

# India-UK Collaborations and Investments in Food Supply Chain

*Opportunities, Concerns  
and the Way Forward*



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private companies in this sector are keen on foreign collaborations which will enable them to not only expand but have access to global best practices.

### 1.3.2 Technology Usage

Most of the agri-warehouses in India are not automated and they only meet the basic standards set by the regulator. The design of the warehouse largely depends on the end-user requirements. Majority of them use brick, mortar and pre-fabricated panels. For these, the buildings can primarily be of two kinds, pre-engineered buildings or reinforced concrete cement buildings. These warehouses are used to store foodgrains. They are designed so that it is easy to stack gunny bags that store the foodgrain manually. To maximise the storage space, there are no racks or compartments and the bags are stored on top of each other.

Storage in such warehouses can lead to wastage and pilferage. For example, the survey has found that if there is a lot of pressure from the top or if the bags soak moisture it can tear the bag. Fumigation, which forms an important process for keeping the produce pest free, is also ignored in many warehouses. To counter problems of moisture generation in the warehouses, some warehouses have ventilation facilities. However, this can lead to entry of pests and insects into the warehouses.

In recent years, the government has focused on use of silos for storage of rice and wheat. Attempts are being made by FCI to create state-of-the-art foodgrains storage facilities and silos through private sector participation.<sup>23</sup> Silos have several benefits. They require lesser space/land (around one-third of land is required as compared to the traditional structures) and offer better safety and lock the quality of the stored items. They also enable better monitoring and overall reduce grain wastages.<sup>24</sup> They have greater storage capacity that results in efficiency in production and distribution of grains. However, silos require uniform grain quality and are suitable for large agricultural produce of homogenous variety.

Compared to this, retail, multi-commodity warehouses, CFSs and ICDs are automated. The clients of such warehouses require equipment such as cranes

and technology such as radio frequency identification (RFID) trackers. Processed food needs to be stored in racks. The clients/users need technology and efficient warehouse designs for inventory management and tracking and reduction in wastages and pilferages. With the introduction of quick service restaurants (QSRs) and fast moving consumer goods (FMCG), warehouses now need to act as high response centres. These warehouses also require technology and skilled workforce for operating machinery or for inventory management.

Almost all respondents have pointed out that there is sufficient storage capacity in India; however, the issue lies in the poor quality and lack of management of the warehouses and the non-uniform spread of warehouses across different states. As the demand for warehouses is rising, there is a growing realisation for improving the warehouse management system. As pointed earlier, many of the private players interviewed work on a lease model rather than owning the facility. Hence, the warehouses are hired or leased closer to the client site or requirement. Their business model is asset light but uses technology for better and efficient management of warehouses.

Technology can be a powerful tool for gaining competitive advantage and many companies are designing programmes which can help in warehouse management. As a result, there is an increase in the productivity and the efficiency of the warehouse. A complete warehouse management system incorporates picking, inventory control, label printing, return material authorisation, receiving and automatic data collection and much more. Box 1.1 shows an example of technology and programmes by an Indian company. In order to increase efficiency, the organised players have realised that structure, location, support infrastructure, technology and connectivity are key to the success of the warehouse business. A number of start-up companies have entered this segment bringing in new technologies to improve connectivity in the supply chain and reduce wastages. Among them, Star Agri, Shree Shubham Logistics, Sohan Lal Commodity Management, Siddhivinayak Agri Processing, INI Farms, and Allfresh deserve a special mention. While some of these cater to specific product categories, others operate across a wide range of produce. A number of these start-ups operate at the grass-root level directly with the farmers. For example, EM3 Agri Services helps in land preparation and crop harvesting on a 'pay-per-acre' basis to small land holdings at economical rates, while eFarm enables its clients to escape the chains of intermediaries by directly linking buyers with the sellers of agricultural

23. See also [http://fci.gov.in/app/webroot/upload/News/Report%20of%20the%20High%20Level%20Committee%20on%20Reorienting%20the%20Role%20and%20Restructuring%20of%20FCI\\_English.pdf](http://fci.gov.in/app/webroot/upload/News/Report%20of%20the%20High%20Level%20Committee%20on%20Reorienting%20the%20Role%20and%20Restructuring%20of%20FCI_English.pdf) (accessed on 7 December 2015).

24. <http://www.fci.gov.in/app/webroot/upload/Storage/Silo%20Conference%20PPT.pdf> (accessed on 23 November 2015).

produce and allied services via a web and mobile-based portal. Reuters Market Light, Fasal Intuit and mKrish provide personalised agricultural market information (such as quality inputs, weather patterns, best prices, market access, etc.) to farmers through a mobile-based service (SMS or voice messages). Utilising information and communication technology (ICT) to provide logistics solutions is how Logistimo enables its clients to manage their inventory, credit, track truck deliveries and routing, monitor workforce behaviour and forecast demand through a mobile app.

There is also growing investment by private companies in logistics parks and multi-modal logistics hubs across India, which shows that companies are now trying to integrate the various segments of the supply chain. Also, there is an effort to consolidate the large number of fragmented and small warehouses into a few large integrated models, using information technology. Through these initiatives, the private players are moving towards a hub-and-spoke model.

The survey respondents have pointed out that efficiency will increase with economies of scale and government policies such as the single goods and services tax (GST), which will lead to scale expansion.

GST is expected to accelerate the growth of the storage and warehousing industry and creation of true hub-and-spoke model, which India currently lacks. Rolling out of GST is further expected to drive the technology adoption since under hub-and-spoke model technology will be of paramount importance.

### 1.3.3 Training

The survey has found that the training requirements vary with different types of storage and warehousing facilities. For the public sector warehouses, there is no specific training provided to the labour. For instance, one of the leading public sector warehousing players mentioned that the labour only learns on the job and there is no specific training provided to them. However, CWC and others provide training to the technical staff related to areas such as food safety standards, carrying out inspection of foodgrains, instructions for pest control and on how the bags are to be stacked. The overall training duration is for one year, which comprises three month classroom training and the remaining nine months on-the-job training. Curriculum of the training is designed based on the requirement.

Compared to this, the nature of training provided by the private warehouses differs to a large extent. While



Foodgrain Stack in FCI Godown.

Source: Taken from the web: <http://www.fci.gov.in/fci/img/uploads/Foodgrain%20stack%20in%20FCI%20Godown.JPG>



Sohan Lal Commodities Management Private Limited (SLCMs) warehouse for Agri Commodities.

Courtesy: SLCM Group.



Silos at Integrated Food Park Private Limited in Tumkur, Karnataka.

Source: Picture taken in 2014 during the Evaluation of the Impact of the Scheme for Mega Food Park of Ministry of Food Processing Industries.

the curriculum consists of classroom training as well as on-the-job training, the employees are trained on the use of sophisticated warehousing management system and equipment like forklifts, etc. The level of training provided by them to their employees is entirely different. All of the private storage and

**Box 1.1****Sohan Lal Commodities Management (SLCM) Private Limited**

SLCM is a commodities management company that provides a range of services to its customers such as management of commodity warehouses, agri-financing, collateral management and procurement.

The company uses innovative techniques and modern technology for warehouse management and also provides other services such as financing. SLCM focuses on scientific warehousing processes rather than infrastructure creation and it manages a network of 780 warehouses across India. The uniqueness of the company is that it has systems to monitor warehouses located anywhere in the country through their technology enabled network. It does not require the personnel to be at the client site for monitoring the products. It was pointed out during the survey that they can even report the moisture levels in the grain without physically inspecting the products. They have a programme called 'Agri Reach', which is a proprietary technology developed by the group that enables the tracking of Real Time Data about Quality & Quantity of the commodities at the warehouses across India. It primarily uses android tablets for entering the data at warehouse locations. While the warehouse manager captures the data pertaining to inward/outward taking place at the warehouse, it simultaneously updates the data on the Systems Applications and Products (SAP) Application server on Real Time Basis. This helps in effective monitoring of crop to take preventive and curative measures at the right time. The company claims that Agri Reach helps in reducing the wastages from 10 per cent to a mere 0.5 per cent. Moreover, all the warehouses under SLCM are geo-fenced which is a tool to track the on-field officers on a real-time basis. The company has been successful in raising four rounds of FDI. Apart from this, the company has a programme called 'Kassandhan' that offers financing solutions on agriculture collateral. Over a short span of time, the KISSANDHAN project disbursed INR 2.5 billion of loans, serviced over 9,770 storage receipts at 47 locations. This kind of initiative helps farmers avoid distress sales. SLCM has managed to affect about 30,000 farmers until March 2015.

Source: Findings during the survey and information collected from the website: <http://sohanlal.in/index.html> (accessed on 28 March 2016).

warehousing players contacted mention that they provide customised training to their employees based on the job requirement. For example, a forklift operator will be given classroom training as well as on-the-job training on how to move forklifts in a warehouse, how to use a forklift for loading/unloading, etc.

### 1.3.4 Future Growth Potential

Most of the survey respondents have highlighted that the storage capacity in India has reached near saturation in most states. There may be some requirement for storages and warehouses in hilly regions such as Jammu and Kashmir and in the North-East states of India. Therefore, the focus of the government has to move away from construction to automation and better management of warehouses and storages.

It is pointed out during the survey that the storage and warehousing players are expecting a growth of over 10 per cent over the next 3-4 years owing to multiple reasons including rolling out of GST, creation of hub-and-spoke structure, modernisation of existing facilities, etc. They also mentioned that the major scope for development lies in better technology through automations and warehouse management systems. Hence, there is a need for scientific warehouse management. This is a huge area for private investment

and technology collaboration. The future growth of this sector will depend on the entry of domestic and foreign players in food manufacturing and retailing. While the government is encouraging manufacturers to invest in India, there are FDI restrictions in multi-brand retail. Removal of FDI restrictions in retail will be a key growth driver for this sector.

The next section discusses some of the other areas of collaboration and the market entry strategy for the UK businesses.

### 1.4 Existing and Potential Areas of Cooperation and Go-to-Market Strategy for the UK Companies

One of the key drivers of the warehousing sector in India will be high economic growth and increase in investment in infrastructure projects such as roads, railways, highways and expressways, and economic and industrial corridors. Several infrastructure projects are already underway such as DMIC and the other DFCs and there is a great scope of integrating the supply chain through these economic and industrial corridors. The UK companies can focus on development of warehouses along DFCs and economic corridors. It is important for the companies to identify the right state, the right location within the state and the right business partner.