

Manpower Update Report

Transport and Logistics Industry

2025



ACKNOWLEDGEMENT

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Introduction

Background

The Transport and Logistics Training Board (TLTB) of the Vocational Training Council (VTC) is responsible for determining the manpower demand of the industry, assessing whether the manpower supply matches manpower demand, and recommending to VTC the development of vocational and professional education and training (VPET) facilities to meet the assessed training needs.

Under the current approach for collecting manpower information, one full manpower survey is conducted every four years, and this is supplemented by two manpower updates. The TLTB published its last manpower survey report in 2023. This 2025 Manpower Update Report is the third manpower update of the industry following the last Manpower Update Report published in 2022.

This 2025 Manpower Update Report comprises:

(a) focus group meetings collecting views from industry experts on the latest developments in the industry, manpower and training needs, recruitment difficulties, and measures to tackle the challenges which the industry is facing; and

(b) desk research analysing online job advertisements including job market trends, qualifications, experience and skills required by the principal jobs in the Transport and Logistics (T&L) industry.

Objectives

The objectives of the manpower update are:

- (i) to examine the latest trends and developments in the industry;
- (ii) to explore the job market situation and training needs;
- (iii) to identify the recruitment challenges; and
- (iv) to recommend measures to meet the training needs and to ease the problem of manpower shortage.

Methodology

Overview

With reference to the 2023 full manpower survey of the T&L industry, this update report aims to provide qualitative descriptions of the recent development of the industry through focus group meetings, supplemented with quantitative data of online recruitment advertisements obtained from desk research.

Two focus group meetings were conducted on 7 and 9 January 2025. All members are experienced and knowledgeable practitioners of the T&L industry. A moderator led members to in-depth discussion on topics selected by the Working Party on Manpower Survey of TLTB. The discussions at the meeting were recorded and transcribed to facilitate analysis.

Focus Group Meeting

Two focus groups were formed through the engagement of industry experts from the following branches:

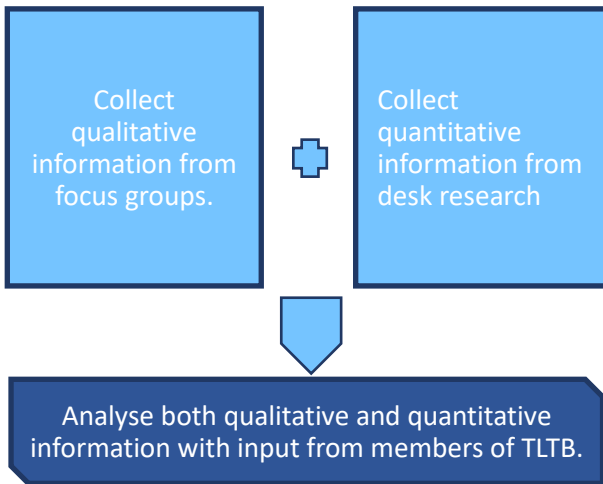
1. Freight Transport
 - (i) Air Cargo Handling Terminal
 - (ii) Air Cargo Operator
 - (iii) Couriers (International)
 - (iv) Land Freight Operator
 - (v) Forwarding Agent
 - (vi) Sea Freight Operator
 - (vii) Container Terminal
 - (viii) E-commerce
 - (ix) Logistics Technology
 - (x) Warehousing & Cold Storage
2. Passenger Transport
 - (i) Aviation Service Operator (airlines and ground crew services)
 - (ii) Vehicle & Rail Operator (rail, bus, mini-bus, taxi)
 - (iii) Vessel Transport Operator (cruise, cross-boundary ferry, local ferry)

Desk Research

Recruitment records covering the period between February 2024 and January 2025 were collected through an employment information system specially developed to capture the relevant data from major online recruitment portals. Some 16,000 recruitment records relevant to the T&L industry were collected during the research period and served as indicative information of the job market trend. The list of related companies under the Hong Kong Standard Industrial Classification (HKSIC) was mapped to remove duplicated records.

Data Analysis

The analysis consists of the following three steps:



Limitations

As this is not a full manpower survey, the findings and recommendations of the focus group meetings are more qualitative in nature, and the report focuses mainly on manpower trends. The information on job advertisements was collected from major recruitment websites and the Labour Department. Other channels, such as head-hunting for managerial positions, were not covered. Since the data collected is a snapshot of a particular period without reference to any historical data, this can serve as reference information supplementary to the findings of focus group meetings.

Findings

Factors Affecting the Development of the Industry

Economic Uncertainty

The pandemic caused significant disruptions, especially in cross-border passenger transport. The industry is gradually recovering, but challenges remain, such as economic uncertainty and labour shortages. Global economic fluctuations and local economic conditions continue to affect consumer spending, travel behaviour, and trade volumes. The post-pandemic recovery has been uneven, with some sectors like maritime shipping is still struggling to regain pre-pandemic levels. It has also led to changes in consumer habits, with a certain number of people continue to work from home, affecting local demand for transport services.

The recent trade measures imposed by the US Government have a significant impact on the development of the transport and logistics industry in Hong Kong. Economic uncertainty often leads to decreased consumer and business confidence, resulting in lower demand for goods and reduced trade volumes. As a major global trade hub, Hong Kong's port and logistics sector may experience declines in cargo throughput, affecting revenue and

operational efficiency. It can also cause volatility in freight rates due to unpredictable demand and supply chain disruptions. Logistics companies in Hong Kong may face challenges in planning and budgeting, leading to reduced profitability and investment in infrastructure.

Growth of E-commerce

The growth of e-commerce has significantly impacted the development of the transport and logistics industry in Hong Kong. According to the World Bank¹, Hong Kong ranks 12th globally in logistics capabilities, which supports the increasing demand from e-commerce. The Hong Kong freight and logistics market size is expected to reach USD 22.37 billion in 2025 and grow at a CAGR of 4.53% to reach USD 27.92 billion by 2030². This growth is influenced by the e-commerce boom and the need for efficient logistics solutions. The advanced logistical infrastructure makes shipping, transport, and delivery convenient for both customers and suppliers. Hong Kong-based e-commerce platforms and logistics providers offer integrated logistics solutions to support cross-border transactions. The sector has embraced logistics technology and innovation to maintain competitiveness.

The rise of e-commerce has increased demand for swift and reliable logistics services, particularly for high-value goods like pharmaceuticals and perishables. This has led to a shift from sea to air freight for certain goods. On the other hand, however, there is also a shift in cargo types, with lower-value e-commerce goods replacing high-value electronic goods.

Digitalisation and Technology

Digitalisation and technology are significantly affecting the development of the transport and logistics industry in Hong Kong. The industry is rapidly adopting digital tools, automation, and artificial intelligence (AI) to improve efficiency and customer satisfaction. Technologies like blockchain, Internet of Things (IoT), data analytics, etc. are becoming essential for operations.

Technologies Adopted in Passenger Transport Sector

The passenger transport sector relating to aviation is continuously upgrading its infrastructure through digital transformation. The Hong Kong International Airport mobile app also

¹ World Bank's global ranking of logistics capabilities and quality

² Mordor Intelligence—Hong Kong Logistics Market Size & Share Analysis—Growth Trends & Forecasts (2025-2030)

provides real-time flight status, navigation, and baggage tracking. Electric airport vehicles have also been introduced in the airport. AI and IoT sensors monitor airport infrastructure, such as runways and baggage systems, preventing delays and operational disruptions³. In order to allow passengers to track their luggage in real-time via mobile apps, reducing lost baggage incidents, Radio Frequency Identification (RFID) technology has been deployed as well. The development of 5G technology enables real-time data sharing, improving in-airport connectivity and enhancing passenger experience. Smart e-Gates, which use facial recognition and fingerprint scanning, allow passengers to clear immigration quickly. For airlines, many of them use AI-powered chatbots to answer passenger queries about flights, baggage, and airport services.

Sea and land passenger operators in Hong Kong have implemented advanced passenger information systems that provide real-time updates on schedules, delays, and service changes. These systems utilise mobile apps and digital displays at stations to keep passengers informed, thereby enhancing the travel experience and improving operational transparency. The introduction of digital ticketing solutions, such as mobile apps and contactless payment systems, has streamlined the ticket purchasing process for sea passenger transport services⁴. Operators are also increasingly using data analytics to monitor passenger demand and optimise service schedules. By analysing travel patterns and passenger flow, operators can adjust operation frequencies to better meet the needs of commuters and tourists, thus enhancing service reliability and efficiency⁵.

Technologies Adopted in Logistics Sector

The airport has implemented sophisticated cargo management systems that utilise data analytics and real-time tracking. By integrating smart technologies, such as automated cargo handling systems and biometric screening for security, operations are streamlined and the overall efficiency of air cargo logistics is improved. These systems enhance visibility across the supply chain, allowing for better inventory management and faster customs clearance, which is crucial for maintaining efficiency in air freight operations⁶.

The land cargo sector is increasingly utilising digital freight platforms that connect shippers with carriers, facilitating easier booking and tracking of shipments. These platforms enhance transparency and efficiency in the logistics process. Logistics companies are leveraging data analytics to optimise delivery routes and schedules based on real-time traffic

³ Airport Authority Hong Kong (2023). Smart Airport Initiatives. Retrieved from www.hongkongairport.com

⁴ Contain & Control: What can public transport learn from Hong Kong? – Ridango

⁵ Analysis of the Ferry Service Network in Hong Kong, Published in Island Studies Journal

⁶ Transforming Hong Kong's logistics with innovation, Orange Business

conditions and demand patterns. This not only reduces operational costs but also improves delivery times. The integration of land freight services with public transport systems allows for more efficient last-mile delivery solutions, enhancing the overall logistics network in Hong Kong⁷.

Hong Kong's port facilities are increasingly adopting smart technologies to enhance operational efficiency. This includes automated container handling systems and digital platforms for managing port operations, which help reduce turnaround times and improve service reliability. The cargo freight sector is exploring the use of blockchain technology to digitise shipping documents, such as bills of lading. This initiative aims to enhance transparency, reduce paperwork, and streamline processes in the shipping industry⁸. Automation and 5G technology are being increasingly used in port operations, reducing the need for on-site personnel.

Infrastructure Development

Infrastructure development in Hong Kong is closely linked to regional initiatives, such as the Greater Bay Area development plan. This integration enhances cross-boundary transport links and promotes collaboration between Hong Kong and neighbouring cities, further strengthening the logistics network in the region. It helps improve connectivity within Hong Kong and with other places. Projects such as the Northern Link Eastern Extension and the Hong Kong-Shenzhen Western Rail Link are planned to connect new development areas and boundary control points, facilitating smoother transport links and further integrating Hong Kong into the Greater Bay Area (GBA)⁹. This integration aims to create a highly efficient and smooth transport and logistics network, leveraging Hong Kong's strategic location and world-class infrastructure to facilitate the movement of people and flow of goods within the region¹⁰.

Projects like the Hong Kong International Airport's third runway (3RS) and the Dongguan Logistics Park are enhancing cargo handling capacity and intermodal transport within the GBA. 3RS allows for more direct flights from key markets like South East Asia and the Middle East, supporting the goal to diversify visitor sources beyond the Mainland. The government's "Development Blueprint for Hong Kong's Tourism Industry 2.0" (December

⁷ Hong Kong leverages blockchain in digitizing shipping sector, powering up CBDC trial, CoinGeek

⁸ Navigating the Digital Supply Chain: Exploring the Impact of E-commerce on the Logistics Industry in Hong Kong | Dr Jackie Cheung H.F.

⁹ Ernst & Young, Infrastructure Connect: A joint new era for Hong Kong and Shenzhen

¹⁰ bayarea.gov.hk, Guangdong-Hong Kong-Macao Greater Bay Area - Transportation and Logistics

2024) proposes extending transport links to emerging sites like Kai Tak and West Kowloon Cultural District via initiatives like the Smart and Green Mass Transit System. The government's promotion of "fly-cruise" and "rail-cruise" packages, as noted in the Blueprint, leverages Hong Kong's cruise terminal and high-speed rail to create multi-modal travel itineraries. Continuous investment in transport infrastructure, such as the expansion of the Hong Kong International Airport and the development of new rail links, enhances the capacity and efficiency of the transport and logistics industry. Improved infrastructure supports faster and more reliable transport services, which are essential for maintaining competitiveness in the global market. The government has also recognised the low-altitude economy (LAE) as a strategic opportunity to enhance the transport and logistics industry. This emerging sector, which involves economic activities within airspace below 1,000 meters, promises to revolutionise logistics, urban mobility, and regional connectivity.

Environmental Regulations

Environmental regulations in Hong Kong play a significant role in developing the transport and logistics industry by promoting sustainability and enhancing operational efficiency. The Hong Kong government has implemented various regulations aiming at promoting green transport solutions. This includes incentives for the adoption of electric vehicles (EVs) and the electrification of public transport. For instance, the government has provided tax concessions for environmentally friendly commercial vehicles, which encourages logistics companies to transition to greener fleets. The push for electric buses and taxis not only reduces emissions but also enhances the overall sustainability of the transport sector. Environmental regulations aiming at improving air quality have led to stricter emission standards for vehicles and vessels. These regulations compel logistics companies to invest in cleaner technologies and practices, which can lead to operational efficiencies and cost savings in the long run. For example, the Clean Air Plan 2035 outlines measures to reduce emissions from vessels, which is crucial for the maritime logistics sector¹¹. New maritime and aviation regulations, such as the Energy Efficiency Existing Ship Index (EEXI) and Carbon Intensity Index (CII), are pushing companies to invest in greener technologies and reduce carbon emissions. The industry has been emphasising the need for ESG (Environmental, Social, and Governance) training and green technology adoption.

The government has introduced various incentive schemes to encourage the adoption of sustainable practices within the logistics industry. For example, the Green Incentive Scheme for the maritime sector rewards ships which meet specific carbon intensity ratings, promoting

¹¹ Air Quality in Hong Kong, GovHK

the use of cleaner fuels and technologies¹². Such incentives not only help reduce the environmental impact of logistics operations but also position companies as leaders in sustainability, which can enhance their market competitiveness. Regulations have spurred the development of infrastructure necessary for supporting green technologies, such as EV charging stations and facilities for alternative fuels like liquefied natural gas (LNG) and hydrogen. This infrastructure is essential for enabling logistics companies to transition to cleaner energy sources, thereby reducing their carbon footprint and improving operational efficiency.

Political and Economic Factors

The development of the transport and logistics industry in Hong Kong is influenced by various political and economic factors. These factors shape the operational environment, regulatory framework, and overall competitiveness of the industry. The Hong Kong government plays a crucial role in shaping the transport and logistics industry through policies that promote free trade and a business-friendly environment. The commitment to minimal customs barriers and a low tax regime attracts multinational companies to establish their regional headquarters in Hong Kong. Hong Kong's political stability is vital for maintaining investor confidence and ensuring smooth logistics operations. However, recent geopolitical tensions have raised concerns about the long-term stability of the market, which could impact logistics operations and investment decisions. Geopolitical tensions and global economic uncertainties, including changing consumer behaviours, are impacting the industry's growth and stability. The post-pandemic recovery has led to changes in consumer habits. For example, a number of people has adapted to new modes of business meetings, affecting local demand for transport services.

Global trade dynamics are one of the major economic factors impacting the development of the transport and logistics industry. Hong Kong's economy is heavily reliant on international trade, making it sensitive to global economic conditions. Trade tensions, such as those between the U.S. and the Mainland, can disrupt supply chains and affect the logistics sector's performance. The availability of a skilled workforce is crucial for the logistics industry. Economic factors such as labour costs, workforce training, and government policies can influence the industry's ability to attract and retain talent, impacting operational efficiency and service quality.

Container Port

¹² The Sustainable Transformation of Hong Kong's Transportation and Logistics Sector, HSBC

Due to various reasons including economic downturn and geographical tensions, FG Members remarked that the maritime sector has spare throughput capacity. In this connection, enhancing the international status of the container port of Hong Kong requires a multifaceted approach. Digitalisation is crucial for efficiency and the implementation a port community system, as pledged in the 2024 Policy Address, should be expedited to enable real-time data exchange among stakeholders. Blockchain and IoT can reduce cargo handling times. Hong Kong's port can also leverage the GBA's economic heft by enhancing intermodal links with Shenzhen and Guangzhou. It is important to strengthen partnerships with international shipping lines and logistics providers to expand global reach and improve service offerings. On the other hand, with bulk cargo shifting to ports in the Mainland that charge lower fees, Hong Kong should target high-value goods. The global shipping industry increasingly prioritises green practices. The 2024 Policy Address Action Plan on Green Maritime Fuel Bunkering aims to make Hong Kong a green maritime centre.

Impacted by different factors affecting the transport and logistics industry as mentioned above, the industry is undergoing new developments and opportunities.

Manpower Demand

Focus Groups

Focus group (FG) members shared their views on the anticipated changes in manpower demand. The transport and logistics industry in Hong Kong is experiencing a strong demand for skilled professionals, particularly in operations, digital logistics, and customer service. While automation is reshaping the industry, employees' technical expertise, operational efficiency, and adaptability remain key factors for their career growth in this sector.

High Demand for Frontline Roles:

There is a high demand for truck drivers, frontline cargo and passenger operation roles. These roles often involve operative labour and are difficult to recruit due to the physical demands and shift work. There is a rough estimate of around 60% shortage of drivers, including truck and van drivers.

Aging Workforce

The industry faces a significant challenge with an aging workforce, particularly in technical and operational roles. Experienced workers are retiring, and there is a lack of young talent entering the industry, leading to a severe shortage of skilled labour. The adverse effect is that companies are facing higher labour costs

due to the need to offer better wages and incentives to retain experienced workers. On the other hand, some older employees may be less familiar with new technologies, slowing down the adoption of digital and automated solutions.

According to the desk research and views from FG members, principal jobs relating to frontline cargo operations, including both air cargo and land freight transport, are in high demand at operational and supervisory levels. Additionally, in the post-pandemic era, there is a growing need for manpower in frontline passenger services. With e-commerce gaining popularity, there is an increased demand for frontline cargo handling, delivery and express services.

E-commerce and Digital Skills

The growth of e-commerce has created a need for workers skilled in e-logistics, data analytics, last-mile delivery and digital technologies. Employers are seeking multi-disciplinary talents who can handle both traditional logistics and digital operations. STEM-based talent is in high demand, particularly for automation and IT roles. While automation may displace some traditional roles (e.g., manual sorting), it also creates new opportunities in tech-driven systems, requiring a

workforce that can manage and maintain these systems.

The impact of e-commerce and digital skills on manpower demand in Hong Kong's transport and logistics industry is profound, leading to shifts in skill requirements, increased demand for labour, and the need for continuous training and development. As the industry evolves, adapting to these changes is crucial for both employers and employees.

Specialised Roles:

There is a growing demand for roles relating to dangerous goods handling, cybersecurity, automation technologies, risk management, and compliance. As industries like pharmaceuticals, chemicals, and energy expand, the need for professionals skilled in the logistics of dangerous goods and compliance grows, leading to the creation of niche roles. For example, the handling of dangerous goods requires specialised training, creating demand for personnel who are qualified to meet stringent safety and regulatory standards. Positions in risk management

and compliance require advanced skills in safety protocols, regulatory knowledge, and risk assessment. This increases the demand for a more skilled workforce capable of navigating complex logistics environments.

Recovery of Passenger Transport

While passenger transport is recovering, there is still a gap in manpower, particularly for roles in aviation, rail, and maritime transport. The industry is struggling to attract and retain workers for these roles. The recovery emphasises the importance of customer service, resulting in increased demand for personnel trained in hospitality and customer relations within the passenger transport sector. In addition, the adoption of technology in transport operations increase the need for workers proficient in digital tools for scheduling, route planning, and customer interaction. It also fosters collaboration between various transport services and logistics providers, necessitating skilled personnel who can navigate integrated systems effectively .

Desk Research

Out of some 16,000 recruitment data captured from major online recruitment websites, the respective top five principal jobs with the highest number of recruitment advertisements for freight transport and passenger transport sectors were identified and listed below.

Freight Transport

	Top Five Principal Jobs
1	Frontline Cargo Operation (Clerical/Craftsman/Operative) (51.4%)
2	Sales & Customer Service (Freight transport, Clerical/Craftsman/Operative) (7.4%)
3	Frontline Cargo Operation (Freight transport, Executive/Supervisory) (4.7%)
4	Sales & Customer Service (Freight transport, Executive/Supervisory) (3.5%)
5	Business Management, Strategic Planning (Freight transport, Managerial) (3.2%)

Passenger Transport

	Top Five Principal Jobs
1	Frontline Passenger Operation (Passenger transport, Clerical/Craftsman/Operative) (7.5%)
2	Sales & Customer Service (Passenger transport, Clerical/Craftsman/Operative) (5.9%)
3	Technical/ Engineering Support (Passenger transport, Clerical/Craftsman/Operative) (4.2%)
4	Technical/ Engineering Support (Passenger transport, Executive/Supervisory) (3.4%)
5	Sales & Customer Service (Passenger transport, Executive/Supervisory) (1.2%)

The Desk Research finds that jobs relating to Frontline Cargo Operations under the logistics sector, particularly those at the operative level, remain in high demand. It coincides with the views of FG members that recruitment difficulties are often found in these jobs due to the high turnover rate and demand for manual work. For the passenger transport sector, jobs relating to Frontline Passenger Operation ranked top in demand, followed by Sales and Customer Service roles and technical / engineering support. The increasing demand may probably be due to the active resumption of services and launching new routes.

Descriptions of the above principal jobs and other findings of the desk research are given in Appendix 1.

Training Needs

Several important types of manpower training needs of the transport and logistics industry in Hong Kong are essential to ensure efficiency, safety, and customer satisfaction. FG members suggested the following emerging technologies and skills which are increasingly demanded in-service practitioners and graduates of the industry.

Dangerous Goods Handling

Hong Kong has stringent regulations governing the transport of dangerous goods, as outlined in the Dangerous Goods (Consignment by Air) (Safety) Regulations. These regulations require that personnel involved in the handling and transport of dangerous goods receive proper training to ensure compliance with local and international standards. Training on Dangerous Goods Regulations (DGR) is essential for workers in air freight, shipping, and logistics to ensure safe and compliant operations.

Proper training in dangerous goods handling not only ensures compliance and safety but also enhances operational efficiency. Well-trained personnel can handle dangerous goods more effectively, reducing the likelihood of delays and disruptions in the supply chain. This efficiency is crucial for maintaining Hong Kong's reputation as a leading logistics hub.

Robotic Technology and Digital Skills

The transport and logistics industry is undergoing significant transformation due to the adoption of technologies such as AI, automation, data analytics, and IoT. The importance of data-driven decision-making and the need for skilled analysts cannot be underestimated. Employees need to be trained in these technologies to effectively utilise them in their daily operations, ensuring that companies remain competitive in a rapidly evolving market. In fact, the rise of e-commerce has dramatically changed the logistics landscape, requiring companies to adapt their operations to meet new consumer demands. Digital skills are essential for managing online orders, inventory systems, customer relationship management tools or even the development of LAE, which are critical for efficient e-commerce logistics.

With the increasing volume of data generated in transport and logistics operations, there is a pressing need for employees to possess data management and analytical skills. Training in these areas enables workers to make informed decisions based on data insights, improving operational efficiency and service delivery. Training in robotic systems, such as Automated Guided Vehicles (AGVs) and drones, is needed to reduce labour-intensive tasks and improve efficiency. Automation has reduced the need for ticket counter staff though customer-facing roles still require human interaction.

Job roles like taxi drivers should equip themselves with digital skills to use electronic payment devices and navigation systems as those devices have to be installed in next few years.

Cybersecurity

With the increasing use of digital technologies, there is a need for training in cybersecurity to protect sensitive data and prevent cyberattacks. FG members all agreed that network security, especially cybersecurity, is critical for the industry.

From basic cybersecurity practices, such as recognising phishing attempts, using strong passwords, identifying potential security incidents or breaches to more sophisticated training relating to implementing and managing user access controls or minimising unauthorised access to systems, integrating cybersecurity training into the manpower development strategy of Hong Kong's passenger transport and logistics industry is essential. This kind of training ensures that employees are equipped to recognise and respond to cyber threats, protecting both the organisation and its data from potential risks.

Lifelong Learning

The industry requires a culture of continuous learning to keep up with rapid technological changes. Soft skills like emotional intelligence and communication are also important for manpower development. In the passenger transport sector, for example, the importance of soft skills like stress management and leadership for supervisory roles should be emphasised. Training programmes focusing on communication, conflict resolution, and cultural awareness improve customer service skills, leading to better passenger experiences.

Ongoing education is essential for keeping up with changing regulations and compliance requirements, particularly in safety and environmental standards. In fact, lifelong learning provides opportunities for employees to advance their careers through specialised training and certifications, fostering a more skilled workforce.

Specialised Certifications

Some roles, especially in maritime and aviation, require specific certifications and licenses, which can be a barrier to entry for new personnel. The handling of hazardous materials and drone operation in the aviation industry and seafarer's certification are examples. Specific certifications shape the training landscape in Hong Kong's transport and logistics industry by necessitating focused skill development, ensuring compliance with regulations, and aligning with industry advancements. Organisations must continually assess and adapt their training programmes to meet these evolving needs.

Pre-employment Training Needs and On-the-job Training

Individuals entering the transport and logistics industry are encouraged to acquire industry knowledge along with a range of multi-disciplinary skills, such as e-commerce applications, e-logistics, big data analytics, digital marketing, mobile applications, and Robotic Process Automation (RPA). Many roles in the industry are primarily hands-on, allowing employees to gain valuable experience through on-the-job training. While theoretical knowledge is essential before assuming responsibilities, practical experience holds equal significance.

Both pre-employment and on-the-job training play crucial roles in determining the training needs of the transport and logistics industry in Hong Kong. They ensure that the workforce is skilled, compliant, and adaptable to the evolving demands of the industry, ultimately contributing to operational efficiency and organisational success.

Recruitment Challenges

Employers of the transport and logistics industry are encountering challenges in attracting and recruiting talent, particularly due to an aging workforce. FG Members expressed their opinions on the potential factors contributing to these recruitment difficulties.

workforce and the lack of young talent entering the industry. A number of experienced workers are retiring, and there is not enough young people joining the industry. The labour shortage threatens Hong Kong's economic growth and competitiveness. Employers have struggled to fill positions, impacting their ability to meet operational demands and sustain development needs.

Labour Shortages

Hong Kong is forecasted to face an acute shortage of 180,000 workers by 2028¹³. This shortage is expected to dampen economic growth if not addressed proactively. Skilled technical staff will make up more than one-third of this total shortage.

The challenge highlights the need for proactive measures to address labour shortages and ensure the sustainability of the transport and logistics industry in Hong Kong.

The industry is facing a significant labor shortage, particularly in frontline roles. The shortage is exacerbated by the aging

Shift Work and Physical Abilities

Many roles in the industry require shift work and physical labour, which makes it difficult

¹³ 180k manpower shortage by 2028, news.gov.hk

to attract and retain workers, especially younger generations who prefer more flexible and less physically demanding jobs. Roles like taxi drivers with income which is lower than other driving jobs, making it difficult to retain talent. Flexible work arrangements, including part-time roles and remote work options, are being explored to retain talent, particularly for administrative and technology-focused positions. FG Members commented that flexible work arrangements are not feasible for operational roles but can be implemented for office staff.

Other job roles involve physical labour, such as loading and unloading cargo, driving for extended periods, and operating machinery. These physical demands can be challenging and may deter potential employees who are not physically suited for such roles. The industry's reliance on operative labour can also lead to higher rates of injury and fatigue, further complicating recruitment efforts. Employers may need to focus on improving working conditions, offering competitive benefits, and investing in training and development to attract and retain talent.

Certification Requirements

Hong Kong has stringent regulations and standards for various aspects of the transport and logistics industry, including safety, environmental, and operational standards. Employers must ensure that their workforce holds the relevant certifications to comply with these

regulations. The process of obtaining and maintaining these certifications can be time-consuming, posing a barrier to recruitment.

On the other hand, the industry is rapidly adopting new technologies, such as automation, AI, and IoT, which require specialised skills and certifications. The mismatch between the available workforce's skills and the industry's needs exacerbates recruitment challenges. Employers may struggle to find practitioners with the necessary skills and certifications to operate and maintain these technologies.

Competition from Other Industries

The transport and logistics industry competes with other industries for talent, particularly in areas like IT and engineering, where higher salaries and better working conditions are often offered. The rapid growth and innovation in other industries require similar skill sets as those in logistics, including supply chain management and data analysis. This overlap in skill requirements leads to a talent drain, as professionals may be lured away by more lucrative opportunities in those booming industries.

Hong Kong's logistics sector faces competition from neighbouring ports and cities, such as Shenzhen, which is expanding its logistics capabilities. This regional competition can lead to a brain drain, as skilled workers may be attracted to better opportunities elsewhere.

Work Environment

Certain frontline roles of the transport and logistics industry are associated with health and safety risks, including physical injuries from machinery, road accidents, and exposure to hazardous materials. These risks can deter potential candidates from pursuing careers in this field, as many individuals prioritise safe working conditions when considering job opportunities. For those who look for work-life balance, they may join other fields as a number of roles in the industry require irregular shifts.

On the other hand, the perception of the industry as labour-intensive discourages young people from pursuing careers in the industry. Employers need to rebrand the industry to highlight the opportunities for career growth and the use of modern technologies. Nowadays, younger workers have more options, such as becoming KOLs or starting their own businesses, making it harder to attract them to work in the industry.

Recommendations

To draw in talent and support the industry's future growth, it is recommended that training institutions, the government, employers, and graduates/employees collaborate on the following measures.

Training Institutions

Partnership with the Industry

Employers and training institutions should collaborate to provide pre-employment and in-service training programmes, particularly in digital skills, cybersecurity, and dangerous goods handling. Training institutions should build strong partnerships with organisations of the transport and logistics industry to ensure training programmes are aligned with industry needs. Industrial attachment programmes should also be facilitated in order to provide hands-on experience in real-world settings.

Lifelong learning should be encouraged to

keep the workforce updated with industry trends. The VTC could provide on-site training to help organisations that cannot afford consultants.

In-service Training

Apart from pre-employment training, enhancing the skills and retraining of industry practitioners is essential for the transport and logistics industry. For example, as taxis are required to install GPS, e-payment and camera systems in the next few years, taxi drivers should possess digital skills to operate those newly installed devices. Certain employers like operators of taxi fleets are looking for assistance from training institutions to improve the skills of

their current workforce. Taxi fleets with professional management and good use of technologies should be able to provide local residents and tourists with quality service, bringing a new look to the taxi trade. Certification programmes that are recognised by the authority are welcome by practitioners to enhance the credibility of training. As in-service personnel are busy, training institutions should provide short, focused programmes for working professionals to upskill without taking long periods off work. E-learning platforms should also be utilised to offer remote training options, making it accessible to a wider audience.

Leveraging Technologies

As the transport and logistics industry increasingly relies on data analytics and advanced technologies, training institutions should emphasise these areas in their curricula. Courses on data analytics, AI, etc. can equip trainees with the necessary skills to leverage technology effectively in daily operations. This focus will help prepare the workforce for the evolving demands of the industry. In addition to incorporating virtual reality (VR) and augmented reality (AR) into training programmes to provide immersive learning experiences, gamification techniques can make training more engaging and motivating. By applying these technological strategies, training institutions can enhance the skills and competencies of the workforce in the transport and logistics industry, ensuring that they are well-prepared to meet

current and future challenges.

The development LAE in Hong Kong, which encompasses activities such as drone logistics, requires a diverse and skilled workforce. This emerging sector demands specialised talent training to address technological, operational, regulatory, and economic challenges.

Government

Manpower Projection

The government should conduct regular and comprehensive manpower projections to assess the future supply and demand for skills in the transport and logistics sector. The data will help identify specific training needs and inform policy decisions regarding manpower development.

Support for Continuous Professional Development

The government should provide subsidies and incentives for training, particularly for roles that require specialised certifications to ensure that the workforce remains competitive and up-to-date with industry standards.

FG Members pointed out the need for better government coordination to address bureaucratic hurdles in the maritime sector.

Subsidies and Incentives

The Government should continue providing a

range of subsidies and incentives. e.g., Pilot Subsidy Scheme for Third-Party Logistics Service Providers, Green Incentive Scheme for Maritime Industry, Smart Traffic Fund, Green Tech Fund, etc. to support the transport and logistics industry in Hong Kong. The provision of subsidies and incentives reflect the strategic importance of the city as a regional and international hub for trade, shipping, aviation, and logistics. These measures aim to enhance competitiveness, promote sustainability, and encourage technological advancement.

Talent Attraction

To address the current manpower shortage, the Government should continue attracting talent from outside Hong Kong through schemes like the Top Talent Pass Scheme and Admission Scheme for Mainland Talents and Professionals (ASMTP). This initiative aims to bring in talents which can help fill skill gaps in the transport and logistics industry. On the other hand, the Vocational Professionals Admission Scheme (VPAS) should also be continued to attract non-local students to remain in Hong Kong upon graduation to work in a skilled trade relevant to their programmes of study. The scheme leverage graduates' acquired expertise to contribute to crucial industries as technical professionals or specialists.

Employers

Flexible Work Arrangements

Employers should consider offering flexible

working hours, remote work options, and part-time roles to attract a broader range of workers, including retirees and women. FG Members opined that flexible work arrangements might not be not feasible for operational roles but could be implemented for general office staff.

Engaging Secondary School Students

Employers should work to improve the image of the transport and logistics industry by highlighting the use of modern technologies and the potential for career advancement through initiatives like the Business-School Partnership Programme (BSPP) and VTC 「專+導航」 Campaign which can help attract young talent. FG Members highlighted the importance of promoting the industry to both secondary school students and parents.

Imported Labour

To address labor shortages, the industry has been making use of foreign labour, particularly for frontline roles. Foreign labour can fill critical gaps in roles such as drivers, warehouse operatives, etc., ensuring uninterrupted operations during periods of high demand or staffing deficits. However, this requires government support in terms of housing and transportation for foreign workers as commented by FG Members. By relying on imported labour for immediate operational needs, employers can allocate more time and resources to train local practitioners, allowing them to transition into higher-skilled roles such as logistics

supervisors or tech-savvy operators.

Automation and Technology

Employers should invest in automation and technology to reduce reliance on manual labour and improve efficiency. This includes the use of robotics, AI, and data analytics to streamline operations.

While technology is going to reduce the need for repetitive manual tasks and lower the demand for low-skilled roles like loaders or basic clerical staff, some new roles like data analysts, automation technicians, and sustainability officers are being created. With the rising importance of emerging skills, employers should prioritise training in areas like smart logistics, green logistics, and maritime law to prepare the workforce for high-value-added roles and technological shifts.

Continuous Professional Development

The rapid technological advancements (e.g., blockchain for supply chain transparency, 5G for real-time tracking) require the workforce to continuously update their skills, fostering a culture of continuous professional development (CPD) and adaptability. Moreover, continuous professional development offers pathways for career advancement through certifications, workshops, and specialised training, enhancing job satisfaction and retaining skilled practitioners. It helps transition the workforce from declining manual roles to high-value positions by

addressing skill mismatches.

Funding Schemes

Employers should make good use of funding schemes (e.g., via the Maritime and Aviation Training Fund [MATF]) to encourage the workforce and employers to engage in CPD, reducing financial barriers to participation.

Graduates and Employees

Lifelong Learning

Fresh graduates from vocational institutions and universities play an important role by bringing new perspectives and innovative ideas, filling entry-level roles such as logistics coordinators, supply chain analysts, or aviation trainees, and driving industry modernisation.

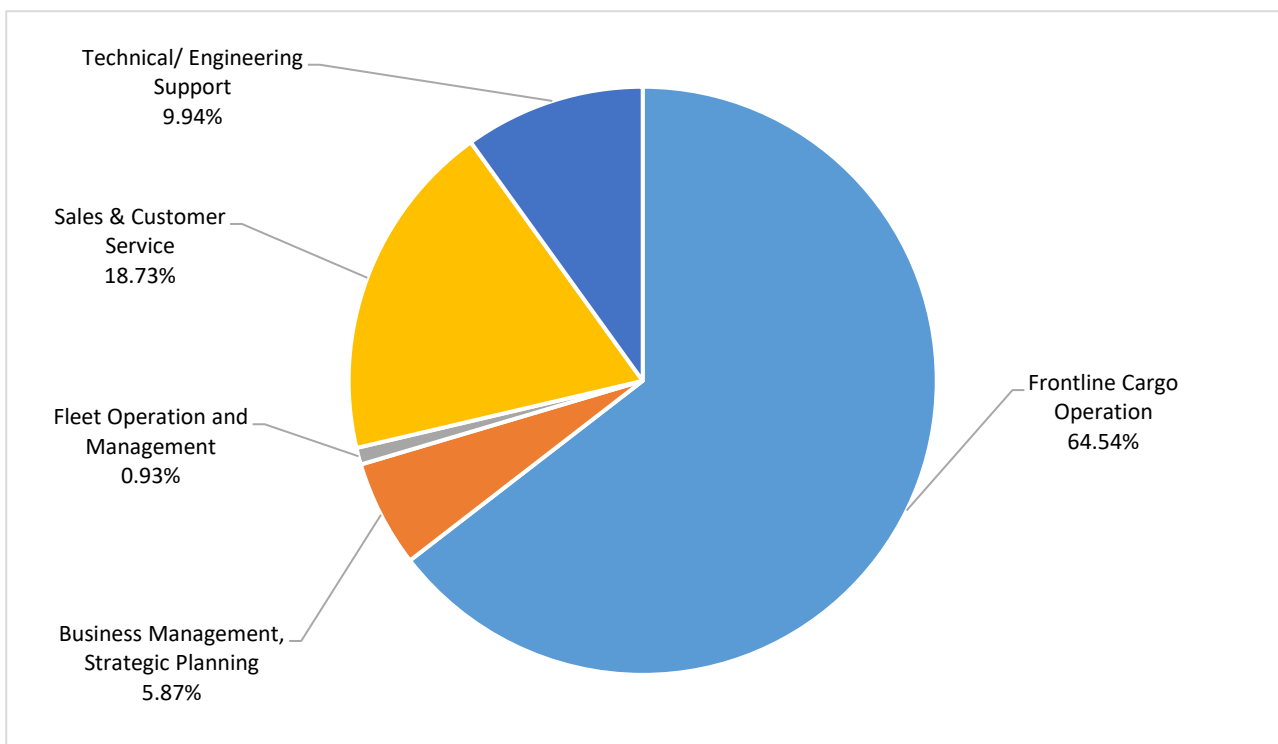
Graduates and employees are strongly encouraged to upskill themselves on a continuous basis so as to keep pace with the technology development and rapidly changing environment. Graduates' participation in programmes like the Greater Bay Area Youth Employment Scheme helps nurture talent and build up the talent pool in the Greater Bay Area, supporting Hong Kong's status as an international aviation hub.

Findings of Desk Research

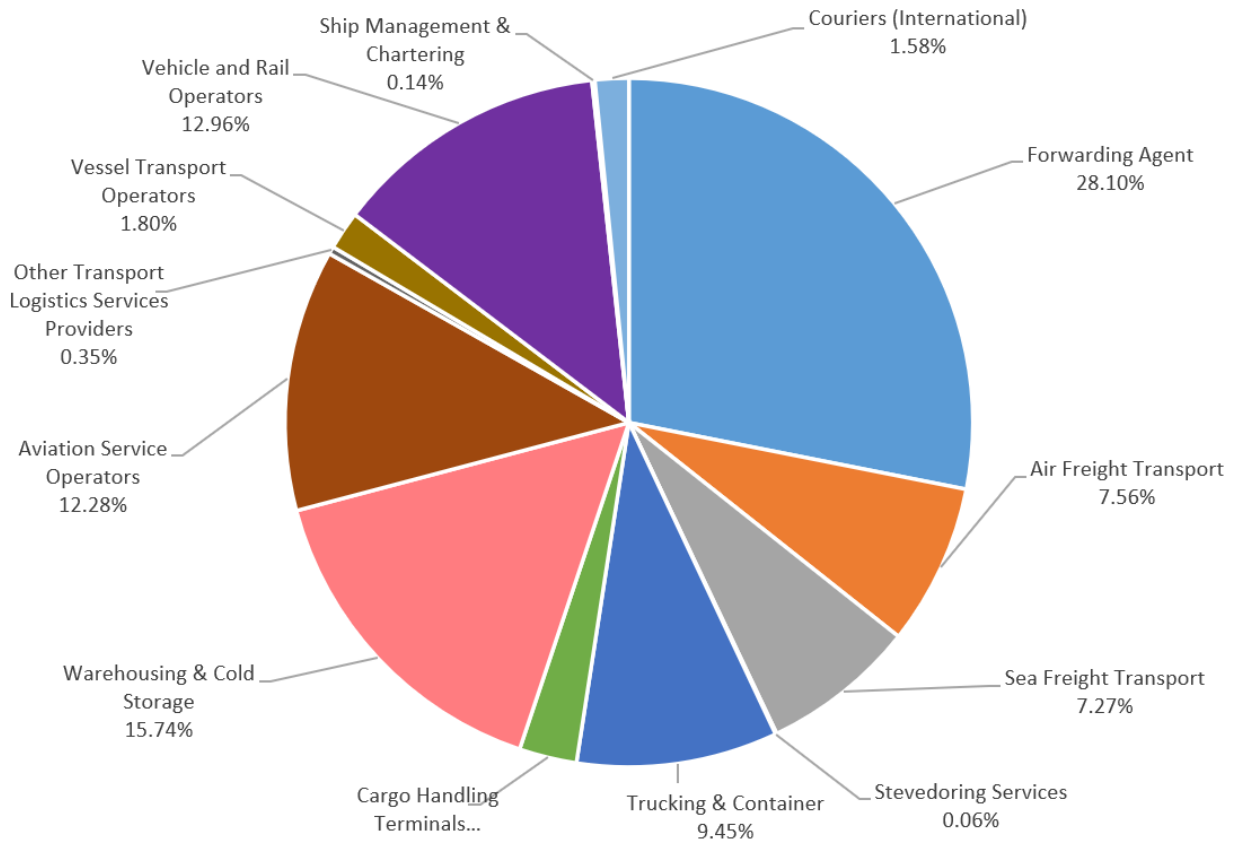
Since the use of online recruitment portals is only one of the recruitment channels, the number of recruitment advertisements captured during the desk research period (i.e. February 2024 to January 2025) is presented as supplementary information for reference only. The salary distribution of recruitment advertisements would not be presented here as nearly half of advertisements did not state the salary.

Appendix 1(a)

**Distribution of Recruitment Advertisements across Job Scopes
(February 2024 to January 2025)**



Distribution of Recruitment Advertisements across Industry Branches (February 2024 to January 2025)



Distribution of Recruitment Advertisements by Principal Job (February 2024 to January 2025)

	Job Title	%
1	Frontline Cargo Operation (Freight transport, Clerical/Craftsman/Operative)	51.4%
2	Frontline Passenger Operation (Passenger transport, Clerical/Craftsman/Operative)	7.5%
3	Sales & Customer Service (Freight transport, Clerical/Craftsman/Operative)	7.4%
4	Sales & Customer Service (Passenger transport, Clerical/Craftsman/Operative)	5.9%
5	Frontline Cargo Operation (Freight transport, Executive/Supervisory)	4.7%
6	Technical/ Engineering Support (Passenger transport, Clerical/Craftsman/Operative)	4.2%
7	Sales & Customer Service (Freight transport, Executive/Supervisory)	3.5%
8	Technical/ Engineering Support (Passenger transport, Executive/Supervisory)	3.4%
9	Business Management, Strategic Planning (Freight transport, Managerial)	3.2%
10	Business Management, Strategic Planning (Freight transport, Executive/Supervisory)	1.6%
11	Technical/ Engineering Support (Freight transport, Clerical/Craftsman/Operative)	1.5%
12	Sales & Customer Service (Passenger transport, Executive/Supervisory)	1.2%
13	Frontline Passenger Operation (Passenger transport, Executive/Supervisory)	0.8%
14	Sales & Customer Service (Freight transport, Managerial)	0.6%
15	Business Management, Strategic Planning (Passenger transport, Managerial)	0.6%
16	Technical/ Engineering Support (Freight transport, Executive/Supervisory)	0.6%
17	Business Management, Strategic Planning (Passenger transport, Executive/Supervisory)	0.4%
18	Fleet Operation and Management (Freight transport, Executive/Supervisory)	0.4%
19	Fleet Operation and Management (Freight transport, Clerical/ Craftsman/Operative)	0.3%
20	Technical/ Engineering Support (Passenger transport, Managerial)	0.2%
21	Sales & Customer Service (Passenger transport, Managerial)	0.1%
22	Frontline Cargo Operation (Freight transport, Managerial)	0.1%
23	Fleet Operation and Management (Passenger transport, Clerical/Craftsman/Operative)	0.1%
24	Fleet Operation and Management (Passenger transport, Executive/Supervisory)	0.1%
25	Business Management, Strategic Planning (Freight transport, Clerical/Craftsman/Operative)	0.1%
26	Fleet Operation and Management (Freight transport, Managerial)	<0.1%
27	Frontline Passenger Operation (Passenger transport, Managerial)	<0.1%
28	Technical/ Engineering Support (Freight transport, Managerial)	<0.1%
29	Business Management, Strategic Planning (Passenger transport, Clerical/Craftsman/ Operative)	<0.1%
30	Fleet Operation and Management (Passenger transport, Managerial)	<0.1%

Note: As some advertisements required the candidates to support air, sea and land transport operations at the same time and some advertisements did not provide sufficient information, further classification of the principal jobs by air/sea/land transport was not feasible on this desk research exercise.

Education Requirements by Principal Job (February 2024 to January 2025)

Job Level	Principal Job	Post Graduate	University Degree	Sub-Degree / Higher Diploma / Higher Certificate	Diploma / Certificate / Apprenticeship	Upper Secondary (F.4 or above)	Lower Secondary (F.1 to F.3) or below	Unspecified	Grand Total
I. Freight Transport									
Managerial	Business Management, Strategic Planning	2	308	22	33	59	4	103	531
	Fleet Operation and Management	0	1	1	0	0	0	1	3
	Frontline Cargo Operation		10	0	3	6		1	20
	Sales & Customer Service		57	11	8	16		14	106
	Technical/ Engineering Support		3	0	0	0		0	3
Sub-total	2	379	34	44	81	4	119	663	
Executive/ Supervisory	Business Management, Strategic Planning	0	103	37	34	51	0	36	261
	Fleet Operation and Management		12	3	14	17	12	6	64
	Frontline Cargo Operation		132	84	94	366	23	74	773
	Sales & Customer Service		157	59	91	186	1	79	573
	Technical/ Engineering Support		14	7	57	5	2	15	100
Sub-total	0	418	190	290	625	38	210	1771	
Clerical/ Craftsman/ Operative	Business Management, Strategic Planning	0	9	1	0	0	0	1	11
	Fleet Operation and Management		0	5	2	13	25	5	50
	Frontline Cargo Operation		161	161	450	2834	3983	899	8488
	Sales & Customer Service		95	146	165	610	89	112	1217
	Technical/ Engineering Support		9	5	61	22	121	34	252
Sub-total	0	274	318	678	3479	4218	1051	10018	
II. Passenger Transport									
Managerial	Business Management, Strategic Planning	0	56	16	2	0	0	26	100
	Fleet Operation and Management		1	1	0			2	
	Frontline Passenger Operation		3					3	
	Sales & Customer Service		8	16				24	
	Technical/ Engineering Support		24	2				27	
Sub-total	0	92	35	2	0	0	27	156	
Executive/ Supervisory	Business Management, Strategic Planning	0	47	14	0	2	0	1	64
	Fleet Operation and Management		9	0	0	7		1	17
	Frontline Passenger Operation		54	33	5	12		23	127
	Sales & Customer Service		69	21	18	62		33	203
	Technical/ Engineering Support		308	91	52	56		41	21
Sub-total	0	487	159	75	139	41	79	980	
Clerical/ Craftsman/ Operative	Business Management, Strategic Planning	0	0	2	0	0	0	0	2
	Fleet Operation and Management		0	0	2	15		17	
	Frontline Passenger Operation		83	39	40	221		720	141

	Sales & Customer Service		58	29	71	538	153	120	969
	Technical/ Engineering Support		13	89	111	57	348	72	690
	Sub-total	0	154	159	224	831	1221	333	2922
	Grand total	2	1804	895	1313	5155	5522	1819	16510

Note: Recruitment advertisements with lower education requirements may have other professional qualifications requirements

Appendix 1(d)

Experience Requirements by Principal Job
(February 2024 to January 2025)

Job Level	Principal Job	0 Year/ No requirement	1-2 Years	3-4 Years	5-6 Years	7-8 Years	Over 8 Years	Unspecified	Grand Total	
I. Freight Transport										
Managerial	Business Management, Strategic Planning	7	30	76	191	81	93	53	531	
	Fleet Operation and Management	0	0	1	1	0	0	1	3	
	Frontline Cargo Operation			10	2	4	2	2	20	
	Sales & Customer Service			7	24	41	15	15	4	106
	Technical/ Engineering Support			0	0	2	1	0	0	3
Sub-total	7	37	111	237	101	110	60	663		
Executive/ Supervisory	Business Management, Strategic Planning	16	78	39	53	1	8	66	261	
	Fleet Operation and Management	1	27	19	9	0	0	8	64	
	Frontline Cargo Operation	22	200	259	164	8	11	109	773	
	Sales & Customer Service	36	200	148	69	8	9	103	573	
	Technical/ Engineering Support	3	40	14	15	1	2	25	100	
Sub-total	78	545	479	310	18	30	311	1771		
Clerical/ Craftsman/ Operative	Business Management, Strategic Planning	0	6	2	0	0	0	3	11	
	Fleet Operation and Management	7	21	1	2	0	0	19	50	
	Frontline Cargo Operation	365	4179	733	163	28	9	3011	8488	
	Sales & Customer Service	97	654	102	20	1	2	341	1217	
	Technical/ Engineering Support	68	97	30	16	0	0	41	252	
Sub-total	537	4957	868	201	29	11	3415	10018		
II. Passenger Transport										
Managerial	Business Management, Strategic Planning	0	0	6	8	27	17	34	8	100
	Fleet Operation and Management			0	0	1	0	1	0	2
	Frontline Passenger Operation			0	0	1	0	2	0	3
	Sales & Customer Service			1	2	1	17	3	0	24
	Technical/ Engineering Support			0	0	4	4	6	13	27
Sub-total	0	7	10	34	38	46	21	156		
Executive/ Supervisory	Business Management, Strategic Planning	0	0	8	19	24	3	0	10	64
	Fleet Operation and Management			8	0	0	3		6	17
	Frontline Passenger Operation	1	29	42	18	8	1	28	127	
	Sales & Customer Service	0	50	65	35	2	0	51	203	

	Technical/ Engineering Support	3	52	186	173	59	14	82	569
	Sub-total	4	147	312	250	75	15	177	980
Clerical/ Craftsman/ Operative	Business Management, Strategic Planning	0	2	0	0	0	0	0	2
	Fleet Operation and Management		1	14				2	17
	Frontline Passenger Operation	40	594	160	49	6	0	395	1244
	Sales & Customer Service	76	305	49	24	1	4	510	969
	Technical/ Engineering Support	4	262	160	160	22	1	81	690
	Sub-total	120	1164	383	233	29	5	988	2922
	Grand total	746	6857	2163	1265	290	217	4972	16510

Descriptions of Principal Jobs

I. Job Levels

Job Level	Description
Managerial	Head (deputy included) of a department or section of an establishment responsible for getting jobs done of the prescribed area of responsibilities by sub-ordinates according to the company policy, goals and objectives.
Executive/Supervisory	Mainly assist the managerial level in carrying out the prescribed area of responsibilities. Usually are involved in the supervision of the work of the junior level on the spot.
Clerical/Craftsman/Operative	Work under supervision and characterised by office job duties or physical job duties with technical requirements, or to receive/handle/distribute document/cargo.

II. Job Scopes

1. Business Management, Strategic Planning

The upper level of an establishment is in charge of the formulation of strategies, setting of guidelines, targets and steering of performance of the overall business of the establishment.

Specifically:

- Business management - Assess the business potential and resources required for developing the business. Ensure the establishment, its business partners and contractors work together and in line with the company goal. Formulate performance indices for the establishment and monitor the progress of the establishment in reaching the target; adjust the policy/strategy if necessary.
- Strategy planning - Establish the local/regional/global operating strategy (such as strategic alliance) for the establishment. Design and develop strategy for logistics solutions that can be offered by the establishment.
- Technology & technique - Assess the current technology and technique in operating the establishment and set policy for introduction/enhancement of new(er) technology and technique.

2. Fleet Operation and Management

The operating arm of an establishment is in charge of maximising the asset/fleet of the establishment. Specifically:

- Fleet management - Manage a fleet to offer a regular/scheduled/liner or

irregular/chartered/tramp service, and design/develop the routing pattern according to senior management's decision. Decide on the timing and (sub-)contractors for maintaining the fleet.

- Fleet acquisition & utilisation - Order/purchase/charter-in/ leasing arrangement for the fleet. Also, deal with sales/ charter-out/leasing out/disposal/suspension/laid up of the fleet when applicable. Control/allocate space of the fleet where applicable.
- Contractors & suppliers - Select and supervise the services provided by (sub-)contractors & suppliers (such as through tendering mechanisms) for maintaining the fleet.

3. Sales & Customer Service

The operating arm of an establishment is in charge of finding out the needs of customers, securing the business and serving customers. Specifically:

- Sales & marketing - Assess the market/customers demand/ needs and competitive environment; recommend and implement sales target, customer relationship strategy, marketing strategy and pricing strategy, etc.
- Customer service - The business process from initial inquiry, booking, and baggage services to the arrangement of shipments/tickets, and the related procedure and documentation.

4. Frontline Cargo / Passenger Operation

The operating arm of an establishment in charge of arranging cargo shipments/passenger transportation according to the needs of customers, specifically:

- Space - Schedule cargo/fleet movements according to space/traffic allocated/conditions.
- Logistics arrangement - Operation processes in receiving, storing, distributing, and releasing of cargoes/tickets and related processes where applicable.
- Contractors & suppliers - Select and supervise the services provided by (sub-)contractors & suppliers for cargo operation/passenger service.
- Safety & security - Ensure the operation complies with mandatory and internal/external requirements.

5. Technical / Engineering Support

The operating arm of an establishment is in charge of technical service. Specifically:

- Machinery & equipment - Establish technical indicators and management systems for the operation of machinery and equipment.
- Contractors & suppliers - Select and supervise the services provided by (sub-)contractors & suppliers for machinery and equipment.
- Safety & security - Ensure the operation of machinery and equipment are in compliance with mandatory and in-house requirements.