

Rating Methodology for Pesticide Companies

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Industry Overview

India is predominantly an agrarian economy and most of its regions are dependent upon monsoons for irrigation. On an average, pests and diseases eat away around 20%-25% of the total food produced in India. Overall, food crops compete with around 30,000 species of weeds, 3,000 species of nematodes and 10,000 species of plant-eating insects. Hence, pesticides play a significant role in enhancing agricultural productivity. They help reduce crop losses and thereby increase food safety and revenues for farmers. The prospects for domestic pesticide sector depends on multitude of factors like monsoons, crop yield, incidence of pest attack, etc.

Pesticides can be grouped into the following categories according to the types of pests which they control:

- Insecticides - Insects
- Herbicides - Plants
- Rodenticides - Rodents
- Fungicides – Fungi
- Others

Bulk of the consumption in the domestic markets is of insecticides followed by fungicides and herbicides, unlike, high herbicide and fungicide usage globally. Andhra Pradesh is the leading consumer of pesticides in India. Eight states including Andhra Pradesh, Maharashtra, Punjab, Madhya Pradesh, Chhattisgarh, Gujarat, Tamil Nadu and Haryana account for majority usage of pesticides in India.

Pesticides can be manufactured and sold mainly in two forms- Technical and Formulations. Technical is the first stage of manufacture where the chemical is concentrated and unsuitable for direct use. This is then processed with other materials known as formulants to develop the finished pesticide, known as formulation.

Biopesticides, which are derived from natural sources, are intrinsically less harmful than chemical pesticides, and with increasing awareness for eco-friendly products, there is significant opportunity for growth of bio-pesticides in agrochemical industry.

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On the supply side, the industry is characterized by overcapacity and low offtake leading to intense price competition among players. The industry is also plagued with spurious pesticide products which account for over one-third of the domestic market size.

Per hectare consumption of pesticides in India is paltry and the usage is limited to few crops such as cotton and paddy.

Low capital intensity & absence of product patent till 2005 induced many formulators to enter the market; hence, the industry is highly fragmented with majority of manufacturers as formulators.

A few Indian companies have made a mark for themselves in the World markets. India is now recognized as an important source for the supply of generic products and is a net exporter of pesticides.

Rating Methodology

CARE Ratings has a standard methodology for rating of the companies belonging to the manufacturing sector. As per this methodology, CARE's rating process begins with the evaluation of the economy/industry in which the company operates, followed by the assessment of the business risk factors specific to the company. This is followed by an assessment of the financial and project-related risk factors as well as the quality of the management. This methodology is followed while analysing all the industries that come under the purview of the manufacturing sector. However, considering the size and diversity of the sector, CARE Ratings has developed methodologies specific to various industries within the sector. These methodologies attempt to point out factors, over and above those mentioned in the broad methodology, which will be assessed while carrying out rating exercises of the companies belonging to the particular industry. The following is a list of such additional factors, along with their analytical implications, considered by CARE Ratings while arriving at the rating of the players that operate in the pesticide industry.

CARE Ratings considers both quantitative as well as qualitative factors while rating pesticide companies. Quantitative analysis involves analysing contribution from various product lines, export presence, working capital management, etc. Qualitative analysis comprises analysing

the R&D capabilities of the company, number of product registrations, product range, brand-building efforts, etc.

Business risk assessment of pesticide companies involves analysis of the following factors:

- ❖ Product Portfolio and diversification across business segments
- ❖ Working Capital Management
- ❖ R&D Capabilities
- ❖ Number of Product Registrations /Acquisitions
- ❖ Market Position and Distribution Network
- ❖ Regulatory risk management
- ❖ Brand Building & Product Awareness Measures
- ❖ Exports
- ❖ Raw material linkages

Product Portfolio and diversification across business segments:

Domestically, paddy accounts for maximum share of pesticide usage followed by cotton. Growing acceptance for the Bt cotton which would adversely impact the pesticide demand and widespread use of GM seeds in other crops like soyabean, maize, canola, etc., makes it imperative for the companies to focus on other crops besides cotton, for future growth. Also, due to growing pest resistance and newer pest attacks/diseases, it is essential for the companies to introduce new products/molecules at regular intervals and provide newer solutions to crop problems. Companies having diversity across business segments enables them to better endure the segment-specific risks. Entities manufacturing only formulations may face inventory-related risks, and commoditisation of products, whereas entities manufacturing only technical may face risks related to small product portfolio and high capital requirement. Integrated entities may have better protection against such risks due to better control on supply of technical grade materials. Given the level of competition and nature of the market; diversified product range, the ability to manufacture products with complexity, degree of integration across business segments, presence in allied products and services significantly enhances the competitiveness of the company and are key credit strengths.

Working Capital Management:

The pesticide industry is working capital intensive. Due to the seasonal nature of the business and the uncertainties related to timing and coverage of monsoon, level of pest infestation, etc., the level of inventories needed by the companies to stock is large. Furthermore, the industry needs to offer long credit periods to farmers due to intense competition and low offtake. Also, farmers tend to have little surplus money left for purchasing pesticides, as applying pesticides is the last leg in the agriculture operation. This leads to higher bad debts in events of crop failure or poor monsoon. Initiatives taken by the companies for working capital cycle management such as credit insurance cover on receivables, non-recourse factoring, efficient supply chain management, etc., are viewed favourably while assessing the credit risk profile of pesticide companies.

R&D Capabilities:

Due to slack patents and data protection, MNCs have been careful in introducing their successful molecules in India only after their patents have expired. Due to this, Indian agriculture has been deprived of the benefits of newer and more effective pesticides. With the onset of product patent in India, newer molecules have been launched and to withstand the competition, strong R&D capabilities and investments in R&D will be critical for Indian companies. Companies with strong R&D set up, manufacturing capability and proven abilities for applied research are better placed in terms of tapping these opportunities. Investments in R&D, R&D pipeline of new products and JVs/agreements with MNCs, etc., are critically analysed by CARE.

Product Registrations/Acquisitions:

As pesticides enter the food chain, Government of India (GoI) regulates their export, import, sale and usage. No pesticide is allowed for the production or import without registration. For exports, access to the markets is restricted through registration procedures stipulated by different countries. Registering pesticides generics in US / EU is a time-consuming process since it requires various types of studies to be carried out. One product registration takes about 3-5 years, while the registration process in India takes approximately 1-3 years. The investments, both in terms of time and money, act as effective entry barriers. The companies with large number of product registrations and patents are therefore at an advantageous

position. Globally, the pesticide industry is going through a consolidation process. This often leads to antitrust judgments, forcing these companies to dispose off some products. This represents an inorganic growth opportunity for Indian companies to acquire those products and helps reduce the gestation time required for establishing the product in those markets. CARE views the ability of a company to obtain registrations in different countries as per their regulatory requirements and higher number of patents, product registrations and acquisitions in the global market as major strengths for sustainable growth.

Market Position and Distribution Network:

The Market Position and distribution network of a pesticide company affects its ability to generate stable cash flows. Pesticide companies having large market share, wide distribution setup and geographic spread in the domestic markets are at an advantageous position to withstand the uncertainties due to monsoons and regional seasonality. It also provides them a channel for intensive farmer contact for educating them on new products and their applications. Companies with wide distribution setup are also at a better position to take on competition.

Regulatory risk management:

Manufacture, import, registration, sale, transport, distribution and use of pesticides in India is regulated by the Insecticides Act, 1968 and Insecticides Rules, 1971. All pesticides (insecticides, fungicides, herbicides) must be registered with Insecticides Board & Registration committee (CIB & RC), ministry of agriculture under various sections of Insecticides Act before they can be imported/manufactured for sale and distribution. Moreover, pesticides in India have mandatory labels to identify toxicity levels: red label - extremely toxic, yellow label - highly toxic, blue label – moderately toxic and green label – slightly toxic. Some of the products having high toxicity levels have been banned in India and in various developed markets, which implies that entities which are highly dependent on red and yellow triangle pesticides run the risk of losing their source of revenue from products falling under banned category. The regulatory oversight for the sector remains high and therefore the evaluation of such companies on their ability to manage and mitigate such regulatory risks remains critical.

Brand building and product awareness measures:

As of now, the market for pesticides is low brand conscious and highly price sensitive. Due to dominance of generic products, there are several 'me too' and spurious products available in the market. In order to educate the Indian farmers and spread awareness about usage of quality pesticides, many large companies invested in brand awareness for their products by organizing campaigns, setting up service centres and extensive farmer contact. Such efforts also help the companies in understanding the needs of the farmers and developing better products. Brand building and product awareness measures undertaken by the companies help them in strengthening their market position and command higher margins.

Exports:

India is the 4th largest producer of pesticides after United States, Japan and China. It is a net exporter of pesticides and has emerged as the 13th largest exporter of pesticides globally. Exports are dominated by fungicides and herbicides segments while imports are majorly technical raw material. Increased export focus of the Indian pesticide industry is a consequence of seasonal demand, better price realization in the export markets, global outsourcing opportunity, low credit periods in export markets, domestic overcapacity and tax sops. Also, with the availability of low-cost high-quality scientist pool, India is emerging as a preferred destination for undertaking contract research. To increase their global reach, companies are increasingly focusing on forming partnerships/acquiring strong local players, who can provide support to register, launch and market products in their respective countries. While assessing pesticide companies, strong marketing footprint in various countries and partnerships with the local players in those countries is viewed favourably by CARE.

Raw material linkages:

India is one of the major producers for pesticide formulations, however, it still imports technicals to a large extent which serve as the base chemical for the end-product, viz, formulations. China is the world's largest producer of agrochemical raw materials, supplying 90% of the world's technical raw material requirements. India imports agrochemicals mainly from China, USA, Germany and Israel. However, some of the large domestic agrochemical entities have now invested in backward-integration which has reduced their dependence on imports and also helped in enhancing their overall capability. CARE evaluates an entity's

degree of backward integration, sources of raw material supply & its dependence upon imports, pricing arrangements, etc.

Financial Analysis

CARE follows the financial analysis for the manufacturing sector as per the criteria on Financial Ratios- Non-Financial sector.

Conclusion

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE Ratings analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality, by taking into account the industry's cyclicity. While the methodology encompasses comprehensive technical, financial, commercial, economic and management analysis, credit rating is an overall assessment of all aspects of the issuer.

[For previous version please refer 'Rating Methodology for Pesticide Companies' issued in [October 2019](#)]

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