



Retail cold chain: Will it work in India?

High operating cost of cold storage - \$ 60 per cubic meter in India compared to \$ 30 in the west - is one of the major roadblocks for the sector's growth

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India being world's largest milk producer and second largest producer of fruits and vegetables ends up wasting about 20-50 percent of the total produce, valued at \$ 440 billion annually (includes food grain wastages). Moreover, the quality of the product also diminishes as it reaches to the customers. The major reason for this is the poor arrangement of cold storage in India.



Cold chain is the process which involves the transportation of temperature-sensitive products along a supply chain through thermal and refrigerated packaging methods to protect the integrity of these shipments. There are several means in which cold chain products can be transported - refrigerated trucks & railcars, refrigerated cargo ships, and air cargo.

Although, the sector is fragmented and not mature but there is huge potential for retail to grow. The growth may require change the way of working and develop new capabilities around handling food collection, storage and transportation posing huge advantage given the current situation.

How it currently works in India?

India has about 6300 cold storage facility with the capacity of 30.11 million metric tonnes, which are only able to store about 11 percent of the country's total perishable produce. About 60 percent of this capacity is spread across states of UP, West Bengal, Gujarat and Punjab. But still situation is severe in the south of the country where there are almost no cold storage units and the climate is hotter and far more humid.

To provide the boost to the sector, Government of India has taken initiatives like forming National Center for Cold Chain Development (NCCD), allowing 100 percent FDI in cold chain infrastructure and investing \$ 15 billion in cold storage infrastructure. While it will still take some time to get the expected outcomes of these initiatives, the industry is still highly fragmented and organised players make up only 10 percent of the industry with overall 3500 companies working in this space.

One of the major roadblock for the sector to grow further is the operating cost of cold storage which lies at \$ 60 per cubic meter in India compared to \$ 30 in the west. The reason for this huge difference is on the account of higher energy expenses in India and shortage of adequate infrastructure. The major concerns that the cold storage sector faces are power supply, lack of trained personnel, outdated technology and infrastructure. However, inconsistent power supply and poor electricity is the biggest obstacle in the development of cold storage industry.

How to make it work?

Setting up cold chain involves high cost and higher infrastructure cost for operations. Given the expected growth in grocery retail to \$ 847.9 billion by 2020 from \$ 500 billion in 2012, there are some changes expected by the industry as a whole to ensure the three significant areas of handling food collection, storage and transportation be more cost effective for retailers.

To start with, cold storages can be established closure to the source or agricultural land which will help in increasing the shelf life significantly, availability of agile and reliable logistics system to ensure reduce in transit wastage, robust planning, scheduling and execution which is again very critical given the limited capacity of cold chain and high requirement. Technology interventions like GPS and sensors which can be monitored centrally to track the temperature and position of truck to ensure better control on product quality.

In conclusion

While retail cold chain as a sector is currently struggling to be more efficient, there is a lot of headroom for improvement with the help of operational and technology level changes which can be brought into the overall system. With government also taking up many initiatives for the betterment of sector, it might be a good idea for retailers to look at long terms gains rather than looking at the current model of low operating cost.