



Is Your Supply Chain Strategy Holding Back Innovation?

By Roberto Perez-Franco

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In early 2011, Lamynix¹, a leading manufacturer of specialty laminates, was approached by one of its major customers with an enticing contract. VideoFlat offered a premium price to buy a protective film that was twice as wide as the usual size for its new generation of high-end flat screen TVs and computer monitors. The catch: In order to be ready for the product launch, the new laminate had to be in production within 12 months.

Lamynix understood that delivering on VideoFlat's proposal within the allotted time would require a significant innovation effort. It also knew that this represented a golden opportunity to capture an emerging and promising segment in the specialty laminates market.

Lamynix and VideoFlat shook hands on a one-year, multi-million dollar contract. Twelve months later, Lamynix had failed to deliver the new product and VideoFlat walked away to look for a supplier that could meet its contractual obligations. What went wrong?

Based on our conversations with Lamynix personnel, the project's failure could be traced back to the unwillingness on the part of individuals within the company to take ownership of the innovation effort. This was paradoxical: What could have been an opportunity to make a name for oneself within the company was instead seen as a hot potato that nobody wanted to hold. Another reason, we were told, was that Lamynix did not make enough cash available to finance the new product's development. This was counter-intuitive, given that successful execution of the project would increase Lamynix's reputation as a leader in the specialty laminates market and open the door to a fast growing and very profitable segment.

Closer examination revealed a deeper cause behind the failure: Lamynix's supply chain strategy impeded the company's ability to be an innovator. Let's take a closer look at what went wrong.

Lamynix's Supply Chain Strategy

As of 2011, Lamynix's supply chain had received awards for excellence and maintained an enviable reputation among its customers. OEMs consistently described the manufacturer's supply chain prowess as a key reason for doing business with Lamynix. The foundation of the company's supply chain was a set of strategic principles and objectives that served as a bridge between Lamynix's competitive strategy and its supply chain decisions.

Lamynix's supply chain strategy was built on three key principles: (1) achieving the lowest product cost; (2) maintaining the best product quality; and (3) operating with the lowest working capital. These principles had been translated into a myriad of supply chain decisions. The most characteristic of them was Lamynix's mantra of manufacturing exclusively in high volume plants in order to exploit economies of scale to the fullest. As a matter of fact, by 2011 Lamynix had finished building the largest laminate extrusion plant in the world.

An Unresolved Yet Central Conflict

This supply chain strategy served Lamynix well during the first decade of the 21st century, especially due to the rising price of oil—the main raw material for laminates—which added currency to the quest for efficiency and cost management. The company's success in keeping costs low, however, may have masked an unresolved three-way conflict at the very center of the supply chain strategy between cost, service, and inventory.

Because of high switch-over costs, high-volume plants need long production runs to reduce product costs. Long runs, in turn, diminish the plant's ability to make as varied an assortment of products as are needed in real time. With an inflexible plant, matching supply and demand required the company to keep sufficient inventory of the finished products on hand. But inventory

costs money, and higher inventory levels, in turn, increase the final cost to the customer.

The manufacturer was juggling these competing goals—exploiting economies of scale through high volume manufacturing, lowering working capital by reducing inventories to the bare minimum, and maintaining the highest levels of customer service—when it was approached by VideoFlat.

Part of the challenge posed by this juggling act was the lack of a clear pecking order among the three strategic principles. Should cost reduction be pursued even if it meant sacrifices in service level, or should service levels be fixed and costs adjusted accordingly? Similarly, should inventory levels be kept low to keep costs low, even if that meant sacrifices in service levels, or should customer service goals dictate the inventory levels, even at the expense of higher costs?

These conflicts were the source of much tension within Lamynix's supply chain function and consumed a lot of attention and energy that should have been focused instead on fulfilling their commitment with VideoFlat.

Innovation as the Cinderella Function

Interviews with Lamynix personnel revealed just how these conflicts played out at ground level to undermine the agreement with VideoFlat. The operational problems also showed how Lamynix's struggle with innovation was symptomatic of a mismatch between its strategy and the implementation of that strategy.

We learned that the manufacturer had been able to create the wider laminate that VideoFlat required, but only in a small pilot plant Lamynix maintained for R&D. When the company tried to recreate this new product in the high-volume plants used for production, a problem arose where the abnormally wide laminate bowed in the middle, causing manufacturing defects. Because the manufacturing equipment in the small pilot plant was not the same as in the high-volume plants, fixing the problem meant either replicating in the pilot plant the equipment from the high-volume plant, or using the high-volume plant to run tests on possible solutions.

As a direct consequence of the large scale of the production plants, either option would be expensive. At the time, Lamynix was under intense pressure from stakeholders to maintain high margins; as a consequence, the company had little appetite for spending money on innovation (even though it invested in manufacturing capabilities in the form of a huge new plant).

This unwillingness to invest in innovation to solve the bowing problem explained why powerful decision-makers within Lamynix—anticipating a futile battle—shied away from taking ownership of the innovation project. Lamynix's own supply chain strategy, which called for using high-volume

plants in order to reduce production costs, combined with pressure for high margins, had created an environment hostile to innovation. Nobody wanted to be responsible for the high costs associated with stopping a profitable, humongous plant so that technicians could figure out how to solve an innovation problem.

However, the deeper reason for Lamynix's failure to deliver was that innovation was not one of the organization's top three priorities. Figuratively, innovation didn't even make it to the podium, and in strategy—like in the Olympics—there is no medal for fourth place.

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Moreover, Lamynix learned the harsh lesson that its customer did not care much about the internal conflicts that stymied the company's ability to deliver a potentially profitable new product. VideoFlat cared only about results, and had no problem walking away.

Critical Lesson: Innovation Must be a Key Principle

Subsequently, the business went to one of Lamynix's competitors whose supply chain strategy called for flexible production through mid-size plants. Flexible plants allowed this rival to solve the "manufacturing" problem encountered by Lamynix in its own production lines, because smaller plants made it cheaper to try out new things and run all the necessary tests at a reasonable cost. In other words, its supply chain strategy was more welcoming to innovation.

The lessons learned as a result of this episode forced Lamynix to rethink its competitive strategy. A new vision was proposed, with a strong commitment to innovation in profitable market segments. The supply chain strategy was reformulated, to include among its three key principles real, meaningful support for innovation efforts.

It has been said that crafting a strategy is as much about deciding what to do as it is about deciding what not to do. That is true, but there is more to a good strategy than "do" and "don't," the relative priorities between competing objectives should be clearly established, and all functions should be aware of the order of these priorities, because this determines the capabilities and limitations of the resulting supply chain.

Crucially, a company's verbal commitment to innovation is not enough if its supply chain strategy frustrates innovation and key personnel are unwilling to commit the resources that innovation requires.

¹ Names, dates, and details on products and processes have been changed.