E. EXAMPLES OF STRATEGIC SUPPLY-BASE REDUCTION

Strategic supply-base reduction has become a major tool used by leading firms to reduce costs and improve quality, responsiveness, flexibility, and other key dimensions of performance. In this appendix, we offer examples from the literature of how a broad range of large firms and one small firm are adopting this practice.

AlliedSignal

AlliedSignal’s first step in its sourcing strategy was to prune the supply base from 10,000 in 1992 to fewer than 2,000 in 1997. Plans call for its supply base to shrink further to 1,500 over the next few years. AlliedSignal’s automotive sector saved $28 million in 1993, which came primarily from winnowing the supply base and negotiating new contracts (Minahan, 1997).

American Standard

American Standard reports it reduced its costs for U.S. office supplies by 28 percent when it reduced its vendors from 81 to one (Ridge, 2001).

AMR

In 1995, AMR had 7,200 suppliers. In 1996, buyers reduced the supply base by 30 percent. They reduced suppliers another 16 percent in 1997 and plan to remove another 13 percent by the end of 1998. The year 2000 goal is 2,000, which represents a 70 percent decrease in AMR suppliers since 1995. AMR’s supply management strategy has resulted in more than $250 million in savings (Avery, 1998).

Boeing

“Boeing will cut 13,000 of its 31,000 suppliers over the next four years, mostly smaller companies that duplicate equipment” (Rae-Dupree, 1999).
Chrysler

From 1989 to 1993, Chrysler reduced its production supplier base from 2,500 companies to 1,114 and fundamentally changed the way it works with those that remain. The time to develop a new vehicle is approaching 160 weeks, down from an average of 234 weeks during the 1980s. The cost of developing a new vehicle has plunged an estimated 20 to 40 percent. Since 1988, Chrysler has reduced its number of buyers by 30 percent and has sharply increased the dollar value of goods procured by each buyer. Profit per vehicle has increased from approximately $250 in the 1980s (taking the average from 1985 through 1989) to $2,110 in 1994 (Dyer, 1996).

“Now about 90 percent of Chrysler’s purchasing volume is with 150 suppliers” (Lewis, 1995).

Donnelly

From 1996 to 1997, Donnelly’s newly centralized purchasing activity saw a 5.2 percent reduction in projected material costs, a 25 percent improvement in supplier quality measures, and was on target for a 50 percent reduction in the size of its production supply base. For example, Donnelly reduced its injection-molding supply base from more than 35 to 5 and its stamping supply base from 21 to 6 (Wincel, 1998).

Ford

Ford reduced its stamping supply base from 150 suppliers to 11. Of those 11, seven are minority owned, supporting Ford’s supplier diversity efforts (Wincel, 1998).

GEC Marconi Electronics

GEC Marconi replaced the multiple systems it used to manage and order parts with a single system. As a result, it was able to reduce its supply base from 97,000 to 28,000 and generate a yearly savings in its component costs of 15 percent (Bylinsky, 1999).

Harley-Davidson

Harley-Davidson reports it cut its supplier base from 4,000 to 800 and shaved $40 million off its materials costs since 1996. In addition, product-development time is down 30 percent and defect levels on bike parts have
fallen from an average of 10,000 to 48 parts per million for over 75 percent of its suppliers (Sullivan, 2001).

“Harley-Davidson has reduced its preferred less-than-truckload (LTL) carrier base to seven from 68. . . . [T]he company has trimmed $1.5 million from transportation costs. LTL on-time performance has improved to nearly 98 percent from 95.5 percent. Service failures have been reduced substantially. Improved performance has allowed development and implementation of cross-docking opportunities, which have reduced transit times between plants by one to two days” (Bradley, 1998). Harley-Davidson consolidated its indirect spend maintenance, repair, and operation (MRO) supplier list of 3,500 down to 3 or 4 by forming an indirect materials $86 million alliance with three major firms. These $86 million in purchases represent about 17 percent of the company’s total purchased budget. Suppliers met Harley Davidson’s five-year goal for cost improvement in one year, reducing spend to $57 million—a 34 percent savings and a 6 percent reduction off Harley Davidson’s total spend (Nelson et al., 2001).

IBM

“In 1993 IBM had about 4,900 production suppliers. Now about 85% of IBM’s $17.1 billion in production purchases is with 50 suppliers.”

“Commodity councils that leverage IBM purchasing worldwide have resulted in IBM sourcing parts at price[s] that are 5%-10% below industry averages.”

“Leveraging has had a big impact on the bottom line. ‘Last year [1998] we [IBM’s Global Services Division] saved a little over $1.5 billion on $21 billion we spent . . . by leveraging, negotiating, and moving business to our preferred set of suppliers.’” Theresa Metty, Vice President, Global Customer Solutions and General Procurement for IBM.

“All other things being equal, we would source with a supplier who has multiple capabilities and we tell them that” (Carbone, 1999).

Intel

“Since the mid ‘80s, Intel has made a serious effort to consolidate its supply base, adopting an n+1 rule-of-thumb in determining the maximum number of suppliers (‘n’) needed in each commodity area to satisfy production requirements.” That is, Intel will not have more than one extra
supplier above the minimum number needed to satisfy its production requirements. For example, the number of suppliers of leadframes has been trimmed from 12 to 3, ceramic packages from 6 to 3, and wire and molding compound from 3 to 1 (Morgan, 1995a).

John Deere Horicon Works

John Deere reports that it studied its $70 million annual MRO spend across 40 North American units, and reduced the number of suppliers from 1675 to 20 and cut costs by 13 percent (Smock, 2001).

In 1985 Horicon had 850 suppliers. By 1991 this number was down to 160. Horicon is integrating its suppliers into its operations. It is currently helping its top 60 suppliers analyze and manage capacity and flexibility to reduce their manufacturing cycle times (Reese, 2001).

Kraft Foods

“Recent initiatives to consolidate activity [copier equipment and records retention] with a single vendor for each function are generating annual cost savings of 30 to 40 percent” (Westfall, 1999).

Lockheed Martin

Lockheed Martin’s supply base rationalization program has reduced the number of suppliers among its 17 divisions from about 80,000 to near 37,000 (Reese, 2000).

Lucent Technologies

Lucent has reduced its suppliers from 7,000 in 1998 to about 2,200 in 2000 and expects to further reduce its production suppliers to about 200 by 2002 (Carbone, 2000b).

Merck

Merck reduced its total global supplier base from 40,000 in 1992 to fewer than 10,000 in 1997 (Genna, 1997). Plans for 1998 called for an additional reduction in Merck’s active supplier base to 7,000 or less (Hunt, 1998).
Motorola

Supplier head count throughout Motorola was trimmed substantially from 1987 to 1991. In the communications sector, the supplier base was slashed from 4,200 in 1985 to 1,155 in 1991, and the number of preferred suppliers who receive 76 percent of the sector’s business were slashed from 800 to 333 (Morgan, 1995b).

Motorola’s communication’s sector quickly reduced the number of its capacitor suppliers from 110 to about 25. The immediate cost savings in paperwork and logistics were so dramatic that they more than justified the costs of expanding Motorola’s supply-base reduction efforts to other commodities. It took another year to reduce the number of suppliers to about 15, and efforts continued to trim the supply base further (Lewis, 1995). In 1991, three suppliers had 94 percent of Motorola’s global capacitor business. This supply-base reduction saved the company several million dollars (Morgan, 1995b).

Nissan

Nissan plans to halve its worldwide supplier base to 4,000 by 2002 and then to leverage its increased business with the remaining suppliers to reduce prices paid by 20 percent (Magnier, 1999).

Osram Sylvania Products

In 1996, Osram Sylvania launched an intensive search for a single provider to consolidate as many of its 125 freight forwarders and customs brokers in the United States as possible, many of whom were small mom-and-pop shops. One firm got the account, and Osram Sylvania is now working to make that firm the exclusive logistics provider for the entire company (Bowman, 1999).

Sun

“Five years ago, 80 [percent] of the dollars Sun spent went to about 100 suppliers. Today [1996], 89 [percent] is spent with 20 suppliers. In fact, Sun’s top five suppliers receive about 65 [percent] of Sun’s purchasing dollars.”

“Sun spends a lot of time working with suppliers to reduce leadtimes.”

“Three years ago, Sun was on a 200-day cycle from the time it told a
supplier it needed a part to the time Sun was paid for a system it shipped to a customer. Today, it averages about 100 days; Sun wants to reduce it to 60 by next year” (Carbone, 1996).

Tennant

Tennant has deliberately whittled down its supplier base from 1,100 suppliers on its rolls in 1980 to 250 active suppliers, with a relative handful (50) enjoying the lion’s share of Tennant’s business in 1994.

In 1979, Tennant was ordering hydraulic hoses and fittings from 16 suppliers and was counting leaks per 100 joints. In 1985, it was down to one supplier, and leaks were down to one per 1,000 joints. By 1992, Tennant had quit counting leaks per joint altogether.

In the early 1980s, Tennant had about six coating suppliers. By 1987 over 90 percent of Tennant’s coatings business was assigned to one supplier.

“Prior to 1986, Tennant was getting its steel from as many as 22 different sources.” In 1995 two suppliers provided 95 percent of Tennant’s steel requirements (six specialty producers satisfy the remaining 5 percent). “When it comes to establishing closer ties with suppliers, Tennant has discovered that two is more than enough company, three a definite crowd, and has come to prefer single-sourcing in most instances . . .” (Morgan, 1995c).

Texas Instruments

Texas Instruments began looking at supply base rationalization in mid-1998. Since then, it has reduced its MRO suppliers from about 5,000 to 750 using a process of evaluation that focuses on overall performance indicators, including price, quality, and delivery. The company expects to channel 90 percent of MRO purchases to 200 or fewer suppliers by the end of 2000 (Reese, 2000).

Whirlpool

Since 1998, Whirlpool reports it has reduced its supply base by about 50 percent to leverage volume, improve procurement efficiencies, and reduce overall costs (Stundza, 2001).
Xerox

From 1981 to 1985, Xerox reduced its supplier base from 5,000 to 400.\textsuperscript{1} From 1981 to 1984, net product costs were reduced by about 10 percent per year. Rejects of incoming material were reduced by 93 percent. New product development time and cost were reduced by 50 percent. Production lead times were reduced from 52 weeks to 18 weeks (Burt, 1989).

\textsuperscript{1}Morgan (1995d) says Xerox’s supply base shrank from 3,000 in 1982 to 300 in 1985.