



# What Rail Customers Need, Want, and Desire

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# Railways are notorious around the World as customer unfriendly

- Generally Railways do not distinguish between customer needs, wants, or desires
  - Most railways are inwardly focused – operationally and financially
  - Most railways do not hear from or deal with customers directly
    - but rather through forwarders, wagon operators, or other third parties
    - Or through a large complex internal railway organization
- Rail transport across borders is almost always complicated
- Understanding your customers, being first to identify their real wants and needs and offering them the right solution is the key to successfully moving more shipments to rail transport

# All customers have needs, wants, and desires



- Transport customers can usually explain what they want and desire, but don't even talk to a supplier who can't satisfy their basic needs
- Needs are first level considerations – a mode or company that can't meet basic needs will not even be considered
- Wants and desires are a bit different and transport customers will make some trade-offs between them
  - They want low prices/tariffs and short transit times
  - But desire reliable transport performance
- Do they need, want, or desire an uncomplicated transport service?

# What do customers need from railways?



- Security, we have found, is a shipper need
  - Ensuring that freight is delivered is a need
  - Making sure that freight is not damaged or pilfered during transit is a need
- Reliability – making sure that freight is delivered on time is something shippers want
  - Availability – making sure that the rail service is available when expected is part of reliability – something shippers want
- The most expected answer among railway officers is that customers need “a low price” but in reality a low price is really a desire – most shippers are willing to trade price for other attributes
  - Short delivery time – the earlier the better, is also usually a desire, shippers will trade-off price and transit time
- We have also found that shippers **want** less complex transport arrangements

# How do Transport Service Attributes Compare?



- Shippers/customers won't trade-off security
- Transport has to be available and reasonably reliable and accessible
- Complexity is a problem; larger shippers can trade-off complexity for price and transit time
  - They often have internal logistics units that deal with complexity
  - Or have a relationship with a 3PL who can deal with all the complexities of cross border movements
  - Information on movement and location is important to most shippers

**Most shippers will trade-off price and transit-time, and both of these for simplicity and good information**

# Who is your customer? Customer segmentation

- Large multinational producers (e.g. Ford, Toyota, HP, etc.) usually have an in-house logistics capability? But, what about:
  - Medium size manufacturing company or bulk supplier?
  - Local smaller businesses?
  - Independent logistics providers serving many small and medium businesses, or a few large industrial groups?
  - National freight-forwarder or national freight forwarding association?
  - Other national railways or its logistics subsidiary?
- Each of these customers will have specific needs, wants and desires depending on its location, experience, knowledge of local or international markets and customs procedures, regulatory and legal requirement in 6-7 different countries through which the freight is travelling via CAREC countries
- Each customer type will require specific marketing approaches – if your railway wants to capture the customer(s) shipments

# Most shippers have the same concerns about cross-border shipping by rail

- How do I arrange rail service across multiple railways and multiple countries?
  - Who arranges the wagon and/or the container? Are they charged separately? How should I package my freight?
  - How do I know what is needed at customs at each border?
  - How do I know that my shipment has cleared customs; if there is a problem – how will I know?
  - How do I know that my container(s) or wagons are not sitting for days in some exposed place?
- I know my container and bill number but railways track wagons. How do I track and trace my shipment, especially after one or two gauge changes?
- My customer is wondering: “Where is my shipment?” What do I tell him?
- If my container is damaged or has been pilfered, what do I do?
- It is much less complex to ship by air, ocean, or road – I do not face such problems.

**It is harder for smaller customers to deal with railways**

## How much does complexity cost railways? A container example

- Rail transport of high-value containerized freight between China and Europe has increased substantially in recent years
  - Large shippers and international 3PLs have coordinated the movements, solving much complexity
  - Shorter transit times for block trains have attracted high-value freight, mostly from air transport
- Recent studies show that the complexity and uncertainty associated with multi-railway movements between China and Europe is worth ~ US \$10,000 per TEU – the “rail penalty”
- This is on par with total transportation costs, and exceeds railway tariffs
- Were multi-country cross-border rail movements easy to arrange, customers would be willing to pay more, or would ship substantially more containers by rail rather than by ocean or air

**The transport charges shippers are willing to pay depend both on the value of the shipment and on the value of the transport**



# Price vs. speed of delivery – why choose rail?

- The price to ship 1 FEU from China to Europe is ~US \$4,500 if by ocean; ~US \$40,000-50,000 if by air; and ~US \$20,000 by rail (including all fees, lift charges, drayage, storage charges, transfers, and the cost of equipment)
- Door-to-door trip time is ~50 days by ocean; ~20 days by rail; and 5-6 days by air
- Rail is neither the cheapest nor fastest mode of transport for China-Europe trade  
So, Why do some customers still use rail?
- **Answer:** goods have value, before they are sold – someone (usually, the shipper) is financing their cost while they are in transit.
  - For example, value of a FEU container stuffed with electronics may be US \$1-million
  - If you ship 100 containers by sea, US\$100 million is tied up for 50 days
  - the cost of inventory could be as much as US \$500,000, much more than the cost of sea transport.
  - Shipping them by air may cost \$1-million; by rail, it might cost \$200,000 – so rail can be less expensive overall

# Targeting customers by value of shipments

- Recent studies demonstrate that rail can be competitive to carry higher-value containers (~ US \$150,000/TEU or more)
- In 2013-2014, out of about 5.5 million TEUs moved between China and Europe about 650,000 had value of more than US \$150,000 each
- Rail has ~ 0,05% market share in this trade, carrying some 30-35,000 TEUs
  - Rail share in the transit container flows between China and Europe has a large potential – up to 500,000 TEUs and more – 20 trains a day
  - Rail can attract traffic from both air and sea transport

**We don't really know the size of the intra-CAREC transport market by value**

# Are these factors important for high value containers only?

- Value/time relationship does not apply only to expensive containers.
- A train-load of steel wire or rolls might be worth \$3 million; A train-load of fertilizer might be worth \$2 million; of crude oil \$2 million
- Rail competes with ocean shipping across a wide range of commodity types and distances – though manufactured goods tend to be more valuable per “tonne” than bulk commodities
- Rail competes with road transport along many routes, especially in Central Asia
- It is not just high-value containers moving between China and Europe where shippers can select from multiple transport modes

# Reliability and Security

- Reliability - customers expect the shipment in 20-22 days while it takes between 16 and 28; it is more expensive – 6-8 more days of carrying costs, plus the cost of having extra inventory to cover the reliability difference, plus the cost of having extra warehousing space when the shipment takes only 16 days instead of 22
- Security – with a value of \$150,000/FEU, customers are concerned about pilferage, losses from wrecks (or too hot, or too cold, or rain damage from leaky containers)
- Uncertainty – customers might not get a report of the position of their goods for several days, or get some reports only to find that their shipment was stopped at a border crossing for 3 days but not know why
- They are also concerned about how to recover loses – who do they call when they have a report of their shipment moving across a border then nothing for days or weeks?

# From price to complexity and speed

- Currently most containers carried by CAREC railways in China-Europe trade are worth US \$250,000/FEU and more
- But, customers feel that the costs to move by rail are higher than they actually are
- If railways can figure out what causes customers to think so – they can capture more transit volume
- In interviews, customers say that complexity of dealing with railways and rail's unreliability make them think rail is more expensive than it is

# Improving reliability of rail service

- If railways can make it easier for shippers to ship by rail, solve some of the uncertainties inherent in the mode, and provide up-to-date information, the perceived “rail penalty” could be lower
- How to achieve this?
  - One way is to include a Back-up plan in transport agreements
- International example: some railways in North America servicing automakers have arrangements in place with road and air transport companies to fill in when they have a problem – say a train is derailed and the goods will take 5 extra days to get to the factory
  - The railways have already contacted the producer and air or road transport companies to make sure that the stuff they need to keep the plant working gets there on time so the customer does not have to shut down his line or carry an extra weeks’ worth of inventory
  - Agreements with road and air transport suppliers for emergency situations

# Managing reliability

- The railways price all these contingency costs into their service offering
- They are offering a transport product (say guaranteed 7 day transit time for 50 freight wagons a day)
  - They may sometimes have to air-freight stuff; sometimes move some via road transport, or put on an extra train to move 10 wagons of stuff to the customer
  - This is their problem, not the customers. The customer rarely sees it. And, as the railway gets better and delivering the service, it uses less and less of the emergency transport modes
- Alternative to back up plan – penalty for late arrival (days late)

# Dealing with claims – customers' worries

- If my freight is damaged or lost – how do I claim for it? Even if I am not the original shipper but rather 3PL provider?
- International experience: In North America, such a claim is processed by the originating carrier, who themselves may go to other railways in the shipment manifest to claim payment from them
- Generally, the railways have a kind of “no-fault” arrangement where they share claims
- If one railway appears to have more claims than others, they eventually pay a higher proportion of any transport losses



# Service package for corridor or movement

- Consortium of railways involved in any particular movement can provide and market a “service package” that includes security, notifications, transparent claims process, handling all the cross-border paperwork for clearances, price, and transit time
- Such a package might be put together for a route or corridor, or for a commodity type (say general freight in box wagons)
- The package might include warehousing, trans-loading services, drayage from – say - Brest rail terminal to some place in Poland (rather than a rail interchange) to ensure reliable and consistent service package that shippers could rely on
- Might also include arrangements with particular municipal governments where container terminals are (in China where some municipal governments pay some part of the terminal bill or transport costs (local drayage, lift charges, etc.)

# Availability and Speed

- One of the ways that railways might package services is between a major interchange city/terminal to another major interchange/terminal, building a network of train services between major interchanges and terminals
- While a block train service might be most reliable and quicker, it will be less frequent
- Frequencies could be increased by shifting traffic between trains some place in the middle. This might be best at gauge change points because everything has to be unloaded anyway
- Railways can develop a network of more frequent train services between major terminals, shifting blocks of traffic between trains at these terminals
  - For example, a train might start from several cities in southern China, dropping traffic for multiple routes at a terminal in Urumqi
  - From there, multiple trains could be scheduled – some with service to, say Almaty, where groups of wagons or containers might be reassembled into trains for Spain or Moscow or Aktau
- The trade-off for shippers is more availability but somewhat longer transit time – and more complex train movements

# Monitoring service from customer prospective

- Current ADB CPMM reports provided by CAREC Federation of Carrier and Forwarder Association (CFCFA – [www.cfcfa.net/cpmm/](http://www.cfcfa.net/cpmm/) ) are too skimpy and general, and are published on quarterly basis
- Most of the information they contain are on road transport border crossing characteristics – timing, costs and the like. As to rail – they monitor just two rail corridors – between China and Kazakhstan, and China and Mongolia (BCPs - №1 and №4)
- From CAREC and ADB prospective this information is important, though the CPMM methodology is not yet robust
- CAREC Program and ADB are vainly trying to get such information from CAREC rail agencies. Another alternative, for CAREC countries-members of CIS – get such information from Main Data processing center of RZD in Moscow
- Is this the information the rail customers need or want?
- For most customers service monitoring is more about being able to check where their shipment is at ANY time
- Wire-report or email every morning about shipment location and status might be a start
- Most wagon operators can do this in Russia and CIS as they have access to CIS wagon movement data
- The customers representative (freight forwarder, wagon operator, 3PL company) needs to be able to access such data for an entire movement – between countries, within countries. It would be great if they could track the movement down to the final drayage

# Monitoring service level (continued)

- Currently, most of the data that is available is just that the wagon was at station A at H:MM on a certain day (or, between stations A and B)
- But customers can not learn what is happening to their wagon/container, or when the next event is scheduled to happen. E.g., shipment arrived in Dostyk at 6:55 AM, moved to the warming shed at 7:30; released from warming shed at 9:45; and so on
- Monitoring should also include something like a typical or average transit time for a trip along with a variation
- Shippers want a report about whether the current shipment is on this transit time line, ahead of it, or behind it
- Shippers would like an expected time of arrival (ETA). It would be good for shippers to be able to access or to receive service performance estimates for their movement with a reliability report prior to the movement
- This can't be provided by a single railway – but could be provided by a large freight forwarder with access to railway data; or by a consortium of railways

# Monitoring – customers' needs

- Monitoring should go further than just reporting current movement and historical data
- If a shipment is going to be delayed, a monitoring report should show an estimate of the delay and a new ETA
- If it will move via a different route or a different train, this should be reported, too
- For example, in North America every wagon has a “trip-plan” that is made up when the wagon is first reported loaded to the railway
  - The trip plan shows the terminals the wagon will move through, processing time at the terminal, the trains it will move on for the entire route, along with an ETA
  - If something happens (say the wagon needs to have a part fixed and misses its connection at a terminal) that changes the trip plan, a new trip plan is instantly created using current train schedules
  - Shippers can log into the railway movement files at any time and find out what the current ETA and projected train/terminal schedules are
  - For most NA railways, these trip plans work across multiple railways – from origin to destination.

# Monitoring service level should be customer oriented

- Providing a plan B for a late shipment
- Another way to provide for a plan B for late shipments is to provide some minimal warehousing and truck or fly goods to the final destination
- Such service is expensive but the goal is not to need the expensive Plan Bs very often
- Some shipments may carry GPS, temperature, coolant/heating energy level, and shock monitoring sensors
- Finally, monitoring should include some customer service (a person to contact) if there is an issue.

# How to plan and manage complex multi-country rail movements?

- One way would be to create a CAREC dedicated rail freight forwarder or operator
  - Could be just for one corridor or commodity type
  - The CAREC rail consortium could enhance train plans and provide common and frequent reporting
- If CAREC railways rely only on large 3PL providers, independent logistics companies – these companies may not necessarily channel the customers to rail mode – they can chose other modes (ocean, air, road)
- The dedicated CAREC or specific rail corridor(s) freight forwarder would serve as the interface between customers and CAREC railways
  - to inform customers, provide them comfort of dealing with rail,
  - And solve transportation issues all along the corridor – all the way from China to Europe (or, from other origins and other destinations)

# Thank you for your attention!

- How realistic is to achieve such competencies and capacities in CAREC railways?
  - Do you see any other railway customers' needs in your region?
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- Andrei Evdokimov, HWTSK, Senior Consultant