

Manufacturing Plant of

Maize

Processing Unit.

*(Starch, Glucose, Germs, Fibres,
Gluten & Steep Water)*

**“Emerging Business Opportunities in
Agriculture products Industry”**

INTRODUCTION

Corn is the most widely produced cereal in the world, and it is used for human consumption, livestock feed, and fuel. Various food technologies are currently being used in various parts of the world to process industrially produced maize flours and corn meals to obtain precooked refined maize flour, dehydrated nixtamalized flour, fermented maize flours, and other maize products from industrially produced maize flours and corn meals.



These products have varying vitamin and mineral content, and their manufacturing follows various pathways from raw grain to consumer end product, resulting in nutrient composition changes. Mechanically processed dry maize produces whole or fractionated products based on anatomical features like bran, germ, and endosperm.



MAIZE PROCESSING

Wet maize processing distinguishes between chemical compounds such as starch and protein. Several industrial processes are listed, including whole grain, dry milling fractionation, and nixtamalization. The nutritional consequences of vitamin and mineral losses during processing are described. Corn's vitamin and mineral content is also discussed.



For the transformation of maize into human-consumable goods, there are two specific types of industrial processing. Dry and wet milling are the two types of milling. Maize is divided into relatively pure chemical compound groups of starch, protein, oil, and fibre during the wet milling process.



Wet maize milling products and coproducts are rarely used directly by consumers and often require additional industrial processing before being consumed. Wet maize milling's products aren't necessarily made on a small scale commercially or at home. Starch, the main product, may be processed into a variety of starch products or refined into a variety of liquid and dry sweeteners.



This article will not go into detail about maize wet milling. Particle size reduction of clean whole maize with or without screening separation, preserving all or some of the initial maize germ and fiber, is part of industrial dry milling. 14 These whole or partially degerminated maize products are not especially shelf stable due to their high fat content.



Maize degermination entails mechanical separation and sorting, resulting in dry shelf-stable goods that are free of the majority of germ and fiber. Equipment used in wheat flour milling, such as hammer mills, stone mills, roller mills, screeners, sifters, specific gravity separators, and aspirators, are used to reduce particle size and separate the grains.



Maize processing can require specialized equipment such as degerminators, de-hullers, and peelers. Whole, partially degerminated, and degerminated maize products all need to be processed further before being consumed. These steps can be carried out in a large-scale industrial environment, a small-scale local processor, or even in one's own home.



These secondary processes can include the addition of other ingredients as well as thermal processing such as boiling, drying, frying, or baking, both of which may alter the nutritional properties of the final product. Alkali processing, also known as nixtamalization, is a form of industrial dry maize processing in which whole maize is cooked with an excess of water treated with calcium oxide.



13 Maize kernels may be ground whole, fractionated, or mixed with other corn ingredients. Unlike wheat flour milling, alkali-treated corn processing equipment is designed to withstand the moisture, chemicals, and heat associated with wet processing. Raw maize and dry finished product are handled and processed using standard dry bulk material handling and processing equipment.



The dried intermediate product can then be sold commercially as a further refined consumer food product. Masa flour is the name given to dry alkali-processed maize flour in North America and Mexico, but it is not used in Spanish-speaking Central and South America or non-Spanish-speaking Africa. These products are referred to as alkali processed in this document. Flavor, starch gelatinization, and water absorption are all improved by the alkali process.

Some of the germ and most of the pericarp are removed during the process, but the amount varies. Pericarp can be applied to the process in certain cases to improve the visual appearance of the finished product. Thiamine, riboflavin, niacin, fat, and fibre are all lost during the heating process. The calcium content rises as a result of the alkali processing, as one would imagine.



Maize is used primarily as:

- *A staple food for human consumption*
- *Animal feed*
- *Raw material for industrial use*



It can also be used as a source of seed. In the developed world. Maize is used primarily for livestock feed and as an industrial raw material for food and non-food applications. To the contrary.

The majority of maize produced in developing countries is used for human consumption, though animal feed is becoming more common. The grain varieties used are flint and sorghum. There's a dent. Floury or with a texture similar to that of intermediate endosperm. Varieties in white and yellow are used.



GLOBAL CORN MARKET OUTLOOK

In 2020, the global corn market will hit 1118 million metric tonnes. Between 2021 and 2026, the corn market is projected to expand at a CAGR of 5.3 percent, reaching a volume of nearly 1524 million metric tonnes. Crop is becoming more widely used in end-use sectors, which is driving the global corn market.



Corn is used to make corn starch, which has a wide range of uses. The corn starch industry, in particular, is rapidly expanding. Corn starch is used in a variety of products, including food ingredients, papers, ethanol, and sweeteners. It's also used in animal feed manufacturing. The overall corn market is being boosted by rising market demand for all of these goods.



Increased production of the crop has resulted from increased demand for animal feed and ethanol. Corn is used to make biofuel because of its high starch content, which allows it to be quickly converted into ethanol. The growing use of the crop in end-use industries is driving the increasingly rising demand for the commodity in the United States and China. Since corn starch is used in the production of sorbitol and sweeteners, the United States is a major confectionery market that is propelling the corn market forward.

The corn market is also fueled by the product's easy availability and low production costs. The growth of the corn market has been aided by the government's favourable policies, as well as increased FDI flows for both pharmaceuticals and personal care products, especially in the Asia Pacific region. In Asia Pacific, India and China are the two most important emerging markets for the product.



In 2018, the Indian corn starch market was estimated to be worth \$1.37 billion, and it is expected to expand at a CAGR of 3.9 percent from 2019 to 2024. The easy availability of corn and its wide range of applications in various industries such as food and beverage, pharmaceutical, animal feed, textile industry, paper industry, and others are driving the growth of the India Corn Starch market.



The application segment of the India Corn Starch Market was dominated by the food and beverage industry. The rapid growth of India's population, as well as its rapid industrialization, has fueled the demand for corn starch.



THE GLOBAL CORN GLUCOSE MARKET

In 2020, the global corn glucose market will be worth US\$ 2.1 billion. Corn glucose, also known as glucose syrup, is a food syrup made from corn starch hydrolysis. It's primarily a concentrated calorie source with no nutritional benefit. Corn glucose has become a common sugar substitute over the last few years. Corn glucose demand in the food processing industry has also increased significantly in recent years.



It is primarily used as a main ingredient in commercially prepared foods to enhance flavour, improve colour, add volume, and give the food a smooth texture. Corn glucose is widely used in confectionery, preserves, tinned fruits, ice cream, sorbets, juices, dairy cakes, cookies, pastry, cereals, ketchup, sauces, vitamin tonics, and cough medicine since it prevents sugar crystallization.



- **Aksharchem (India) Ltd.**
- **Amaravati Agro Ltd.**
- **Cargill India Pvt. Ltd.**
- **Devi Corn Products Ltd.**
- **Gayatri Bioorganics Ltd.**
- **Gujarat Ambuja Exports Ltd.**
- **Gulshan Polyols Ltd.**



MACHINERY PHOTOGRAPHS

Air Compressor

Fuel Storage



Boiler



Pumps, Pipeline



PROJECT AT A GLANCE

**COST OF PROJECT****MEANS OF FINANCE**

Particulars	Existing	Proposed	Total	Particulars	Existing	Proposed	Total
Land & Site Development Exp.	0.00	95.00	95.00	Capital	0.00	1123.95	1123.95
Buildings	0.00	384.00	384.00	Share Premium	0.00	0.00	0.00
Plant & Machineries	0.00	3206.50	3206.50	Other Type Share Capital	0.00	0.00	0.00
Motor Vehicles	0.00	20.00	20.00	Reserves & Surplus	0.00	0.00	0.00
Office Automation Equipments	0.00	211.50	211.50	Cash Subsidy	0.00	0.00	0.00
Technical Knowhow Fees & Exp.	0.00	100.00	100.00	Internal Cash Accruals	0.00	0.00	0.00
Franchise & Other Deposits	0.00	0.00	0.00	Long/Medium Term Borrowings	0.00	3371.84	3371.84
Preliminary& Pre-operative Exp	0.00	10.00	10.00	Debentures / Bonds	0.00	0.00	0.00
Provision for Contingencies	0.00	315.65	315.65	Unsecured Loans/Deposits	0.00	0.00	0.00
Margin Money - Working Capital	0.00	153.13	153.13				
TOTAL	0.00	4495.78	4495.78	TOTAL	0.00	4495.78	4495.78

Year	Annualised		Book Value	Debt	Dividend	Retained Earnings		Payout	Probable Market Price	P/E Ratio	Yield Price/ Book Value
	EPS	CEPS				Per Share					
						%		%		No.of Times	%
1-2	3.92	9.26	13.92	24.00	0.00	100.00	3.92	0.00	3.92	1.00	0.00
2-3	6.06	10.63	19.97	18.00	0.00	100.00	6.06	0.00	6.06	1.00	0.00
3-4	8.24	12.17	28.22	12.00	0.00	100.00	8.24	0.00	8.24	1.00	0.00
4-5	10.43	13.80	38.64	6.00	0.00	100.00	10.43	0.00	10.43	1.00	0.00
5-6	12.59	15.49	51.23	0.00	0.00	100.00	12.59	0.00	12.59	1.00	0.00

Year	D. S. C. R.			Debt / - Deposits Debt	Equity as- Equity	Total Net Worth	Return on Net Worth	Profitability Ratio					Assets Turnover Ratio	Current Ratio
	Individual	Cumulative	Overall					GPM	PBT	PAT	Net Contribution	P/V Ratio		
	(Number of times)			(Number of times)		%	%	%	%	%	%			
Initial				3.00	3.00									
1-2	1.37	1.37		1.72	1.72	2.17		14.08%	7.73%	6.91%	2639.16	41.42%	1.31	0.89
2-3	1.57	1.47		0.90	0.90	1.26		17.55%	12.83%	9.16%	3052.51	41.07%	1.49	1.25
3-4	1.81	1.57	1.83	0.43	0.43	0.71		19.94%	16.46%	10.90%	3487.95	41.06%	1.59	1.67
4-5	2.12	1.69		0.16	0.16	0.39		21.61%	19.10%	12.26%	3923.39	41.05%	1.60	2.15
5-6	2.49	1.83		0.00	0.00	0.20		22.80%	21.05%	13.33%	4358.83	41.05%	1.55	4.27

BEP**BEP - Maximum Utilisation Year****5****Cash BEP (% of Installed Capacity)****41.13%****Total BEP (% of Installed Capacity)****48.61%****IRR, PAYBACK and FACR****Internal Rate of Return .. (In %age)****20.98%****Payback Period of the Project is (In Years)****After 3 Years****Fixed Assets Coverage Ratio (No. of times)****4.850**

- 1. What is Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing industry ?**
- 2. How has the Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing industry performed so far and how will it perform in the coming years ?**
- 3. What is the Project Feasibility of Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing Plant ?**
- 4. What are the requirements of Working Capital for setting up Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing plant ?**

- 5. What is the structure of the Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing Business and who are the key/major players ?**
- 6. What is the total project cost for setting up Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing Business?**
- 7. What are the operating costs for setting up Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing plant ?**
- 8. What are the machinery and equipment requirements for setting up Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Manufacturing plant ?**

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- **IS 1184: 1977 (REAFFIRMED YEAR: 2019) MAIZE STARCH, COTTON TEXTILE INDUSTRY**
- **IS 2151: 1985 (REAFFIRMED YEAR: 2019) MAIZE GERM OIL CAKE AS LIVESTOCK FEED INGREDIENT**
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- *Resdus of Starch Mnufctr and Smlr Residues*
- *Dextrose Other Than Solid*

- **IMPORT: ALL COUNTRIES**

- *Maize (Corn)*
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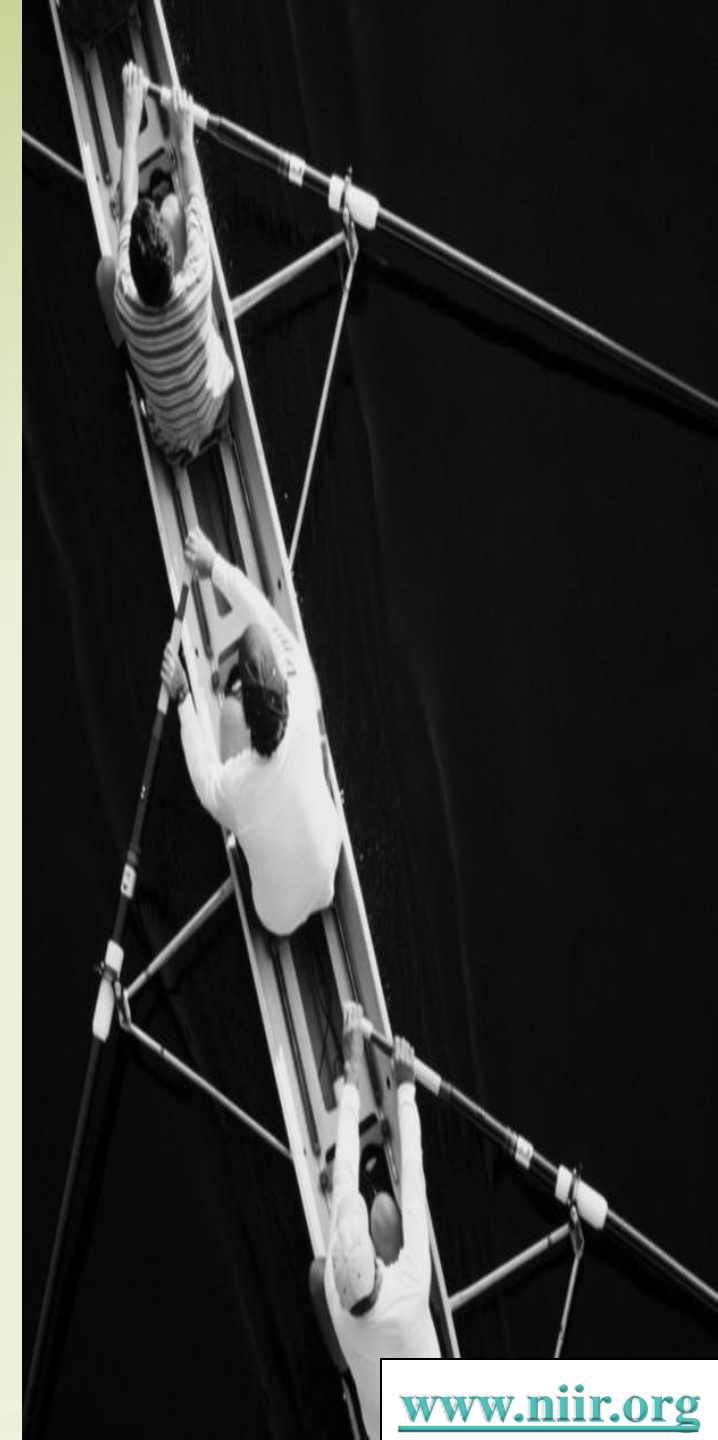
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Reasons for Buying our Report:

- **This report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product**
- **This report provides vital information on the product like it's characteristics and segmentation**
- **This report helps you market and place the product correctly by identifying the target customer group of the product**

- **This report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials**
- **The report provides a glimpse of government regulations applicable on the industry**
- **The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions**

- **Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.**
- **The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players**
- **We use reliable sources of information and databases. And information from such sources is processed by us and included in the report**



The report titled “Market Survey cum Detailed Techno Economic Feasibility Report on Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water).” provides an insight into Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) market in India with focus on uses and applications, Manufacturing Process, Process Flow Sheets, Plant Layout and Project Financials of Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) project. The report assesses the market sizing and growth of the Indian Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line. And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- **Good Present/Future Demand**
- **Export-Import Market Potential**
- **Raw Material & Manpower Availability**
- **Project Costs and Payback Period**

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in the Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) sector in India along with its business prospects. Through this report we have identified Maize Processing Unit (Starch, Glucose, Germs, Fibres, Gluten & Steep Water) project as a lucrative investment avenue.

#DetailedProjectReport **#businessconsultant**
#BusinessPlan **#feasibilityReport** **#NPCS**
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#MaizeProcessing **#MaizeProduction** **#MaizeIndustry**
#MaizeBusiness **#BusinessIdeas** **#StartupBusinessIdeas**
#BusinessOpportunity **#CornIndustry**
#CornManufacturing **#CornProduction**

can provide Detailed Project Report on

**Maize Processing Unit (Starch,
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Our inexhaustible Client list includes public-sector companies, Corporate Houses, Government undertaking, individual entrepreneurs, NRI, Foreign investors, non-profit organizations and educational institutions from all parts of the World. The list is just a glimpse of our esteemed & satisfied Clients.

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(Instant Online Project Identification and Selection)

Finding the right startup business is one of the most popular subject today. Starting a business is no easy endeavor, but the time, effort, and challenges can be worth it if you succeed. To give yourself the best chance to be successful, take your time to carefully find the right business for you. We, at NPCS, endeavor to make business selection a simple and convenient step for any entrepreneur/startup. Our expert team, by capitalizing on its dexterity and decade's long experience in the field, has created a list of profitable ventures for entrepreneurs who wish to diversify or venture. The list so mentioned is updated regularly to give you a regular dose of new emerging opportunities.

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NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our Market Survey cum Detailed Techno Economic Feasibility Report provides an insight of market in India. The report assesses the market sizing and growth of the Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

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- **Raw Material & Manpower Availability**
- **Project Costs and Payback Period**

The detailed project report covers all aspect of business, from analyzing the market, confirming availability of various necessities such as Manufacturing Plant, Detailed Project Report, Profile, Business Plan, Industry Trends, Market Research, Survey, Manufacturing Process, Machinery, Raw Materials, Feasibility Study, Investment Opportunities, Cost and Revenue, Plant Economics, Production Schedule,

Working Capital Requirement, uses and applications, Plant Layout, Project Financials, Process Flow Sheet, Cost of Project, Projected Balance Sheets, Profitability Ratios, Break Even Analysis. The DPR (Detailed Project Report) is formulated by highly accomplished and experienced consultants and the market research and analysis are supported by a panel of experts and digitalized data bank.

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in India along with its business prospects.....[Read more](#)

NIIR PROJECT CONSULTANCY SERVICES

AN ISO 9001: 2015 CERTIFIED COMPANY

ABOUT US



- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*



We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.

What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Market Research Reports*
- *Business Plan*
- *Technology Books and Directory*
- *Industry Trend*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

How are we different ?



- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*

Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

- **Public-sector Companies**
- **Corporates**
- **Government Undertakings**
- **Individual Entrepreneurs**
- **NRI's**
- **Foreign Investors**
- **Non-profit Organizations, NBFC's**
- **Educational Institutions**
- **Embassies & Consulates**
- **Consultancies**
- **Industry / trade associations**

- **Ayurvedic And Herbal Medicines, Herbal Cosmetics**
- **Alcoholic And Non Alcoholic Beverages, Drinks**
- **Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin**
- **Activated Carbon & Activated Charcoal**
- **Aluminium And Aluminium Extrusion Profiles & Sections,**
- **Bio-fertilizers And Biotechnology**
- **Breakfast Snacks And Cereal Food**
- **Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling**
- **Bamboo And Cane Based Projects**
- **Building Materials And Construction Projects**
- **Biodegradable & Bioplastic Based Projects**
- **Chemicals (Organic And Inorganic)**
- **Confectionery, Bakery/Baking And Other Food**
- **Cereal Processing**
- **Coconut And Coconut Based Products**
- **Cold Storage For Fruits & Vegetables**
- **Coal & Coal Byproduct**

- **Copper & Copper Based Projects**
- **Dairy/Milk Processing**
- **Disinfectants, Pesticides, Insecticides, Mosquito Repellents,**
- **Electrical, Electronic And Computer based Projects**
- **Essential Oils, Oils & Fats And Allied**
- **Engineering Goods**
- **Fiber Glass & Float Glass**
- **Fast Moving Consumer Goods**
- **Food, Bakery, Agro Processing**
- **Fruits & Vegetables Processing**
- **Ferro Alloys Based Projects**
- **Fertilizers & Biofertilizers**
- **Ginger & Ginger Based Projects**
- **Herbs And Medicinal Cultivation And Jatropha (Biofuel)**
- **Hotel & Hospitality Projects**
- **Hospital Based Projects**
- **Herbal Based Projects**
- **Inks, Stationery And Export Industries**

- **Infrastructure Projects**
- **Jute & Jute Based Products**
- **Leather And Leather Based Projects**
- **Leisure & Entertainment Based Projects**
- **Livestock Farming Of Birds & Animals**
- **Minerals And Minerals**
- **Maize Processing(Wet Milling) & Maize Based Projects**
- **Medical Plastics, Disposables Plastic Syringe, Blood Bags**
- **Organic Farming, Neem Products Etc.**
- **Paints, Pigments, Varnish & Lacquer**
- **Paper And Paper Board, Paper Recycling Projects**
- **Printing Inks**
- **Packaging Based Projects**
- **Perfumes, Cosmetics And Flavours**
- **Power Generation Based Projects & Renewable Energy Based Projects**
- **Pharmaceuticals And Drugs**
- **Plantations, Farming And Cultivations**
- **Plastic Film, Plastic Waste And Plastic Compounds**
- **Plastic, PVC, PET, HDPE, LDPE Etc.**

- **Potato And Potato Based Projects**
- **Printing And Packaging**
- **Real Estate, Leisure And Hospitality**
- **Rubber And Rubber Products**
- **Soaps And Detergents**
- **Stationary Products**
- **Spices And Snacks Food**
- **Steel & Steel Products**
- **Textile Auxiliary And Chemicals**
- **Township & Residential Complex**
- **Textiles And Readymade Garments**
- **Waste Management & Recycling**
- **Wood & Wood Products**
- **Water Industry(Packaged Drinking Water & Mineral Water)**
- **Wire & Cable**

MARKET RESEARCH REPORT

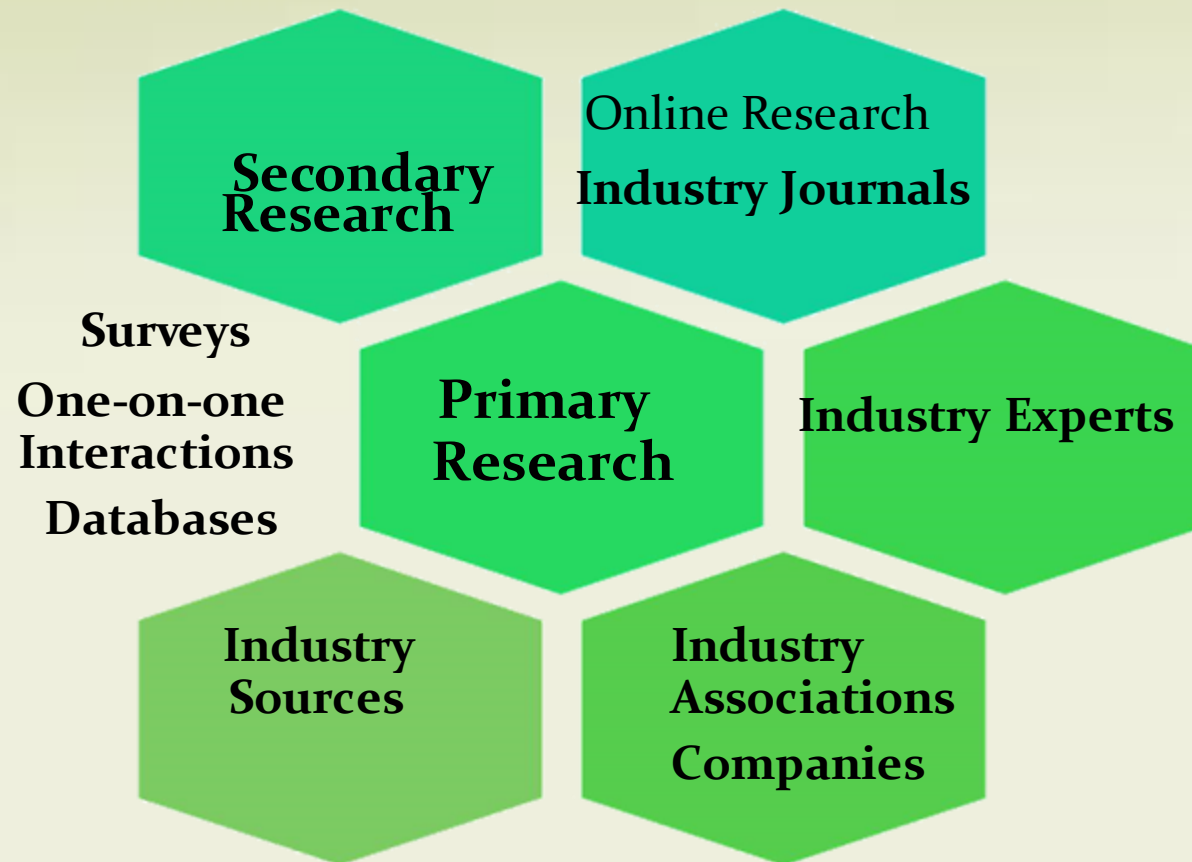
Objective

- **To get a detailed scenario of the industry along with its structure and classification**
- **To provide a comprehensive analysis of the industry by covering aspects like:**
 - **Growth drivers of the industry**
 - **Latest market trends**
 - **Insights on regulatory framework**
 - **SWOT Analysis**
 - **Demand-Supply Situation**
 - **Foreign Trade**
 - **Porters 5 Forces Analysis**

- **To provide forecasts of key parameters which helps to anticipate the industry performance**
- **To help chart growth trajectory of a business by detailing the factors that affect the industry growth**
- **To help an entrepreneur/manager in keeping abreast with the changes in the industry**
- **To evaluate the competitive landscape of the industry by detailing:**
 - **Key players with their market shares**
 - **Financial comparison of present players**

- **Venturist/Capitalists**
- **Entrepreneur/Companies**
- **Industry Researchers**
- **Investment Funds**
- **Foreign Investors, NRI's**
- **Project Consultants/Chartered Accountants**
- **Banks**
- **Corporates**
- [Click here for list](#)

Data Sources



Scope & Coverage



Our Team

- Our research team comprises of experts from various financial fields:
- MBA's
- Industry Researchers
- Financial Planners
- Research veterans with decades of experience

Structure of the Report

- 1. Overview**
- 2. Market Analysis**
 - 2.1 Growth Drivers**
 - 2.2 Emerging Trends in the Industry**
 - 2.3 Regulatory Framework**
 - 2.4 SWOT Analysis**
 - 2.5 Herfindahl–Hirschman Index (HHI)**
- 3. Market Forecasts**
- 4. Key Players**
- 5. Key Financials and Analysis**
 - 5.1 Contact Information**
 - 5.2 Key Financials**
 - 5.3 Financial comparison**
 - 5.4 Industry Size & Outlook**

Take a look at on #Street View

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Thank You

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