NIIR PROJECT CONSULTANCY SERVICES (NPCS)

Asia's Leading Industrial Knowledge & Consultancy Ecosystem

CLIENT CASE STUDY

Establishment of an

ETHYL ACETATE MANUFACTURING UNIT

for

M/s. CHEMINO PHARMA LIMITED

Mumbai, Maharashtra, India

"Transforming Industrial Investment Ideas into Profitable, Sustainable Manufacturing Ventures"

Techno-Economic Feasibility | Market Research & Demand Analysis | Detailed Project Report (DPR)

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ABOUT NIIR PROJECT CONSULTANCY SERVICES (NPCS)

Niir Project Consultancy Services (NPCS) is one of Asia's most trusted industrial project consultancy organisations. With over three decades of uninterrupted service, NPCS has established itself as the trusted advisory partner for entrepreneurs, MSMEs, large corporations, and institutional investors seeking technically validated and commercially viable manufacturing ventures.

NPCS is part of Asia's leading industrial knowledge ecosystem with thousands of project profiles and global consulting expertise.

NPCS — By the Numbers

85	150K+	150K+	30+
Countries Served	Clients Served	Successful Projects Delivered	Years in Consulting

NPCS combines decades of industrial experience, proprietary research databases, and a multidisciplinary team of engineers, economists, and market analysts to deliver consulting reports that stand up to the scrutiny of banks, investors, and government bodies.

Core Services

Detailed Project Reports (DPR)

Comprehensive, bankable project reports covering all aspects of industrial setup — technical processes, financial projections, market analysis, and implementation planning.

Techno-Economic Feasibility Studies

In-depth feasibility evaluations combining technical viability assessment with commercial and financial modelling to support sound investment decisions.

Market Research & Demand Analysis

Systematic study of market trends, competitive landscape, demand-supply gaps, pricing dynamics, and future growth outlook across industrial sectors.

Engineering & Strategic Advisory

Technical guidance on manufacturing processes, plant design, machinery selection, operational setup, and phased implementation strategies.

CLIENT OVERVIEW & INVESTMENT OBJECTIVE

PROJECT SNAPSHOT

Client Name	M/s. Chemino Pharma Limited
Location	Mumbai, Maharashtra, India
Industry	Large-Scale Industrial Manufacturing
Project Recommended	Ethyl Acetate Manufacturing Unit
Services Delivered	Techno-Economic Feasibility Study, DPR, Market Assessment, Financial Viability Analysis, Strategic Advisory
Implementation Status	Client Confirmed Proceed — Manufacturing Investment Approved

M/s. Chemino Pharma Limited, a Mumbai-based enterprise operating in the pharmaceutical and specialty chemicals space, approached NPCS with the objective of diversifying its business portfolio through a large-scale manufacturing investment. The client required a commercially viable project aligned with sustainable demand, strong ROI potential, and operational scalability.

Client's Investment Criteria

- Sustainable long-term returns on investment capital
- Strong institutional and industrial demand across multiple end-use sectors
- Technical feasibility with scalable, phased production capabilities
- Favourable raw material availability and regional supply-chain access
- Moderate-to-large capital investment with viable financial metrics
- Future expansion, diversification, and export opportunities

CHALLENGE & PROBLEM STATEMENT

Identifying the right manufacturing investment in India's complex industrial landscape involves navigating multiple dimensions of risk and uncertainty. M/s. Chemino Pharma Limited faced the following strategic challenges:

Market Intelligence Gap

Limited visibility into which manufacturing sectors offered the strongest demand-supply dynamics and growth potential.

Technical Complexity

Evaluating manufacturing processes, infrastructure requirements, and technology options without an internal engineering team.

Financial Risk Quantification

Estimating realistic CapEx, OpEx, and return metrics for a large-scale greenfield investment.

Regulatory & Compliance Landscape

Navigating environmental approvals, industrial licensing, and chemical manufacturing regulations.

Raw Material & Supply Chain Uncertainty

Assessing the reliability and cost-competitiveness of regional raw material sources.

Strategic Alignment

Ensuring the new venture complemented the client's existing pharmaceutical business and diversification goals.

OUR APPROACH & METHODOLOGY

NPCS deployed its proprietary six-phase consulting methodology to deliver a rigorous, data-driven assessment that guided M/s. Chemino Pharma Limited from initial investment brief through to a confident, risk-mitigated manufacturing decision.

NPCS CONSULTING METHODOLOGY

1	**Discovery & Scoping** Client investment brief, sector screening, opportunity shortlisting.
2	**Market Intelligence** Demand analysis, competitive landscape, regulatory environment review.
3	**Technical Feasibility** Process engineering, plant layout, technology selection, infrastructure audit.
4	**Financial Modelling** CapEx/OpEx estimation, revenue projections, IRR, NPV, payback analysis.
5	**DPR Preparation** Bankable project report: specifications, machinery list, cost schedules.
6	**Strategic Advisory & Sign-off** Investment decision support, risk mitigation, implementation roadmap.

SCOPE OF SERVICES DELIVERED

01 Manufacturing Opportunity Identification	Identified ethyl acetate as the optimal investment aligned with market trends & client goals.
02 Techno-Economic Feasibility Study	Comprehensive technical and commercial viability assessment of the proposed unit.
03 Detailed Project Report (DPR)	Bankable DPR covering plant layout, machinery selection, and technical specifications.
04 Market Potential Assessment	Industry trends, demand forecasts, competitive landscape, and growth drivers.
05 Raw Material Availability Analysis	Regional sourcing, supply-chain logistics, and procurement strategy.
06 Financial Viability Evaluation	Cost estimation, revenue projections, IRR, ROI, and payback period analysis.
07 Implementation Planning Inputs	Phased execution roadmap and operational readiness framework.
08 Strategic Advisory Support	Continuous expert guidance for informed, risk-mitigated investment decisions.

TECHNICAL INSIGHTS — ETHYL ACETATE MANUFACTURING

Manufacturing Process Overview

Ethyl acetate is produced primarily through the Fischer esterification of ethanol and acetic acid, or via the Tishchenko reaction using acetaldehyde. The standard commercial production pathway involves:

Step 1	Raw material receipt and quality control — ethanol and acetic acid storage and blending.
Step 2	Esterification reaction in reactor vessels under controlled temperature and acid catalyst conditions.
Step 3	Azeotropic distillation to separate ethyl acetate, water, and unreacted components.
Step 4	Washing and neutralisation to remove catalyst traces and acid residuals.
Step 5	Purification distillation to achieve technical or pharmaceutical-grade ethyl acetate.
Step 6	Quality testing — purity, moisture content, refractive index, and density verification.
Step 7	Storage in stainless steel or certified chemical tanks; drum or ISO-tanker dispatch.

Key Machinery & Infrastructure

- Esterification reactor (stainless steel, with temperature and pressure controls)
- Distillation columns — azeotropic and purification stages
- Heat exchangers, condensers, and reboilers
- Storage tanks (raw material and finished product, certified for flammable chemicals)
- Effluent treatment plant (ETP) for water and chemical waste compliance
- Boiler, chilling units, and utilities infrastructure
- Quality control laboratory with analytical instruments
- Material handling, loading, and dispatch systems

Infrastructure & Location Advantage — Mumbai, Maharashtra

Maharashtra is one of India's premier industrial states, offering a well-developed chemical manufacturing ecosystem. Mumbai's strategic location provides efficient port access for both raw material imports and finished product exports, chemical-grade utility supply, and proximity to key downstream customers in pharmaceuticals, paints, and packaging.

MARKET ANALYSIS & DEMAND OUTLOOK

The ethyl acetate market in India and globally is underpinned by strong structural demand across diverse industrial end-uses. The following sector analysis confirms the commercial attractiveness of the investment:

END-USE SECTOR DEMAND MATRIX

Pharmaceuticals	Solvent applications in API and formulation manufacturing.
Paints & Coatings	Urbanisation & infrastructure boom driving demand.
Printing Inks	Packaging and publishing sector expansion.
Adhesives & Sealants	FMCG, automotive, and construction applications.
Flexible Packaging	E-commerce and logistics growth accelerating usage.
Food Processing	FSSAI-approved usage in food-grade applications.
Cosmetics & Personal Care	Rising domestic consumption and premiumisation.
Export Markets	India's growing specialty-chemical export footprint.

Key Market Drivers

- India's pharmaceutical sector — one of the world's largest — drives consistent solvent-grade demand.
- Rapid urbanisation and construction activity is expanding the paints, coatings, and adhesives market.
- The flexible packaging boom, driven by e-commerce growth, continues to increase ethyl acetate consumption.
- India's specialty chemicals export push creates significant opportunities for domestic producers.
- Low-toxicity profile and biodegradability make ethyl acetate a preferred solvent in sustainability-focused formulations.

FINANCIAL & INVESTMENT ANALYSIS

Capital Investment	Land, factory, plant & machinery, utilities.
Working Capital	Raw materials, operational expenses, logistics.
Capacity Scalability	Phased expansion aligned with demand growth.
Revenue Model	Domestic B2B supply + export to SE Asia & Middle East.
Return Indicators	Favourable IRR & payback period (per DPR analysis).
Break-Even Outlook	Projected within standard manufacturing investment cycle.

NPCS conducted a detailed preliminary investment analysis confirming that the proposed ethyl acetate manufacturing unit demonstrated commercially attractive financial metrics. The investment structure, when evaluated against prevailing market prices and demand volumes, yields a viable business case suitable for bank financing and institutional investment.

RESULTS & OUTCOMES

NPCS's engagement with M/s. Chemino Pharma Limited delivered measurable and strategic outcomes across all dimensions of the investment decision-making process:

Strategic Project Identification

Optimal manufacturing opportunity identified with high market demand and commercial viability.

Risk-Mitigated Investment Decision

Comprehensive feasibility analysis eliminated uncertainty and guided a confident capital commitment.

Bankable Project Report

Client received a comprehensive, financier-ready DPR suitable for banking and investor presentations.

Market Validation

Confirmed robust multi-sector demand for ethyl acetate across domestic and export markets.

Technical Blueprint

Detailed manufacturing process, machinery specifications, and plant layout delivered.

Financial Clarity

Investment cost structure, revenue model, and return metrics clearly established.

Implementation Readiness

Phased execution roadmap provided, enabling smooth transition from planning to operations.

Long-Term Growth Positioning

Client secured entry into a high-demand industrial segment with diversified revenue potential.

Client Decision

Following review of NPCS's comprehensive feasibility study, market assessment, and financial modelling, M/s. Chemino Pharma Limited expressed full confidence in the project's viability and formally confirmed its decision to proceed with the implementation of the Ethyl Acetate Manufacturing Unit.

CLIENT TESTIMONIAL

> *"NPCS provided us with valuable techno-economic insights and a well-structured project assessment that enabled us to evaluate a new manufacturing investment opportunity with clarity and confidence. Their strategic approach and technical expertise added substantial value to our decision-making process."*
>
> **— M/s. Chemino Pharma Limited, Mumbai, Maharashtra**

WHY CHOOSE NPCS

30+ Years of Industrial Expertise

Decades of hands-on experience across 100+ manufacturing sectors in India and globally.

150K+ Successful Projects Delivered

Proven track record across chemicals, FMCG, agro-processing, textiles, engineering, and more.

Clients in 85 Countries

Global reach with local understanding — trusted by entrepreneurs, MSMEs, and corporates worldwide.

Data-Driven Feasibility

Every recommendation backed by primary research, real market data, and rigorous financial modelling.

End-to-End Project Support

From opportunity identification to implementation roadmap — one partner for the full investment journey.

Risk Mitigation Approach

Structured due diligence methodology designed to identify and reduce investment uncertainty.

Bankable Project Reports

DPRs prepared to banking and investor standards, suitable for loan applications and board approvals.

Global Market Intelligence

Internationally benchmarked insights drawn from engagements across 85 countries and 500+ industry sectors.

CONCLUSION

The NPCS engagement with M/s. Chemino Pharma Limited demonstrates how rigorous industrial consultancy transforms investment uncertainty into informed, confident action. By deploying its end-to-end feasibility methodology — from market intelligence through to financial modelling and implementation planning — NPCS equipped the client with the insights needed to commit capital responsibly to a commercially viable manufacturing venture.

The ethyl acetate manufacturing unit represents not only a strong standalone investment but also a strategically aligned diversification into India's growing specialty chemicals and industrial solvents sector — a sector underpinned by megatrends in pharmaceuticals, packaging, infrastructure, and export-oriented manufacturing.

This case study exemplifies NPCS's commitment to delivering investor-grade, technically sound, and commercially validated project intelligence to its clients worldwide.

READY TO BUILD YOUR NEXT INDUSTRIAL PROJECT?

Partner with NPCS to transform your investment idea into a profitable industrial venture.

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