SCM CONNECT

Logistics Cost Reduction

Industry : Coated Fabrics

Objective

- To optimize outbound logistics cost for distribution through Part Truck Loads for Coated Fabrics business from Gummudipoondi plant to Distibutors/ Customers
  - Target 5% savings on logistics cost

- Rationalize the number of logistics service providers

- Standardization of contractual terms for all logistics service providers

Mapping As Is Situation

- Product Profile to assess the product density
  - Packaging Dimensions| Actual Weight for each SKU

- Freight Data considered for 12 months for distribution
  - Movement through Part Truck Load
  - Current service providers : 8
  - Freight – INR 260 Lacs
  - Gross Weight – 3150 MT

Mapping As Is Situation

- Product Profile
  - All SKUs (Except one) are highly dense in nature
  - 1 SKU (Big Size Tarpaulin) is highly Volumetric with density 5.5Kg / CFT

- Dispatch Pattern
  - Dispatch to 201 unique pin codes
  - Average weight per docket = 758 Kg
  - Difference in Charge weight (3150 MT) to Actual Weight (3035 MT) – 3.8%
    - Due to Min. weight clause
    - Due to Min. freight clause
    - Due to next round zero in weight clause
    - Due to CFT being charged by Service providers – Weight Impact on low density SKU

Mapping As Is Situation

- Dispatch Pattern
  - Weight per docket slabs

Weight Category	Actual Weight %	Yield (INR/ Kg)
< 20Kg	0.01%	50.80
20-1000 Kg	35%	8.21
1000-3000 Kg	48%	8.69
3000-5000 Kg	15%	8.30
> 5000 Kg	2%	8.26
Total	100%	8.45

  - Opportunity to reduce rates with increasing rate slabs

Mapping As Is Situation

- Service Levels
  - Based on Transit times : Excluding Pickup but Including Delivery

Region	Average TAT (Days)	Std Dev TAT (Days)	Std Transit Time (Days)	# Shipments	# On Time Shipments	Service Level %
South	2.88	2.02	3	3682	2551	69%
Central	5.24	1.57	4	133	46	35%
West	5.27	2.71	5	656	429	65%
North	6.15	3.33	6	1041	689	66%
East	6.94	7.41	6	624	360	58%
North East	8.44	3.23	8	72	44	61%
Overall	**4.21**	**3.68**		**6208**	**4119**	**66%**

  - Overall service levels are at 66%
  - High degree of standard deviation → Low degree of reliability

Mapping As Is Situation

- Contractual terms with Logistics Service Providers
  - Different commercials terms with different service providers
    - CFT Factor
    - Min. weight/ Min. freight/ Next round zero
    - Destination based surcharge
    - Fuel surcharge
    - Freight on value
    - Fuel surcharge/ Fuel linked commercials
    - Handling charges etc
    - Payment terms
    - Liability of Service providers – Issue of COF incase of damage, shortage etc

Designing the RFQ

Key points while designing the RFQ

- Minimize on difference between charge weight and actual weight
  - Standardize Min weight as 20 Kg (0.01% contribution by weight)
  - Removal of minimum freight
  - Removal of round offs
  - Removal of CFT Clause

- Minimize and standardize number of cost components (only 3 cost components)
  - Basic Rates
  - Docket Charges
  - ODA Charges

Designing the RFQ

- Freight cost leverage by
  - Product density
  - Weight slabs and geographical distribution

Region	States
Within Tamil Nadu	Tamil Nadu
Kerala	Kerala
Rest of South	Andhra Pradesh, Telangana, Karnataka, Pondicherry
West	Maharashtra, Goa, Madhya Pradesh, Gujarat, Daman & Diu, Dadra & Nagar Haveli
East	Bihar, Jharkhand, Orissa, Chhattisgarh, West Bengal
North1	Delhi, Uttar Pradesh, Haryana, Rajasthan
North2	Chandigarh, Punjab, Himachal Pradesh, Uttarakhand
J&K	Jammu & Kashmir
North East1	Assam, Sikkim, Meghalaya
North East2	Tripura, Mizoram, Manipur, Nagaland, Arunachal Pradesh

Designing the RFQ

- Standardization of Contractual terms with LSPs
  - Removal of fuel surcharge/ fuel linked pricing
  - Removal of Green Surcharge
  - Removal of Handling charges
  - Removal of Destination based surcharges
  - Removal of Freight on Value charges
  - Liability clause standardized with Excess clause of Rs 10,000/- per docket
  - Payment terms

Negotiating the RFQ

- RFQ shared with all existing service providers and other (2) National Service providers
- Mapping Schedule/ ODA Pin codes for each LSP
- Model created to evaluate the current cost with proposed cost
  - Weighted average cost for each Geography
  - Input to Vendor selection model
- Shortlisting of LSPs
- Final round of negotiation with Shortlisted LSPs

Vendor Selection Model

- Designed a Vendor selection model to consider
  - Overall logistics cost Optimization
  - Simulation with different scenarios
  - Ratio of Lane wise split between LSPs
  - Limiting the Total number of LSPs
  - Business allocation- Lane wise| Tonnage| Revenue

Finalized Logistics Service Providers : 3

Cost reduction by each LSP by 12.5%

Overall optimization done with lane allocation for each LSP

Result : 14.79% reduction in Logistics Cost

Final Result - Cost Optimization

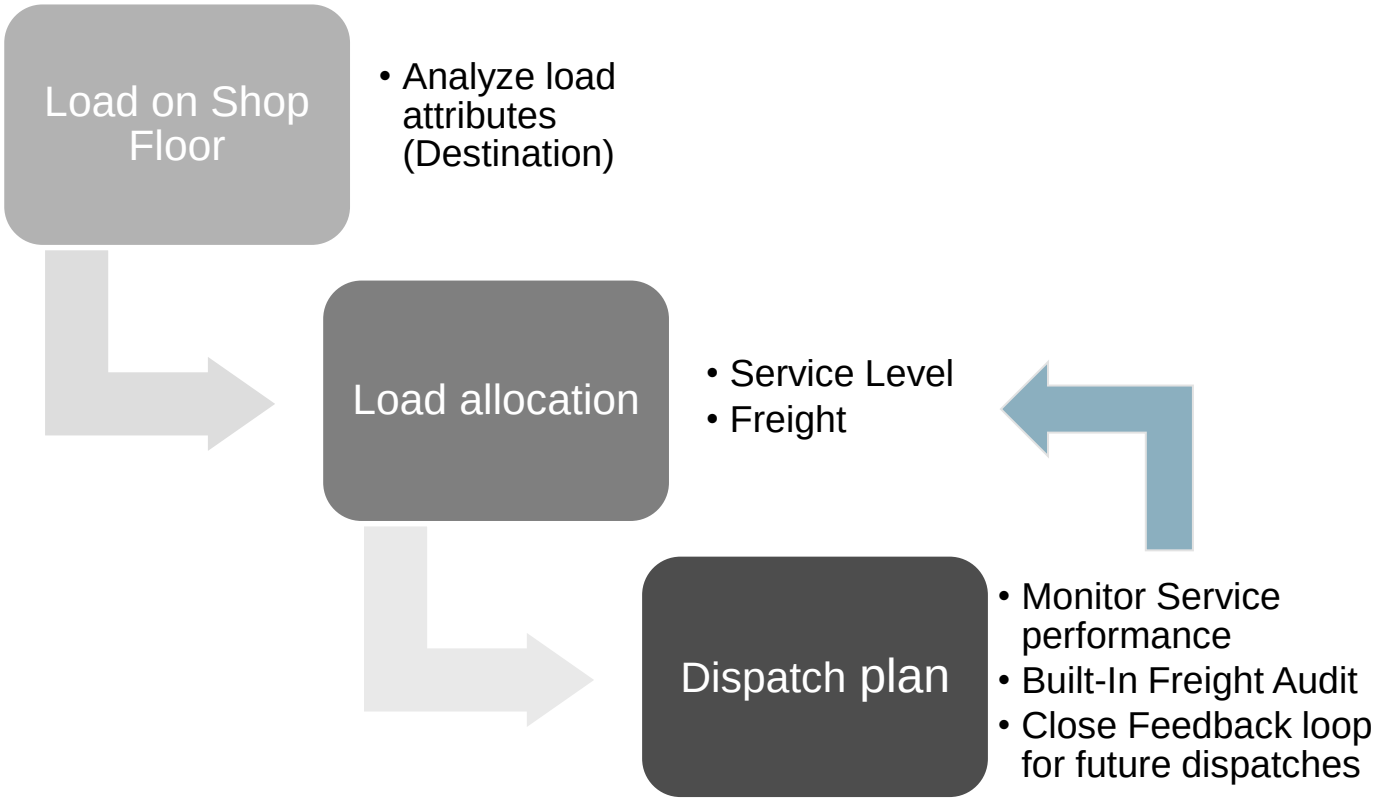
Lanes	LSP1	LSP2	LSP3
Within Tamil Nadu	Y	Y	
Rest of South	Y	Y	
Kerala	Y		Y
West	Y		Y
East		Y	Y
North1	Y		Y
North2	Y	Y	
J&K	Y		
North East1			Y
Share of Business (MT)	**42%**	**14%**	**44%**

Roll Out Plan

Lanes	LSP1	LSP2	LSP3
Within Tamil Nadu	40%	40%	20%
Rest of South	40%	40%	20%
Kerala	40%	20%	40%
West	40%	20%	40%
East	20%	40%	40%
North1	40%	20%	40%
North2	40%	40%	20%
J&K	40%	20%	40%
North East1	20%	40%	40%
Share of Business (MT)	**36%**	**31%**	**33%**

Service Level Improvement

- Dynamic load allocation based on LSP Service Levels



System Attributes

- 100% System driven load allocation based on current service levels.
  No manual allocation of loads
- Each load's performance is measured and taken into consideration for future load allocation
- Freight Audit as a Built-In functionality.
  Freight as per contract built into the system to ensure freight levied by LSPs

Next Steps

- Service level Improvement
  - Dynamic load allocation based on service levels
  - Built-in Freight Audit system

- Other cost saving opportunity areas
  - Loading Costs
  - Inventory costs for Made to Stock SKUs