

INTRODUCTION

The project focuses on establishing a micro and small-scale Cricket Ball manufacturing unit in Uttarakhand, India. Uttarakhand, known for its picturesque landscapes and a growing interest in cricket, presents an opportune environment for the production of high-quality cricket balls. This initiative aims to contribute to the local economy by providing cricket enthusiasts with affordable, well-crafted cricket balls while generating employment opportunities.

1. PRODUCT & ITS APPLICATION

This venture focuses on manufacturing cricket balls, a crucial element of the sport, offering two primary products: red cricket balls and white cricket balls. The red balls are tailored for use in longer-format games, including first-class and international Test matches, known for their tradition and prominence in the cricketing world. On the other hand, white cricket balls are specifically designed for the shorter formats of the game, such as One Day Internationals (ODIs) and Twenty20 (T20) matches, catering to a modern, fast-paced version of cricket. These cricket balls are indispensable across various levels of the sport, finding their application not only in professional domestic and international tournaments but also among amateur and recreational players, including schools, colleges, and local cricket clubs, highlighting their essential role in the game and its outcome.

2. DESIRED QUALIFICATION FOR PROMOTER

To succeed in the cricket ball manufacturing venture, the promoter needs a blend of technical knowledge and business skills. An in-depth understanding of the manufacturing process, including the selection of materials, construction techniques, and stringent quality control measures, is crucial to ensure the cricket balls meet international performance standards. Alongside technical expertise, robust business acumen is essential, encompassing budgeting, marketing, and efficient supply chain management, to navigate the competitive landscape effectively. A strong focus on quality, ensuring that the cricket

balls consistently perform at their best, is paramount. The promoter should also be well-versed in the local and regional cricket markets, understanding consumer preferences and competition to tailor products and marketing strategies accordingly. Knowledge of legal and regulatory requirements related to product manufacturing and adherence to quality standards is necessary to avoid potential legal pitfalls. Additionally, financial literacy is vital for managing the venture's finances, from budgeting and pricing strategies to maintaining healthy cash flow, ensuring the business's long-term sustainability and growth.

3. INDUSTRY OUTLOOK AND TRENDS

The cricket ball manufacturing industry is witnessing several positive trends and emerging opportunities driven by the global growth of cricket. The sport's increasing popularity worldwide ensures a consistent demand for cricket balls, a trend further bolstered by the meteoric rise of T20 cricket, which specifically boosts the demand for white cricket balls used in this fast-paced format. Quality and performance have become central focuses within the industry, with cricket's governing bodies imposing stringent standards that manufacturers must meet to ensure their products are used in professional matches. Additionally, there's a growing interest in customization, as teams and leagues seek cricket balls with branding or personalized designs, offering manufacturers a niche market segment. Moreover, the industry stands to benefit significantly from export opportunities, as cricket balls made to high standards find markets in cricket-playing nations around the globe, presenting substantial growth prospects for manufacturers.

India produces around 180,000 dozen cricket balls per year, valued at more than 300 lakh rupees. The demand for quality cricket balls is increasing, so there is potential for 10–15 new manufacturing units each year. Almost 80% of cricket balls used in India are made from cowhide.

4. MARKET POTENTIAL AND MARKETING ISSUES; IF ANY

The market potential for cricket balls in Uttarakhand, India, is robust, underpinned by the state's growing interest in cricket, a sport that commands immense popularity across the country. This interest is particularly pronounced at the grassroots level, with schools, colleges, and local clubs fostering a burgeoning cricket culture. The hosting of local cricket tournaments and leagues further bolsters demand for quality cricket balls, as does the presence of cricket academies and coaching centers dedicated to honing the skills of budding cricketers. Additionally, the involvement of educational institutions in organizing cricket activities and the noticeable surge in youth participation highlight the need for durable and affordable cricket balls.

To capitalize on this opportunity, businesses can focus on several strategic initiatives. Emphasizing product quality by meeting international standards can set a foundation for brand trust and customer satisfaction. Offering customization options for cricket balls can cater to the specific needs of local teams and tournaments, creating a unique value proposition. Establishing robust distribution channels through partnerships with local sports shops, schools, and cricket academies can enhance product accessibility. An online presence, including an e-commerce platform, can broaden the customer base and streamline sales processes. Sponsorships and promotional activities, especially during cricket seasons, can significantly enhance brand visibility. Furthermore, adopting competitive pricing strategies can attract a wide range of customers, from professionals to amateurs.

However, navigating the market comes with its challenges, including stiff competition from established brands such as SG, known for its trusted quality in the Indian subcontinent, and Kookaburra, a leading international brand with over 125 years of experience and the official red ball supplier to major test-playing nations, excluding India and England. Local manufacturers like Hans Raj Mahajan Worldwide, Raj International Exports, BSM Sports, and others also contribute to the competitive landscape. Ensuring consistent quality,

managing efficient distribution logistics, adhering to regulatory standards, and addressing seasonal demand fluctuations are critical considerations for emerging brands in this space.

5. RAW MATERIAL REQUIREMENTS

The manufacture of cricket balls involves a precise selection of materials to ensure quality and performance. The outer shell of the ball is crafted from high-quality leather, with kangaroo leather or cowhide being the preferred choices for their durability and finish. At the heart of the cricket ball lies a cork core, essential for providing the ball with its characteristic weight and bounce. Surrounding this core, strong, waxed thread is meticulously used to stitch the leather cover, ensuring it holds securely over the cork. To bind these components together, specific glues and adhesives are applied, ensuring the cork core adheres well to the layers of twine and that the twine, in turn, bonds firmly to the leather cover. The aesthetic appeal and visibility of the cricket ball are enhanced with dyes and colorants, allowing for the production of balls in various colors, such as the traditional red for Test matches and white for limited-overs games. Finally, a coat of wax is applied to the completed ball, not only to give it a distinctive shine but also to protect the leather, ensuring longevity and consistent performance throughout its use in the game.

Here are details of some suppliers:

- Stan India: Address: Opp: STI Lawn, 129 - B, 150 Feet Rd, Jajmau, Kanpur, Uttar Pradesh 208010. Phone: 070840 44414
- Nehal Leather Works: 39, Kailash Nagar, Jajmau, Kanpur, Uttar Pradesh 208010
- P. Cork Industries: Plot No. 214, Nangli Sakrawati Industrial Area, New Delhi, Delhi, 110043, India
- Rama Rubber Industries: Suraj Kund Road, Near Sarswati Mandir, Meerut-250001, Uttar Pradesh, India

6. MANUFACTURING PROCESS

The manufacturing process for cricket balls is a meticulous journey from raw materials to the final product, beginning with the cutting and shaping of cork sheets to form the core. This core is then enveloped in several layers of twine, tightly wound to determine the ball's weight and bounce characteristics. These twine layers are securely stitched together using strong waxed thread, ensuring the core's integrity. High-quality leather, chosen for its durability and finish, is cut into two half-circular pieces that serve as the ball's outer covering. These leather pieces are then expertly stitched around the twine-wrapped cork core, forming the cricket ball's distinct shell. Following stitching, the ball undergoes shaping and polishing to achieve a perfectly spherical shape and a smooth surface, vital for consistent performance during play. Each ball is subjected to rigorous quality control checks, including assessments of weight, circumference, bounce, and seam integrity, to ensure compliance with international cricket standards. Once cleared, the cricket balls are packaged and prepared for distribution, making their way to retailers, sports shops, academies, and cricket associations, ready to be used in the sport's various formats.

The Bureau of Indian Standards (BIS) oversees the quality of cricket balls through standard IS 10800, which outlines specific parameters such as rebound, water absorption, roundness, pressure loss, materials, dimensions, and manufacturing processes. Additionally, BIS standard IS 4553 focuses on cricket ball leather, detailing requirements and methods for sampling and testing to ensure that the leather used in cricket balls meets stringent quality criteria. These standards collectively ensure that cricket balls used in play adhere to high standards of quality and performance.

7. MANPOWER REQUIREMENT

Sr. No	Particulars	No. of Person	Months	Monthly Wages Amount/Person (Rs in Lakhs)	Monthly Wages - Total (Rs in Lakhs)	Annual Expenses (Rs in Lakhs)
1	Skilled	2	12	0.18	0.36	4.32
2	Semi-skilled	2	12	0.15	0.30	3.60

3	Unskilled	3	12	0.12	0.36	4.32
	Total					12.24

8. IMPLEMENTATION SCHEDULE

Sr. No.	Activity	Time Required (in months)
1	Acquisition of premises	1
2	Construction (if applicable)	2
3	Procurement & installation of Plant & Machinery	1
4	Arrangement of Finance	1
5	Recruitment of required manpower	1
	Total time required (some activities shall run concurrently)	4

9. COST OF PROJECT

Sr. No.	Particulars	Amount (Rs in Lakhs)
1	Pre-operative Expenses	1.40
2	Land and Building	12.00
3	Machinery	8.78
4	Equipment and Furniture	1.20
5	Working Capital	2.00
	Total Project Cost	25.38

Assumed capacity is to produce approximately 50 balls a day and 15000-20000 balls a year.

10. MEANS OF FINANCE

Bank-term loans are assumed @ 75 % of fixed assets.

Sr. No.	Particulars	Percentage Share	Amount (Rs in Lakhs)
1	Promoter's Contribution	25%	6.35
2	Bank Finance	75%	19.04
	Total		25.38

11. LIST OF MACHINERY REQUIRED

A. Machinery

Sr. No	Particulars	Unit	Unit Cost (Rs in Lakhs)	Total Amount (Rs in Lakhs)
1	Cork Cutting Machine	1	0.50	0.50
2	Twine Winding Machine	1	0.60	0.60
3	Leather Cutting Machine	1	1.10	1.10
4	Stitching Machines (Industrial)	1	0.40	0.40
5	Ball Shaping and Polishing Machine (manual)	1	0.45	0.45
6	Quality Control Equipment	Set	0.25	0.25
7	Wax Coating Machine	1	0.20	0.20
8	Cutting and Stitching Tools	Set	0.10	0.10
9	Packaging Equipment	1	0.15	0.15
10	Hydraulic Machine Press	1t	3.00	3.00
	Total Amount			6.75
	Tax, Transportation, Insurance, etc.			1.35
	Electrification Expenses (Wiring)			0.68
	Grand Total			8.78

B. Furniture & Equipment

Sr. No.	Particulars	Unit	Unit Cost (Rs in Lakhs)	Total Amount (Rs in Lakhs)
1	Office Furniture	Set	0.30	0.30
2	Workbenches	3	0.18	0.54
3	Storage Cabinets	3	0.12	0.36
	Total Amount			1.20

List of Equipment Suppliers:

1. Dyco India
Mangal Pandey Nagar, Panchsheel Colony Meerut - 245206,
Uttar Pradesh, India
2. Shanti India
240,241,Leather Complex, Kapurthala Road,
Jalandhar, Punjab - 144021, India
3. Parrytech Hydraulics
Khasra No. 83/23, Mundka Ind. Area,
Behind Abhinandan Vatika, Gali No. 1,
New Delhi, Delhi, 110041, India

12. SALES REALIZATION CALCULATION

Sr. No	Product	Quantity (in units)	Sales in Percentage	Total Sales (Rs in Lakhs)
1	Season Cricket balls	18000	100%	54.00
	Total		100%	54.00

13. PROFITABILITY CALCULATIONS

Sr. No	Particulars - Amount (Rs.)	Year-I (Rs in Lakhs)
A.	Sales Realization	
	Sales (Assuming 15% growth per year)	54.00
	Other Income (Assuming constant)	
	Total Sales Realization	54.00
B.	Cost of Production	
	i) Raw Materials	29.15
	ii) Utilities (Assuming constant)	0.36
	iii) Manpower (Salaries/wages)	12.24
	iv) Administrative Expenses (Assuming constant)	0.38

	v) Selling & Distribution Expenses (Assuming constant)	0.40
	viii) Interest (Assuming constant)	2.54
	Total Cost of Production	45.07
	No of Units Produced	18,027
	Cost of Goods Sold	0.0025
	Gross Profit/Loss (A – B)	9.94
	Less: Depreciation	2.04
C.	PBIT (Profit Before Interest and Tax)	7.91
D.	Income-tax (Assuming 28% tax rate)	2.22
E.	Net Profit/Loss (C - D)	5.69
F.	Repayment	2.54
	Retained Surplus (E - F)	3.16

14. BREAKEVEN ANALYSIS

Fixed cost	Year-I (Rs in Lakhs)
Depreciation	2.04
Interest	2.54
Manpower	3.67
Total Fixed cost	8.25
Variable cost	
Raw materials	29.15
Utilities	0.36
ManPower	8.57
Administrative expenses	0.38
Selling & distribution expenses	0.4
Total Variable cost	38.86
Contribution margin	20%
Break-Even Point in Value	41.25

15. STATUTORY/GOVERNMENT APPROVALS

Setting up a Cricket Ball manufacturing business in Uttarakhand, India, requires compliance with various statutory and government regulations. Below are the key approvals and licenses that the business may need to obtain:

- **Business Registration:** Register the business entity as per the relevant government regulations. Options include Sole Proprietorship, Partnership, Private Limited Company, or others.
- **GST Registration:** Obtain Goods and Services Tax (GST) registration, as it is mandatory for most businesses in India.
- **Factory License:** If applicable, secure a factory license under the Factories Act from the State Factory Inspectorate.
- **Environmental Clearances:** Depending on the scale of operations and environmental impact, obtain clearances from the State Pollution Control Board.
- **Import-Export License:** If planning to engage in international trade, acquire the required import-export licenses.
- **Trademark Registration:** Consider trademark registration to protect the brand name and logo of the business.
- **Fire Safety Approval:** Comply with fire safety regulations and obtain the necessary approvals from the local fire department.
- **Labor Laws Compliance:** Ensure compliance with labor laws, including minimum wages, employee benefits, and working conditions.
- **Quality Standards Compliance:** Adhere to quality standards set by cricket governing bodies to produce cricket balls that meet international requirements.

It is essential to consult with legal advisors or experts familiar with the specific regulatory requirements in Uttarakhand to ensure full compliance.

16. BACKWARD AND FORWARD INTEGRATIONS

Backward and forward integrations can enhance the efficiency and competitiveness of the Cricket Ball manufacturing business. Here's how these integrations can be implemented:

A. Backward Integration

Backward integration involves getting involved in activities related to the supply chain of raw materials and components. For this project:

- **Cork and Twine Production:** Consider establishing partnerships or contracts with suppliers or manufacturers of cork and twine to ensure a consistent supply of quality materials.
- **Leather Procurement:** Explore sourcing high-quality leather from local or regional tanneries to control the quality and customization of leather covers.

B. Forward Integration

Forward integration involves expanding into activities related to the distribution and sale of finished products. In this context:

- **Online Sales:** Launch an e-commerce platform to reach a broader customer base, including those outside Uttarakhand, and facilitate online sales.
- **Retail Outlets:** Consider opening retail outlets in prominent locations within Uttarakhand to directly sell cricket balls to consumers.
- **Supply to Local Sports Stores:** Forge partnerships with local sports equipment retailers and sports shops to make cricket balls readily available.
- **Export Opportunities:** Explore opportunities to export cricket balls to cricket-playing nations and markets with demand for quality cricket equipment.

17. TRAINING CENTERS AND COURSES

For individuals interested in entering the Cricket Ball manufacturing industry in Uttarakhand, India, there are various training centers and courses available to acquire the necessary skills and knowledge. These training programs cover aspects of cricket ball manufacturing, quality control, and business management. Here are some notable training centers and courses:

1. **National Small Industries Corporation (NSIC):**

- Location: NSIC has a presence in Uttarakhand and offers training programs in entrepreneurship and business management for small-scale industries, which can be beneficial for individuals looking to start a cricket ball manufacturing business.

2. **Cricket Ball Manufacturing Workshops:**

- Some cricket ball manufacturers and industry experts conduct occasional workshops and training sessions on cricket ball manufacturing techniques. These workshops may provide hands-on experience and insights into the production process.

3. **Online Courses and Webinars:**

- Various online platforms offer courses, webinars, and instructional materials related to cricket ball manufacturing, quality control, and business management. These online resources provide flexibility for individuals to learn at their own pace.
- Swayam portal (link: <https://swayam.gov.in/>) can also be accessed for enhanced learning on business commerce, accounting, production, marketing, and areas of entrepreneurship.

4. **Local Manufacturing Associations:**

- Local manufacturing associations and industry groups may organize training programs, seminars, and networking events that can provide valuable knowledge and contacts within the cricket ball manufacturing sector.

It's advisable for aspiring entrepreneurs and individuals interested in the industry to research specific programs, review their curriculum, and choose the one that best aligns with their goals and skill development needs. Additionally, some of these training centers may offer financial assistance or scholarships to eligible candidates.

Disclaimer

Only few machine manufacturers/institutes are mentioned in the profile, although many machine manufacturers/institutes are available in the market. The addresses given for machinery manufacturers/institutes have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.