

# Business Opportunities for Turmeric Startups through the National Turmeric Board

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## Abstract

Turmeric stands as a vital cultural component in India, and it serves as the essential culinary and medicinal component known as the "Golden Spice." India's dominance over 65% of global turmeric manufacturing production was the foundation for establishing the National Board of Turmeric (NTB) in 2025. The National Board of Turmeric (NTB) is designed to advance innovations, drive trade activities, promote exports, and assist turmeric businesses. This study explores how NTB initiatives are unlocking new business opportunities for turmeric-focused startups and entrepreneurs across India.

This study draws insights from both primary and secondary sources. Primary data was collected through interviews with key stakeholders, including the Chairman of the National Board of Turmeric (NTB), the Member of Parliament of Nizamabad, the Farmer Producer Organisation (FPO) Nizamabad Cluster, turmeric farmers, and traders. Secondary sources such as academic research, government reports, and market analyses were used to examine NTB's role in promoting entrepreneurship, boosting exports, and supporting innovation. The analysis explores how curcumin content adds value to industrial products, influences pricing strategies, and shapes diverse market segments.

NTB offers three pillars of support that directly benefit startups: market access (domestic and international), financial assistance, and trade facilitation services. These initiatives have encouraged entrepreneurs to invest in high-curcumin turmeric varieties suited for the pharmaceutical and nutraceutical sectors, while also enabling value-added diversification in everyday culinary, wellness, and spiritual products. Low-curcumin turmeric continues to serve mass-market needs, while premium turmeric applications include skincare products, health supplements, and traditional offerings like kumkum.

By fostering an ecosystem of innovation and providing strategic support, NTB empowers turmeric startups to scale operations, meet growing global demand, and contribute to rural entrepreneurship and sustainable agriculture. With the proper backing, India's turmeric startups are well-positioned to lead the next wave of growth in agri-based export ventures.

**Keywords:** National Turmeric Board, Turmeric, Business Opportunities, FPO, Entrepreneurs, Innovation

## 1. Introduction

For centuries, *Curcuma longa*, commonly known as turmeric, has been a vital cultural ingredient in Indian society. Its multiple uses in traditional medicine, cooking, and religious practices have cemented its central position in Indian homes and global markets. India is the leading producer, consumer, and exporter of turmeric, contributing 65% of global turmeric exports. In 2023-24, India produced 10.63 lakh metric tons (MT) of turmeric, with a 3.6 MT per hectare productivity rate. The turmeric sector earned over 320 million USD during this period. The global demand for turmeric, particularly its active curcumin, has made it

recognised in health and wellness applications. During the COVID-19 pandemic, turmeric experienced one of the highest global demand surges, driven by its perceived health benefits, including anti-inflammatory and immune-boosting properties.

The turmeric industry in India involves many stakeholders, including farmers, traders, exporters, and various organisations such as Farmer Producer Organisations (FPOs). The establishment of the National Turmeric Board (NTB) by the Government of India in 2025 came after nearly four decades of persistent demand from these stakeholders, particularly those from major turmeric-producing regions like Nizamabad. The Government officially announced the formation of the NTB in 2023, marking a significant step forward in advancing the turmeric sector. The NTB aims to enhance the turmeric value chain, empower farmers, promote exports, facilitate research, and create new business opportunities. This paper evaluates the emerging business prospects for turmeric-based startups in India, driven by NTB's efforts and the evolving global market trends.

### **1.1 Cultural, Traditional, and Economic Significance of Turmeric**

Indian culture reveres turmeric for its symbolic nature, representing health and purity while bringing prosperity. Turmeric has multiple purposes in traditional Indian cooking, spirituality, and Ayurvedic medicine because of its healing benefits. Throughout India, several states consider turmeric essential for wedding rituals and special celebrations as it represents prosperity and fertility. The use of turmeric extends beyond religious rituals because it creates kumkum (vermilion) and traditional cosmetics and natural colouring substances.

Turmeric is an essential agricultural product for India because it strengthens the spice market and supports rural income networks. India is the world's foremost producer and exporter of turmeric, contributing approximately 65% to global turmeric exports. Traditionally, turmeric's primary production centres were located in Telangana and Andhra Pradesh, with cultivation also prominent in Tamil Nadu, Maharashtra, and Odisha. However, turmeric cultivation has expanded to nearly 34 to 35 states and union territories across India, with Goa being a notable exception. This widespread cultivation highlights turmeric's importance as both a cultural symbol and an economic crop. The growing global interest in natural and herbal products continues to enhance turmeric's economic potential, creating new commercial opportunities in pharmaceuticals, cosmetics, organic markets, and nutraceuticals.

The extraction of curcumin from turmeric has sparked substantial global market demand, as this compound exhibits anti-inflammatory and antioxidative properties that enhance therapeutic outcomes. The increasing global importance of turmeric positions it as a strategic commodity with significant potential in domestic and international markets. The National Turmeric Board (NTB) has strengthened the infrastructure for turmeric testing. The availability of curcumin testing machines, which was previously limited, is now expanding, making these resources more accessible and ensuring quality and consistency in the global market.

### **1.2 Global Market Trends and Demand Drivers**

The world has witnessed an intense surge in demand for natural, organic, and plant-based products in recent years as manufacturers use turmeric as a core ingredient to meet growing market needs across various industrial sectors. The pharmaceutical industry and the nutraceutical sector increasingly use curcumin extracted from turmeric because scientific studies have confirmed its three main properties: anti-inflammation, antioxidation, and possible cancer prevention benefits. The rising need for high-curcumin turmeric strains has triggered new cultivating practices for medicinal purposes.

A significant catalyst for the global turmeric demand was the COVID-19 pandemic, which brought renewed attention to turmeric's immunity-boosting qualities and health benefits. During this period, turmeric-based products experienced an unprecedented surge in demand, particularly in health drinks, immunity boosters, and Ayurvedic formulations. Consumers turned to traditional remedies, driving up both domestic consumption and international exports. This momentum further strengthened turmeric's position in the global wellness and healthcare markets.

The demand for turmeric-based functional foods, including turmeric lattes, health shots, dietary supplements, and natural skincare products, has continued to rise across Southeast Asia, Europe, and North America. The global wellness industry, projected to exceed trillions of dollars, has created new business opportunities for turmeric as a diverse ingredient through multiple industry applications.

Additionally, consumer demand for clean-label products that use natural additives instead of artificial preservatives has increased market demand for turmeric applications in food packaging and cosmetic products. International food brands now add turmeric to ready-made snacks, power bars, tea blends, and performance nutrition products.

Globally, health experts and media outlets have recognised turmeric as a superfood, leading to sustained export market expansion and increased market value. These combined market developments present considerable business opportunities for entities involved in growing, processing, researching, and marketing turmeric-based products across domestic and international markets.

### **1.3 History of National Turmeric Board (NTB)**

The Government of India announced the formation of the National Turmeric Board (NTB) in October 2023, recognising turmeric's strategic economic, cultural, and medicinal importance. Responding to decades of demand from farmers, traders, and exporters, especially from key turmeric-producing regions like Nizamabad, the NTB was established to address the sector's longstanding challenges and unlock its untapped potential.

The NTB actively works towards holistic sectoral development by focusing on the entire turmeric value chain, which includes farm-level production, processing, marketing, and global outreach. Its initiatives aim to support farmers, startups, and Micro-Small and Medium Enterprises (MSMEs) through financial assistance, technology integration, and market expansion.

One of NTB's key missions is to enhance India's global competitiveness in turmeric by promoting quality standards, encouraging the cultivation of high-curcumin varieties, and facilitating the development of value-added products. The Board also plays a vital role in promoting Geographical Indication (GI) tags for renowned turmeric varieties such as Lakadong (Meghalaya) and Erode (Tamil Nadu), helping to elevate their regional brand identities in global markets. In addition, the NTB supports branding and market development for other prominent varieties, including Alleppey Finger (Kerala), Salem Turmeric (Tamil Nadu), Rajapore Turmeric (Maharashtra), Sangli Turmeric (Maharashtra), Nizamabad Bulb (Andhra Pradesh), Kandhamal Haladi (Odisha), Basmat Haldi (Chhattisgarh), and Waigaon Turmeric (Maharashtra). These diverse regional varieties represent India's turmeric landscape's rich biodiversity and cultural heritage, making them invaluable treasures of Incredible India.

Through focused research and innovation, the NTB encourages advancements in curcumin extraction methods, promotes sustainable farming practices, and supports the development of innovative turmeric-based products. These initiatives ensure the Indian turmeric sector remains competitive, resilient, and aligned with evolving global market trends.

### **1.4 Business Opportunities for Startups and MSMEs**

Startups and MSMEs have multiple business opportunities in the turmeric sector across various domains. The industry offers avenues for pharmaceutical and nutraceutical development, cosmetics manufacturing, organic farming, food production, and religious product markets. One of the key advantages of the turmeric industry is the ability to segment products based on curcumin content. High-curcumin turmeric finds applications in pharmaceuticals and health supplements, while low-curcumin varieties continue to be used in traditional culinary and ritualistic products.

In recent years, the market has opened doors for environment-conscious products, giving rise to sustainable packaging and eco-friendly innovations. Startups are leveraging digital marketing to tap into global audiences, introducing turmeric-based beverages, herbal tea blends, dietary supplements, and wellness-oriented products. These innovations meet growing consumer demand and create strong business potential for both domestic and international markets.

A noteworthy example of emerging turmeric enterprises was seen during the 2025 Mahakumbh, where around eight to nine turmeric-focused startups showcased their unique products. Among them, one startup introduced black turmeric honey, which stood out for its premium appeal. With attractive packaging, they successfully positioned a 250-gram jar at a price of ₹1000, highlighting the high-margin potential of niche turmeric products. Another innovative product was a curcumin-based chocolate bread spread, offering a healthier alternative to conventional spreads while retaining taste and visual appeal. Such innovative applications reflect the untapped potential for value-added turmeric products in premium segments.

Additionally, Farmer Producer Organisations (FPOs) receive significant support from the Government of India under initiatives like Atmanirbhar Bharat, encouraging collective entrepreneurship in turmeric farming and product development. These incentives empower small farmers and rural entrepreneurs to participate in the growing turmeric value chain, ensuring inclusive growth and local job creation.

Expanding premium turmeric varieties and value-added products to the US, European markets, and Southeast Asian countries presents substantial revenue opportunities for Indian MSMEs. Combined with strong government support, the strategic efforts of the National Turmeric Board (NTB), and the rising global demand for wellness products, the turmeric sector offers a promising landscape for entrepreneurial success and sustainable rural development.

### **1.5 Research Gap and Purpose of the Study**

While turmeric has long been a cornerstone of India's agricultural economy, there is limited documentation on the direct impact of the National Turmeric Board (NTB) on startups and micro, small, and medium enterprises (MSMEs). As Shri Arvind Dharmapuri, Member of Parliament, stated in the interview conducted for this research, "The NTB is not just an agricultural board, it is a bridge between farm and enterprise." This highlights the NTB's potential role beyond traditional farming, linking agricultural production with entrepreneurial opportunities.

Existing research focuses on turmeric's agricultural management, medicinal properties, and export market potential. However, few studies explore how the NTB's policies and initiatives foster startup development, enhance MSME participation, or transform turmeric into higher-value products through innovation.

This study addresses this gap by examining how NTB interventions create favourable conditions for turmeric-related entrepreneurship, rural business growth, and market-driven product development. In particular, it investigates the role of curcumin content standardisation as a value addition tool that helps businesses penetrate premium global markets.

Furthermore, this research analyses challenges such as international competition and evolving consumer preferences, identifying strategic approaches to sustain long-term business growth. Ultimately, the study positions turmeric as a multi-dimensional economic resource supporting India's leadership in organic and wellness product sectors on both domestic and global levels.

### 1.6 Scope and Significance of the Research

This study provides vital information that benefits business academic learners, policymakers, investors who participate in the spice business, agri-entrepreneurs, and all stakeholders of the spice market. The study investigates product diversification techniques while analysing curcumin-based market potential, overseas commercial growth, and NTB's influence on establishing new startup ventures. The investigation focuses on finding opportunities to enhance India's turmeric industry domination worldwide while establishing rural business initiatives.

Research explores the methods turmeric-based startups use to include innovation, value addition, and sustainable practices while satisfying escalating international demand for health and wellness items.

It explores how NTB's interventions can facilitate access to emerging markets, promote indigenous turmeric varieties, and encourage collaborations between farmers, industries, and research institutions. The study further emphasises the potential of turmeric startups to contribute to employment generation, enhance farmer incomes, and boost India's agri-based economy.

## 2. Literature Review

Traditional knowledge systems such as Ayurveda have positioned turmeric as a key ingredient in health and wellness, while its culinary and dyeing applications have maintained steady demand. In recent years, its growing global popularity has drawn attention from researchers and policymakers alike, particularly regarding its potential in agribusiness and value addition.

Existing academic literature widely acknowledges turmeric's potential as a high-value crop for rural India. Researchers have noted that despite its high domestic production, much turmeric farming remains dependent on outdated practices, low-yield varieties, and informal market linkages. Studies have also highlighted post-harvest losses, price fluctuations, and a lack of standardisation, which impact farmer incomes and deter long-term investment.

A growing body of research now examines the entrepreneurial opportunities surrounding turmeric-based products. These include health supplements, nutraceuticals, cosmetics, packaged foods, and beverages. The post-COVID surge in immunity-focused products has further accelerated the demand for turmeric in global wellness markets. However, most small-scale entrepreneurs face barriers in scaling due to limited market access, the absence of branding support, and complex certification procedures. Scholars have consistently noted the need for institutional intervention to bridge these structural gaps.

Government schemes supporting agripreneurship, such as the Agri-Clinics and Agri-Business Centres (ACABC) scheme or MSME subsidies, have provided partial assistance to turmeric startups. However, no centralised institution catered to turmeric's unique value chain until the **National Turmeric Board (NTB)** was established in 2023. Policy literature indicates that the NTB is tasked with enhancing quality control, export competitiveness, farmer training, infrastructure development, and promoting value-added enterprises. As this is a recent development, scholarly assessments of its role, structure, and impact remain minimal or anecdotal.

Another strand of literature focuses on **Farmer Producer Organisations (FPOs)** as intermediaries in agricultural innovation and collective marketing. While FPOs have received considerable attention in



general crop value chains, there is limited analysis of their integration into turmeric-based entrepreneurship, especially in collaboration with emerging institutions like the NTB.

In summary, while the academic and policy discourse has recognised turmeric's potential and highlighted its challenges, there is a clear gap in evidence-based research on the role of dedicated institutional frameworks like the NTB in fostering startup ecosystems. Furthermore, there is a lack of qualitative insights into how stakeholders such as farmers, FPOs, and rural entrepreneurs are experiencing and responding to these changes. This study aims to address this gap by combining primary field data with an analysis of early institutional developments in India's turmeric sector.

### **2.1 Historical, Cultural, Economic, and Institutional Significance of Turmeric in India**

For decades, turmeric farmers in India, particularly Telangana, operated within an institutional framework that failed to recognise their specific needs. Although turmeric was nominally under the purview of the Spices Board of India, the Board's focus remained limited primarily to plantation crops such as cardamom, pepper, and vanilla. As a result, turmeric cultivators received minimal targeted support in areas like export facilitation, research and development, or market infrastructure. This neglect led to chronic underperformance and economic distress in key turmeric-growing regions.

The demand for a dedicated turmeric board has repeatedly been raised over the last four decades, particularly in Nizamabad, Telangana, one of India's largest turmeric-producing belts. In 2019, the frustration peaked when 178 turmeric farmers from the region filed nominations to contest the Lok Sabha elections, a move intended as a protest against political inaction.

During the 2019 elections, Shri Arvind Dharmapuri, a candidate from Nizamabad, made establishing a National Turmeric Board a central campaign promise. In an interview conducted specifically for this research study, he acknowledged that the demand was longstanding but consistently ignored: "The Spices Board was formed 37 years ago, and since then, turmeric has remained neglected. It doesn't have a place in the main objectives of the Board." He added that turmeric farmers were not demanding special treatment, but merely a platform that would recognise and address their issues: "Not a single rupee was spent for the benefit of turmeric farmers. They wanted proper representation and support for marketing, exports, and scientific research."

Following his election, Dharmapuri persistently raised the issue in Parliament and through discussions with the Ministry of Commerce. Combined with mounting pressure from civil society and the farming community, these efforts culminated in the Government of India's formal announcement of the National Turmeric Board in October 2023. Headquartered in Nizamabad, the NTB is the first new commodity board formed in India in over thirty years.

Its establishment represents a landmark in agricultural policy and farmer representation. Beyond bureaucratic reform, the NTB symbolises the translation of grassroots agitation into institutional change, driven by collective advocacy and sustained political commitment. The insights gathered from the interview with Dharmapuri provide essential context to this development, making clear that the NTB's creation results from a protracted and hard-won struggle for recognition.

### **2.2 Curcumin-Centric Product Development and Health Applications**

Curcumin is the primary bioactive compound found in turmeric, responsible for its vibrant yellow colour and many of its medicinal properties. Scientifically classified as a polyphenol, curcumin has been studied extensively for its anti-inflammatory, antioxidant, antimicrobial, and anticancer effects. Traditional medicine systems like Ayurveda and Siddha have long used turmeric for healing purposes, but modern research has brought curcumin into sharper focus as a potent therapeutic agent.

This scientific rediscovery of curcumin has significantly influenced the growth of turmeric-based business models. Academic and pharmacological studies now view curcumin as a natural remedy and a key driver for developing high-value products in pharmaceuticals, nutraceuticals, and functional foods. High-curcumin turmeric strains are being explicitly cultivated for these industries in response to rising demand. Research and development initiatives by institutions such as the Council of Scientific and Industrial Research (CSIR), Indian Council of Agricultural Research (ICAR), and innovative agri-tech startups are actively supporting curcumin-centric product development. Technological advancements like nano-curcumin formulations and techniques to enhance bioavailability pave the way for new intellectual property and product categories, particularly targeting global export markets.

The commercial potential of curcumin has thus transformed turmeric from a traditional kitchen spice to a scientifically validated and economically valuable resource for modern health and wellness industries.

### **2.3 Global Market Evolution and Export Opportunities**

Several market research papers and trade analysis reports (e.g., IMARC Group, 2023; IBEF, 2024) confirm that turmeric has expanded well beyond traditional consumption, finding ground in global wellness, food processing, cosmetics, and bio-pharma industries. The positioning of turmeric as a “superfood” has particularly gained momentum in Western markets.

The literature emphasises the rising demand for clean-label products, natural preservatives, and traditional ingredients, making turmeric desirable in diverse product lines. Turmeric-infused beverages, skincare lines, fortified snacks, and fitness supplements now contribute to a multi-billion-dollar wellness economy. Export data reveal that value-added turmeric products, especially those with certified high-curcumin content, fetch premium pricing in countries like the USA, Germany, Japan, and Australia. Yet, scholars also point to the fragmented supply chains and standardisation gaps that Indian exporters must address to leverage these opportunities fully.

### **2.4 Knowledge Gaps in Startup Ecosystems and MSME Interventions**

Despite the growing academic focus on agripreneurship, specific studies on turmeric-focused startups or MSMEs remain scarce. Literature typically emphasises turmeric's horticultural or medicinal aspects rather than its entrepreneurial potential. There's minimal empirical data on startup incubation, branding strategies, rural enterprise development, or turmeric's integration into digital commerce and global B2B platforms.

To address these gaps, the Indian government has launched several initiatives to foster entrepreneurship and ease business operations. The Startup India portal (<https://www.startupindia.gov.in/>) is a comprehensive platform offering resources, mentorship, and startup funding opportunities. Additionally, the Invest India initiative (<https://www.investindia.gov.in/>) acts as a national investment promotion and facilitation agency, assisting entrepreneurs in navigating regulatory landscapes and connecting with potential investors.

The government has streamlined processes in the agricultural sector to promote ease of doing business. Agri-sector startups benefit from simplified registration procedures and reduced compliance requirements, facilitating quicker approvals and operations. Furthermore, the Atal Innovation Mission (AIM) under NITI Aayog supports innovation and entrepreneurship through programs like Atal Incubation Centres and Atal Community Innovation Centres, providing infrastructure, mentorship, and funding to startups across various sectors, including agriculture.

These initiatives aim to bridge the existing knowledge and support gaps, enabling turmeric-based startups and MSMEs to thrive in domestic and international markets. By leveraging these resources, entrepreneurs can transform traditional turmeric cultivation into innovative, value-added business models.

### 3. Research Methodology

This research adopts a qualitative and analytical approach to explore the institutional and entrepreneurial landscape surrounding the establishment of the National Turmeric Board (NTB) in India. By combining primary and secondary sources, the study seeks to investigate how the NTB is shaping market linkages, farmer welfare, and turmeric-based enterprise development. The methodology is structured to extract historical and policy-oriented insights and grounded perspectives from stakeholders directly engaged in the turmeric economy.

#### 3.2 Data Collection

##### 3.2.1 Primary Data

Primary data was gathered through semi-structured interviews with three stakeholder groups selected through purposive sampling. These include:

- **Shri. Palle Gangareddy**, Chairman of the National Turmeric Board.
- **Shri. Arvind Dharmapuri**, Member of Parliament, Nizamabad and the leading proponent for the NTB's formation.
- A **Farmer Producer Organisation (FPO)** representative actively works on turmeric cultivation and value addition in the Nizamabad region.

These respondents were chosen for their unique institutional and grassroots roles. The interviews aimed to understand the foundational goals of the NTB, farmer-level support mechanisms, market access challenges, and the board's contribution to enterprise creation and rural employment. All interviews were recorded with consent, transcribed, and thematically analysed.

The perspectives obtained offer multi-level insights, ranging from policy advocacy and administrative strategy to practical field implementation. For instance, the MP's interview provided political and socio-economic motivations behind the NTB's creation, while the FPO representatives shared operational experiences and direct feedback on NTB support. The NTB Chairman's responses clarified the institutional mandate, future roadmap, and mechanisms for farmer engagement.

##### 3.2.2 Secondary Data

Secondary data was collected through credible and published sources, including:

- Government of India documents and official reports.
- Press Information Bureau (PIB) releases related to the NTB.
- The Ministry of Commerce and the Spices Board publish export statistics and trade insights.
- Peer-reviewed academic articles on spice marketing, rural entrepreneurship, and agri-value chains.
- Media articles and case studies highlighting farmer movements and policy outcomes in turmeric-growing regions.

These sources were used to establish the historical timeline, verify factual information, and provide macro-level context to supplement the primary qualitative findings.

### 4. Data Analysis and Interpretation

This section provides a detailed analysis of turmeric's business applications in India, focusing on production, exports, and market trends. It delves into the significance of turmeric across various industries,



its impact on global trade, and how curcumin content influences pricing and demand.

India remains the world's leading producer, consumer, and exporter of turmeric. The country is home to around 34 states and Union Territories involved in turmeric cultivation, with the central producing states being Andhra Pradesh, Telangana, Tamil Nadu, Maharashtra, and Karnataka. These regions contribute significantly to India's position as the top turmeric producer globally, accounting for approximately 65% of total turmeric exports. The production landscape across India supports various applications, from food and beverages to traditional medicine and cosmetics.

The total production volume in India for the fiscal year 2023–24 reached an impressive 10.63 lakh metric tonnes (MT), with an average productivity rate of 3.6 MT per hectare. Turmeric farming is a critical economic activity for farmers in these regions, with various production practices and quality standards tailored to meet domestic and international demand.

India's robust turmeric export ecosystem generates over \$320 million in foreign exchange earnings in the same fiscal year, accounting for nearly 4% of India's total horticulture exports. The major export destinations for Indian turmeric include Bangladesh, the United Arab Emirates (UAE), the United States of America (USA), Malaysia, Morocco, Germany, Japan, Iran, and the United Kingdom (UK). These countries, with significant South Asian diasporas and growing demand for natural wellness products, are key markets for turmeric-based goods, particularly in the pharmaceutical, nutraceutical, and cosmetics industries.

A critical factor influencing turmeric's market value is its curcumin content, which can vary significantly between different varieties. Higher curcumin levels are linked to premium pricing, especially in the nutraceutical and pharmaceutical sectors where curcumin's anti-inflammatory and antioxidant properties are highly valued. This demand for high-curcumin varieties has encouraged farmers to focus on cultivating turmeric with elevated curcumin levels to meet the growing needs of the value-added processing market. In conclusion, the Indian turmeric sector remains a thriving and expanding industry, driven by diverse applications across domestic and international markets. The strong export demand and the increasing recognition of turmeric's health benefits present vast opportunities for businesses to innovate and grow in this sector.

#### 4.1 Turmeric's Business Applications in India

Turmeric, a commodity deeply rooted in Indian tradition, has evolved into a diverse, multifaceted product beyond its culinary uses. Today, it is increasingly recognised for its wide range of applications across multiple industries, positioning it as a lucrative business opportunity. In India, turmeric is pivotal in agriculture, healthcare, cosmetics, food and beverages, textiles, and sustainability-driven industries. The market potential for turmeric-based products in these sectors is significant, fueled by the growing demand for natural, organic, and health-conscious products.

**Table 4.1: Sector-Wise Business Applications of Turmeric in India**

Use	Sector	Market Potential	Additional Insights
Culinary	Food Industry	Both Domestic & Global	Turmeric remains a staple in traditional Indian cuisine and is increasingly sought after in international markets for its unique flavour and health benefits.

Medicinal	Healthcare, Nutraceuticals	High Value Due to Curcumin Demand	Curcumin's growing recognition for its anti-inflammatory and antioxidant properties drives demand for turmeric-based health products in the global wellness market.
Cosmetics	Beauty Skincare & Natural Products	Market Boom	With the global shift towards clean, natural beauty products, turmeric's skincare benefits, such as healing and anti-ageing properties, make it a sought-after ingredient.
Religious	Rituals, Kumkum Production	Cultural Demand Remains High	Turmeric's deep cultural and religious significance in India ensures a constant demand for products like kumkum, particularly during festivals and rituals.
Bio-Packaging	Sustainable Alternatives	Emerging Eco-Friendly Market	With the growing emphasis on sustainability, turmeric-based biodegradable packaging materials present a promising innovation in reducing plastic usage.
Textiles	Dyeing & Textile Industry	Niche Market with Growth Potential	Turmeric's vibrant yellow pigment is used as a natural fabric dye, catering to the growing global demand for eco-friendly and organic textile products.
Agriculture	Organic Farming & Soil Health	Growing Demand for Chemical-Free Agriculture	Turmeric is used as a natural pesticide and soil enhancer, with increasing interest in organic farming and sustainable agricultural practices.

Turmeric's widespread applications across diverse sectors reflect its versatility. From food and pharmaceuticals to cosmetics and sustainable packaging, turmeric is not just a spice but a valuable commodity driving economic growth. By creating a robust market for turmeric-based products, India can establish itself as a global leader in these industries. This section illustrates the vast potential for businesses, particularly startups, to explore entrepreneurial opportunities in these growing sectors.

## 4.2 Export Performance and Market Reach

India continues to dominate the global turmeric market, accounting for approximately 65% of the world's turmeric exports. In the fiscal year 2023–24, India's turmeric exports generated over USD 212 million in foreign exchange earnings, underlining its critical role in the international spice trade. Turmeric contributes nearly 4% of India's total horticultural export value, reinforcing its economic importance within the agri-export ecosystem.

### Major Export Destinations

India's turmeric reaches a diverse set of international markets. The top export destinations, based on export value and volume for 2023, are:

**Table 4.2: Major Export Destinations for Indian Turmeric (FY 2023–24)**

Country	Export Value (USD)	Export Volume (kg)
Bangladesh	36.90 million	38.8 million

United Arab Emirates	18.61 million	15.4 million
United States of America	18.37 million	8.32 million
Malaysia	11.23 million	7.97 million
Morocco	10.57 million	10.46 million
Germany	6.58 million	2.91 million
United Kingdom	5.84 million	2.44 million
Japan	4.92 million	1.65 million
Iran	4.68 million	2.57 million

These countries represent a mix of high South Asian diaspora populations, strong demand for natural wellness products, and interest in traditional herbal pharmaceuticals. The USA, Germany, and Japan, in particular, are emerging as premium markets due to their preference for high-curcumin turmeric varieties in nutraceutical and cosmetic applications.

India's robust export performance is further supported by its vast turmeric production capacity, advanced post-harvest processing facilities, and active trade promotion policies. The National Turmeric Board (NTB) is expected to streamline export strategies, branding, and international market linkages further.

### 4.3 Overview of Indian Turmeric Sector (2023–24)

India continues to dominate the global turmeric industry in production and export. The sector's 2023–24 performance highlights its growing economic and strategic importance:

- **Total Production:** 10.63 lakh metric tonnes (MT)
- **Average Productivity:** 3.6 MT per hectare
- **Foreign Exchange Earnings:** Over USD 320 million
- **Share in India's Horticulture Exports:** Nearly 4%
- **Number of Registered Exporters:** Over 315
- **Stakeholders Benefited:** Approximately 3 lakh, including farmers, traders, processors, and exporters

### 4.4 Entrepreneurial Implications

The diversification of turmeric's industrial relevance has opened a wide array of entrepreneurial pathways for Indian startups and micro, small, and medium enterprises (MSMEs). This evolving landscape aligns closely with national priorities in agricultural innovation, rural development, and export promotion.

Emerging ventures can leverage turmeric's versatility by engaging in:

- **Development of functional and wellness products:** There is increasing scope for innovation in formulating turmeric-based consumables such as fortified beverages, nutraceutical capsules, and skincare serums that cater to health-conscious global consumers.
- **Extraction technologies for curcumin isolation:** Enterprises can invest in scalable extraction units to produce high-purity curcumin for pharmaceuticals, dietary supplements, and therapeutic applications, particularly targeting export markets.

- **Eco-conscious material innovation:** Turmeric's natural properties can be harnessed to create sustainable packaging materials and biodegradable composites, contributing to the circular economy and addressing global concerns around plastic pollution.
- **Production of organic agricultural inputs:** Leveraging turmeric's antifungal and pesticidal attributes, startups can manufacture natural plant protection solutions and soil enhancers tailored for organic and regenerative farming practices.

These entrepreneurial prospects are further strengthened by the institutional support of the National Turmeric Board (NTB), which serves as a dedicated body to facilitate value chain development, market access, and farmer-enterprise linkages. Government initiatives such as Startup India, Agri Export Zones (AEZs), and the Mission for Integrated Development of Horticulture (MIDH) collectively foster an enabling policy environment for innovation, value addition, and export-oriented growth in the turmeric sector.

In summary, the convergence of turmeric's multifaceted industrial use, increasing global demand, and supportive policy frameworks offers a fertile ground for building scalable, impact-driven businesses in India's turmeric economy.

## **5. Role of the National Turmeric Board (NTB)**

The National Turmeric Board (NTB), established in October 2023 under the Ministry of Commerce and Industry, marks a strategic shift in India's approach to turmeric sector development. It seeks to transform the sector from a fragmented, low-value supply chain into a cohesive, innovation-driven ecosystem. The Board is a national-level integrator linking farmers, startups, exporters and research institutions while ensuring policy alignment and international competitiveness. As one FPO representative noted, "Previously, once farmers sold raw turmeric, we had no control over how it was processed or marketed. But now, FPOs like ours are ready to manage these processes ourselves."

### **5.1 Addressing Market Fragmentation and Business Support**

Turmeric businesses have historically struggled with market fragmentation and limited access to export channels. This is particularly difficult for small startups aiming to position themselves internationally. The NTB's support in branding, certifications and GI-tagged product promotion has enabled businesses to access niche wellness and organic markets. It helps facilitate market entry by connecting startups with export networks and guiding them through compliance mechanisms. By strengthening linkages between producers and buyers, the NTB is reshaping India's turmeric narrative into one of traceability, quality assurance and premium value.

### **5.2 Addressing Infrastructure and Financial Constraints**

Infrastructural limitations have bottlenecks in turmeric value addition, particularly in post-harvest handling. The NTB is tackling this by mobilising resources for drying yards, storage units, polishing facilities and hygienic packaging systems. As the MP of Nizamabad told, "Drying platforms, polishers and storage units to maintain quality and reduce losses" are now being actively constructed with NTB support. The Chairman added, "The Board facilitates the construction of platforms for drying boiled turmeric," which is vital for maintaining post-harvest quality. These infrastructure improvements also position turmeric startups to scale operations and meet export standards.

### **5.3 Stimulating Innovation through Research and Development**

The NTB prioritises scientific research as a foundation for product diversification and value addition. It actively encourages partnerships between turmeric startups and public R&D bodies such as ICAR, CSIR,

and state agricultural universities. The NTB Chairman highlighted, "We are focused on promoting high-yielding varieties (HYVs) with elevated curcumin content," which helps farmers and processors meet rising nutraceutical demand. Simultaneously, the MP emphasised the need for "disease-resistant varieties to stabilise farm productivity and minimise losses." These efforts aim to boost domestic productivity while preparing Indian turmeric for premium international markets.

#### **5.4 Ensuring Reliable Raw Material Supply**

Quality control begins at the farm level, and the NTB recognises the need for consistent raw material inputs. By facilitating seed distribution, supporting mechanised cultivation and investing in farmer training, the NTB ensures uniformity and scale in production. Its strategic engagement with FPOs further enhances this supply chain reliability. NTB distributes certified seed varieties and promotes mechanisation tools as part of this initiative. This integrated model reduces dependency on fragmented sourcing and enables startups to procure turmeric at predictable quality standards directly from grassroots suppliers.

#### **5.5 Coordinating Policy and Regulatory Support**

Previously, turmeric lacked a unified institutional voice within policymaking frameworks. Now, the NTB serves as a single-window interface for policy coordination across multiple ministries, including Agriculture, MSME, AYUSH, and Food Processing. The MP from Nizamabad emphasised that the NTB is "creating a turmeric-specific policy framework and an institutional voice for Nizamabad's farmers." This institutional visibility benefits producers and ensures entrepreneurs can navigate regulatory processes more confidently and strategically.

#### **5.6 Positioning Turmeric as a Strategic Crop**

Beyond the economic realm, turmeric carries immense cultural value in India. Recognising this, the NTB is working to elevate turmeric to a strategic crop. This involves promoting its use in sustainable farming, organic cultivation and wellness-oriented branding campaigns. The MP passionately described how "Turmeric cultivation is a cultural and economic identity," especially for districts like Nizamabad. The NTB redefines turmeric as a symbol of rural pride and entrepreneurial opportunity by framing it within economic and cultural paradigms.

Through its multifaceted interventions ranging from infrastructure and innovation to policy and farmer engagement, the NTB is not only facilitating the emergence of turmeric startups but also driving systemic transformation. It is a support mechanism for rural livelihoods and a springboard for India's competitive positioning in the global turmeric market.

### **6. Business Opportunities for Turmeric Startups**

With its rich history and immense versatility, Turmeric offers vast entrepreneurial potential across multiple industries. In recent years, startups have increasingly recognised their value as a traditional spice and a powerful ingredient with global relevance across food, health, beauty, and industrial domains. As the world's largest producer and consumer of turmeric, India stands at the centre of these emerging opportunities, providing fertile ground for startups backed by raw material access, market demand, and institutional support.

Entrepreneurs entering the turmeric space have diverse possibilities to explore, from launching organic cultivation ventures and value-added product lines to building export-oriented brands. The National Turmeric Board is pivotal in enabling these ventures by facilitating R&D linkages, providing exhibition platforms, and helping businesses enter international markets. The NTB Chairman noted that the Board is



“supporting participation in exhibitions showcasing new uses,” allowing startups to test and promote their innovations to global audiences.

Today, startups are collaborating with FPOs to move beyond raw turmeric sales. As one FPO representative explained, “FPOs are processing turmeric into packaged, branded products,” which marks a significant shift toward integrated local value chains. This collaboration opens doors for scalable, rural-rooted brands and decentralised business models.

Here's an overview of key sectors where turmeric startups are gaining traction:

### **6.1 Culinary Sector**

The culinary sector continues to be the largest consumer of turmeric, especially as international cuisines increasingly embrace natural functional ingredients. Startups can innovate with turmeric-based snacks, ready-to-eat products, infused drinks like turmeric lattes, and spice blends tailored to global palates. With premiumisation and wellness driving food choices, startups have an opportunity to position Indian turmeric in gourmet and health-focused segments abroad. Many businesses are already exploring exports, leveraging India's GI-tagged turmeric varieties and the NTB's support in meeting food safety standards for international markets.

### **6.2 Healthcare and Nutraceuticals**

The global nutraceuticals market is rapidly expanding, and turmeric is central to this growth due to its anti-inflammatory, antioxidant, and immunity-boosting properties. The post-COVID shift toward preventive wellness has renewed a push to curcumin-based supplements, health drinks, and functional foods. Entrepreneurs are launching turmeric capsules, powders, and immunity boosters with scientifically backed health claims. According to the MP, future value chains should emphasise “curcumin extraction, organic turmeric packaging, nutraceutical product development,” underscoring how startups can move toward high-margin sectors with institutional support. NTB's efforts to promote high-curcumin and disease-resistant varieties ensure startups have the right inputs to build standardised, high-quality products.

### **6.3 Cosmetics and Personal Care**

Turmeric's well-known skin-healing and anti-inflammatory properties make it an excellent fit for organic and Ayurvedic beauty products. Startups in this space are creating turmeric-based serums, face masks, anti-acne creams, and soaps catering to a growing consumer base looking for clean-label, plant-derived skincare. There's strong international demand for such products, especially in the US, Germany, and Japan, some of the top importers of Indian turmeric. NTB's certification and packaging innovation support allows entrepreneurs to build consumer trust and reach retail shelves abroad.

### **6.4 Religious and Cultural Products**

Turmeric holds sacred and ceremonial importance in India, making it a consistent demand item across religious festivals and traditional rituals. Startups can innovate in this sector with neatly packaged turmeric paste, kumkum powders, and eco-friendly ritual kits. Entrepreneurs can transform low-value bulk turmeric into high-margin cultural products by ensuring consistent quality, traceability, and appealing presentation. With digital platforms and e-commerce growth, even niche religious products can reach a broad diaspora audience.

### **6.5 Bio-Packaging and Sustainability**

With the world seeking biodegradable and antimicrobial packaging alternatives, turmeric startups can explore cutting-edge applications that use turmeric's natural properties. Its antioxidant and antibacterial features are helpful in sustainable food wrapping solutions and green construction materials. Startups can collaborate with research institutions to develop turmeric-based films or additives in biodegradable plastic

substitutes. NTB's support in innovation and research makes it feasible for entrepreneurs to enter this niche but high-potential segment and contribute to the global green economy.

### **6.6 Pet and Veterinary Wellness**

An emerging space for turmeric startups is the pet wellness sector. As pet owners turn to natural health solutions, turmeric-based pet supplements and grooming products are gaining attention. Anti-inflammatory turmeric formulations are used for joint health, digestive support, and coat care in dogs and cats. Startups in this domain can tap into a rapidly growing global market while using India's natural health heritage as a strong brand proposition.

### **6.7 Herbal Supplements and Functional Blends**

Turmeric blends well with traditional herbs like ashwagandha, tulsi, ginger, and moringa. Startups can create herbal supplement lines for stress relief, digestion, and immune support that cater to holistic wellness seekers. These products are particularly popular in international markets where Ayurvedic and plant-based lifestyles are gaining mainstream adoption. NTB's facilitation of collaborations with AYUSH and wellness sector stakeholders allows startups to position these products with clinical validation and global credibility.

Turmeric offers one of the most diverse and adaptable business ecosystems among Indian agricultural products. The scope is immense, whether through direct consumer products, sustainable materials, or international health supplements. With coordinated support from the NTB, increasing consumer demand, and India's leadership in production, turmeric startups have the chance to create businesses that are not only profitable but also impactful.

## **7. Challenges and Possible Solutions for Turmeric Startups in India**

The turmeric startup ecosystem in India is full of promise, but it faces several challenges that hinder growth and scalability. These challenges range from issues in the supply chain and regulatory hurdles to fierce competition and access to funding. However, addressing these challenges with innovative solutions can open up startup opportunities. Here's a look at the primary challenges turmeric startups face and the possible solutions they can explore to thrive in this dynamic market.

### **7.1 Supply Chain and Raw Material Quality**

One of the most significant challenges for turmeric startups is the inconsistent quality and supply of raw materials. Factors such as climate change, pest infestations, and insufficient post-harvest management can affect the quality of turmeric produced. This inconsistency can be a roadblock for startups striving to create high-quality products that meet local and international standards.

To address this, startups should focus on building stronger relationships with farmers and sourcing turmeric from trusted suppliers who follow standardised cultivation practices. Implementing quality control measures at every production stage, from farm to finished product, will help ensure consistency. The NTB Chairman noted that "farmers have been using the same variety for years". He emphasised that the NTB aims to "introduce new, high-yielding varieties," which can improve supply reliability and product quality.

### **7.2 Research and Product Development**

While turmeric has been used for centuries in traditional medicine and cooking, its potential for innovation in new product categories remains underexploited. Many startups focus on conventional turmeric products, which limits their ability to differentiate themselves in a competitive market.

The NTB Chairman emphasised the need to “promote post-harvest technologies” to encourage more value-added processing and innovation. Startups should invest in developing new products from curcumin-rich supplements to functional beverages and wellness cosmetics by collaborating with research institutions and tapping into government-backed R&D grants.

### 7.3 Competition and Differentiation

As the turmeric market grows, competition intensifies. Larger, established players dominate the market, making it difficult for new startups to differentiate their products. Without a unique selling proposition (USP), turmeric startups may struggle to attract consumers and stand out in a crowded marketplace.

FPOs have responded by “bypassing intermediaries and directly engaging with corporates,” allowing them to maintain competitive pricing and brand identity. Startups can adopt similar models by focusing on direct-to-consumer channels and building their brand on values such as sustainability, origin-traceability, or wellness benefits.

### Conclusion

India’s turmeric sector holds the promise of becoming a global leader in sustainable agricultural entrepreneurship. As startups continue to explore new frontiers ranging from curcumin-based supplements to traditional wellness and cosmetic products, the market's diversity offers ample room for innovation and specialisation. The presence of structured institutional support, especially from the National Turmeric Board (NTB), serves as a critical enabler of this transformation.

To fully realise this potential, stakeholders must address systemic barriers such as fragmented supply chains, inconsistent quality standards, and limited capital access. Policymakers and support organisations must focus not only on export promotion but also on capacity building, value-chain integration, and farmer-startup collaboration.

The future of turmeric entrepreneurship in India will depend on how well the ecosystem supports product development, technological adoption, and global positioning. With sustained support and strategic vision, turmeric startups can redefine India’s place in the global spice economy, transforming a traditional crop into a modern business success story.

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