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Processed Food Industry w.r.t Jaggery, Khandsari & Instant Premix

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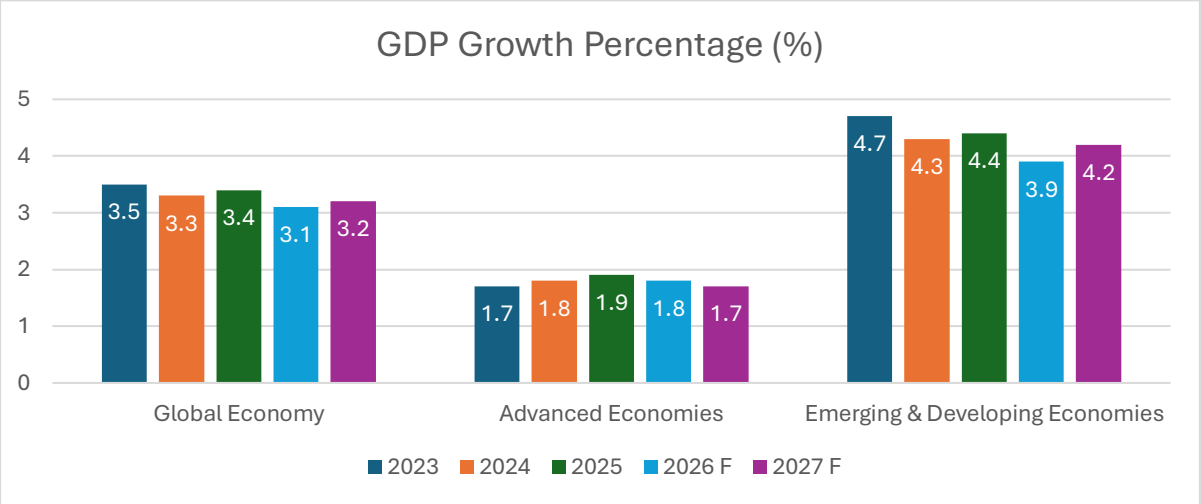
1. Global Economic Outlook

As per the IMF's World Economic Outlook (WEO) published in April 2026, global growth is projected to remain resilient at 3.1 percent in 2026 and at 3.2 percent in 2027. After withstanding higher trade barriers and elevated uncertainty last year, global activity now faces a major test from the outbreak of war in the Middle East. Assuming that the conflict remains limited in duration and scope, the outlook reflects the impact of heightened geopolitical tensions, trade disruptions and cautious investment sentiment, which are expected to weigh on global economic momentum.

Global headline inflation is projected to rise modestly in 2026 before resuming its decline in 2027. Slowdown in growth and increase in inflation are expected to be particularly pronounced in emerging market and developing economies. This is driven by elevated geopolitical tensions, commodity price volatility, external financing pressures and spillover effects from trade and policy uncertainty. Downside risks dominate the outlook, as a longer or broader conflict, worsening geopolitical fragmentation, renewed trade tensions, or a reassessment of expectations surrounding artificial-intelligence-driven productivity could significantly weaken growth and destabilize financial markets. Elevated public debt and eroding institutional credibility further heighten vulnerabilities, while faster-than-anticipated productivity gains from AI or sustained easing in trade tensions could provide upside support. Fostering adaptability, maintaining credible policy frameworks and reinforcing international cooperation remain essential to navigating current shocks and future disruptions.



Note: F = Forecast

Source: IMF World Economic Outlook April 2026

Note: Advanced Economies and Emerging & Developing Economies are as per the classification of the World Economic Outlook (WEO). This classification is not based on strict criteria,

economic or otherwise and it has evolved over time. It comprises of 40 countries under the Advanced Economies including the G7 (the United States, Japan, Germany, France, Italy, the United Kingdom and Canada) and selected countries from the Euro Zone (Germany, Italy, France etc.). The group of emerging market and developing economies (156) includes all those that are not classified as Advanced Economies (India, China, Brazil, Malaysia etc.)

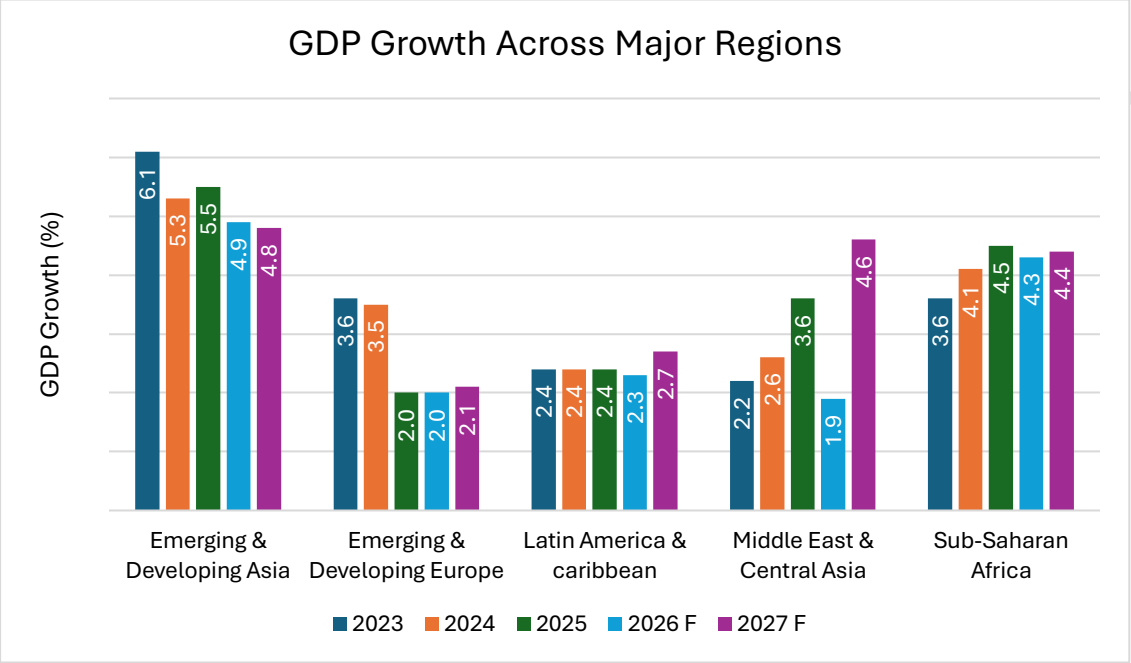
Growth across the global economy is projected to remain resilient, though moderate over the forecast period. Global GDP growth declined from 3.5 percent in 2023 to 3.3 percent in 2024, before increasing marginally to 3.4 percent in 2025. However, growth is projected to moderate to 3.1 percent in 2026 before recovering slightly to 3.2 percent in 2027, reflecting the impact of geopolitical uncertainty, trade disruptions and cautious investment sentiment.

Growth in Advanced Economies is expected to remain relatively subdued, increasing from 1.7 percent in 2023 to 1.8 percent in 2024 and 1.9 percent in 2025, before moderating to 1.8 percent in 2026 and 1.7 percent in 2027. This reflects persistent structural constraints, tighter financial conditions and slower demand conditions across developed markets.

Emerging and Developing Economies are expected to continue to outperform advanced economies and remain the key drivers of global growth. Growth declined from 4.7 percent in 2023 to 4.3 percent in 2024, before improving to 4.4 percent in 2025. However, it is projected to moderate to 3.9 percent in 2026 and recover to 4.2 percent in 2027, reflecting short-term pressures arising from geopolitical risks, commodity price volatility and external financing constraints, followed by a gradual improvement in macroeconomic conditions.

1.1 GDP Growth Across Major Regions

GDP growth across major global regions—including Europe, Latin America & the Caribbean, Middle East & Central Asia and Sub-Saharan Africa—continues to display varied trajectories. The global outlook presents a mixed scenario, with emerging economies continuing to outperform advanced economies.



Note: F = Forecast

Source: IMF World Economic Outlook April 2026 update

Growth across Emerging Market and Developing Economies is projected to moderate from 4.4 percent in 2025 to 3.9 percent in 2026, before recovering to 4.2 percent in 2027, reflecting near-term pressures from global uncertainty, geopolitical risks and tighter financial conditions, followed by a gradual rebound.

Within this, Emerging and Developing Asia is expected to remain the fastest-growing region, although growth is projected to ease from 5.5 percent in 2025 to 4.9 percent in 2026 and 4.8 percent in 2027, reflecting moderation in regional momentum. China's growth is projected to decelerate from 5.0 percent to 4.4 percent and further to 4.0 percent over the period, driven by structural headwinds and softer domestic demand, while India is expected to remain resilient, with growth moderating from 7.6 percent in 2025 to 6.5 percent in 2026 and remaining at that level in 2027, supported by domestic demand and investment activity.

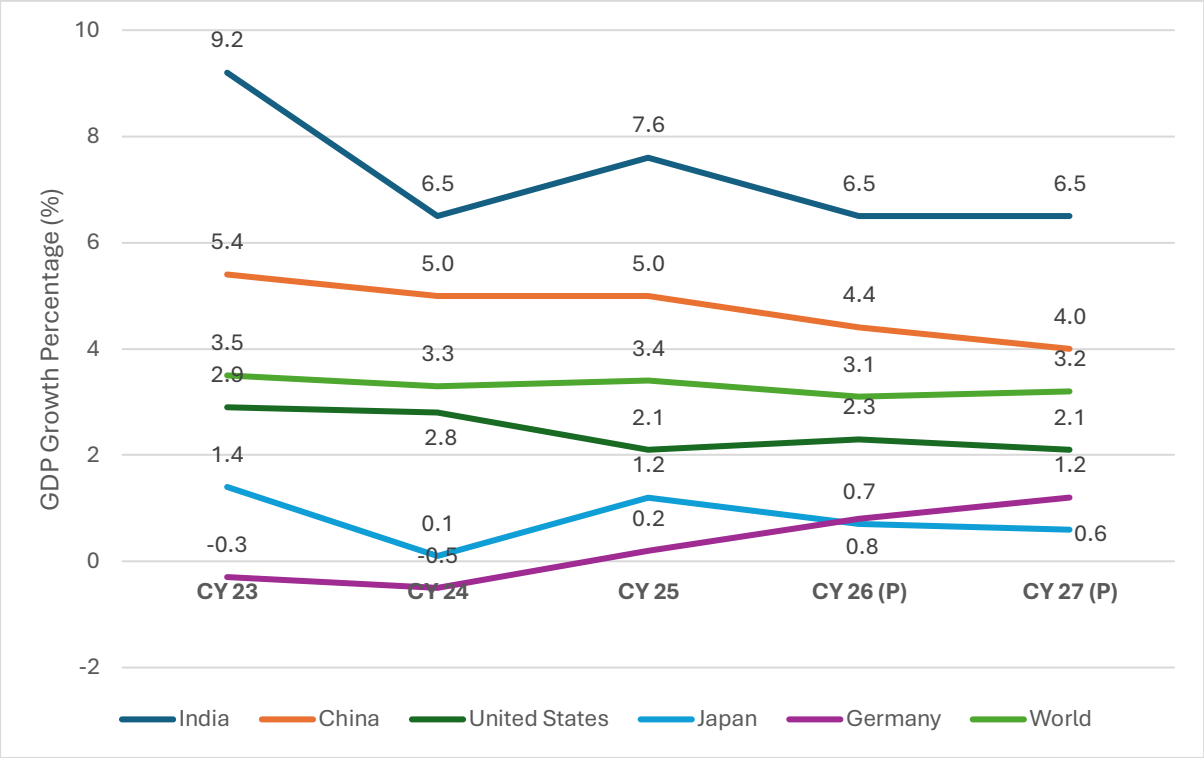
Emerging and Developing Europe is projected to remain relatively stable, with growth at 2.0 percent in 2025 and 2026, improving marginally to 2.1 percent in 2027. Russia is also expected to record modest growth, rising from 1.0 percent in 2025 to 1.1 percent in both 2026 and 2027.

Latin America and the Caribbean is projected to witness moderate growth, easing slightly from 2.4 percent in 2025 to 2.3 percent in 2026, before recovering to 2.7 percent in 2027. Within the region, Brazil's growth is expected to soften from 2.3 percent to 1.9 percent in 2026 before improving to 2.0 percent in 2027, while Mexico is projected to show a stronger rebound, increasing from 0.6 percent in 2025 to 1.6 percent in 2026 and 2.2 percent in 2027.

Growth in the Middle East and Central Asia is projected to slow sharply from 3.6 percent in 2025 to 1.9 percent in 2026, before rebounding significantly to 4.6 percent in 2027, indicating volatility linked to geopolitical conditions and oil market dynamics. Saudi Arabia mirrors this trend, with growth moderating from 4.5 percent in 2025 to 3.1 percent in 2026 before recovering to 4.5 percent in 2027.

Sub-Saharan Africa is expected to remain relatively stable, with growth moderating slightly from 4.5 percent in 2025 to 4.3 percent in 2026 and recovering marginally to 4.4 percent in 2027. Nigeria is projected to improve gradually from 4.0 percent to 4.3 percent over the period, while South Africa is expected to post subdued growth, easing from 1.1 percent in 2025 to 1.0 percent in 2026 before improving to 1.3 percent in 2027. Overall, the projections indicate that while emerging markets face short-term pressures, growth recovery is expected to strengthen in several regions by 2027.

India and Top 4 Global Economies GDP Growth Forecast



Note: P = Projections

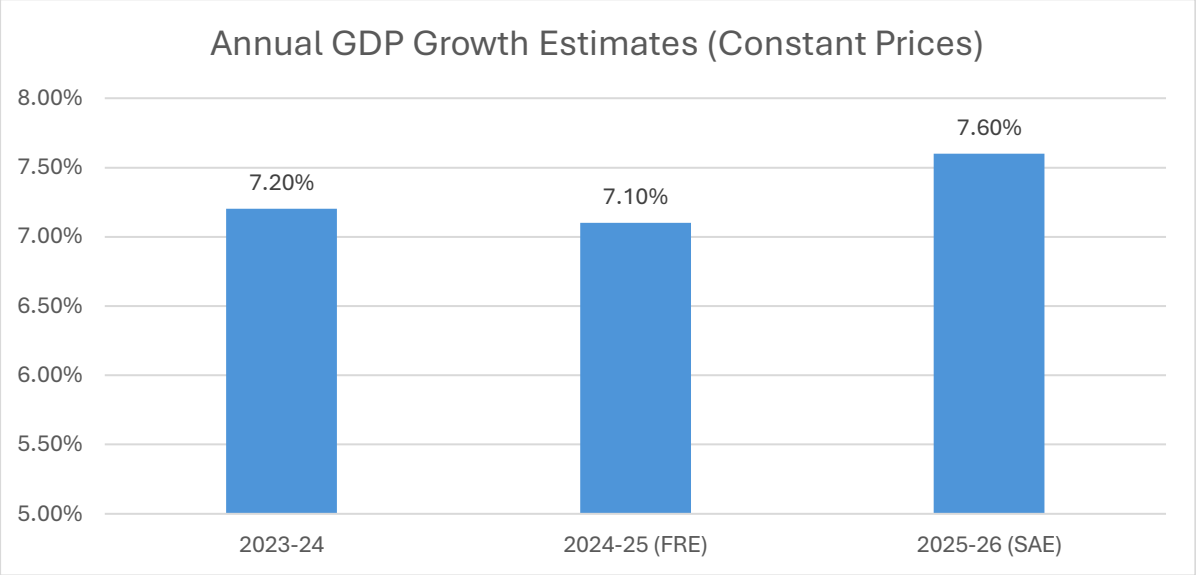
Source: IMF World Economic Outlook April 2026 update

Overall, the outlook indicates that while global growth is expected to soften in the near term, resilience in emerging markets and a gradual recovery thereafter are expected to support global economic momentum over the medium term.

2. India's Macroeconomic Scenario

2.1 Gross Domestic Product (GDP)

According to the latest Second Advance Estimates by MOSPI, GOI (27 Feb26), after replacing old base year 2011-12 by the new base year 2022–23, real GDP has been estimated to grow by 7.6% in FY 2025-26. Nominal GDP has witnessed a growth of 8.6%. These growth rates are revised upward from their respective First Advance Estimates computed using previous Base Year (2011-12).



Note: FRE - First Revised Estimates; SAE - Second Advance Estimate

Source: New Series of Gross Domestic Product (GDP) Estimates with Base Year 2022-23 by MOSPI, PIB Press Release dated 27 February 2026)

India's Economic Growth Momentum Remains Strong - Surpassed USD 4 Trillion.

In June 2025, India became the fourth-largest economy in the world and retained its position as the fastest-growing major economy. The country is projected to become the world's third largest economy by 2030, with an estimated GDP of USD 7.3 trillion.

Source: PIB, Press Release - India Becoming an Economic Powerhouse posted on June 16, 2025

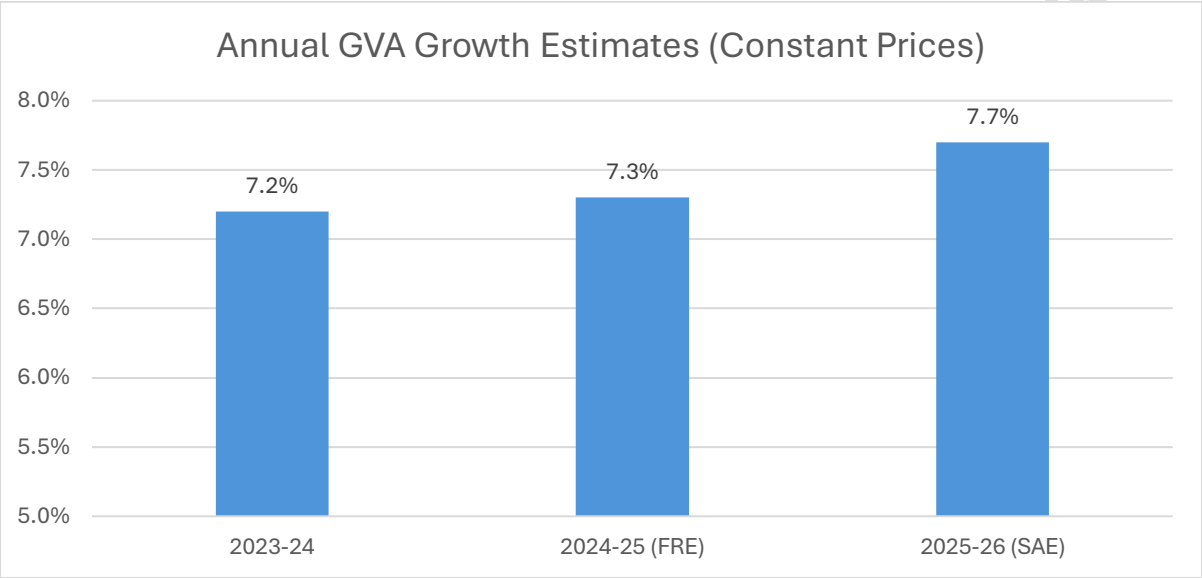
India achieved a significant milestone by overtaking Japan to become the *third most powerful nation in the Asia-Pacific region*, as per the Asia Power Index 2024. India's overall score rose to 39.1, reflecting a 2.8-point increase from the previous year, driven by growing influence across economic, military and diplomatic dimensions.

Source: PIB, Press Release - India becomes 3rd Most Powerful Nation in Asia, Surpasses Japan in Asia Power Index posted on September 24, 2024

Key factors behind India's rise include its strong economic performance, expanding and youthful workforce and increasing strategic engagement across the region. India's Economic Capability improved significantly, supported by its position as the world's third-largest economy in terms of purchasing power parity (PPP). Additionally, a notable increase in its Future Resources score highlights the demographic advantage that is expected to sustain its growth trajectory in the coming years.

2.2 Gross Value Added (GVA)

According to the Second Advance Estimate of GDP for 2025-26 by MOSPI, Govt. of India (GoI), Real GVA is estimated at INR 294.40 lakh crore in the year 2025-26, against INR 273.36 lakh crore in FY 2024-25, registering a growth rate of 7.7% as compared to 7.3% growth rate in 2024-25. Nominal GVA is estimated to attain a level of INR 313.61 lakh crore during FY 2025-26, against INR 288.54 lakh crore in 2024-25, showing a growth rate of 8.7%.



Note: FRE - First Revised Estimates; SAE - Second Advance Estimate

Source: New Series of Gross Domestic Product (GDP) Estimates with Base Year 2022-23 by MOSPI, PIB Press Release dated 27 February,2026)

Major Highlights:

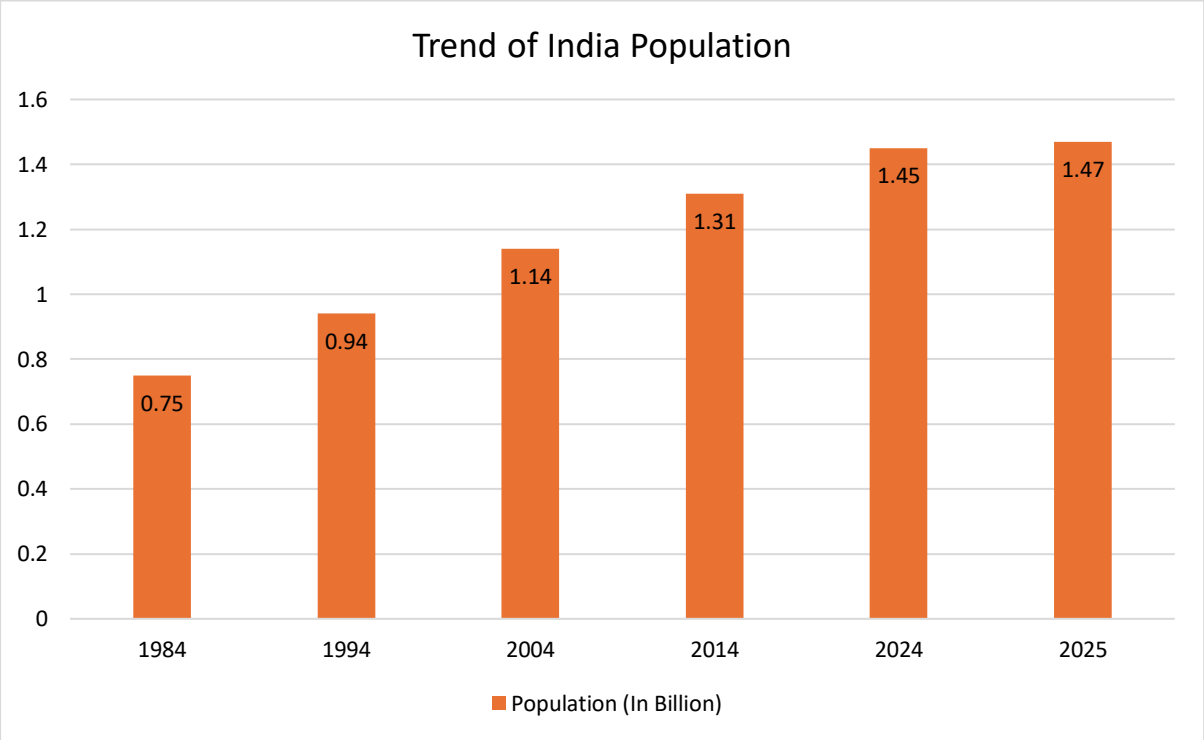
- Real GDP has been estimated to grow by 7.6% in FY 2025-26. Nominal GDP has witnessed a growth of 8.6%. These growth rates are revised upward from their respective First Advance Estimates computed using previous Base Year (2011-12).
- Overall Economic performance in FY 2025-26 is primarily on account of robust Real growth observed in Second Quarter (8.4%) and Third Quarter (7.8%).
- The Economy has exhibited sustained performance, recording Real GDP growth rates of 7.2% and 7.1% respectively during FY 2023–24 and FY 2024–25.
- Nominal GDP has registered 11.0% and 9.7% growth rates during FY 2023–24 and FY 2024–25 respectively.
- Manufacturing sector has been the major driver in contributing to the resilient performance of the economy in consecutive 3 financial years after rebasing. This sector has attained double digit growth rates in FY 2023-24 and FY 2025-26.
- Secondary and Tertiary sectors have boosted the performance of the economy by registering above 9.0% growth rate in FY 2025-26.
- 'Trade, Repair, Hotels, Transport, Communication & Services related to Broadcasting, Storage' sector has attained a growth rate of 10.1% at Constant Prices in FY 2025-26.
- On the Consumption side, both the Private Final Consumption Expenditure (PFCE) and Gross Fixed Capital Formation (GFCF) have exhibited more than 7.0% growth rate in FY 2025-26.

Source: MOSPI, Press Release, 27 February 2026, Govt. of India (GoI).

2.3 Overview on Key Demographic Parameters

2.3.1 Population growth

India's economic trajectory and consumption dynamics are closely tied to its demographic shifts. India's population expanded from approximately 0.75 billion in 1984 to 1.45 billion in 2024 and is further reached around 1.47 billion in 2025, consolidating its position as the world's most populous nation. This sustained growth underlines the emergence of a vast labour force and consumer base, which is essential for driving long-term economic growth, supporting rising consumption demand and strengthening the country's overall economic potential.



Source: World Bank Database. Population Data 2025 - Worldometer, Infomerics Analytics & Research

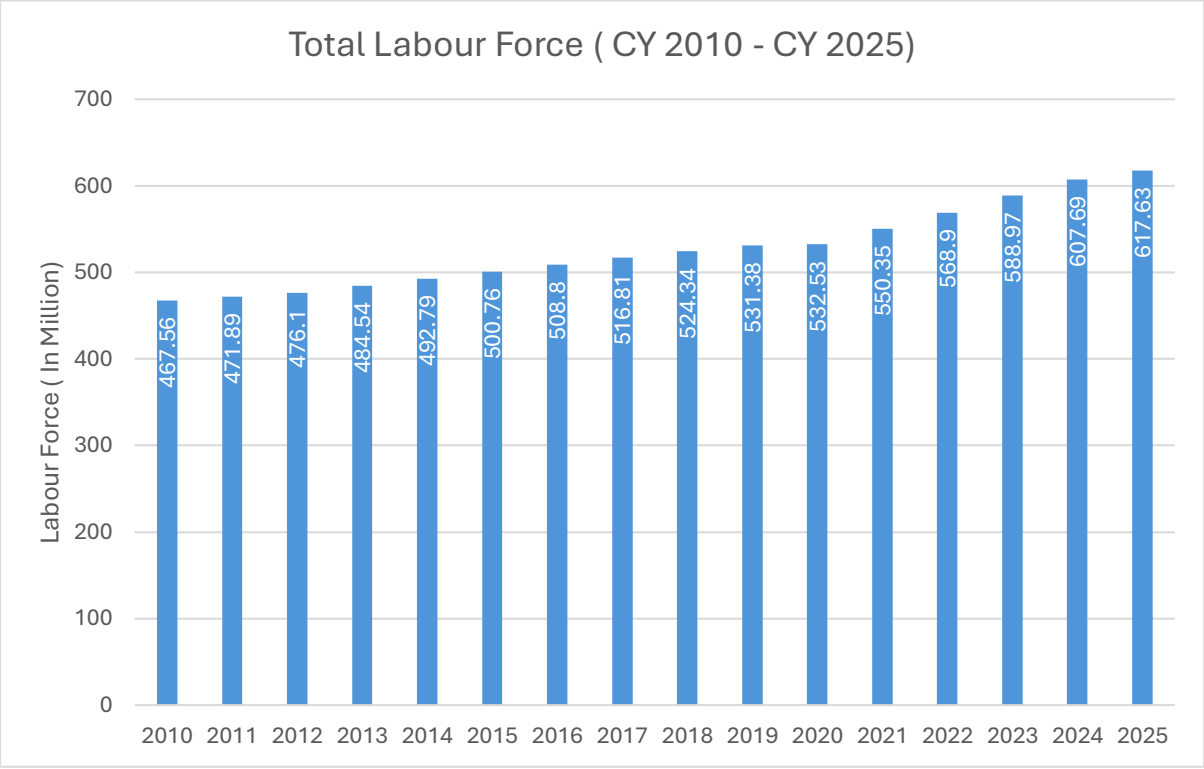
2.3.2 Labour Force in India

India's labour force has experienced steady growth over the past decade. In 2010, the total labour force was approximately 467.56 million. By 2025, this number had increased to 617.63 million.

This upward trend underscores the expanding working-age population, improving labour force participation and gradual recovery in employment post the pandemic period. The sharp increase observed after 2020 highlights the rebound in economic activity and rising workforce engagement across sectors. However, it also emphasizes the need for sustained job creation to effectively absorb the growing labour pool.

The labour force participation rate (LFPR) has also witnessed variations over time due to changing socio-economic conditions, including urbanization, education levels and sectoral employment shifts.

These trends highlight the importance of implementing policies that not only generate employment opportunities but also improve job quality, productivity and inclusivity across key sectors of the economy.

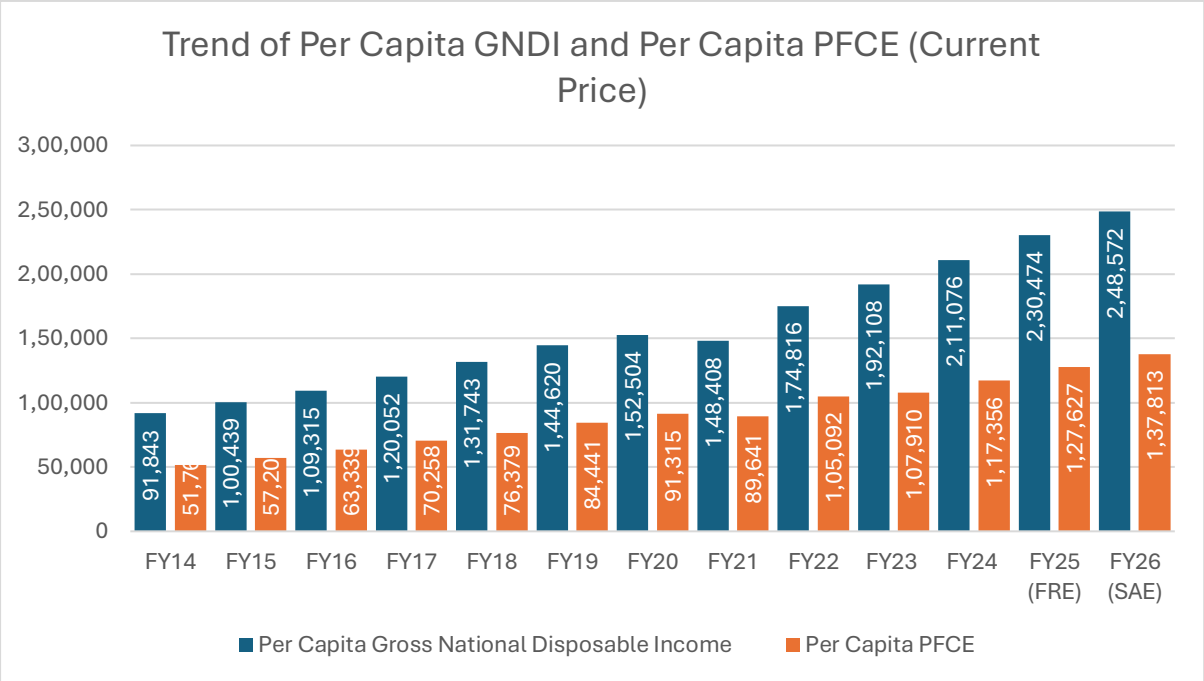


Source: World Bank Database

2.3.3 Disposable Income and Consumer Spending

Gross National Disposable Income (GNDI) represents the total income available to a nation's residents for consumption and saving after accounting for income transfers with the rest of the world. Per Capita GNDI has shown a consistent upward trajectory, rising from INR91,843 in FY14 to INR2,48,572 in FY26 (SAE). In FY25 (FRE), Per Capita GNDI stood at INR2,30,474, which further increased to INR2,48,572 in FY26 (SAE), reflecting a growth of approximately 7.9%. This steady increase indicates that households and businesses had more income at their disposal, which is critical for supporting both consumption and savings: key components of economic resilience and expansion.

The rise in GNDI has translated into higher consumer spending, as reflected in the growth of Private Final Consumption Expenditure (PFCE), which measures the total value of goods and services consumed by households. Per Capita PFCE has also maintained a consistent upward trend, growing from INR51,701 in FY14 to INR1,37,813 in FY26 (SAE). In FY25 (FRE), Per Capita PFCE stood at INR1,27,627, which further increased to INR1,37,813 in FY26 (SAE), reflecting a growth of approximately 8.0%, highlighting strong consumer confidence and robust domestic demand.



Note: Data mentioned is in INR, FRE – First Revised Estimates, SAE – Second Advanced Estimates

Source: PIB, New Series of Gross Domestic Product (GDP) Estimates with Base Year 2022-23

2.4 Union Budget FY26-27 Highlights

The Union Budget FY 2026–27, presented by Finance Minister Nirmala Sitharaman, introduces a comprehensive set of measures aimed at stimulating economic growth, enhancing infrastructure and fostering inclusive development. With a focus on sectors such as agriculture, MSMEs, infrastructure, innovation and exports, the budget seeks to create a conducive environment for sustained economic expansion.

- **Capital Expenditure and Infrastructure Development**
  In FY2026-27, the Union Budget has increased the public capex towards to INR 12.2 lakh crore from the previous INR 11.21 lakh crore (3.1% of GDP) which was earmarked in FY 2025–26. To strengthen the confidence of private developers regarding risks during infrastructure development and construction phase, the budget proposed to set up an Infrastructure Risk Guarantee Fund to provide prudently calibrated partial credit guarantees to lenders.
- **Support for MSMEs**
  Recognizing the pivotal role of Micro, Small and Medium Enterprises (MSMEs) in India's economic landscape, the budget introduced a three-pronged approach to support the sector. The budget introduced a dedicated INR 10,000 crore SME Growth Fund as well as proposed to top up the Self-Reliant India Fund set up in 2021, with INR 2,000 crore to continue support to micro enterprises and maintain their access to risk capital. With TReDS, more than INR 7 lakh crore has been made available to MSMEs. To leverage its full potential, the budget further proposed four measures: (i) mandate TReDS as the transaction settlement platform for all purchases from MSMEs by CPSEs, serving as a benchmark for other corporates; (ii) introduce a credit guarantee support mechanism through CGTMSE for invoice discounting on TReDS platform; (iii) link GeM with TReDS for sharing information with financiers about government purchases from MSMEs, encouraging cheaper and quicker financing; (iv) introduce TReDS receivables as asset-backed securities, helping develop a secondary market, enhancing liquidity and settlement of transactions. Moreover, Government will facilitate Professional Institutions such as ICAI, ICSI, ICMAI to design short-term, modular courses and practical tools to develop a cadre of 'Corporate Mitras', especially in Tier-II and Tier-III towns, which will help MSMEs meet compliance requirements at affordable costs.
- **Agriculture Related Schemes**
  To diversify farm outputs, increase productivity, enhance farmers' incomes and create new employment opportunities, the budget announced support schemes related to high value crops such as coconut, sandalwood, cocoa and cashew in coastal areas. Agar trees in Northeast and nuts such as, almonds, walnuts and pine nuts in hilly regions will also be supported. India is the world's largest producer of coconuts.

About 30 million people, including nearly 10 million farmers, depend on coconuts for their livelihood. To further enhance competitiveness in coconut production, the Budget proposed a Coconut Promotion Scheme to increase production and enhance productivity through various interventions including replacing old and non-productive trees with new saplings/plants/varieties in major coconut growing States. A dedicated programme is proposed for Indian cashew and cocoa to make India self-reliant in raw cashew and cocoa production and processing, enhance export competitiveness and transform Indian Cashew and Indian Cocoa into premium global brands by 2030.

Further, the Central Government will partner with State Governments to promote focused cultivation and post-harvest processing to restore the glory of the Indian Sandalwood ecosystem. To rejuvenate old, low-yielding orchards and expand high-density cultivation of walnuts, almonds and pine nuts, the budget announced to support a dedicated programme to enhance farmer incomes and in bringing value addition by engaging youth.

The Union Budget FY 2026–27 presents a balanced approach to economic growth by addressing immediate consumption needs and laying the foundation for long-term sustainability. Through targeted investments in infrastructure, support for MSMEs and sector-specific initiatives, the budget aims to foster an inclusive and resilient economy. These measures are expected to create new opportunities for financial institutions, as the growing demand for investment products will provide avenues for expansion and innovation in the financial services sector.

3. Industry Overview – Processed Food Industry with respect to Jaggery, Khandsari & Instant Premix

3.1 Introduction

The processed food industry represents a significant and evolving component of the agri-food economy, encompassing the transformation of agricultural produce into safe, hygienic and value-added food products that meet modern consumption needs. Within this broader industry, the jaggery industry occupies an important niche, bridging traditional food processing practices with organised and semi-organised food markets. By converting sugarcane juice into a natural sweetener through relatively minimal processing, the jaggery segment supports farm livelihoods, rural enterprises and decentralised production systems, while aligning with growing consumer preference for natural, less refined and culturally familiar food products. As dietary awareness increases and demand for alternative sweeteners rises, jaggery and khandsari gained relevance within the processed food ecosystem.

The jaggery, khandsari and instant premix industry comprises a diverse range of products catering to both traditional and evolving consumer preferences. The segment includes conventional jaggery in solid, powdered, granulated and liquid forms, khandsari sugar as a minimally processed sweetener and instant premixes formulated for the convenient preparation of beverages, desserts and other food products. While jaggery and khandsari serve as staple sweetening agents across households and traditional food applications, instant premixes address the growing demand for convenience, consistency, improved shelf life and ease of preparation among urban consumers, food service establishments and institutional buyers.

Beyond direct consumption, the industry plays a significant role in the processed food value chain by providing a stable market for sugarcane producers, supporting rural livelihoods and employment, encouraging value addition through processing and packaging and reducing post-harvest losses. The increasing adoption of quality standards, mechanised processing, branded offerings and innovative product formats is gradually transforming the sector from a predominantly unorganised, commodity-driven market into a more organised, value-added and quality-focused segment within India's processed food industry.

3.2 Market Segmentation – Jaggery, Khandsari & Instant Premix

Segmentation Type	Segments	Description
By Product Category	Jaggery	Includes conventional jaggery available in solid, powdered, granulated and liquid forms manufactured from concentrated sugarcane juice. Widely consumed across households, food service establishments and food processing industries, demand is driven by increasing preference for natural sweeteners, traditional consumption patterns, health consciousness and the growing availability of branded and packaged products.
	Khandsari Sugar	Comprises minimally processed sugar produced from sugarcane with relatively lower levels of refining compared to white sugar. It is widely used in households, confectionery, bakery, sweet manufacturing and food processing applications where consumers seek a more natural alternative to refined sugar. Growth is supported by increasing awareness of traditional sweeteners and demand from small-scale food manufacturers.
	Instant Premixes	Covers ready-to-use premixes formulated for beverages, desserts, traditional drinks and food preparations incorporating jaggery, khandsari or other natural ingredients. The segment caters to consumers seeking convenience, consistency, improved shelf life and ease of preparation, with demand driven by urban lifestyles, institutional consumption and the expansion of organised retail.
By Distribution Type	Offline Market	Includes traditional trade channels such as mandis, wholesalers, distributors, kirana stores and modern retail outlets including supermarkets and hypermarkets. This segment continues to account for the majority of sales owing to its extensive reach, established supply chain and strong demand from rural consumers, food service establishments and institutional buyers.
	Online Market	Comprises e-commerce platforms, quick commerce channels and direct-to-consumer brands offering packaged jaggery, khandsari sugar and instant premixes. Growth is supported by increasing internet penetration, convenience, wider product availability and rising consumer preference for premium, organic and branded food products.

By Region	Urban Markets	Characterised by higher demand for packaged, branded and value-added products including powdered jaggery, liquid jaggery, premium khandsari sugar and instant premixes. Growth is supported by increasing health awareness, higher disposable incomes, organised retail expansion and preference for convenient food products.
	Semi-Urban & Rural Markets	Represent the traditional consumption base for jaggery and khandsari products, supported by widespread household usage, local trade networks and agricultural linkages. Demand is driven by affordability, cultural food habits and increasing penetration of packaged products through expanding retail infrastructure.
By End Use Industry	Household Consumption	Includes the use of jaggery, khandsari sugar and instant premixes for daily cooking, sweetening beverages, preparation of traditional sweets and ready-to-make food products. This segment forms the largest consumption base and is influenced by household purchasing power, seasonal demand and consumer preference for natural sweeteners.
	Pharmaceutical, Ayurvedic & Nutraceutical	Includes the use of jaggery and khandsari as natural sweetening and binding agents in Ayurvedic medicines, herbal formulations, nutraceutical products, health supplements and functional foods. Demand is supported by growing consumer preference for natural ingredients and the expansion of preventive healthcare and wellness products.
	Food Processing & Food Service	Comprises manufacturers of confectionery, bakery products, dairy products, beverages, snacks, sweets, restaurants, hotels and catering services using jaggery, khandsari sugar and instant premixes as ingredients. Growth is driven by increasing demand for clean-label products, product innovation and expansion of the organised food processing industry.
	Industrial & Institutional Buyers	Covers bulk procurement by educational institutions, hospitals, defence establishments, corporate cafeterias, religious institutions and industrial food manufacturers. Demand is driven by large-scale consumption requirements, cost efficiency, standardised quality and long-term procurement contracts.

3.3 Operational Flow Analysis

The jaggery, Khandsari and Instant Premix operates through an integrated multi-stage value chain encompassing sugarcane procurement, juice extraction, clarification, thermal processing, crystallisation, packaging, distribution and by-product utilisation. The efficiency, profitability and product quality within the industry are significantly influenced by the level of operational integration, recovery efficiency, energy optimisation and utilisation of by-products such as bagasse and press mud across various stages of the manufacturing process.

1. **Sugarcane Procurement**

   The value chain commences with procurement of sugarcane from farmers and nearby cane-growing regions. Due to the highly perishable nature of sugarcane and the rapid decline in sucrose content after harvesting, procurement is generally localised and closely integrated with crushing operations. Harvested sugarcane is transported to the manufacturing facility through tractors and trucks, enabling timely processing and minimising recovery losses.

2. **Weighment, Cane Preparation & Handling**

   Upon arrival at the manufacturing facility, sugarcane is weighed at weighbridges to record the quantity received. Thereafter, the cane undergoes preparation activities including chopping, shredding and fibrisation to increase surface area and improve extraction efficiency. Efficient cane preparation supports higher juice recovery and operational productivity.

3. **Juice Extraction & Crushing**

   Prepared sugarcane is crushed through multi-stage milling systems to extract raw juice. This stage represents the core processing activity within the value chain and significantly impacts overall sugar recovery and production economics. During crushing, fibrous residue known as bagasse is generated as a major by-product. Typically, from 100 kg of sugarcane processed, approximately 30–40 kg of bagasse may be generated depending on cane quality and recovery efficiency.

4. **Bagasse Handling & Power Generation**

Bagasse generated during crushing is conveyed to boilers and utilised as fuel for generation of steam and electricity required for captive consumption within the manufacturing facility. Utilisation of bagasse reduces dependence on external fuel sources and enhances energy efficiency of operations. Surplus bagasse may also be stored and sold to external industries as industrial fuel, thereby creating an additional revenue stream. Further, ash generated from combustion of bagasse is sold to brick manufacturers and construction-related industries, supporting resource optimisation and circular economy practices.

5. **Juice Heating, Liming & Clarification**

   The extracted raw juice undergoes heating and treatment with lime and other clarifying agents to remove impurities and suspended solids. The treated juice is transferred to clarifiers where impurities settle down through sedimentation. This stage is critical in determining the colour, purity, texture and shelf life of the final products. Post clarification, the juice becomes suitable for concentration and crystallisation processes.

6. **Press Mud Generation & By-product Utilisation**

   The impurities separated during clarification are combined with small quantities of bagasse to produce press mud, which emerges as another commercially valuable by-product. Press mud is widely utilised in the agricultural sector as organic manure and soil conditioner owing to its nutrient-rich composition. Effective utilisation of press mud supports waste minimisation and provides incremental revenue opportunities for manufacturers.

7. **Evaporation & Syrup Formation**

   The clarified juice undergoes concentration in multiple-effect evaporators to remove excess moisture and form thick syrup. This controlled evaporation stage improves process efficiency, reduces energy consumption and prepares the syrup for subsequent crystallisation and product manufacturing processes.

8. **Product Manufacturing & Crystallisation**

   a) **Jaggery Powder**

      For jaggery powder production, the thick syrup is concentrated under reduced pressure in vacuum pans followed by controlled crystallisation using slurry. The crystallised mass is cooled in crystallisers to facilitate crystal growth and thereafter processed through centrifugation to separate molasses from jaggery crystals. The crystals are subsequently dried and converted into fine jaggery powder through powdering units. A portion of the jaggery powder produced may also be captively consumed for manufacturing jaggery-based premix products, enabling downstream value addition and product diversification

   b) **Khandsari Sugar**

      For khandsari sugar production, the thick syrup is further concentrated in open pans through controlled heating. Natural crystallisation occurs during gradual cooling without the addition of slurry, resulting in formation of sugar crystals. The crystallised

mass is centrifuged to separate molasses, followed by drying through hot and cold air treatment and grading based on crystal size and quality specifications.

c) Instant Premix

For instant premix production, jaggery powder, khandsari sugar and other ingredients such as coffee, tea, milk solids, cocoa, spices, flavouring agents or nutraceutical ingredients, depending on the product formulation, are blended in predetermined proportions using automated mixing systems to achieve uniform composition and consistency. The blended mixture undergoes quality testing to ensure homogeneity, moisture content and product stability before being packed into sachets, pouches or bulk packaging formats. Instant premixes are designed to provide convenience, standardised taste, longer shelf life and ease of preparation for consumers as well as institutional and food service customers. The production of instant premixes enables manufacturers to undertake downstream value addition, diversify product offerings, improve realisations and cater to the growing demand for ready-to-use food and beverage products across domestic and export markets.

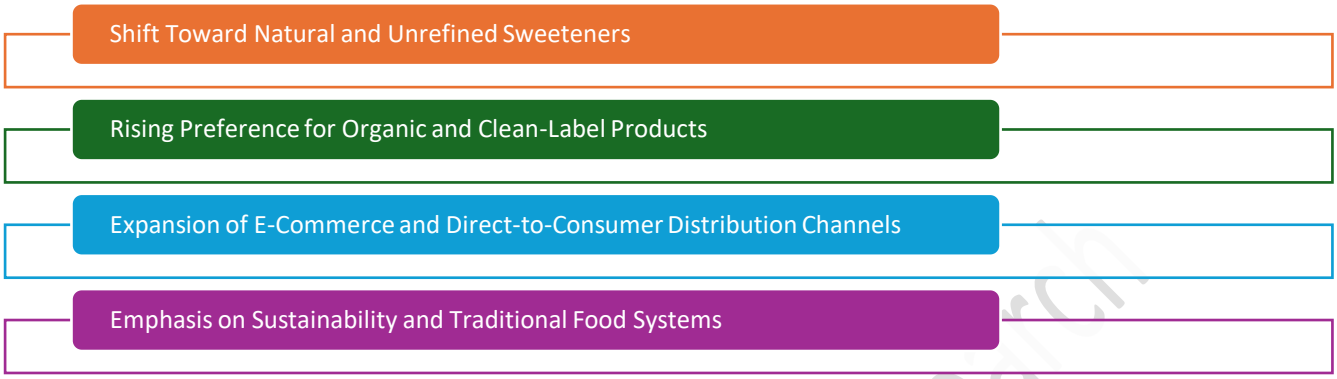
9. Packaging, Storage & Dispatch

Finished jaggery powder and khandsari sugar are packed in bulk packaging formats and stored under controlled dry conditions to maintain product quality, texture and shelf life. The products are thereafter dispatched primarily to wholesalers, institutional buyers and B2B customers.

10. Distribution & Marketing

Distribution of jaggery powder and khandsari sugar takes place through diversified channels including wholesalers, agricultural mandis, food processors, sweet manufacturers, institutional buyers, hotels, caterers and retail distributors. Increasing health consciousness and preference for traditional sweeteners have also supported growth through organised retail and online distribution channels. Product pricing across channels is influenced by sugarcane availability, seasonality, recovery rates, regional demand-supply dynamics, quality grades, packaging formats and transportation costs.

3.4 Market Trends in Jaggery, Khandsari & Instant Premix



The jaggery, khandsari & Instant Premix segment is undergoing a gradual transformation, driven by evolving consumer preferences, increasing awareness of natural and minimally processed food products and the growing emphasis on sustainable and traditional sweeteners. While jaggery and khandsari have historically been consumed primarily in specific geographies, its relevance and visibility in international markets are expanding as part of broader trends within the global food and sweetener ecosystem.

1. **Shift Toward Natural and Unrefined Sweeteners**

   The food manufacturing sector presents a significant opportunity for organised manufacturers of jaggery, khandsari and instant premixes. As food processing companies increasingly adopt clean-label formulations and reduce dependence on refined sugar, natural sweeteners are being incorporated into bakery products, confectionery, dairy products, beverages, breakfast cereals, snack bars and traditional food preparations. At the same time, instant premixes formulated using jaggery or khandsari are witnessing growing demand from consumers seeking convenience without compromising on natural ingredients.

   - Consistent product specifications, including controlled moisture, microbial quality, sweetness profile and year-round availability, have become key procurement criteria for food manufacturers and institutional buyers.
   - The use of jaggery and khandsari enables manufacturers to position products with claims such as "No Refined Sugar", "Naturally Sweetened" and "Traditional Ingredients", while instant premixes provide ready-to-use solutions aligned with modern consumption patterns and convenience-oriented lifestyles.

2. **Rising Preference for Organic and Clean-Label Products**

   Consumers are increasingly preferring packaged, hygienically processed and organically certified jaggery, khandsari and instant premix products that offer transparency in sourcing and manufacturing practices. This trend is supported by growing health awareness, preference for minimally processed foods and increasing demand for products free from artificial additives and preservatives. Manufacturers are strengthening their

market positioning through quality certifications, improved packaging and traceability, while introducing premium product variants targeted at health-conscious consumers and organised retail channels.

3. **Expansion of E-Commerce and Direct-to-Consumer Distribution Channels**

   The rapid expansion of organised retail, e-commerce platforms, quick commerce and direct-to-consumer distribution channels has significantly improved market access for branded jaggery, khandsari and instant premix products. These channels provide wider geographical reach, enhanced product visibility and greater consumer awareness regarding ingredients, nutritional benefits and quality certifications. The digital marketplace has also enabled manufacturers, including small and medium enterprises, to expand beyond regional markets and cater to a growing urban customer base seeking premium and convenience-oriented food products.

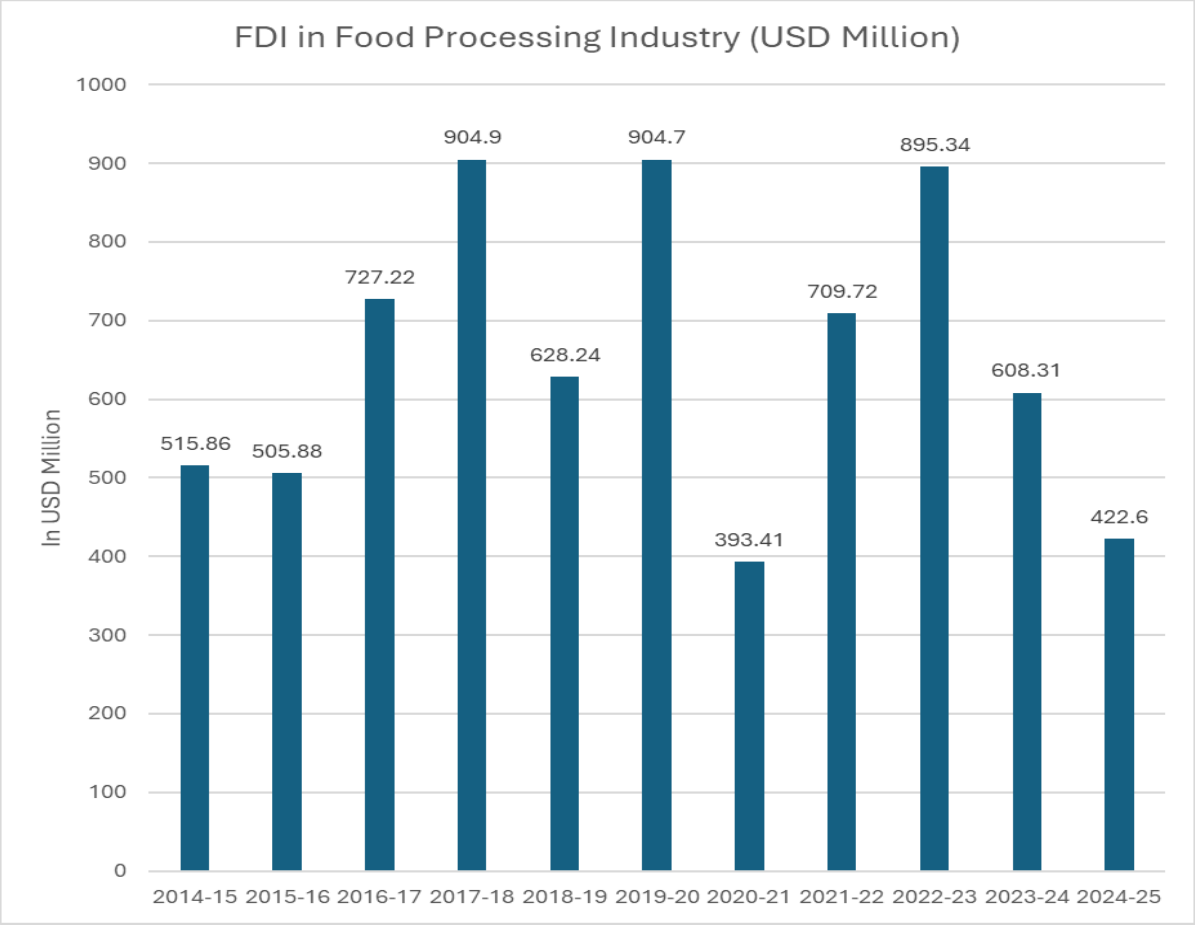
4. **Emphasis on Sustainability and Traditional Food Systems**

   Growing emphasis on sustainable agriculture, responsible sourcing and traditional food systems has strengthened the market positioning of jaggery, khandsari and related value-added products. The industry supports rural livelihoods through sugarcane cultivation and local processing while promoting efficient utilisation of by-products such as bagasse and press mud. The combination of traditional manufacturing practices, resource optimisation and increasing adoption of environmentally responsible processing technologies is enhancing the long-term sustainability of the industry and reinforcing consumer preference for naturally processed sweetening products.

4.Indian Food Processed Industry w.r.t Jaggery, Khandsari & Instant Premix

The Indian food processing industry represents a critical link between agriculture and consumers, contributing significantly to value addition, employment generation and reduction of post-harvest losses. The sector encompasses a wide range of activities including processing, preservation, packaging and distribution of agricultural and food products. India's large agricultural base, diverse raw material availability, expanding domestic consumption and increasing export opportunities support the growth of the industry. The Government of India has undertaken policy initiatives to encourage investments in this sector, including permitting 100% foreign direct investment (FDI) under the automatic route in food processing and in trading of food products manufactured or produced in India. These measures, along with infrastructure development and regulatory support, have enhanced the attractiveness of the food processing industry for domestic and foreign investors.

4.1 Foreign Direct Investments in Food Processing Industry

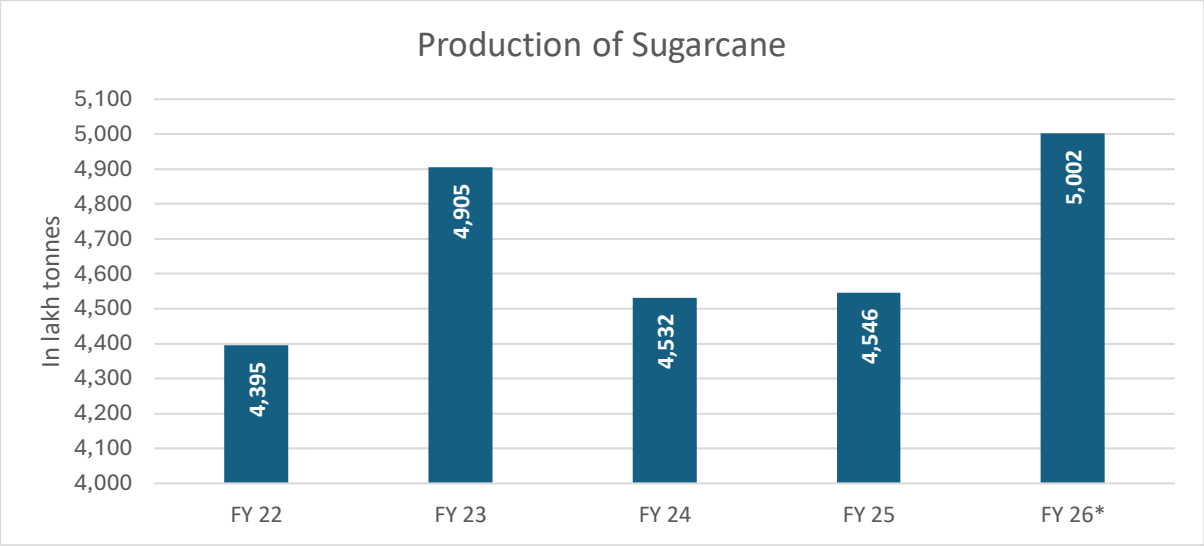


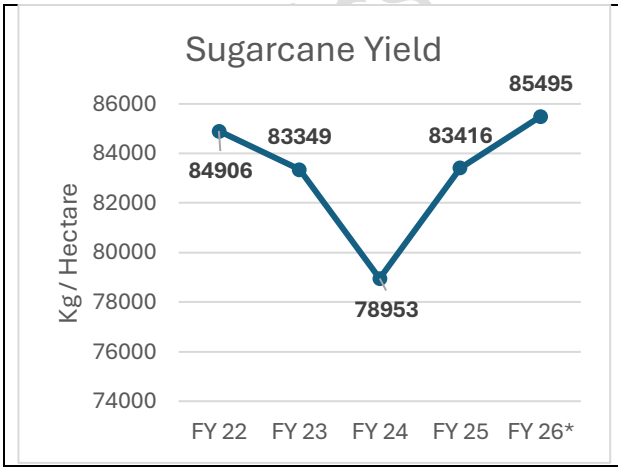
Source: Ministry of Food Processing Industries (MOFPI) Annual Report 2024-25, Infomerics Analytics & Research

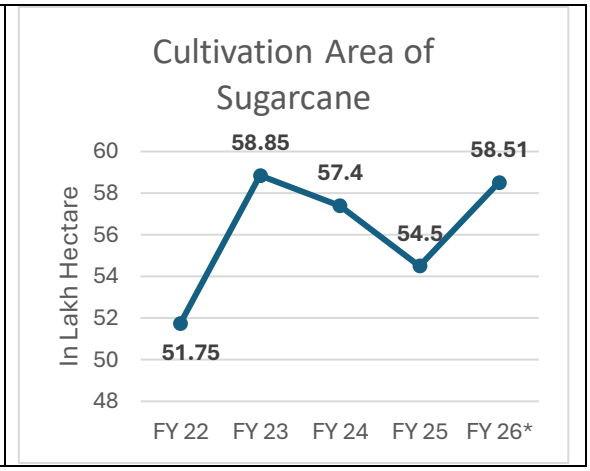
4.2 Indian Jaggery, Khandsari & Instant Premix Segment

The jaggery, khandsari and instant premix industry is fundamentally dependent on sugarcane as its primary raw material and forms an important value-added segment within the sugarcane processing ecosystem. Jaggery and khandsari are manufactured directly from freshly extracted sugarcane juice through clarification, concentration and controlled crystallisation processes, while instant premixes utilise jaggery, khandsari or their derivatives as key ingredients in the formulation of ready-to-use food and beverage products. Accordingly, the availability, quality and pricing of sugarcane have a direct bearing on the production capacity, cost structure and profitability of manufacturers across these product segments.

Production of Sugarcane / Key Raw Materials







Source: UPAG- Department of Agriculture & Farmers Welfare, Infomerics Analytics and Research.

Note: Data for the year FY 2026 is of 2nd Advance Estimates.

Sugarcane production in India has exhibited an overall upward trend during the period from FY 22 to FY 26, despite interim fluctuations, with both yield levels and cultivation area broadly supporting production performance. Production increased from approximately 4,395 lakh tonnes in FY 22 to about 4,905 lakh tonnes in FY 23, despite a marginal decline in yield from around 84,906 kg per hectare to 83,349 kg per hectare, supported by a significant expansion in cultivation area from approximately 51.75 lakh hectares to 58.85 lakh hectares, indicating favourable agro-climatic conditions and increased acreage.

In FY 24, production declined to approximately 4,532 lakh tonnes, accompanied by a sharper reduction in yield to about 78,953 kg per hectare and a contraction in cultivation area to approximately 57.4 lakh hectares, reflecting the adverse impact of weather variability and sub-optimal rainfall conditions.

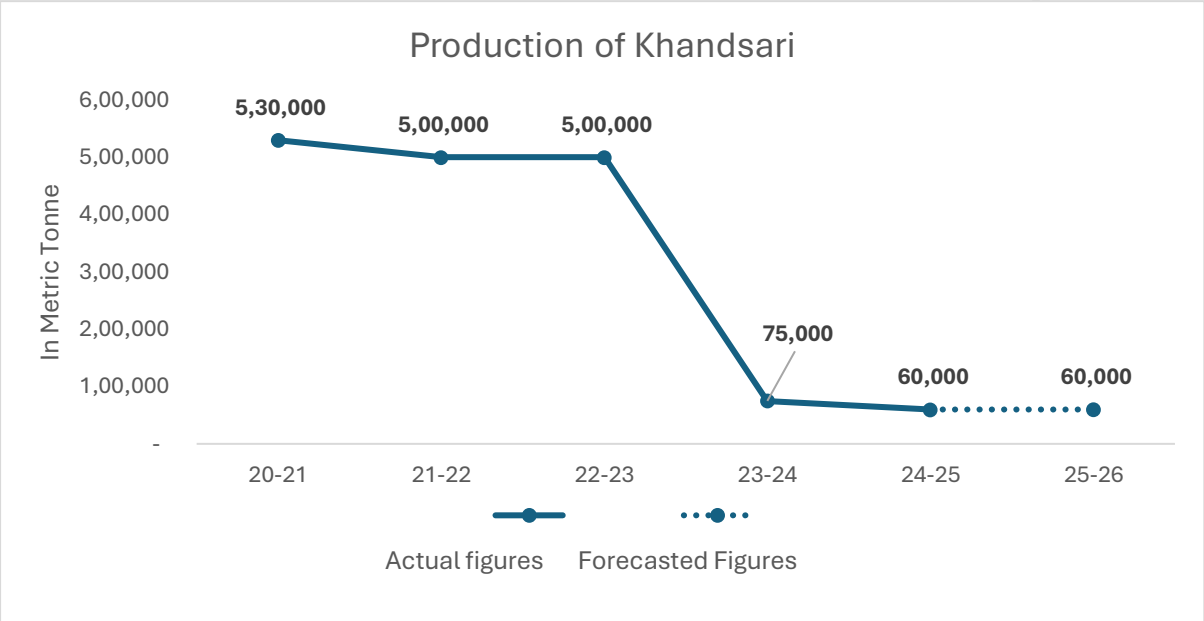
Production levels stabilised marginally in FY 25 at around 4,546 lakh tonnes, supported by a recovery in yield to approximately 83,416 kg per hectare, although cultivation area declined further to about 54.5 lakh hectares, partially offsetting the gains from improved productivity.

In FY 26, sugarcane production is estimated to increase significantly to about 5,002 lakh tonnes, representing the highest level during the period under review, alongside improvement in yield to approximately 85,495 kg per hectare and expansion in cultivation area to about 58.51 lakh hectares, indicating recovery in agricultural productivity supported by improved climatic conditions and increased acreage under cultivation.

4.3 Production Trends

(A) Khandsari

Khandsari refers to a form of traditional, partially refined sugar obtained from sugarcane juice through a simple process of clarification, boiling and crystallization without undergoing full-scale refining as in plantation white sugar. It is characterized by its off-white to light brown colour, presence of residual molasses and a relatively coarse crystal structure.



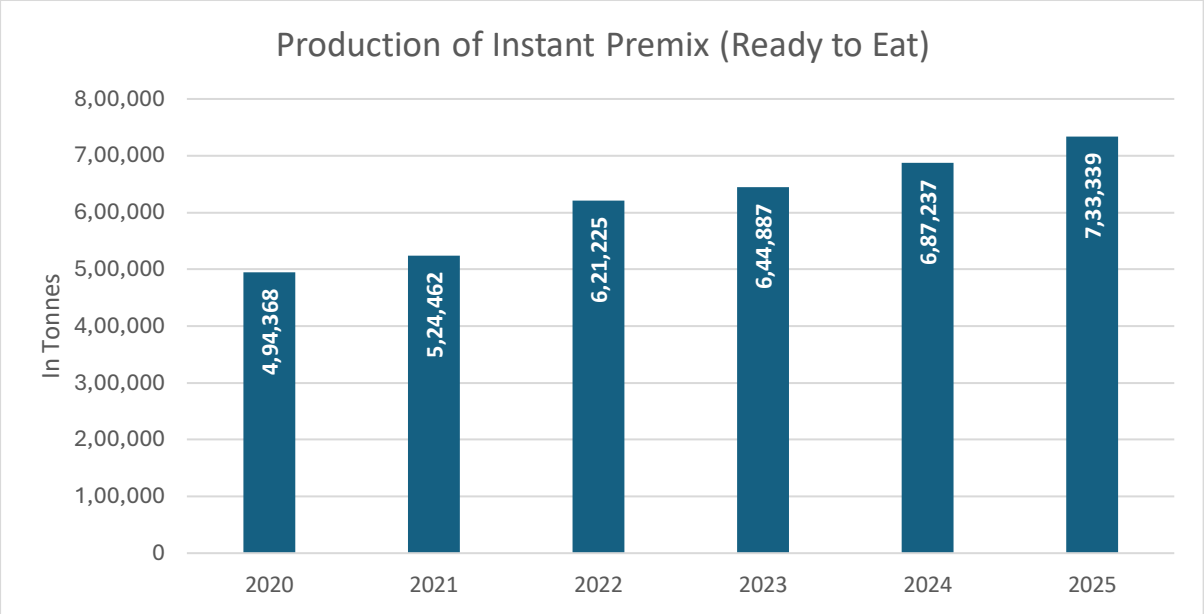
Source: USDA FAS Sugar Annual Reports.

The production of khandsari witnessed a declining trend. Production stood at approximately 5,30,000 metric tonnes in FY 2020-21, which marginally declined to 5,00,000 metric tonnes in FY 2021-22 and remained stable in FY 2022-23. However, production dropped significantly to 75,000 metric tonnes in FY 2023-24, representing a substantial contraction compared to previous years.

The decline in khandsari production is because of changing consumer preferences, increasing health consciousness and growing demand for natural and minimally processed sweeteners such as jaggery powder and specialty sugarcane-based products. Industry participants are increasingly focusing on higher-margin value-added products, product diversification and organised processing capabilities, resulting in a gradual shift away from conventional khandsari production. Despite the moderation in production volumes, the khandsari segment continues to maintain relevance within the broader sugarcane processing industry due to its strong presence in regional markets, traditional consumption patterns and usage across food processing applications.

(B) Instant Premix (Ready to Eat)

The instant premix and ready-to-eat (RTE) segment constitute an important component of the food processing industry and addresses the increasing demand for convenient, consistent, and time-efficient food solutions. Instant premixes are semi-processed food products designed for quick preparation, requiring minimal cooking or simple additions such as water or milk, including products such as instant jaggery-based coffee or tea premixes and instant rice kheer premixes. In contrast, ready-to-eat products are fully processed and packaged foods intended for direct consumption without any further preparation. These product categories rely on advanced food processing, preservation, and packaging technologies to extend shelf life while maintaining product quality, taste, and nutritional attributes.

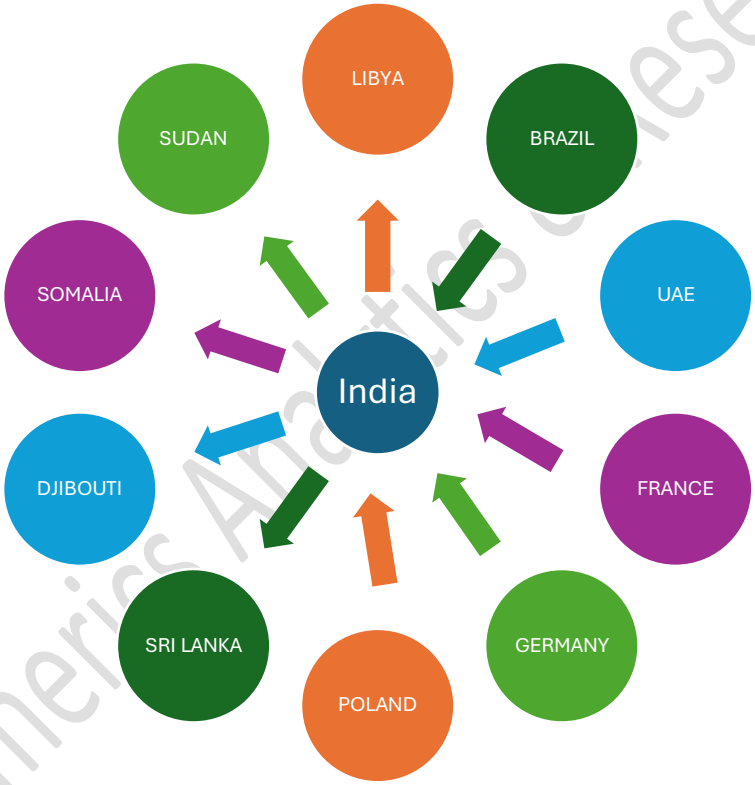


Source: CMIE, Infomerics Analytics and Research.

The production of instant (ready-to-eat) food in India has exhibited a sustained upward trend over the period from FY2019-20 to FY2024-25, increasing from approximately 4,94,000 tonnes to about 7,33,000 tonnes, reflecting a growth of nearly 48% over six years. The year-on-year progression indicates steady capacity expansion and rising consumer demand, with moderate growth observed in the initial years followed by sharper increases during FY2021-22 and continued incremental gains thereafter. This consistent rise underscores the structural shift in consumer food consumption patterns towards convenience-oriented products, driven by urbanisation, time-constrained lifestyles, increasing nuclear households and greater workforce participation. The absence of significant volatility over the period suggests demand resilience and maturation of the ready-to-eat segment within the packaged food industry. Overall, the production trend highlights strong long-term growth visibility for instant food products in India, supported by improving distribution reach, product acceptance and ongoing investments in food processing infrastructure.

4.4 Trade Dynamics of Jaggery & Khandsari

The trade dynamics of the jaggery and khandsari industry are influenced by domestic production, raw material availability and export demand, with trade flows shaped by sugarcane output, product quality, pricing competitiveness and regulatory compliance. Export demand for natural, minimally processed and traditional sweeteners, including packaged, branded and organic variants of jaggery and khandsari, continues to support international trade. The industry's trade performance is further influenced by seasonal sugarcane availability, adherence to food safety and quality standards, certification requirements, and the ability of manufacturers to ensure consistent product quality, packaging and timely supply to domestic and overseas markets.



Top Export Destination	CY 2025 (USD Million)	Market Share	Top Import Destination	CY 2025 (USD Million)	Market Share
LIBYA	283.95	13%	BRAZIL	1,207.83	98.06%
SUDAN	251.42	12%	U ARAB EMTS	8.10	0.66%
SOMALIA	245.75	12%	FRANCE	4.88	0.40%
DJIBOUTI	195.07	9%	GERMANY	3.63	0.29%
SRI LANKA DSR	158.31	7%	POLAND	2.89	0.23%
OTHERS	999.47	47%	OTHERS	4.44	0.36%
Total	**2133.97**	**100%**	**Total**	**1231.77**	**100%**

Source: MEIDB, Infomerics Analytics and Research

The Indian trade profile of jaggery and khandsari in CY 2025 reflects a geographically concentrated export base alongside a highly skewed import structure.

On the export front, total exports stood at USD 2,133.97 million, with a diversified destination mix. Key export markets include Libya (13%), Sudan (12%) and Somalia (12%), followed by Djibouti (9%) and Sri Lanka (7%). Notably, the "Others" category constitutes the largest share at 47%, indicating a fragmented demand base across multiple smaller markets. The concentration of exports towards African and neighbouring developing economies suggests demand driven by traditional consumption patterns and price competitiveness.

On the import side, total imports were recorded at USD 1,231.77 million, exhibiting a highly concentrated structure. Brazil dominates global imports with a significant share of 98.06%, indicating near-monopolistic import dependence. Other importing countries such as the United Arab Emirates (0.66%), France (0.40%), Germany (0.29%) and Poland (0.23%) contribute marginally to overall imports, reflecting limited penetration in developed markets.

Overall, while exports demonstrate moderate diversification across regions, the import landscape remains heavily concentrated, highlighting a structural imbalance in global trade dynamics. This concentration risk on the import side may expose the trade ecosystem to demand-side volatility originating from a single dominant market.

5. Market Dynamics

5.1 Growth Drivers

The industry continues to expand in response to evolving consumption patterns and broader economic developments. The key growth aspects are as follows:

Market Drivers and Impact Assessment

(All values represent directional impact based on industry estimates and qualitative analysis)

Growth Driver	(1–2 yrs)	(3–4 yrs)	(5–7 yrs)
1. **Increasing substitution of refined sugar in food formulations**	High	High	High
2. **Rising demand for instant premix and ready to eat.**	High	High	High
3. **Young demographic profile and evolving taste preferences**	Moderate	High	High
4. **Urbanization and evolving lifestyles**	**Moderate**	High	**High**
5. **Sustainability and circular economy alignment**	Moderate	High	High
6. **Product innovation and premiumization**	Moderate	Moderate	High
7. **Energy Availability Constraints Driving Low-Cooking Food Consumption**	High	Moderate	**Moderate**

Source: Infomerics Analytics & Research

Detailed Driver Commentary

1. **Increasing substitution of refined sugar in food formulations**
   Food manufacturers, bakeries, beverage producers and institutional kitchens are increasingly substituting refined sugar with jaggery, Khandsari & instant premix in selected applications to cater to demand for natural sweeteners. Due to its ease of handling and consistency is particularly gaining acceptance as an input in processed foods, snacks and ready-to-mix products.
2. **Rising demand for instant premix and ready-to-eat**
   It reflects a structural shift in eating habits. Consumers are increasingly opting for quick meals and frequent snacking, making processed foods an integral part of daily consumption rather than an occasional choice.
3. **Young demographic profile and evolving taste preferences**
   The processed food industry is accelerating category expansion. A large youth population is more experimental and open to trying global cuisines, innovative formats and diverse flavours, thereby increasing demand for processed food products.

4. **Urbanization and evolving lifestyles**

   These are the most fundamental drivers of the processed food industry in India. As city living becomes more fast-paced and time-constrained, consumers are increasingly moving away from traditional cooking toward convenient food solutions that fit into their daily routines.

5. **Sustainability and circular economy alignment**

   Jaggery, Khandsari and premix sector demonstrates alignment with sustainability principles through utilisation of by-products such as bagasse, molasses and press mud. Captive energy generation, organic fertiliser usage and waste monetisation contribute to lower environmental impact and improve overall economic viability, making this processing attractive in sustainability-focused investment environments.

6. **Product innovation and premiumization**

   These initiatives are helping companies stay competitive and relevant. Continuous introduction of new variants, healthier alternatives and premium offerings is enabling brands to cater to evolving consumer expectations and drive higher value realization.

7. **Energy Availability Constraints Driving Low-Cooking Food Consumption**

   In the short term, constraints in cooking fuel availability have led to increased consumption of ready-to-cook and no-cook food products as households seek energy efficient meal solutions. While the impact of such supply driven factors is expected to moderate over time, increased consumer exposure to convenience foods is likely to support sustained adoption alongside broader lifestyle-driven demand trends.

5.2 Market Restraints

The industry operates within an environment that presents several structural and operational constraints. The key restraints are:

Market Challenges and Impact Assessment

(All values represent directional impact based on industry estimates and qualitative analysis)

Challenge	(1–2 yrs)	(3–4 yrs)	(5–7 yrs)
1. Volatility in Raw Material Prices	High	High	Moderate
2. Rising Input, Packaging & Logistics Costs	High	Moderate	Moderate
3. Regulatory Compliance & Food Safety Norms	High	High	Moderate
4. Managing Diverse Regional Tastes	High	Moderate	Moderate
5. Export related Regulatory & Quality Constraints	Moderate	High	High

Source: Infomerics Analytics & Research

Detailed Overview

1. **Volatility in Raw Material Prices**
   Dependence on agricultural inputs such as sugarcane exposes manufacturers to climate variability, seasonality and commodity price fluctuations, impacting input costs and margin stability.
2. **Rising Input, Packaging & Logistics Costs**
   Inflation in fuel prices, packaging materials and transportation costs can compress margins, particularly in price sensitive segments.
3. **Regulatory Compliance & Food Safety Norms**
   Compliance with FSSAI regulations, labelling standards and traceability requirements increases operational complexity and cost, especially as regulatory standards continue to evolve.
4. **Managing Diverse Regional Tastes**
   India's heterogeneous culinary landscape necessitates continuous localisation of products, which adds complexity to product development and supply-chain management.
5. **Quality Consistency and Shelf-Life Challenges**
   The Jaggery, Khandsari & instant premixes are inherently hygroscopic and sensitive to moisture, making it vulnerable to quality deterioration, microbial spoilage and shorter shelf life if not properly processed and packaged. Ensuring consistent quality across batches requires enhanced processing controls and packaging solutions, increasing operational costs.

6.Government Initiatives and Policy Support

The processed food industry in India has benefited from sustained policy support from the Government of India aimed at strengthening food processing infrastructure, improving supply-chain efficiency, encouraging formalisation and enhancing global competitiveness. These initiatives are as follows:

1. **Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)**
   The Production Linked Incentive Scheme for Food Processing Industry (PLISFPI) was approved by the Union Cabinet in 2021. The duration of the scheme will be six years i.e. 2021-22 to 2026-27. It aims to create global food manufacturing champions and promote Indian processed food brands internationally. The scheme incentivises incremental sales and capacity expansion in segments such as ready-to-cook foods, processed fruits & vegetables, marine products, dairy products and millet-based foods, along with dedicated support for branding and marketing abroad.
2. **Financial and Credit Support Measures**
   A INR 2,000 crore special fund has been created with NABARD to provide affordable credit for food parks, agro-processing units and related infrastructure projects. Food processing and cold chain activities are eligible for priority sector lending, improving access to institutional finance. Tax incentives such as profit-linked deductions under Section 80-IB and investment-linked deductions under Section 35-AD of the Income Tax Act support capital investment in food processing and packaging infrastructure.
3. **Scheme for Creation / Expansion of Food Processing and Preservation Capacities (CEFPPC)**
   This scheme was launched by MOFPI in 2017. It provides financial assistance for setting up, expanding or modernising food processing units, including those engaged in ready-to-eat, ready-to-cook, bakery, snack, dairy, fruit and vegetable processing and other processed food categories. The scheme supports induction of modern technology, improves processing efficiency and enhances shelf life, thereby strengthening the organised processed food ecosystem.
4. **Package Scheme of Incentives (PSI) 2019 – Government of Maharashtra**
   Under the PSI 2019 framework, eligible industrial units engaged in agro and food processing activities are entitled to avail various incentives including Industrial Promotion Subsidy (IPS) linked to reimbursement of State Goods and Services Tax (SGST), interest subsidy, power tariff subsidy, electricity duty exemption, technology upgradation assistance, incentives for cleaner production measures, quality certification support, patent registration subsidy, and incentives relating to energy efficiency, water

conservation, water audit and energy audit. The scheme also seeks to strengthen industrial infrastructure and improve ease of doing business by reducing operational costs and encouraging adoption of advanced manufacturing technologies.

7.PESTEL Analysis

The PESTEL framework provides a structured assessment of the external macro environmental factors that influence the industry's operating landscape. It examines the political, economic, social, technological, environmental and legal dimensions that collectively shape industry performance, regulatory evolution and strategic direction. This analysis enables a comprehensive understanding of the opportunities and challenges impacting market stability, investment potential and long-term sectoral growth.

Factor	Key Insights and Implications
Political	• Strong policy focus by the Government of India on food processing, value addition and reduction of post-harvest losses. • Supportive government schemes such as PMKSY, PMFME and the Production Linked Incentive Scheme for Food Processing. • Liberalised Foreign Direct Investment (FDI) policy allowing 100% FDI in food processing activities. • Government initiatives aimed at strengthening cold-chain infrastructure and agri logistics. • Sensitivity to changes in agricultural policies, export-import regulations, trade restrictions and geopolitical developments impacting commodity supply chains.
Economic	• Growth linked to overall GDP growth, rising disposable incomes and expansion of the middle-class population. • Increasing consumer spending on processed and branded food products across urban and semi-urban markets. • Exposure to inflationary pressures affecting raw material prices, packaging costs, fuel and logistics expenses. • Interest-rate movements may impact borrowing costs, working capital requirements and expansion plans. • Relatively resilient demand due to the essential nature of food consumption, even during economic slowdowns.
Social	• Nuclear families and increasing female workforce participation driving demand for convenience foods. • Growing preference for ready-to-eat and ready-to-cook products due to time-constrained lifestyles. • Rising awareness of food safety, hygiene and quality encouraging shift from loose to packaged food products. • Diverse regional and cultural food preferences requiring localisation of products and flavours.
Technological	• Advancements in food processing technologies improving shelf life, quality consistency and operational efficiency. • Adoption of automation, mechanisation and process standardisation in manufacturing facilities.

	• Innovation in packaging materials and formats enhancing product safety and consumer convenience. • Expansion of cold-chain and storage technologies supporting growth of perishable and convenience food categories. • Increasing use of digital tools, ERP systems and data analytics for inventory management, demand forecasting and distribution optimisation. • Growth of e-commerce and quick-commerce platforms supported by digital infrastructure.
Environmental	• Increasing focus on sustainability and environmental responsibility in food processing and packaging. • Regulatory and consumer pressure to reduce plastic usage and adopt recyclable or eco-friendly packaging. • Climate change and erratic weather patterns affecting agricultural output and raw material availability. • Growing emphasis on energy efficiency, water conservation and waste reduction in manufacturing operations. • Environmental compliance expected to become a more significant operational consideration over the long term.
Legal	• Regulation by the Food Safety and Standards Authority of India (FSSAI) governing food safety, hygiene, labelling and quality standards. • Mandatory compliance with packaging and nutritional labelling requirements. • Periodic changes in food safety norms may increase compliance and operating costs. • Export-oriented players subject to additional international food safety, quality and certification regulations. • Regulatory framework enhances consumer trust but increases complexity, particularly for small and mid-sized manufacturers.

8.Technology and the Digital Transformation

The processed food industry in India is undergoing a steady technological and digital transformation. Technology adoption is being observed across the value chain, supported by both private investment and government led infrastructure and digital initiatives. The following points are as follows:

1. **Processing and Manufacturing Technologies**
   Manufacturers are increasingly adopting modern food processing technologies to enhance product consistency, hygiene and shelf life. Automation and mechanisation in activities such as sorting, cooking, drying, blending and packaging have reduced manual intervention and improved throughput. These advancements support large-scale production of ready-to-eat, instant premix, bakery, snack and other processed food products.
2. **Automation and Smart Operations**
   Use of automated machinery and process control systems has improved operational efficiency and reduced production losses. Digital monitoring of equipment and production parameters enables better quality control, preventive maintenance and optimisation of resource utilisation across manufacturing facilities.
3. **Cold Chain and Storage Infrastructure**
   Expansion and modernisation of cold-chain infrastructure, including temperature-controlled storage and refrigerated transportation, have strengthened handling of perishable raw materials and finished products. Technology-enabled temperature monitoring systems help maintain product integrity and reduce post-harvest losses, supporting wider geographic distribution of processed food products.
4. **Digital Supply Chain and Inventory Management**
   Processed food manufacturers are increasingly implementing enterprise resource planning (ERP) systems and digital supply-chain tools to improve procurement planning, production scheduling and inventory management. Data-driven demand forecasting and distributor integration have enhanced supply chain visibility and working capital efficiency.
5. **Food Safety, Quality and Traceability Systems**
   Digital quality-management systems, batch tracking and electronic record keeping have strengthened food safety compliance and traceability. Technology enabled food testing laboratories and quality infrastructure support adherence to domestic and international standards, enhancing consumer confidence and export readiness.

6. Digital Distribution and Consumer Access

Growth of e-commerce and quick-commerce platforms has accelerated digital transformation at the retail level. Digital channels have improved product accessibility, enabled faster last-mile delivery and supported data-based marketing and consumer engagement, particularly in urban markets.

9.Competitive Landscape

The processed food industry in India operates in a competitive market structure, comprising a mix of large integrated manufacturers, regional organised processors.

9.1 Key Competitive Strategies

Participants in the processed food industry adopt a range of competitive strategies to strengthen market presence, improve profitability and respond to evolving consumer preferences. The following factors are as follows:

1. **Brand Building and Portfolio Positioning**
   Companies focus on building strong brand equity to enhance consumer trust, loyalty and recall. Portfolio diversification across product categories, taste profiles and price points enables players to address multiple consumption occasions and consumer segments, thereby expanding market reach and mitigating dependence on single products.
2. **Product Innovation and Diversification**
   Companies in this industry are increasingly focusing on value-added and convenience-based products and fortified products to cater to changing consumer preferences. Powdered and liquid formats are gaining traction due to ease of usage in beverages, bakery, and confectionery applications.
3. **Regional Customisation and Localised Offerings**
   Tailoring products to local cuisines, spice profiles and consumption habits enables deeper penetration in regional markets and strengthens acceptance among local consumers. Regional brands often leverage this strategy to compete effectively with national players.
4. **Focus on Organic and Quality Certifications**
   Companies are increasingly obtaining organic certifications, FSSAI compliance, and international food safety accreditations to enhance consumer trust and improve export competitiveness. Certified organic jaggery products, khandsari and instant premix are witnessing growing demand in premium domestic and international markets
5. **Pricing and Value-Based Strategies**
   Companies adopt a mix of competitive pricing, value-packs and differentiated pack sizes to cater to varied income segments. Cost optimisation through scale, sourcing efficiencies and process improvements supports sustainable pricing strategies without compromising margins.
6. **Marketing, Promotion and Consumer Engagement**
   Advertising, in-store activations and digital engagement, play an important role in influencing consumer choice. Use of digital platforms and data-driven marketing enables

targeted engagement and improved understanding of consumer behaviour, particularly among younger and urban consumers.

7. **Strategic Partnerships and Alliances**

   Strategic alliances, contract manufacturing, co-branding arrangements and distribution partnerships are used to accelerate market entry, expand product portfolios and optimise capital deployment. Collaborations also enable access to technology, regional expertise and established distribution networks.

9.2 Barriers to Entry

The processed food industry continues to attract new entrants due to growing demand and evolving consumption patterns, the sector is characterised by several structural, regulatory and operational barriers that influence the ease with which new players can establish and scale their operations. These are as follows:

1. **Regulatory Compliance and Food Safety Requirements**
   Compliance with statutory standards prescribed by regulatory authorities requires investment in quality control systems, food testing, documentation and periodic audits. These requirements increase complexity and cost for new entrants, particularly those lacking prior experience in regulated food manufacturing.
2. **Supply Chain and Raw Material Sourcing**
   Reliable sourcing of agricultural raw materials with consistent quality is critical for processed food manufacturing. New entrants may lack established supplier relationships, procurement systems or backward linkages, exposing them to input price volatility and supply disruptions. Building stable supply chains requires time, scale and operational experience.
3. **Product Development and Technical Capabilities**
   Product formulation, shelf-life stability, taste consistency and packaging suitability require technical expertise and testing. New entrants may encounter challenges in achieving scalable production with consistent quality, particularly in ready-to-eat, ready-to-cook and perishability-sensitive categories.
4. **Regulatory Changes and Compliance Risk**
   Periodic changes in food safety norms, labelling requirements and taxation may increase compliance costs and operational uncertainty. New entrants with limited compliance infrastructure may find it challenging to adapt quickly to evolving regulatory expectations.

9.3 About the Company

Shree Siddhivinayak Greentech Industries Public Limited is a Maharashtra based agro-processing company incorporated in 2022, engaged in the processing of sugarcane into jaggery, jaggery-based products and other allied products. The Company operates an integrated value chain encompassing farmer centric agricultural sourcing, processing, quality control and distribution. Its product portfolio includes jaggery powder manufactured and sold in bulk catering primarily to wholesale, distributor and institutional customers in the Business-to-Business (B2B) segment, as well as consumer sized packs marketed under the brand "FeelGuddy" through its retail outlet in Pune and online platforms such as Amazon and Meesho in the Business-to-Consumer (B2C) segment. It is also engaged in the manufacture of khandsari sugar, a traditionally processed sugar supplied mainly in bulk to B2B customers. In addition, it manufactures value added jaggery-based pre-mix products, including instant rice kheer, jaggery tea, laddoo, lapsi and coffee pre-mixes, which are sold directly to consumers under the "FeelGuddy" brand. It derives ancillary revenue from the sale of by products such as bagasse, molasses and press mud generated during the manufacturing process and also operates an on-site sugarcane seed nursery supplying quality cane seeds to farmers. Guided by its commitment to sustainability, transparency and innovation. It focuses on fair procurement practices, natural & chemical-free products and responsible agro-processing with the objective of creating long-term value for farmers, consumers and other stakeholders.

Types of Products Offered by the Company

9.4 Key Industry Players

Metric	Dhampure Speciality Sugars Ltd	Dollex Agrotech Ltd	Simbhaoli Sugars Ltd	Shree Renuka Sugars Ltd
Year of Incorporation	1992	2013	2011	1995
Registered Office	Bijnor, Uttar Pradesh	Indore, Madhya Pradesh	Hapur, Uttar Pradesh	Belagavi, Karnataka
Geographical Presence	Primarily North India	Madhya Pradesh	North India	Global presence
Plant Location	Dhampur, Bijnor, Uttar Pradesh	Village Erai, Tehsil Badoni Khurd, Datia, Madhy\ a Pradesh	Simbhaoli, Brijnathpur, Chilwaria (Hapur dist., UP)	Port refineries at Kandla (Gujarat) & Haldia (West Bengal)
Product Portfolio	Organic sugar, jaggery & specialty sugars	Sugar, molasses, bagasse & press mud	Sugar, ethanol, power & spirits	Sugar, ethanol, branded sugar & refining
By Products	Treacle, cane syrup, caramel syrup & sugarcane molasses	Molasses, press mud & bagasse	Bio manure & molasses	Organic manure & molasses
Key brands	Dhampure & Dhampur Green	Direct B2B	Simbhaoli	Madhur

9.5 Financial Performance Analysis

The financial performance analysis of Shree Siddhivinayak Greentech Industries Public Limited outlines its operational and profitability performance over FY 2024, FY 2025 and FY 2026. The Company commenced commercial operations in FY 2023–24, with no revenue recorded in FY 2022–23. Accordingly, FY 2024, FY 2025 and FY 2026 represent the Company's post-commencement operating period, during which key indicators such as total income, EBITDA, and profitability margins reflect its initial operational scale and financial performance.

Figures are in INR lakhs (Except for ratios and Percentages)

Key Indicators		Shree Siddhivinayak Greentech Industries Public Limited		
		FY 2026	FY 2025	FY 2024
Revenue from Operations	In Lakhs	7,526.77	5,856.63	3,627.64
Year on year revenue growth	In %	28.52%	61.44%	-
EBITDA	In Lakhs	2,046.22	1,454.29	861.30
EBITDA Margin	In %	27.19%	24.83%	23.74%
PAT	In Lakhs	1,159.22	549.66	308.13
PAT Margin	In %	15.40%	9.39%s	8.49%
Profit after tax growth	In %	110.90%	78.39%	-
Cash Profit after tax	In Lakhs	1,334.55	708.63	455.92
Operating cash flow	In Lakhs	504.19	1,324.17	(1,778.64)
Trade Receivables days	In Days	0	8	0
Inventory days	In Days	117	147	1
Trade Payable days	In Days	150	256	101
Interest Coverage Ratio	In Times	3.70	1.98	1.88
Net worth	In Lakhs	2,507.01	1,847.78	1,298.13
Debt	In Lakhs	8,995.37	7,275.58	7,645.26
Net fixed asset turnover ratio	In Times	1.24	1.09	0.76
Current Ratio	Times	0.90	0.88	0.87
Debt-Equity Ratio	Times	3.59	3.94	5.89
Return on equity	In %	53.24%	34.94%	47.11%
Return on capital employed	In %	19.76%	17.20%	9.22%
Net Asset Value per equity share	In ₹	51.16	377.10	264.92
Net Asset Value per equity share – Adjusted	In ₹	20.47	15.08	10.60

Source: Audited Financials as provided by the company

Formula Used:

- Year on Year Revenue Growth: (Current Year – Previous Year)/ Previous Year
- EBITDA: Total Operating Income - Operating Expenses (excluding Depreciation & Amortisation, Interest and Taxes)
- EBITDA Margin: (EBITDA/Total Operating Income) *100

- PAT Margin: (Profit after Tax/Total Income) *100
- Profit after tax growth
- Cash Profit after tax
- Trade Receivable Days: Trade Receivable Turnover Ratio/365
- Inventory Days: Inventory Turnover Ratio/365
- Trade Payable Days: Trade Payable Turnover Ratio/365
- Interest Coverage Ratio: EBIT/Interest
- Net Worth: Share Capital + Reserve & Surplus – Intangible Assets -Deferred Tax Assets – Misc Expenditure not written off – Revaluation Reserves
- Current Ratio: Current Assets /Current Liabilities
- Debt- Equity Ratio: Debt/Equity
- Return On Equity: (Net Income/ Shareholder Equity) *100
- Total Capital Employed: Fixed Assets + Intangible Assets +Net Working Capital
- Return on Capital Employed (ROCE): (Earnings before Interest & Taxes/Average Capital Employed) *100
- Net Asset Value per Equity Share: (Total Assets – Total Liabilities- Preference share capital)/ Total Number of Outstanding Equity Share

Shree Siddhivinayak Greentech Industries Public Limited demonstrated strong and consistent financial growth over the period from FY 2024 to FY 2026, supported by expansion in business operations, improving operating efficiencies and enhanced profitability. Revenue from operations increased from INR 3,627.64 lakhs in FY 2024 to INR 5,856.63 lakhs in FY 2025, registering a growth of approximately 61.44%, and further increased by 28.52% to INR 7,526.77 lakhs in FY 2026. EBITDA also witnessed steady growth, increasing from INR 861.30 lakhs in FY 2024 to INR 1,454.29 lakhs in FY 2025 and further to INR 2,046.22 lakhs in FY 2026. Consequently, EBITDA margin improved consistently from 23.74% in FY 2024 to 24.83% in FY 2025 and further to 27.19% in FY 2026, reflecting improved operating leverage, better cost absorption and effective cost management.

The Company's profitability improved significantly during the three-year period. Profit After Tax increased from INR 308.13 lakhs in FY 2024 to INR 549.66 lakhs in FY 2025, representing a growth of approximately 78.39%, and further increased by 110.90% to INR 1,159.22 lakhs in FY 2026. PAT margin also improved consistently from 8.49% in FY 2024 to 9.39% in FY 2025 and further to 15.40% in FY 2026, indicating a significant improvement in earnings quality and overall profitability. Cash Profit after Tax increased from INR 455.92 lakhs in FY 2024 to INR 708.63 lakhs in FY 2025 and further to INR 1,334.55 lakhs in FY 2026. The Company also reported a significant turnaround in operating cash flows, generating positive operating cash flow of INR 1,324.17 lakhs in FY 2025 as against negative operating cash flow of INR (1,778.64) lakhs in FY 2024. Although operating cash flow moderated to INR 606.23 lakhs in FY 2026, it remained positive, reflecting continued cash generation despite relatively higher working capital requirements.

The Company's financial position strengthened over the review period, with net worth increasing steadily from INR 1,298.13 lakhs in FY 2024 to INR 1,847.78 lakhs in FY 2025 and further to INR 2,507.01 lakhs in FY 2026. Total debt declined marginally from INR 7,645.26 lakhs in FY 2024 to INR 7,275.58 lakhs in FY 2025 before increasing to INR 8,899.16 lakhs in FY 2026 to support business expansion. Despite the increase in borrowings during FY 2026, the debt-equity ratio improved consistently from 5.89 times in FY 2024 to 3.94 times in FY 2025 and further to 3.55 times in FY 2026, supported by sustained growth in shareholders' funds. The interest coverage ratio also improved significantly from 1.88 times in FY 2024 to 1.98 times in FY 2025 and further to 3.70 times in FY 2026, indicating stronger debt servicing capability. The current ratio remained below unity throughout the period, improving marginally from 0.87 times in FY 2024 to 0.88 times in FY 2025 and 0.90 times in FY 2026, indicating continued reliance on short-term liabilities for working capital financing. Return ratios strengthened considerably, with Return on Equity improving from 47.11% in FY 2024 to 53.24% in FY 2026, despite a temporary moderation to 34.94% in FY 2025, while Return on Capital Employed increased steadily from 9.22% in FY 2024 to 17.20% in FY 2025 and further to 19.93% in FY 2026, reflecting more efficient utilisation of capital.

The Company's working capital profile exhibited mixed trends during the period. Inventory days increased significantly from 1 day in FY 2024 to 147 days in FY 2025, before improving to 117 days in FY 2026, indicating better inventory management during the latest financial year. Trade payable days increased from 101 days in FY 2024 to 256 days in FY 2025 and subsequently declined to 151 days in FY 2026, suggesting faster settlement of supplier obligations while remaining at a comfortable level. Trade receivable days remained negligible over the period. Additionally, the net fixed asset turnover ratio improved consistently from 0.76 times in FY 2024 to 1.09 times in FY 2025 and further to 1.24 times in FY 2026, reflecting improved utilisation of the Company's fixed asset base to generate revenue.

Overall, the Company demonstrated sustained improvement in operational and financial performance over FY 2024 to FY 2026, driven by robust revenue growth, expanding operating margins and strong profitability. The strengthening of net worth, improvement in return ratios and enhanced interest coverage indicate improving financial resilience. However, the current ratio remaining below unity, the increase in debt during FY 2026 and the moderation in operating cash flows highlight the need for continued focus on liquidity management, working capital optimisation and gradual deleveraging to support long-term sustainable growth.

9.6 Peer Benchmarking – Financial performance analysis for FY 2026

The following table presents a comparison of key financial indicators of Shree Siddhivinayak Greentech Industries Public Limited with Dhampure Speciality Sugars Limited and Dollex Agrotech Limited in the Processed Food Industry.

Figures are in INR lakhs (Except for Margins and Percentages)

Key Indicator	Unit	Shree Siddhivinayak Greentech Industries Public Limited	Dhampure Speciality Sugars Limited	Dollex Agrotech Limited
Revenue from Operations	In Lakhs	7,526.77	5,838.98	22,515.77
Year on year revenue growth	In %	28.52%	46.71%	-5.17%
EBITDA	In Lakhs	2,046.22	712.13	1,703.84
EBITDA Margin	In %	27.19%	12.20%	7.57%
PAT	In Lakhs	1,159.22	554.78	841.61
PAT Margin	In %	15.40%	9.50%	3.74%
Profit after tax growth	In %	110.90%	92.77%	1.63%
Cash Profit after tax	In Lakhs	1,334.55	593.42	1,140.24
Operating cash flow	In Lakhs	504.19	503.19	-674.96
Trade Receivables days	In Days	0	24	104
Inventory days	In Days	117	41	197
Trade Payable days	In Days	150	17	593
Interest Coverage Ratio	In Times	3.70	351.62	3.87
Net worth	In Lakhs	2,507.01	4,243.87	12,397.42
Debt	In Lakhs	8,995.37	3.92	15,738.26
Net fixed asset turnover ratio	In Times	1.24	2.50	8.25
Current Ratio	Times	0.90	3.07	1.69
Debt-Equity Ratio	Times	3.59	0.00	1.27
Return on equity	In %	53.24%	14.49%	8.85%
Return on capital employed	In %	19.76%	17.38%	5.09%
Net Asset Value per equity share	In ₹	51.16	48.61	31.03
Net Asset Value per equity share – Adjusted	In ₹	20.47	48.61	31.03

Source: Audited Financials as provided by the company and publicly available financial data

9.7 Company Positioning

Shree Siddhivinayak Greentech Industries Public Limited is positioned as a vertically integrated agro-processing company operating in the natural sweeteners and value-added traditional foods segment, with a primary focus on jaggery, jaggery powder, khandsari sugar and jaggery-based pre-mix products. The Company operates across the value chain, encompassing farmer-linked procurement, in-house processing, by-product utilisation, branding and multi-channel distribution, allowing it to exercise greater control over quality, traceability and cost structures as compared to conventional jaggery manufacturers.

Within the fragmented jaggery and traditional sweeteners industry, it distinguishes itself through a diversified product and end-use mix, serving both Business-to-Business (B2B) customers such as wholesalers, distributors and institutional buyers, as well as Business-to-Consumer (B2C) customers through branded offerings under its "FeelGuddy" brand. While bulk sales of jaggery powder and khandsari sugar provide scale and steady volumes, it's branded jaggery-based pre-mix portfolio (including instant beverage and dessert mixes) enables participation in the higher-margin convenience food segment aligned with evolving consumer preferences.

The Company's positioning is further strengthened by its farmer-centric and backward-linked operating model. Direct engagement with farmers, supported by an in-house sugarcane seed nursery, enables access to consistent quality raw material while promoting better agronomic practices and long-term sourcing stability. Backward integration is complemented by effective by-product monetisation, wherein bagasse, molasses and press mud generated during processing are utilised or sold, contributing to revenue diversification and operational efficiency.

From a differentiation standpoint, it focuses on natural, minimally processed and chemical-free alternatives to refined sugar, aligning its product philosophy with increasing consumer preference for clean-label and traditional ingredients. Its manufacturing processes emphasise standardisation, hygiene and moisture-controlled packaging, supporting product consistency and shelf life, which are key requirements for institutional buyers and organised retail channels. The "FeelGuddy" brand positions it in the emerging intersection of traditional foods and modern convenience formats, allowing it to extend the relevance of jaggery into contemporary consumption occasions.

Sustainability forms a structural element of the it's positioning. It follows Environmental, Social and Governance (ESG)-oriented practices through renewable energy use from bagasse, waste minimisation, farmer engagement initiatives and responsible manufacturing practices. These initiatives, combined with compliance-oriented governance frameworks, support the

Company's objective of building a responsible, scalable and resilient business model, capable of long-term value creation for farmers, customers and other stakeholders.

Overall, the Company is positioned as a reliable supplier of natural sweeteners and value-added jaggery-based products, differentiated by vertical integration, product diversification, farmer linkage, branded retail presence and sustainability-linked operations, rather than competing solely on price or commoditised volume within the traditional jaggery industry.

9.8 Swot Analysis

Strengths (Internal / Competitive Advantages)	Weaknesses (Internal / Limitations)
✔ Integrated agro-processing operations encompassing procurement, processing, quality control and distribution. ✔ Strong farmer centric procurement model promoting fair trade practices and reliable raw material sourcing. ✔ Diversified product portfolio including jaggery powder, khandsari sugar, value-added jaggery-based pre-mix products and ancillary by products. ✔ Established presence in Business-to-Business (B2B) segment. ✔ Focus on natural and chemical free products aligned with increasing consumer preference for healthier sweetener alternatives. ✔ Commitment to sustainability and Environmental, Social and Governance (ESG) principles, supporting long-term value creation.	✘ Dependence on sugarcane availability which is subject to seasonal variations and agricultural risks. ✘ Relatively limited operating history, with incorporation in 2022, which may impact market perception and scalability. ✘ Geographic concentration of operations in Maharashtra, which may expose the Company to regional risks. ✘ Limited brand recognition compared to established players in the broader sugar and sweetener industry.

Opportunities (External / Market Realities)	Threats (External / Sector Challenges)
Growing domestic and global demand for natural, traditionally processed and chemical free sweeteners. Expansion of branded consumer products and value added jaggery-based offerings in the B2C segment. Increasing penetration of online distribution channels and organized retail for natural food products. Potential to strengthen farmer alliances through expansion of cane nursery operations and sustainable sourcing initiatives. Scope for utilization and monetization of by-products to improve operational efficiency and margins.	Exposure to fluctuations in sugarcane prices and agricultural input costs. Competition from established sugar manufacturers, alternative sweetener producers and unorganized jaggery processors. Regulatory changes related to agro-processing, food safety, environmental norms and agricultural trade policies. Climate variability & weather-related risks impacting sugarcane yield and quality. Shifts in consumer preferences and price sensitivity affecting demand for premium natural sweetener products.

10.Future Outlook

The Indian processed food industry is expected to grow at a CAGR of 6.59% between 2025 and 2035, reflecting healthy growth and structurally driven expansion supported by health consciousness, urbanisation and rising disposable incomes. Demand growth is expected to be led by natural sweetener's, ready-to-eat and instant premix foods driven by time constrained lifestyles, increasing nuclear households and higher workforce participation, particularly in urban and semi-urban areas. Traditional processed food categories such as jaggery, khandsari sugar (Natural Sweeteners) and regional snacks are expected to retain relevance, supported by strong cultural consumption habits and increasing adoption of branded & hygienically packaged products.

Health-oriented processed foods, including instant jaggery rice kheer, jaggery laddoo, low-sugar and plant-based offerings are expected to witness relatively faster growth as consumer awareness around nutrition and food safety continues to increase. Distribution is likely to evolve further with modern trade, e-commerce and quick-commerce platforms gaining incremental share alongside general trade, improving accessibility and consumption frequency. Government initiatives supporting food processing, cold-chain infrastructure and formalisation of micro food enterprises are expected to continue strengthening the sector's supply-side ecosystem. While the processed food may be exposed to factors such as input cost volatility, competitive intensity and evolving regulatory and sustainability requirements, these are not expected to materially hinder its growth trajectory. The essential nature of food consumption, supported by India's large domestic market, regional diversity and significant scope for product innovation, continues to underpin stable and resilient demand. Overall, the processed food industry is expected to remain a key growth segment within India's FMCG sector with sustained long-term expansion driven by convenience, affordability and evolving consumer preferences.

Yours Faithfully,

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