China's Mid-level Chemical Markets

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In business literature, a lot is written about the developing mid-market in China. Often the importance of the development is emphasized in quotes such as "For many multinationals, the must-win market in China is the country's often much larger and faster-growing segment of mid-market business" (Strategy+Business). While the focus of such papers typically is on consumer products, it is certainly legitimate to ask whether such a mid-market is also relevant for chemicals.

There are several reasons why such a mid-market may be of growing importance. China´s GDP per person has approximately quadrupled in the past decade, broadening the demand for goods above the level of absolute essentials, and with it the demand for higher-quality chemical raw materials for products such as clothes, coatings, cosmetics or food. At the same time, there has been some consolidation in the distribution of such products, with a larger share going through somewhat centralized channels with higher quality requirements (cosmetics sold at a Chinese Walmart will be subject to more stringent checks than cosmetics sold at an individual village store). Another demand-driven factor is increasing cost pressure due to the economic slowdown – this forces buyers of chemicals to become more cost conscious as the price pressure on their own end products increases.

There are also factors on the supply side which favor growth of the mid-market. Local companies by now also have a decade or more of experience in producing chemicals, giving them a better understanding of their technology and allowing them to gradually increase the quality of their output without incurring major cost increases. Increasing environmental regulation forces local producers to better control their processes and their byproducts, which leads to some cost increases but also improves the quality of the output. For example, in tier two cities such as Nanjing and Wuhan, which have seen residential suburbs grow to reach the original chemical processing zones, local governments are requiring some low-end chemical producers to relocate. Their new plants will be constructed to contemporary standards, enabling quality and efficiency improvements that will position them for mid-market engagement. On the other hand, multinationals have been trying to expand their markets by providing slightly cheaper versions of their existing products for the mid-market. Part of the cost reductions required to achieve this was obtained by increasing the share of local production.

Still, despite this rationale for a mid-market for chemicals, there is a risk of this being essentially a mere theoretical concept unless characteristics of such mid-markets for chemicals can be defined. Obviously, such characteristics will vary from chemical to chemical; nevertheless, one would expect certain structural similarities if indeed the concept of a mid-market for chemicals is sensible.

We think such characteristics indeed exist and include the following.

Price: Chemical prices in the mid-market are by definition at a medium level, below the top end of the market but above the low end. Typically, prices are nearer the low end than the top end, e.g., adding only about 25-30% of the gap between the low end and the top end. This is in line with our observation that mid-market growth in chemicals primarily comes from an upmarket shift of part of the low-end demand, rather than from a downward shift of premium segments (in some chemical segments, there even is the belief that in the long term, the low-end segment will vanish altogether).

Relative market share: Obviously the volume share of the mid-market differs from segment to segment. However, we now frequently observe a share of 40-50% of the total market volume compared to 30-40% for the low end and 10-20% for the top end. This is a marked shift from the situation a decade earlier, when the mid-market only accounted for 20-30% or even less (with most of the increase in mid-market share coming from the lower end, as already mentioned above).

This analysis of relative market shares merits a somewhat closer look (Fig. 1). We estimate that in the Chinese market for architectural coatings, 40% of the market volume are low-end, 45% are mid-level and 15% are high-end. For carbon fiber, the low end is about 25%, with 55% share of the mid-market and approximately 20% high end (though there is some difficulty in clearly differentiating between mid and high end). For metalworking fluids, the low end share is about 40% while the mid-market accounts for 50% and high-end products for the remaining 10%. Obviously these are estimates based on expert opinions rather than definite numbers, but they so far seem to confirm the general range of the mid-market as indicated above.

Dominant players: So far domestic companies generally have been more successful to capture the mid-market than foreign companies. It seems easier to upgrade

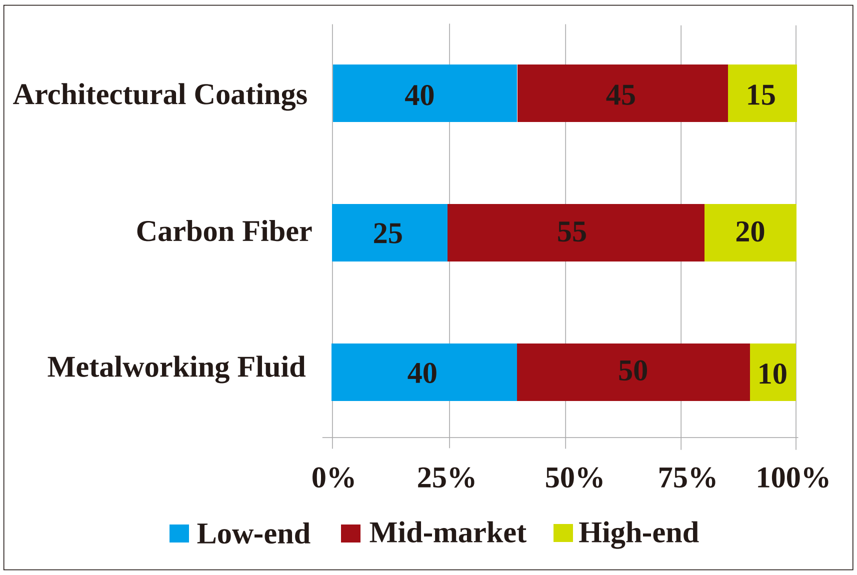

Fig. 1: Market segmentation (by volume) for selected chemicals markets in China

product quality somewhat without huge cost increases than it is to lower the production costs, quality level and possibly margin expectations of premium products. Partly this is due to a gradual knowledge transfer as China has a larger and larger pool of researchers, often with work experience in multinational companies.

Absolute quality level: While the term "mid-market" suggests a certain universality of standards, it has to be pointed out that it really only is an adequate description of the quality level in a China-specific context.

To put it more harshly: In Western countries, the current chemical mid-market would still best be described as low-end. This is despite these markets having standards far above that of China´s low-end markets. However, these low end markets simply do not exist in the West.

Commoditization: whereas a low end market may be highly fragmented and consist of differentiated quality, mid-market participants have scaled up their production and aim to mass produce a uniform quality that wins market share on the basis of being lower priced than competing products. In order to achieve this, a producer must have a larger plant than its competing producers, employ a large enough number of people to gain favorable treatment by the local authorities when the market is down and win concessions on raw material procurement. It will produce a material that is mature (i.e., with low technological barriers) while research and development efforts are focused on product consistency and minimizing marginal costs. This widely adopted formula is how Chinese companies are said to have commoditized products such as specialty materials which are not traditionally thought of as commodities. It is also one of the key reasons why China is facing overcapacity in many of its industries.

Stability: While the mid-markets are stable as such, the individual property requirements change faster than in the high- and low-end segments. In general, these moves go upward towards tighter requirements, reflecting the desire of producers for differentiation and the decreasing cost of delivering stable quality from domestic production.

How can multinationals participate in the mid-market for chemicals, even as the situation seems to favor local companies? One approach extensively tried in various coatings segments is the acquisition of a local brand by a multinational. Examples include the acquisition of Huarun (wood coatings, architectural coatings) by Valspar in 2006, the sale of Prime (auto refinish) to AkzoNobel in 2010 and the acquisition of Pullana (auto refinish) by Sherwin Williams in 2012. Such an acquisition of an established local mid-market brand assures quick participation in the segment while still allowing for synergies with activities in high-end markets. For example, in its Changzhou plant, AkzoNobel now produces three different brands of coatings, Sikkens (a premium brand), Lesonal (a Western budget brand) and Prime (the brand acquired locally, targeting the Chinese mid-market).

In the area of high-performance fibers, DSM acquired a local UHMWPE producer, ICD, in 2011, complementing its existing portfolio of Dynema-branded UHMWPE with a non-premium brand.

In contrast, BASF is taking a slightly different approach. The company has asked local chemical company Guangdong Yinfan to manufacture non-premium automotive refinish coatings for BASF at their Jiangmen plant using BASF formulations. This allows BASF both to differentiate these coatings from their premium products and to benefit from the better cost structure of the local player.

Overall, however, the majority of multinationals seems to prefer to target the mid-market coming from their existing high-end base, if it all. This approach of course has its own risks and obstacles. However, we recently notice an increasing interest in market research covering mid-segments among our Western chemical clients. Any expansion plans of Western players in this direction should certainly start with the gathering of in-depth market information as the drivers, requirements and competitive situation in these mid-markets are often quite different from those in the premium segments that Western companies are familiar with. Before committing to a potentially costly engagement, both the size of a specific mid-market and its profitability need to be examined. Such knowledge will allow a company to filter the players in their field and find not just a potential partner, but also clarity in an ever-changing competitive landscape. ■