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Logistics

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Logistics

1. Introduction

It is important to consider the logistics of moving your merchandise to your customers. For businesses considering international trade, however, it becomes a crucial part of their decision making and planning process. International logistics can have a considerable impact on costs of the final good and on the time required to get the good to the customer. It could therefore completely alter the decision to trade and will require sufficient research into the various options to ensure that the maximum benefits can be gained. Businesses planning to invest will also need to think through how they will get their final products to the customers and those focusing on the service sector might need to consider logistics within their supply chain.

A range of modes of transport are available to businesses looking to internationalise. Given that we focus on trade between India and Thailand, Vietnam and Cambodia, sea and air transport will be the most common modes of freight transport. To complete the journey of transport to the final customer however, a multimodal approach which incorporates rail, road and waterways is likely to be adopted.

There are a several different players involved in international transport. They include local transporter, shipping agents, shipping lines, cargo booking agents, freight forwarders and Custom House Agents. It may be possible to take on some of the steps yourself, but more likely than not, it will pay to commission the experts. The shipper, you, is the business that is originating the merchandise. The consignee is the business receiving the cargo. This could be the business to whom you are selling but also could be a local intermediary. Getting the goods from shipper to consignee requires five physical steps and two documentation steps, according to Transporteca, a Danish logistics firm.

Figure 1: Steps in the shipping process-Various stack holders in International Trade.

Source: adapted from an idea by Transporteca

The seven steps are export haulage, origin handling, export customs clearance, ocean freight, import customs clearance, destination handling and import haulage. Each step incurs a cost which must be covered by either the shipper or the consignee. Being clear about who is responsible for each step and who will pay will help to avoid delays.

In the signing of the foreign trade contract, depending on the terms of purchase and sale, the INCOTERMS specify the responsible party (the supplier or the customer) for the different logistical obligations though you may wish to include these in your contract. See PROFIT factsheet on Incoterms.

2. Ocean transport

2.1 Warehousing

You may need to have somewhere where stock can be held prior to shipping. India, for example, has dedicated cargo holding areas for exports and imports, known as Inland Container Depots (ICDs). There are more than 130 ICDs in India. These depots are connected with sea-ports by rail and road.

2.2 Service providers

The shipping line, such as Maersk or Evergreen, owns containers as well as ships and will either rent the whole container to a single customer or will rent it to a freight forwarder who will fill the container with goods from a selection of customers. If you cannot fill a container, then you should definitely work through a freight forwarder since they will charge much less of the space you need. This is called LCL (Less Than Container Load). One container can carry cargo equating to 30 cubic metres or 28 tonnes.

Many carrier companies have set up subsidiary freight forwarding companies so that they can generate profit from two links in the chain. Do not feel, however, that you have to use a captive freight forwarder – you may get a better service from an independent freight forwarder willing to shop around between shipping lines. If you have substantial amounts of freight to transport and can fill up a container (FCL-Full Container Load), it might be more economical to deal direct with the carrier, but bear in mind you will then need to deal with all the paperwork normally undertaken by the freight forwarder. Carriers can usually provide retail collection and consolidation services at the destination as they have agents in many countries. A freight forwarder should be able to plan the entire journey for the freight regardless of how many modes will be required and will deal with all the paperwork for you.

2.3 The process for shipment

Research shipping companies to your chosen destination before the contract with the customer has been signed. Gather information such as the schedule and rates. Rates should be gathered for all relevant types of shipping companies mentioned above. To be provided with a quote it is likely the shipping company or freight forwarder will require information on the goods to be exported, volume and weight, date of production, delivery dates, loading and unloading ports, INCO terms and potential ‘free time’ (that is, the length of time prior to departure and after arrival that freight can be held for free) issues at either end.

Once you have identified the shipping company you would like to use, modify the prices you provided in the contract to account for freight costs and confirm your order with the customer. Both exporter and customer must agree on a specific carrier on which the goods will arrive. The exporter needs to ensure that they have sufficient time to produce the goods and the customer needs to ensure they can accommodate the order at that time.

Book your services with the shipping company and prepare all the necessary documentation including the booking note. The booking confirmation is usually issued electronically and, in addition to the information above, it will include name of person making the booking, details on the ship and containers, instructions on where and when to pick up the containers, where to lower them and limits for gross weight and a cut-off time to submit your shipping instruction (S/I), verified gross mass (VGM) and draft bill of lading (B/L). Once the S/I is provided the shipping company will provide a draft B/L which will need to be reviewed with the customer and confirmed with the shipping company before the cut-off date in the booking note. The bill of lading must be prepared as per terms and conditions laid down in the letter of credit. Before the shipment date, the exporter must also declare customs clearance with the relevant authorities. The application for the same is called a “shipping bill” and then the shipper gets a “Let Export Order” from the Customs Department.

The shipment needs to be packed into the containers based on the quality control standards provided by the freight forwarder. Sometimes, however, there is damage to the goods during before or during shipment which usually results in the customers not accepting the goods and the banks refusing to issue payment because of a “claused /dirty” bill of lading. It is therefore crucial to ensure that the goods are perfect prior to shipping and to ensure that they are packed in the best way to preserve this until it reaches the customer.

An original B/L will be provided when the goods have arrived at the port. Whilst the cargo is on route, you must send the B/L and other shipping documents (invoice, packing list, certificate of origin, insurance policy) to the customer. Once the shipment arrives, confirm payments by customer have been received and the shipping company will send the delivery notice to the notifying party to let them know the goods have arrived. The customer will take the original B/L to the office of that shipping company in the importing country to get the Delivery Order then go to the port for import customs procedures and to pick up the goods.

It is important that the original bill of lading arrives with the customer before the shipment. If there is a delay, the exporter would need to surrender their original bill of lading set to release the goods but would have incurred costs twice, for the original bill of lading and then the surrender fees. If the goods arrive and no payment has been received the customer does not get the goods and incurs demurrage fees. Demurrage fees are charges applied to cargo left in the terminal after the allotted 'free time'. Demurrage fees may also be incurred for any delays in the buyer collecting their cargo from the terminal such as slow customs clearance and payments. You need to be clear how long this is when you are first in contact with your shipping company to ensure that you have allocated sufficient time for documents to arrive and other activities to be completed.

For shipping there is a faster but riskier method than the use of a B/L. Using a sea waybill means that after the exporter has delivered the goods to the shipping company, they have automatically issued authorisation for release of goods to the customer in the destination country. It removes the control that the bill of lading provides exporters and so this should only be used when dealing with a subsidiary from your own company.

2.4 Documents for shipping

2.3.1 Shipping Instruction (S/L)

The S/I can be received in any format but must include the exporter's and customer's name and contact details, ship information taken from the booking note (name, number of trips, port of loading and destination) and the container and seal number.

2.3.2 Verified gross mass (VGM) declaration

There are two ways that you can calculate the gross mass of the shipment: you can weigh the entire shipment after the goods are packed and the container is sealed or you can calculate the sum of weight of the hollow container, goods, packing materials, pallets, tools and safety assurance. The method used must be certified and approved by the state authorities and the weighing scales (if used) should meet the exact standards applied and requirements of the country. There is often no margin of error allowed.

The VGM declaration documents can be signed electronically and must be provided before the cut-off point stated in the booking note. The declaration should include information such as the ocean carrier booking number, container number, verified weight, unit of measurement, responsible party (exporter) and authorised person (shipping company) and may include information about the customer and weighing method used.

2.3.3 Sea Waybill or Bill of Lading

The sea waybill or bill of lading is a receipt of goods, proof of transport contract confirmation and is proof of possession of goods. If a multimodal approach to freight transport is required, the forwarder will issue a through B/L which ensures responsibility for the shipment remains with one person despite changes in the shipping companies. The bill of lading will be issued by the carrier to the exporter directly or will be issued by the carrier to the forwarder following payment of all the shipment charges. The forwarder must then share the bill of lading with the exporters so that they can present it to the carrier with the other shipping documents and to the customer.

The sea waybill often includes the name of the freight forwarder or carrier, name or type of bill of lading and reference number, name and contact details for the exporter (shipper's name), the customer and the notifying party who will receive the shipment at the destination, train name and number of flights, ports of loading and unloading, pre-carriage details including place of pickup, on-carriage details and final destination, container and seal numbers, description of goods incl HS code, measurement and gross weight, freight collect/freight prepaid, freight payable, laden on board date or shipped on board date and signing and sealing of the carrier. Freight collect/freight prepaid refers to payment pre shipment or charge at the beginning of the unloading port – in which case a freight payable amount will be provided. This is based on the sales conditions and INCOterms. The obligation to pay each of the relevant service fees depends on the chosen INCOterms (a summary is available at www.carrycargo.com/wp-content/uploads/2019/11/Incoterms-Key-Changes-2020.pdf and the INCOterms are described in the PROFIT factsheet on *INCOterms*).

2.5 Charges for shipment

All the charges paid to the shipping company will need to be paid when at the point of the issuing of the original bill of lading prior to departure of the goods. There are several shipping charges that will be applied to the exporter but also the customer at the final destination port. These charges are different based on the type of shipping company that you choose. If you chose to go with a carrier – and you receive an entire container for your goods, the charges will include the following for the exporter:

- Ocean freight
- Terminal Handling Charge (THC) in the loading/unloading port
- Seal fee
- Original bill of lading fee and/or surrender fee
- Container imbalance charge (CIC) (levied to encourage use of routes which would otherwise have large numbers of empty containers being repositioned)
- Other fees depending on the customs of the shipping route, shipping line, time of transport, product, customs of each country.
- Charges related to Container Freight Station

If the exporter is shipping the goods through a carrier, some charges such as the container imbalance charge (CIC), delivery order fee and container cleanliness charge will need to be paid for by the customer.

If the exporter is shipping through a freight forwarder, additional charges such as a service charge and a container freight station charge (surcharge for transporting retail goods) will be required. Customers on the receiving end will also have to pay an additional service charge to the forwarder.

When it comes to calculating charges, it is important to consider CIC in detail as it can lead to unplanned charges being imposed on both exporters and customers. Usually if the shortage takes place before the goods leave the port, then the carrier will collect CIC from the exporter; but if the shortage takes place after the goods have arrived at the destination port, the carrier will collect CIC from the customer regardless of who rents the container from the carrier.

3. Air transport

3.1 Benefits and operators of air transport

The second most popular mode of transport of goods in international trade is through air transport. Air transport however also has its pros and cons which makes it more suitable for particular types of goods. Air transport often has volume and weight restrictions given that the goods must get on the planes safely, has a greater likelihood of delays due to more stringent aviation restrictions and is much more expensive than other modes of transport. Many goods which could be considered high risk (such as flammable or explosive) will also not be accepted for transport by airlines. This suggests that air transport is most suitable for the transport of low risk, smaller packages such as samples or high value goods that require faster delivery.

There are various types of companies that operate in air transport: Air cargo forwarders, typically transport packages over 75kg and account for the majority of international shipments by plane. For anything less exporters should use international courier companies or integrators such as DHL, TNT and UPS. Both types of companies can utilize special cargo planes and passenger planes.

3.2 Air transport documents

For air transport the air waybill is essential. It is issued by the airline when the exporter delivers the good to the airline or the agent received the goods for carriage. The air waybill acts as evidence of the contract between the carrier and the freighter, it is proof that the freighter has received the goods, is a certificate of insurance of goods transported by air, is the customers declaration of the foods and is a guide for the aviation staff in the process of serving freight. It is not proof of ownership of the goods unlike the bill of lading in shipping because of the speed that would be required to send the freight documents to the customer. In this way it is similar to the SWB where the goods are automatically released to the customer as soon as they arrive at the destination. This presents obvious risks to exporters in that payments may not have been received in full prior to the release of the goods. Some exporters have navigated this difficulty by noting the consignee item as ‘To order of the bank…' and the notify party as the customer. In this way the goods will be owned by the bank but will be released to the customer once full payment is confirmed by the bank.

If an airline issues the bill it is called the airline airway bill but if it is issued by an agent then it is referred to as the neutral air waybill. The set includes several copies including three originals and subversions – each of which is printed on both sides. The following information is included on the AWB/NWB based on the information provided by the exporter:

- AWB number
- Airport of departure
- AWB issuer's name and address
- Reference to originals
- Reference to conditions of contract
- Shipper
- Consignee
- Issuing carrier's agent
- Routes (Routine)
- Accounting information
- Currency
- Charges codes
- Charges
- Declare value for carriage
- Declare value for customs
- Amount of insurance
- Handing information
- Number of pieces
- Other charges
- Prepaid rates and expenses
- Post-payment charge and expenses (Collect)

3.3 Charges for air freight

Some goods that are transported through air cargo might receive special charges. Ensure that you check with the airline or with the agent if any specific commodity rates, container rates or value rates might apply to your exports.

The charges for air freight are issued in the air cargo tariff (TACT) which is regulated by the International Air Transport Association. The charges overall depend on the unit price and volume or weight and the airline carriers will often publish their rates for weight bands. The carrier will base their charges on whichever is higher the weight or volume based on dimensions of the shipment. For example, if your company want to export a shipment of 2 pieces each weighting 50 kg and a size of 50x 40x 40(cm). The actual weight will be compared to an approximation of the weight as shown below.

Actual weight	2x50=100kg
Weight approximation using volume	2x(50x40x40)/6000=26.67kg

In this example the unit rate will be applied to 100kg based on the actual weight. In case the shipment has many different sized pieces, you calculate the capacity of each case and then add up before dividing 6000 to find the weight approximation. Different carriers and agents will use different denominators. International carriers such as DHL in Vietnam for example use 5000 which raises the charges considerably.

4. Multimodal transport

Mutimodal transport is where the use of at least two modes of transport is required to transport goods from an exporter to the customer. Although shipping and air cargo are the most common ways to transport goods across borders, rail, road and waterways are often also required to get the goods to the end customer.

4.1 Rail transport

The use of rail provides numerous benefits to exporters. In additional to providing more reliability service given the fixed schedules, the sector does not face driver shortage challenges like trucking. There are also significant cost savings especially for long-distance transport and the environmental impact is much less than for trucking. Rail transport also has more favorable volume restrictions, can be used to transport a wider range of goods and rail transport companies are accustomed to providing loading and unloading services. The freight rates are often announced and posted at railway stations at least 10 days prior to the time limit for booking unless.

The rail transport business is issued with a contract for the carriage of goods by rail which forms an agreement with the train charter on that basis they are able to offer their services. Exporters or traders are then issued with invoices for the transport of goods from one location to another which is from the transport business but is authorized by the charter. Invoices include information such as type of goods (incl. symbols and codes), quantity, weight, place of pick-up and delivery and name and contact details of export/trader and customer. For international freight, a delivery slip is delivered to the customer along with the goods.

4.2 Trucking

Trucking is the most common type of freight transport. There are various types of trucks: container trucks (either 20ft or 40ft), tow trucks that are more suitable for transporting heavier goods and tank cars which is specifically designed to carry liquids or gas. Trucking provides outstanding advantages of convenience, mobility and high adaptability to terrain conditions, with high economic efficiency on short and medium distances (typically less than 300km). Trucking is also a flexible form of shipping because it allows exporters/traders to transport goods directly from the warehouse or production factory. Trucking is most suitable for the transport of construction materials, agricultural products and industrial goods such as machinery, textiles and animal feed. It is however not suitable for transporting dangerous goods with toxicity, flammable goods, those that are difficult to preserve and those with particularly large dimensions.

The maximum weight that can be carried based on international benchmarks is 40 tonnes for a 40 foot container which includes about 10 tonnes for the trucking vehicle, 5 tonnes for the container shell and 25 tonnes for the maximum weight of the contents. However, you should check the own maximum weight that can be carried by road in your target countries.

Ensure that you obtain comparable quotes before you decide on a trucking company and check that they have experience in transporting goods over the distance that you require, the route and the type of goods. To obtain a quote, provide the information below to trucking companies:

- Request items to be shipped
- Quantity, size, weight of goods and image of any bulky objects
- Provide pickup and delivery locations
- The schedule to be transported (how many days required time ...)
- Payment method (pay now; payment upon delivery; have enough documents including invoices and receipts)

The rates they offer are built on costs such as expected fuel costs, salary deductions of drivers, tolls and other right of way charges, depreciation and repair and administration and management.

4.3 Waterways transport

Waterways transportation through container and cargo ships, refrigeration vessels, ferries and barges can carry freight through inland waterways and is most used in a multimodal system alongside shipping. Some of the main benefits are that there are less restrictions on the volume of goods, less risk of damage to goods given the slower and more stable speed and cheaper charges than trucking and rail transport. However, shipping times are often slower and is highly dependent on weather conditions. The mode is therefore most suitable for bulkier goods.

Charges for river transportation are based on a number of factors such as the costs of running a service (includes taxes, gasoline, harbour fees, employee salaries etc), the distance that is required for transport and demand for the service. It is therefore important to shop around for the best provider. When selecting a company, ensure that they are reputable, capable and offer clear operating policies such as protecting goods through cargo insurance.

5. Further information

AK Logistics and Supply Chain has a great resource, covering all the steps in the logistics chain, available at https://aklogisticsandsupplychain.com/

For further information on the requirements for shipping particularly from Vietnam refer to the Vietrade source https://infovietrade.vn/ where you can select your export product and you can view all the steps required prior to receiving your bill of lading.

Transporteca. See https://transporteca.co.uk/international-shipping-guide/

CLN Worldwide. See https://www.clnusa.com/post/2019/10/18/freight-forwarding-101-a-beginners-guide

Project Manager. See https://www.projectmanager.com/blog/logistics-management-101

PROFIT factsheet on INCOterms

Carry Cargo International has a summary of buyer and seller service fee obligations available at www.carrycargo.com/wp-content/uploads/2019/11/Incoterms-Key-Changes-2020.pdf

Indian Trade portal – https://www.indiantradeportal.in/vs.jsp

https://www.impexperts.com/

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