Vietnam Logistics

July 2022 Investment Opportunities in a Fast-growing Highly-fragmented Sector ALVAREZ & MARSAL LEADERSHIP. ACTION. RESULTS."

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Executive Summary

Vietnam's logistics ecosystem is extremely fragmented, with no clear winners, but offers opportunities for players who can consolidate and roll-up existing infrastructure to achieve meaningful scale

Infrastructure Overview

- Well capitalized investors can take advantage of high demand and low supply for logistics (ports, warehouse, trucking and waterway) through consolidation and roll-up to achieve scale.
- First-mile utilization of infrastructure is very high while others remain under utilized due to poor quality infrastructure.

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Fragmented, Hyperlocal Logistics

- Hyperlocal adaptation is a must for mid-mile, as each region has different terrain characteristics and cargo flows.
- The logistics market is highly fragmented, comprising mostly of micro-to-small size enterprises.
- The warehouse and transport sector is growing at a CAGR of 15.1% and will be more than US\$70B by 2025.



Key Opportunity: Cold-chain Segment

- The cold-chain logistics subsegment is particularly ripe for growth due to market trends in food, pharma and retail.
- The cold-chain sector has a high barrier to entry and presents opportunities for well-capitalized investors.
- At a CAGR of 11.8%, Vietnam's cold warehouse market is outpacing the rest of the world.
- Despite the growth, warehouses are running out of capacity during peak seasons.
- While cold warehouse capacity doubled from 2015 to 2021, there are still no dominant players in the market.

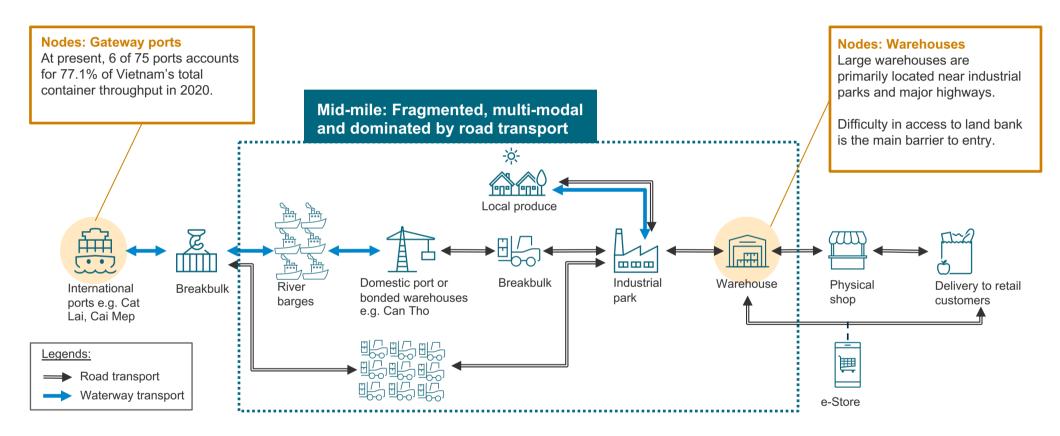


Vietnam Logistics: Industry Dynamics and Opportunities



There are many investment opportunities for a potential platform consolidation and roll-up in a high growth market . . .

... for companies that **can invest and potentially control key "nodes"** *(i.e., key intersections of multi-modal transport that may become bottlenecks)* in Vietnam's logistics ecosystem through **early access**.

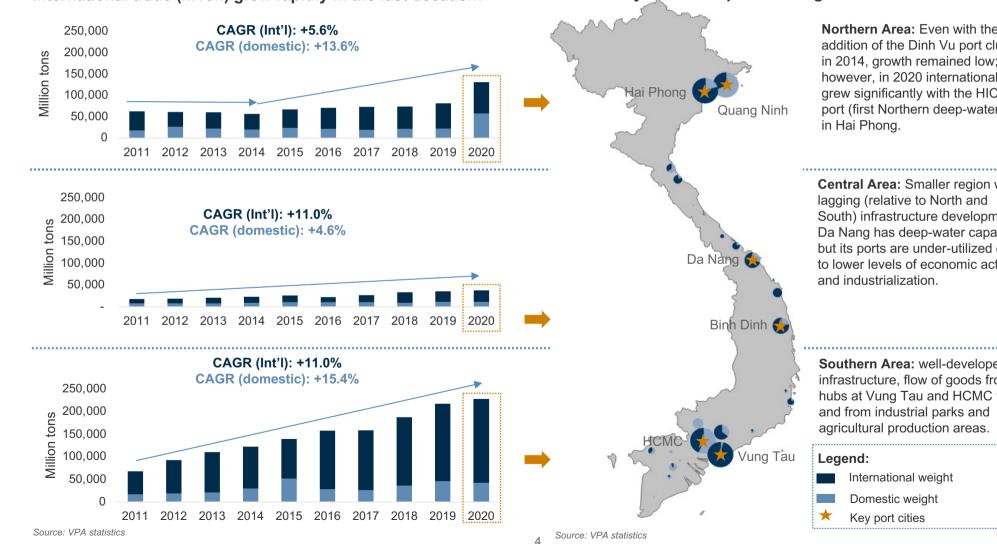


The logistics sector is poised for consolidation to create an operator of scale that can leverage first-party data to coordinate the flow of goods between nodes and increase overall efficiency.



Any increase in logistics infrastructure is immediately swallowed up by new demand

Growing international trade and availability of infrastructure is shaping the formation of key logistics hubs in HCMC/ Vung Tau/ Binh Duong, Ha Noi/ Hai Phong/ Quang Ninh and Da Nang/ Binh Dinh



... driven by the development of regional nodes International trade (mTon) grew rapidly in the last decade...

> Northern Area: Even with the addition of the Dinh Vu port cluster in 2014, growth remained low: however, in 2020 international trade arew significantly with the HICT port (first Northern deep-water port) in Hai Phong.

Central Area: Smaller region with lagging (relative to North and South) infrastructure development. Da Nang has deep-water capability, but its ports are under-utilized due to lower levels of economic activity and industrialization.

Southern Area: well-developed infrastructure, flow of goods from hubs at Vung Tau and HCMC to and from industrial parks and agricultural production areas.



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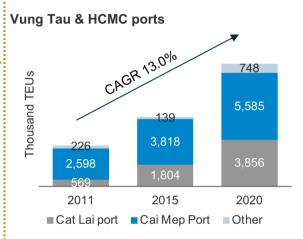
High concentration exists in the first mile, with 6 of 75 ports accounting for 77.1% of container throughput in 2020...

... while others remain under utilized due to poor quality access to roads, lack of deep-water capabilities, inadequate waterway dredging and under-maintained supporting infrastructure

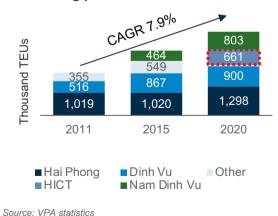
TEU throughputs by major ports in 2020				
Unit: TEU'000	2020	%Total		
Cat Lai Port	5,585	32.9%		
Cai Mep Port	3,856	22.7%		
Hai Phong Port	1,298	7.6%		
Dinh Vu Port	900	5.3%		
HICT Port	661	3.9%		
Nam Dinh Vu Port	803	4.7%		
6 main ports	13,103	77.1%		
18 Other Southern Ports	2,963	17.4%		
5 Other Northern Ports	101	0.6%		
4 Central Ports	830	4.9%		
Total	16,997	100.0%		

Source: VPA statistics

Historical experience with Cai Mep and HICT indicates that growth rapidly accelerated once access to infrastructure improved.



Hai Phong ports



Vung Tau and HCMC

Cat Lai and Cai Mep made up 81.5% of all TEU throughput of the 29 ports in Vung Tau and HCMC.

- ★ Cat Lai Port: operating above design capacity (despite several expansions). In contrast, nearby Hiep Phuoc Port was perennially under-utilized.
- ★ Cai Mep Port: the only deep-sea port in the South. Used to be the "white elephant" until growth accelerated with improvements in supporting infrastructure. Additional capacity of 1.5MM TEU added in 2021 in anticipation of growing demand.

<u>Hai Phong</u>

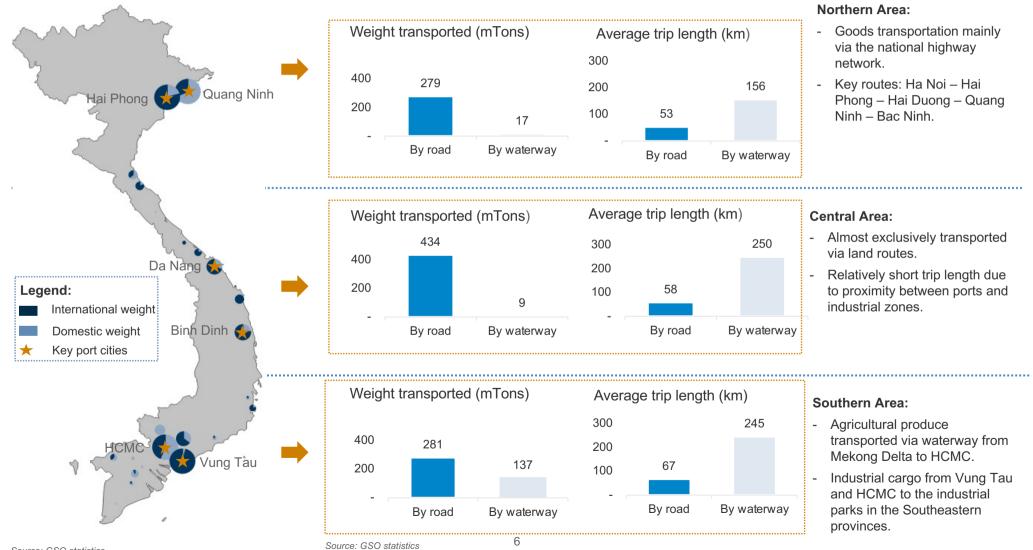
Rising demand constrained by existing infrastructure:

- ★ Hai Phong Port and Dinh Vu Port: low growth and has consistently operated near full capacity since 2015.
- ★ HICT Port: first deep-water port opened in 2020 adding much-needed capacity. Quickly reached 61% utilization after 1 year of operation (2020: 661K TEU vs capacity of 1.1MM TEUs / year).
- ★ Nam Dinh Vu Port: new port in operation since 2014 and reached full capacity in 2020.



Hyperlocal adaptation is a must for mid-mile, as each region has different terrain characteristics and cargo flows

Roads are the primary means for cargo transport for most of the country. mainly for <70Km shuttles between manufacturing hubs and gateway ports. In the Mekong Delta, however, the main cargo transport is by waterway.



Cargo flows between regional nodes... ...via different means of transport across regions

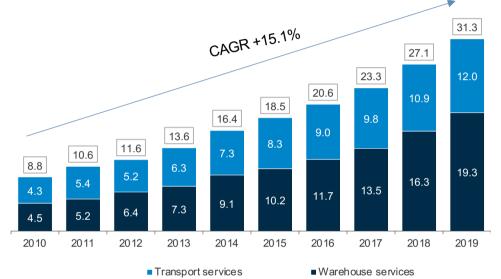
Source: GSO statistics

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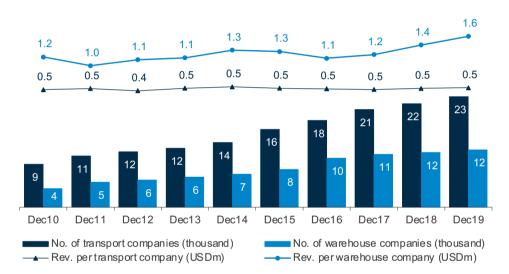
The market is highly fragmented, comprised mostly of micro-to-small size enterprises

The warehouse and transport sector reached US\$31B in 2019; if the CAGR of 15.1% continues, this market will be >US\$70B by 2025

Total logistics revenue (in US\$B)⁽¹⁾ in Vietnam grew by 15.1% CAGR in 2010-2019 ...



... while the number of companies increased, average revenue per company has remained flat for transport companies; however, warehouse companies have seen significant growth



Notes: (1) The revenue is converted from VND to USD using the year-end exchange rate of each year issued by Vietnam Ministry of Finance (2) Total revenue of transport services does not include revenue of (i) water and (ii) air transport

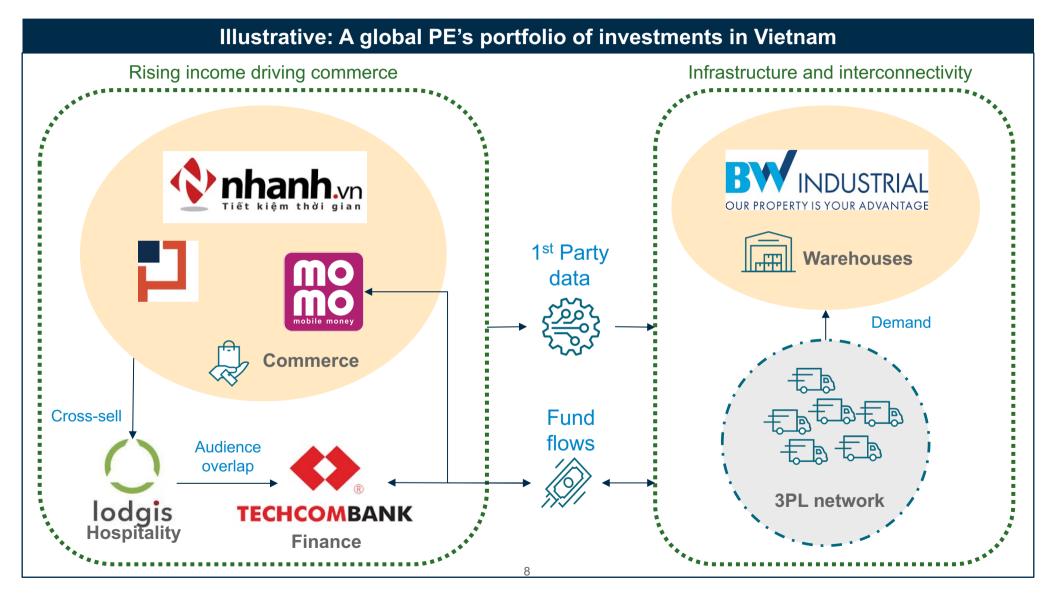
Source: 2020_Sach-NGTK-2020Ban-quyen.pdf, 2015_05._Doanh_nghiep.pdf, MoF

COVID-19 might have slowed down the pace of growth, but should not reduce the long-term potential



There remains a small window of opportunity before your competitors build upon their recent investments . . .

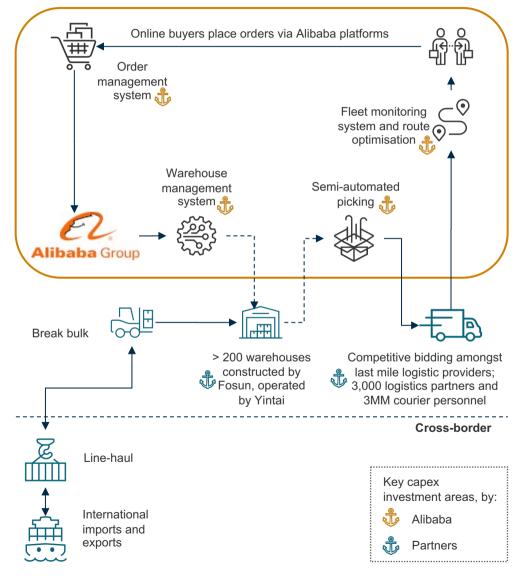
...to create a leading logistics platform with the addition of mid-mile transportation and 3PL assets or partners



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An aspiring **local leader in Vietnam's logistics** could follow **Cainiao's** playbook in China **in the last decade**

Cainiao grew massively by **gatekeeping** ecommerce parcel volumes and was **valued at \$29B** post Alibaba's majority investment in 2019



Cainiao's open platform strategy

Cainiao, formerly known as China Smart Logistics Network, was launched in May 2013, by Alibaba Group, in conjunction with a group of leading last mile logistics companies in China.

From the start, it adopted an open platform strategy with Alibaba at its nexus as the gatekeeper of parcel volumes and dataflows. Alibaba Group was in a unique position to play this role as it was the dominant player in ecommerce accounting for a lion's share of daily parcel volumes.

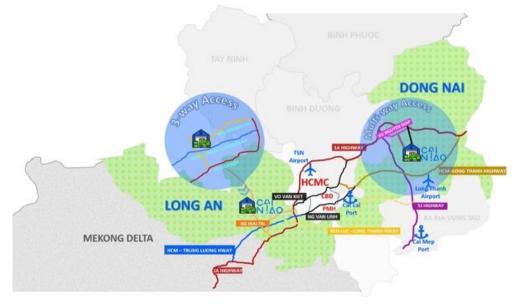
Key success factors:

- Alibaba's access to large amounts of capital acted as an anchor investor and contributed most of the \$4.9B invested into Cainiao with \$3.3B invested in November 2019, raising its stake from 51% to 63%.
- Alibaba's position as the **gatekeeper of large volumes** of parcels, north of 50MM daily going as high as 2.3B during the 11-day period of Singles Day.
- As the main owner of **first-party data** on online retail data, Alibaba acted as the orchestrator and built data platforms to facilitate exchange of information between partners in the network to **increase efficiency and expand profits** for all parties.
- Fosun builds the warehouses and Yintai provides supply chain management know-how.

Unlike China, the winner in Vietnam's e-commerce has not been decided. Shopee, which has a sizeable lead on the competition has already begun investing in mid and last mile capabilities. Cainiao is also venturing into Southern Vietnam through the development of warehouse clusters. *See next page.*

Cainiao has secured access to land in Vietnam to build large warehouse clusters . . .

... as part of the launch of its warehouse network throughout Southeast Asia to tap on the region's economic growth



Cainiao's Dong Nai Smart Logistics Park

- Total land size of c.168,000 sqm with Cainiao providing 90,000 sqm of premium warehouse leasing space.
- 30km direct connectivity with multiple access points to Ho Chi Minh City and in proximity to the upcoming Long Thanh International Airport and key ports, Cat Lai and Cai Mep -Thi Vai.
- Cold chain storage facility included as part of the development plans in addition to bonded warehouse for consolidation of goods before exporting.
- 95% utilization of warehouses in Dong Nai cited as one of the reasons for Cainiao's investment in the location.

Source: <u>https://en.prnasia.com/releases/apac/alibaba-s-logistics-arm-cainiao-announces-</u> <u>development-of-dong-nai-smart-logistics-park-in-vietnam-353905.shtml</u>

Cainiao's planned logistics park in Long An

- Expected to go live in late 2022 with 110,000 sqm in warehouse leasing space.
- Located at intersection between Ng Huu Tri, 1A Highway and HCM-Trung Luong Highway with access to Mekong Delta.
- Structural shift in traditional sales to eCommerce platforms cited as one of the reasons for Cainiao's investment.

Source: <u>https://en.prnasia.com/releases/apac/cainiao-p-a-t-logistics-park-in-long-an-vietnam-to-</u> launch-in-q2-2022-to-support-local-smes-amid-global-supply-chain-disruptions-351469.shtml



Key opportunities: Cold-chain logistics (Warehouse & Transport)

Within the overall logistics sector, the cold-chain logistics sub-sector has accelerated strongly in recent years, driven by strong macro drivers which fuel demands not only for capacity but also for more efficient and higher quality logistics.



Long-term drivers fuel near-term growth spurts in the high-valueadd cold-chain logistics segments

Growing demand not only for capacity but also for more efficient and higher quality logistics in Vietnam

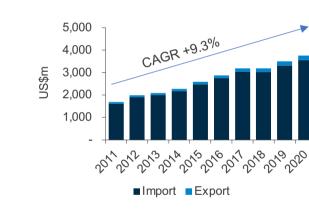
Vietnam is one of the largest **seafood** exporters. Cold-chain logistics drive that demand. (mainly -18 degrees C and below)

CAGR +5.8%

Export Import

The imports of **pharmaceutical products** mainly include medicaments, antisera, vaccines, etc. which is increasing due to increasing economic growth, rising income and an aging population. Products require a wide range of different storage conditions and quality control (fridge/cold/ cool storage conditions or room temperature).

Pharmaceutical products



Source: https://vasep.com.vn/gioi-thieu/tong-quan-nganh

Seafood export value

12000

10000

8000

6000

4000

2000

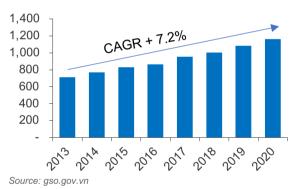
US\$m

Source: Trademap

Modern retail channel is growing quickly with the number of supermarkets increasing from 714 in 2013 to 1,163 in 2020.

The rise of **E-commerce** is also driving the demand for cold chain services.

No. of supermarkets in Vietnam



Vietnam e-commerce revenue

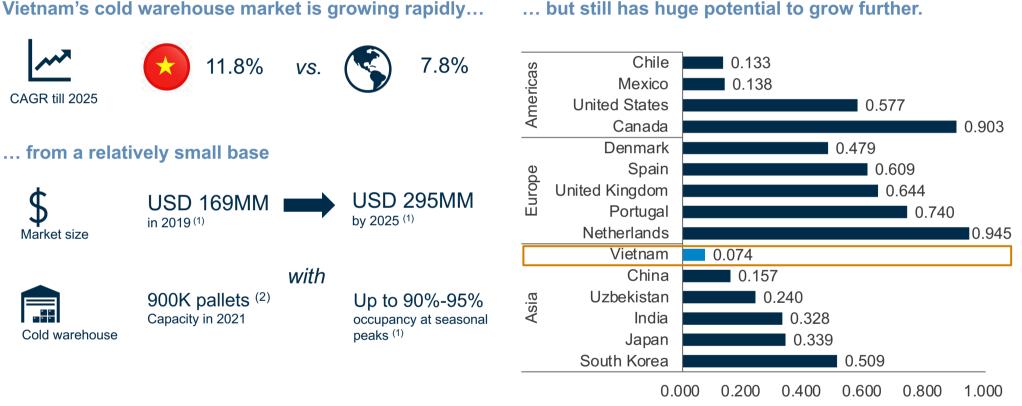


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The cold logistics (warehouse, transport, tracking) is estimated to grow from **US\$0.7B to US\$2.1B by 2025** based on 1-3% of the total transportation and warehouse revenue growing at 15.1% CAGR in 2019-2025

The cold warehouse market is forecast to reach US\$295MM by the end of 2022

Vietnam's growth in warehouse capacity is growing faster than most other countries and will most likely continue.



Vietnam's cold warehouse market is growing rapidly...

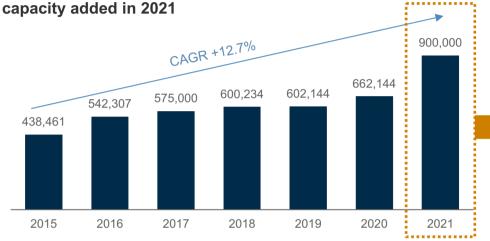
Source: (1) vneconomv.vn (2) 202202 thi truong kho lanh viet nam cap nhat thang 220222.pdf

Source: 2020-GCCA-Global-Cold-Storage-Capacity-Report-FINAL.pdf



Cold warehouse capacity doubled from 2015 to 2021, 25% of that capacity added in 2021, showing accelerating growth

Early local leaders are emerging but there are still no dominant players.



Cold warehouse capacity doubled from 2015 to 2021, with 25%

Source: Vietnam cold logistics report February 2022 by VLA, companies' website and A&M research

At present, no single player can offer >60,000 pallets of cold storage or cross-country integrated cold warehouse and transport logistics.

Early leaders are emerging, although no clear leader Cold storage capacity (pallets) No. of companies in sample Average per entity Total HCMC 11 255.367 14.187 Hanoi 19.400 4,850 4 **Binh Duona** 75.512 18,878 Long An 4 104,500 26,125 Others 6 118.266 16,895 29 Sample total 573.045 15.488 Vietnam total 900,000 Sample % Vietnam total 63.7% The top 3 players account for about **30%** of the total North cold warehouse capacity (pallets) in 2021 Central South ഗ 50.000 10,000 30.000 40.000 60.000 0 20,000 70.000 Cold warehouse capacity (Pallets) Source: Vietnam cold logistics report February 2022 by VLA, companies' website and A&M research

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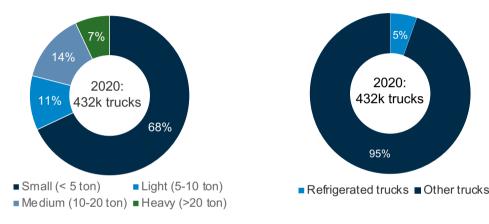
This highly fragmented market with high barriers to entry presents attractive investment opportunities to acquire a leading market share

Especially since even large providers of temperature-controlled transport have no more than 400 refrigerated trucks (<2% of total supply) - a market ripe for disruption!

Number of trucks by weight

crowded market.





Average cost per truck – by type

USDk	Refrigerated truck	Normal truck	% difference
0.5 ton	21.2	14.5	46%
1.5 - 1.9 ton	30.5	22.4	36%
2.5 - 3.5 ton	35.0	24.8	41%
4.5 - 6.0 ton	45.0	31.5	43%
6.5 - 7.5 ton	47.4	34.4	38%
9.0 - 9.5 ton	77.8	55.8	39%
15 ton	88.7	68.3	30%
18 ton	128.9	104.5	23%
Average of 37 samples	52.9	38.9	36%

Notes: We have sampled 37 truck models of 5 popular brands (i.e. Hyundai, Isuzu, FUSO, HINO, Suzuki) with weights from 0.5 ton to 18 ton

Source: Desktop research, 202202 thi truong kho lanh viet nam cap nhat thang 220222.pdf

Notes: Given the total trucks in Vietnam in 2021 is not available, 5% is estimated based on the total refrigerated trucks in 2021 and total number of trucks in Vietnam in 2020

barrier for smaller SMEs to enter the cold-chain logistics sub-segment.

Source: 202202 thi truong kho lanh viet nam cap nhat thang 220222.pdf, 112421 Logistic report 2021 Final



The average cost per refrigerated truck runs 23%-46% higher than normal trucks, which represents an additional

The ability to offer temperature and moisture-controlled transport and warehousing is a strong differentiator this

Contacts



Reach out to our ASEAN specialists for more insights



Richard Chen Managing Director | Global Transaction Advisory Group Email: richard.chen@alvarezandmarsal.com

Mr. Chen has 20+ years of transaction and audit experience from across a range of industries including private equity, consumer goods and retail, industrial products and services, transportation and logistics, energy and resources, software and services, media and semiconductors. Mr. Chen has advised clients on more than 100 completed due diligence projects for leading corporations and private equity firms. He has extensive cross-border experience, which includes transactions in China, Hong Kong, Singapore, Thailand, Malaysia, Indonesia, Korea, Finland, Sweden, Germany, the United States and Canada.



Dawn Duong

Senior Director | Global Transaction Advisory Group

Email: dduong@alvarezandmarsal.com

Ms. Duong brings in 15 years of experience in ASEAN M&A, most significantly involved in Technology, Retail & Consumer Products, Real Estate and Financial Services. Prior to joining A&M, Ms. Duong spent 10 years with EY Singapore, where she most recently served as a Director in Transaction Advisory Services, and 2 years with Frasers Centrepoint Limited looking at greenfield opportunities in Vietnam. She has advised private equity and corporate clients on both inbound and ASEAN-domestic transactions in Indonesia, Vietnam, Singapore, Thailand, The Philippines, Malaysia, Cambodia, and Myanmar.



Joseph Thia Director | Global Transaction Advisory Group

Email: jthia@alvarezandmarsal.com

Mr. Thia is a Director with Alvarez & Marsal's Transaction Advisory Group in Singapore. Mr. Thia has a unique mix of experiences over 12 years in Southeast Asia, as a Transaction Advisory Consultant, an operator in fast-growing tech companies and a growth stage investor. Before returning to professional services, Mr. Thia was the CFO at Rukita, an early stage Proptech company providing long term affordable rental solutions in Indonesia. Prior to being a CFO at Rukita, he spent 3 years as a growth stage Venture Capitalist where he performed due diligence on more than 100 growth stage companies across Southeast Asia. As the former Investment Manager at Burda Principal Investments, he was also seconded to be an interim CFO at Hmlet, a co-living operator headquartered in Singapore, to spearhead its turnaround.

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Reach out to our ASEAN specialists for more insights



Xuong Liu

Managing Director | Global Transaction Advisory Group Email: xliu@alvarezandmarsal.com

Mr. Liu specializes in working on private equity sponsored transactions in Asia, providing financial due diligence, technical accounting, negotiation support and other transactions-related advice. He also provides buy-side financial due diligence support to leading multinational companies seeking to make investments in China and the Asia Pacific region.

Mr Liu's project experience encompasses a broad range of sectors spanning retail, consumer products, industrial markets, healthcare, TMT and real estate.



Yvette Chan

Managing Director | Global Transaction Advisory Group

Email: ychan@alvarezandmarsal.com

Ms. Chan is a Managing Director with Alvarez & Marsal in Hong Kong and leads the Asia M&A Tax Advisory Practice within the firm's global Transaction Advisory Group. She brings more than 15 years of tax advisory experience, specialising in China and Hong Kong taxation. Ms. Chan has advised a variety of clients on regulatory and tax issues arising from transactions and foreign direct investments in the PRC as well as outbound investments by Chinese and Hong Kong companies.

Ms. Chan services clients in a wide range of industries including private equity and investment fund, real estate, financial services, natural resources, infrastructure, consumer and industrial markets, telecommunications, education and healthcare.



Sue-Anne Woo

Senior Director | Global Transaction Advisory Group

Email: swoo@alvarezandmarsal.com

Ms. Woo is a Senior Director with Alvarez & Marsal's Transaction Advisory Group in Singapore. Ms. Woo has more than 16 years of experience in corporate tax advisory specializing in Malaysia and Singapore taxation. She has worked with clients across a range of industries including consumer and industrial products, shipping and logistics, agriculture, education and healthcare.

Ms. Woo also has extensive experience assisting clients on holding company structuring, group reorganizations, identification and application for tax incentives, project cost review for capital allowance purposes, research and development deduction claims, withholding tax, real property gains tax, stamp duty, tax query / audit defense and applications to the tax authority for tax rulings

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