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RAILWAY FREIGHT ACTIVITY OPTIMISM INDEX



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MESSAGE FROM DUN & BRADSTREET

As India steps up to achieve its goal of becoming a US\$ 5 trillion economy, freight activity is expected to increase many folds over the coming years. According to government estimates, freight demand will double by 2030 and triple by 2050 and this will create pressure on the existing transportation networks. To cater to the growing demand for freight, the shift in the modal share of transport from roadways to railways has become more critical than ever.

Under the National Rail Plan, Indian Railways aims to increase its modal share in freight to 45% from current level of 27%. To increase the share, various initiatives are being taken to modernize the rail infrastructure enabling low transit time, increased productivity and lower overall freight cost. With expected increase in freight demand, thrust on railway infrastructure and expected gains in operational efficiencies, understanding the changing market dynamics of rail freight traffic activity is important. In this context **Dun & Bradstreet and Jupiter Wagons** are introducing the first of its kind in India, a quarterly **Railway Freight Activity Optimism Index (RFAOI)**.

RFAOI is a survey-based index, measuring optimism level of user industries and service providers across India towards transporting freight via railways. As a unique indicator of the railway freight activity, the main index and its four sub-indices will provide a forwarding looking measure of freight demand, help to plan the supply and investment activity and also help to understand the user expectations towards operational efficiency. It will also help to understand how optimistic railway freight users and service providers are towards time and cost of transporting goods via railways across India. For policy makers, this index would be a ready reckoner to understand the requirement of the user industries and plan towards meeting supply/investment needs. The current study throws insights on expectations around rail freight activity in Q1 2022, some of them are highlighted below:

- Rail freight activity in Q1 2022 expected to remain high compared to last year
- Respondents expect wagons and labour to be available to meet the demand for freight in Q1 2022
- Optimism for demand for freight activity is lowest amongst the four sub-indices that constitute the main index, mirroring the cautiousness of user industries and service providers as uncertainty over the pandemic was yet to abate
- Optimism level for import freight demand has turned out to be the lowest amongst all the 14 sub-parameters, reflecting both the expected slowdown in economic activity and already battered international supply chain weighing upon the sentiment of players importing goods
- Continued innovations and investment by the Railways for operational efficiency has resulted in optimism towards loading and unloading to be the highest amongst all the surveyed parameters
- Respondents feel optimistic towards higher share of railways in freight transport in Q1 2022 vs Q1 2021

Hope you will find our index and report insightful and valuable.



Avinash Gupta
Managing Director & CEO - India
Dun & Bradstreet

MESSAGE FROM JUPITER WAGONS

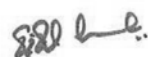
Indian Railways (IR), one of the largest transportations and logistic service providers in the world, has come a long way from the 'British Era' of steam engines to 'Dedicated Freight Corridors'. The Indian Railways is further expected to achieve major milestones in this decade and is primed towards becoming the world's largest Green Railways before 2030 with complete electrification of all routes by December 2023. Moreover, the National Rail Plan 2030 is set to transform Indian Railways into a 'Future Ready' network. The PM's initiative of Gati Shakti, the multimodal logistics plan, is also a game-changer, which will enable greater freight movement through railways.

We are looking forward to contributing to the growth of the Railway industry through our endeavours. Jupiter Group is a premier manufacturer of railway wagons, passenger coaches, wagon components, and castings in India. We are pleased to be counted among the most respected manufacturers of advanced railway transportation equipment across the world. Over the last decades, Jupiter Wagons has emerged as a one-stop solutions provider within the sector owing to our high standards of quality. Our robust technology foundation underpins our status as one of the fastest-growing within our industry. Our integrated facilities are engaged in the manufacture of railway wagons, high, - speed bogies, and railway castings; we manufacture couplers, draft gears, and railway turnouts for the Indian Railways and the North American railroads.

When we track the role of railways from the logistics supply side, it is pertinent to understand the pulse of the market i.e. the optimism level of the railway freight users about using railways to transport freight and how the various developments are facilitating the shift from roadways to railways. Understanding and monitoring the expectations or optimism level of railway freight users will enable various stakeholders of the railway freight logistics supply chain to identify the expected shift in demand & supply and expectations for operational efficiencies to take the necessary policy action or business decisions.

With this purpose, in collaboration with Dun and Bradstreet, we are launching the first-ever all India survey-based Railway Freight Activity Optimism Index (RFAOI). This unique index captures the optimism level of the users of the railways on their expected rail freight activity i.e., whether the rail freight activity is expected to improve, remain stagnant, or decline in the coming quarter. Movements of the RFAOI and its components would provide us with insights to take note of. There is high optimism for factors of supply in railway logistics for Q1 2022, whereas optimism for rail freight demand is lower. In particular, demand optimism for import freight remains weak across all regions, and demand optimism for export freight movement is weak especially in the Eastern and Southern regions. Moreover, businesses expect wagons/containers to be available to meet their demand or level of utilization. Interestingly, respondents also expect overall rail freight transportation cost to ease in Q1 2022; thanks to the various relaxations provided by the government to the user industries.

It will fortify our endeavor to continue to monitor the optimism level for rail freight activity across India going forward on a quarterly basis. We aim to bring forth trend-setting insights both for the government and businesses enabling them to make informed decisions. We sincerely hope you enjoy reading this report and find it informative and enriching.



Mr. Vivek Lohia
Director
Jupiter Wagons

EXECUTIVE SUMMARY

OBJECTIVE

- RFAOI is a forwarding looking index of rail freight activity
- An important input in supply chain planning of service providers, supply side industries and government
- Stakeholders will be able to identify the expected shift in demand and supply and expectations for operational efficiency across regions to make informed decisions
- A ready reckoner for policy makers to understand the requirement of the user industries and plan towards meeting supply/investment demand

The Railway Freight Activity Optimism Index (RFAOI) is a unique index aiming to capture the optimism level of rail freight users (industry players and logistics service providers) i.e. whether the rail freight activity is expected to improve, remain stagnant or decline. The index is composed of 14 sub-parameters across four sub-indices



Optimism for factors of supply

- Availability of wagons
- Availability of labour
- Connectivity: frequency of availability of rakes
- First & last mile connectivity



Optimism for demand

- Domestic Trade
- Captive trade
- Export
- Import



Optimism for operational efficiency

- Loading and unloading of goods
- Transit time
- Utilization of containers
- Utilization of wagons



Optimism towards investment activity

- Investment in mechanization for loading and unloading
- Investment in technology




Dr. Arun Singh
Global Chief Economist
Dun & Bradstreet

KEY TAKEAWAYS



Businesses are highly optimistic towards transporting freight using railways in Q1 2022 compared to last year. The Railway Freight Activity Optimism Index (RFAOI) for Q1 2022 stands at 60



Large players are more optimistic for domestic activities, whereas medium sized companies are least optimistic for domestic activities



Of the five regions covered in the survey i.e. central, western, eastern, northern and southern, businesses in the western region are the most optimistic for rail freight activity in Q1 2022



Businesses are more optimistic for supply chain scenario in terms of availability of wagons, labour and connectivity with the optimism for factors of supply at 63, the highest amongst the four sub-indices



Optimism for demand sub-index turned out to be the lowest amongst all the four sub-indices mirroring the cautiousness amongst the user industries and service providers as uncertainty over the pandemic was yet to abate



Optimism towards import freight activity is the lowest amongst all the sub-parameters that we have included in our survey, understandably due to expected slowdown in economic activity and battered international supply chains



Continued innovations and investment by the Railways for operational efficiency has resulted in optimism towards loading and unloading of goods to be the highest amongst all the surveyed parameters



Respondents expect overall rail freight transportation cost to ease in Q1 2022

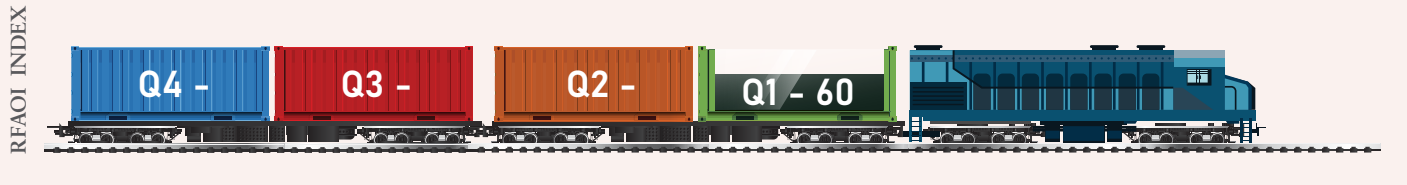


Respondents feel optimistic towards higher share of railways in freight transport in Q1 2022 vs Q1 2021

RAILWAY FREIGHT ACTIVITY OPTIMISM INDEX (RFAOI)

Railway Freight Activity Optimism Index for Q1 2022 stands at 60, indicating high optimism level of user industries and logistic service providers, towards transporting goods using railways, ten percentage points higher than the neutral level.

RFAOI FOR Q1 2022



SUB-INDICES

Out of four sub-indices, optimism for supply is the highest at 63, whereas optimism for demand is the least at 55. A high optimism level towards factors of supply may be a confluence of both improved supply environment as well as lower optimism towards demand factors.

SUB-INDICES AND THE CONSTITUENT PARAMETERS

	40	50	60	70	
Factors of Supply			●		Availability of labour
			●		Availability of wagons
			●		Connectivity (frequency of rakes on existing/new routes)
			●		First & Last Mile connectivity
Operational Efficiency			●		Loading and unloading of goods
			●		Transit time
			●		Utilization of containers
			●		Utilization of wagons
Investment Activity			●		Investment in mechanization for loading and unloading
			●		Investment in technology
Freight Demand		●			Captive trade
		●			Domestic Trade
		●			Export
		●			Import

RFAOI SUB-INDEX: OPTIMISM FOR FACTORS OF SUPPLY

- Companies are more optimistic about supply chain scenario in terms of availability of wagons, labour and connectivity with the optimism for factors of supply at 63, the highest among the four sub-indices.
- Optimism amongst businesses about availability of wagons (64) and connectivity (64) i.e., frequency of rakes on existing and new routes has upped the optimism for supply



We believe developments in the railway logistics supply chain is set to improve the connectivity for freight movement and this might have led to the buoyancy in the optimism level for supply

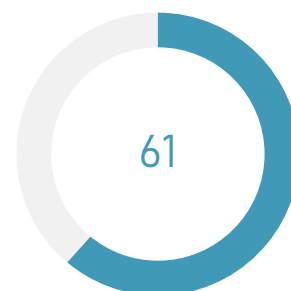
- Large-scale targeted expenditure of around Rs 400 billion by the railways to manufacture 8000 locomotives, coaches, and wagons in FY22
- Introduction of long-haul freight trains, high capacity & high-speed wagons etc. in FY22
- The Railways have been able to achieve the maximum speed to 130 kmph for 1,280 km length out of 1,612 Km in Golden Quadrilateral - Golden Diagonal (GQ-GD) route

Optimism for Factors of Supply: Sub-parameters



RRFAOI SUB-INDEX: OPTIMISM FOR OPERATIONAL EFFICIENCY

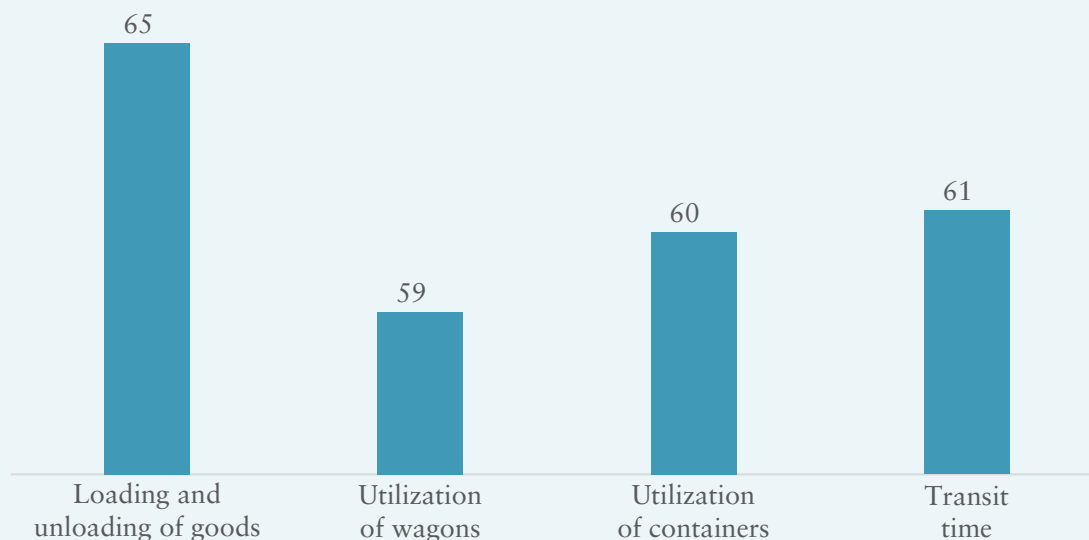
- Optimism index for operational efficiency stands at 61
- Optimism level with respect to loading and unloading of wagons in Q1 2022 at 65 is the highest amongst all the 14 sub-parameters used to construct the main index



The government has taken various measures to improve the operational efficiency of the railways out of which we have outlined the below few

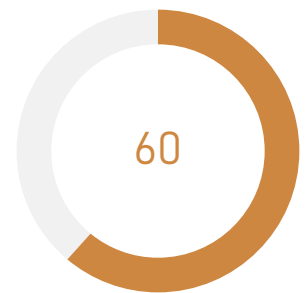
- SMART Locomotives having new features as Asset Performance Monitor (APM), SMART Yards with ICT systems, sensors and data analytics to automatically gather information on rolling stock conditions, etc. besides initiatives such as online freight services to improve wagon management
- Centralized Traffic Control (CTC), shift from single tracks to double tracking, multi-tracking of congested routes, upgradation of speed at selected routes to improve the transit time
- In 2021, India has become the 6th country in the world to produce high horsepower locomotives indigenously. These high-speed locomotives will be deployed on major freight routes, including the Dedicated Freight Corridors (DFCs) which will further aid in bringing down the transit time

Optimism for Operational Efficiency: Sub-parameters



RFAOI SUB-INDEX: OPTIMISM FOR INVESTMENT ACTIVITY

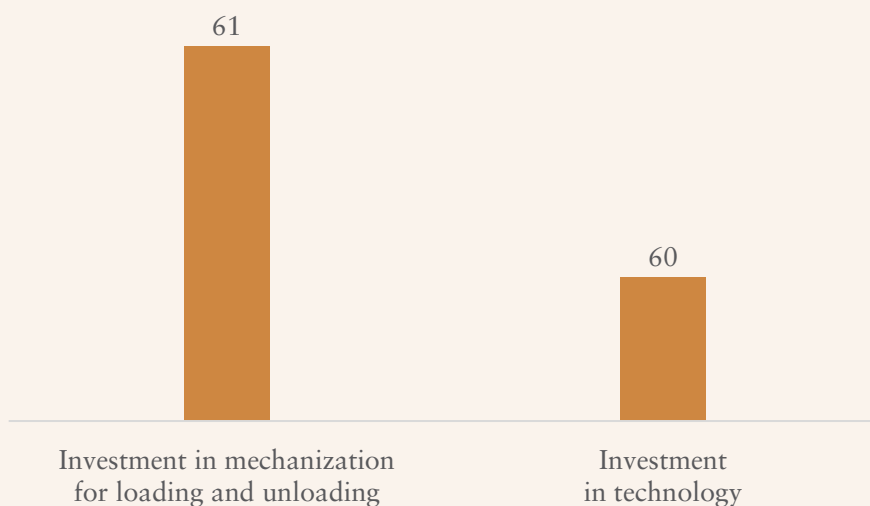
- The optimism for investment activity stood at 60
- User industries and services providers have indicated conditions for loading and unloading of wagons to improve both in terms of investment and also with respect to operational efficiency as highlighted in the previous section



Record allocation of capital expenditure to the railways, emphasis on freight corridor, focus on creating railway network and facilities, thrust on throughput enhancement, development of terminal facilities, augmentation of speed of trains etc, besides focusing on fast tracking completion of existing projects is likely to have supported the optimism level for investment activity

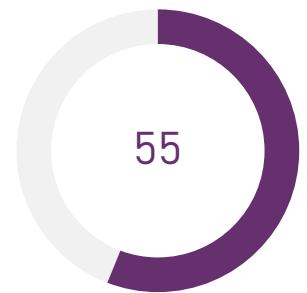
Railways was allocated to spend a record Rs 2,150 bn on capital expenditure for FY22 in the Union Budget for 2021-22

Optimism for Investment Activity: Sub-parameters



RFAOI SUB-INDEX: OPTIMISM FOR DEMAND

- Optimism for demand sub-index turned out to be the lowest amongst all the four sub-indices. The index is only five percentage points above the neutral level of 50
- Survey shows that the demand for import freight would remain weak in Q1 2022. Optimism level for import freight activity has turned out to be the lowest amongst all the 14 sub-parameters in Q1 2022
- However, domestic trade is expected to gain more traction compared to external trade in Q1 2022



The low optimism level for freight demand mirrors the cautiousness amongst the user industries and service providers as uncertainty over the pandemic is yet to abate

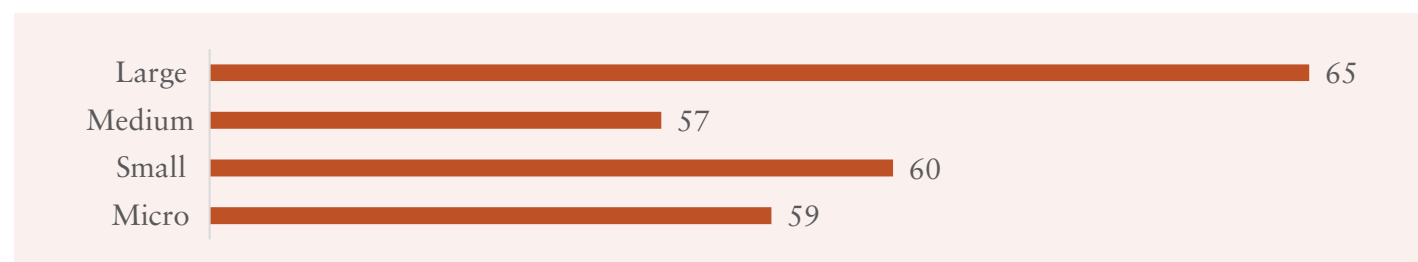
Low optimism level for imports could reflect both the expected slowdown in economic activity and already battered international supply chain weighing upon the sentiment of players importing goods

Optimism for Demand: Sub-parameters



RAIL FREIGHT ACTIVITY OPTIMISM INDEX BY SIZE OF BUSINESSES

Large players are most optimistic towards domestic trade



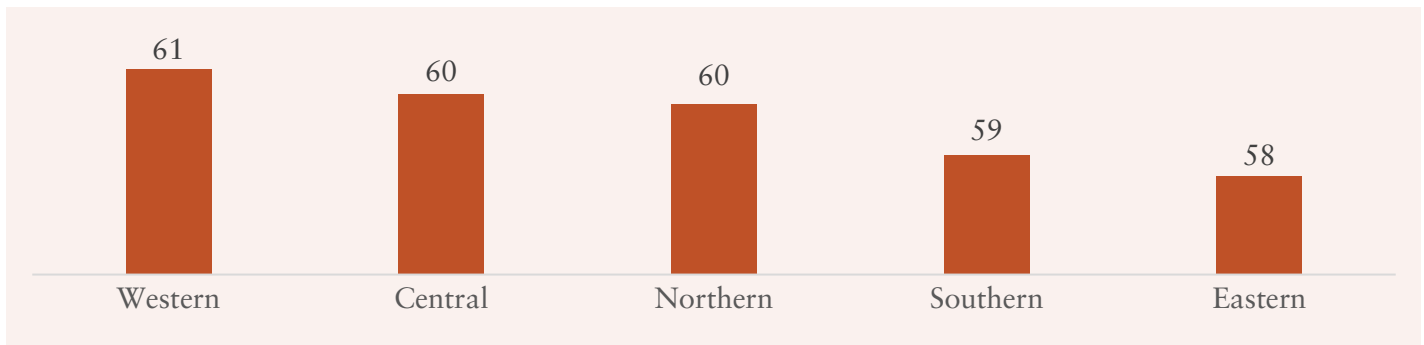
- About 72% of large players indicated demand for freight activity to increase compared to only 51% of medium sized players who were the least optimistic
- Large players also indicated greater optimistic about connectivity
- Interestingly, small players have indicated greater optimism (60) than the medium sized players (57)
- Optimism level for demand are lower across all sizes of businesses except for large players who are highly optimistic about freight activity in domestic trade
- More than one fourth of the respondents are optimistic about availability of wagons/containers in Q1 2022. Almost an equal percentage of respondents believe that their utilization of wagons (21%) and containers (27%) will increase
- Our survey also revealed that 40% of respondents expect to use containers, while 44% want to use closed wagons in Q1 2022. Only 20% indicated usage of open wagons and 13% stated other types of wagons

SUB-INDICES	PARAMETERS	LARGE	MEDIUM	SMALL	MICRO
Demand	Export	●	●	●	●
	Import	●	●	●	●
	Domestic Trade	●	●	●	●
	Captive trade	●	●	●	●
Supply	Availability of wagons	●	●	●	●
	Availability of labour	●	●	●	●
	Connectivity (frequency of rakes)	●	●	●	●
	First & Last mile connectivity	●	●	●	●
Operational Efficiency	Loading and unloading of goods	●	●	●	●
	Utilization of wagons	●	●	●	●
	Utilization of containers	●	●	●	●
	Transit time	●	●	●	●
Investment	Investment in mechanization for loading and unloading	●	●	●	●
	Investment in technology	●	●	●	●

In the above table, green indicates higher and red indicates lower level of optimism

RAIL FREIGHT ACTIVITY OPTIMISM INDEX BY REGION

Central region expects most investment



- Businesses in the western region are the most optimistic regarding rail freight activity for Q1 2022
- Businesses across western, northern and southern regions are more optimistic for supply scenario than the other two regions
- Optimism for availability of wagons in the eastern region is weaker than the other four regions
- Businesses across regions are least optimistic for import freight movement. The optimism is particularly weak amongst businesses in the central region

SUB-INDICES	PARAMETERS	CENTRAL	EASTERN	WESTERN	NORTHERN	SOUTHERN
Demand	Export	●	●	●	●	●
	Import	●	●	●	●	●
	Domestic Trade	●	●	●	●	●
	Captive trade	●	●	●	●	●
Supply	Availability of wagons	●	●	●	●	●
	Availability of labour	●	●	●	●	●
	Connectivity (frequency of rakes)	●	●	●	●	●
	First & Last mile connectivity	●	●	●	●	●
Operational Efficiency	Loading and unloading of goods	●	●	●	●	●
	Utilization of wagons	●	●	●	●	●
	Utilization of containers	●	●	●	●	●
	Transit time	●	●	●	●	●
Investment	Investment in mechanization for loading and unloading	●	●	●	●	●
	Investment in technology	●	●	●	●	●

In the above table, green indicates higher and red indicates lower level of optimism

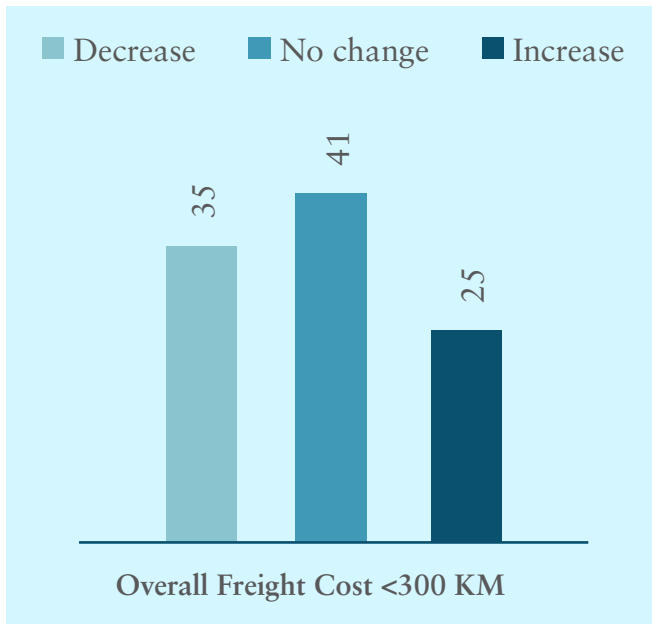
Supply side industries i.e. wagon manufacturers and leasing companies and other service providers should note that freight movement for import goods could remain weak across all regions and freight movement for export goods could remain weak particularly in the eastern and southern region

COST OF TRANSPORTING GOODS

More than one third of businesses consider cost of transportation, which includes both freight and other costs* to decrease both under 300 km and above 300 km

*Other costs = any additional cost of door-bridging, charges for first/last mile road transportation and handling at origin and destination points, haulage charges etc.

Overall cost of freight transport (% of Respondents)

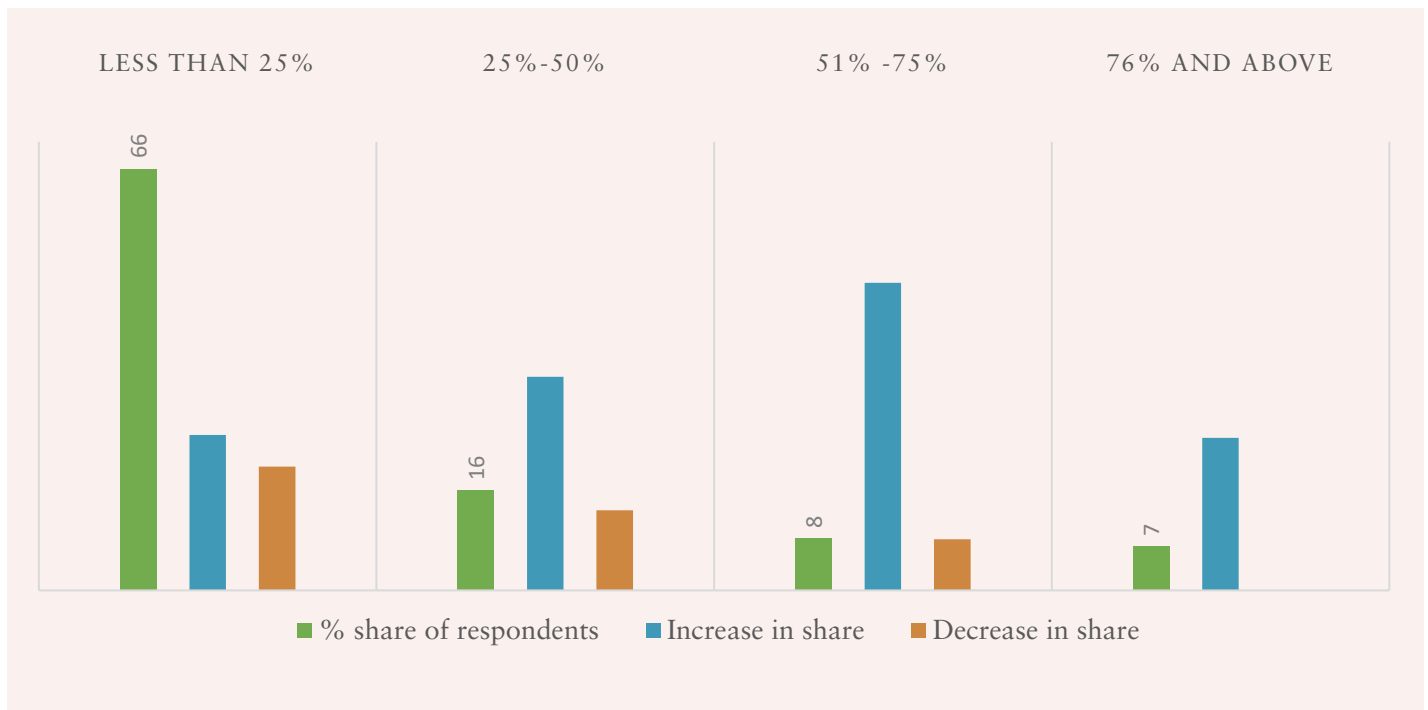


To promote economic activities in the country during the pandemic, Indian Railways have taken a number of freight policy measures. More relaxations have been provided to the customers by slew of freight incentive schemes like Automatic Freight Rebate Scheme for traffic loaded in Traditional Empty Flow Directions, Long Term Traffic Contract (LTTC), Revised Round Trip Tariff (RTT), concession on haulage charge, incentives to fly ash transporters, concession on long lead traffic for coal & coke, iron ore and iron & steel traffic under which discount in freight is granted for long lead traffic beside others

SHARE OF GOODS TRANSPORTED THROUGH RAILWAYS

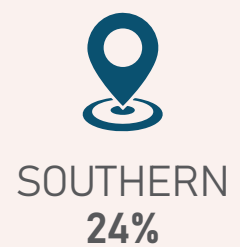
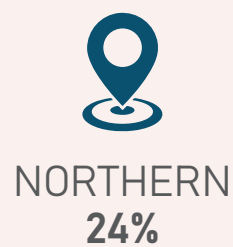
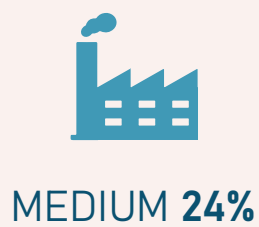
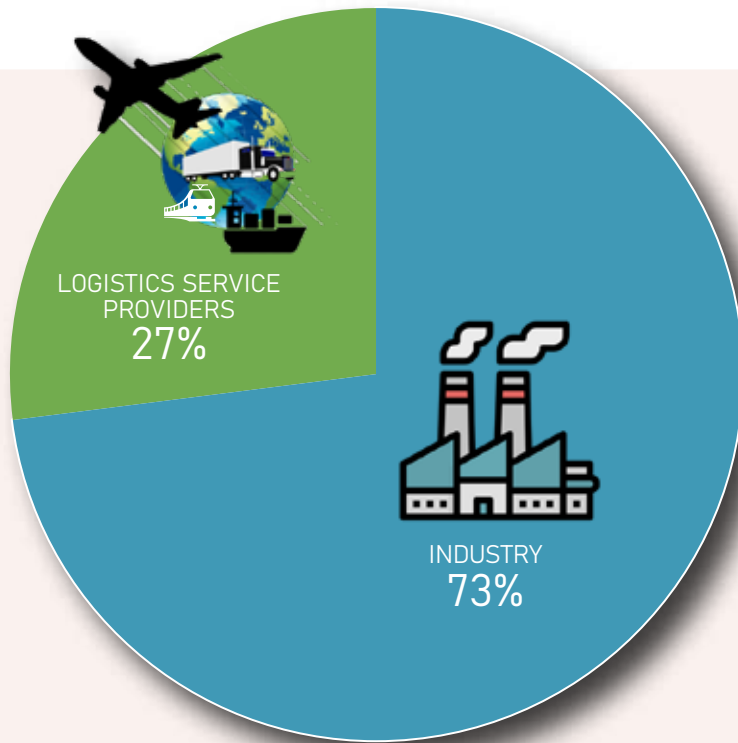
- According to our survey, majority of the respondents i.e., 66% transport less than 25% of their goods via railways
- Respondents feel optimistic towards higher share of railways in freight transport in Q1 2022 vs Q1 2021

Percentage share of goods transported through railways



Indian Railways seeks to attract more cargo from the roads and increase its share in the total domestic freight movement. Innovative hardware measures such as specially designed containers of small size, and international-standard sized containers with higher carrying-capacity to especially help small businesses, onboarding aggregators who can put together trainloads of cargo from small and mid-sized businesses, and deepening engagement with India Post’s network of post offices would help to increase share of freight traffic through railways

FIRMOGRAPHICS



ABOUT THE INDEX

Dun & Bradstreet conducted a pan India survey of more than 300 Large, Medium, Small, and Micro players to create the RFAOI index. This is a unique, forward looking index, capturing the optimism of user industries and logistics service providers on Rail Freight Activity for the forthcoming quarter. The index is composed of four sub-indices viz Optimism for Freight Demand, Optimism for Supply Factors, Optimism for Operational Efficiency and Optimism towards Investment Activity. Each of the sub-indices constitute of four parameters each, except for investment. There are a total of 14 parameters.

Survey sought respondent's expectation towards freight demand, improvement in supply factors, gains in operational efficiencies, and improvement in the railway investment in terms of an increase, decrease or no change for the upcoming quarter compared to the same quarter in the previous year.

The percentage share of responses indicating increase, decrease or no change were then aggregated to arrive at a diffusion index. The diffusion index for each parameter was then multiplied by respective weights and aggregated to arrive at the Railway Freight Activity Optimism Index (RFAOI). The derived index value can range between 0 to 100, with 50 being the neutral level of optimism viz-a-viz the base period. An Index value above 50, indicates an increase in the level of optimism from the previous year's quarter and vice-versa.

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