Assessing Threats to Raw Material Supplies

Evolving buyer needs and demands, the dominance and future viability of Chinese sourcing, and fluctuating prices for significant materials

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Consider the plight of today's raw material buyers and planners as they confront an unprecedented assault on the price and availability of everything they buy. The majority of the blame lies with recent higher crude oil prices, the effect of which impacts every phase of the production cycle. We can equally cite the emaciated US dollar, which shows little sign of a comeback. Now pile on top of this mayhem the closure of several factories and the cessation of large segments of commercial traffic, as the Chinese government sought to create an environmental and security Shangri-La, if only for a moment, during the Olympics. But, before we dispatch sympathy cards or organize support rallies for the industry, a little historic perspective is in order.

Metamorphosis of the Buyer

Back in the 1970s when gas was 50 cents per gallon and a loaf of bread half that, raw materials were in such short supply that an allocation system emerged and for a brief moment—and I mean brief—sellers dispensed favors like lofty potentates. In what we elder statesmen (a euphemism for the really old guys that turn up at Fragrance Materials Association meetings) would refer to as the good old times, sellers literally set the prices and delivery schedules, with buyers gratefully accepting them in joyous relief at having actually found materials.

Then followed just over three decades of unrelenting price erosion made possible by the burgeoning capacity of Chinese manufacturers and by the subsequent necessity of finished goods houses to wring more profit out of each business cycle. It is worth noting that the average buyer was undergoing a metamorphosis during those 30 years; today's spreadsheet-wielding, multitasking, harried category manager has no time for lunch and only seven minutes to contemplate purchasing 150 tons of menthol. These beleaguered buyers are 24/7 slaves to laptops, often working away their weekends and vacations just to stay ahead of the game.

The modern buyer is the person initially responsible for demanding the equivalent of a CIA-like, document-rich case file for each product and then forced to ponder whether it is Halal (due to a booming global Muslim customer base), organic compliant, and "please let it be naturally derived, sustainable and the sole source of income for an indigenous tribe of adult workers in some distant corner of the world."

Today, buyers have immense portfolios and are compelled by numerous business forces to dump huge demands on the market, issuing complex request for purchase (RFP) documents that seek to buy 25 kilos with the same imperative and gravity as 50 tons. The mere suggestion of these massive price requests is often sufficient to drive up costs as the many recipients of these RFPs seek to cover the same materials.

Buyers are often required to travel extensively in order to find the Holy Grail of purchasing—a direct source excluding all intermediates and the bothersome costs they add. While the grail eludes us, it is possible to buy material directly from a source only to find there is often the inconvenient matter of physical distance, to say nothing of what to do with a container of citronella you would like to reject and myriad other logistical problems. On this last point: when will a corporate accountant finally connect the dots and realize the cost of cleaning up those import horrors is rarely, if ever, realized in the purchase price, and is instead lost in plant expenses?

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China and Today's Supply Realities

The main task for any buyer during the latter half of 2008 will be to ensure material is on hand and not to underestimate the industry's dependence on Chinese goods—particularly the severity of that government's temporary ban on certain exports and imports surrounding the Olympics. For this brief period, security of supply will eclipse price as the primary goal of purchasing groups.

So, will the buyer's new world be a temporary one, or are we witnessing something more profound, a real change in supply management?

Olympic athletes will collect their medals and return home. Chinese factories and ports will function again. Oil prices will eventually fall, and the US dollar will again muster some strength against the euro and other currencies. If these major influences stabilize, will we return to a buyers' market, or will other more subtle changes tip the balance the other way?

Let's stay with China for the moment as the country's manufacturing dominance was achieved at the cost of supply atrophy elsewhere in the world, leaving few other viable alternatives for many products. The elimination of that country's export rebates, introduction of pollution controls, the emergence of a growing middle class and an economy with an escalating thirst for imported oil all add up to an environment less-than-favorable for a return to lower pricing. Add to that the temptation to plant more readily marketed crops like food or precursors to biofuels (both recent international phenomena), throw in a touch of land reform and increased internal consumption, and it is easy to envisage an upward plane for commodity prices with occasional—but critical—shortages.

The combined populations of India and China account for nearly 40% of the world's total—eight times that of the United States. It is not only oil we will compete for in the future. (From some perspective it is generally acknowledged that India's middle class alone is larger than the total US population.) There are similar influences at work affecting other regions and many of the natural products we rely on.

Environment, Labor and Naturals

While we do not maintain good records of essential oil harvests, it is the opinion of many that catastrophic climate variations have been an increasing reason for shortages and elevated prices. Two very hot European summers over the last few years decreased many traditional herbs and spice yields; the tropical storms that engulfed Florida just prior to that virtually eliminated the supply of white grapefruit oil; and even more devastating weather conditions sent Madagascan vanilla bean prices to unprecedented highs.

The shortage of manual labor at peak harvest times, new environmental and regulatory controls, and irrigation woes are intertwined with these other developments and are likely to make purchasing more difficult as long as consumption remains strong. Further pressure on both supply and price for natural products may come in the form of the new demands from the cosmetic industry anxious to capitalize on the public's appetite for all things green and organic. No one has yet determined if the existing capacity for essential oils and isolates can accommodate a wholesale or even partial conversion of major brands to natural, much less organic. Conversely, nobody has determined where the price tolerance lies with consumers on the verge of a recession.

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Market Volatility: Nothing Lasts Forever

The production of citronella oil, specifically Java type, serves to illustrate another trend with natural products—the unreliability of past trends. This cultivated grass was once produced in a dozen countries, including several provinces in China alone. The price was relatively predictable, despite its production being a study of feast and famine, as oversupply and soft prices gave way to shortages and higher prices in a (seemingly) neverending cycle.

That cycle has ended. The industry is now reduced to only three significant Java-type citronella oil-producing countries with far less acreage devoted in each locale and prices with no reason to fall. The important lesson is that former trends cannot be relied upon, and price relief may not be just a question of waiting for the next crop.

A snapshot of the market today reveals numerous shortages and an incredible level of price volatility.

- Lemon oil and its derivatives are prime examples, which follow a poor European crop and the high probability of a South American shortfall in excess of 30%.
- Italian mandarin is as scarce as a good drum of bergamot.

- Grapefruit remains a lesson in supply and demand as it was easily replaced by perfumers with little regard for nootkatone levels.
- Orange oil may not be a pressing issue; however, demand is neatly dovetailed with supply and any change in that equation can lead to dire consequences.
- Spring snows damaged cassia and eucalyptus crops, though it is too early to tell precisely what impact this will have—or if this is misinformation, which is yet another leading cause of price volatility.
- Anise oil—and consequently its isolate, anethole—suddenly became new members of the shortage list, with the initial result of a big price increase.
- Indian sandalwood has become impossibly overpriced, and the much vaunted Australian oil is no longer vastly less expensive.
- Indonesian nutmeg and patchouli prices have both increased dramatically in recent months, and although the latter appears to be falling back, new demands are likely to reverse that trend.
- Buyers of good American *Mentha piperita* could always fall back on Indian or Chinese oil; however, the price gap is diminishing.
- Indian crude *Mentha arvensis* managed another supply twist as it was traded on the Indian exchange—"nationals only, please"—adding to the vagaries of speculation and thus rendering price stability as reliable as a cheap tank of gas.
- The early stirrings of a less successful rose campaign in Bulgaria may herald higher prices and brings into question lavender and lavandin crops.
- By now, the market is well aware of the ylang-ylang and *Cananga fruticosa* shortages, prime examples of labor switching to other, more profitable crops.

The troubled waters are equally as treacherous for selected synthetic chemicals. Some of the waves can be substantial, as with the recent departure of a significant Japanese linalool producer. Watch prices climb as buyers scramble to fill that hole. The list of naturals and synthetics displaying supply irregularities is endless, and when combined with the market and business conditions mentioned earlier, the result is sleepless nights for those blessed with the job of procurement.

Solutions

So what can be done to weather this storm and those forming on the horizon? Most of these problems could be readily solved or reduced with any noticeable drop in demand; however, a simple survey of most flavor and fragrance companies finds the reverse to be true, with production flat out and no shortage of new opportunities.

If this is the case, the most immediate priority is to ensure there is sufficient material on hand—or arranged for—to carry organizations through the next two quarters. One must keep in mind that, much as in life, there are no guarantees. Contract defaults can derail the best-laid plans of mice and men!

Companies may be forgiven for paying higher prices. In the United States alone, every trip to a gas station or supermarket reinforces the prevalence of staggering price increases across the board. As consumers ourselves, we are increasingly aware that this is becoming a way of life.

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What is not acceptable is to run out of material in the normal course of business or when filling the pipeline for that new launch. Perhaps the only way to avoid this is through a higher level of dialogue between those responsible for buying and their counterparts in sales, an obvious observation perhaps, but often lost to individuals too immersed in forecasts and internal planning.

In recent years, the role of the intermediate supplier has been called into question, often with the accusation that its role adds a barrier to that relentless quest for lower pricing. In the current environment, however, the strategic role of a local full-service dealer may become increasingly critical, providing a host of services that are not as easily performed in the country of origin.

First and foremost, the major dealers have a broad sense of the market, and the most formidable can match F&F houses' QC and regulatory knowledge, product by product. The materials these suppliers provide are compound-ready and often just days away at prices that compare with origin—if an accurate accounting of the cost of imports is conducted. Buyers should distinguish the main players by the depth of their knowledge; if they cannot comment on aspects of REACH or USDA organics or exchange information regarding material variances detected by GC/MS, then it is doubtful they can be an effective part of your supply chain.

No single source will enable companies to procure everything they need, particularly the unforeseen demands; and while logically a small manageable supply base is preferable, it may actually prove too limiting if the market difficulties prevail. Can your chosen intermediates convert that crude field-still oil into a compound-ready pristine ingredient? Can they import a full 80-drum container and feed you digestible amounts so you can avoid tying up cash? Can they release your buyers from all the peripheral duties they have absorbed in the name of cost savings? Imagine what a buyer could achieve if they could focus on the most important ingredients in relation to real need and not some artificial buying cycle.

As daunting as the future appears, the industry will continue to supply the world with flavors and fragrances; however, the survival and success of individual companies will depend on how well they recognize the changing landscape and exactly what they do to accommodate so many supply variables.

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