



Wanhua – The Challenges of Establishing a Global Presence

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Wanhua Chemical Co., Ltd, a stock market listed company and subsidiary of the Wanhua Industrial Group (SH: 600309), is the second largest global producer of isocyanates. It has reached this position from very small origins in a short period of time, increasing its sales by a factor of about one hundred in the last 14 years (Fig. 1), equivalent to an annual growth of more than 38%.

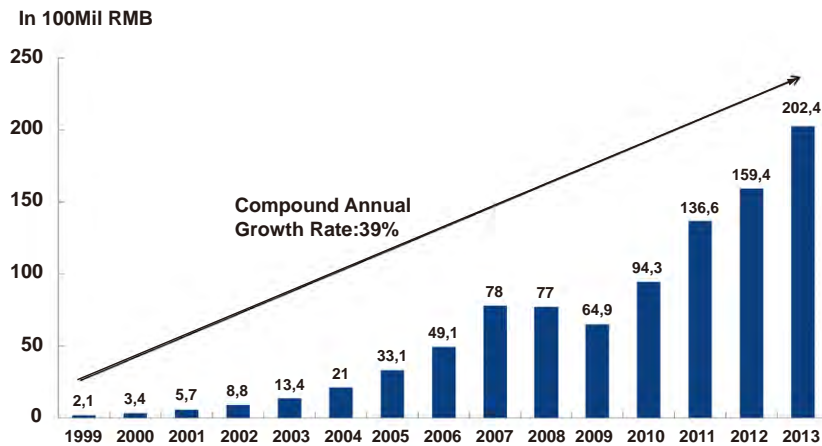


Fig. 1: Revenue of Wanhua Chemical Group 1999-2013

This rapid growth is based on massive investment in production capacity of the most common isocyanates, such as the investment in the Ningbo production site (Fig. 2). And it was achieved by vast improvements in product quality and the extension of the portfolio (see Fig. 3). As a consequence, Wanhua today is no longer a minor nuisance for the global isocyanate producers such as BASF, Bayer and Huntsman but arguably their most serious competitor.

Based on the achievements with aromatic isocyanates, Wanhua has decided to become a global player for aliphatics isocyanates, as well. The authors of this paper will therefore focus on Wanhua's aliphatic isocyanates.

Aliphatic isocyanates such as HDI, IPDI, and HMDI are specialty isocyanates. Unlike the more widely used MDI and TDI they don't have an aromatic backbone; they are therefore particularly suitable for use in light stablecoatings and adhesives.

Wanhua started production of these aliphatics in 2012, thus expanding the portfolio and branching into more specialty-

type chemicals.

In 2013, about 90% of all aliphatics sales of Wanhua went into the domestic market. This year, the share of domestic sales will already decrease to about 70%. While total sales continue to increase more than half of the aliphatics sales will be outside of China in 2016.

Of course, the internationalization of Wanhua's business goes hand in hand with their broader portfolio. In early 2011, Wanhua took full control of BordsodChem, thus establishing a solid presence in the European market for MDI and TDI. Now steps are taken to also internationalize the aliphatics business. In August 2014, Wanhua announced the set-up of a technical center in the US, supporting the sales to US customers

in coatings and adhesives. Sales offices have already been established in the US, Russia, the Netherlands, Dubai, Japan and Korea. Providing local sales coverage, product supply and technical support are natural steps in establishing a strong global presence.

There are good reasons leading Wanhua along this path towards internationalization. A big driver is the global nature of the customer industry. The coatings and adhesives industry is dominated by a small number of big global players which account for more than half of the market. These global players expect their preferred suppliers to have a matching global presence.

Secondly, while Wanhua – similar to most global chemical companies – still sees major growth potential in China, the company also wants to have a more diversified regional presence to compensate for any potential periods of slower growth in China.

The initial customer reaction to Wanhua's offerings has been very positive. Buyers of isocyanates encourage new suppliers to enter the market to put pressure on the existing producers. This makes aliphatics an attractive growth area for Wanhua.

Finally, the presence at leading international customers will allow Wanhua



Fig. 2: Ningbo plant of Wanhua

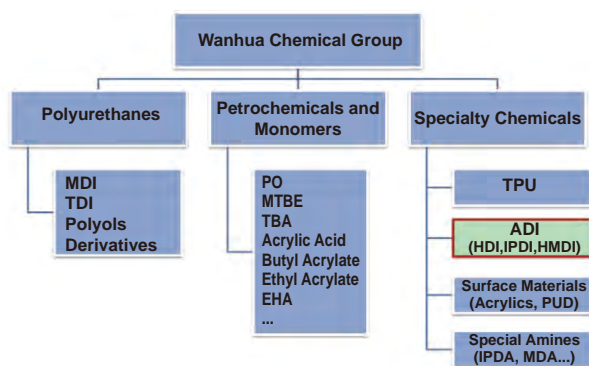


Fig. 3: Business Structure and Portfolio of Wanhua Chemical Group

to get the best possible understanding of global market trends. Wanhua can focus its innovation efforts on those product and services which the market requires most urgently.

Internationalization is a multi-step process involving many different activities, and affecting different functions along the value chain. What steps has Wanhua taken so far, and which steps are planned?

- Overseas production: Wanhua already produces at the former BorsodChem site in Hungary, and will consider further expanding its global production network.

- Acquisitions: While the BorsodChem acquisition certainly helped entering the European market, additional acquisitions may be considered for successful market penetration.

- Market research: Before entering foreign markets, Wanhua spends considerable external and internal resources to understand the specifics of individual markets.

- Sales network: Wanhua has already extended its sales presence outside of China. Wanhua will focus on the Coatings and Adhesives raw material business to offer local support and quick response times to the coatings and adhesive industry.

- Technical service network: Apart from the recently announced technical service center in the US, another technical center is planned for Europe. The exact location will be decided in 2015.

- Product portfolio: Wanhua has a strong

portfolio relevant to the coatings industry, e.g., MDI, TDI, HDI, polyols, (methyl)acrylate, PUDs, acrylic emulsions etc. Further products such as acrylic monomers will be added.

- R&D: Currently Wanhua Chemical invests more than US\$100 million per year

in R&D, employing about 800 R&D staff in three R&D centers in China. Wanhua's R&D also collaborates with a number of universities and technical institutes. Further strengthening of R&D will be achieved via the establishment of a R&D headquarter in China and the setup of local technical centers in different locations globally.

- HR: Wanhua uses internal HR functions as well as support by executive search companies, particularly for identification of international talent required for work in the global market.

- Value chain integration: Wanhua will soon start up a large chemical park in Yantai, an investment of more than US\$5 billion. There, Wanhua will produce major basic organic chemicals including propylene, propylene oxide, acrylic acid and esters, MTBE, neopentylglycol, butanol and PPG. This will allow Wanhua to benefit from economies of scale and an integrated production network. Downstream, the value chain will also be extended towards higher-value products such as aliphatic derivatives, acrylic emulsions and PUDs.

- Partnerships: Wanhua partners with established logistics service providers to offer local supply, and cooperates with chemical distributors with good technical service capabilities. These cooperations will be extended further.

So far, Wanhua's experience in internationalization has been positive. For the reason outlined above, customers in

the coatings and adhesives industry have generally been open towards the new supplier. While Chinese players are at first mainly considered as low cost and low-quality alternatives to existing suppliers, Wanhua's high product quality, broad portfolio and professional service have made customers reassess these conceptions. The size and global ambition of Wanhua also convince customers that the effort spent on establishing Wanhua as supplier is well spent. In addition, customers are keen to work with a company with a strong presence in the key growth market of China.

However, the fast growth of Wanhua's international business also brings challenges. The international organization of the company is still comparatively small and will therefore need to expand quickly. Similarly, the company has less experience in managing a global reliable production and supply chain network than the more established players. This will require hiring a substantial number of international employees into management positions, which is easier for a company located in Europe or the US than for one located in China. Furthermore, all these challenges need to be met while at the same time serving global customers in a satisfactory manner.

In conclusion, Wanhua's example so far has shown that Chinese chemical companies can successfully move towards becoming a global player. Prerequisites are a good understanding for the rationale behind internationalization, and a clear strategy towards it. This needs to be followed by in-depth market research to understand the specific opportunities and challenges of foreign markets. Overall, Chinese companies need to be willing to adapt to different market environments – for example, by hiring foreign staff – while at the same time maintaining the capabilities that made them successful in China in the first place. ■