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# SmartOps Corporation: Forging Smart Alliances? (Abridged)

## The Idea

Sridhar Tayur, a professor at the Tepper School of Business, was the founder and CEO of SmartOps. SmartOps began as an idea for improving the inventory policies of highly complex supply chains (see **Exhibit 1** for demand and supply dynamics). In many organizations, supply chains comprising thousands, sometimes even tens of thousands, of individual items needed to find their way from hundreds of manufacturers, through dozens of distributors, wholesalers, and shipping companies, to a single company, which would then either act as a retailer (with hundreds of locations) for all these items together (i.e., a grocery store) or use the items to construct something more complex (i.e., an aircraft engine manufacturer). The problem with those systems was that demand for the final product was often uncertain, as were supply and production, so ordering too much or too little of each individual item or part quickly caused production and expediting costs to skyrocket, or the company lost a significant number of sales. Globally, nearly $1 trillion in inventory existed to serve as a buffer against the uncertainty of supply chains. Tayur believed that a little science—something really new—could easily shave 25% off this unnecessary inventory.

The archetypal example of such a system was the news vendor problem. In the days when paperboys stood on street corners selling newspapers, they had to decide each morning how many papers to purchase from the local distributor. If they purchased too few, they would run out and lose an opportunity for profit; if they purchased too many, they would end the day with worthless inventory. A paperboy's decision-making process had to incorporate his best guess at demand for that day, and there were financial penalties for having too many or too few papers.

If one were to apply that same logic to a company that had to solve a million news vendor problems occurring at many different stages (or echelons) of the manufacturing and distribution process (hence, multiechelon), remembering that final demand for those individual items might be correlated with each other, one would get some sense of the difficulty faced by companies with complex, multiechelon supply chains. Reducing the costs associated with supply chains was a very important part of most firms' strategy for growing profitability. The challenge was how to solve the news vendor problem and then apply the solution to a larger system. Tayur explained:

> There is a fundamental uncertainty that comes from the final consumer, but uncertainty cascades back through the system. If a retailer needs more inventory, he turns to the distributor. If the distribution center doesn't have it (supply uncertainty to retailer), he turns to the factory. If there is not enough inventory in the factory, it creates supply uncertainty at the distribution center. Strategic choice of

This case was prepared by Ronald T. Wilcox, New Market Corporation Professor of Business Administration, and Gerry Yemen, Senior Researcher. 

inventory actually decides how much degree of uncertainty exists. From an academic standpoint, we know that correlations exist across different locations (at which level, retailer, consumer, etc.), but that correlation is not used practically. The real world has other correlations as well, but (although theoretically possible) it would require too many data points and is not used. The fact remains that supply chains are not millions of isolated entities—so they should not use the basic newsboy formula—and the key is to recognize the complex links, which allows building a model that propagates change and captures characteristics of the variation mathematically.

Tayur had figured out the needed software solution, had secured funding, and, by the fall of 2000, had hired Gail Knowlan, his executive assistant and office manager, as well as the firm's first three engineers. The first engineer was a computer science grad student who helped Tayur find the others, one of whom, Eduardo Lara, had become SmartOps' vice president of engineering. Three months later, the firm had 12 employees, including A. J. Brohinsky, a Harvard MBA and McKinsey alumnus, to help in strategic positioning and creating the "road show" for raising money from VCs. SmartOps secured the venture capital funding from Adams Capital Management, and Joel Adams joined the board of directors. With capital in hand, additional recruiting took place. SmartOps hired John Lopus and Valerie Tardif, who managed professional services and solution management, respectively.

## The Price

Operating in a vacuum presented a practical yet important challenge to the start-up: how to price? This had been a constant source of uncertainty for Tayur. He knew how his competitors—i2 Group (i2) and Manugistics Group, Inc. (Manugistics)—priced: Manugistics by installation and i2 by value. SAP SE (SAP) offered something with some supply chain capabilities called APO that was priced according to number of seats (licenses). Tayur preferred to price the software based on the value it imparted to end users, where the financial value was tied to the additional working capital that reduced inventories would generate. Based on some early adopters, it appeared that SmartOps would allow clients to trim their inventories by 10% to 15% while maintaining the same customer service levels. The companies that SmartOps was targeting for sales generally had a few hundred million dollars in inventory. At companies with billions of dollars in inventory, it would be difficult at this point for SmartOps to get an enterprise-wide sale.

In addition to the initial price, there was an implementation fee of $160,000 to $1 million, depending on scope and IT infrastructure, and an annual maintenance fee that ranged between 17% and 22% of the initial license price. Customers could opt out of the maintenance plan after four or five years.

Another feature SmartOps added was *proof of value* (POV). Essentially, potential clients could pay SmartOps between $50,000 and $150,000 to run a real data slice through SmartOps software to test the software and even implement the outputs in the actual planning systems globally. If the customer bought the software within 90 days, SmartOps typically credited this amount toward the software price.

The first year of operation produced disappointing results. Being a newcomer with a new industry product meant there was no established sales process in the marketplace. Even though there were a few competitors who were selling software to help companies manage their supply chains, their share of the market was miniscule compared with the market potential. SAP and Oracle, the globally dominant players in the enterprise-class resource planning software market, had not moved aggressively to develop the supply chain management software market. They both had add-ons with some supply chain management capabilities but nothing approaching the level of sophistication offered by SmartOps. Yet people were unsure what SmartOps was selling. Was it just some fancy mathematics, some software add-on that was not really needed? When Tayur

began a sales call, he first had to explain to a potential customer that the problem was more complicated than he or she might think and then convince the customer that SmartOps had the solution. As Tayur recalled, "We made 100 sales calls in the first year and got zero deals…nothing." Software sales were nonexistent.

## The Target Market

On top of the lackluster product interest, by the end of 2001, the entire software product market was crashing, the NASDAQ was declining, and i2 was imploding. Business wasn't going well, and Tayur believed there was a need for both a more strategic sales approach and professional help. He hired Martin Barkman, an MBA from Wharton and another McKinsey alumnus, as senior vice president of global sales and marketing.

Barkman, Brohinsky, and Tayur were convinced that SmartOps should stop trying to sell software and shift its focus to selling its supply chain expertise—after all, Tayur was a professor, an expert on the subject. The first step to changing what SmartOps offered for sale would be to gather information in the market by asking questions to determine who would find an educational approach valuable. They started digging into every aspect of the backgrounds of potential clients: Where did they go to school? Did they work for a company of first adopters when it came to software? The three men decided that if the sales process at SmartOps stuck to developing credibility and establishing expertise in the industry, then they could approach companies that wanted to deal with a professorial type of leadership. According to Barkman, SmartOps needed to drive the industry, not the other way around.

They started by looking for an intersection of three qualifiers that marked companies as potential clients. First, people at the firm had to fundamentally like professorial types. Then the company's supply chain efficiency and inventory had to be important yearly goals set by its CEO. That information was obtained through annual reports and other public company documents. Third, the contact must have enough energy and clout to fight internally for adoption of the SmartOps solution. As a result of its new sales approach, the SmartOps list of clients at that time included GlaxoSmithKline, John Deere, Caterpillar, Bayer, and Kellogg's. Tayur explained:

> Our sales approach was set up as a challenge to companies: Are you intellectually honest and willing to take some risk? Here's a question we asked: "Are you going to be safe or do the right thing?" Let me give an example I used with supply chain executives: Say your child wants to major in physics and he or she gets into Caltech and the University of Georgia, your alma mater and also where you met your wife, and it is close to where your family lives and so on. Where will you want your kid to go to school?

The next challenge was to convince three groups of people (in addition to the company's supply chain expert) that the SmartOps product was new, and there was space for it within the industry. That set of individuals included industry analysts who seemed tied to i2 and Manugistics, IT professionals who assumed that SAP had a similar offering, and consultants such as Accenture and Deloitte—companies that were invested in SAP implementation. Tayur said:

> There were people in supply chain management who knew SmartOps was different. They knew inventory optimization was new, and they needed it—they fought internally for SmartOps. The concept was not offered by Manugistics or i2 or SAP. A major turning point was when Ray Shei, the CIO of Kellogg's—a real "SAP only" kind of guy—reluctantly agreed to try SmartOps. And he ended up claiming that it was the best investment he had made in 17 years. He eventually joined our board.

By 2003, the company had developed a name for itself in the industry—indeed it had created its own market space. Not only did Tayur believe that the SmartOps product stood out from the competition, he was convinced that its professorial type of relationship building and POV sales approach was key.

### The Growth

As with all start-ups, Tayur's success with SmartOps raised the question: What to do next? By 2004, it was an organization of 50 employees who had small sales offices in several countries. Developing a strategic alliance with one of the leaders in the enterprise-class software industry seemed the next logical step. If SmartOps were to partner with a big brand, it could enter a less competitive space, have global access, and increase its prices. A large partner could provide valuable backup support, particularly for marketing and sales. And in Tayur's view, SmartOps' sales people would still be running the show because they had the product knowledge and the consulting experience. Deciding whom to approach was an important strategic decision.

Examining data on their own target customer base, Tayur and his team learned that, of the manufacturing companies on the *Forbes* Global 2000 and *Fortune* 500 lists, almost 60% used SAP, 20% used Oracle, and approximately 20% used other less-known companies. Given that data, it made sense to think about a deal with either SAP or Oracle. "It really wasn't a choice as to whether or not we should partner," Tayur said. "It was how best to execute, how best to protect margins, and keep revenues high."

Following several leadership meetings, it was decided that SmartOps should approach SAP about partnering (see **Exhibit 2** for SAP organizational information). There were several reasons why. First, Oracle didn't have a supply chain partnership program, so there was no established way to enter into a relationship with it. Second, and perhaps more convincing, was the advice Tayur received from an industry insider. "Don't play with Oracle unless you are ready to sell the company or are prepared to face competition," he was told. "Oracle was more of the 'swat-the-fly-or-gobble-him-up' mentality," Tayur said. "Not the partnership type." In contrast, SAP was known for its recruitment of vendors to help develop product solutions for various platforms.

Bruce Richardson, a contact of Tayur's who cofounded AMR Research (now part of Gartner), suggested that Ed Lange, then an executive vice president at SAP America, would be an asset to SmartOps. Tayur set out to convince Lange to become a board member. But before he did that, Tayur had to calm the fears among his own people, who worried that SAP would see SmartOps as an opportunity and takeover target or, even worse, would learn its trade secrets and use that knowledge to create a similar product. In 1998–99, that is allegedly what happened between SAP and i2.

As Tayur and his leadership team were working on their relationship with Lange, SAP announced that it had decided to develop an inventory optimization–software product through a partnership with an outside company rather than to build it itself. This was a radical change in SAP culture. A new CTO at SAP, Shai Agassi, had convinced others at the firm that it needed other partner firms to help build out its capabilities in areas such as supply chain and customer-relationship management. This announcement presented a huge opportunity for SmartOps. All it had to do now was make sure that, of several likely contenders, it was the firm to successfully become SAP's partner.

### The Battle

Within SAP, there was a difference of opinion over partner preferences. The industry groups related to chemical, high-tech, consumer-packaged-goods, retail, and industrial machinery at SAP, called "verticals," favored SmartOps to win the bid. These groups within SAP interacted with customers at the thought-leadership level and supported the field-sales organization that actually closed deals and made money. SAP had other groups called "horizontals" (including the supply chain group) that provided internal services to the industry groups and supported sales efforts. Some people in the supply chain group preferred other competitors to SmartOps, because they had preexisting executive relationships with them. Tayur explained:

> We really won through the "surround SAP" approach. SAP had created the Industry Value Networks (IVN), which was a collaboration of thought-leading customers who would provide useful input for the solution pipeline. The SAP verticals worked to get SmartOps into IVN's groups. The night before the 2005 SAP-sponsored Sapphire Conference in Boston, the Chemical IVN made an announcement in a press release: "Chemical IVN Selects Partners, SmartOps included for Inventory Optimization Solution." That was a complete shock to the three other potential inventory optimization partner firms. But we had determined who was influential within SAP and among IVN's members and developed relationships with them. By the end of 2005, several other IVNs had selected SmartOps.

### The Partner

Now a full-fledged partner of a publicly traded company, SmartOps had to learn to work within a large firm of more than 33,000 employees and within a defined partnering plan. In 2006, Brohinsky's conversations with SAP sparked the inclusion of SmartOps into a new SAP partnering arrangement called Endorsed Business Solutions (EBS), which turned out to be to SmartOps's advantage.

Two components to the partnership, development and marketing, would be shared. SmartOps had to be in sync with the SAP supply chain software, and SAP would support SmartOps marketing with webinars, e-mails, customer events, and booth location at Sapphire conferences. In return, SAP would get a 30% to 50% cut from each license sold into the existing SAP customer base. (In other accounts, such as those with Oracle, SmartOps kept 100% of the revenue.)

Once the partnership got going, both companies brought value to the table. SAP was an IT software company that sold product and solutions (infrastructure) to company CIOs. SmartOps was an expert in supply chain optimization that sold products and solutions (line of business) to supply chain groups. The SmartOps rep was the classic consultant type, capable of identifying the customer's problem and providing a solution, which meant that SAP sales reps could sell SmartOps off their product list without ever having to read or understand much about the software. Both companies improved their combined competitive positions—it was a good partnership. By 2008, EBS business generated the largest share of revenues for SmartOps. Indeed, about 50% of revenues were from the SAP channel, and within SAP, SmartOps was the highest-performing EBS partner. Over these two years, several people from SAP had joined SmartOps in the sales and marketing organizations, including Greg Peterson, who now managed the SmartOps-SAP field sales group.

Still, partnering wasn't all gravy, and eventually some lumps started to surface. There were structural and cultural differences between the two companies, not to mention a partnering spirit that seemed based more on opportunism than on cooperation.

Perhaps the greatest difficulty for SmartOps was the sales structure. SmartOps was only one of several vendors, including SAP, with products and solutions on the SAP sales reps' possible add-on offerings. That sales list included software solutions for various problems a potential customer might be facing. A good sales person figured out each customer's buying process and estimated what he or she had to spend. For SmartOps products, SAP salespeople earned commissions only on SAP's share of the revenue, not the total sale amount, so if they sold $1 million worth of SmartOps software, their commission was based only on the $400,000 that flowed to SAP. If a salesperson's goal was to sell what provided the best commission, he or she could fill the customer budget with only SAP products—SmartOps was not in their baskets for sale. In several situations, SAP sales reps actively competed against SmartOps for the customer's wallet. SmartOps products were now being sold by a huge but not entirely motivated (and sometimes antagonistic) salesforce.

### The Reseller

Four years following the initial partnership with SAP and two and a half years into the EBS partnership, Tayur faced another key strategic growth decision. SAP had several third-party products it sold as SAP products; in the SAP price book, the salesforce got commission on the total price to the customer (the top line) regardless of royalty percentages. In 2009, SAP seemed interested in signing this kind of reseller agreement with SmartOps. Rob Enslin, CEO of SAP America, with strong support from Bill McDermott and Jim Snabe, now co-CEOs of SAP AG, had approached SmartOps about signing such a deal. Although there was some flexibility with regard to the precise contractual requirements for both parties, it was generally well known in the SAP ecosystem what the framework for these SAP reseller deals typically entailed:

1. SAP generally received 50% to 70% of the monies paid for any software licenses it sold on behalf of the partnering company, leaving only 30% to 50% for the partnering software company.
2. SAP reserved full price control of the licenses. SmartOps would have no authority over the price at which its product sold.
3. SmartOps products would be described to potential customers as SAP products and part of SAP's capability.
4. SAP generally agreed to allow partnering companies to contact customers obtained through the SAP salesforce and to provide service for its own (SmartOps's) software.
5. A partnering company might receive money, in addition to its standard 30% to 50%, if it provided help to SAP during the sales process.
6. The initial term of the deal was three years.

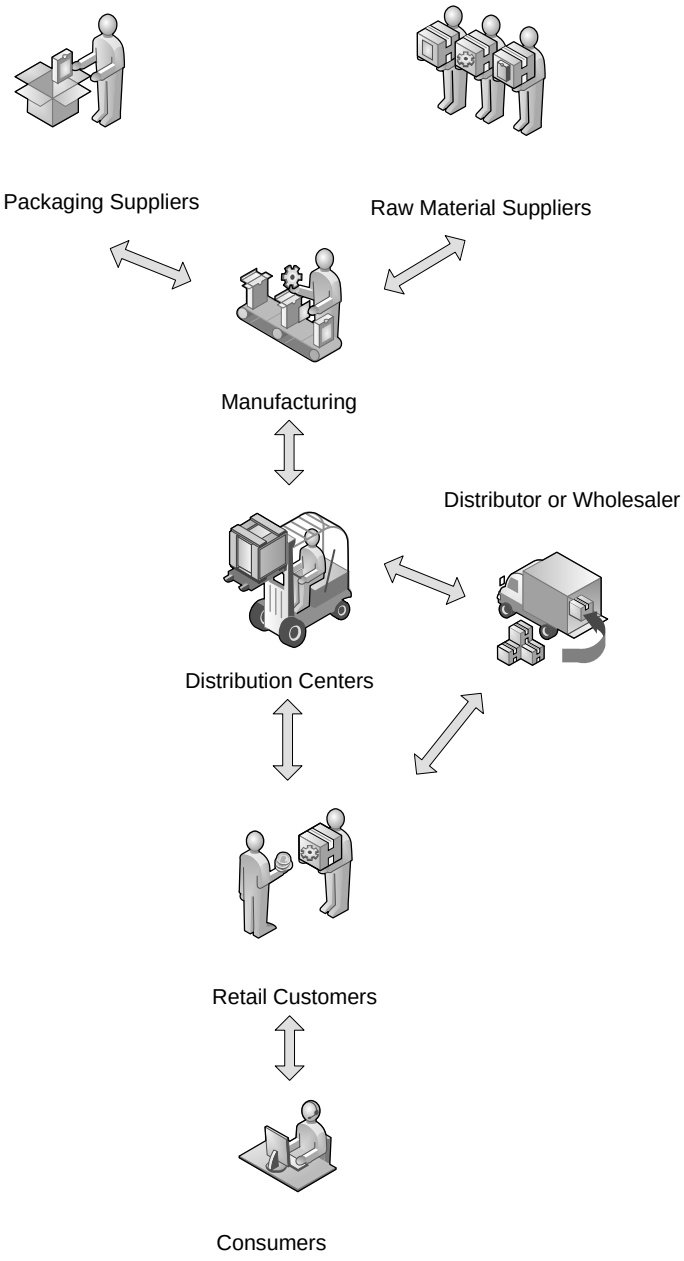
### The Decision

Standing up to stuff his jacket into the overhead bin, Tayur decided that the overseas flight back home might not be long enough to mull over all the issues related to the potential deal. Employing nearly 100 people, with sales reps in Brussels, Berlin, Barcelona, London, Chicago, Philadelphia, Los Angeles, San Francisco, Atlanta, and Boston, SmartOps was a very different company than when it first partnered with SAP. It had its own customers and its own reputation. The alliance with SAP was an important one, but Tayur wondered what would happen after he signed the reseller agreement. What should he be looking out for in a contract? Could he really afford to get this close to SAP? Could he afford not to?

Exhibit 1

**SmartOps Corporation: Forging Smart Alliances? (Abridged)**

Demand and Supply Dynamics



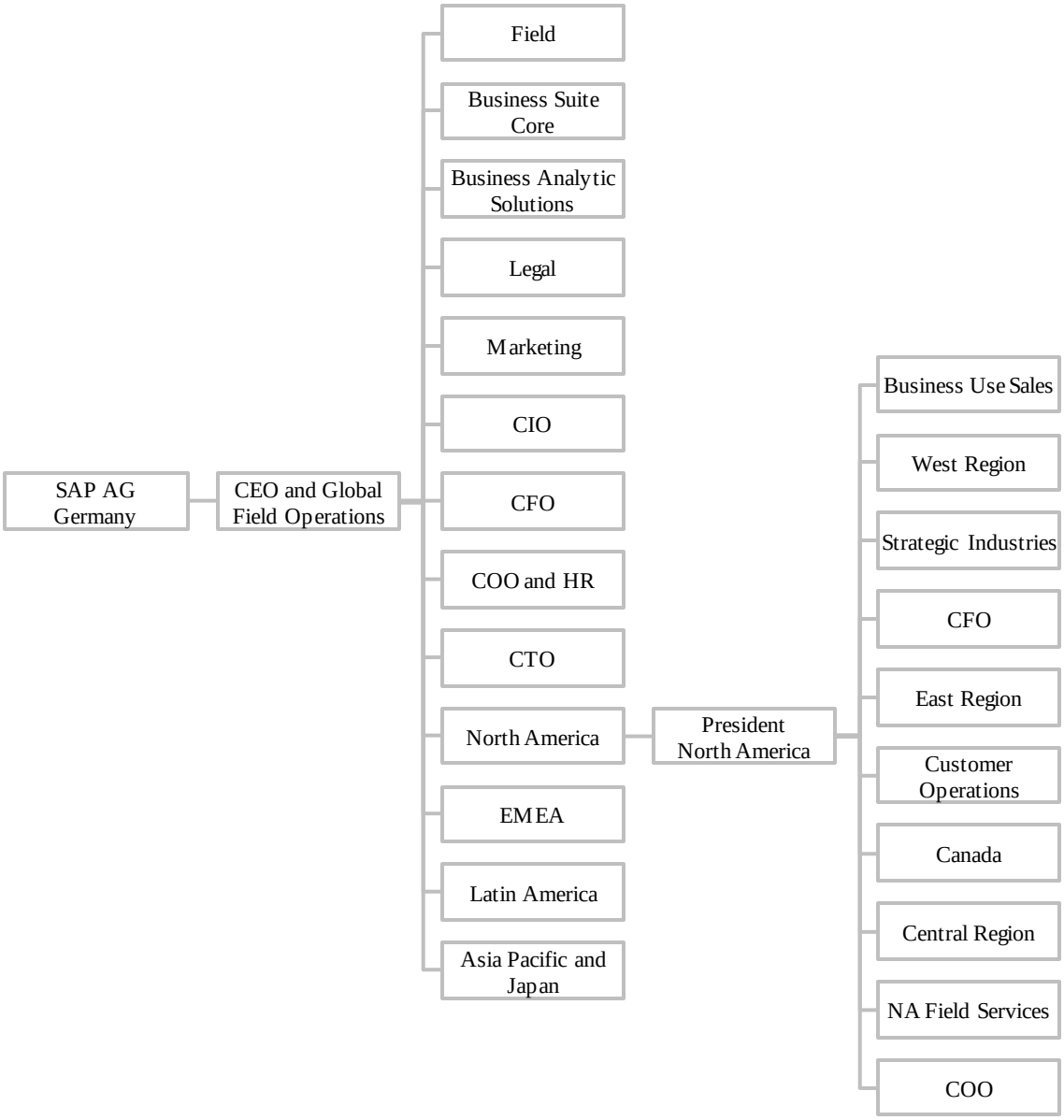

Source: Created by author.

Exhibit 2

**SmartOps Corporation: Forging Smart Alliances? (Abridged)**

Selected SAP Organizational Information

In 2008, SAP was the holding company of 187 subsidiaries whose main task was the distribution of SAP's products and services on a local basis. R&D, strategy group, and corporate administration functions were concentrated at corporate headquarters in Walldorf, Germany.




Data source: The Official Board, http://www.theofficialboard.com/org-chart/sap (accessed Feb. 23, 2011).