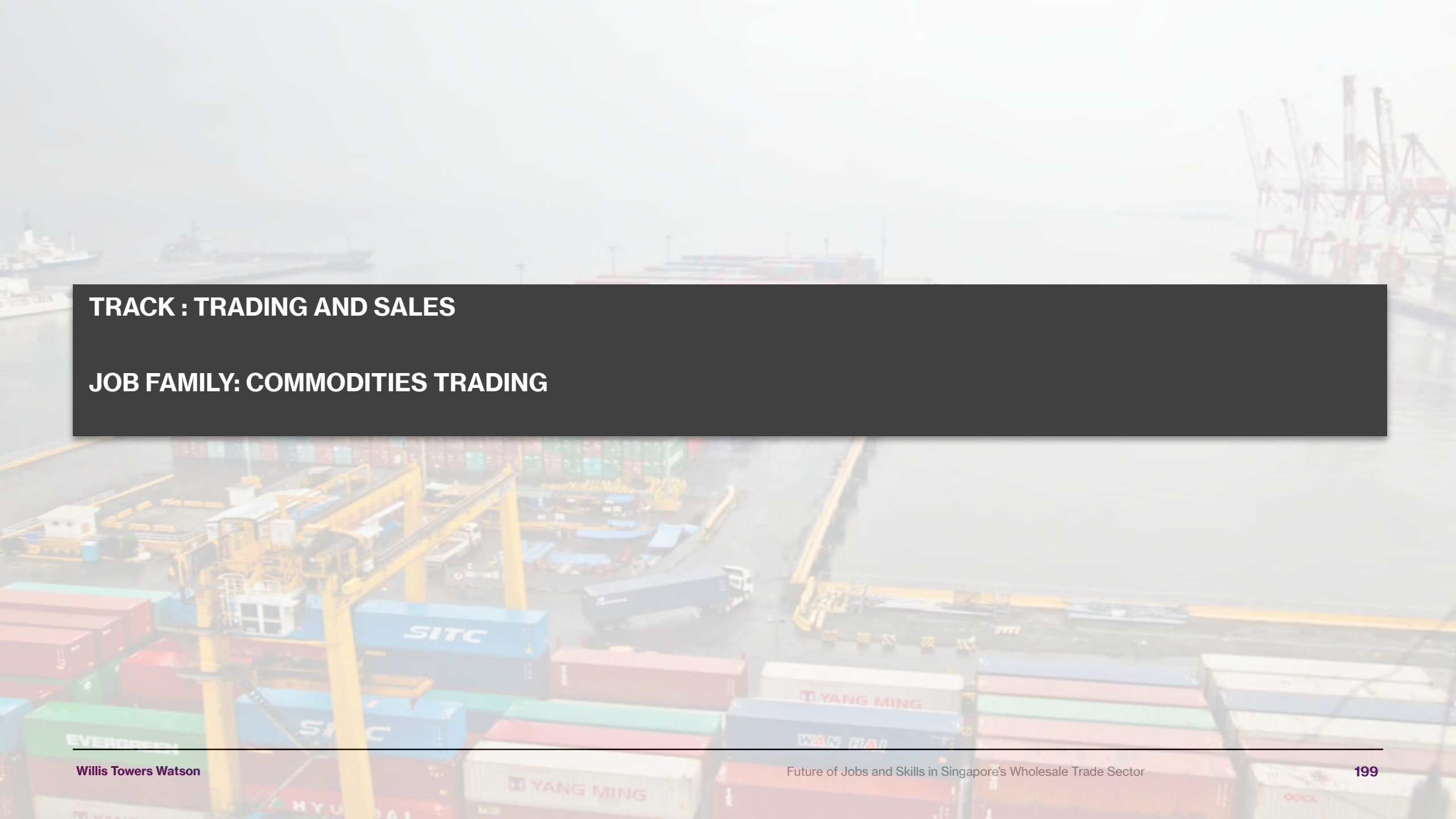
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Produce data-driven insights to improve business and/or functional performance by cleaning and organising large datasets and applying data mining and analytics techniques.
Performance Monitoring and Analysis	Interpret performance data to develop insights to improve business performance.
Position Management	Apply standard trading strategies and analyse price movements to manage the profitability of trade positions.
Sourcing Portfolio Analysis	Analyse past supply trends and other information sources to support the segmentation of the sourcing portfolio.
Trade Automation	Support the development of rules and conditions by back testing the trading rules to historical market data to determine the viability of the outcome and fine-tune the trade rules.
Volume Analysis	Analyse trends in trading volume to develop insights on future price movements.

IN THE NEXT
3-5 YEARS...

The role will continue to perform human-led derivatives trading but will be heavily assisted by AI, predictive analytics and algorithmic-assisted trading. These technologies will automate the tracking of market events and portfolio positions and evaluate risks. As derivatives trading becomes increasingly digitalised, traders will be expected to have strong coding, quantitative analysis, and data modelling capabilities. Traders of the future will be valued for their capabilities in core derivatives trading, as well as digital and relationship management skills.

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TRACK : TRADING AND SALES

JOB FAMILY: COMMODITIES TRADING

Job Family

COMMODITIES TRADING

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

The Commodities Trading job family has traditionally relied on paper trails to execute, authenticate and process transactions. However, the job family is undergoing tremendous change in its processes to keep pace with the rapidly evolving business environment. It is turning to technology to bring in new business opportunities, improve efficiencies and advance overall performance.

The job family is expected to see a gradual adoption of AI and ML technologies in developing trading strategies, identifying trading opportunities and executing hedging approaches to improve profitability. However, the adoption rate of these technologies are expected to vary according to the organisation's maturity level and counterparties' and market participants' readiness to be on the same digital trade ecosystem. As organisations transit to a more transparent trading platform, forming alliances with counterparties and market participants to gain access to larger commodity portfolio opportunities is expected to become commonplace.

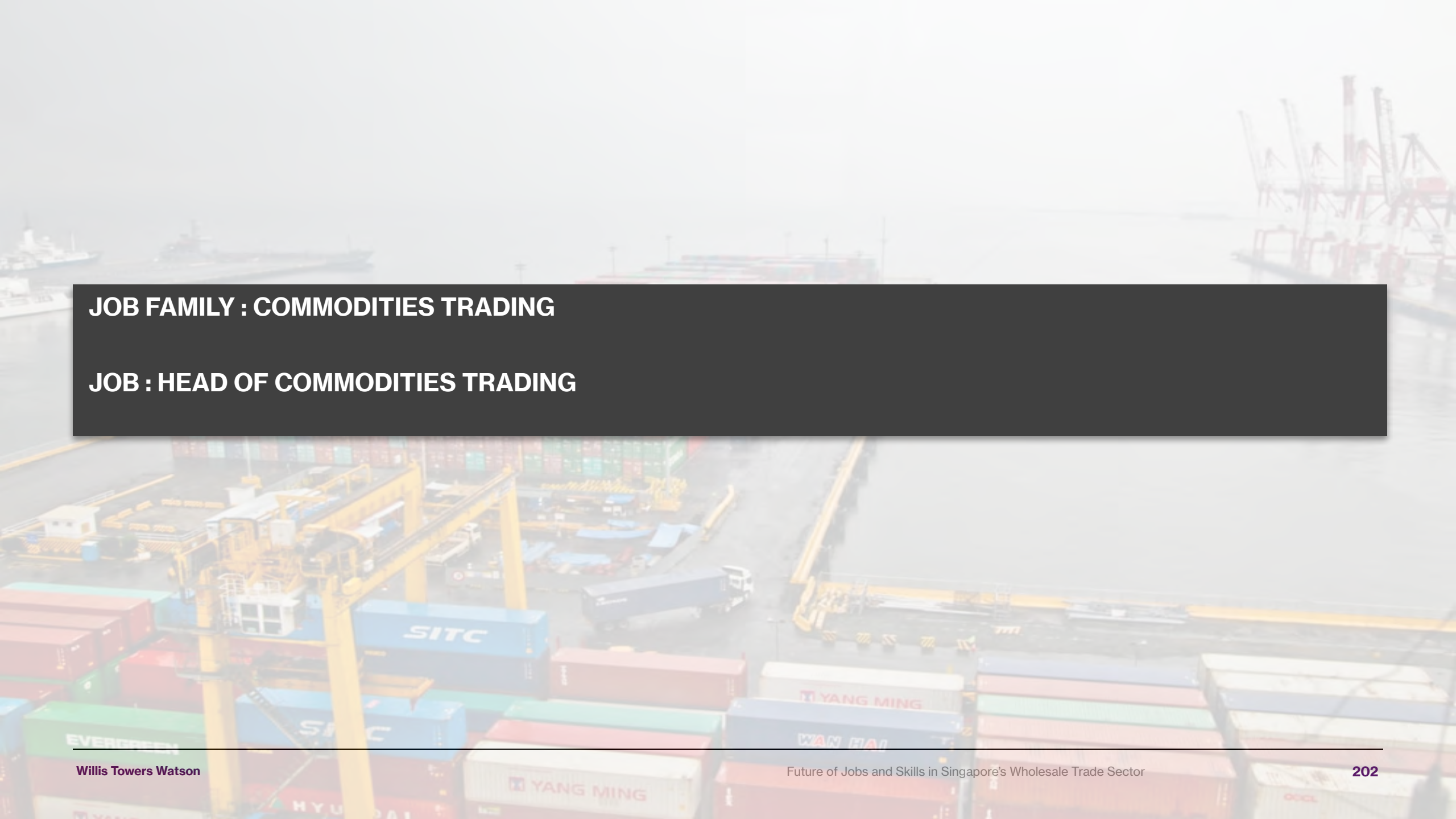
Managing financial risk will remain core to this job family. Roles across all levels will be expected to collaborate closely with other functions such as the risk, regulatory and derivatives trading team to reduce all types of risks and financial liabilities that may surface during trade execution.

Driven by international ESG norms and owing to investors and trade partners' interest, the job family will be responsible for driving the development and trading of sustainable commodity products.

The use of predictive analytics and algorithms will hugely supplement the trader's execution capabilities. Commodity traders will be expected to have a good understanding of data analysis techniques and basic programming skills. Furthermore, data scientists will support the typical quant teams to transform complex and varied digital data feeds into trading strategies. While big data and algorithms are expected to become more prevalent, human intervention will continue to remain critical during trade execution.

Prevalent Technologies & Impact on Job Roles

	Artificial Intelligence	AI can be leveraged to help traders understand price trends and peaks and troughs of the market to identify the right time to enter and exit the market. AI can identify complex trading patterns across multiple markets in real-time, saving traders time searching and sifting through financial data and transaction histories.
	Advanced Data Analytics	Advanced data analytics such as big data can help augment human-led trading and help traders identify profitable trading opportunities and capitalise on them. Big data can help analyse large scale data from internet scan, social media, market information and news analysis to generate insights and predict opportunities.
	Business Intelligence Applications	BI tools and dashboards can be utilised to monitor and assess portfolio performance. Proprietary intelligence can be built through a combination of widely available data sources, such as sensors, geospatial satellites, social media, and advanced algorithms developed in-house by data scientists.
	Digital Platform and marketplaces	Digital platforms and marketplaces can be leveraged to track and perform real-time transactions. Digital platforms such as the CTRM system can be used for trade execution and reduce repetitive paperwork.
	Robotic Process Automation	RPA can be leveraged to extract, and link counterparty trade data and simplify data processing such as trade reconciliation and prepare portfolio status reports.

An aerial view of a busy port. In the foreground, there are numerous stacked shipping containers in various colors (blue, red, green, white). Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow gantry cranes are visible, some with containers being loaded or unloaded. In the background, several large cargo ships are docked at the pier. The sky is overcast and hazy.

JOB FAMILY : COMMODITIES TRADING

JOB : HEAD OF COMMODITIES TRADING

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage commodity portfolios	• Drive the profit and loss for one or multiple commodities and identify other commodity classes' trading opportunities • Evaluate the performance of commodity portfolio against strategic objectives and drive adherence to organisation's controls to safeguard commodity portfolio positions • Evaluate the suitability of valuation models and assumptions applied to commodity valuation • Drive collaboration with Operations, Risk, Finance and Derivatives trading team to manage structured trades and its risk	• [AUGMENTED] Drive the use of cognitive automation technologies and data analytics to guide the establishment of commodity trading strategies • [NEW] Drive the usage of AI and big data to collect data and predict patterns which traders can leverage to improve portfolio performance. Institutionalise the use of platforms that scan for data from sources such as the internet, sensors, geospatial satellites and drone technology to generate sentiment and fundamental analyses • [AUGMENTED] Collaborate with the Derivatives Trading team to drive the creation of a central trading desk that facilitates hedging against commodity price fluctuations and enables information flow from multiple sources to the CTRM system. Explore the use of CTRM systems to execute transactions, analyse data and evaluate impacts of market movement on performance • [AUGMENTED] Drive the use of advanced analytics to generate new portfolio ideas and identify commodity classes' trading opportunities • [AUGMENTED] Direct the use of BI tools and dashboards to monitor and assess commodity portfolio performance as well as anticipate future price movements • Collaborate closely with risk and regulatory teams to facilitate trade controls and safeguard commodity portfolio positions • Collaborate with derivatives trading and data science teams to manage structured trades and execute trading decisions that lower liquidity risk and financial liabilities • [NEW] Develop a sustainability roadmap, in collaboration with various stakeholders, that guides the organisation in meeting its sustainability goals • [NEW] Partner with external and internal stakeholders to drive the organisation's sustainability goals and track the organisation's progress via sustainability reports

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Engage in buying and/or selling activities	- Guide commodity trading strategies to account for various market trends or economic conditions and endorse trades beyond the rates or limits - Direct trade negotiation strategies, techniques - Direct trading team to comply with trade regulations and guidelines in consultation with regulatory and risk management team - Drive collaboration with operations team and market analysis team to manage the physical settlement of commodities and shape targeted research areas, respectively	[AUGMENTED] Drive collaboration with market analysis and data science teams to facilitate the use of advanced analytics that consolidate and analyse historical trends and patterns, providing traders with the latest information on markets and commodity movements [AUGMENTED] Direct trade negotiation strategies and techniques with the use of algorithms that can process large amounts of data to reduce information gaps and identify trading opportunities - Escalate trades with potential risks to the trade compliance team and support the development of rectification measures - Direct the trading team to comply with trade regulations and guidelines [NEW] Explore the possibility of managing the physical settlement of commodities using e-platforms that enable partners to exchange information, negotiate contracts and maintain transparency during trading activities [NEW] Drive the development and trading of sustainable commodity products and ensure the trading process meets sustainability standards and organisational goals
Manage trade relationships	- Drive trade partnership strategies and development of relationships with existing key and possible trade partners - Endorse future trade renewals, changes or termination based on the analysis and evaluation of the overall performance of trade partners - Guide the establishment of resolution approaches per organisational policies and procedures on trade contracts, disputes or performance issues of key trade partners	[NEW] Drive the creation of an internal e-platform or the adoption of third-party solutions to make trading more efficient, lowering barriers to entry for trade partners [AUGMENTED] Explore the possibility of endorsing trade partners and future trade renewals on e-platforms - Develop relationships with new and existing counterparties to increase trading volume and improve business performance - Partner closely with the regulations and compliance team to guide the establishment of resolution approaches following organisational policies and procedures on trade contracts, disputes or performance issues of key trade partners
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Manage department's talent development and recruitment efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to enhance budgeting and tracking processes - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives that uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Global Trading Innovation	Head of Industry Affairs	Head of Product Management (Commodities)	Chief Operating Officer	Corporate Strategy Advisor	Management Consultant

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Review the efficacy of predictive analytics models and evaluate outputs for business and/or functional strategy formulation.
Performance Monitoring and Analysis	Collaborate with other business leaders to design data-driven frameworks and dashboards to monitor business performance for better decision-making.
Position Management	Develop trade position management framework, hedging strategies and risk thresholds to reduce the risk of financial losses due to market volatility.
Sourcing Portfolio Analysis	Oversee the sourcing portfolio analysis and develop strategies to concentrate or diversify supply, manage risks, enhance speed to market, and reduce costs.
Trade Automation	Drive trade automation by identifying the right platform based on the complexity of trade algorithms and platform independence, specific requirements and analytical capabilities. Define the governance framework and monitor the trading outcomes for any deviations.

IN THE NEXT 3-5 YEARS...

As global trade becomes increasingly digital, data scientists will become an essential support for this role in strategy building and enhancing trading profitability. Armed with more data and insights about markets and customers, the role will focus more on building relationships with trade partners and collaborating with regional trade networks and regulatory bodies. This role will also be responsible for striking a balance between using technology and building relationships with trading partners to retain a sense of personal touch.

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JOB FAMILY : COMMODITIES TRADING

JOB : COMMODITIES TRADING MANAGER/SENIOR COMMODITIES TRADER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage commodity portfolios	- Manage profit and loss for one or multiple commodities - Review commodity portfolio performance and develop trading plans to address identified gaps in commodity classes - Review periodic portfolio status reports, valuation methods and assumptions, and assess supply and demand factors that affect trade and valuations - Facilitate trade controls to safeguard commodity portfolio positions - Facilitate collaboration with derivatives trading team to manage structured trades risk	[AUGMENTED] Implement cognitive automation technologies that guide the establishment of commodity trading strategies [NEW] Leverage technologies like AI, ML and big data to collect data and predict patterns to help traders improve portfolio performance. Use platforms that scan for data from sources such as the internet, sensors, geospatial satellites and drone technology to generate sentiment and fundamental analyses [AUGMENTED] Work closely with leaders and technology teams to explore the use of CTRM systems to review commodity portfolio performance and address identified gaps in information access [AUGMENTED] Use advanced analytics to generate new portfolio ideas and identify trading opportunities [AUGMENTED] Leverage BI tools and dashboards to monitor and assess commodity portfolio performance as well as anticipate future price movements - Facilitate trade controls and safeguard commodity portfolio positions by collaborating with regulatory and risk teams - Collaborate with derivatives trading & data sciences teams to manage structured trades and execute trading decisions that lower liquidity risk and financial liabilities [NEW] Implement the sustainability roadmap that guides the organisation in meeting its sustainability goals. Monitor the organisation's carbon footprint to reduce emissions, shaping a more sustainable business [NEW] Partner with external and internal stakeholders to drive the organisation's sustainability goals and report the organisation's progress via sustainability reports
Engage in buying and/or selling activities	- Develop commodity trading strategies to guide positions during various market trends or economic conditions and approve trades beyond the rates or limits - Facilitate trade negotiation and escalate trades with potential risks to trade compliance for the development of rectification measures - Facilitate collaboration with operations team and market analysis team to manage the physical settlement of commodities and guide targeted research areas along with inputs on markets, respectively	[AUGMENTED] Collaborate with market analysis and data sciences teams to facilitate the use of advanced analytics that consolidate and analyse historical trends and patterns to provide traders with the latest information on market and commodity movements [AUGMENTED] Facilitate trade negotiation strategies and techniques with the use of algorithms that can process large amounts of data to reduce information gaps and identify trading opportunities - Escalate trades with potential risks to trade compliance and propose rectification measures - Comply with trade regulations and guidelines [NEW] Support the potential implementation of an internal e-platform that enables partners to exchange information, negotiate contracts and maintain transparency during trading activities [NEW] Develop and trade sustainable commodity products, and ensure the trading process meets sustainability standards and organisational goals

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade relationships	- Develop targeted trade partnership strategies and implementation plan and enhance networks with existing and potential trade partners - Analyse trade partners' service delivery and performance levels to keep in line with key performance indicators and provide performance feedback - Facilitate appropriate actions to manage trade contracts, disputes or performance issues of key trade partners	[NEW] Collaborate with internal or external technology teams to build or adopt third-party trading e-platforms to lower barriers to entry, facilitate the ease of transactions and achieve greater price transparency [AUGMENTED] Leverage e-platforms to engage and endorse trade partners for future trade renewals - Develop relationships with new and existing counterparties to conduct trades, increase trading volume and improve business performance - Analyse trade partners' service delivery performance and make necessary recommendations - Collaborate with the governance and compliance team to manage trade contracts, disputes or performance issues of key trade partners
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Manager	Project Manager	Risk Manager	Business Development Manager	Enterprise Sales Manager (Software)	Process Improvement Manager

SKILL DIFFERENTIATORS

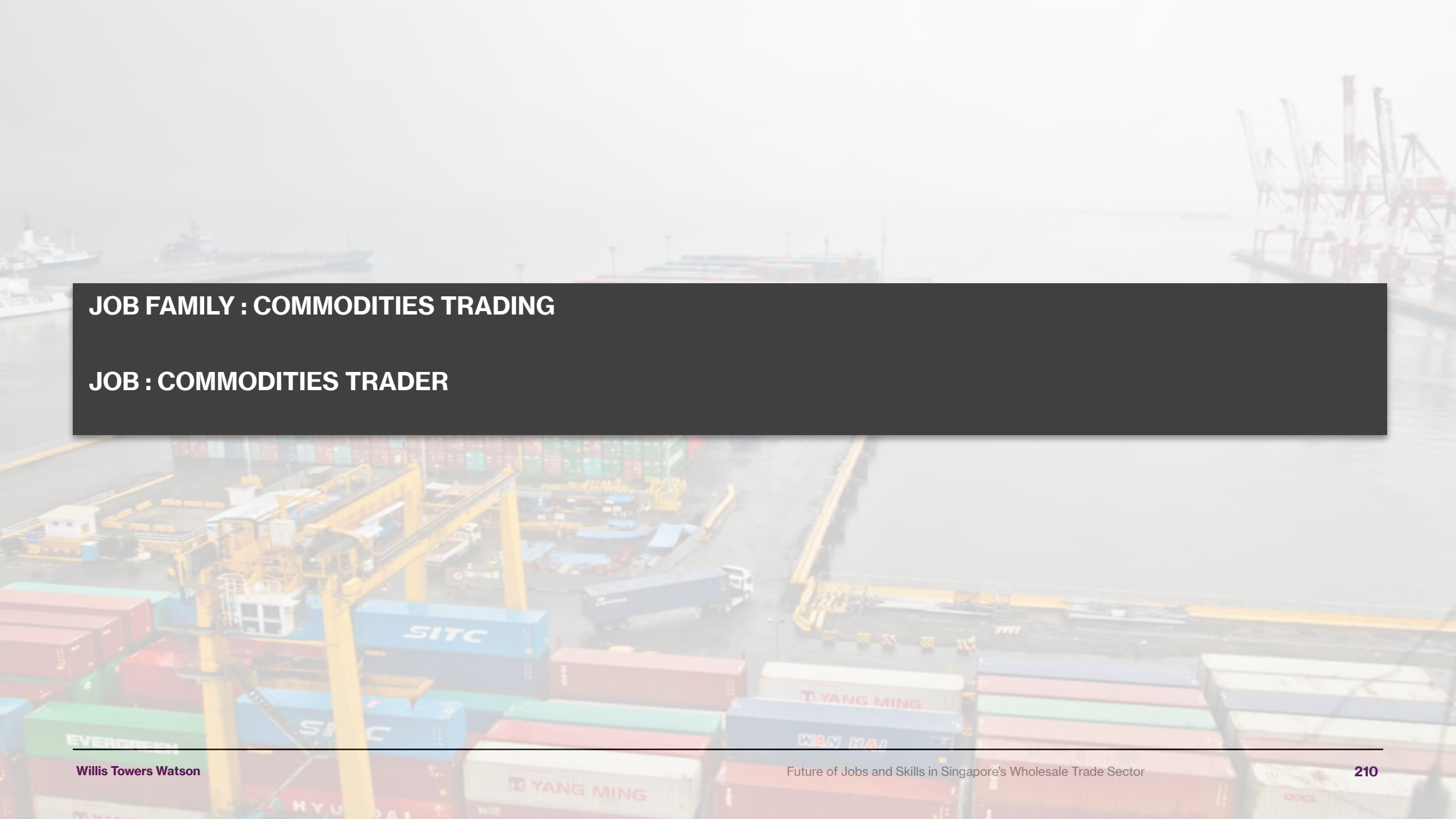
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Develop predictive analytics models using techniques such as statistics, data mining, modelling, machine learning and data visualisation to develop insights to influence stakeholders' decision making and improve business/functional performance
Performance Monitoring and Analysis	Develop data-driven frameworks and automated dashboards by defining the linkages across relevant business metrics to track, analyse and improve business performance
Position Management	Execute trade position management and hedging plans while continuously improvising the strategy based on data-driven insights and market volatility
Sourcing Portfolio Analysis	Manage the process of segmenting sourcing portfolios based on the strategic importance of the goods to the business to provide inputs for each segment's specific sourcing strategy
Trade Automation	Explore trade automation platforms to provide inputs on the most suitable system. Propose trading rules and conditions and monitor trading outcomes

IN THE NEXT
3-5 YEARS...

The role will continue to perform human-led commodities trading but, at the same time, be expected to help strategise and operationalise the implementation of new technologies. This role will be expected to leverage data analytics and applications like CTRM to drive higher efficiencies in work activities and develop profitable trading strategies and trade relationships. The role will continue to initiate sustainability-linked initiatives and develop sustainable commodity products in alignment with company and customer needs.

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JOB FAMILY : COMMODITIES TRADING

JOB : COMMODITIES TRADER

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage commodity portfolios	- Analyse commodity portfolio to identify trading opportunities - Perform appropriate valuation methods to assess commodity valuation and monitor supply and demand factors that affect trades and valuations - Apply organisation's controls to safeguard commodity portfolio positions - Collaborate with derivative trading team to manage risks from structured trades	[NEW] Analyse data from the internet, sensors, geospatial satellites and drone technology to generate sentiment and fundamental analyses to improve portfolio performance [NEW] Use cognitive technologies to improve traceability in the supply chain [AUGMENTED] Analyse commodity portfolio performance with the help of advanced data analytics to access real-time market feeds, news, weather reports and product movements across the supply chain [AUGMENTED] Use BI tools and dashboards to monitor and assess commodity portfolio performance as well as anticipate future price movements - Apply trade controls to safeguard commodity portfolio positions - Collaborate with the derivatives trading & data sciences teams to manage structured trades and execute trading decisions that lower liquidity risk and financial liabilities [NEW] Support the implementation of the sustainability roadmap that guides the organisation in meeting its sustainability goals. Track the organisation's carbon footprint to reduce emissions, shaping a more sustainable business [NEW] Develop sustainability reports to track the organisation's progress in meeting its sustainability goals
Engage in buying and/or selling activities	- Apply relevant commodity trading strategies to guide positions during various market trends or economic conditions - Execute trades that are within allowed rates or limit in accordance with portfolio objectives - Conduct negotiation of buying and/or selling activities - Collaborate with market analysis team to form buy or sell decisions - Implement internal trade guidelines to ensure compliance with regulatory requirements and legislations - Collaborate with the operations team and market analysis team to see through the physical settlement of commodity	- Execute trades that are within allowed limits. Implement hedging strategies with the derivatives trading team to optimise trade performance [NEW] Engage in sustainable trading [AUGMENTED] Perform buy and/or sell activities using algorithms that can process large amounts of data to reduce information gaps, identify trading opportunities and mitigate trade risks - Implement internal trade guidelines to ensure compliance with regulatory requirements and legislations [AUGMENTED] Collaborate with the operations, market analysis and data sciences teams to explore the possibility of conducting trades on an internal e-platform that enables partners to exchange information and negotiate contracts to maintain transparency during trading [NEW] Follow product development processes that focuses on customer needs, incorporate sustainability standards and at the same time, ensure prospective trades are commercially viable

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade relationships	- Execute targeted trade partnership implementation plan - Build working-level relationships with existing networks and possible trade partners - Monitor activities and performance of trade partners against contract terms and identify performance problems or contractual issues - Resolve trade contracts, disputes or performance issues at the operational level	[NEW] Work with internal or external technology teams to build or adopt third-party trading e-platforms, lowering barriers to entry for trade partners. Perform programming responsibilities as required for the development of such platforms - Build and maintain working-level relationships with existing and potential trade partners by focusing on their needs and demonstrating competence in multiple areas (e.g., product type, product applications, market trends and regulations) [AUGMENTED] Apply RPA to monitor activities and performance of trade partners against contract terms, and identify performance problems or contractual issues - Resolve trade contracts, disputes or performance issues at an operational level, taking guidance from trade compliance policies - Contribute feedback to the operations teams, as well as trade counterparties, on documentation policies and contracts required for trade transactions during periodic reviews
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Analyst	Procurement Analyst	Risk Analyst	Business Analyst	Business Development Analyst	Data Analyst

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Produce data-driven insights to improve business and/or functional performance by cleaning and organising large datasets and applying data mining and analytics techniques.
Performance Monitoring and Analysis	Interpret performance data to develop insights to improve business performance.
Position Management	Apply standard trading strategies and analyse price movements to manage the profitability of trade positions.
Sourcing Portfolio Analysis	Analyse past supply trends and other information sources to support the segmentation of the sourcing portfolio.
Trade Automation	Support the development of rules and conditions by back testing the trading rules to historical market data to determine the outcome's viability and fine-tune the trade rules.

IN THE NEXT
3-5 YEARS...

The role will continue to perform human-led commodities trading but will be heavily assisted by AI, predictive analytics and algorithmic-assisted trading. As commodities trading becomes increasingly digitalised, traders will be expected to have strong coding, quantitative analysis, and data modelling capabilities. Traders of the future will be valued for their capabilities in core trading and digital skills. The role will also continue to build and maintain relationships with trade partners and establish relationships in trade networks to understand customer needs better and uncover business opportunities.

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TRACK : FINANCE AND REGULATIONS

JOB FAMILY: TRADE FINANCE

Job Family

TRADE FINANCE

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

The Trade Finance job family is impacted by the tightening of compliance, risk and legal requirements. Consequently, the job family is expected to strengthen internal compliance and minimise both fraud and trade manipulation. In particular, strong corporate governance and risk management capabilities will become critical for organisations to differentiate themselves in the market. Strong governance policies will also be necessary to safeguard data and maintain transparency during trading activities. Traders should regularly check with regulatory and compliance teams before approvals of trading activities.

The ESG agenda is also anticipated to gain importance, influencing financial institutions' decisions to finance and invest in green initiatives and programmes. As the emphasis on sustainability grows, roles within this job family will need to bring the relevant know-how of ESG into the organisation.

AI and ML technologies will strengthen track and trace capabilities, allowing for better control of physical cargo, paper documentation and financing, minimising fraudulent behaviour. Trade finance roles will also leverage data analytics to improve the monitoring of trade transactions and identify and mitigate risks. With the gradual introduction of DLTs, some trade processes (e.g., trade documentation and record-keeping) will be automated, reducing manual effort while ensuring efficient and secure trade flows. The use of cloud-based technologies will help drive e-documentation for digital processing, such as Electronic Bill of Lading.

These business changes will lead to changes in skills required. Skills like DLT application and structured financing will see increasing importance.

Prevalent Technologies & Impact on Job Roles

 Artificial Intelligence	AI and ML technologies can be leveraged to obtain information in a secure and accurate format, which enables developing an integrated view of activities. With AI, trade finance professionals can proactively collate information on upcoming market trends and new regulations and guidelines that can impact portfolios' performance, enabling better informed trade decision making. AI also provides the capability to scrutinise trade documents, enhancing the speed of trade transactions.
 Business Intelligence Applications	Business/financial analytics and dashboards generated by BI applications can improve visibility for improved price forecasting models that can help perform deals more accurately. BI applications can also obtain real-time information on the organisation's trade positions and price movements to assess portfolios' performance accurately and manage risks.
 Cloud-based Technologies	Cloud-based technologies can be adopted to process documents digitally and access them remotely. Examples of such documents include an electronic bill of lading, letter of credit, certificate of origin, etc.
 Distributed Ledger Technologies	DLTs serves as a database that can record and synchronise transactions. DLTs like Blockchain can be used to conduct financial trades insights, shorten the delivery time for trade documentation, reduce cost and increase security and trade transparency. With DLT, the trade processing time will decrease substantially, allowing trade finance roles to free up time to focus on driving more favourable deals.
 Digital Platform and Marketplaces	Digital platforms and marketplaces can be leveraged to monitor transactions from an AML and KYC perspective.
 Digital Documents & Smart Contracts	Digital documents and smart contracts can be utilised to prepare paper-free trade documentation, freeing up time for trade finance roles to perform more value-added tasks.
 Integrated ERP Platform	Integrated ERP platforms can be used to process and approve orders and clear trades more efficiently.



JOB FAMILY : TRADE FINANCE

JOB : HEAD OF TRADE FINANCE

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade finance transactions	- Lead trade finance strategies that promote overall portfolios' growth and application optimisation - Establish strategies for securing optimal financing terms, utilisation of trade facilities and ensuring trades are accurately financed - Establish controls to mitigate credit and performance exposure risks in trade operations	[AUGMENTED] Establish trade finance strategies that promote business performance. Drive the adoption of AI to integrate trade finance activities, improving trade decisions, overall portfolio performance and working capital - Leverage data analytics to formulate strategies that promote overall portfolio growth. Leverage trend analytics to understand financing term patterns to secure optimal financing terms and better utilisation of trade finance facilities - Ensure that a diversified financing portfolio is maintained. Source for alternative sources of financing and/or alternative financiers - Lead the development of trade execution controls by collaborating with internal compliance, to improve AML and KYC programmes and to reduce fraud risk - Work with banks and financiers per their internal protocols and guidelines to ensure secured trade finance - Institutionalise technological changes in the organisation as incorporated by banks to increase operational efficiencies [NEW] Collaborate with financial institutions and internal stakeholders like the Head of Treasury to gradually incorporate and leverage DLTs such as Blockchain
Manage trade finance documentation	- Lead development of trade finance documentation guidelines to promote efficiency and compliance with relevant laws and regulations - Drive trade clearing and settlement process to ensure all trades are cleared	- Lead the development of trade finance documentation guidelines and policies using digital documents and smart contracts, taking into account the intricacies of regulations in domestic and foreign jurisdictions [AUGMENTED] Drive the deployment of technologies to manage orders and clear trades. Leverage cloud-based technologies in an integrated ERP platform to process documents more efficiently
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives to uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Export Finance	Head of Operations	Head of Risk Management	Finance Director	Head of Operations	Head of Risk Management

SKILL DIFFERENTIATORS

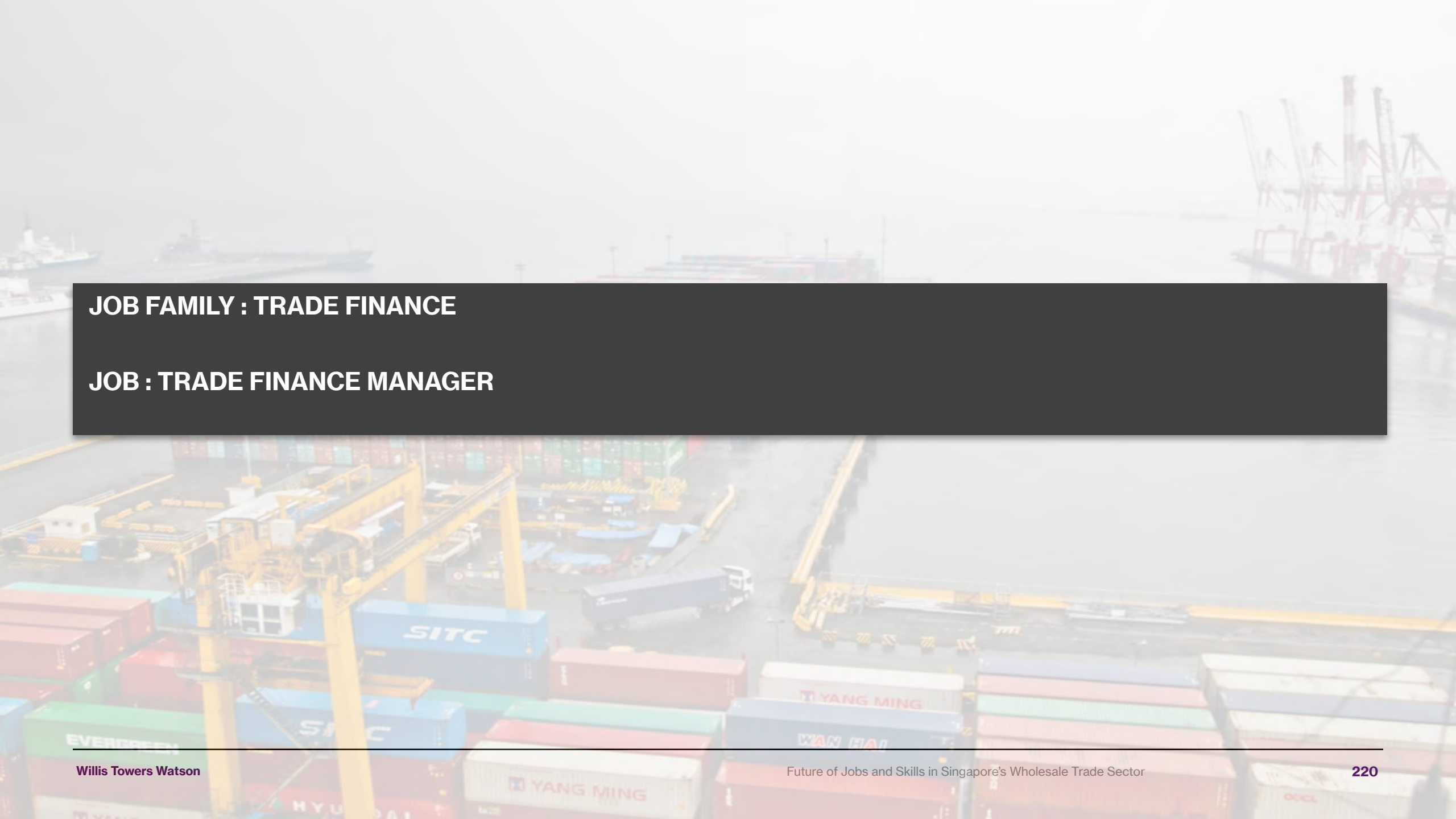
Roles Specific

SKILL	DESCRIPTIONS
Distributed Ledger Technologies Application	Drive the adoption of distributed ledger technology based on common industry standards and platforms to optimise efficiency, integrity and security of transactions.
Pilot Programme Management	Conceptualise relevant pilot programmes and evaluate the effectiveness of small-scale experiments before full-scale deployment of projects.
Structured Financing	Drive the adoption of innovative approaches to enhance credit risk assessment for complex structured financing instruments.

IN THE NEXT 3-5 YEARS...

The role will be expected to drive the digitalisation of trade finance transactions using technologies like DLT to ensure more efficient, secure and transparent trade flows. The role will have to consider the industry and organisation's readiness and maturity of technology before developing strategies on adopting technologies. The role will also drive the use of AI and leverage data analytics to identify and mitigate risks. As the shortage of financing facilities continues to persist due to stringent government regulations, it will be necessary for the role to build capabilities in sourcing for alternative financing solutions (e.g., peer-to-peer lending, accounts receivable financing, etc.). The role will continue to work with internal compliance to develop policies that adhere to regulations to minimise fraud and reduce trade manipulation. The role will drive e-documentation to accelerate processing time, institutionalise paperless transactions and optimise working capital. Finally, as the emphasis on sustainability grows and as more financial institutions accelerate Green Financing, the role will need to bring the relevant know-how into the organisation.

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JOB FAMILY : TRADE FINANCE

JOB : TRADE FINANCE MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade finance transactions	- Manage daily trade finance transactions to ensure trade finance software platforms and working capital requirements are optimised - Monitor and evaluate the organisation's positions and portfolios based on performance reports, to minimise risk and performance exposure - Develop financing strategies to ensure that trades are adequately financed	[AUGMENTED] Leverage data analytics and automated systems like BI applications to obtain real-time information on the organisation's trade positions and price movements, to accurately assess portfolio performance and better manage risks - Leverage AI to proactively collect information on upcoming market trends and developments in new regulations and guidelines that can impact portfolios' performance [AUGMENTED] Source and grow financing lines with alternative financiers and/or structured financing with traders as alternative funding methods [NEW] Work with financial institutions and internal teams to facilitate the gradual introduction of DLTs such as Blockchain which will assist in processing live trade finance transactions, ensuring trade transparency and cost-efficiency
Manage trade finance documentation	- Develop and maintain trade finance documentation guidelines and policies that comply with relevant laws and regulations - Inspect trade documents to ensure compliance - Review trade clearing and settlement process to ensure all trades are cleared	- Develop and maintain trade finance documentation guidelines and policies for both physical and digital documents and smart contracts, taking into account the intricacies of regulations in domestic and foreign jurisdictions - Use digital platforms to monitor transactions from an AML and KYC perspective
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE

Structured Finance Manager

Trade Operations Manager

Treasury Manager

OUTSIDE WHOLESALE TRADE

Finance Manager

Product Manager

Relationship Manager

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Distributed Ledger Technologies Application	Collaborate with stakeholders to automate processes using distributed ledger technology.
Pilot Programme Management	Prepare tools and resources to stage small-scale experiments to test the new approaches in a realistic setting and its organisational fit, and identify changes required before full-scale deployment of projects.
Structured Financing	Analyse customer profiles and credit requirements to suggest structured financing instruments that meet their needs.

IN THE NEXT 3-5 YEARS...

The role will be expected to manage trade finance transactions efficiently using AI and ML and support the gradual adoption of DLTs. The role will continue to leverage technology tools to monitor trade transactions and to drive more favourable deals. There will be an increased adoption of paperless transactions with an increased acceptance of electronic documentation and electronic signatures. As order processing becomes largely digitalised, the role will be responsible for implementing technology and process-related changes to improve trade workflows. The role will ensure that e-documentation is aligned with financial institutions' standards and in compliance with latest AML regulations and KYC requirements. In order to ensure financing availability for business continuity, it will be important for the role to source for alternative financing solutions (e.g., peer-to-peer lending, accounts receivable financing, etc.). Finally, as the emphasis on sustainability grows and as more financial institutions accelerate Green Financing, the role will also leverage Structured Green Financing solutions.

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JOB FAMILY : TRADE FINANCE

JOB : SENIOR ANALYST / ANALYST, TRADE FINANCE

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade finance transactions	- Perform daily trade finance transactions to ensure funds transfer, trade finance software platforms and working capital requirements are optimised - Generate relevant performance dashboards on the organisation's positions and prepare portfolio analysis for management review	- Perform daily trade finance transactions to ensure fund transfers, trade finance software platforms and working capital requirements are optimised [AUGMENTED] Leverage automated dashboards generated by BI applications to analyse trade cycle transactions, organisations' positions and portfolios and working capital requirements, and create reports that can provide actionable recommendations [NEW] Support the growth of financing lines with alternative financiers and/or structured financing as alternative funding methods [NEW] Support pilot tests for the gradual introduction and implementation of DLTs such as Blockchain to process live trade finance transactions, ensuring trade transparency and cost-efficiency
Manage trade finance documentation	- Maintain proper documentation of trade finance records and transaction documents to ensure compliance with relevant laws and regulations - Coordinate with operations team to ensure accurate trade finance documentation - Analyse trade clearing and settlement process to ensure all trades are cleared	[AUGMENTED] Prepare and maintain trade finance documentation guidelines and policies for both physical and digital documents and smart contracts, taking into account the intricacies of regulations in domestic and foreign jurisdictions - Use digital platforms to accelerate transaction processing
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE

Commodities Sales Analyst Corporate Strategy Analyst Credit Analyst

OUTSIDE WHOLESALE TRADE

Corporate Strategy Analyst Financial Analyst Risk Analyst

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Distributed Ledger Technologies Application	Develop an understanding of the principles and applications of distributed ledger technology in work processes.
Pilot Programme Management	Conduct small-scale, short-term experiments before deciding how and whether to deploy full-scale projects.
Structured Financing	Understand the mechanics and impact of structured financing instruments in managing cashflows.

IN THE NEXT 3-5 YEARS...

The role will be expected to execute trade finance transactions efficiently using AI and ML and gradually adopt DLTs. As paperless transactions become increasingly adopted with electronic documentation and electronic signatures gaining acceptance, trade finance facilitation will be simplified, reducing documents' processing time. As a result, this role is expected to have the bandwidth for value-added work. The role will continue to leverage data analytics to generate insights on trade processes and upkeep proper trade documentation on integrated digital platforms. In order to ensure financing availability for business continuity, it will be necessary for the role to build knowledge in alternative financing solutions (e.g., peer-to-peer lending, accounts receivable financing, etc.). Finally, as the emphasis on sustainability grows and as more financial institutions accelerate Green Financing, the role will also need to develop knowledge in Structured Green Financing solutions.

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TRACK : FINANCE AND REGULATIONS

JOB FAMILY: CREDIT MANAGEMENT

Job Family

CREDIT MANAGEMENT

Overall Level of Impact**Medium Impact****Overview of Changes (Within 3 years)**

Regulations in the borrowing space have become tighter over the years. Lenders such as banks are becoming more cautious in approving trade financing and are cutting risk exposure, given the recent rise in financial fraud cases. As a result, more and more organisations in the wholesale trade sector have started offering credit lines to customers as an alternative source of financing to nurture and develop current and new business relationships. However, offering credit lines has mandated organisations to build robust credit management policies and frameworks.

As such, the Credit Management job family is expected to continue their efforts in building robust frameworks, policies and processes that help reduce fraudulent transaction and reduce cash flow uncertainties. To achieve these objectives, the job family is expected to embrace the greater application of technologies like data analytics and AI. Technology is expected to be leveraged to assess and review customers' creditworthiness more efficiently and effectively to avoid bad debts.

Constant and numerous scenario models will be developed to test and predict outputs and outcomes during credit stress testing to provide risk mitigation recommendations and enhance forecasts.

Solutions like web-based credit applications, integration of digital signatures, digital reference checks, rules-based credit limit granting, and digital document storage are expected to gain greater acceptance to reduce human error, improve the customer onboarding process and mitigate risk.

As more complex forms of financing become prevalent, having an in-depth knowledge of structured financing will become necessary for credit management roles. Additionally, skills and knowledge in counterparty risk management and pilot programme management are expected to become critical.

Prevalent Technologies & Impact on Job Roles



Artificial Intelligence

AI's capabilities can be harnessed to improve customer profile assessment and increase the accuracy of risk models. AI can help analyse real-time customer behaviour, market conditions, economic cycles, and industry disruptions that can help predict defaults and reduce credit risks. AI can also help to ensure that credit management roles make less judgement-related errors with improved risk prediction.



Web-based Credit Application

Web-based credit applications can be leveraged to reduce human error, improve the customer onboarding process and mitigate risks.



JOB FAMILY : CREDIT MANAGEMENT

JOB : HEAD OF CREDIT

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive credit analysis processes	- Drive the development of credit policies and guidelines, taking into account regulatory requirements, changing market or industry outlook - Drive credit stress testing outcomes to chart business decisions and credit risk appetites - Lead periodic credit reviews to minimise credit exposure, recommend credit restructuring options and identify credit opportunities	- Lead the development of credit risk frameworks, policies and guidelines in collaboration with the regulatory team using counterparty risk management programmes that take into account the market outlook - Develop ongoing audit and governance mechanisms for the risk framework [AUGMENTED] Lead regular credit reviews. Drive the use of AI to analyse financial statements and identify changes in customer risk profiles based on market conditions, economic cycles and industry disruptions to assess customers' creditworthiness [AUGMENTED] Lead the development of scenario modelling to predict outputs and outcomes during credit stress testing to provide risk mitigation recommendations. Drive the use of data analytics to enhance forecasts and reduce cashflow uncertainties [NEW] Enhance decisions for structured financing solutions by driving the usage of AI to analyse real-time customer behaviour, estimate future cashflows and predict credit risks
Initiate buyers' credit assessments	- Establish procedures and policies for credit applications - Approve credit applications that deviate from predetermined standards or approved limits	[AUGMENTED] Drive improvements in the customer onboarding process, reduce human error and mitigate risk by switching from paper applications to web-based credit applications [AUGMENTED] Integrate solutions like digital signatures, digital reference checks, rules-based credit limit granting and digital document storage to reduce manual paperwork and human error - Approve credit applications that deviate from predetermined standards or approved limits [NEW] Drive the gradual adoption of AI to automate credit decisions which include checking and evaluating risks effectively and efficiently, in line with compliance requirements
Monitor credit risks performance	- Establish an effective credit risk management framework and methodologies - Monitor credit exposure levels - Lead negotiations with relevant stakeholders on bad credit portfolios and recommend remediation actions to take	[AUGMENTED] Direct the development of effective rating methodologies, taking into account the latest public policy or regulatory changes - Monitor credit exposure levels of the organisation. Negotiate and recommend remediation actions based on payment track records, current financial health of customers and underlying credit risks

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives to uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Change & Innovation	Head of Risk Management	Head of Treasury	Head of Credit Innovation	Head of Risk Management	Head of Strategic Partnerships

SKILL DIFFERENTIATORS

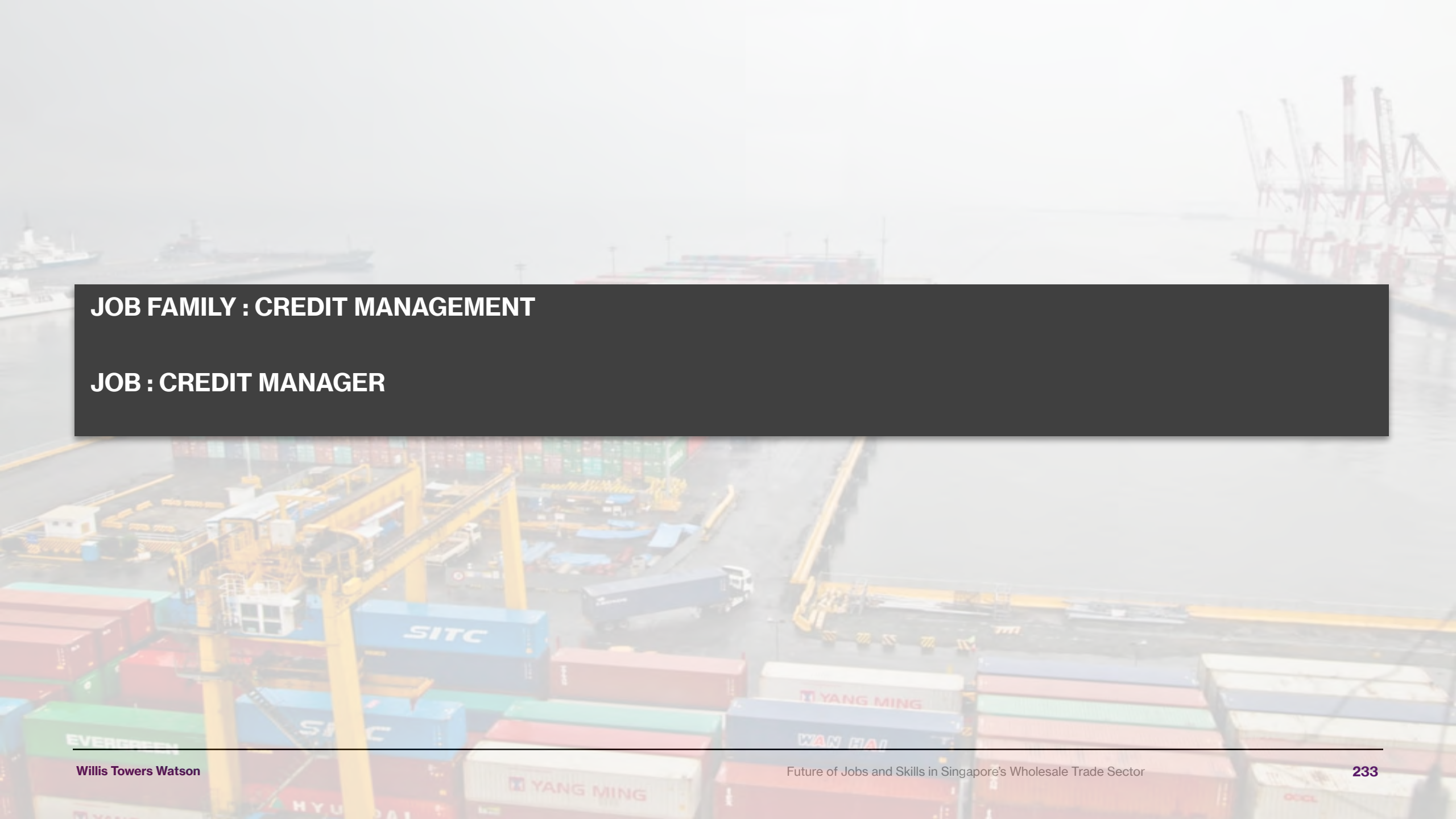
Roles Specific

SKILL	DESCRIPTIONS
Counterparty Risk Management	Lead the development of new risk criteria and mitigation approaches to manage risk considering evolving macroeconomic factors.
Pilot Programme Management	Conceptualise relevant pilot programmes and evaluate the effectiveness of small-scale experiments before full-scale deployment of projects.
Structured Financing	Drive the adoption of innovative approaches to enhance credit risk assessment for complex structured financing instruments.

IN THE NEXT 3-5 YEARS...

The role will be expected to drive the gradual adoption of AI to process unstructured data and analyse customers' digital footprint to assess creditworthiness. The role will focus on digitalising the routine aspects of credit management in trade transactions. This will free up time for the role to improve customer engagement and strengthen credit policy formulation by analysing counterparty risks. Human intervention and judgement will remain critical for this role and job family.

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JOB FAMILY : CREDIT MANAGEMENT

JOB : CREDIT MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive credit analysis processes	- Facilitate credit stress testing within the organisation to provide risk mitigation recommendations - Manage periodic credit reviews across different credit portfolios' segment for restructuring options, credit opportunities or credit policies recommendations - Review credit policies and guidelines taking into account regulatory requirements, changing market or industry outlook	- Support the development of credit risk frameworks, policies and guidelines in collaboration with the regulatory team, taking into account the market outlook. - Implement counterparty risk management programmes to assess and mitigate risk [AUGMENTED] Oversee regular credit reviews to monitor and proactively manage risk. Use AI to analyse financial statements and identify changes in customer risk profiles based on market conditions, economic cycles and industry disruptions to assess customers' creditworthiness [AUGMENTED] Conduct scenario modelling to predict outputs and outcomes during credit stress testing to provide risk mitigation recommendations. Perform data analysis to enhance forecasts and reduce cashflow uncertainties [NEW] Provide support on structured financing solutions by leveraging AI to analyse real-time customer behaviour, estimate future cash flows and predict credit risk
Initiate buyers' credit assessments	- Evaluate buyer's credit assessment, financial records and repayment ability before approving credits - Evaluate and approve credit applications, and escalate cases that do not pass predetermined standards	[AUGMENTED] Automate credit application forms to enable digital signatures, reducing human error, improving customer onboarding process and mitigating risk [AUGMENTED] Leverage data analytics and AI-generated reports to analyse customer's creditworthiness and plan for out-of-the-ordinary credit limits for key clients [NEW] Facilitate the use of AI to implement STP that enables instant approvals for simple credit requests, enabling a quicker processing time for credit applications
Monitor credit risks performance	- Develop effective credit risk management framework, methodologies and dashboard templates for monitoring of credit exposure levels - Negotiate financial agreements, credit extensions for creditors or repossession actions with relevant stakeholders for bad credit portfolios	[AUGMENTED] Develop effective rating methodologies, taking into account the latest public policy or regulatory changes - Negotiate financial agreements and credit extensions with relevant stakeholders intended for bad credit portfolios [AUGMENTED] Leverage data analytics to generate dashboard reports to monitor credit exposure levels, enabling early detection of risks

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology and finance initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that are aligned with the organisation's ESG strategy - Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Strategy Manager	Trade Finance Manager	Treasury Risk Manager	Audit Manager	Enterprise Risk Manager	Finance Manager

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Counterparty Risk Management	Develop and refine risk criteria and mitigation approaches to reduce counterparty risks.
Pilot Programme Management	Prepare tools and resources to stage small-scale experiments to test the new approaches in a realistic setting and its organisational fit, and identify changes required before full-scale deployment of projects.
Structured Financing	Analyse customer profiles and credit requirements to suggest structured financing instruments that meet their needs.

IN THE NEXT
3-5 YEARS...

The role will help develop credit-related policies and guidelines, considering sustainability and governance-linked credit factors and the latest regulatory changes. The role is expected to lead the use of technologies like AI, coupled with analytical techniques such as ratio analysis, trend analysis and cash flow analysis to reduce credit risk exposure and bad debts. The role will be expected to utilise AI to manage and monitor credit portfolios with automated risk detection alerts for the early detection of risks. The role will also be expected to collaborate with other teams to improve cashflows.

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JOB FAMILY : CREDIT MANAGEMENT

JOB : SENIOR ANALYST / ANALYST, CREDIT MANAGEMENT

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive credit analysis processes	- Perform periodic credit reviews and evaluate credit exposure across different credit portfolios' segment to develop possible restructuring options and credit opportunities - Adhere and analyse the impact of changing market conditions on credit policies, procedures, guidelines and regulatory requirements	[NEW] Leverage AI to gather customers' credit footprint, assess customers' creditworthiness, payment track records, and suggest decisions on credit restructuring - Adhere to counterparty risk management programmes to assess and mitigate risk [AUGMENTED] Integrate data collected through AI to analyse the impacts of market outlook, industry disruption and sustainability-linked credit factors on credit policies and guidelines. Identify and predict defaults, and reduce credit risks
Initiate buyers' credit assessments	- Analyse buyer's credit data, financial and non-financial records and historical data to assess repayment ability - Escalate credit applications that exceed available credit limits and deviate from predetermined standards - Monitor buyer's financial information or records to decide on the next course of action	[AUGMENTED] Support the automation of credit application forms to enable digital signatures, reducing human error, improving customer onboarding process and mitigating risk [AUGMENTED] Use information gathered via AI and predictive analytics alerts to monitor and review potential delinquencies or payment delays and follow up on payments [NEW] Leverage data analytics to check and analyse credit histories, verifying information and assessing buyer's repayment ability accurately to reduce the cost of debt recovery, as well as escalating exceptional credit scenarios
Monitor credit risks performance	- Monitor portfolios for adherence to credit risk management framework and its credit exposure levels - Advise buyers of necessary actions and strategies for debt repayment and arrange for repayment schedule based on buyers' financial situations	[AUGMENTED] Analyse dashboard reports to monitor credit exposure levels against credit risk management framework, enabling early detection of risks [NEW] Extract, consolidate and reconcile data from multiple sources to analyse customers' creditworthiness better and calculate maximum credit limit and ability to pay back debt promptly [AUGMENTED] Leverage AI and web crawling technologies to predict defaults and highlight cases that may potentially require credit restructuring, enabling early mitigation of potential issues

Job Expectations within the next 3 years		
Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Identify areas of improvement through the application of technology and support technology implementation projects

Job Adjacency					
WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Audit Analyst	Portfolio Analyst	Risk Analyst	Business Risk Analyst	FP&A Analyst	Risk & Compliance Analyst

SKILL DIFFERENTIATORS

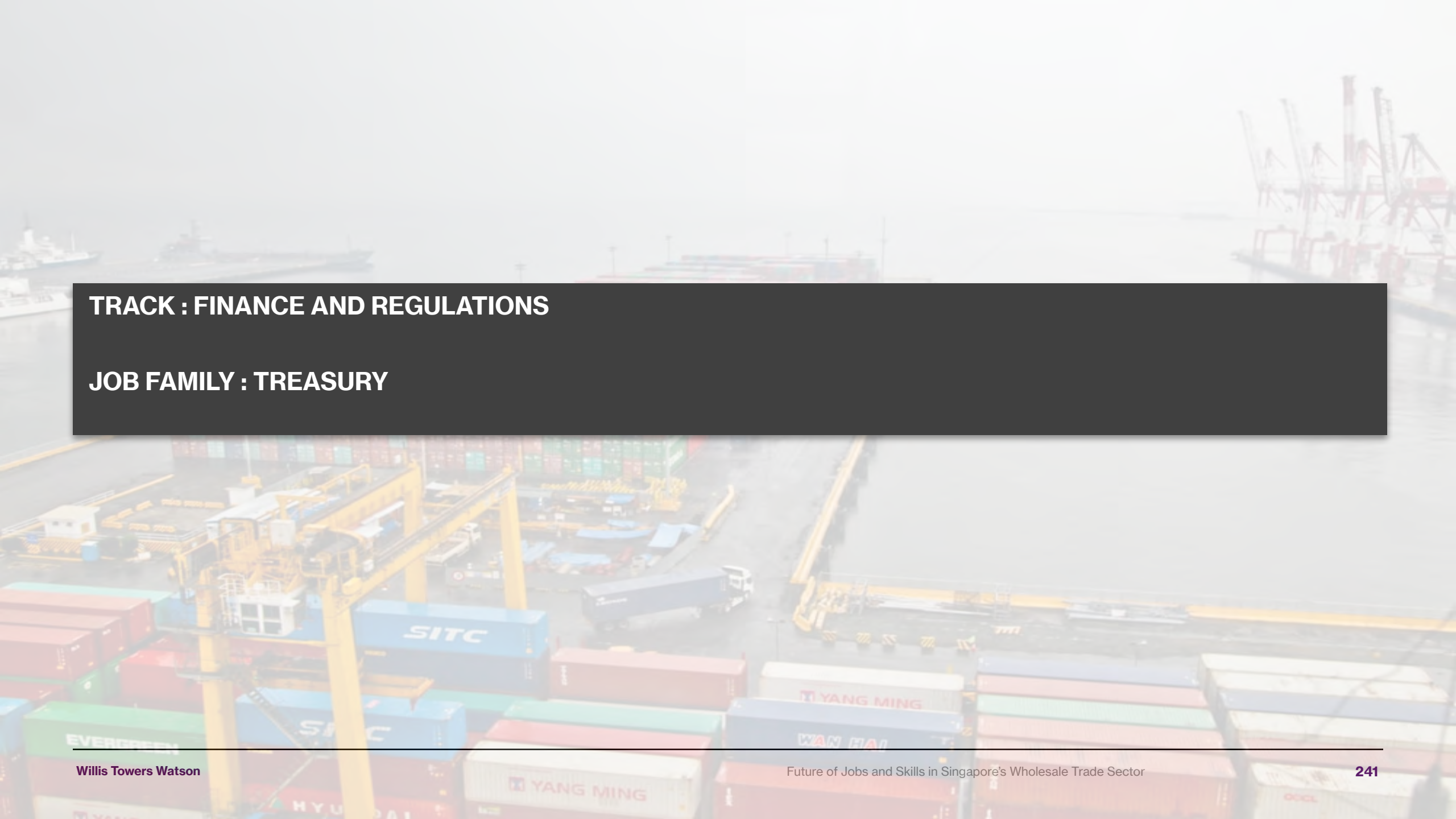
Roles Specific

SKILL	DESCRIPTIONS
Counterparty Risk Management	Assess counterparty risks following defined risk criteria and follow mitigation approaches for managing risks.
Pilot Programme Management	Conduct small-scale, short-term experiments before deciding how and whether to deploy full-scale projects.
Structured Financing	Understand the mechanics and impact of structured financing instruments in managing cashflows.

IN THE NEXT
3-5 YEARS...

The role will support the ongoing technology enablement for credit management. Technologies such as AI will significantly augment the expectations of the role by automating routine work processes. This will enable the role to focus more on leveraging data analytics to develop credit management insights and recommendations.

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TRACK : FINANCE AND REGULATIONS

JOB FAMILY : TREASURY

Job Family

TREASURY

Overall Level of Impact**Medium Impact****Overview of Changes (Within 3 years)**

The rapid evolution of technology drives businesses to evaluate and explore new business models for expansion into new markets globally. This requires quick real-time information flow and processing of information across all aspects of the value chain. The Treasury job family would have to adapt to support the company's transformation through treasury innovation to be an effective internal banker.

Treasury innovation which can streamline and automate manual treasury processes, is expected to be a key focus area for organisations. The job family will be expected to reduce operational errors, optimise working capital and generate insights that can improve investment performance. With vast volumes of data to process and study, the job family will need to adapt to technologies such as AI and TMS, which can improve the visibility of cash positions, thus enabling a more intelligent treasury.

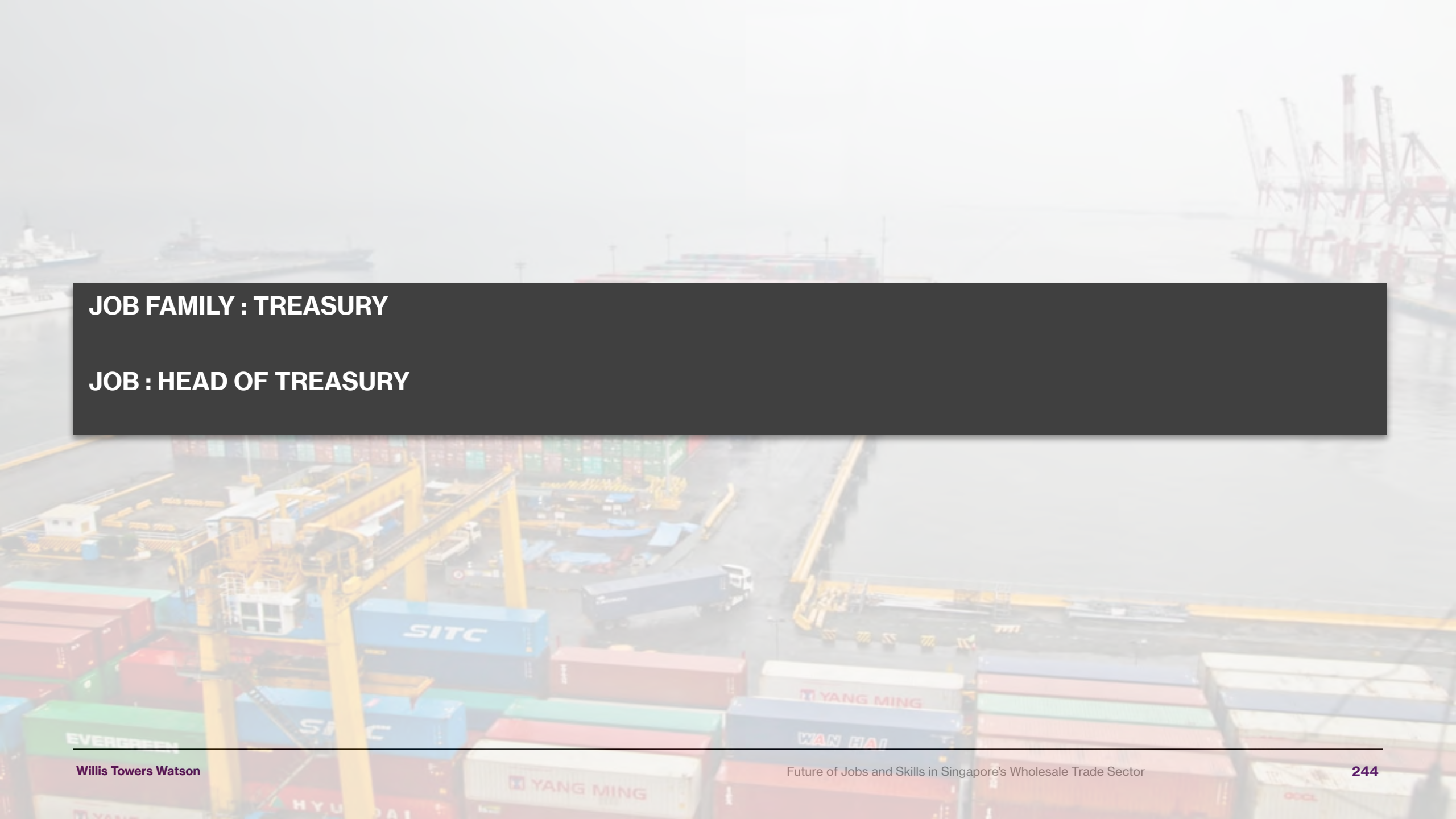
The job family is also expected to understand the different financial risks (e.g., liquidity risk, counterparty risk, etc.) and work with the risk team to manage these risks effectively. Additionally, the job family is anticipated to drive collaboration with internal stakeholders on small-scale and short-term treasury pilot programmes, such as introducing new technologies within the treasury function.

With these changes, the treasury function's role will evolve from an operational support role to a strategic role.

New skills and knowledge such as counterparty risk management, pilot programme management and structured financing are expected to become integral to the treasury role.

Prevalent Technologies & Impact on Job Roles

 Artificial Intelligence	AI can help consolidate data from various technology platforms, such as ERP systems, TMS and other bespoke sources. This technology helps to create visibility by collating accurate and timely information. Organisations can leverage this information to enhance cash forecasting and mitigating financial risks.
 Integrated ERP Platform	Integrated ERP platforms can help produce intelligent dashboards that can share relevant and timely information with internal stakeholders. Automated dashboards generated by ERP platforms can prompt insights on liquidity status, liquidity gaps, bank accounts status, trade lines etc., which can help assess positions accurately.
 Treasury Management System	TMS can be used for streamlining and automating manual processes and day to day data management tasks. It can help establish digital automation workflows for data entry and data verification, reducing manual error. TMS also provides access to a transparent and panoramic view of treasury related activities, enabling better cash forecasting, banking control and balanced positions.



JOB FAMILY : TREASURY

JOB : HEAD OF TREASURY

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage treasury strategies	- Establish the organisation's cash management strategies and KPIs in alignment with business development strategies - Lead collaboration with internal functions for treasury related initiatives	- Establish cash management strategies that integrate liquidity risk management, credit, currency fluctuations and interest rate changes. Develop targets and KPIs in alignment with business development strategies [AUGMENTED] Drive the use of ERP solutions and data analytics to ensure accurate, actionable and real-time information is provided to internal stakeholders - Drive tactical, operational and strategic decision-making, in collaboration with internal functions, for treasury related initiatives [AUGMENTED] Drive collaboration with internal stakeholders to direct small-scale, short-term treasury pilot programmes, such as the introduction of new technology in the treasury function
Manage organisation's financial holdings	- Oversee the organisation's bank accounts and trade lines to ensure steady growth, efficient use of the organisation's cash, sufficient capital and increase in liquidity - Drive the review of settlements of any financial instrument the organisation uses - Direct compliance with treasury regulations and guidelines - Lead interactions and relationship building with financial institutions to support financing needs and other treasury operations	- Oversee the organisation's financial position and trade lines to ensure steady growth, efficient use of the organisation's cash, sufficient capital and increase in liquidity - Build an understanding of different financial risks and local regulatory requirements to develop treasury guidelines - Collaborate with financial institutions to support treasury operations [AUGMENTED] Collaborate with functional leaders like the Head of Trade Finance to build relationships with financial institutions. Institutionalise technological changes incorporated by banks, such as STP [AUGMENTED] Strategise with financial institutions regarding financial solutions, such as green financing solutions
Oversee analysis of treasury holdings	- Lead strategies for cash forecasting, investing of excess cash, inter-organisational cash settlements, and hedging of forex, commodities and/or interest rates to mitigate financial exposures and risks - Oversee financial reporting to ensure accurate insights into financial positions to alleviate liquidity issues and take advantage of potential revenue opportunities - Formulate appropriate actions after analysing the organisation's financial position	[AUGMENTED] Strategise the deployment of solutions like data analytics to enhance cash forecasting, ensure sufficient capital for business operations, oversee hedging decisions to mitigate risks and maximise returns on excess cash [AUGMENTED] Drive the introduction of technology platforms like TMS to streamline and automate manual processes and obtain a transparent and panoramic view of treasury-related activities. Utilise accurate and timely information for better cash forecasting, banking control and balanced positions [AUGMENTED] Drive the usage of ERP to effectively perform payments, cash reconciliation and cash accounting, prompting insights on liquidity status to assess positions accurately and make informed business decisions - Recommend optimal funding options like cash pooling to mobilise cash across businesses, maximising internal sources of funds and improving control of the organisation's cash

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology and finance initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives to uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Innovation	Head of Risk Management	Head of Strategy	Head of Corporate Strategy	Head of Risk Management	Lead Portfolio Manager

SKILL DIFFERENTIATORS

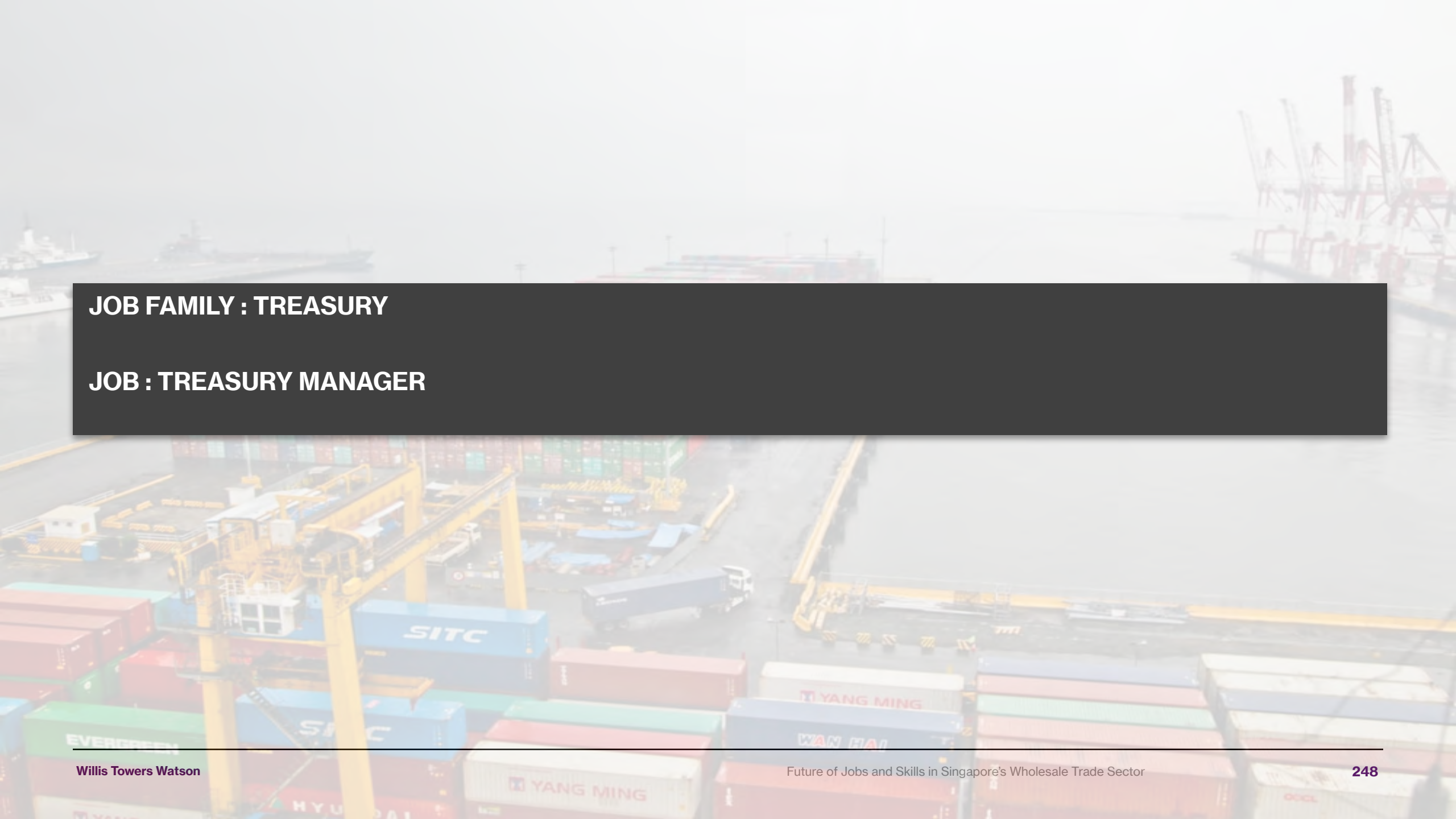
Roles Specific

SKILL	DESCRIPTIONS
Counterparty Risk Management	Lead the development of new risk criteria and mitigation approaches to manage risk considering evolving macroeconomic factors.
Pilot Programme Management	Conceptualise relevant pilot programmes and evaluate the effectiveness of small-scale experiments prior to full-scale deployment of projects.
Scenario Modelling	Evaluate plausible scenario modelling outcomes and their impact on business outcomes to make trade-offs about the future course of action.
Structured Financing	Drive the adoption of innovative structured financing instruments while enhancing credit risk management

IN THE NEXT
3-5 YEARS...

The role will be expected to drive the use of technologies to enable appropriate cash and liquidity management. In the future, the role will be heavily involved in strategising technology initiatives to automate treasury operations and portfolio management. This role will collaborate closely with the regulatory and risk management teams to ensure that internal processes can keep up with the developments in risk management and the regulatory environment. The role will continue to work closely with external professionals from banks, law firms and tax and accounting firms to ensure effective control of risks associated with investments. Moreover, this role will be expected to advise internal stakeholders on ESG requirements as green initiatives are likely to accelerate and as governing monetary authorities are developing grant schemes to support green and sustainability-linked investments.

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JOB FAMILY : TREASURY

JOB : TREASURY MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage treasury strategies	- Manage the implementation of the organisation's cash management strategies and implement targets and KPIs in alignment with business development strategies - Collaborate with internal functions for treasury related initiatives	- Manage the implementation of cash management strategies that integrate liquidity risk management, credit, currency fluctuations and interest rate changes. Implement targets and KPIs in alignment with business development strategies [AUGMENTED] Leverage ERP solutions and data analytics to provide accurate, actionable and real-time information to internal stakeholders - Support tactical and operational decision-making, in collaboration with internal functions, for treasury initiatives [NEW] Support the development and implementation of small-scale, short-term, treasury pilot programmes in collaboration with internal stakeholders
Manage organisation's financial holdings	- Review the organisation's bank accounts, trade lines and settlements of any financial instrument the organisation uses - Develop internal treasury guidelines to ensure compliance with regulatory requirements and legislations - Interact and build strong relationships with financial institutions to support financing needs and other treasury operations	- Review the organisation's financial position, trade lines and settlements of any financial instrument the organisation uses - Build an understanding of different financial risks. Collaborate with the regulatory team to develop treasury guidelines - Liaise with financial institutions to support financing needs and other treasury operations [AUGMENTED] Deploy technologies incorporated by banks, such as STP [AUGMENTED] Work with financial institutions to identify various financial solutions, such as green financing solutions
Oversee analysis of treasury holdings	- Develop plans to mitigate financial risks and exposures in-line with treasury policies and best practices - Evaluate the organisation's funding and inventory positions using monthly and quarterly treasury reports to anticipate expenses and plan investments - Take appropriate actions after analysing the organisation's financial position	[AUGMENTED] Develop treasury policies and procedures that integrates data analytics to increase the accuracy of cash forecasting and implement controls to mitigate financial risks [AUGMENTED] Implement technology platforms like TMS for better cash forecasting, banking control and balanced positions [AUGMENTED] Leverage ERP to effectively perform payments, cash reconciliation and cash accounting, prompting insights on liquidity status to assess positions accurately and make informed business decisions - Implement cash pooling to mobilise cash across businesses, maximising internal sources of funds and improving control of the organisation's cash

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology and finance initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that are aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Finance Manager	Innovation Manager	Risk Manager	Business Strategy Manager	Finance Manager	Financial Product Manager

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Counterparty Risk Management	Develop and refine risk criteria and mitigation approaches to reduce counterparty risks.
Pilot Programme Management	Prepare tools and resources to stage small-scale experiments to test the new approaches in a realistic setting and its organisational fit, and identify changes required before full-scale deployment of projects.
Scenario Modelling	Review scenario-based models that predict a range of outcomes and propose action plans to mitigate risks and maximise performance.
Structured Financing	Analyse customer profiles, credit requirements and credit risks to suggest structured financing instruments to meet their needs.

IN THE NEXT
3-5 YEARS...

The role will be increasingly involved in developing and deploying technology solutions that automate treasury operations and portfolio management. Over time, technologies like RPA will be leveraged to reduce manual efforts required for data collation and analysis. The role is also expected to comply with and enforce regulatory requirements within the organisation and ensure that the total risk management framework is deployed to safeguard the organisation's financial position. The role will continue to work closely with external professionals from banks, law firms and tax and accounting firms to ensure effective control of risks associated with investments. The role is expected to become a strategic business partner focusing on technology, strategy and change management.

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JOB FAMILY : TREASURY

JOB : SENIOR ANALYST / ANALYST, TREASURY

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage treasury strategies	- Implement the organisation's cash management strategies and develop quantitative measures of targets and KPIs in alignment with business development strategies - Organise collaboration with internal functions for treasury-related initiatives	- Implement cash management strategies that integrate liquidity risk management, credit, currency fluctuations and interest rate changes to implement targets and KPIs [AUGMENTED] Leverage ERP solutions and data analytics to generate accurate, actionable and real-time information for internal stakeholders [NEW] Support the development and deployment of small-scale, short-term, treasury pilot programmes in collaboration with internal stakeholders
Manage organisation's financial holdings	- Analyse organisation's cash flow positions, gaps in liquidity management, bank accounts, trade lines and settlements of any financial instrument the organisation uses - Implement internal treasury guidelines to ensure compliance with regulatory requirements and legislations - Interact and build strong relationships with financial institutions to support financing needs and other treasury operations	- Consolidate financial data across all business units on the ERP system and analyse the organisation's cash flow position, liquidity gaps, bank accounts, trade lines and settlements of any financial instrument used - Implement treasury guidelines - Liaise with financial institutions to support financing needs and other treasury operations [AUGMENTED] Deploy technologies incorporated by banks, such as STP [AUGMENTED] Interact and build relationships with financial institutions for various financial solutions, such as green financing solutions
Oversee analysis of treasury holdings	- Execute plans to mitigate financial risks and exposures in-line with treasury policies and best practices - Review monthly and quarterly treasury reports to show the financial health of the organisation	[AUGMENTED] Leverage AI and data analytics to improve accuracy in cash forecasting and to mitigate financial risks [AUGMENTED] Support the implementation of technology platforms like TMS for better cash forecasting, banking control and balanced positions [AUGMENTED] Use ERP to effectively perform payments, cash reconciliation and cash accounting, prepare monthly and quarterly treasury reports prompting insights on liquidity status

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Operations Analyst	Financial Analyst	Inventory Analyst	Business Strategy Analyst	Financial Product Analyst	Change / Transformation Analyst

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Counterparty Risk Management	Assess counterparty risks following defined risk criteria and follow mitigation approaches for managing risks.
Pilot Programme Management	Conduct small-scale, short-term experiments before deciding how and whether to deploy full-scale projects.
Scenario Modelling	Performance analysis on defined scenarios to assess their potential impact on business outcomes.
Structured Financing	Understand the mechanics and impact of structured financing instruments in managing cashflows

IN THE NEXT
3-5 YEARS...

The routine and repetitive aspects of the role will be automated by technology, enabling the role to work on more value-adding tasks like developing investment insights. The role will support the ongoing technology adoption for treasury management. The role will be required to deepen their technical expertise, implement new technologies, and manage any associated risks. The role will be expected to comply with and enforce regulatory requirements within the organisation. The role will also be expected to ensure the deployment of total risk management frameworks.

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TRACK : FINANCE AND REGULATIONS

JOB FAMILY: RISK MANAGEMENT

Job Family

RISK MANAGEMENT

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

The markets are becoming increasingly unpredictable. Events like trade wars, geopolitical tensions, cyber terrorism, ESG concerns, pandemics, etc., are making the risk function's jobs very different from what it has been in the past. This job family often deals with risks and challenges – many of which are unknown and unprecedented.

As such, the Risk Management job family is expected to refocus its strategy to meet some of these challenges. The job family will be expected to build frameworks, policies, and processes to build the organisation's resilience to unexpected events.

There will be growth in the adoption of technology to meet these upgraded requirements. Data analytics is expected to become an important tool that can identify and predict risk areas to prevent fraudulent activities. Other technologies like CTRM systems will be expected to help conduct more accurate risk scenario analyses. The job family will also be expected to detect and combat risks and financial frauds in trade by leveraging automated monitoring using AI, advanced data analytics and digital platforms and marketplaces.

Strong governance will remain a crucial focus within the risk management job family.

With the assistance of technologies in completing tasks and improving efficiencies, this job family's expectations will be augmented, taking on a more strategic form. As requirements evolve, skills and knowledge in identifying and managing risk, advanced data analytics, and scenario modelling will become necessary for roles in this job family.

Prevalent Technologies & Impact on Job Roles



Advanced Data Analytics

Advanced data analytics can be utilised for data mining, modelling and data visualisation to create actionable insights. It can help identify and predict risk areas that can help prevent fraudulent activities such as money laundering and corrupt practices. Advanced data analytics can also be used during scenario modelling and stress testing across prioritised and high-risk profiles to improve risk management approaches.



Artificial Intelligence

AI can be utilised for data collation and processing of both structured and unstructured data. This helps in reducing human errors and improving efficiencies. Organisations can also leverage AI to monitor, predict and provide alerts on emerging risks allowing sharper business decision making.



Digital Platform and marketplaces

Digital platforms like CTRM can be adopted to support business processes associated with trading commodities to enhance efficiency, improve daily workflows and increase productivity. Digital platforms can also be used to create dashboards that can generate insights for enhancing risk management frameworks.

The background image shows a large-scale port operation. In the foreground, there are numerous stacked shipping containers in various colors (blue, red, green, white). Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow gantry cranes are visible, some with containers being lifted. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is overcast and hazy.

JOB FAMILY : RISK MANAGEMENT

JOB : HEAD OF RISK

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop enterprise risk management framework	- Lead development of risk management mandate, risk criteria and framework that considers the latest industry developments - Endorse and communicate final risk management governance, trade control guidelines and enhancement of risk framework across functional tracks - Lead relationship building with regulatory bodies to stay informed on changes in the business risk landscape	[AUGMENTED] Lead the development of advanced risk management strategies, risk criteria and frameworks, taking into consideration the latest industry trends, macroeconomic climate, regulatory changes, sustainability issues and technology risks - Endorse frameworks and processes that can build the organisation's resilience to unexpected events like supply chain disruption, natural disasters, pandemics, cyberattacks and unpredictable competitors - Deploy predictive risk monitoring, which analyses both historical and current risks to provide alerts on emerging risks - Lead remediation plans, response strategies and communication plans to inform risk framework enhancements and guidelines - Build relationships with regulatory bodies, industry and international networks to identify any changes in the business risk landscape
Drive risk assessment processes	- Lead risk assessment and development of risk profiles across functions to compare and assess different business risks - Devise scenario analysis and stress testing approaches across risk profiles - Endorse risk assessment schedules	[AUGMENTED] Develop strategies to automate data consolidation for risk analysis using technologies like AI [AUGMENTED] Drive the use of historical data and advanced data analytics to predict and identify corrupt practices, policy breaches, suspicious transactions, and help to prioritise risk profiles for early detection of risks - Conduct stress testing across risk profiles to anticipate vulnerabilities within the system or processes and recommend risk mitigation plans
Manage risk mitigation	- Endorse risk mitigation plan based on risk assessments, profiles and severity of risks - Lead education or training initiatives on various business risks for internal stakeholders	[NEW] Collaborate with functional leaders to drive the adoption of digital platforms such as the CTRM systems, which provides an overall portfolio performance dashboard using a centralised view of data for trade execution and position monitoring - Address identified gaps and risks and endorse mitigation plan based on risk assessments and severity of risks - Drive the education of internal stakeholders on prevalent and emerging business risks so that they are well-versed on various risks that may impact the business

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Uphold initiatives that uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Enterprise Risk Management	Head of Internal Audit	Head of Regulatory Compliance	Head of Internal Audit	Head of Operations	QHSE Leader

SKILL DIFFERENTIATORS

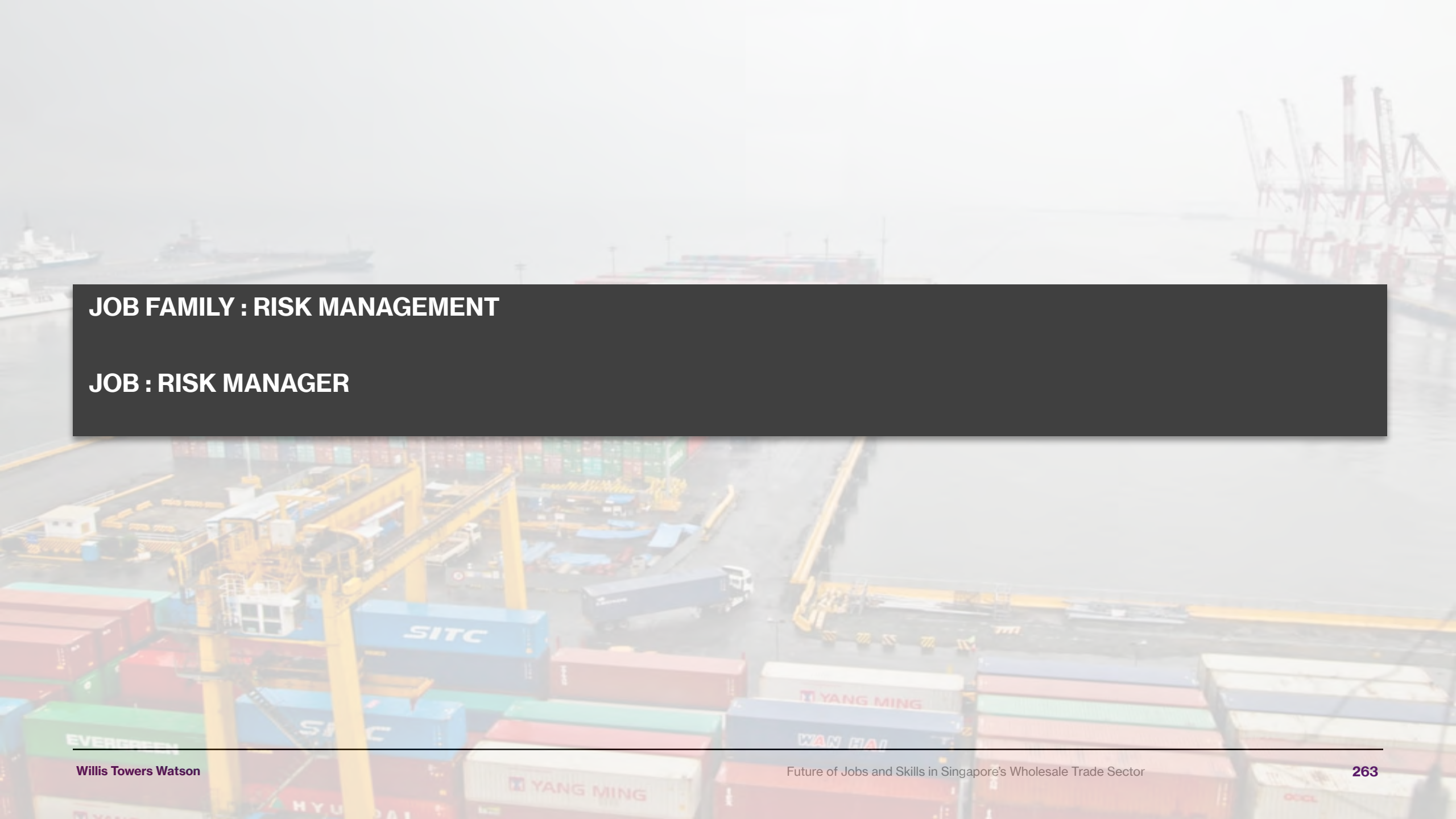
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Review the efficacy of predictive analytics models and evaluate outputs for business and/or functional strategy formulation.
Counterparty Risk Management	Lead the development of new risk criteria and mitigation approaches to manage risk considering evolving macroeconomic factors.
Risk-Adjusted Value Forecasting	Evaluate risk-adjusted forecasts and drive the adoption of innovative ways of risk forecasting.
Scenario Modelling	Evaluate plausible scenario modelling outcomes and their impact on business outcomes to make trade-offs about the future course of action.

IN THE NEXT
3-5 YEARS...

Although risk management faces augmentation by technologies like AI and RPA, human judgement will remain crucial. The role will be focused on deploying technologies to automate routine aspects of risk management, such as data collection and routine analytics. Technologies will also be leveraged to predict risk patterns and develop mitigation strategies for risk scenarios. The role will also focus on partnering with the business on risk education, assessment and mitigation, and building relationships with external stakeholders like regulators and industry bodies.

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JOB FAMILY : RISK MANAGEMENT

JOB : RISK MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop enterprise risk management framework	- Develop risk management and governance plan, policies and trade control guidelines. Support enhancements of risk framework - Develop reporting mechanisms to monitor and review ad-hoc risks and compliance issues - Develop a communication plan for adherence to risk policies and facilitate knowledge sharing sessions - Build a network of regulatory bodies to stay informed on risk updates	[AUGMENTED] Develop advanced risk management strategies, risk criteria and frameworks taking into consideration the latest industry trends, macroeconomic climate, regulatory changes, ESG guidelines and technology risks - Develop frameworks and processes that can build the organisation's resilience to unexpected events like supply chain disruption, natural disasters, pandemics, cyberattacks and unpredictable competitors - Develop models for predictive risk monitoring which analyses both historical and current risks to provide alerts on emerging risks - Develop recommendations on remediation plans and response strategies to inform risk framework enhancements and guidelines, and communicate these plans to all employees - Liaise with regulatory bodies, industry and international networks to identify any changes in the business risk landscape
Drive risk assessment processes	- Validate identified risk areas within functional areas across the business. Escalate high-risk profiles of severe business risk to internal stakeholders - Review scenario analysis across prioritised risk profiles to inform approaches - Lead development of risk assessment schedule	[AUGMENTED] Leverage data analytics to identify, analyse and evaluate risk profiles across functional areas, and improve the organisation's tactical and strategic decisions based on risk appetite - Implement Counterparty Risk Management programmes to improve the visibility of underlying risk exposures and minimise defaults on contractual obligations, enabling early mitigation of potential risks [NEW] Leverage advanced data analytics to model outputs during scenario modelling and stress testing across prioritised and high-risk profiles to improve risk management approaches [AUGMENTED] Automate risk schedule endorsements to reduce manual efforts and unnecessary layers of governance using technologies like RPA
Manage risk mitigation	- Develop and review the progress of the risk mitigation plan with functional tracks to minimise business risks - Develop education or training programmes on various business risks for internal stakeholders	[AUGMENTED] Develop and review the progress of risk mitigation plans with different functions to reduce risk events and automate alerts when measures deviate from the plan [NEW] Drive the adoption of digital platforms such as CTRM systems which provides an overall portfolio performance dashboard using a centralised view of data, trade execution and position monitoring - Educate internal stakeholders on prevalent and emerging business risks so that they are well-versed on various risks that may impact the business

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that are aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Compliance Manager	Financial Analysis Manager	Internal Audit Manager	Compliance Manager	Fraud Control & Forensics Manager	Privacy Manager

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Develop predictive analytics models using statistics, data mining, modelling, machine learning and data visualisation to develop insights to influence stakeholders' decision making and improve business/functional performance.
Counterparty Risk Management	Develop and refine risk criteria and mitigation approaches to reduce counterparty risks.
Risk-Adjusted Value Forecasting	Conduct forecasting based on analysis of multiple risks variables to generates a range of possible outcomes and probabilities and simulate future outcomes.
Scenario Modelling	Review scenario-based models that predict a range of outcomes and propose action plans to mitigate risks and maximise performance.

IN THE NEXT
3-5 YEARS...

This role will be expected to incorporate technologies like AI and predictive analytics to improve risk management processes. Over time, technologies like RPA will be leveraged to reduce manual efforts. Digital platforms like CTRM systems will continue to remain vital, and the role will focus on interpreting data from different systems. The role will be expected to stay up-to-date on the latest industry developments and cross-border regulatory and compliance requirements. It will also be necessary for the role to understand and plan for emerging risks related to ESG and cybersecurity. The role will partner with the business on risk education, assessment and mitigation and build relationships with external stakeholders like regulators and industry bodies.

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JOB FAMILY : RISK MANAGEMENT

JOB : SENIOR ANALYST / ANALYST, RISK

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop enterprise risk management framework	- Develop risk criteria by analysing best practices and industry trends - Collaborate with internal stakeholders to enhance risk management framework, policies and trade control guidelines - Prepare relevant reports on business risk	[AUGMENTED] Leverage data analytics and web crawling technologies to scan industry trends and create market reports with actionable recommendations - Analyse the implications of unexpected events like supply chain disruption, natural disasters, pandemics, cyberattacks and unpredictable competitors on the organisation's risk profile and suggest remedial measures [AUGMENTED] Automate the preparation of risk reports using technologies like BI applications and data analytics. Create dashboards that generate insights for enhancing risk management frameworks - Support ongoing communication with other internal functions to understand and anticipate potential exposures of newer risks to business models and risk profiles
Drive risk assessment processes	- Collaborate with internal stakeholders to identify risk within functional areas and compare with industry trends - Prepare risk assessment schedule and develop individual risk profiles per functional area - Monitor compliance with risk management policies and guidelines and highlight situations of possible fraud occurrences	[AUGMENTED] Analyse data across functional areas to highlight potential cases of fraud, money laundering and unethical practices for early detection of risks [NEW] Assess the suitability of 'auto-generated reports' from various systems for risk analysis [NEW] Assist in scenario modelling and stress testing across prioritised and high-risk profiles to improve organisations' compliance and recommend appropriate approaches/solutions to manage and mitigate risks [AUGMENTED] Support the automation of risk schedule endorsements using technologies like RPA to reduce manual efforts and unnecessary layers of governance
Manage risk mitigation	- Support implementation of the risk mitigation plan across functional tracks. Analyse impact to propose enhancements and provide support - Execute the organisation's communication plan on the latest risk management policies - Promote education or training programmes on various business risks for internal stakeholders	[AUGMENTED] Follow automated alerts from risk dashboards and work with various functions on course correction measures to ensure the effective management of risks [NEW] Support the implementation of digital platforms such as CTRM systems which provides an overall portfolio performance dashboard using a centralised view of data, trade execution and position monitoring [AUGMENTED] Develop training content to educate internal stakeholders on prevalent and emerging business risks so that they are well-versed on various risks that may impact the business - Support the communication plan for risk management mandate, governance plans and policies to all employees

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Finance Analyst	Internal Auditor	Process Control Analyst	Compliance Analyst	Enterprise Risk Analyst	Internal Audit Analyst

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Produce data-driven insights to improve business and/or functional performance by cleaning and organising large datasets and applying data mining and analytics techniques.
Counterparty Risk Management	Assess counterparty risks following defined risk criteria and follow mitigation approaches for managing risks.
Risk-Adjusted Value Forecasting	Support the analysis of risk variables and their probabilities in forecasting exercises.
Scenario Modelling	Performance analysis on defined scenarios to assess their potential impact on business outcomes.

IN THE NEXT
3-5 YEARS...

The role will support the ongoing technology enablement for risk management. Technologies like AI and predictive analytics will significantly augment the role's expectations with the automation of routine tasks like data collection, basic analysis and checks, and monitoring of mitigation plans. Over time, technologies like RPA will be leveraged to reduce manual efforts. It will be crucial for the role to stay up-to-date on the latest industry developments and cross-border regulatory and compliance requirements to stay relevant. As more tasks within the role become substituted or augmented by technology, the role could merge with another role within the organisation.

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TRACK : FINANCE AND REGULATIONS

JOB FAMILY: REGULATIONS AND TRADE CONTROLS

Job Family

REGULATIONS AND TRADE CONTROLS

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

With changes in the political, economic, social and technology landscape, the Regulations and Trade Controls job family's demands are evolving rapidly. As changes in international trade regulations intensify, the legal liabilities and sanctions that can threaten the business go up.

As a result, this job family will be expected to keep an eye on foreign policy changes as any global environment changes can directly impact export controls and disrupt the international supply chain and business decisions. Conflicting regulations can create a very complicated business environment for traders. Therefore, the job family will be expected to stay abreast of ever-changing regulatory regimes and requirements to advise the business and authorise trading activities. Technologies such as AI and BI are expected to improve controls and automate alerts whenever business activities deviate from the norms.

Technology solutions powered by AI are expected to drive market surveillance and identify misconducts such as insider trading and malpractice. As technology gradually reduces human intervention and errors and consequently improve productivity, the job family will divert attention towards building relationships with government agencies, industry associations and other partners to advocate business interests and knowledge-sharing.

Therefore, skills and knowledge in government and regulatory affairs will become integral for this job family. Skills in advanced data analytics, big data and predictive analytics will also gain demand as organisations start using technology for monitoring regulatory changes and conduct scenario modelling on business impact.

For companies that trade on exchange, adherence to regulations on KYC, AML and various types of financial instruments are expected to increase in the future due to stricter governance by authorities and growing public scrutiny. As a result, organisations may start hiring specialists who are equipped to solve these requirements.

Prevalent Technologies & Impact on Job Roles



Advanced Data Analytics

Advanced data analytics like big data can be leveraged to continuously monitor changes in international trade regulations and restrictions that will impact trade. Predictive analytics can be utilised to develop specific scenario analysis on the business impacts of new trade regulations.



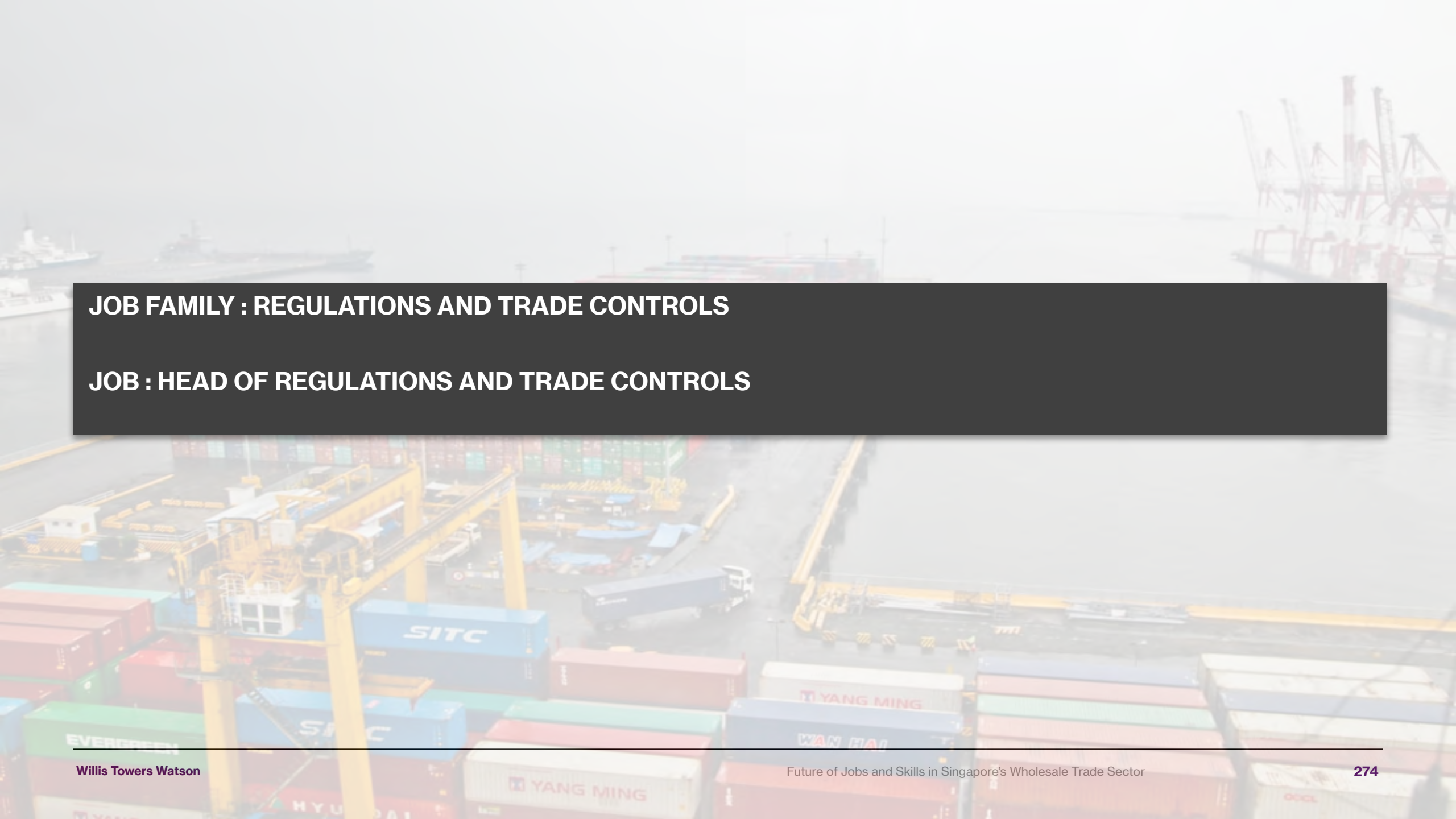
Artificial Intelligence

AI-supported digital platforms can be used to continuously monitor trade transactions through dynamic dashboards that check for incidents and irregularities and send alerts to concerned parties. AI helps break down unstructured and structured data, and generate insights to shed light on blind spots, reasonable errors that individuals may not necessarily pick up during a high volume of data analysis and operations.



Business Intelligence Applications

BI applications like import/export management applications can be used to streamline processes and improve business operations.



JOB FAMILY : REGULATIONS AND TRADE CONTROLS

JOB : HEAD OF REGULATIONS AND TRADE CONTROLS

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Monitor trade regulations	- Lead scenario analysis on the business impact of new laws and regulations for trade controls - Guide the development of new regulation implementation plan to meet changes in regulatory requirements - Collaborate with internal leaders and stakeholders in developing functional strategies taking into consideration regulatory requirement	[AUGMENTED] Guide the introduction and implementation of web crawling technologies, advanced data analytics and BI applications (e.g., import/export management applications) to monitor changes in international trade regulations continuously and to establish trade controls and compliance policies [AUGMENTED] Drive the use of advanced data analytics to develop scenario analysis on the business impacts of new trade regulations and develop associated strategies to meet changes in regulatory requirements - Lead collaboration with internal stakeholders to develop functional strategies, taking into account national and international political, economic, social development and public policy landscape
Review compliance to trade controls	- Establish and enforce trade controls that are adequate and effective for internal stakeholders - Lead collaboration with internal stakeholders to address gaps in threshold variances	[AUGMENTED] Deploy AI-powered solutions to enable continuous monitoring of trade transactions through dynamic dashboards that check for incidents and irregularities and send alerts to concerned parties [AUGMENTED] Engage with business leaders to counsel them on ways to bridge regulatory gaps and variances
Establish code of conduct guidelines for trade management	Establish and lead the adoption of 'trade code of conduct' across the organisation to reduce the risk of non-compliance during trade agreements	- Build an integrated control and compliance framework based on accountability, transparency, integrity, ethical values, risk awareness and data privacy to ensure reliability, accuracy and security of trade activities across the organisation [NEW] Drive an understanding of ESG norms like climate impact, greenhouse gas emissions, energy efficiency, human rights, working conditions, anti-corruption and conflict of interest to ensure business practices and disclosures meet regulatory requirements - Collaborate with financial institutions to improve transparency in financial dealings and uphold the organisation's image

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Strategise department's talent attraction, development and retention efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives that uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Business Intelligence	Head of Finance	Head of Supply Chain	Head of Audit	Head of Compliance	Risk Consultant

SKILL DIFFERENTIATORS

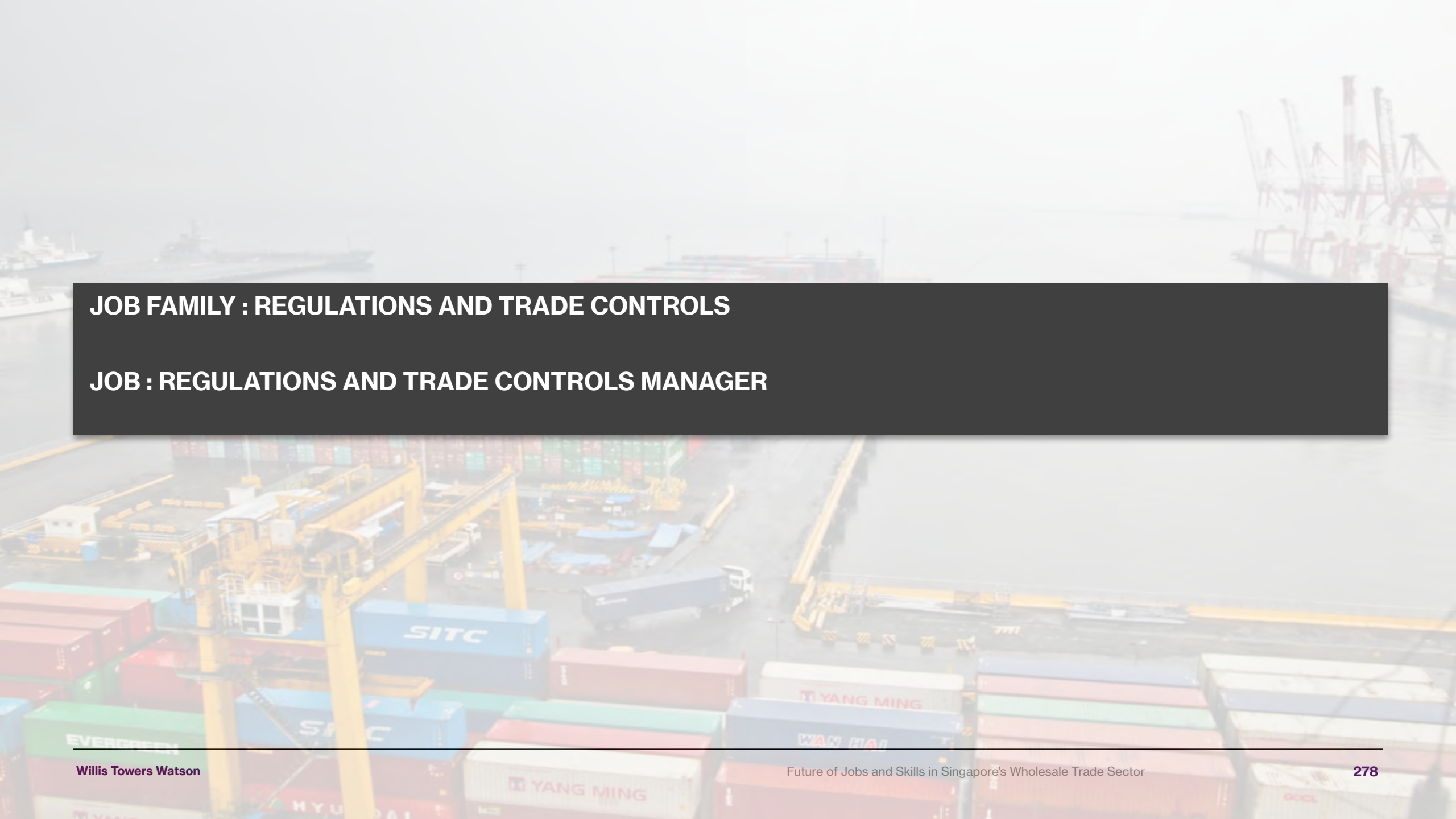
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Review the efficacy of predictive analytics models and evaluate outputs for business and/or functional strategy formulation.
Carbon Footprint Management	Develop goals for the reduction of organisational carbon footprint. Define a framework for monitoring carbon footprint reduction implementation plans.
Government / Regulatory Affairs	Influence government and regulatory bodies to promote business interests and efforts to transform the industry ecosystem.
Regulatory Compliance	Enforce regulatory compliance within the organisation through the establishment of policies and compliance programmes. Establish frameworks and processes for the management of noncompliance with regulatory requirements.

IN THE NEXT 3-5 YEARS...

As ESG rises in importance, it will be crucial for the role to engage with external stakeholders and policymakers and drive ESG strategies internally. The role will be expected to leverage big data analytics to monitor and predict changes in regulations, manage risks and reduce non-compliance. The role will continue to initiate regulatory impact assessments early in the policy-making process and carry out regular post-implementation reviews.

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JOB FAMILY : REGULATIONS AND TRADE CONTROLS

JOB : REGULATIONS AND TRADE CONTROLS MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions

Today

Within 3 Years

Monitor trade regulations

- Develop scenario analysis on the business impact of new laws and regulations for trade controls
- Develop new regulation implementation plan to meet changes in regulatory requirements
- Collaborate with internal stakeholders in developing functional strategies taking into consideration regulatory requirements

- **[AUGMENTED]** Drive **web crawling technologies, advanced data analytics** and **BI applications** to monitor and identify any changes in international trade regulations that will impact trade between countries
- **[AUGMENTED]** Leverage **advanced data analytics** to develop **scenario analysis** on the business impacts of new trade regulations and develop associated implementation plans to meet changes in regulatory requirements
- Collaborate with internal stakeholders to develop functional strategies, taking into account national and international political, economic, social development and public policy landscape

Review compliance to trade controls

- Implement structures and processes to control risks and ensure there is no breach against the approved threshold
- Escalate high-risk positions observed in commodities' profit and loss report to internal stakeholders for further actions

- **[AUGMENTED]** Leverage **AI-supported digital platforms** to implement risk control strategies and processes. Leverage **AI technologies** to break down unstructured and structured data and generate insights
- Mitigate risks and improve compliance by monitoring trading and exchanges across various platforms
- Escalate high-risk positions or abnormalities observed in profit and loss reports
- Develop plans to mitigate regulatory risks associated with cross-border data flow and digital information exchanges

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Establish code of conduct guidelines for trade management	- Review the 'trade code of conduct' periodically to maintain a code that is relevant and up-to-date with trade guidelines and practices - Drive adoption and compliance of code of conduct through the development of a targeted communication plan - Escalate non-adherence of trade code of conduct to relevant internal stakeholders for the next course of action - Develop and implement fraud detection guidelines for money laundering and corrupt practices	- Implement an integrated control and compliance framework built based on accountability, transparency, integrity, ethical values, risk awareness and data privacy to ensure reliability, accuracy and security of trade activities across the organisation [NEW] Monitor the application of ESG norms like climate impact, greenhouse gas emissions, energy efficiency, human rights, working conditions, anti-corruption and conflict of interest to ensure business practices and disclosures meet regulatory requirements [AUGMENTED] Lead the development of training content related to trade controls and compliance to drive the adoption of the code of conduct - Escalate non-adherence of trade code of conduct to relevant internal stakeholders for the next course of action - Build and maintain partnerships with financial institutions and external stakeholders to uphold the organisation's image
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that are aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
QHSE Manager	Trade Compliance Manager	Trade Operations Manager	Audit Manager	Finance Manager	FP&A Manager

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Develop predictive analytics models using statistics, data mining, modelling, machine learning and data visualisation to develop insights to influence stakeholders' decision making and improve business/functional performance.
Carbon Footprint Management	Assess tools and platforms that can support carbon footprint reduction; recommend suitable solutions. Develop processes to implement carbon footprint reduction plans.
Government / Regulatory Affairs	Collaborate with government and regulatory bodies to build relationships at all levels, stay abreast of regulatory changes, provide feedback on regulatory changes and implement changes in the organisation.
Regulatory Compliance	Identify and interpret relevant regulations and codes of practice relevant to the business, and identify possible areas of non-compliance.

IN THE NEXT
3-5 YEARS...

The role will continue to build and maintain partnerships with financial institutions, industry and business associations and the media to uphold the organisation's image from an ethics and compliance perspective. As regulations evolve rapidly, the role will need to stay abreast of any regulatory changes and drive relevant internal education programmes. The role will continue to conduct regulatory impact assessments early in the policy-making process and develop associated implementation plans. The role will also be responsible for driving the implementation of technologies like AI to enhance the efficiency of regulatory and control processes.

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JOB FAMILY : REGULATIONS AND TRADE CONTROLS

JOB : SENIOR ANALYST / ANALYST, REGULATIONS AND TRADE CONTROLS

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Monitor trade regulation	- Analyse and implement new changes in laws and regulations for trade controls to support decision making in business - Support collaboration with internal stakeholders in developing functional strategies, taking into consideration regulatory requirements	[AUGMENTED] Use web crawling technologies, advanced data analytics and BI applications to monitor and report any changes in international trade regulations that will impact trade between countries - Support the development of functional strategies, taking into account national and international political, economic, social development and public policy landscape
Review compliance to trade controls	- Analyse risks and uncertainties related to trade controls to ensure that they are reflected prudently in commodities' profit and loss reports - Look for and report abnormal drivers of movements and threshold variances	[AUGMENTED] Leverage AI technologies to monitor risk positions and uncertainties contributing to trade controls [AUGMENTED] Analyse data to identify and report any high-risk positions or abnormalities observed in profit and loss reports - Build an understanding of the risks associated with cross-border data flow and digital information exchanges and support the development of programmes to mitigate them
Establish code of conduct guidelines for trade management	- Update 'trade code of conduct' documentation periodically and implement a targeted communication plan to increase adoption and awareness of the latest trade guidelines and practices' changes across the organisation - Monitor adherence to trade code of conduct, risk management policies and guidelines and flag out non-adherence or possible fraud occurrence for money laundering and corrupt practices	- Support the implementation of integrated control and compliance framework built based on accountability, transparency, integrity, ethical values, risk awareness and data privacy to ensure reliability, accuracy and security of trade activities across the organisation - Regularly update trade controls, compliance documentation, training content and raise awareness on latest trade policies across the organisation - Monitor adherence to the trade code of conduct, ESG guidelines and risk management policies, and flag out non-adherence or possible cases of fraud, money laundering and corrupt practices [AUGMENTED] Detect fraud, money laundering and corrupt practices through AI-powered solutions

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Compliance Analyst	Internal Auditor	Trade Operations Analyst	Financial Analyst	Forensics Services Analyst (Fraud Prevention)	Risk Analyst

SKILL DIFFERENTIATORS

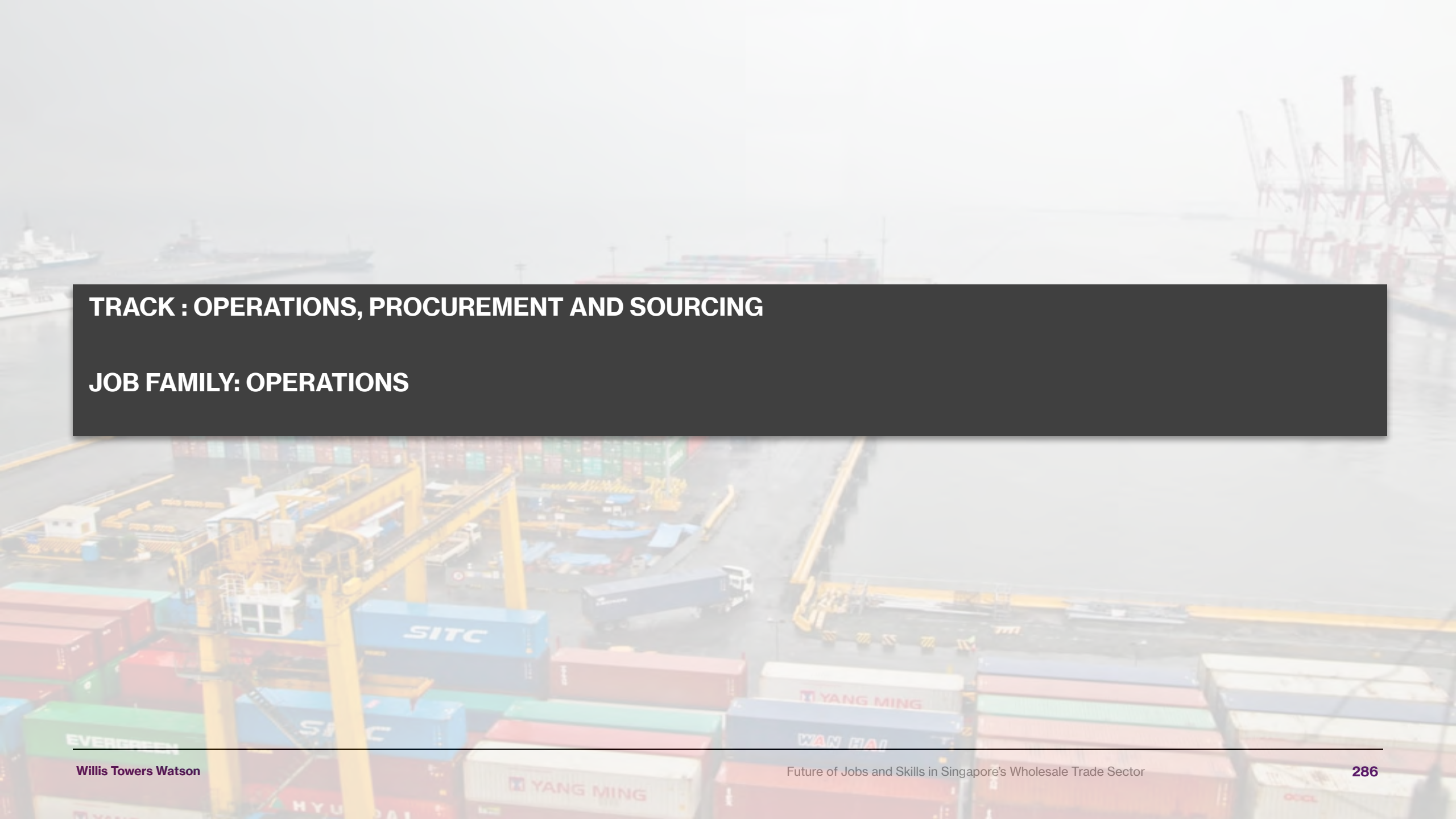
Roles Specific

SKILL	DESCRIPTIONS
Advanced Data Analytics	Produce data-driven insights to improve business and/or functional performance by cleaning and organising large datasets and applying data mining and analytics techniques.
Carbon Footprint Management	Analyse organisational carbon footprint using specialist assessment tools and contribute towards reduction of carbon footprint.
Government / Regulatory Affairs	Follow updates on regulatory changes and support the implementation of changes in the organisation.
Regulatory Compliance	Execute regulatory compliance policies and programmes to reduce operational risks.

IN THE NEXT
3-5 YEARS...

The role will be expected to use new technologies to implement and review trade regulatory requirements and assess organisations' overall compliance. The role will continue to stay up-to-date on trading or exchanges norms, free trade agreements and changing rules due to geopolitical developments. The role will also be expected to identify risks related to ethics and ESG factors and suggest mitigation plans.

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TRACK : OPERATIONS, PROCUREMENT AND SOURCING

JOB FAMILY: OPERATIONS

Job Family

OPERATIONS

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

With a rapidly changing and fast-moving economy that demands organisations to be agile and adaptable, the Operations job family will have to stay up-to-date on the use of technologies. The job family will see a greater application of technologies and promote automation to improve the efficiency and effectiveness of trade processes. Moreover, given the focus on reducing heavy reliance on paperwork, there will be an increased emphasis on digitalising operational processes and workflows.

Technologies such as smart contracts, EDI and e-document management systems are expected to gain traction. These technologies help prepare, track, manage, and store documents, reduce human errors and improve documentation accuracy. Furthermore, technologies like RPA are expected to gain popularity as they reduce non-value-added work such as data collection and cleaning.

Skills and knowledge in EDI, automated inventory management, and e-document management will be crucial for the role to adapt to the requirements.

Since many administrative and transactional tasks of operations are expected to be augmented or substituted by technology, this job family may observe some junior roles being displaced or merged with other roles within the organisation.

Prevalent Technologies & Impact on Job Roles

 Artificial Intelligence AI can be deployed to streamline contract processes, validate draft contracts, enhance trade documentation efficiency, and reduce human errors.

 Business Intelligence Applications BI applications like e-document management systems and EDI can be leveraged to improve operational efficiency. E-document management systems can track, manage and store documents, reduce manual workload, and minimise operational risks. EDI systems can improve the exchange of business documents and automate documentation and payment process with key supply chain partners.

 Digital Documents - Smart Contracts Digital documents such as smart contracts can be utilised to prepare, execute, and manage legal documents, reduce manual paperwork, and improve the ease and efficiency of the contracting process.

Prevalent Technologies & Impact on Job Roles



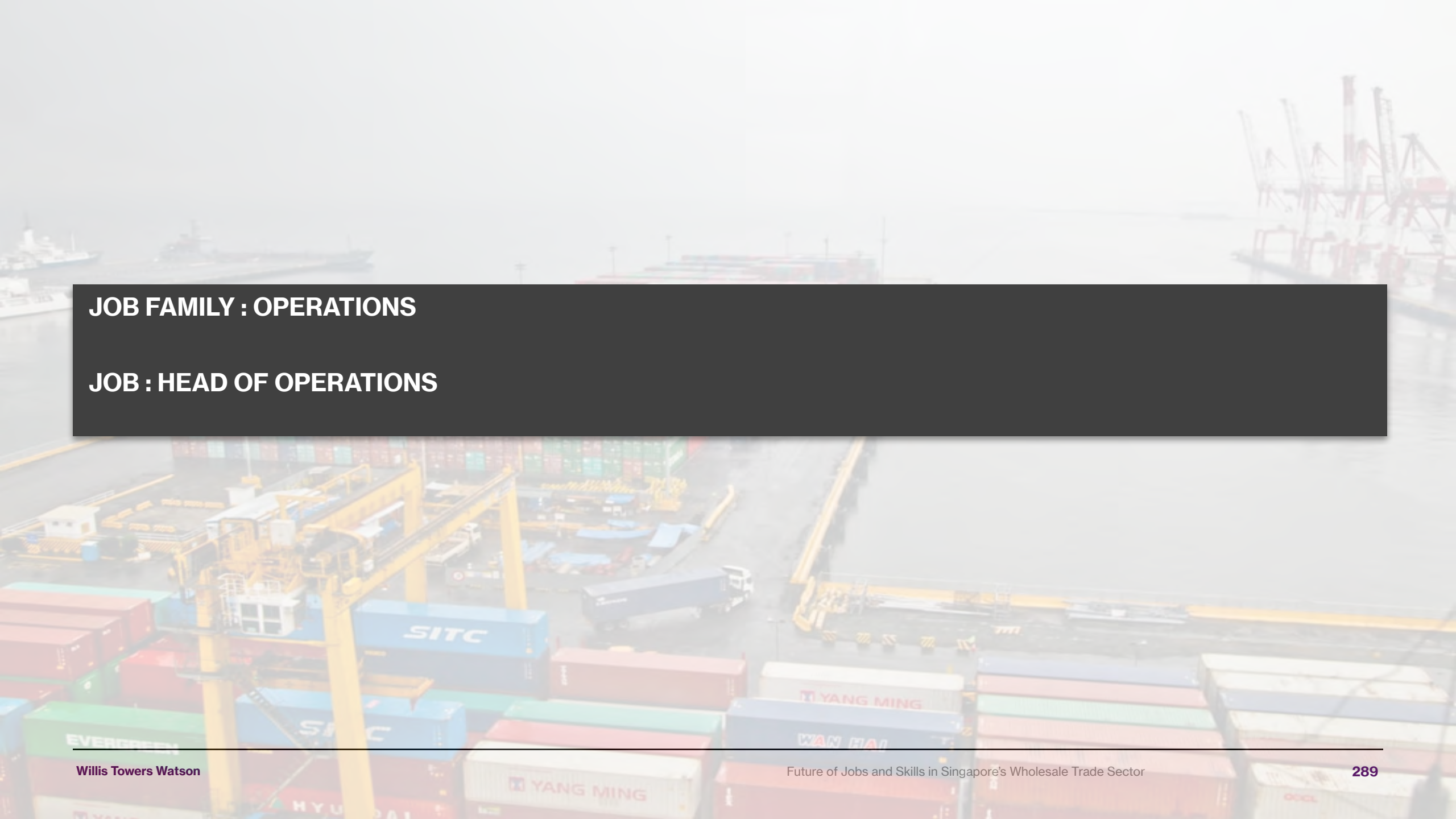
Digital Platform and Channels

Digital platforms and marketplaces such as enterprise-wide systems can be used to optimise operational activities by integrating supply chain activities such as procurement, logistics, warehousing and inventory management. This helps to increase order accuracy and reduce delivery time.



Robotic Process Automation

RPA can be implemented to automate the management of documents. RPA can reduce efforts in manual data collation and cleaning. RPA can also help extract data accurately based on terms and specifications agreed in trade transactions and past contracts, reducing manual effort, eliminating human errors and improving operational efficiency.



JOB FAMILY : OPERATIONS

JOB : HEAD OF OPERATIONS

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade documentation	- Devise contracts and documentation strategies to facilitate efficiencies in cross country trade transactions - Drive the development of guidelines on trade transaction reconciliations - Design trade documentation audit procedures to minimise operational risks - Guide documentation processes with logistics providers to ensure safekeeping and delivery of products	- Lead the development of contracting and documentation strategies that consider the intricacies of cross-country regulations to facilitate efficiencies in trade transactions - Guide documentation processes with logistics providers to ensure safekeeping and delivery of the organisation's products [AUGMENTED] Conceptualise and lead the implementation of e-document management systems to track, manage and store documents, reduce the manual workload of audit procedures and minimise operational risks [NEW] Accelerate the use of EDI systems within the organisation to improve the exchange of business documents in a standard format and automate documentation and payment process with key supply chain partners [NEW] Lead the adoption of technologies such as smart contracts, which are self-executing, reducing manual paperwork and increasing the speed of trade transaction processing
Facilitate deployment of products	- Guide the development of guidelines and remedial actions for the receipt, handling and storage of products - Strengthen relationships with logistic providers - Design policies on deployment and tracking of products - Lead collaboration with internal stakeholders to assess opportunities for improvement in business operations and develop crisis management guidelines - Drive WSH activities in compliance with regulatory requirements	- Guide the development of guidelines and remedial actions for the receipt, handling and storage of products [NEW] Lead efforts to adopt and operationalise the latest technologies and tools that will improve business efficiency and tracking and deployment of products [AUGMENTED] Work closely with supply chain partners to integrate the supply chain with automated inventory management technologies that can deploy and track products and inventories in real-time [AUGMENTED] Drive the implementation of RPA to automate documentation management, eliminating human errors in record-keeping and documentation, and improving business operations [NEW] Collaborate with the internal supply chain management team to drive the adoption of enterprise-wide systems that integrate all existing warehouse, procurement and logistics systems to reduce delivery time and increase order accuracy - Lead collaboration with internal stakeholders to assess opportunities for improvement in business operations and develop crisis management guidelines - Collaborate with regulatory and compliance departments to drive WSH activities in compliance with regulatory requirements and incorporate ESG norms such as labour standards, greenhouse gas emissions and energy efficiency

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Conduct dispute resolution	- Formulate procedures and legal guidelines to resolve trade disputes - Lead collaboration efforts with other functional teams to communicate and resolve issues and/or queries - Drive collaboration with the regulation and trade control function on changing trade regulations	- Guide the development of organisational guidelines and policies that facilitate the resolution of trade disputes - Conduct regular reviews on the organisation's operations policies and practices against regulatory requirements and make necessary changes [NEW] Initiate the gradual implementation of digital platforms like ODR to resolve and negotiate straightforward and low-value disputes more efficiently and effectively, enabling cost and time savings [AUGMENTED] Lead collaboration efforts with cross-functional teams across the entire supply chain to deliver integrated communication solutions to buyers and sellers, resolve their issues and/or queries and enhance satisfaction levels - Drive collaboration with the regulation and trade control function to raise the organisation's awareness of changing trade regulations locally and internationally
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Manage department's talent development and recruitment efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives that uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Distribution	Head of Logistics	Head of Product	Head of Operations Innovation	Head of Production	Strategy Director

SKILL DIFFERENTIATORS

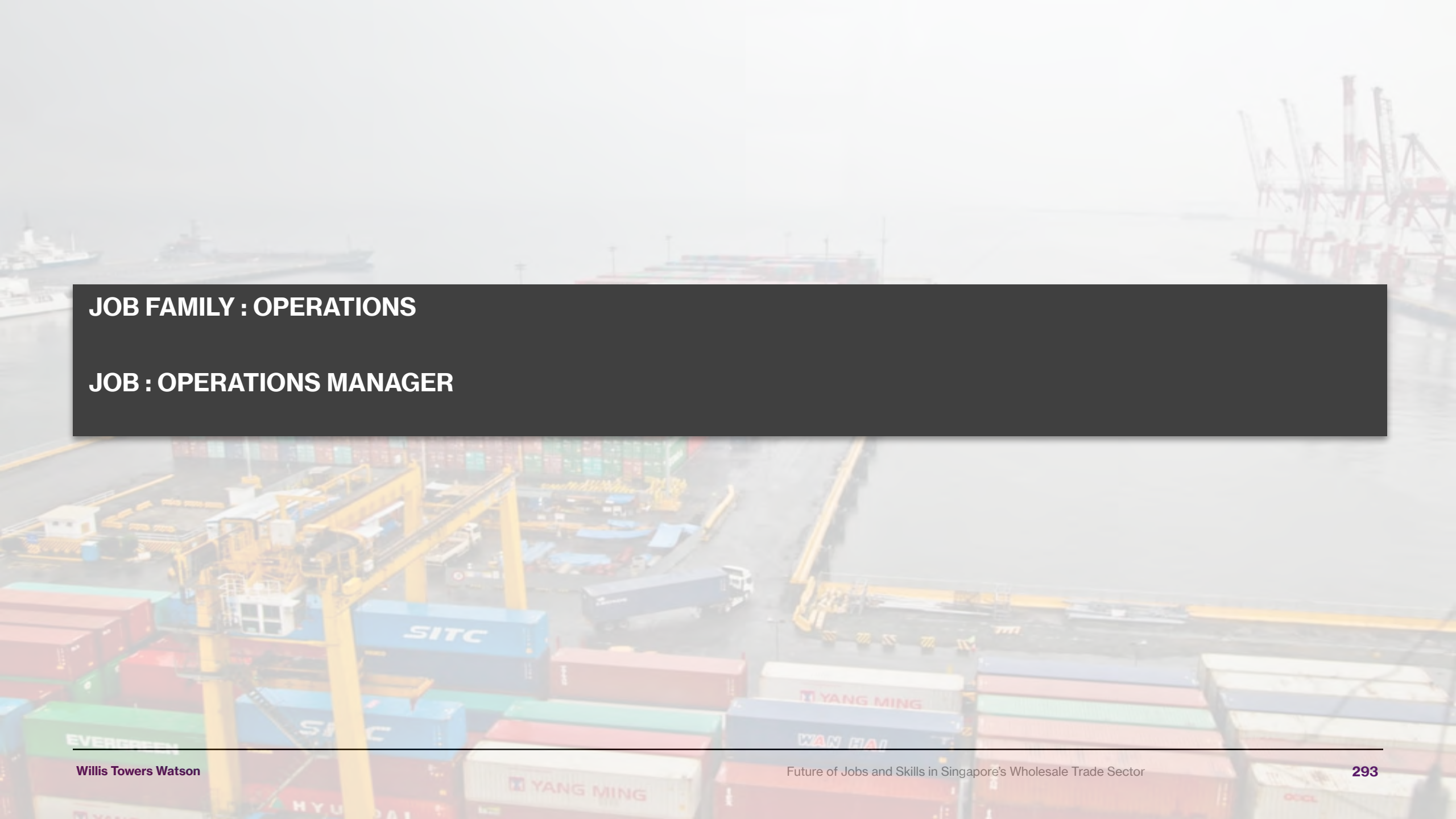
Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Influence business partners to connect systems that can automate processes like replenishment, order management and delivery to achieve synergies and cost efficiencies.
Carbon Footprint Management	Develop goals for the reduction of organisational carbon footprint. Define a framework for monitoring carbon footprint reduction implementation plans.
Data Management / Security	Lead collaboration with technology teams to develop data governance frameworks to secure and protect data from unauthorised access while ensuring compliance with regulatory requirements.
E-Document Management	Drive the adoption of e-document systems to optimise information flow, improve efficiency and reduce physical paperwork.
Electronic Data Interchanges (EDI)	Drive the use of common EDI standards and influence business partners to adopt these standards to improve efficiency and consistency in document handling and records management.
E-Marketplace Enablement	Establish a strategy for the development of an e-marketplace to drive customer engagement, trading, payments and aftersales service to take place electronically for buyers and sellers, allowing third-party sellers to market and sell their products on the platform invoice the customer for purchases directly. Define the metrics to track the performance of the e-marketplace.

IN THE NEXT
3-5 YEARS...

This role will continue to drive digital strategies and technologies such as BI applications, digital documents, smart contracts, RPA, e-document management, and EDI to support trade processes and accelerate automation. In the future, as the industry gradually matures, this role will also be expected to drive greater collaboration and the adoption of common standards amongst industry players and introduce DLT to streamline operations. However, human intervention will remain critical in the foreseeable future to negotiate and manage trade disputes and provide resolutions. With more organisations adopting digital sales channels and disintermediation gaining ground, this role will have to rethink the organisation's operations and fulfilment strategy.

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An aerial photograph of a large container port. In the foreground, numerous colorful shipping containers are stacked in neat rows. Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow gantry cranes are positioned over the containers. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is overcast and hazy.

JOB FAMILY : OPERATIONS

JOB : OPERATIONS MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade documentation	- Develop contracts and documentation policies and processes required for trade transactions in consultation with logistics providers to ensure safekeeping and delivery of products - Review audits conducted on trade transactions to reduce operational risks and develop guidelines to manage trade transactions reconciliations - Review and accelerate payment processes for ad-hoc payment issues with sellers	- Develop contracting and documentation strategies that consider the intricacies of cross-country regulations - Develop documentation processes with logistics providers to ensure safekeeping and delivery of products [AUGMENTED] Implement e-document management systems to track, manage and store documents, reduce the manual workload of audit procedures and minimise operational risks [NEW] Implement EDI systems within the organisation to improve the exchange of business documents in a standard format and automate documentation and payment processes with key supply chain partners [NEW] Adopt and implement technologies such as smart contracts which are self-executing, reducing manual paperwork and increasing the speed of trade transaction processing
Facilitate deployment of products	- Develop guidelines and remedial actions to address non-conformance in the tracking, receipt, handling and storage of products - Manage relationships with logistics providers - Collaborate with internal stakeholders to identify gaps and opportunities in business operations - Implement crisis management plans - Manage WSH activities in compliance with regulatory requirements	- Develop guidelines and remedial actions to address non-conformance in the tracking, receipt, handling and storage of products [AUGMENTED] Collaborate and manage relationships with supply chain partners to integrate the supply chain with automated inventory management technologies that can deploy and track products and inventories in real-time [AUGMENTED] Implement RPA to automate documentation management, eliminating human errors in record-keeping and documentation, and improving business operations [NEW] Implement enterprise-wide systems that integrate all existing warehouse, procurement and logistics systems, to reduce delivery time and increase order accuracy - Collaborate with internal stakeholders to identify gaps and opportunities in business operations, and implement crisis management plans - Build processes that drive WSH in compliance with regulatory requirements and incorporate ESG norms such as labour standards, greenhouse gas emissions and energy efficiency

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Conduct dispute resolution	- Develop procedures and legal guidelines to resolve trade disputes - Ensure policies are up to date and reflective of the changing trade regulations - Facilitate discussions with functional teams to resolve issues and/or queries of buyers and sellers - Facilitate discussions with the regulation and trade control functions to resolve erroneous trade transactions	- Develop guidelines and policies to facilitate the resolution of trade disputes - Ensure policies are up to date and reflective of the changing trade regulations locally and internationally [NEW] Support the gradual implementation of digital platforms like ODR to resolve and negotiate straightforward and low-value disputes more efficiently and effectively, enabling cost and time savings. Train others to conduct ODR. [AUGMENTED] Work with other functional teams across the entire supply chain to deliver integrated communication solutions to buyers and sellers, resolve their issues and/or queries and enhance satisfaction levels - Collaborate with regulation and trade control functions to resolve erroneous trade transactions while conducting reviews on trade data
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Customer Success Manager	Logistics Manager	Strategic Partnership Manager	Business Intelligence Manager	Business Process Consultant	Events Manager

SKILL DIFFERENTIATORS

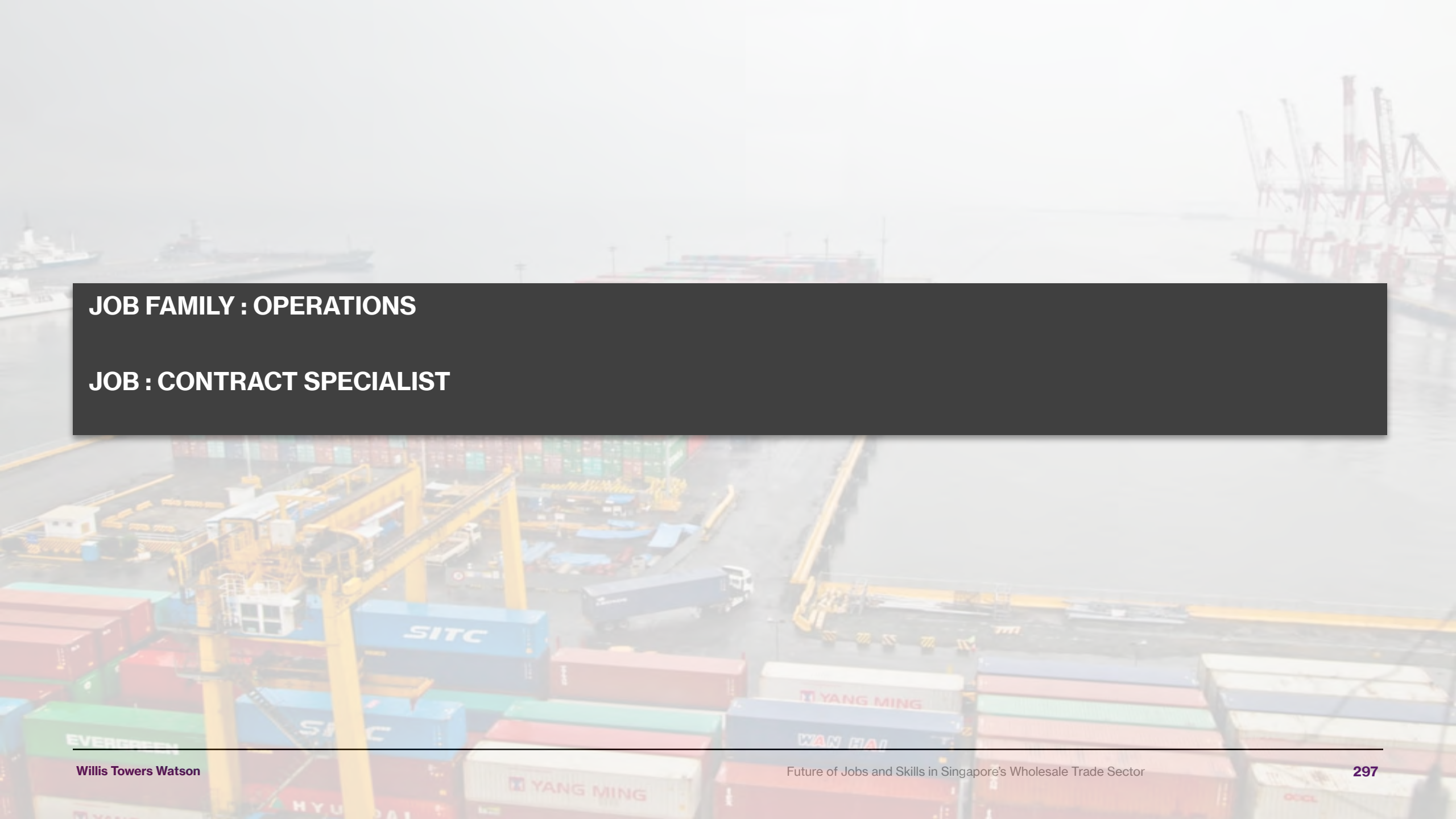
Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Collaborate with technology teams and develop the roadmap for the implementation of automated inventory software application.
Carbon Footprint Management	Assess tools and platforms that can support carbon footprint reduction; recommend suitable solutions. Develop processes to implement carbon footprint reduction plans.
Data Management / Security	Collaborate with technology teams to understand data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
E-Contract Negotiation	Promote the use of digital platforms to facilitate contract negotiations and planning with stakeholders.
E-Document Management	Implement and manage e-document platforms to facilitate store, update, track, retrieve and distribute documents in electronic formats for speed and efficiency.
Electronic Data Interchanges (EDI)	Collaborate with technology teams to implement the automated exchange of business documents such as purchase orders, invoices, bills of lading etc., with business partners and ensure the organisation is connected directly to business partners through digital commerce platforms or ERP systems.
E-Marketplace Enablement	Drive the execution of e-marketplace platforms by identifying and onboarding trading partners to transact on the platform. Analyse performance metrics and recommend changes to enhance traffic and trading volumes on the platform.

IN THE NEXT
3-5 YEARS...

This role will continue to execute digital strategies that support the automation of trade processes in the organisation. Some of these technologies include BI applications, digital documents and smart contracts, RPA, e-document management and EDI. With ODR becoming prevalent, this role will be expected to develop guidelines and policies that facilitate the usage of these platforms. Hence, human intervention and good negotiation and mediation skills will remain critical for this job.

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JOB FAMILY : OPERATIONS

JOB : CONTRACT SPECIALIST

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade documentation	- Draft trading contracts terms in alignment with organisational and/or regulatory requirements - Coordinate with internal stakeholders to define payment and delivery contract terms - Customise and verify that contract terms are aligned with the specifications and terms are as agreed in trade transactions	- Align contract terms with organisational and/or regulatory requirements, ensuring standardisation and consistency across contracts [AUGMENTED] Leverage CLM solutions that employ AI, RPA and text analytics to streamline contract processes and validate draft contracts, improving the efficiency of the contracting process and reducing the risk of disputes - Extract and verify trade transactions' payment and delivery terms using contract analytics software, while also cross-checking with internal stakeholders for verification [NEW] Customise contracts with the help of AI and RPA, which can extract data accurately based on terms and specifications agreed in trade transactions and past contracts, improving the efficiency of the contracting process
Conduct dispute resolution	- Provide advice on contract terms for effective trade dispute resolutions - Provide baseline support on trade contract issues and/or query resolutions of buyers and sellers	[AUGMENTED] Leverage chatbots to address routine contract queries, enabling time to be spent on addressing complex and non-standardised issues [NEW] Support the gradual introduction of ODR solutions to resolve and negotiate straightforward and low-value disputes more efficiently and effectively, enabling cost and time savings
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Distribution Analyst	Logistics Analyst	Product Analyst	Compliance Analyst	Operations Innovation Analyst	Strategy Analyst

SKILL DIFFERENTIATORS

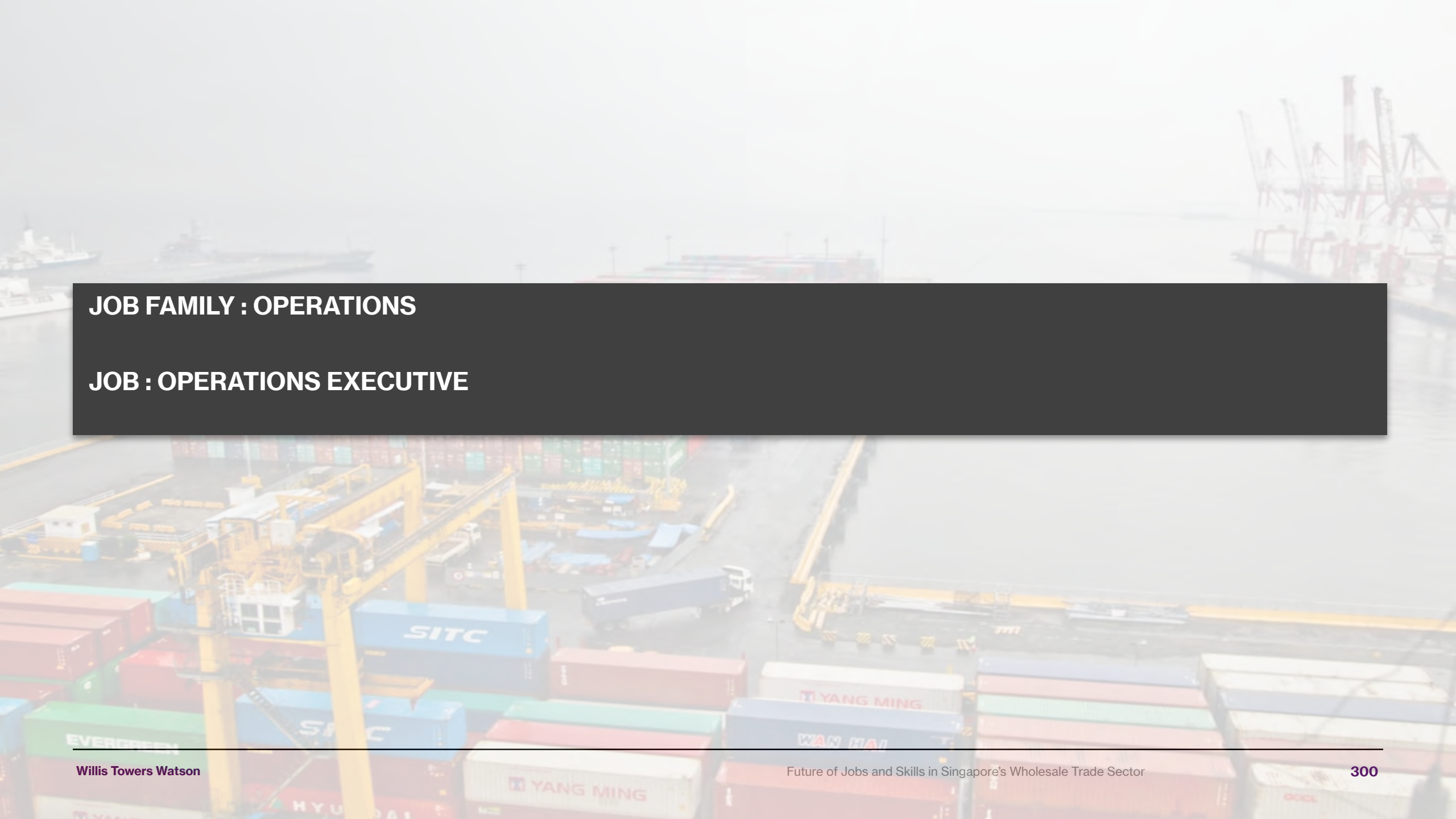
Roles Specific

SKILL	DESCRIPTIONS
Data Management / Security	Collaborate with technology teams to build an understanding of data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements
E-Contract Negotiation	Conduct contract reviews and negotiations using digital platforms.
E-Document Management	Use e-document platforms to facilitate tracking and updating of information in an integrated system.
Electronic Data Interchanges (EDI)	Export the data into EDI formats and feed the data into applications to enable the seamless exchange of information with business partners.

IN THE NEXT
3-5 YEARS...

This role will be expected to adopt and increase the usage of CLM systems to manage the contracting process efficiently. With ODR becoming prevalent, more routine tasks will be automated by technology. Hence, the role will focus more on addressing complex contract-related queries. Human intervention and good negotiation and mediation skills will remain critical for this job.

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JOB FAMILY : OPERATIONS

JOB : OPERATIONS EXECUTIVE

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade documentation	- Perform order creation and execution of trade transactions that are aligned with organisational and/or regulatory requirements - Reconcile trade transactions processes and conduct checks on trade documentation - Collaborate with the sales and finance departments to facilitate payment processes to sellers	- Create orders and execute trade transactions that are aligned with organisational and/or cross-country regulatory requirements [NEW] Leverage cloud-based solutions to clean, consolidate and convert documentation from logistics providers in a single repository, improving the accessibility of information [NEW] Use smart contracts to support speed, accuracy and transparency of contract and document management [AUGMENTED] Reconcile trade transactions with reference to trade documentations using e-document management systems [AUGMENTED] Collaborate with the sales and finance departments to automate payments using EDI to minimise errors and reduce operational risks
Facilitate deployment of products	- Implement organisational policies to reduce non-conformance of receipt, handling and storage of products and coordinate with logistics providers - Perform procedures to ensure deployment and tracking of products meet requirements - Analyse key operations performance indicators to determine the effectiveness of operations activities and develop incident or crisis management plans - Support WSH activities	[AUGMENTED] Manage operational activities related to procurement, logistics, warehousing and inventory management through a digital supply chain and automated inventory management systems that can deploy and track products and inventories in real-time [AUGMENTED] Use RPA to automate documentation management, eliminating human errors in record-keeping and documentation [NEW] Leverage data analytics to analyse data from customers' purchase patterns to support demand forecasting [NEW] Support the implementation of enterprise-wide systems that integrate the entire supply chain to reduce delivery time and increase order accuracy - Analyse key operations performance indicators to determine the effectiveness of operations activities and develop incident or crisis management plans - Ensure adherence to WSH activities that incorporate ESG norms such as labour standards, greenhouse gas emissions and energy efficiency

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Conduct dispute resolution	- Implement procedures for effective trade dispute resolutions - Analyse trade portfolios to support issues and/or query resolutions of buyers and sellers - Stay updated on any changes to trade dispute management policies and procedures - Investigate and escalate erroneous trade transactions for management resolutions	- Follow organisational guidelines and policies to facilitate the resolution of trade disputes. - Stay updated on any changes to trade dispute management policies and procedures [NEW] Support the early-stage implementation of ODR platforms to resolve and negotiate straightforward and low value disputes more efficiently and effectively, enabling cost and time savings. [AUGMENTED] Apply data analytics on transaction data to identify erroneous trade transactions. Investigate errors and prepare reports to avoid similar errors in the future - Support internal stakeholders such as the logistics, finance and compliance teams on trade dispute resolution
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Customer Services Executive	Process Improvement Executive	Procurement Executive	Junior Project Executive	Product Executive	Service Delivery Executive

SKILL DIFFERENTIATORS

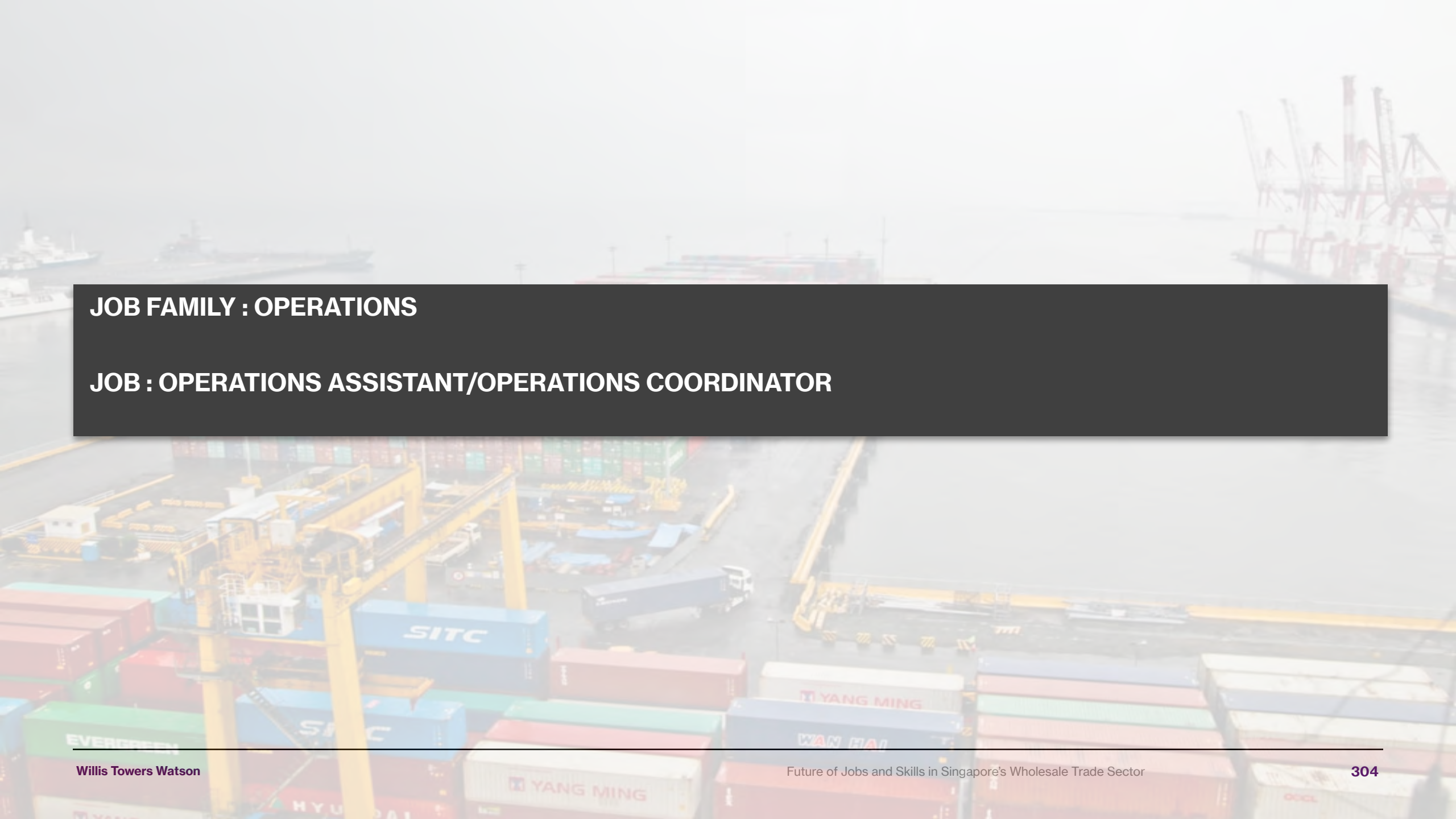
Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Manage inventory using software applications to allow wholesalers and distributors to add, edit, delete and transfer inventory in real-time.
Carbon Footprint Management	Analyse organisational carbon footprint using specialist assessment tools and contribute towards reduction of carbon footprint.
Data Management / Security	Utilise data securely and follow protocols to protect it from unauthorised access and cybersecurity risks.
E-Contract Negotiation	Conduct contract reviews and negotiations using digital platforms.
E-Document Management	Use e-document platforms to facilitate tracking and updating of information in an integrated system.
Electronic Data Interchanges (EDI)	Export the data into EDI formats and feed the data into applications to enable the seamless exchange of information with business partners.
E-Marketplace Enablement	Support the implementation of e-marketplace platform and analyse data to suggest ways to enhance the user experience.

IN THE NEXT
3-5 YEARS...

The transactional activities associated with this role will be augmented or substituted by technologies such as BI applications, digital documents and smart contracts, RPA, e-document management, and EDI. As technology frees up time for this role, there will be an increasing emphasis on identifying operational bottlenecks, inefficient processes and non-value adding activities for future improvements.

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The background image shows a large-scale port operation. In the foreground, there are numerous stacked shipping containers in various colors (blue, red, green, white). Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow gantry cranes are visible, some with containers being lifted. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is overcast and hazy.

JOB FAMILY : OPERATIONS

JOB : OPERATIONS ASSISTANT/OPERATIONS COORDINATOR

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage trade documentation	- Assist in the preparation and compilation of contracts and documentation for trade transactions - Support the reconciliation and audit of trade transactions - Support the sales and finance departments in processing payments to sellers	- Assist in order creation and execute trade transactions that are aligned with organisational and/or regulatory requirements [NEW] Use cloud-based solutions to compile and convert documentation from logistics providers in a single repository, improving the accessibility of information [AUGMENTED] Ensure all trade documentation is properly recorded and stored in the e-document management system [AUGMENTED] Use EDI to support the use process of automating payment process to sellers and minimise errors
Facilitate deployment of products	- Support organisational guidelines and coordinate with logistics providers on the receipt, handling and storage of products - Apply organisational policies to ensure deployment and tracking of products meet requirements - Collect data to assess the performance of key operations activities and support the execution of crisis management plans - Support WSH activities	[AUGMENTED] Collaborate with logistic providers on the digital supply chain platform that integrates procurement, logistics, warehousing and inventory management, to facilitate the receipt, handling and storage of products [AUGMENTED] Use RPA to automate data collection and assess the performance of key operations activities. Support the execution of crisis management plans - Support WSH activities that incorporate ESG norms such as labour standards, greenhouse gas emissions and energy efficiency
Conduct dispute resolution	- Interpret procedures and contract terms for effective trade dispute resolutions - Identify potential issues and/or queries raised by buyers and sellers within trade portfolios - Keep updated on changes to trade dispute management policies and procedures - Support the investigation of erroneous trade transactions for management resolutions	[SUBSTITUTED] Use RPA to automate the collation of data on erroneous trade transactions - Keep updated on changes to trade dispute management policies and procedures [NEW] Examine organisation's trade dispute policies to ensure alignment and eliminate potential errors in disputes - Support internal stakeholders such as the logistics, finance and compliance teams on trade dispute resolution

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Business Development Coordinator	Customer Success Coordinator	Supply Chain / Sourcing Coordinator	Customer Success Coordinator	Data Coordinator	Project Coordinator

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Manage inventory using software applications to allow wholesalers and distributors to add, edit, delete and transfer inventory in real-time.
Carbon Footprint Management	Analyse organisational carbon footprint using specialist assessment tools and contribute towards reduction of carbon footprint.
Data Management / Security	Utilise data securely and follow protocols to protect it from unauthorised access and cybersecurity risks.
E-Contract Negotiation	Conduct contract reviews and negotiations using digital platforms.
E-Document Management	Use e-document platforms to facilitate tracking and updating of information in an integrated system.
Electronic Data Interchanges (EDI)	Export the data into EDI formats and feed the data into applications to enable the seamless exchange of information with business partners.
E-Marketplace Enablement	Support the implementation of e-marketplace platform and analyse data to suggest ways to enhance the user experience.

IN THE NEXT 3-5 YEARS...

The administrative and transactional tasks of this job are expected to be augmented or substituted by technologies such as BI applications, digital documents and smart contracts, e-document management and EDI. With the expanded bandwidth, this role will be expected to review documents and conduct checks on trade documentation and data, particularly in the early stages of technology adoption. This role will also be expected to identify processes that can be replaced or enhanced by technologies. As technology substitutes most of the tasks, there is a possibility for this role to be displaced or merged with another role in the organisation.

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TRACK : OPERATIONS, PROCUREMENT AND SOURCING

JOB FAMILY: PROCUREMENT AND SOURCING

Job Family

PROCUREMENT AND SOURCING

Overall Level of Impact

Medium Impact

Overview of Changes (Within 3 years)

With an ever so unpredictable supply chain due to unexpected events like pandemics and changing regulations, businesses are often at the risk of facing supply interruptions and discontinuities. As such, there is a need for the Procurement and Sourcing job family to develop innovative ways to improve the efficiency and effectiveness of the sourcing, purchasing and negotiation process to ensure the business continues to succeed. An added complexity for the Procurement and Sourcing team is the increased emphasis on sustainably produced/sourced products by the end customer.

To combat these challenges, the job family will be expected to streamline its processes and practices by leveraging new technologies such as BI applications, digital platforms and marketplaces to improve operational efficiency and measure the impact of procurement strategies, initiatives and campaigns. These technologies will be used to standardise the documentation and contracting process, automate contract authoring and improve spend transparency.

The job family will also leverage procurement analytics, inventory data, market demand and customer buying patterns to optimise procurement decisions. Furthermore, this job family will be expected to anticipate any potential supply chain disruptions to seek out alternative procurement sources quickly.

With an increasing focus on sustainability, developing sustainable procurement policies and practices aligned with the organisation's overall strategies will become increasingly important.

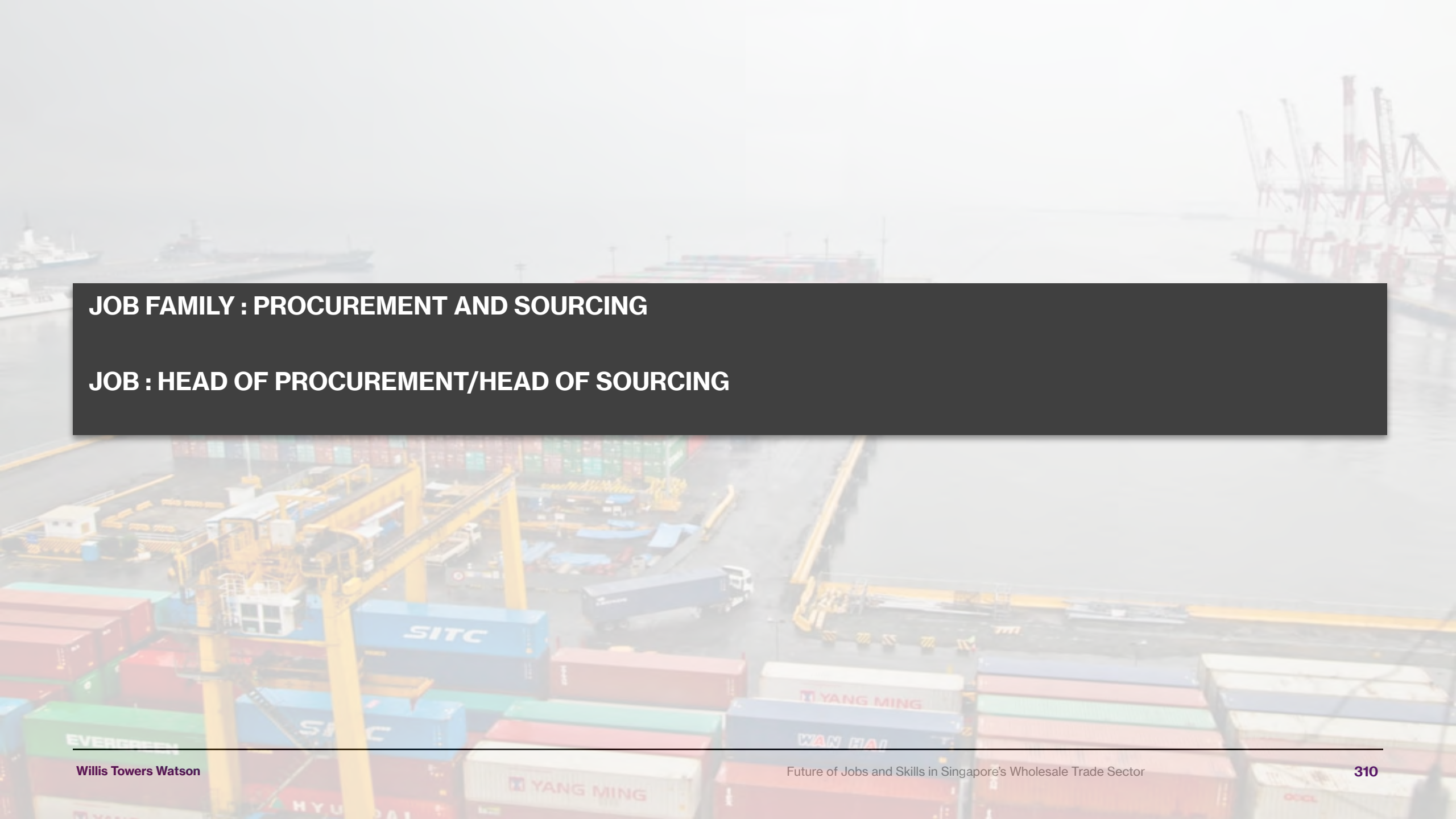
Technology-related skills and knowledge such as automated inventory management, e-procurement management and predictive purchasing will become vital.

Prevalent Technologies & Impact on Job Roles



Business Intelligence
Applications

BI applications such as e-negotiation, automated inventory control systems can be leveraged to generate data-driven insights that can improve operational efficiency and measure the impact of procurement strategies, initiatives and campaigns. Tools such as supplier management software can be leveraged to conduct checks on trade documentation and contract terms to reduce procurement risks. Automated inventory control systems can be used to manage inventory in real-time and predict buying and spending patterns.



JOB FAMILY : PROCUREMENT AND SOURCING

JOB : HEAD OF PROCUREMENT/HEAD OF SOURCING

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop procurement plan	- Lead the development of procurement strategies to ensure alignment with the organisation's overall strategies - Guide the development of procurement targets and KPIs - Drive relationship building with organisational networks and external vendors for optimal procurement transactions	- Establish procurement strategies and KPIs that support and enable the organisation's business objectives and comply with ESG norms [NEW] Develop a procurement technology roadmap that focuses on automating routine and manual processes [NEW] Design initiatives to integrate technology in procurement processes to prevent product counterfeiting, cybersecurity breaches and fraudulent practices, and to improve compliance and strengthen supplier risk assessment - Use SRM systems to target key organisational networks and external vendors and build strategic partnerships with them, creating positive buyer-supplier relationships to optimise the procurement process, improve efficiency and reduce cost in the long run
Manage seller selection processes	- Design and develop the seller selection process and direct team to source sellers that meet procurement requirements - Guide the proposal development criteria to be used by prospective sellers - Direct negotiations of contract terms and conditions with preferred sellers	[AUGMENTED] Guide the adoption of e-procurement systems and digital platforms and channels to streamline the seller selection process, improve compliance and strengthen risk management [NEW] Deploy AI technologies like ML and NLP in e-procurement systems to screen and match sellers, guide proposal evaluation criteria, standardise contracting processes and enable automated contract authoring, ensuring a seamless end-to-end procurement workflow - Review the comparison of cost and quality across databases of similar products and sellers' scorecards and guide sourcing decisions [AUGMENTED] Lead the use of digital dashboards to analyse sellers' behaviours and capabilities, facilitating successful price and contract terms negotiation - Direct the usage of e-negotiation platforms to lower purchase costs and reduce negotiation time

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage procurement activities	- Forecast inventory needs based on the organisation's business needs and market demands - Endorse payments to sellers based on verifications of purchased products deliveries and reconciliations, and modify contracts based on sellers' performance and the organisation's quality standards - Devise procurement audit procedures to minimise procurement risks	[AUGMENTED] Forecast inventory needs based on organisation's business needs and market demands. Leverage data analytics to extract useful insights on product performance and forecast future demands - Reduce the likelihood of under/overstocking by leveraging automated inventory control systems that can manage inventory in real-time and predict spending patterns [AUGMENTED] Leverage smart workflows to standardise routing of work between procurement and financial systems as well as to endorse payments for products - Institutionalise processes like "procure-to-pay" that link procurement to departments like accounts payable to drive efficiencies - Build processes that monitor and audit seller performance against SLAs and address seller compliance/performance issues to mitigate procurement risks and ensure quality assurance standards are met
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Oversee department's financial budgeting process and budget utilisation - Manage department's talent development and recruitment efforts - Drive corporate governance measures - Lead the use of technology for process improvement and innovation	- Strategise the deployment of solutions like data analytics and BI applications to improve processes, conduct resource planning and enhance the budgeting process - Ensure interoperability between existing and new systems and software applications in an organisation, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities - Develop strategies to deliver work effectively through job redesign and reskilling/upskilling strategies - Drive progressive and inclusive corporate governance measures. Drive initiatives that uphold the organisation's ESG guidelines

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Head of Operations	Head of Process Excellence	Head of Supply Chain	Head of Business Transformation/Change	Head of Vendor Management	Management Consultant

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Influence business partners to connect systems that can automate processes like replenishment, order management and delivery to achieve synergies and cost efficiencies.
E-Procurement Management	Guide development of predictive e-procurement systems to automate procurement processes, streamline transactions and combine real-time and historical data to predict future business needs.
Predictive Buying / Purchasing	Devise strategies to reduce procurement cost, improve efficiency and monitoring controls by leveraging predictive models to trigger automated purchasing. Define inventory levels and controls to ensure appropriate purchasing decisions.
Product Authentication	Strategise and integrate technology in procurement and packaging processes to prevent product counterfeiting and fraud to improve product authentication. Define the framework for supplier quality risk assessment.
Sourcing Portfolio Analysis	Oversee the sourcing portfolio analysis and develop strategies to concentrate or diversify supply, manage risks, enhance speed to market, and reduce costs.
Sustainable Sourcing and Procurement	Develop goals for sustainable sourcing and procurement and influence suppliers to be environmentally and socially responsible. Define a framework for monitoring suppliers to adhere to sustainable sourcing and procurement guidelines.

IN THE NEXT
3-5 YEARS...

The role will continue to accelerate the application of data analytics to forecast future business needs and manage the supplier base. The role will lead the adoption of AI technologies to reduce the response time during purchase decisions. These technologies will help analyse preferred suppliers, purchasing history and real-time availability of products and providing operational support for answering queries about orders or shipments. The role will continue to drive the implementation of e-procurement systems and invest in capabilities that drive innovation. The role will collaborate closely with suppliers during product development to ensure sustainable sourcing and seek alternative procurement sources in the event of supply chain disruptions.

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JOB FAMILY : PROCUREMENT AND SOURCING

JOB : PROCUREMENT MANAGER/SOURCING MANAGER

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Develop procurement plan	- Develop procurement implementation plans that align with the organisation's targets and KPIs - Facilitate engagement sessions with organisational networks and external vendors for optimal procurement transactions	- Implement procurement strategies and KPIs that support and enable the organisation's business objectives and comply with ESG norms [NEW] Implement the procurement technology roadmap to automate routine and manual processes [AUGMENTED] Leverage data analytics and software integration to complete routine and transactional procurement tasks with limited human intervention, strengthen supply chain resilience and prevent cybersecurity breaches - Use SRM systems to engage and collaborate with organisational networks and external vendors, creating positive buyer-supplier relationships to optimise the procurement process, improve efficiency and reduce cost in the long run
Manage seller selection processes	- Develop the seller selection process and proposal development criteria used by prospective sellers - Review the list of potential sellers that fulfil procurement requirements and facilitate contract terms and condition negotiation with preferred sellers	[AUGMENTED] Leverage e-procurement systems and digital platforms and channels to streamline the seller selection process, improve compliance and strengthen risk management [NEW] Use AI technologies like ML and NLP in e-procurement systems to screen and match sellers, standardise contracting process and support the automation of contract authoring, ensuring a seamless end-to-end procurement workflow - Compare cost and quality across databases of similar products to recommend sourcing decisions [AUGMENTED] Use digital dashboards to analyse sellers' behaviours and capabilities and product portfolios to recommend price and contract terms for negotiation - Use e-negotiation platforms to lower purchase costs and reduce negotiation time
Manage procurement activities	- Analyse inventory levels to identify future inventory needs - Evaluate sellers' performance based on the quality of products received and payment processes - Address ad-hoc payment issues of sellers - Review audits conducted on trade documentation and contract terms to reduce procurement risk	[AUGMENTED] Use automated inventory control systems to analyse inventory levels in real-time and predict demand and spending patterns based on future business requirements [AUGMENTED] Apply smart workflows to standardise routing of work between procurement and financial systems and ensure timely payment to sellers - Adopt processes like "procure-to-pay" that link procurement to departments like accounts payable to create efficiencies - Monitor and audit seller performance against SLAs and address seller compliance/performance issues to mitigate procurement risks and ensure quality assurance standards are met - Leverage the supplier management software to review audits of trade documentation and contract terms to reduce procurement risks

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Drive collaboration of human resource, technology, finance and continuous improvement initiatives	- Develop department's financial budgeting process and track budget utilisation - Support department's talent attraction, development and retention efforts - Develop corporate governance measures - Evaluate technologies for process improvement and innovation	- Leverage data analytics and BI applications to improve processes, develop department's financial budget and optimise budget utilisation - Identify opportunities for workforce development through job redesign and reskilling/upskilling strategies - Implement initiatives that are aligned with the organisation's ESG strategy. Support the development of corporate governance measures as applicable to the track/function

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Capacity Manager	Regional Planning Manager	Supply Chain Manager	Change Manager	Technology Consultant	Vendor Operations Manager

SKILL DIFFERENTIATORS
Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Collaborate with technology teams and develop the roadmap for the implementation of automated inventory software application.
E-Procurement Management	Collaborate with technology teams to develop predictive e-procurement systems to automate procurement processes, streamline transactions and combine real-time and historical data to predict future business needs.
Predictive Buying / Purchasing	Apply predictive data analytics, AI and other technologies to reduce procurement costs, improve efficiency and monitoring controls.
Product Authentication	Develop the process for technology integration, such as using security tags in packaging and a robust tracking system that provides real-time information on products' status through online reporting systems.
Sourcing Portfolio Analysis	Manage the process of segmenting sourcing portfolios based on the strategic importance of the goods to the business to provide inputs for each segment's specific sourcing strategy.
Sustainable Sourcing and Procurement	Assess the alternatives for sustainable sourcing and procurement recommend suitable options. Continuously monitor and audit supplier performance as per the sustainable sourcing and procurement framework.

**IN THE NEXT
3-5 YEARS...**

The role will continue to work with suppliers to negotiate price and contract terms to achieve mutually beneficial outcomes. The role will be expected to leverage AI-powered chatbots to reduce response time during purchasing decisions and provide operational support on orders. The role will also support policy development for sustainable procurement standards. The role will be expected to leverage data analytics to optimise product portfolio, supplier base, procurement needs and process efficiencies. The role will also need to develop structured solutions (e.g., working capital management or credit solutions) to ensure flexibility in the supply chain process and develop supplier contingency plans in case of unanticipated events that can disrupt the supply chain.

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JOB FAMILY : PROCUREMENT AND SOURCING

JOB : PROCUREMENT EXECUTIVE/SOURCING EXECUTIVE

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement procurement plan	- Execute procurement activities based on established product specifications and customers' needs - Manage working-level relationships with organisational networks and external vendors for optimal procurement transactions - Monitor compliance with procurement targets and KPIs	- Execute procurement strategies and KPIs that support and enable the organisation's business objectives [NEW] Support the procurement automation strategy and roadmap to automate routine and manual processes [AUGMENTED] Leverage data analytics to monitor compliance and procurement targets that include strategic sourcing, effective material costing and seller competitiveness - Use SRM systems to collaborate with organisational networks and external vendors, creating positive buyer-supplier relationships to optimise the procurement process, improve efficiency and reduce cost in the long run
Manage seller selection processes	- Adopt seller selection processes and proposal development criteria to ensure fair competition - Analyse draft proposals and/or procurement specifications from a list of consolidated preferred sellers - Support negotiation efforts with information on agreed contract terms and conditions with preferred sellers	[AUGMENTED] Leverage e-procurement systems and digital platforms and channels to implement the seller selection process by tracking and evaluating sellers' capabilities and managing seller risks - Use AI technologies like ML and NLP in e-procurement systems to screen and match sellers and analyse the draft proposal and/or procurement specifications, ensuring a seamless end-to-end procurement workflow [NEW] Use digital dashboards to analyse sellers' behaviours and capabilities and performance levels to recommend seller changes - Support negotiation efforts by providing necessary data to the relevant stakeholders
Manage procurement activities	- Determine product inventory levels - Test product quality to ensure suitability for purpose following procurement requirements and quality assurance standards - Conduct checks on trade documentation and contract terms to reduce procurement risks in collaboration with the sales and finance departments	[AUGMENTED] Leverage data analytics to determine product inventory levels and identify demand and spending patterns - Use quality assessment matrix and advanced analytics to test product quality and suitability to prevent product recalls, warranty claims and lawsuits - Leverage the supplier management software to conduct checks on trade documentation and contract terms to reduce procurement risks in collaboration with the sales and finance departments [NEW] Use chatbots to provide operational support on orders. Answer complex questions raised by sellers that cannot be addressed by chatbots

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Assist in the review of work processes and procedures to plan for continuous work improvement activities - Contribute to technology implementation projects to facilitate the use of technologies, electronic tools and devices	- Assist in the review of work processes and procedures using data analytics to provide data-driven insights for the planning of continuous work improvement activities - Contribute to technology implementation projects to advocate the use of technologies, electronic tools and devices in improving work processes

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Distribution Executive	Strategic Sourcing Executive	Supply Chain Executive	Business Development Executive	Project Executive	Vendor Delivery Executive

SKILL DIFFERENTIATORS
Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Manage inventory using software applications to allow wholesalers and distributors to add, edit, delete and transfer inventory in real-time.
E-Procurement Management	Support the automation of procurement processes that can streamline transactions and combine real-time and historical data to predict future business needs.
Predictive Buying / Purchasing	Analyse historical data to determine purchasing patterns to make informed purchasing decisions and support demand forecasting to manage procurement activities efficiently.
Product Authentication	Explore technologies which can be used for product authentication and product tracking to prevent product counterfeiting and fraud.
Sourcing Portfolio Analysis	Analyse past supply trends and other information sources to support the segmentation of the sourcing portfolio.
Sustainable Sourcing and Procurement	Analyse the supply chain and supplier base to identify potential opportunities for sustainable sourcing and procurement.

**IN THE NEXT
3-5 YEARS...**

As technology automates routine procurement activities, the role will support the implementation of technologies and leverage data analytics to enable efficient procurement operations. The role is expected to leverage data analytics to assess product quality and resolve potential quality failures before they occur. The role will continue to identify data trends to forecast future procurement needs and better assess supplier risks. AI-powered chatbots will reduce the response time during purchasing decisions and free up time to gather insights, lowering procurement costs and risks.

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JOB FAMILY : PROCUREMENT AND SOURCING

JOB : PROCUREMENT ASSISTANT/SOURCING ASSISTANT/SOURCING COORDINATOR

Level of Impact

High Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Implement procurement plan	- Consolidate product specifications and customer needs - Initiate working-level relationships with organisational networks and external vendors to support procurement activities	- Leverage data analytics and reports produced by digital platforms and channels to support procurement activities, such as consolidating product specifications and customer needs - Support collaboration with organisational networks and external vendors, creating positive buyer-supplier relationships to optimise the procurement process, improve efficiency and reduce cost in the long run
Manage seller selection processes	Support data collection and drafting of proposal requirements following procurement requirements for a consolidated list of potential sellers	[AUGMENTED] Leverage digital platforms and channels to increase efficiencies in drafting proposal requirements and/or procurement specifications to potential sellers - Share proposal requirements and/or procurement specifications with prospective sellers - Analyse historical performance levels of sellers and assess their suitability
Manage procurement activities	- Track the status of purchase orders and reorders and administer receipt of products as per procurement requirements and quality assurance processes - Audit trade documentation and contract terms and process payments to sellers by working closely with the sales and finance department	[AUGMENTED] Use inventory management applications to track purchase orders and reorder status in real-time, and administer the receipt of products - Leverage data analytics and digital dashboards to identify trends in product performance and assess product quality [AUGMENTED] Use Supplier Management Software to audit trade documentation, trade transaction contract terms and payment processes to reduce procurement risks in collaboration with the sales and finance departments [AUGMENTED] Use chatbots to provide operational support on orders

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Support application initiatives	- Operate new technologies, electronic tools and devices to improve operations in own work areas - Support the review of work processes and procedures to improve work performance	- Operate new technologies, electronic tools and devices to improve operations in own work areas - Support the review of work processes and procedures using data analytics to provide data-driven insights on work performance

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Capacity Management Coordinator	Logistics Coordinator	Sourcing Coordinator	Category Coordinator	Commodities Operations Coordinator	Merchandising Coordinator

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Automated Inventory Management	Manage inventory using software applications to allow wholesalers and distributors to add, edit, delete and transfer inventory in real-time.
E-Procurement Management	Support the automation of procurement processes that can streamline transactions and combine real-time and historical data to predict future business needs.
Predictive Buying / Purchasing	Analyse historical data to determine purchasing patterns to make informed purchasing decisions and support demand forecasting to manage procurement activities efficiently.
Product Authentication	Explore technologies which can be used for product authentication and product tracking to prevent product counterfeiting and fraud.
Sourcing Portfolio Analysis	Analyse past supply trends and other information sources to support the segmentation of the sourcing portfolio.
Sustainable Sourcing and Procurement	Analyse the supply chain and supplier base to identify potential opportunities for sustainable sourcing and procurement.

IN THE NEXT 3-5 YEARS...

As technology automates routine procurement activities, the role will support the implementation of technologies like BI applications, data analytics and digital platforms and marketplaces to enable efficient procurement operations. The role will be expected to be adept in using these technologies. As more tasks within the role become substituted, the role could become redundant, be outsourced to a cheaper location or be merged with another role within the organisation.

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An aerial view of a busy port. In the foreground, there are numerous stacked shipping containers in various colors (blue, red, green, white). Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow cranes are visible, some with their booms extended. In the background, there are more containers, cranes, and a body of water with ships. The sky is hazy.

TRACK : LOGISTICS MANAGEMENT

JOB FAMILY: LOGISTICS

Job Family

LOGISTICS

Overall Level of Impact

Low Impact

Overview of Changes (Within 3 years)

The Logistics job family has always been heavily influenced by the market and economic landscape, such as changing geopolitical diaspora, impending trade wars, and unexpected changes. As such, this job family is susceptible to external shocks.

With the recent pandemic, e-commerce and home deliveries have increased significantly, causing a greater demand for logistics solutions, fueling the logistics industry's growth. There is also a greater demand for a more transparent supply chain with end-to-end visibility. Hence, it has become important for the job family to increase its preparedness by adapting to unexpected circumstances and ensuring its supply chain is flexible and resilient to cope with the changing political and economic environment and consumer demands.

To stay prepared, the job family will see an increasing need to adopt and integrate technologies to sustain its operations and improve efficiencies. Technologies such as data analytics, RPA and IoT will be adopted to drive operational efficiencies and drive cost-savings in the supply chain. Data analytics will be used to forecast demand and predict business opportunities and challenges to stay abreast of changes, aiding overall business planning. RPA will be used to automate certain operational activities such as scheduling compliance, maintenance and inventory checks. IoT will be used to create a system of interconnecting devices that do not require human intervention, synchronising transactions for greater end-to-end tracking, boosting transparency in the supply chain. A more transparent supply chain will also increase effectiveness and minimise downtime, improving overall ROI. This job family will be expected to anticipate future customer needs and propose initiatives to mitigate environmental concerns like reducing the organisation's carbon footprint.

Skills and knowledge in data analytics, agile logistics, M2M technology application and predictive maintenance planning will be important for the roles in this job family to remain adaptable and competitive in the market.

Within chartering, technologies such as IoT and digital platforms and marketplaces will become prevalent to execute tasks more effectively and efficiently. Skills in e-chartering and e-contract negotiation are expected to grow in importance.

Across freight and dispatch, the demand for sustainability is expected to prompt the need for more energy-efficient vehicles. Furthermore, to enhance cargo movement visibility, more tracking technologies like geolocation tracking and IoT will be adopted. The job family will also be expected to identify ways to coordinate and liaise with key stakeholders along the supply chain to manage costs while delivering value-added services to customers. Route optimisation will be an important skill that will aid improvement in efficiency of freight and dispatch operations.

Prevalent Technologies & Impact on Job Roles

LOGISTICS



Internet of Things

IoT can be utilised to communicate and process data and monitor logistics operations in real-time, improving the supply chain's visibility and reducing downtime.



Robotic Process Automation

RPA can be used to automate compliance checking, ensuring adherence to the organisation's policies and practices. RPA can also automate the scheduling maintenance process, notify affected customers, and check on inventory levels, thereby reducing operational delays.

CHARTERING



Internet of Things

IoT can be used to access real-time data on vessel voyage to predict potential problems and propose solutions for faster resolution and mitigation of problem areas.



Digital Platform and Marketplaces

Digital platforms and marketplaces such as ship chartering marketplaces can help cargo owners find suitable vessels and ship owners to update open vessels, improving the efficiency of chartering processes and cost savings.

FREIGHT



Internet of Things

IoT can be utilised to create a system of interconnected devices that can track and provide real-time visibility on freight and identify inefficiencies and problems during the transportation and storage of goods for faster resolution and mitigation of problem areas.



Digital Platform and Marketplaces

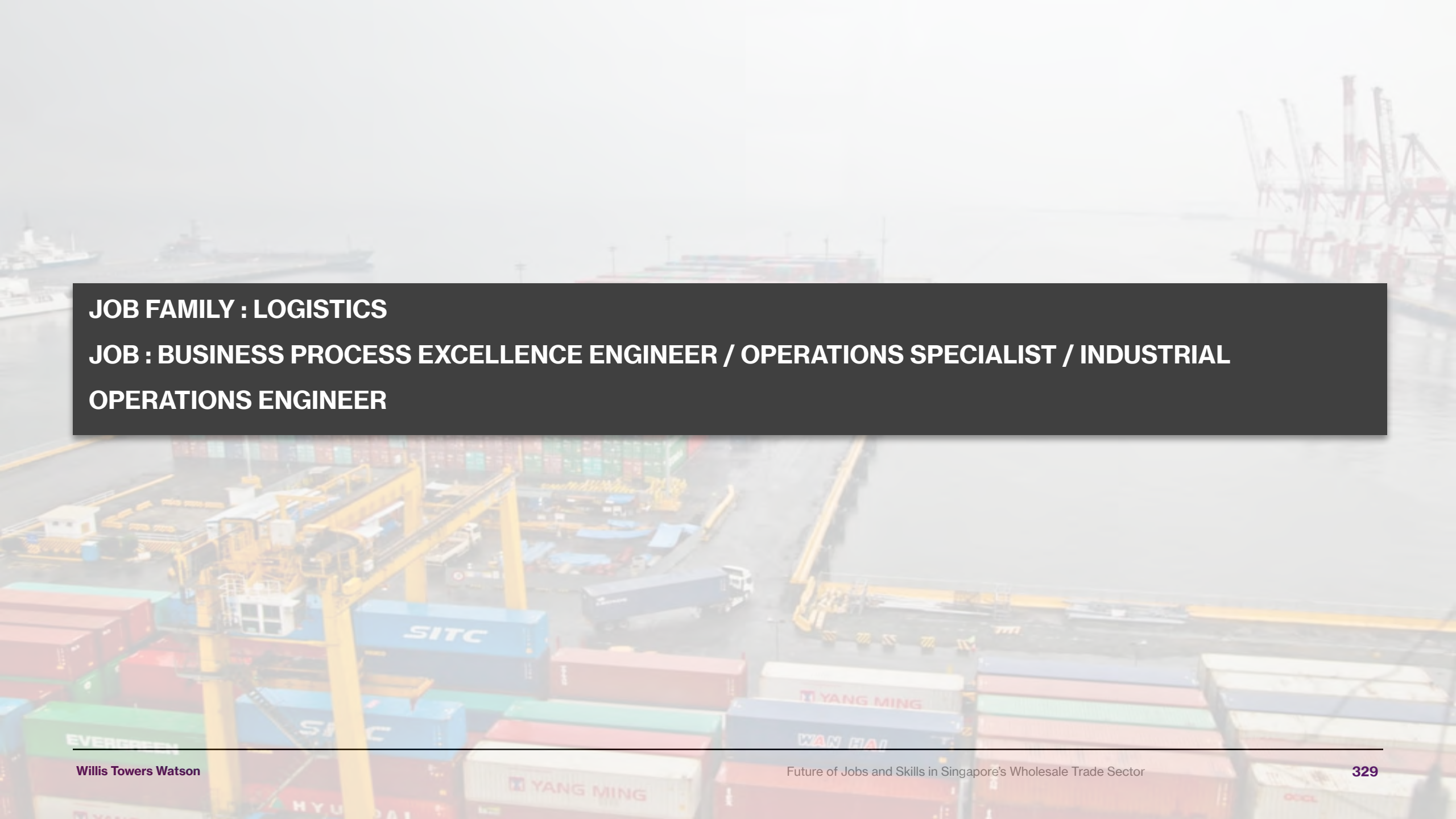
Digital platforms can be used to replace manual carrier booking and gather instant updates on schedules and changes. Digital platforms like online freight forwarding platforms can help manage and handle freight-related documentation and digitalise booking processes, reduce manual paperwork, and improve the ease and efficiency of managing freight.

DISPATCH



Robotic Process Automation

RPA can be leveraged to discover optimal routes from dynamic routing systems, enhancing dispatch operations.



JOB FAMILY : LOGISTICS

**JOB : BUSINESS PROCESS EXCELLENCE ENGINEER / OPERATIONS SPECIALIST / INDUSTRIAL
OPERATIONS ENGINEER**

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Logistics Solutioning Tasks	- Propose ways to eliminate gaps and weaknesses in supply chain operations - Develop plans to implement innovative logistics solutions that address customer needs	[AUGMENTED] Leverage digital SCM systems to streamline processes and optimise supply chain operations [AUGMENTED] Drive the use of IoT, sensors and RFID tagging to communicate and process data (such as temperature fluctuations and shock detection) and monitor logistics operations in real-time, improving visibility and reducing downtime in the transportation and logistics network - Maintain cargo quality and improve cross-partner and cross-client networks by understanding containers' flow and anticipating delays
Perform Technology Application and Integration Tasks	- Review latest technology trends and solutioning partners to assess applicability and feasibility of implementing technology solutions and automation of business processes - Adopt the latest technologies to improve operational activities and facilitate key activities and milestones in technology projects	- Recommend the suitability and effectiveness of new technologies in optimising logistics processes [NEW] Drive digital logistics by implementing web-based enterprise logistics applications and knowledge management systems, providing visibility across the organisation and extended supply chain [AUGMENTED] Evaluate logistics activities through real-time insights gathered from intelligent supply chain analytics, VMI and SCM systems [AUGMENTED] Leverage RPA to automate manual and repetitive reporting, and compliance requirements of existing regulations that mandate frequent disclosures [NEW] Support interoperability between existing and new systems and software applications, allowing for effective and accurate data exchange and communication, information sharing and easy execution of activities

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Business Process Improvement Activities	- Propose and review business process improvement solutions - Analyse the costs and benefits of the current warehouse operations business processes - Propose data analytics methods and implement knowledge management systems - Facilitate adherence to quality procedures	- Leverage data-driven insights to evaluate the effectiveness of different business process improvement solutions - Implement performance metrics to track logistics performance, determine the root cause of problems and drive continuous improvements [NEW] Improve business processes using innovative research aimed at fostering growth; while considering organisation's ESG strategy
Perform Business Administration Tasks	- Communicate requirements and activities to stakeholders and work to ensure alignment of interests within the business - Propose and follow operational policies, standards and procedures - Supervise teams at work and facilitate team/departmental projects	[AUGMENTED] Drive the use of digital checklists and technologies like AI and RPA to monitor and send out alerts, ensuring processes are compliant with the organisation's policies and procedures [AUGMENTED] Train and guide the team to support the implementation of new technologies

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Compliance Analyst	Quality Assurance Analyst	Supply Chain Development Analyst	Continuous Improvement Project Engineer	Optimisation Analyst	Quality Assurance Engineer

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Agile Logistics	Analyse logistics processes and identify ways to address gaps and provide a real-time flexible response to organisations and customer requirements.
Automated Inventory Management	Collaborate with technology teams and develop the roadmap for the implementation of automated inventory software application.
Machine to Machine (M2M) Technology Application	Redesign work processes to incorporate intelligent robotics, sensors, and wearable technology to update and track inventory and/or workers' movement in real-time.
Predictive Maintenance Planning	Develop technical preventive maintenance workflows and procedures based on analysis of machines/equipment performance to provide just-in-time maintenance and reduce the likelihood of failure.
Sustainable Engineering	Apply concepts of sustainable engineering in all aspects of the value chain. Develop sustainable solutions and processes that align with organisational goals

IN THE NEXT
3-5 YEARS...

The role will adopt technology solutions to increase efficiency and reduce costs. From an initial focus on IoT applications, the role will gradually focus on adopting robotics and autonomous vehicle technologies in business processes. The role will also engage in sustainability-linked initiatives to reduce carbon footprints.

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JOB FAMILY : LOGISTICS

JOB : LOGISTICS SOLUTIONS ANALYST

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Logistics Solutioning Tasks	- Perform logistics services documentation - Execute established and small-scale supply chain operations for customers - Identify and analyse innovative logistics solutions that address customer needs	- Analyse the suitability and effectiveness of new technologies in improving logistics processes [AUGMENTED] Leverage digital SCM systems to streamline the documentation process of logistics operations - Execute established and small-scale supply chain operations for customers
Perform Data Analytics Tasks	Perform data analysis and research to explain data findings	[AUGMENTED] Analyse data from SCM systems and build insights on costs, delivery times and inventories [AUGMENTED] Analyse data from applications like sensors and RFID-tagging to generate reports on logistics operations network efficiency and identify potential areas of improvement [AUGMENTED] Analyse data from smart container management systems to report container flow, capture inefficiencies, highlight problems and delays and suggest course correction measures to improve and optimise logistics processes
Perform Business Development Tasks	- Analyse customers' needs and opportunities in key accounts within assigned verticals to determine prevalent trends, dynamics and market movements - Conduct targeted conversations with customers to identify customer needs	- Analyse reports on the market, economy, technology landscape, and customer needs to obtain data-driven insights on potential solutions for new business opportunities - Leverage data analytics to conduct research and cost-benefit analysis to support the growth of potential business ventures
Perform Business Administration Tasks	- Communicate requirements and activities to stakeholders and work to ensure alignment of interests within the business - Apply and follow operational policies, standards and procedures - Perform basic risk assessment	- Communicate with stakeholders to understand business needs on process improvements [AUGMENTED] Develop digital checklists and use technologies like AI and RPA to monitor and send out alerts, ensuring processes are compliant with organisation's policies and procedures

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Analyst	Materials Analyst	Operations Excellence Analyst	Business Process Excellence Analyst	Product Analyst (ERP)	RPA Analyst

SKILL DIFFERENTIATORS

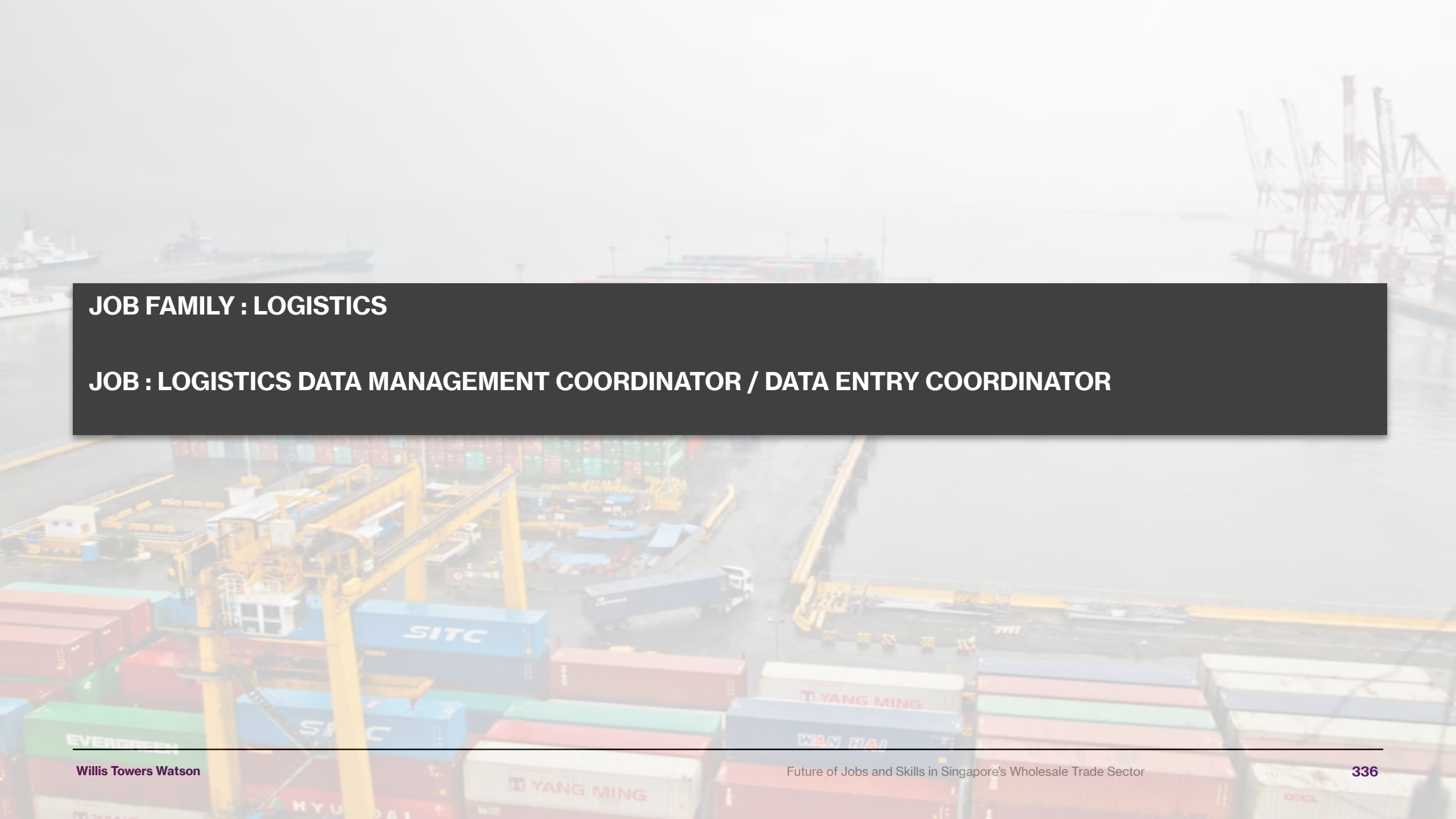
Roles Specific

SKILL	DESCRIPTIONS
Agile Logistics	Integrate changing customer needs into the design of logistics processes.
Automated Inventory Management	Manage inventory using software applications to allow wholesalers and distributors to add, edit, delete and transfer inventory in real-time.
Machine to Machine (M2M) Technology Application	Understand the applications and operations of intelligent robotics, sensors and wearable technology in work processes.
Predictive Maintenance Planning	Interpret preventive maintenance workflows, procedures and practices to coordinate the execution of maintenance tasks safely and reliably.

IN THE NEXT 3-5 YEARS...

With advances in technology, this role will be expected to partner closely with the business to provide insights on logistics solutions and processes. The role will adopt technologies to drive efficiencies, synergies and cost-savings across logistics operations. Additionally, the role will be expected to value-add to the business by anticipating future customer needs, developing logistics solutions prototypes and delivering solutions.

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JOB FAMILY : LOGISTICS

JOB : LOGISTICS DATA MANAGEMENT COORDINATOR / DATA ENTRY COORDINATOR

Level of Impact

Medium Impact

Job Expectations within the next 3 years

Critical Work Functions

Today

Within 3 Years

Perform Data Management Tasks

- Perform analysis and research
- Provide operational support in data management initiatives across the organisation

- Leverage **RPA** to perform data entry. Conduct base-level analysis and research
- Provide inputs on the integration of data across logistics operations and support data management initiatives

Perform Technology Application and Integration Tasks

- Gather information from reputable sources and partners on the latest technology trends
- Work with team members to support technology projects
- Apply the latest technology to support team operations improvement activities

- Consolidate insights from reports on technology trends that can streamline logistics operations
- Develop preliminary recommendations on the application of technologies to improve work processes
- Support the implementation of technology projects and advocate the use of technologies to improve work processes

Perform Business Administration Tasks

- Communicate requirements and activities to stakeholders and work to ensure alignment of interests within the business
- Apply and follow operational policies, standards and procedures
- Perform basic risk assessment

- **[AUGMENTED]** Apply **digital checklists** and technologies like **AI** and **RPA** to monitor and send out alerts, ensuring processes are compliant with the organisation's policies and procedures
- Perform basic gap and risk assessment

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Data Coordinator	Network Operations Coordinator	Project Coordinator (Supply Chain IT)	Customer Service Coordinator	Data Coordinator	Research Coordinator

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Agile Logistics	Integrate changing customer needs into the design of logistics processes.
Machine to Machine (M2M) Technology Application	Understand the applications and operations of intelligent robotics, sensors and wearable technology in work processes.
Predictive Maintenance Planning	Interpret preventive maintenance workflows, procedures and practices to coordinate the execution of maintenance tasks safely and reliably.

IN THE NEXT 3-5 YEARS...

As tasks like data gathering and data entry become automated due to the adoption of technologies like AI and RPA, the role will focus on conducting data checks to ensure that data is reliable and consistent. The role will also be expected to identify ways of improving data capture and integration across multiple systems. Moreover, the role will also be expected to stay updated on technology trends that can improve logistics operations. As more tasks within the role become substituted due to technology, the role could become redundant, be outsourced to a cheaper location or be merged with another role within the organisation.

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JOB FAMILY : LOGISTICS

JOB : CHARTERER

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Manage Ship Chartering Business	• Prepare reports on sales and freight earnings • Liaise with stakeholders on resolution processes for pre-and post-fixture issues • Monitor and analyse market directions • Assist in the negotiation and finalisation of contract details	• Prepare reports on sales and freight earnings • Leverage advanced chartering applications to analyse the commercial viability of proposed voyages and resolve pre- and post-fixture issues • [AUGMENTED] Leverage predictive analytics to forecast demand and optimise fleet planning, improving business performance • Leverage CLM solutions to review contractual agreements required for trade transactions, improving documentation processing time
Grow Ship Chartering Business	• Identify and solicit prospective clients • Identify clients' needs and keep abreast of shipping trends and patterns • Report findings for business development	• [NEW] Leverage ship chartering marketplaces to allow cargo owners to find suitable vessels and ship owners to update open vessels, improving the efficiency of chartering processes and increasing time and cost savings • Analyse reports on the market and economic landscape as well as stakeholders' needs to develop insights on new business opportunities and pricing strategies • Leverage industry networks and relationships to build a lasting and profitable business
Lead Improvements To Enhance Efficiency	• Propose workflow improvements to improve efficiency • Assist with the implementation of workflow improvements to improve efficiency	• [AUGMENTED] Leverage and support the implementation of technology solutions like predictive analytics, maritime intelligence software (e.g., MIRS), geolocation tracking and IoT to access real-time data on vessel voyage and predict potential problems, enabling the identification of flaws and potential threats for timely mitigation efforts
Service Client Accounts	• Update clients on chartering activities, personnel, refinery and fleet changes • Update chartering and customer databases	• Enable remote condition monitoring of fleets to track voyages in real-time and provide updates to clients • Create and maintain chartering and customer databases on digital platforms

Job Adjacency

WITHIN WHOLESALE TRADE

Financial Planning Analyst Planning Analyst Supply Chain Analyst

OUTSIDE WHOLESALE TRADE

Corporate Development Analyst Finance Analyst Freight Trader

SKILL DIFFERENTIATORS

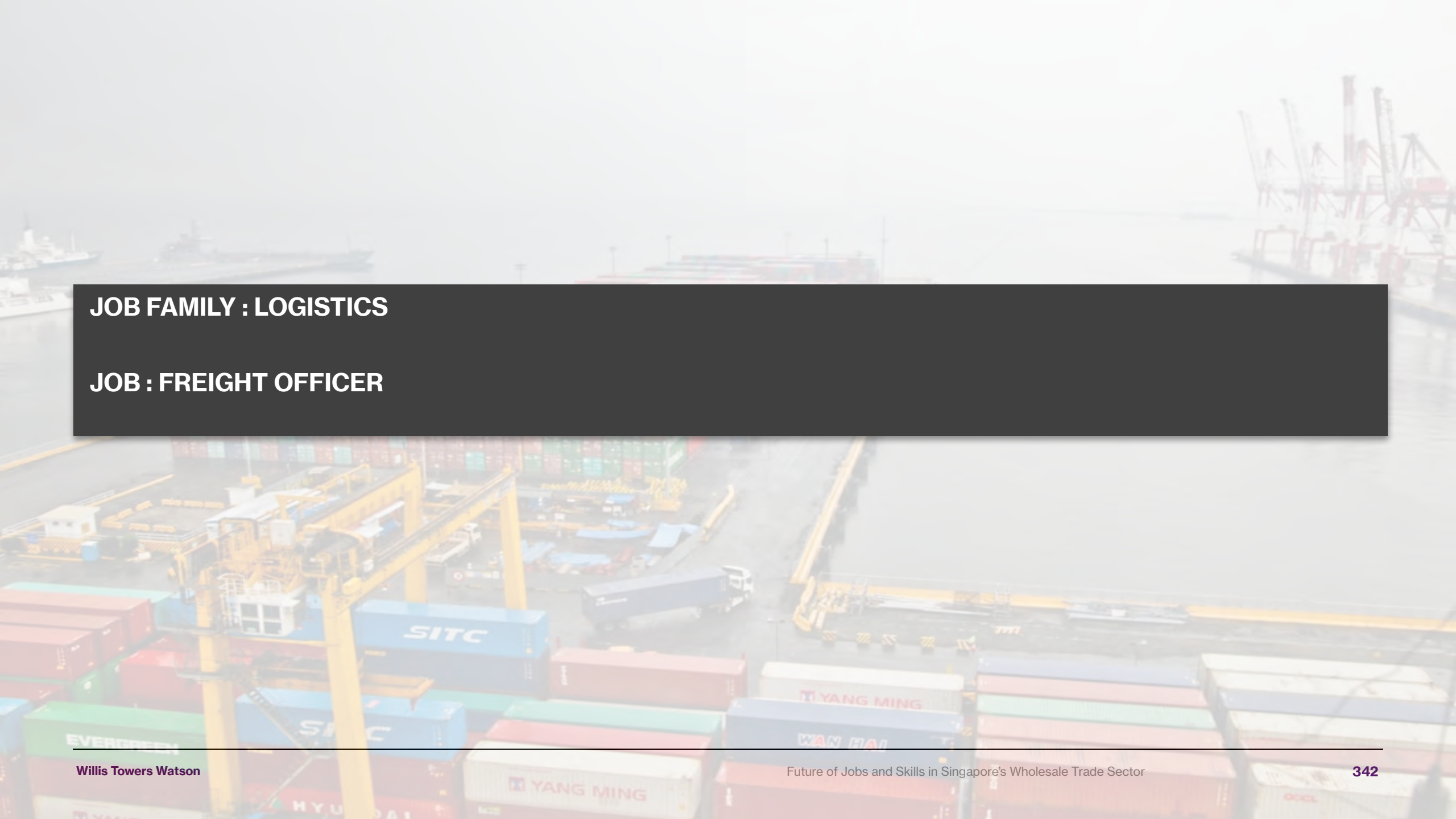
Roles Specific

SKILL	DESCRIPTIONS
Data Management / Security	Collaborate with technology teams to understand data governance frameworks to secure and protect data from unauthorised access and ensure compliance with regulatory requirements.
E-Chartering	Leverage e-chartering platforms to enhance reach to customers, optimise chartering routes, and maximise profitability.
E-Contract Negotiation	Promote the use of digital platforms to facilitate contract negotiations and planning with stakeholders.
Freight Rate Hedging Management	Analyse economic factors to determine optimum freight rates for cargo delivery and deploy hedging strategies to minimise the risk of losses.

IN THE NEXT
3-5 YEARS...

There will be an increase in the utilisation of digital platforms, predictive analytics and other maritime software to create a unified ecosystem that consolidates real-time vessel tracking and monitoring of market conditions. Therefore, it will become increasingly important for the role to analyse data and derive insights from multiple sources. Over time, the use of RPA and DLT platforms are expected to enable faster, paperless processing and drive transparency. With the time saved due to automation, the role will focus on building strategic relationships with clients and ship owners and identify opportunities for new revenue streams.

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An aerial view of a busy port. In the foreground, there are stacks of colorful shipping containers (blue, red, green, white) with logos like SITC, EVERGREEN, and YANG MING. Yellow gantry cranes are positioned over the containers. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is overcast.

JOB FAMILY : LOGISTICS

JOB : FREIGHT OFFICER

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Freight Forwarding Tasks	- Evaluate customer needs to improve freight operations processes - Recommend operational plans for non-established and large-scale freight shipments	[AUGMENTED] Adopt online freight forwarding platforms to automate paperwork, forecast supply and demand, provide instant quotations, track shipments in real-time, and digitalise booking processes and documentation handling, improving the efficiency of freight operations processes - Apply data analytics to develop and recommend operational plans for non-established and large-scale freight shipments
Perform Business Continuous Improvement Activities	- Evaluate continuous improvement activities, performance-improvement strategies and standards for quality management systems and logistic services - Work with team members to support technology projects and operations improvement activities - Perform sustainability activities	[AUGMENTED] Digitalise operational shipment data for easy shipment tracking and provide real-time updates to clients [AUGMENTED] Assess the feasibility of linking customers with the organisation's systems to enable online shipment booking and ensure seamless end-to-end documentation handling for effective freight management [AUGMENTED] Use digital platforms to reduce manual carrier booking and gather instant updates on schedules, improving time and cost savings - Implement sustainable policies and practices to mitigate negative environmental impacts and reduce the organisation's carbon footprint
Perform Cargo and/or Material Handling and Delivery Tasks	- Evaluate cargo and material-handling security procedures and delivery operations, and incident or crisis management initiatives - Recommend methods to manage dangerous goods, improve cargo documentation and cargo consolidation to optimise space, cost and efficiency	[AUGMENTED] Utilise tracking technologies like geolocation tracking and IoT to obtain real-time visibility on goods, enhance load optimisation and verify transactions, improving freight management and enhancing efficiency
Perform Compliance Tasks	- Perform compliance operations and/or advise clients on tariffs, rates, costs or quotations requirements and eligibility - Manage the performance of checks in accordance with internal SOPs, government regulatory requirements and legislations to identify non-compliance - Support internal audit tasks	- Leverage digital forms and dashboards to automate administrative activities and digitise the documentation process - Identify potential issues and propose preventive actions to enhance quality assurance and compliance with SOPs, government regulations and custom requirements

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Business Administration Tasks	- Communicate and manage stakeholders to monitor completion of requirements and activities - Optimise use of allocated resources within business activities - Apply operational policies, standards and procedures - Evaluate risk factors that impact efficiency	- Partner with stakeholders to use freight management platforms and integrated freight collaboration tools to improve the visibility of freight, minimising risks [AUGMENTED] Use digital checklists and technologies like AI and RPA to monitor and send out alerts, ensuring processes are compliant with the organisation's policies and procedures

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Revenue Executive	Trade Compliance Executive	Trade Operations Executive	Claims Executive	Process Improvement Executive	Technical Document Controller

SKILL DIFFERENTIATORS

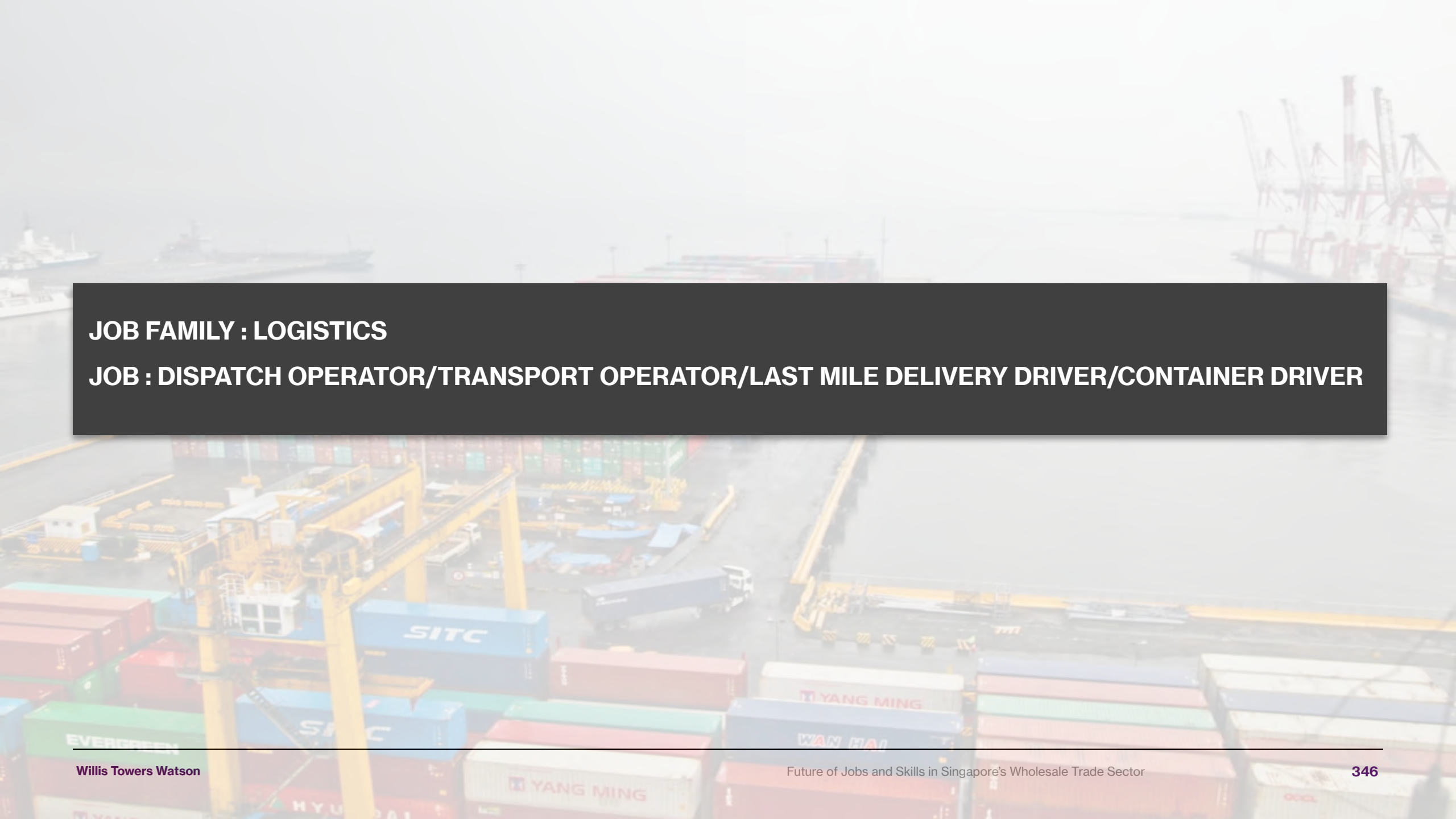
Roles Specific

SKILL	DESCRIPTIONS
Digital Freight Brokerage & Matching	Leverage digital freight online marketplaces' functionalities to connect shippers and transporters, reduce paperwork and middlemen, and lower freight costs.

IN THE NEXT 3-5 YEARS...

Over time, repetitive and administrative tasks will likely be automated by technologies such as geo-fencing, digital freight brokerage and matching. These technologies will provide greater visibility and facilitate the monitoring and optimisation of cargo handling and freight operations. The role will also leverage Just-In-Time Delivery Management and IoT to manage freight forwarding operations between customers and stakeholders.

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JOB FAMILY : LOGISTICS

JOB : DISPATCH OPERATOR/TRANSPORT OPERATOR/LAST MILE DELIVERY DRIVER/CONTAINER DRIVER

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Transportation Tasks	- Operate light and heavy transportation vehicles, cargo-lifting and rigging equipment and lorry cranes - Perform basic risk assessment and maintenance of transportation facilities, equipment, infrastructure and systems - Perform delivery and pick-up operations - Operate technology or electronic tools and devices	- Operate transportation vehicles where applicable - Perform basic risk assessment, update digital checklists to inspect the condition of transportation vehicles and notify stakeholders of problems for early mitigation of risks - Interpret optimal routes from dynamic routing systems to enhance delivery and pick-up operations, reducing delivery and pick-up times and improving the efficiency and flexibility of dispatch operations - Leverage data analytics to assess the availability of resources, obtain an estimated time of delivery and gather real-time traffic data and weather conditions for more effective and efficient dispatch and route planning - Leverage digital tools and devices to share relevant and timely information with stakeholders
Perform Cargo and/or Material Handling and Delivery Tasks	- Perform acceptance of cargo and cargo/material-handling security procedures - Support the department in incident or crisis-management initiatives - Manage time and temperature-sensitive cargo and dangerous goods - Perform cargo consolidation activities, cross-docking operations, shipment consolidation, and transshipment and trans-loading operations	[AUGMENTED] Interpret data from geolocation, records management systems and data analytics platforms to perform cargo and material handling, improving the visibility of cargo - Use digital devices to record security lapses, problems and incidents, enabling quicker resolution and mitigation of problem areas
Perform Safety and Health Tasks	- Perform WSH activities to ensure personal compliance with requirements - Perform safety and health risk assessment - Report WSH incidents	[AUGMENTED] Use mobile applications and wearable technology to improve the quality and effectiveness of WSH activities - Streamline incident reporting, identify immediate and potential WSH lapses and provide real-time control measures and solutions

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Business Continuous Improvement Activities	- Perform activities to improve the quality of logistics services - Apply environmental protection procedures - Adhere to organisational guidelines to reduce emissions, increase energy efficiency and reduce the organisation's carbon footprint - Perform sustainability activities by using more environmentally-friendly processes	[AUGMENTED] Use digital checklists and technologies like AI and RPA to monitor and send out alerts, ensuring processes are compliant with organisation's policies and procedures - Apply sustainable business practices in work processes to reduce emissions, increase energy efficiency and reduce the organisation's carbon footprint

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Coordinator	Route Development Coordinator	Warehouse Coordinator	Inspection / Certification Coordinator	Material Controller	Mechanical Technician

SKILL DIFFERENTIATORS

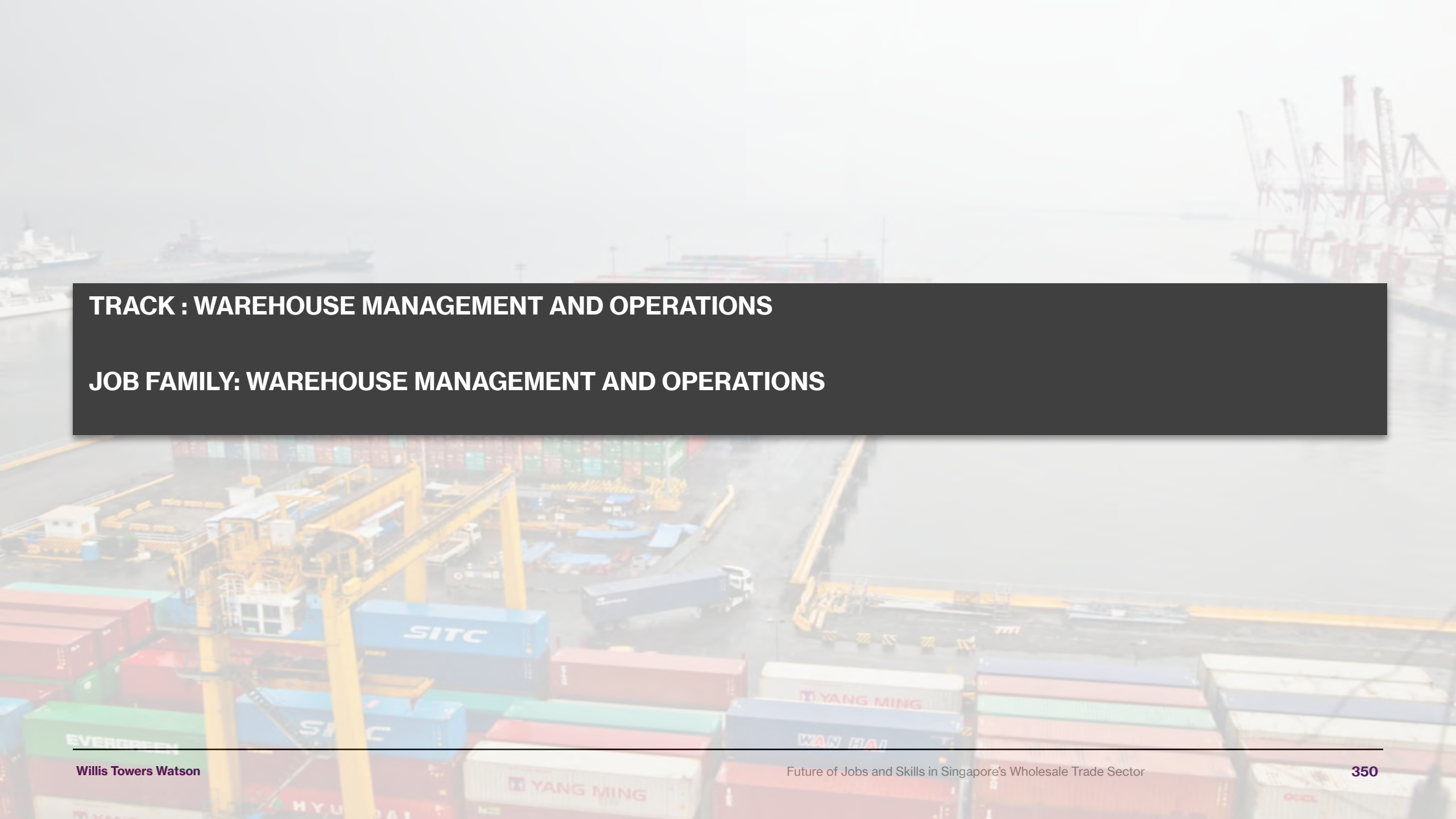
Roles Specific

SKILL	DESCRIPTIONS
Route Optimisation	Analyse route variables to optimise route planning and delivery times

IN THE NEXT
3-5 YEARS...

Significant disruption to this role will come from the adoption of autonomous vehicle technologies, though such technologies may take more time to implement and gain widespread adoption. The role will then need to develop skills in maintaining autonomous vehicles and monitoring their performance. The role is expected to build a high degree of comfort using digital devices and software to perform delivery operations.

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An aerial photograph of a large port area. In the foreground, there are numerous stacks of colorful shipping containers in shades of blue, red, green, and white. Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI' visible. Yellow gantry cranes are positioned over the container stacks. In the background, several large cargo ships are docked at the pier, and more cranes are visible on the right side. The sky is overcast and hazy.

TRACK : WAREHOUSE MANAGEMENT AND OPERATIONS

JOB FAMILY: WAREHOUSE MANAGEMENT AND OPERATIONS

Job Family

WAREHOUSE MANAGEMENT AND OPERATIONS

Overall Level of Impact

Low Impact

Overview of Changes (Within 3 years)

The warehouse industry is growing in response to the rise of digital commerce and trade globalisation. Warehouses are central to businesses as they store inventory and are accountable for maintaining goods until they are shipped out. Therefore, optimising warehousing processes is critical to ensure the best use of space and labour efficiency. For the Warehouse Management and Operations job family, this means looking at adopting technologies such as robotics, automated equipment, IoT and sensors to streamline warehousing operations and supervise and manage cargo movement and inventory in real-time.

Demand for solutions like electric forklifts, pallet trucks and tow tractors equipped with intelligent navigation and safety technology will grow over time. Similarly, software that can calculate and manage warehouse storage utilisation are also estimated to grow in popularity and acceptance.

As warehouse innovation rises in acceptance, manual processes will be greatly reduced, and employees will have to learn new skills to operate in a very different environment. Employees will be required to learn how to work alongside autonomous robots and other connected devices. Therefore, knowledge and understanding of applications and operations in intelligent robotics, sensors and automated equipment will slowly become important to warehouse roles.

Also, warehouse operations will focus on driving strategies to build green and sustainable warehouses. Knowledge in sustainable warehouse management will become important in the future too.

Health and safety in the workplace will shift its focus towards adopting a more holistic approach that includes implementing standards, culture, and training. HSE roles will need to be adept in using technologies, such as mobile tools, to conduct inspections and report incidents online. HSE roles will also be expected to explore new technologies for the future, such as integrating sensors into PPE and worksite clothing.

Prevalent Technologies & Impact on Job Roles



Automated Dashboards

Automated dashboards can be used to track information (e.g., hazards, non-conformance, inventory turnover, costs, lost sales, customer service level) and subsequently send alerts to the relevant parties for immediate remediation. This real-time intelligence helps improve operational efficiency.



Autonomous Robots

Autonomous robots can be deployed to perform tasks related to the physical movement of cargo and materials. Autonomous Robots, such as power pallet trucks and conveyors, can also unload cargo and clear dock areas more efficiently. These solutions can take over tiring and dangerous tasks from warehouse officers or MHE operators, reducing errors and accident rates in the warehouse.



IoT and Sensors

Technologies like IoT or sensors can help to streamline warehousing operations and cargo movement. Technologies like RFID can also be leveraged to monitor inventory in real-time and ensure connectivity with the ordering systems.



Robotic Process Automation

RPA can replace and automate simple and repetitive tasks like inventory reporting and order fulfilment to optimise workflow efficiency and reduce manual work.



JOB FAMILY : WAREHOUSE MANAGEMENT AND OPERATIONS

JOB : WAREHOUSE OFFICER / INVENTORY CONTROLLER / QUALITY CONTROL OFFICER / WAREHOUSE FACILITIES MANAGEMENT OFFICER

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions

Today

Within 3 Years

Perform Warehousing Tasks

- Manage warehouse operations and evaluate warehouse planning methods, storage and layout, as well as MHE plans
- Analyse the information flow for end-to-end warehouse processes
- Plan measures for calculating operational efficiency, utilisation and productivity and evaluate warehousing standards for quality management systems
- Coordinate resolution of facilities, equipment, infrastructure and systems breakdowns to minimise downtime

- **[AUGMENTED]** Adopt technologies like **robotics, data analytics** and **IoT applications** to streamline warehousing operations
- **[AUGMENTED]** Use **RPA** to replace and automate simple and repetitive tasks like inventory reporting and order fulfilment to optimise workflow efficiency, reducing manual work
- Leverage **warehouse management systems** and technologies like **RFID** to monitor inventory in real-time and ensure connectivity with the ordering system
- **[AUGMENTED]** Use **fast-picking systems** to handle more significant volumes of goods and to support same-day and next-day delivery, accelerating the speed of order fulfilment and improving time savings

Perform Cargo and/or Material Handling and Delivery Tasks

- Plan cargo or material-handling security procedures and delivery operations in compliance with rating principles
- Evaluate cargo consolidation solutions to optimise space, cost and efficiency, taking into account time and temperature-sensitive cargo and dangerous goods
- Evaluate cargo handling schedules that consider timeline and resource factor
- Plan effective incident or crisis management initiatives

- **[AUGMENTED]** Interpret data from **geolocation, IoT platforms** and **warehouse/inventory management systems** to improve cargo and material handling and cargo visibility
- **[AUGMENTED]** Adopt **sensor technology** to manage dangerous goods, time and temperature-sensitive cargo and materials to reduce risks and spoilage
- Leverage **social robotics** to perform cargo consolidation activities, reducing the unit cost of transport and accelerating the flow of goods
- Streamline security procedures following industry and sector regulatory requirements, and plan effective incident or crisis management initiatives

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Safety and Health Tasks	• Manage WSH activities to ensure teams comply with WSH standards and address non-conformance through corrective actions • Perform safety and health risk assessment • Analyse WSH risk assessment reports to determine hazards and impact to work processes, and develop WSH solutions	• [AUGMENTED] Adopt mobile applications and wearable technologies to improve the quality and effectiveness of WSH activities, report WSH incidents, generate investigation reports and develop WSH solutioning
Perform Business Continuous Improvement Activities	• Propose and plan warehousing improvements programmes to simplify processes, solve warehousing problems and achieve operational efficiency • Implement environmental protection policies and procedures related to warehouse operations	• Standardise warehousing workflow and establish audit checks to ensure the best use of warehouse space and monitor individual employee performance against benchmarks established for each workflow segment • Implement sustainable policies and practices to reduce environmental degradation and carbon footprint to create a safe and healthy environment for workers
Perform Technology Application Tasks	• Analyse the level and rate of technology use to assess the level of learning needed for technologies • Gather information on the latest technology trends and solution partners to assess applicability and feasibility of implementing technologies	• Evaluate warehousing activities and operational efficiencies to identify any potential areas for improvement that can be addressed by technology • Use digital collaboration tools to streamline the dissemination of information. Facilitate and support team members who are supporting technology projects and operational improvement activities

Job Adjacency

WITHIN WHOLESALE TRADE

Demand & Supply Planner Logistics Analyst Transportation Planner

OUTSIDE WHOLESALE TRADE

Maintenance Supervisor Quality Assurance/Control Inspector Senior Reliability Engineer

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Loss Reduction Management	Implement processes to reduce product losses in warehouse operations.
Machine to Machine (M2M) Technology Application	Understand the applications and operations of intelligent robotics, sensors and wearable technology in work processes.
Predictive Maintenance Planning	Interpret preventive maintenance workflows, procedures and practices to coordinate the execution of maintenance tasks safely and reliably.
Sustainable Warehouse Management	Conduct work activities in adherence to sustainable warehousing practices and guidelines.

IN THE NEXT 3-5 YEARS...

The role will continue to focus on business process improvement activities by leveraging technologies in warehouse operations. Technologies like advanced robotics, smart-sensor applications and multi-shuttle systems combined with AS/RS will improve monitoring and optimise warehouse space and cargo handling. The role will need to learn to operate alongside robots and other connected devices. The role will also be expected to ensure that autonomous robots and other connected devices are functioning and handling novel situations appropriately.

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JOB FAMILY : WAREHOUSE MANAGEMENT AND OPERATIONS

JOB : MATERIAL HANDLING EQUIPMENT (MHE) OPERATOR / FORKLIFT OPERATOR / WAREHOUSE ASSISTANT / INVENTORY ASSISTANT

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Warehousing Tasks	- Perform loading, unloading, moving and arranging of warehouse cargo and items in compliance with the necessary requirements - Identify and report warehousing issues, operational shortfall, maintenance or repair needs promptly - Perform warehouse operations following 5S (sort, set, shine, standardise, sustain) techniques	- Perform warehousing operations such as loading, unloading, moving, storing and retrieving goods efficiently [AUGMENTED] Use sensor technology to detect any disruptions and/or changes in the state of inventory to reduce risks and spoilage - Perform basic warehouse risk assessments to identify and inform stakeholders on potential risks such as operational shortfall and maintenance or repair needs for early mitigation of risks
Perform Cargo and/or Material Handling and Delivery Tasks	- Perform container stuffing and unstuffing operations, cargo consolidation activities, cross-docking operations and shipment consolidation, transshipment and transloading operations - Perform cargo or material-handling security procedures, taking into account time and temperature-sensitive cargo and dangerous goods - Support the department in incident or crisis management initiatives	- Perform cargo and material handling based on recommendations from the integration of GPS data, records management systems and data analytics platforms [AUGMENTED] Use data from geolocation, IOT platforms and warehouse/inventory management systems to improve cargo and material handling and improve the visibility of cargo - Leverage social robotics to perform material handling activities, reducing the unit cost of transport and accelerating the flow of goods
Perform Safety and Health Tasks	- Perform WSH activities to ensure personal compliance to safety, health and operational quality standards - Perform safety and health risk assessment - Report WSH incidents and any WSH shortcomings in existing processes	[AUGMENTED] Use mobile applications and wearable technologies to improve the quality and effectiveness of WSH activities, report WSH incidents and generate investigation reports

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Business Continuous Improvement Activities	Perform activities to improve quality of logistics services	Use observations to analyse performance and propose improved cargo planning
Perform Technology Application Tasks	- Operate technologies - Assist in the application of latest technologies to improve operations and support technology projects	Use digital collaboration tools to streamline the dissemination of information. Work with team members who are supporting technology projects and operational improvement activities

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Logistics Coordinator	Procurement Coordinator	Shipping Coordinator	Maintenance Technician	Safety Coordinator	Technical Project Coordinator

SKILL DIFFERENTIATORS

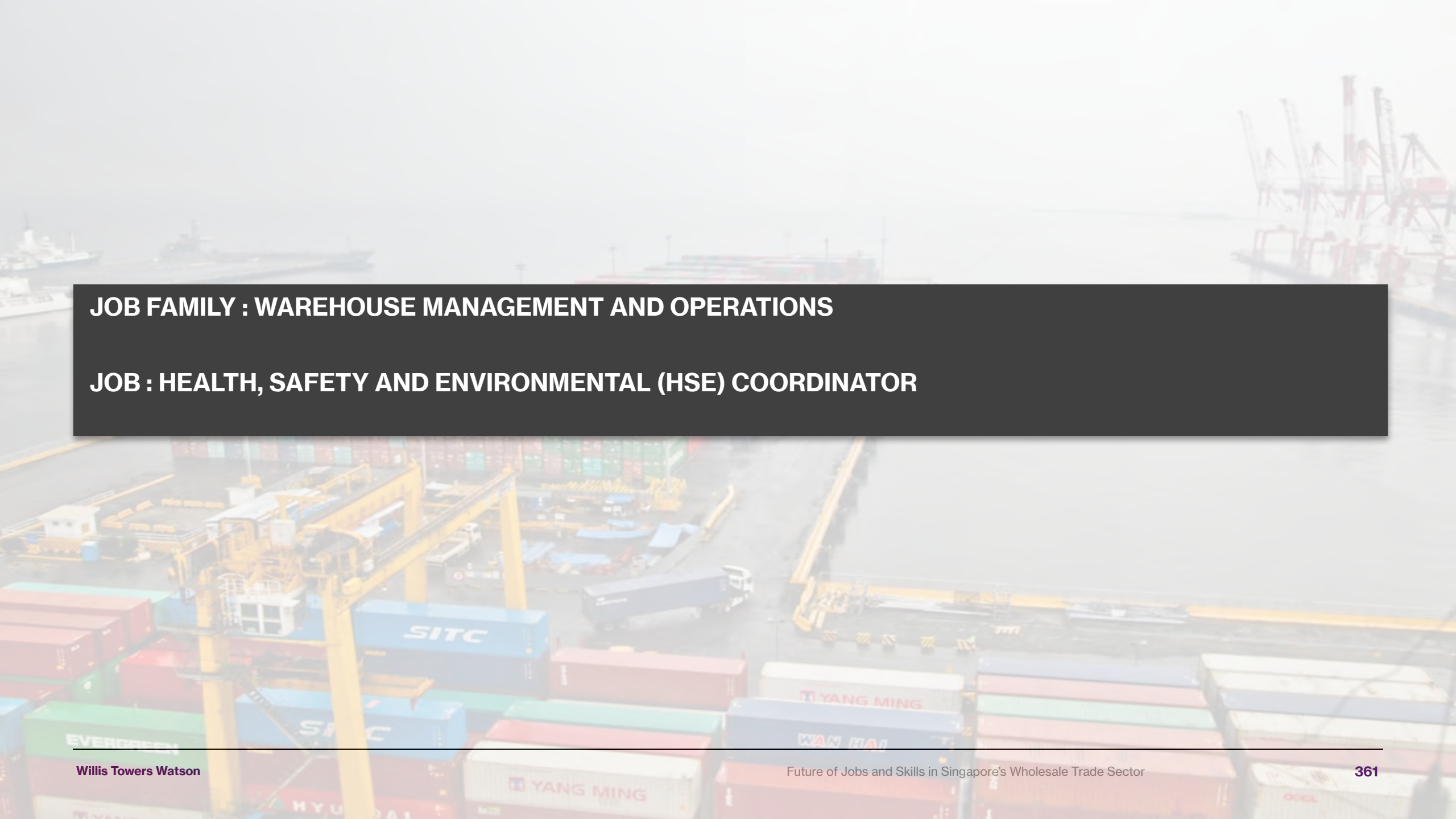
Roles Specific

SKILL	DESCRIPTIONS
Loss Reduction Management	Implement processes to reduce product losses in warehouse operations.
Machine to Machine (M2M) Technology Application	Understand the applications and operations of intelligent robotics, sensors and wearable technology in work processes.

IN THE NEXT
3-5 YEARS...

With the rise of e-commerce, warehousing and material handling volume will increase, necessitating the use of technologies that improve productivity. Technologies such as advanced robotics, smart-sensor applications and multi-shuttle systems combined with AS/RS will augment the expectations of the role by automating routine processes. As technologies become increasingly popular, the role will need to learn how to operate alongside robots and other connected devices.

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An aerial view of a busy port. In the foreground, there are numerous stacked shipping containers in various colors (blue, red, green, white). Some containers have logos like 'SITC', 'EVERGREEN', 'YANG MING', and 'WAN HAI'. Yellow gantry cranes are visible, some with containers being lifted. In the background, there are more containers, cranes, and ships in the water. The sky is hazy.

JOB FAMILY : WAREHOUSE MANAGEMENT AND OPERATIONS

JOB : HEALTH, SAFETY AND ENVIRONMENTAL (HSE) COORDINATOR

Level of Impact

Low Impact

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Safety and Health Tasks	• Manage WSH activities to ensure teams comply with WSH standards and address non-conformance through corrective actions • Perform safety and health risk assessment • Analyse WSH risk assessment reports to determine hazards and impact to work processes, and develop WSH solutions	• [AUGMENTED] Leverage technologies like mobile applications to report WSH incidents and generate investigation reports • Leverage data analytics to identify immediate and potential WSH lapses and provide suggestions on control measures and solutions • Develop automated dashboards to track information on hazards and non-conformance and subsequently, send alerts to concerned parties for immediate remediation
Perform Compliance Tasks	• Perform and enforce quality standards and established compliance procedures and administrative activities • Execute internal audit activities for quality, safety and health, and customers • Perform checks following internal SOPs, government regulatory requirements and legislation to identify non-compliance • Identify potential disputes arising from employment issues	• [AUGMENTED] Conduct audits on WSH risks, report incidents and check for areas of non-conformance. • Leverage mobile autonomous robots to assess WSH risks in the workplace • [AUGMENTED] Monitor workers' movements and identify WSH risks by implementing wearable technologies for employees
Perform Business Administration Tasks	• Communicate requirements and activities to stakeholders and work to ensure alignment of interests within the business • Apply and follow operational policies, standards and procedures • Perform basic risk assessment	• Deliver information regarding new WSH requirements and activities to stakeholders • Implement higher ISO standards to protect employees from work-related accidents and diseases, and develop safety handbooks to ensure compliance with the organisation's WSH policies and procedures

Job Expectations within the next 3 years

Critical Work Functions	Today	Within 3 Years
Perform Business Continuous Improvement Activities	- Follow situational factors that promote and inhibit changes - Analyse business requirements and perform identification and documentation of business requirements - Implement environmental protection policies and procedures and perform sustainability activities to reduce environmental degradation while ensuring a safe environment for workers, communities and consumer	- Support the continuous improvement of WSH activities based on observational data and market practices [AUGMENTED] Continuously monitor regulatory norms and market practices to understand WSH requirements and best practices - Design and implement policies and procedures that promote WSH and sustainability efforts in warehouses - Create documentation and SOPs to guide the effective handling of WSH activities

Job Adjacency

WITHIN WHOLESALE TRADE			OUTSIDE WHOLESALE TRADE		
Fire Safety Executive	Logistics Executive	Warehouse Operations Executive	Environment Engineer	Inspection Engineer	Process Safety Engineer

SKILL DIFFERENTIATORS

Roles Specific

SKILL	DESCRIPTIONS
Machine to Machine (M2M) Technology Application	Redesign work processes to incorporate intelligent robotics, sensors, and wearable technology to update and track inventory and/or workers' movement in real-time.
Predictive Maintenance Planning	Develop technical preventive maintenance workflows and procedures based on analysis of machines/equipment performance to provide just-in-time maintenance and reduce the likelihood of failure.
Sustainable Warehouse Management	Develop solutions and processes to implement sustainable warehousing strategies.

IN THE NEXT
3-5 YEARS...

Technology will automate or augment some of the tasks associated with this role, but human supervision will remain critical. The role will ensure that autonomous robots and other connected devices are functioning and handling novel situations appropriately. To strengthen the focus on WSH, the role will deliver experiential training to employees using real-world scenarios with AR and VR technologies.

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