Vynn Capital

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Evaluating Malaysia's Logistics Market Potential:

Logistics Market Profile and Logistics Technology Landscape

WHAT'S INSIDE

I. Malaysia's Logistics Market Profile
II. Emergence of Technology-Enabled Logistics in Malaysia
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Malaysia's logistics market has been characterized by continued growth in the past 20 years, owing to a high volume of exports and imports, constantly improving infrastructure and attractiveness to global manufacturers. The country's strategic location on the Straits of Malacca and access to the South China Sea offers domestic and multinational companies numerous opportunities to establish and grow distribution hubs to serve the SEA market and the Indian, Middle East, and African markets.

In 2020, Malaysia recorded the 4th consecutive year of double-digit increase in trade surplus (+26.9% y-o-y) to ca. US$44.3 billion. The 2020 figure also represented the largest trade surplus since 1998. The country contributed 27.8% of its total exports to ASEAN countries. The manufacturing sector has been the key driver of Malaysia's exports, with the country ranking 3rd by manufacturing output in Southeast Asia. Notably, the highest share of exports has been represented by Electrical & Electronic (39.4%) products.

The Electrical & Electronic sector has been Malaysia's largest export earner for decades. Such multinationals as Intel, Motorola, Hitachi had all established their factories in Malaysia by the mid-1970s. The sector has been actively growing and given an additional boost by trade friction between the United States and China from 2018, which resulted in the relocation of foreign Electrical & Electronic manufacturers to Malaysia. Among notable entries of foreign Electrical & Electronic manufacturers into Malaysia were the entry of US chipmaker Micron Technology as well as American firm Jabil Circuit and British medical device maker Smith + Nephew.

Table 1: 2020 Malaysia Major Export Products

Electrical & Electronic	39.4%
Petroleum Products	6.3%
Chemical	5.2%
Palm Oil	4.7%

Figure 1: Distribution of the Electrical and Electronic Exports in Malaysia by Product, 2019

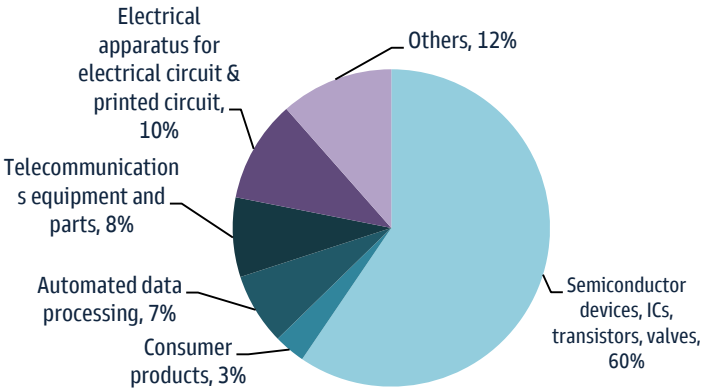
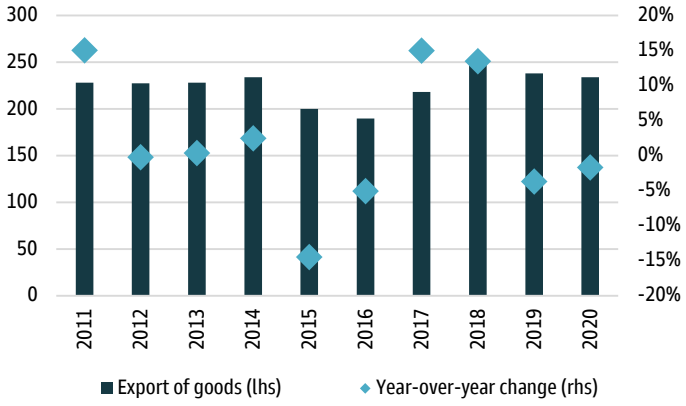


Figure 2: Malaysia: Export of Goods From 2011 to 2020*

(in billion U.S. dollars)



**lhs – left hand side; rhs – right hand side*

Table 2: Leading Manufacturing Countries, 2019

Rank	Country	Manufacturing Output (US$ million)	Share of National Output	Share of Global Manufacturing
1	Indonesia	204,819	29.1%	1.5%
2	Thailand	119,958	11.5%	0.88%
3	Malaysia	78,056	21.8%	0.57%
4	Philippines	71,453	29.2%	0.53%
5	Singapore	67,228	22.7%	0.49.%

Source: WTO; United Nations Conference on Trade and Development (UNCTAD); Bank Negara Malaysia; IHS Markit; MIDA

The establishment of free zones in Malaysia plays an important role in promoting manufacturing exports from Malaysia and, hence, facilitates the country's position as a regional distribution hub. As of 2020, there were 44 free zones in Malaysia. The free zone is a special area declared by the Ministry of Finance under the provision of Section 3(1) of the Free Zones Act 1990 to be Free Commercial Zone (FCZ) or Free Industrial Zone (FIZ) in Malaysia. In free zones, export-oriented players can benefit from minimized customs formalities and duty exemptions. In Malaysia, free zones are usually represented by specific industries, such as electronics, biotechnology, halal industries, etc., or may include a wide variety of industries, together with complementary services providers.

In areas where free zones are not available, companies are able to establish Licensed Manufacturing Warehouses (LMWs), which provide similar features as free zones, namely, duty exemption to all raw materials/components and machinery equipment used in the manufacturing process. LMW licenses are available to players that are involved in manufacturing or commercial operations.

In Malaysia, the combination of free zones and logistics allowed a continued increase in external trade. Supported by the government, manufacturing, and logistics clusters are expected to grow. Only in 2019 alone, 988 manufacturing projects were approved with a total value of over US$19 billion.

Free Commercial Zone (FCZ)	Free Industrial Zone (FIZ)
Commercial and trading activities including entrepôt trade	Manufacturing and exports related activities
Redistribution, bulk breaking, repackaging of products, relabelling and related activities geared for exports	Import duty exemptions of raw materials, component parts, machinery and equipment required directly in the manufacturing process
Typically located near the country's ports due to its high traffic in trade	Company has to export at least 80% of its output

Source: CBRE; Royal Malaysian Customs Department

Figure 3: Free Zones in Malaysia

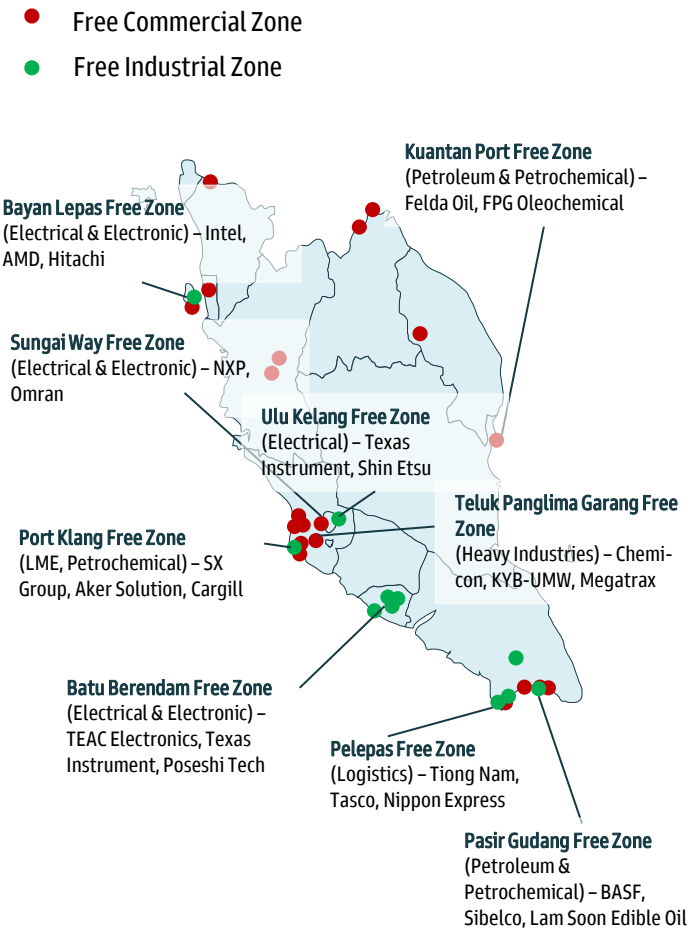
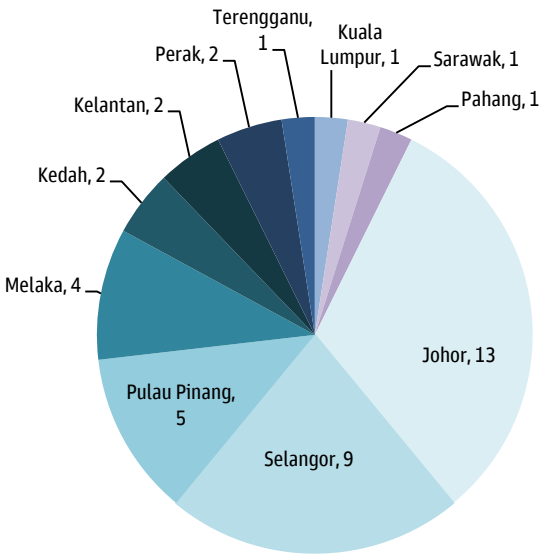


Figure 4: Number of Free Zones by State



Port Klang Leads As The Major Port in Malaysia

Looking at Malaysia's cargo shipping market, Malaysia has been emerging as a regional hub and an alternative to Singapore for transshipment due to a wide range of factors, namely, strategic location, land availability, considerably low labor spending, affordable construction costs and established infrastructure. According to World Shipping Council, Malaysia's Port Klang and Tanjung Pelepas ranked 12th and 19th, respectively, in the list of the world's busiest container ports in 2020. In 2020, Port Klang accounted for 49.64% of total container throughput in Malaysia, whilst Tg Pelepas Port's share stood at 36.9%. Recent developments in Malaysia's cargo shipping market position the market for further growth.

Over the past decade, Malaysia's fleet gradually increased and reached 1,748 vessels in 2019 vs. 1,405 in 2011. The country's ranked 4th in Southeast

Table 3 : Twenty-foot equivalent units (TEU) Handled in Malaysia in 2020 by Seaport

Port	Annual Capacity (TEUs)	Total Container Throughput (TEUs)
Klang	19,600,000	13,244,424
Tanjung Pelepas	12,500,000	9,846,107
Penang	2,000,000	1,387,987
Johor	1,200,000	1,005,123
Sabah	500,000	357,416
Bintulu	400,000	339,621
Kuching	480,000	237,996
Kuantan	600,000	149,878
Rajang	116,000	71,771
Miri	34,000	23,210

Table 4: Total Merchant Fleet by Flag of Registration

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019
Indonesia	5,960	6,341	6,768	7,542	8,132	8,472	9,974	9,053	9,879
Singapore	2,772	3,117	3,306	3,166	3,339	3,419	3,480	3,526	3,433
Vietnam	1,756	1,774	1,776	1,752	1,761	1,798	1,836	1,863	1,868
Malaysia	1,405	1,456	1,525	1,561	1,617	1,658	1,682	1,704	1,748
Philippines	1,407	1,403	1,390	1,436	1,461	1,534	1,565	1,615	1,706
Thailand	769	746	747	767	776	795	795	807	825
Cambodia	836	754	740	699	606	580	351	364	268

Source: Malaysia Ministry of Transport; UNCTAD

Asia by the size of the fleet, after Indonesia, Singapore, and Vietnam. As of 2019, Malaysia recorded a total annual capacity of 37.4 million TEU while Singapore registered 43 million TEU. Total TEU handling in Malaysia is anticipated to gradually increase as the expansion program to 40 million TEU by 2040 in Westport of Port Klang was announced. Meanwhile, neighboring Singapore plans to expand its fleet capacity to 65 million TEU by 2040.

The Malaysian freight and logistics market landscape is fragmented, with a large number of players. As of 2020, ca. 3,000 transportation service providers were registered in Malaysia. Independent truckers and SMEs account for around 70% of the trucking industry in the country.

In Malaysia, the 3PL logistics market is almost equally balanced between domestic (57%) and multinational (43%) players. Among prominent multinational players present in Malaysia are FedEx, DHL, Nippon Express, DB Schenker. In addition, in recent years, an increasing number of M&A deals between multinational and domestic companies were recorded, including a notable acquisition of CJ Korea Express Malaysia Sdn Bhd by CJ Century Logistics Holdings Bhd. Such a trend indicates the maturing of the 3PL market in the country.

E-commerce is another key contributor to the growth of the logistics market in Malaysia and demonstrated a high growth rate in 2016-2020 (the average of 35%). In 2020, e-commerce market value recorded a y-o-y increase of 24.8% (vs. the growth rate of 22.8% in 2019 and 38.7% in 2018). In addition, by 2023, Malaysia is forecast to have the highest CAGR (35%) for total e-commerce activities in Southeast Asia, followed by Indonesia (26.9%) and

Table 5: World Shipping Council Ranking of ASEAN Ports Based on Volume, 2020

Ranking	Port
1	Singapore
2	**Port Klang (Malaysia)**
3	**Tanjung Pelepas (Malaysia)**
4	Laem Chabang (Thailand)
5	Tanjung Priok (Indonesia)
6	Ho Chi Minh City (Vietnam)
7	Manila (Philippines)
8	Hai Phong (Vietnam)

Figure 5: Top Ten Largest 3PLs by Total Occupied Space

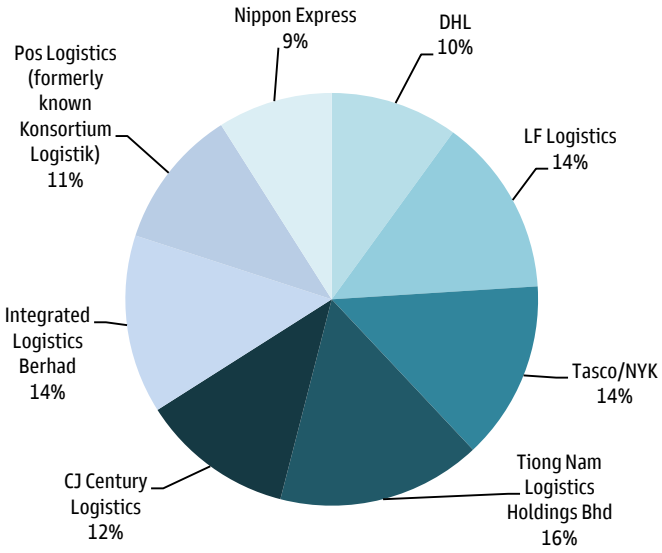


Table 6: Global Ranking by Transport Infrastructure Type of Selected ASEAN Countries, 2019

	Malaysia	Thailand	Philippines	Indonesia	Singapore	Cambodia
Overall ranking for transport infrastructure	29	53	102	55	1	96
Road connectivity	133	54	125	109	.	107
Quality of road infrastructure	19	55	88	60	1	97
Railroad density	63	55	91	85	1	.
Efficiency of train services	13	75	88	19	5	.
Liner shipping connectivity	5	35	59	36	2	93
Efficiency of seaport services	19	73	88	61	1	91

Source: World Shipping Council; World Bank Global Competitiveness Report, 2019; CBRE

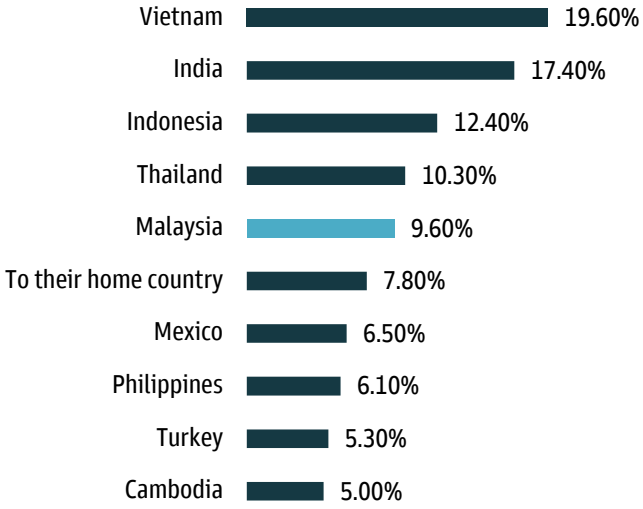
Thailand (17.9%). The establishment of the Digital Free Trade Zone in Malaysia is also expected to contribute to the country's emerging position as a regional e-fulfillment hub by improving customs processes. According to the 12th annual Agility Emerging Markets Logistics Index, Malaysia has ranked 5th among the attractive emerging logistics markets to logistics providers, freight forwarders, shipping lines, air cargo carriers, and distributors. In addition, the country has also been named in the top 5 attractive markets for logistics companies if they choose to relocate their operations from China.

The Malaysian government has demonstrated significant progress in the improvement of infrastructure throughout the country. Malaysia's road network grew from 66,445 km in 2000 to 254,479 km in 2019. As of the end of 2019, 74.8% of the country's road network was paved. The length of Malaysia's road infrastructure is considered to be average in comparison to neighboring countries: Thailand has a road network of 390,026 km with 98.5% of roads paved, Vietnam – 200,000 km with 65% of roads paved, Singapore – 9,000 km with 100% of roads paved. However, Malaysia has been one of the leaders among ASEAN countries in terms of the investment in infrastructure, with US$250 million spent per capita over the past two decades. According to the 2019 World Bank Index, Malaysia ranked considerably high in the transport infrastructure assessment, taking 29th place out of 141 countries.

Malaysia was also named as the 2nd country in Southeast Asia and 16th in the world for trade connectivity in the DHL Global Connectedness Index 2020. The country has been assessed based on its size, pace of economic development, location, growth of supply chains. According to DHL, Malaysia's exceeded expectations on both depth and breadth of scores.

Owing to the steady growth among key fundamentals of the logistics market, we remain a positive outlook for the growth of logistics services in Malaysia. According to Mordor Intelligence, the Malaysian logistics market is expected to grow from US$37.6 billion in 2020 to US$55 billion by 2026 at a CAGR of 4%.

Figure 6: If logistics companies move operations from China, where are they most likely to relocate?*



**The survey was performed in September-December 2020; 1,206 logistics industry professionals participated in the survey.*

Figure 7: Leading Emerging Logistics Markets in 2018, by Market Connectedness Sub-index*

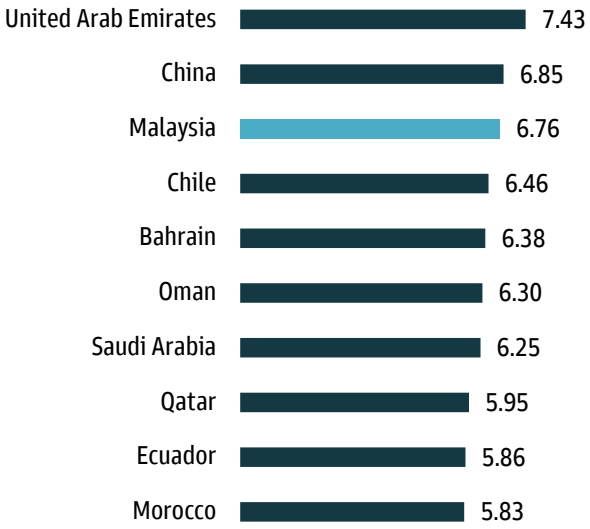
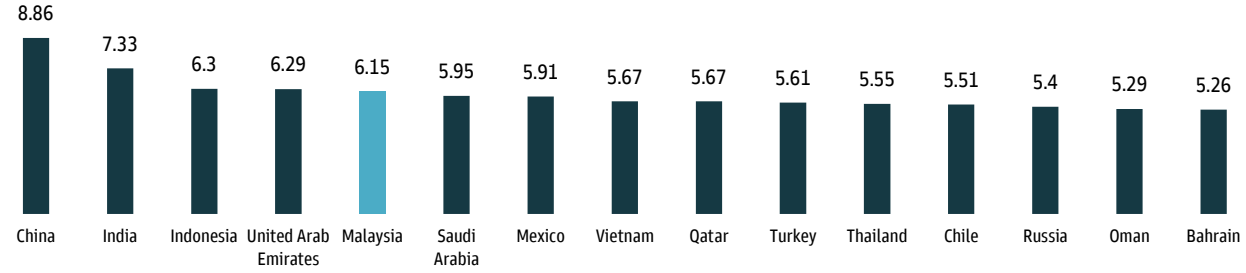


Figure 8: Leading Emerging Logistics Markets in 2021 Based on the Agility Emerging Markets Logistics Index



Source: Agility Insights, OECD

Malaysia's logistics market presents attractive opportunities with its position as a manufacturing hub and strong e-commerce adoption rates. With expected growth, demand for logistics technology – from warehousing/fulfillment services, on-demand delivery platforms to supply chain management & analytics tools – accelerated in Malaysia.

Warehousing and e-commerce fulfillment are among sectors that have grown and performed well amid the pandemic in Malaysia. Driven by a shift to online shopping, a growing number of retailers sought solutions to fulfill online orders. Another factor in rising demand for warehousing and e-commerce fulfillment services has been an increasing consumer comfort with cross-border shopping – as more online consumers became comfortable with cross-border online purchases, their expectations for value, speed of delivery, and general experience increased. Such a trend led to more retailers looking for reliable warehousing and e-commerce fulfillment solutions to ensure the on-time and safe delivery of purchases. Looking at market players in this segment, Epost has been among the notable companies in the e-commerce fulfillment space in Malaysia. The company has assisted its clients in cross-border shipments and deliveries to more than 2,000 collection points in Malaysia. Other prominent players in this segment are iStore iSend (Malaysia), UrbanFox (Singapore), and Anchanto (Singapore).

Recent tailwinds in the e-commerce space facilitated heightened demand for delivery platforms. A significant number of local and foreign platforms emerged in Malaysia over the past years: Lalamove (Hong Kong's last-mile delivery platform), Easy Parcel (Malaysia's last-mile delivery platform), Zepto Express (Malaysia's last-mile delivery platform), Ninja Van (Singapore's last-mile delivery platform), TheLorry (Malaysia's trucking marketplace), Janio (Singapore's trucking marketplace), J&T Express (Indonesia's on-demand trucking marketplace), etc. Although the number of delivery platforms steadily increased in Malaysia, the online delivery market reported the longest wait times in Southeast Asia, according to the survey conducted by iPrice Group and Parcel Monitor.

The pandemic and overall growth of the logistics market in Malaysia highlighted the importance of supply chain transparency and the improvement of management capabilities within the supply chain. Emerging areas of interest have been artificial intelligence supply chain planning, warehousing machine learning, and cognitive inventory management. Technological advancements in the management and analytics of the logistics process are still a vastly untapped area within Malaysia's largest share of trucking players (70%) – SMEs. However, with the acceleration of digitalization across the supply value chain, more transportation companies have sought solutions to provide transparency and increase the speed of their services instead of relying on fixed costs without room for cost improvements. To capture the growing demand, an increasing number of TMS (Transportation Management System) players have been expanding their footprint in the country, namely, Yojee (Singapore), Stemly (Singapore), and Zyllem (Singapore). Emerging TMS solutions for SMEs allowed a major share of logistics companies in Malaysia to access pre-packaged solutions tailored to their needs for lower price points. Other customers of the abovementioned TMS providers have been represented by numerous other sectors, including pharmaceuticals, retail, and more.

As Malaysia's logistics market gradually matures, logistics players will need to evolve as they continue to remain under pressure along with accelerating demand from the manufacturing and wholesale & retail trade sectors. More analytics tools will be required to account not only for traditional shocks but increasing supranational risks, such as supply chain disruptions during unprecedented in scale events such as COVID-19. Companies associated with the old model with a focus only on lower labor costs may face increased vulnerabilities in the event of emerging shocks. Successful logistics companies will be the ones that will strive to use key tools within supply chain technology – artificial intelligence, machine learning, and predictive analytics that will not only react to ongoing events, but also anticipate potential issues, changes in demand and provide timely solutions to such events within the supply chain.

Selected Players of Malaysia's Logistics Technology Landscape

Trucking and Fleet

teleport, J&T Express, AcceleFreight, DB Schenker, lorry365 Delivery Service Centre, EZYHAUL, Bolloré Logistics, LOAD2GO, 20Cube, The Lorry .com, DHL, wekago, jani Asia's Logistics Simplified, KERRY EXPRESS, LALAMOVE

Last Mile Delivery

GrabExpress, easyParcel, Parcel 365, collectco parcels made simple., teleport, gosend, LALAMOVE, pickupp, ZOOM, Zeek, ninja van, FLASH EXPRESS, uParcel, PopBox, DHL, FedEx Express, ZEPTO EXPRESS

Warehousing & Fulfillment

BOXME ECOMMERCE FULFILLMENT, iSTORE iSEND, iHub SMART LOGISTICS, DB Schenker, UrbanFox, ALLSOME, Agility, Anchanto, E POST, LOCAD

OMS, TMS & WMS SaaS

stemly, GOCOMET, Quincus, ORACLE TRANSPORTATION MANAGEMENT, portcast, Yojee, CLARITECS, ZYLLEM, CARGOBASE TECHNOLOGY · PLATFORM · LOGISTICS, SAP

Over the past few years, there has been sizeable investment in logistics technology in Southeast Asia as industry leaders have focused on gaining more transparency within supply chains, leveraging on cloud technology and automating services that were previously handled by people. Pandemic has brought more interest to supply chain technology, resulting in the surge of investments in logistics technology over the past year. In Southeast Asia, VC investment in logistics jumped to US$768m in 2020 (from US$116m in 2019), including rounds of over US$100 million for Ninja Van, Flash Express and Waresix, as well as early-stage rounds for Kargo Technologies (US$31m) and Shipper (US$20m). The three sectors that saw a noticeable increase in deal volume were trucking delivery platforms, TMS &WMS, e-fulfillment.

SEA 2020 Top Sectors		
Fintech	US$770m	70 deals
Logistics	US$768m	19 deals
Travel	US$265m	6 deals
Proptech	US$257m	10 deals
E-commerce	US$286m	34 deals

Table 7: Distribution of Capital Invested (% of Total), 2020

Industry	Africa	China	India	SEA	Latin America	CEE	Middle East
Agtech	17%						
Biotech, Medical Devices & Diagnostics	5%	24%					
E-commerce Platforms & Marketplaces		10%	10%	7%	10%		17%
Edtech		15%	25%			8%	
Enterprise Software & IT Services	7%	8%	14%	7%	14%	35%	
Fintech	25%		16%	22%	40%	5%	21%
Food / Grocery Delivery, Restaurants, & Cloud Kitchens			12%				29%
Healthtech	17%			5%			
Logistics	11%	6%		22%			20%
Media / Games / Entertainment		7%	8%				5%

Source: EMPEA

Globally, the demand for logistics technology is expected to grow, with logistics players looking to gain visibility into their operations and optimize their supply chains. A number of multinational service providers are already developing technology in-house; however, third-party technology providers are offering a compelling argument with strong funding and resources. Order management, WMS, TMS are the most demanded logistics solutions in the transportation market worldwide. With accelerating digitalization of the logistics industry in the region, supply management solutions are expected to gain more demand from the major share of logistics providers – SMEs – in Southeast Asia. Along with the adoption and advancement of connected devices, TMS & WMS will make it possible for logistics providers of different sizes to increase real-time communication and contribute to the overall efficiency of the logistics market in SEA.

We expect the growth among all sectors of supply chain technology to continue. The expansion and emergence of technology-enabled 3PL providers in Southeast Asia are set to remain, characterized by growing outsourcing elements of warehousing & fulfillment, analytics & management. While on-demand delivery marketplaces are anticipated to grow and increase in numbers, logistics optimization solutions will play a key role in maximizing logistics market potential by helping companies to achieve quality planning for the physical flow of goods and decrease delivery times. With increasing requirements for logistics services amid fast-paced digitalization, more logistics SMEs are likely to look for cost-effective optimization solutions.

Figure 8: Which of the following technologies is yielding the best ROI in your current supply chain execution processes?*

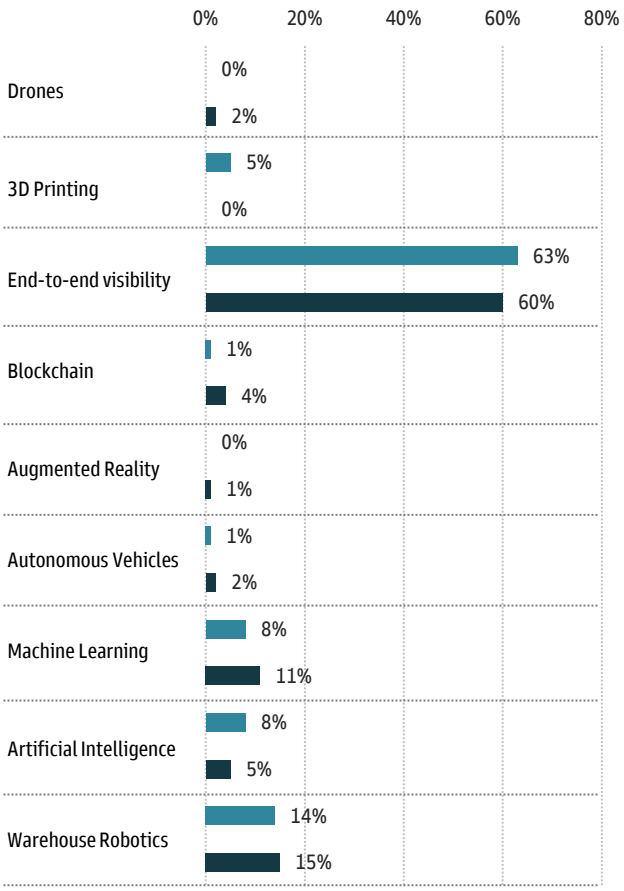
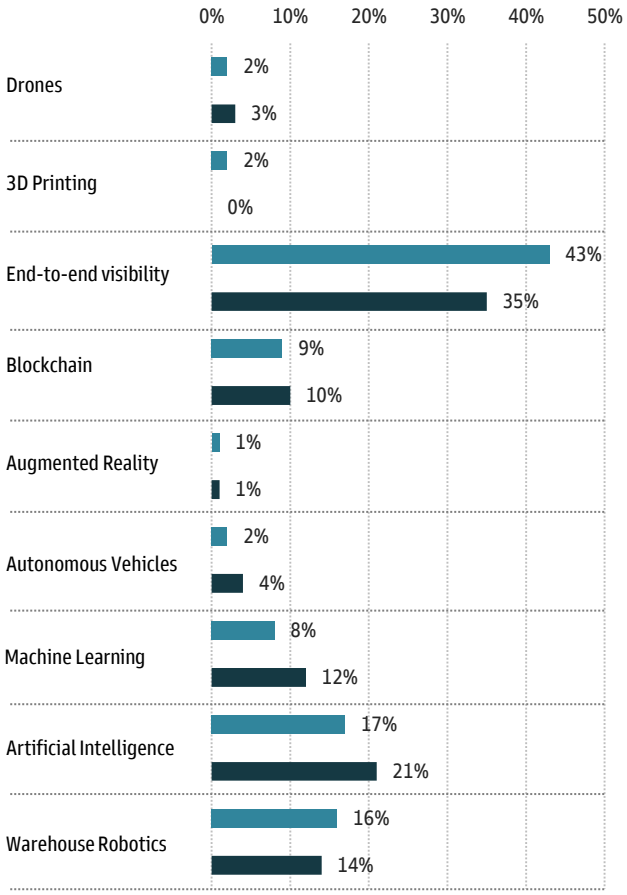


Figure 9: Which of the following technologies do you expect will yield the best ROI in your supply chain execution processes in 18 months?*



The survey was performed in May-June 2020; 589 supply chain professionals participated in the survey, namely, 203 retailers and manufacturers, 210 logistics service providers, 176 solutions providers and third parties.

Source: Blue Yonder

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