



DIRECT SHIPPING E-COMMERCE MODELS: IMPACT ON THE AIR FREIGHT MARKET

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BUSINESS MODELS

A recent spike in e-commerce packages, particularly from China based online marketplaces Temu and Shein, heading to consumer markets such as the US and Europe has benefitted logistics companies from warehousing to air and sea freight and last mile delivery companies. At the same time it has raised eyebrows among customs authorities and consumer safety organisations, and has also raised the question as to whether they are a threat to existing businesses in Europe and the US.

In a very fast-moving environment, we are focusing on the first two quarters of 2024 where possible as the full effects of the two companies' growth has been starting to have a global impact in this period.

SHEIN AND TEMU

Shein and Temu have the following commonalities:

- Low cost China-West logistics
- One layer between buyer and manufacturer
- East Asian based

They are very different in other ways. Temu is very much China facing:

- Mostly China based manufacturers on its online marketplace
- Owned by PDD Holdings that did very well with its China based social commerce platform Pinduoduo.
- Head office is in China

Shein has a very international focus and business ideal:

- Head office in Singapore
- Uses regional designers and manufacturers around the world
- Has sought an IPO in New York (rebuffed) and may yet get one in London

Both are seen as threats to European and US e-commerce platforms and there is some suspicion over their links to the Beijing government and its laws regarding data sharing between private sector and government. There is legislation and regulation going through in Europe and the US that may change the environment but for now, how does the land lie for logistics companies in this space?

QUANTIFYING THE SHIFT

In filings to the European Union Shein stated that it had 108m monthly active users in the EU-27 states while Temu claimed around 75m.

The US media uses a figure given by consultancy ShipMatrix of 900,000 packages per day each through UPS, FedEx and USPS into the US. This is somewhat different to the volume growth UPS and FedEx have seen in recent months. The only growth in volumes UPS saw in the April to June quarter 2024 was 314,000 packages per day for its Domestic Package, Ground delivery segment and FedEx International Economy saw a growth in daily volumes of 96,000 packages per day (again the only growth in volumes the carrier had in the quarter). Together this amounts to just over 400,000 packages daily, which is considerable growth but nothing like the 2.7m daily suggested by ShipMatrix.

There is some disconnect between revenues and sales volumes in a direct comparison between Amazon and the two Chinese e-commerce marketplaces, which send out far higher volumes per \$ of revenue than Amazon. In terms of revenues:

- Amazon's Q4, 2023 online sales revenue was \$70,543m
- Amazon is said to ship 20m parcels per day in the US
- Shein's full year 2023 revenues were \$32.5bn
- PDD Holdings (parent of Temu) 2023 full year revenues was \$21,646m, though this was up 90% y-o-y and shows no immediate sign of levelling off
- Temu forecast the need for the equivalent of 60, Boeing 767 wide body air freighters a day from China for its international shipments in 2023

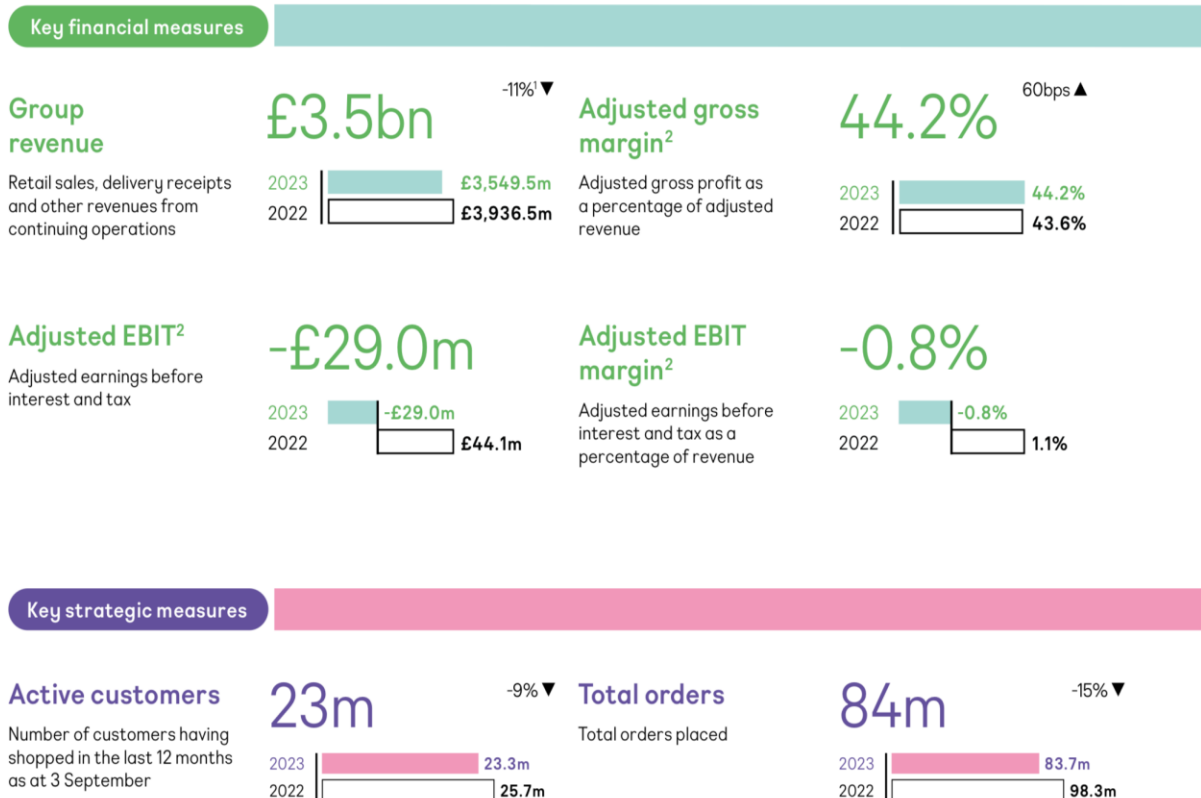
For now at least, the two marketplaces are not directly comparable in size to the Western online giant but with their global reach and steep revenue growth trajectory this might yet change.

Replacing or adding to e-commerce sales?

Is this new demand or replacing existing demand from western companies? Shein and Temu are adding to global e-commerce volumes but are affecting certain areas of business - the effects are asymmetric.

In the USA, Amazon has not apparently been affected with 6% y-o-y growth in its online sales in Q2, 2024 compared to 5% y-o-y growth in Q2, 2023. Walmart saw an 8.5% y-o-y jump in Q2, 2024/25 operating income, and as such was also unaffected.

Other companies, particularly in Europe have seen more serious effects - the graphic below shows Europe based fast fashion giant ASOS's KPIs in 2023 that can be attributed to the changing landscape of fast fashion due to incomers like Shein:



Source: ASOS

Looking at other fast fashion brands, not all have been directly affected - European high street fashion chain Primark saw revenues grow 7.5% to GBP £4.5bn in H1, 2024 and UK low cost fashion brand, Asda-owned George saw +3% growth in revenues in Q1, 2024 for example.

The UK's answer to Amazon, Sainsbury's-owned Argos saw a 6.2% y-o-y drop in revenues in 2023 while European e-commerce platform the Otto Group saw a 50% y-o-y drop in EBIT in 2023/24 - as ASOS to Shein, both e-commerce platforms may well attribute some of their woes to Temu's offering.

Air and sea freight volumes

In the last two quarters of 2024 there has been a discernible recovery in global air and sea freight volumes. Both Shein and Temu use air and sea freight according to the delivery speeds requested by their customers. Both use a 'tail end belly space' policy where they mix heavier and bulkier items to load in an aircraft that has already reached breakeven in its cargo space. This allows them to negotiate the best prices having maximised the volume and mass capacity in a given aircraft.

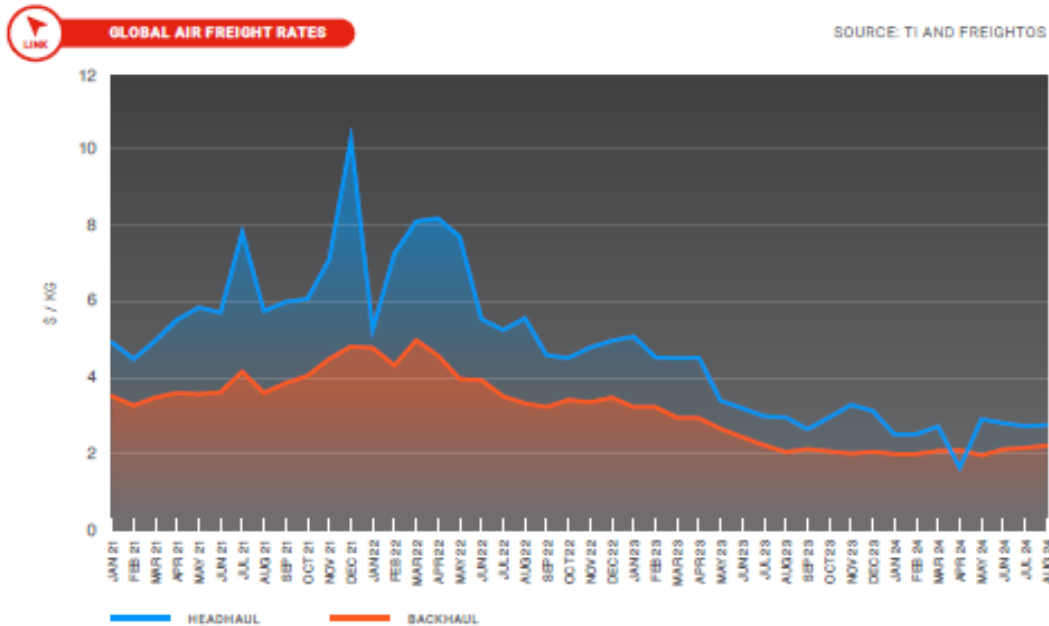
As well as sending parcels direct to customers, both Chinese marketplaces have a network of fulfilment centres in key regional locations so they can offer faster last mile delivery. For North America these units are in Mexico to take advantage of the lower tariffs on goods into the US. These items will be transported to the warehouses by land and sea routes to Asia and Europe and by sea to the Americas. As such the demand is spread between air and sea freight, as can be seen in the Transport Intelligence Global Air Freight Tracker for Q2 2024.

We stated, "Year-on-year, global volumes have risen by 7.3%, primarily driven by an 11.3% year-on-year growth in European volumes, followed by a 7.0% increase in Asian airport volumes and a 4.5% rise in North American airport volumes."

A lot of these volume increases will be natural recovery from the macroeconomic factors hitting North America and Europe, but tellingly, US integrator UPS attributes its recent parcel delivery volume growth in the first two quarters of 2024 to the two marketplaces. As such, though economies are recovering from the post pandemic slump, Shein and Temu are impacting the growth in consumer demand in a positive way.

Ti's Global volumes index shows us that "The global volumes for the air freight market has increased by 6.7% in Q2 2024 from 94 index points in Q1 2024 to 100.3 index points. Volumes increased or stayed static across all regions. The region with the largest increase was North America, increasing from 93.0 index points last quarter to 102 in Q2 2024, by 9.6%. Followed by Asia, increasing from 91 points last quarter to 99.0 points. Lastly, European volumes stayed static."

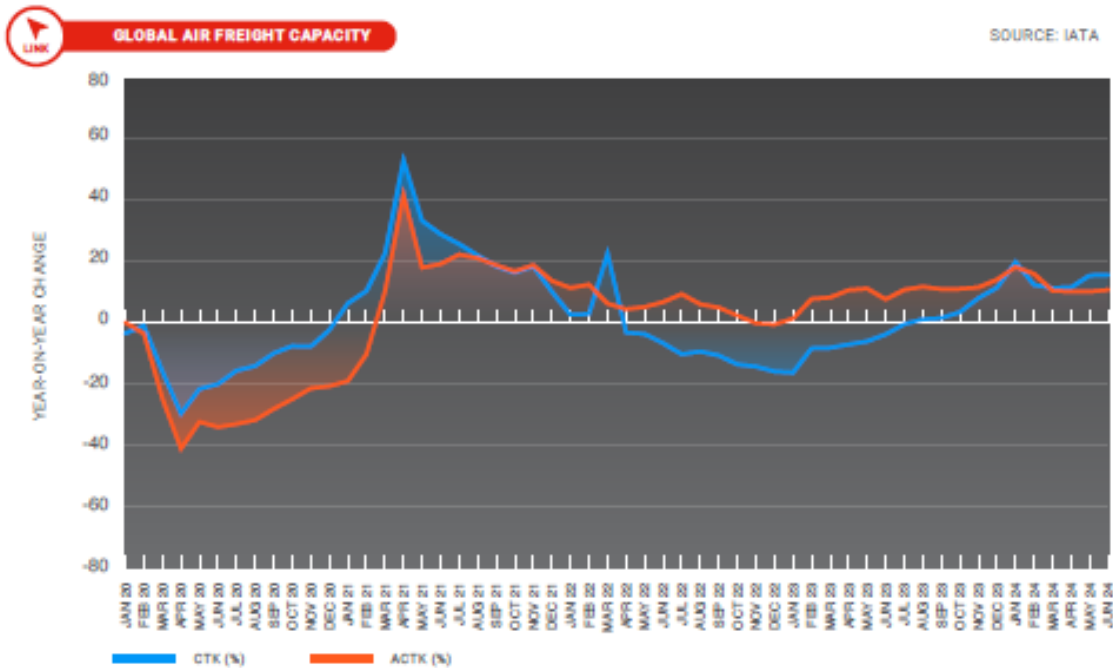
The chart below reflects the Chinese marketplaces' logistics selection policy that is to buy up remaining cargo space from airlines and air cargo companies, mixing heavier items and bulkier items to maximise the use of space while achieving the lowest possible cost per load. As such this has led to global air freight rates remaining stable even as volumes have grown.



Source: GSCI

Regarding Q3, 2024 global air freight capacity, the GSCI analysis continued, "Global air freight capacity has grown consistently for 18 consecutive months as of June 2024. Out of these 18 months, demand (measured using cargo ton kilometre [CTK]) has exceeded the growth of supply just 5 times. Each of those 5 instances occurred in the first 6 months of 2024. In fact, demand growth has exceeded supply growth by an average 1.7% each month in 2024. The result is a tightening demand and supply environment as the excess supply built up over the previous 2 years is eroded." This should impact air freight rates but as we have just discussed, the marketplaces' logistics policies have held these back.

How much of this volume is being carried by International parcel operators vs air freight carriers? Smaller China based air cargo carriers are said to be supplying as many as 15 wide body jets a day to Temu alone. The GSCI analysis continued, "The past two quarters have seen the issue of belly freight apparently change. For the past year at least, the cargo market has seen freight rates suppressed by the continual flow of belly freight onto the market as the airlines re-deployed their fleets after the extraordinary circumstances of 2020-2022. The demand for passenger services was very great and thus they re-introduced all their aircraft. This resulted in a steady flow of belly freight onto the market. Over the past two quarters it looks like this increase in belly freight has either slowed markedly or stopped. It appears that demand is now greater than supply in some areas. As mentioned in the rest of the analysis, the detailed changes in the pattern of supply are obscured by the big picture of the market. For example, the large fleets of the Express carriers are seeing mediocre utilisation. In contrast freighter fleets are doing brisk business.



Source: GSCI

This last issue can be seen in microcosm at DHL Group. DHL Express saw Q2, 2024 Time Definite International volumes fall 3.1% y-o-y where DHL Global Forwarding's air freight volumes grew 5.3% in the same period, continuing a trend of -1.2% for DHL Express in Q1, 2024 and +5.1% for Global Forwarding's air freight. DSV and Kuehne + Nagel saw +7.1% air freight volumes and +7.3% respectively in Q2, 2024 too. It is understood that despite the temptation to take forwarding in-house, to avoid competition with the major forwarders, the companies are using them to take advantage of their expertise and access to capacity.

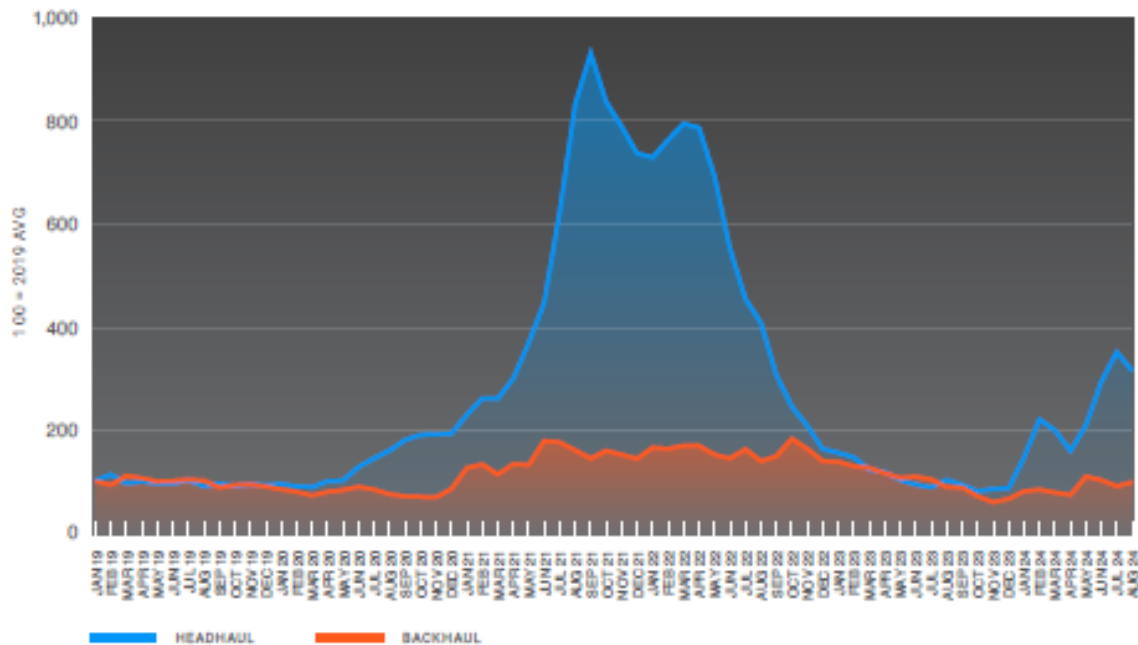
Regarding ocean freight, the GSCI Ocean Freight Rate Tracker stated in Q3, 2024, "Based on the available data for the World Ocean Freight Volumes Index, global volumes have been generally trending upwards since the beginning of this year. Year-on-year, the global volumes increased slightly by 1.1 index points, from 102.4 to 103.5. Quarter-on-quarter, the index rose by 1.7 index points. North American volumes saw a significant year-on-year increase of 11.1%, with a quarter-on-quarter increase of 6.8%, the most notable among the observed regions. European ports experienced a 0.7% year-on-year increase and a 1.2% quarter-on-quarter rise."

Again at company level, CMA CGM saw a Q1, 2023/24 TEU y-o-y volume increase of 11.7% and Maersk, 6.7% in the same quarter. Unlike air freight rates, this has however increased spot freight rates as can be seen in the GSCI chart below:



GLOBAL OCEAN FREIGHT RATES INDEX (JAN 2019 = 100)

SOURCE: FREIGHTOS & TI



THE FUTURE OF SUCH TRENDS

In a later section we will discuss how the regulatory environment may affect volumes into Europe and the US, but we need to remember that these are not the exclusive destination markets for the two marketplaces. Shein trades into 155 countries, just 28 of which are directly covered by EU and US legislation.

The Middle East, with a core element the GCC countries, was worth \$3bn a year in revenues to Shein in 2023, just three years after it entered the market. Shein also had revenues of \$400m in Brazil in 2021 - another key emerging market that is outside of the two economic blocs we primarily focus on here.

How are these volumes likely to develop?

In 2023 Shein Group's revenues grew 43.2% y-o-y to \$32.5bn and PDD Holdings, owner of Temu, up 90% to \$21.6bn (though PDD Holdings also owns Pinduoduo, a fast growing China facing social commerce platform too). Given such robust growth and the two companies' focus on exports, it is likely that global air and sea volumes are set to continue to grow with their participation. Though not an express focus of this paper, there are reports that Amazon is looking to offer a similar white label platform where it sells directly from China and East Asian manufacturers in the same way as Shein

and Temu. Given its size and potential global reach, this could lead to explosive growth on East Asian to West trade routes.

How long term are the air freight volumes?

Both companies are growing fast with high double digit revenue growth rates, the majority of which come from exports. This is highly likely to continue. As we stated earlier, Europe and North America are not the sole global consumer markets that Temu and Shein operate into. South America, ASEAN and the Middle East are important too, and where incoming US and EU legislation might impede or even stop some trade from the two companies, they may well just grow where they are allowed to and come to dominate other markets. The UK for example is not bound by EU regulation yet remains a major consumer market. Russia, South Africa, Brazil and Japan are all major economies unaffected by such legislation.

Will the e-retailers continue with the direct shipping model, or move into western markets with a local fulfilment network once they've captured market share?

Temu and Shein already have networks of fulfilment centres in their core markets, and both have marketplace sellers in those markets too - neither use exclusively China manufacturers now.

Zongteng Group has a global network of fulfilment centres and with its head offices in Shenzhen has a longstanding relationship with Shein and Temu. Zonteng Group has a network of fulfilment centres in North America - in Canada, the US and Mexico - from where its clients distribute faster moving SKUs to customers. Such infrastructure may well be key to rounding the current moral panic over de minimis parcels in the US as all consignments are sent from China to the fulfilment centres in the normal way without avoiding customs duties.

Shein has an owned and operated fulfilment centre in Brazil, and due to its internationalised outlook takes manufactured goods from Brazil and other countries in the region for onward sale in the country. In July 2024 Temu gave US based contract logistics company ShipSage "Temu Certified Warehouse Status", that meets the requirements of the client company in goods handling and distribution.

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- Consulting and Market Research projects
- Training, Conferences and Webinars.
- Ti has acted as advisors to the World Economic Forum, World Bank, UN and European Commission as well as providing expert analysis to the world's leading manufacturers, retailers, banks, consultancies, shipping lines and logistics providers.

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