

## Impact of E-commerce on Agricultural Produce Retailing in India

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*The advent of e-commerce has brought a revolutionary change in various sectors of the economy, including the retailing of agricultural produce. Retailing of agricultural produce involves the sale of farm products directly to consumers or through various intermediaries. The digital revolution has changed the way of retailing of agricultural produce. E-retailers are selling perishable agriculture commodities through the digital platform. This article discusses the agricultural retailing transformation from traditional retailing to e-retailing and also explores the multifaceted impact of e-commerce on the agricultural retail sector by examining both the benefits and challenges.*

### Introduction

Retailing of agricultural produce in India involves the sale of farm products directly to consumers or through various intermediaries. This sector has seen significant changes and developments over the years, driven by factors such as policy reforms, technological advancements, and changing consumer preferences. The agricultural sector in India, a vital part of the economy, has traditionally relied on local markets, known as *mandis*, regulated by the Agricultural Produce Market Committee (APMC). However, the rise of e-commerce and digital platforms has started to transform this sector, offering both opportunities and challenges. This article explores how e-commerce is reshaping agricultural produce retailing in India, focusing on the benefits and obstacles faced by farmers in this digital transition.

### Transformation of agricultural retailing

Retailing in India has been prevalent ever since the early stages of human civilisation in the form of barter system. Initially, retailing in India meant only village *haats*, *melas* and *mandis*. These rural formats catered to all the daily necessities of villagers and they are the source of entertainment for the villagers. They are still present in most of the villages of India and form an essential part of life and trade. These are very unstructured and fragmented markets. As the cities and towns started developing, the neighbourhood kirana stores became popular among Indian consumers which catered to their convenience by providing all essential items at a fair price. After independence, there was still not any change in the type and format of outlets with small and distributed ‘mom and pop shops’ dominating the scene. Since 1956-57, the emergence of Khadi and Village Industries Commission (KVIC) showed an era of government support for an indigenous franchise model of store chains. This was first of its kind of so-called ‘Organised Retail’ format where an organization owned the retail chain and employed people to run the same. The transformation of Agricultural Retailing has been shown in Fig 1.

### Traditional agricultural retailing

Traditionally, Indian farmers sell their produce at local *mandis*. These markets are often characterized by the presence of middlemen who facilitate transactions between farmers and buyers. The traditional supply chain of agricultural produce was not very complex. It simply

involved the farmer, a local middleman, and the consumer. The produce was comparatively fresh as the distribution of the produce was limited to nearby local or regional markets. Transaction system was informal mostly cash based and often lacked standardization in terms of quality and pricing.



E-Retailing

Organised Retailing



Traditional Retailing



Fig. 1. Transformation of Agricultural retailing

### Organised retailing of Agricultural produce

Organized retailing refers to the structured and formalized approach to retailing, typically involving large retail chains, supermarkets, and hypermarkets. In the context of agricultural produce, organized retailing involves a direct procurement system, improved supply chain management, better infrastructure, and a focus on quality and standardization. Major players in organized agricultural retailing in India include Lulu Hypermarket, Spencers and DMart etc. The emergence of supermarkets and hypermarkets brought significant changes in Indian retail. These retail formats offered a wide variety of products, including agricultural produce, under one roof, enhancing convenience for consumers. The development of cold chain logistics improved the storage and transportation of perishable goods, enabling a longer shelf life and better quality of produce. Modern retailing introduced standardization in terms of quality, packaging, and branding. This helped in building consumer trust and loyalty. Advanced supply chain management practices were adopted, including contracts with farmers, better forecasting, and inventory management. This led to more efficient distribution networks and reduced wastage

### Emergence of E-commerce platforms

E-commerce platforms have begun to disrupt traditional agricultural retailing by providing a direct link between farmers and consumers. The government scheme e-NAM (National Agriculture Market) has emerged as crucial players in this transformation. It offers farmers an alternative to traditional mandis, providing access to a wider market and better prices. The rise of online grocery stores allowed consumers to purchase agricultural produce from the comfort of their homes. Companies like Amazon Fresh, Big basket, Jio-Mart and local online grocery platforms became popular. E-commerce enabled farmers and producers to sell directly to consumers through various platforms and eliminating the various middlemen from the supply chain. E-commerce platforms used technology and analyse consumers' data and to improve supply chain efficiency by forecasting customer demand and the customizing the shopping experience. Transactions are mostly through digital payment system facilitating secure and convenient transactions. Mobile applications and online marketplaces expanded the reach of agricultural produce, connecting rural producers with urban consumers on a global scale.

### Benefits of E-commerce in Agricultural retailing

E-commerce has revolutionized agricultural retailing as it provides various benefits to both farmers and consumers by increasing the efficiency and reach of the industry.

**Empowerment of farmers:** E-commerce platforms empower farmers by eliminating intermediaries, thus increasing their profit margins. By selling directly to consumers or larger retail chains, farmers can secure better prices for their produce. This direct market access is especially beneficial for smallholder farmers who often face exploitation by middlemen in traditional markets.

**Enhanced market reach:** Digital platforms enable farmers to reach consumers beyond their local markets. Urban and semi-urban consumers, who have a growing demand for fresh and organic produce, can now directly purchase from farmers. This expanded market reach helps farmers increase their sales and diversify their customer base.

**Improved supply chain efficiency:** E-commerce platforms invest significantly in logistics and supply chain infrastructure. Cold storage facilities, refrigerated transport, and efficient logistics systems help reduce post-harvest losses and ensure that fresh produce reaches consumers in optimal condition. This not only reduces waste but also enhances consumer satisfaction by delivering high-quality produce.

**Access to market information:** Digital platforms provide farmers with real time information about market prices, demand trends, and consumer preferences. This information help farmers to make informed decisions about what to produce, when to harvest, and where to sell their produce. By using these data farmer can make better planning and increased profitability.

### Challenges of E-commerce in Agricultural retailing

Despite the potential for increased market reach and efficiency, several obstacles hinder the full integration of e-commerce into agricultural supply chains. These challenges include the perishable nature of agricultural products, which demands robust logistics and cold chain management to ensure freshness and quality.

**Digital gap:** One of the significant challenges in adopting e-commerce for agricultural retailing is the digital gap. Many farmers, particularly in rural areas, lack access to smartphones and reliable internet connectivity. This digital gap limits their ability to engage with e-commerce platforms effectively.