INTERNATIONAL TRADE ADMINISTRATION

2016 Top Markets Report Cold Chain
Country Case Study

India

India's potential market size should make it near the top of the Top Market countries; however, constantly shifting regulatory barriers and complex tax schemes limit the large scale investments necessary to fully realize the country's potential.

Overall Rank 15

Lower-Middle Category Ranking 1

Figure 1:

Competitiveness Index	Score
Government/Regulatory	4.1
Labor Force	4.1
Infrastructure	3.8
Demand	4.5
Industry Interest	4.0

World Economic Forum and Global Cold Chain Alliance

Economic Statistics	
Population	1.31 Billion
Cold Storage Capacity	131 M/m^3
Pharmaceutical Sales	$16.3 Billion
Food Spending	$282 Billion
Food Spending per Capita	$215
Agribusiness Market	$263 Billion
Agriculture Imports	$6.4 Billion
Agriculture Exports	$8.1 Billion

BMI and Global Cold Chain Alliance

With an estimated GDP of $2 trillion, India is expected to see growth of nearly 7.5 percent. Exports of goods and services from the U.S. amounted to $38.9 billion or 1.8 percent of all U.S. exports in 2015. U.S. majority owned foreign affiliate sales in India were $70.8 billion and distribution services accounted for more than $13 billion in 2013.[1]

The population of India is considered lower middle income, with a per capita income of about $5,630 (PPP) per year. Unemployment has held steady at 3.6 percent, and inflation was 3.0 percent in 2014.[2]

The $500 billion dollar retail industry is serviced by over 12 million mostly family-owned businesses. Such a fragmented industry can make it difficult for cold chain operators to see sufficient returns on the large investment that is required to set up efficient operations. It is estimated that the highly fragmented cold chain sector that has sprouted up includes more than 3,500 mostly unorganized participants.[3]

India is currently undergoing a rapid transition to a consumer led economy. With over 250 million middle-income consumers, huge opportunities should exist for retailers to expand and grow. Protectionist policies of the Indian government, however, have prevented many Western retailers from entering the market and have kept the share of modern supermarkets in India down to an abysmal .05 percent, lower than virtually all other countries in the developed or developing world. With a growth rate at 4.3 percent,[4] it is unlikely much will change in the near future.

The franchise sector in India is rapidly expanding. Currently valued at around $14 billion, the sector is anticipated to reach more than $50 billion in the next two years. U.S. fast food, casual restaurants and the food and beverage segments are anticipated to reach $1.2 billion.

E-commerce has averaged 34 percent growth over the last several years to reach about $22 billion. Internet use in India has grown significantly to 250 million people. Unfortunately, the Government of India forbids foreign direct investment in business-to-consumer e-commerce, and as of yet, sales of groceries and temperature-sensitive products have not taken off like in other Asian economies. In February 2016, *The Economic Times* reported that the Indian government may be looking into changes to e-commerce regulations that would allow for 100 percent FDI in marketplace models of e-commerce, potentially creating opportunities for U.S. investment.[5]

Express delivery companies are helping to increase the investment into air cargo infrastructure in India. The country currently handles around 2.5 million tons of air cargo.

Even though India is the largest producer of fruit and the second largest producer of vegetables in the world, it represents only 1 percent of world exports, and childhood malnutrition in the country is as high as 45 percent. India is also the largest producer of milk, and 30,000 refrigerated trucks in the country primarily serve the dairy market.

India is one of the largest consumers of food in the world and is the third largest producer of agriculture. Huge opportunities may exist for U.S. cold chain providers that can efficiently consolidate the 3,500 companies currently engaged in cold chain operations. The food service industry is estimated to be nearly $50 billion and is anticipated to grow at 10 percent annually for the next several years.

The Global Cold Chain Alliance estimates that the cold storage market in India has been growing at a rate of 25 percent per year to reach $8 billion in 2014.[6] Despite the growth, India sees nearly 40 percent of its produce go to waste annually due to inadequate cold chain infrastructure; one-third of its losses occur during storage and transit.[7].

Experts have estimated that India has less than half the cold chain capacity necessary to meet its current needs and will require as much as $100 billion of infrastructure investment over many years. While some optimistic estimates expect the cold chain sector to grow to $12 to $15 billion over the next five years, many large retailers and large cold chain service providers will likely continue to hold off investing the amount of large scale capital necessary to efficiently serve the country until the retail market is more organized, restrictions are lowered and there are greater opportunities for return on investment.

In recent years, the Indian government has made attempts to improve investment in cold chain, including exempting customs duties on refrigeration units and equipment, setting up Mega Food Parks, providing tax benefits on investments and even creating a National Centre for Cold Chain Development. These have been welcome changes and have added to the cold storage growth rate; however, most large potential investors still remain on the sidelines, awaiting improvements to the retail environment, especially since cold chain operations in India can cost more than double that of many other countries.

India has been a disappointment for many service industries over the last several years, as high expectations for greater export opportunities have not been realized. India was ranked 130th out of 189 countries in the World Bank's Doing Business rankings in 2016, an increase from 134th in 2015, yet it is still the lowest rated of the "BRIC" economies.[8] Companies entering the market can expect varying business and economic conditions across all of India's 29 states and 7 union territories, due largely to the decentralized nature of India's political system.

In 2014 India Prime Minister Narendra Modi stated that his government's goal was to bring India into the Top 50 of the World Bank's Doing Business ranking by increasing transparency and simplifying rules.

Despite some positive developments, including the Government of India's reduction of certain foreign direct investment (FDI) restrictions, businesses often remain reluctant to invest in the market due to a variety of problems that make it difficult to operate, including poor infrastructure, a complex tariff regime with some of the highest tariffs in the world, protectionist policies, bureaucratic inefficiencies and intellectual property theft.

India is ranked 100th out of 124 countries in the World Economic Forum's Human Capital index 2015. The population has a median age of 25 and a labor participation rate of 54.2 percent. Approximately 6 percent of the population is tertiary educated, and the country is ranked 40th in ease of finding skilled employees.[9]

The Government of India has taken a lot of steps to reduce restrictions on FDI; however, much of the leading government party's constituents are small shop owners, and thus, it is still very protective of the multi-brand retail sector and limits opportunities for outside competitors to enter the market.

Currently, multi-brand retailers may own up to 51 percent of a business in India with the following restrictions:

- Must seek state government approval
- Only permitted to open in cities with a population greater than 1 million residents
- Must commit 50 percent of the first $100 million investment into developing backend infrastructure
- Must source a minimum of 30 percent of the total value of goods from Indian SMEs

According to the World Economic Forum, the small-scale and fragmented retail market that the government protects in India prevents the scale of capital investment necessary to create a modern logistics system.[10] A refrigerated transportation study performed by Ernst & Young for the Indian Ministry of Agriculture's National Centre for Cold Chain Development (NCCD) recommended the government promote more organized retailing to encourage investment in the cold chain sector.[11]

Further, the WTO reported in 2015 that India's trade policy is used to regulate domestic supply and policies frequently change, causing disruptions and unpredictability for business. Import and export taxes and duties, as well as minimum export prices, are used ad hoc and prevent significant long-term strategic development across industries.[12]

In June 2015, the WTO ruled that the restrictions India put in place on U.S. agriculture products, including poultry, eggs and live pigs, citing concerns about avian influenza violated the WTO Sanitary and Phytosanitary (SPS) Agreement. Afterward, according to the U.S. International Trade Commission, the Indian Ministry of Commerce examined ways to scientifically justify protecting India's poultry farmers from U.S. imports.[13]

India ranked 54th out of 160 countries in World Bank's 2014 Logistics Performance Index (LPI). The LPI is an indicator of key dimensions of a country's logistics performance including Customs, Infrastructure, International Shipments, Competence, Tracking and Tracing, and Timeliness. Overall, the country has remained virtually unchanged in almost every category of the Index since 2007, though the category of Logistics Competence has significantly declined.[14]

Figure 2: World Bank Doing Business Ranking

Country	Ranking (2016)	GDP Per Capita (PPP, 2014)
Russia	51	$25,635
China	84	$13,206
Brazil	116	$15,838
India	130	$5,701

India's current tax scheme has encouraged logistics companies to create small stocking facilities located throughout India's 30 states. The complexities of taxation and the subsidization rules of India's national government prevent large logistics companies from creating economies of scale through efficient hub-and-spoke type distribution systems.
India's quality of transport infrastructure is ranked 32nd out of 140 countries in the World Economic Forum Global Competitiveness index. The quality of roads has been increasing since 2001; however, there is a downward trend in quality of railroad and air transport infrastructure.[15]

Sixty percent of freight moves on a road network with less than 5 percent of those roads national highways. The average truck speed across the country is around 13 M.P.H. Often, retail stores may not be able to meet demands due to delays in shipment caused by transportation infrastructure.

A low level of organized 3PLs means that as much as 75 percent of truck owners have a fleet of less than 5 vehicles. Most of these trucks are more poorly maintained and are more than a decade old.

The Indian government has plans to upgrade the 13 major ports to accommodate the nearly 200 percent increase in cargo expected over the next seven years. Currently, the ports suffer from outdated and insufficient cargo handling equipment and terminals. This anticipated investment may provide opportunities for U.S. companies to develop cold chain facilities that can help India meet current and future demand.

Despite having the fourth largest rail system in the world, most shippers avoid rail. The national rail system is underinvested, but the Indian government is developing a dedicated freight corridor plan that will span 2,000 miles across the eastern and western sides of the country. In February 2016, the Indian government announced that it would budget $17.6

billion on rail development for the fiscal year starting in April, a 21 percent increase from the previous year.

Opportunities may exist for cold chain operators that can create or utilize technologies that reduce dependence on the electricity grid. Energy infrastructure is extremely lacking and serves as a huge impediment to integrating cold chain capabilities across the supply chain.

The World Economic Forum ranked India 98th out of 140 in quality of electricity supply[16]. Energy can contribute to 30 percent or more of cold chain operations costs in India, and many farmers do not have access to electricity. As recently as 2012, India had a multi-day blackout, which affected over 620 million people. Companies involved with cold storage must anticipate and adapt to the infrastructure by investing in costly generators or risk losing their products in the event of electricity failure.

Industry's Take:
India is a huge market that is being eyed, from a distance, by major logistics players. Equipment suppliers are already there in full force; however, they are facing issues of price sensitivity. Many customers make major purchasing decisions based solely on price as opposed to quality. Finally, the vast majority of consumers in India are still not demanding the use of cold chain.
Richard Tracy, Global Cold Chain Alliance

Resources:

U.S. Commercial Service:
http://www.export.gov/india/

Country Commercial Guide:
http://www.export.gov/ccg/india090814.asp

Global Cold Chain Alliance:
http://www.gcca.org/contact/india/

American Chamber of Commerce, India:
http://www.amchamindia.com/

U.S. India Business Council:
http://www.usibc.com/

Confederation of Indian Industry:
http://www.cii.in/

Events:

India Cold Chain Expo:
Madhya Pradesh, December 16-17, 2016
www.gcca.org

1 Bureau of Economic Analysis; http://bea.gov/international/factsheet/factsheet.cfm?Area=612.
2 The World Bank; http://worldbank.org
3 National Centre for Cold Chain Development "Refrigerated transportation: bottlenecks and solutions"; Ernst & Young; http://nccd.gov.in/PDF/EYIN_RTC.pdf.
4 International Association of Refrigerated Warehouses; "2014 IARW Global Cold Storage Capacity Report"; Salin, Victoria.
5 The Economic Times; "Government Mulling 100% FDI in Marketplace Model of E-commerce"; http://economictimes.indiatimes.com/industry/services/retail/government-mulling-100-fdi-in-market-place-model-of-ecommerce/articleshow/50918308.cms
6 International Association of Refrigerated Warehouses; "2014 IARW Global Cold Storage Capacity Report"; Salin, Victoria.
7 http://www.state.gov/e/rls/rmk/204965.htm
8 World Bank 2016; "Doing Business 2016: Measuring Regulatory Quality and Efficiency"; http://www.doingbusiness.org/~/media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB16-Full-Report.pdf.
9 World Economic Forum 2015; "Human Capital Report 2015"; http://www3.weforum.org/docs/WEF_Human_Capital_Report_2015.pdf.
10 World Economic Forum, *Enabling Trade: From Valuation to Action*, January 2014.
11 National Centre for Cold Chain Development "Refrigerated transportation: bottlenecks and solutions"; Ernst & Young; http://nccd.gov.in/PDF/EYIN_RTC.pdf.
12 World Trade Organization, Trade Policy Review: India, 2015; https://www.wto.org/english/tratop_e/tpr_e/s313_e.pdf
13 USITC, Trade and Investment Policy in India, 2014-2015.
14 World Bank 2014; "Connecting to Compete: Trade Logistics in the Global Economy"; http://lpi.worldbank.org/sites/default/files/LPI_Report_2014.pdf.
15 World Economic Forum 2015; "Global Competitiveness Report 2015-1016"; http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf.
16 World Economic Forum 2015; "Global Competitiveness Report 2015-1016"; http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf.