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### **Business Intelligence Software at SYSCO: Case Study**

#### **Background**

It was January 2003. Twila Day was implementing a business intelligence (BI) software program throughout SYSCO. She was at a crossroads: she needed to decide whether to purchase more software and user licenses up front in order to take advantage of discounts, or whether to buy the minimum and purchase additional software or licenses later.

Day had already led a couple of successful software installations for the company:

- 1993: SYSCO implemented a standardized enterprise resource planning (ERP) system to handle basic company processes (e.g. taking orders, delivering goods, and maintaining general ledgers). This was successfully rolled out and was effectively being used by 2003.
- 2000: SYSCO implemented a data warehouse system, so that executives could more effectively monitor and compare performance across business units. Most of the 83 broadline companies were using it by 2003, and the 62 specialty companies were expected to be using it by the end of 2005. Unfortunately, it was difficult to extract data from this system, and it was not helpful for forecasting future events.

The program implementations were both successful, but Day and others still wanted a more robust system, specifically for analysis and monitoring, and predicting the future. They were looking at robust BI software packages, which would be unlike the previous types of software rollouts. BI was capable of quickly running dashboards (graphical representations); extraction (retrieval of data across business units); data mining (statistical analysis of historical data); predefined reports (which varied by industry); querying and reporting; predictive analytics (or statistically based forecasts); event notifications; and distribution (sharing of BI output). The leading vendor, Business Objects, specifically prioritized querying; connectors (predefined interfaces); a semantic layer (to map between database elements and business concepts); caching (background data acquisition and anticipating users' requests); and professional services (consulting, training, and assessments).

# **Business Objects' packages and pricing**

Business Objects' pricing packages varied by product category (e.g. analytic applications, querying, performance management, or reporting modules), and companies could pay per user or based on concurrent users. Implementation expenses typically consisted of 40% license fees and 60% consulting/training. Customer support added another 20-25% of total license fees.

Business Objects recommends that SYSCO's BI software address two important issues:

- 1) What additional products could we be selling to each of our customers? (BI software could create profiles of what comparable customers typically order, so that SYSCO could offer those additional products to its current customers, thus increasing sales.)
- 2) Which of our current customers are we most likely to lose? (BI software examines customer ordering patterns over time, and can identify when order volumes decreased, so that SYSCO can anticipate and try to prevent such loss of orders.)

When Day put together a demonstration of the BI software – including the analytical module – to SYSCO's Directors Council, and it was received enthusiastically. The council believed the BI software would provide rapid ROI. Day was charged with creating a detailed budget and timeline. In order to do so, Day needed to determine which software to buy; when to buy it; and how much consulting support is needed.

Day identified three scenarios:

- I. Bare Bones. (10 users per 83 broadline companies. 3 per company would have query/analysis rights, along with 5 from IT. One IT person from each operating company could create specialized reports; 3 IT people from corporate could create companywide reports. 1000 basic licenses for all employees who want access to reports. Did NOT include the analytical module used in the demo; IT would need to build those in themselves. Total cost: \$2,535,880.
- II. Middle of the Road. Bare Bones options, plus additional licenses (15 per operating company), plus the analytical module, and 1300 basic licenses. This would cover SYSCO for about a year, then they could license additional software after that. Total cost: \$3,074,980.
- III. Volume Discount. Would last two years. A Broader group of people would be able to view the BI data. The software would include both the analytical and supply chain modules. Could license for 2000 people. Total cost: \$3,401,020.

All scenarios would include 3 consultants for 9 months (\$1 million in consulting fees), and the basic software maintenance package. Day knew that SYSCO could afford the up-front expense. While it would be difficult to get approval for the volume discount package now, if she did, she wouldn't have to ask for additional approval in a year. She anticipating resistance from the operating companies once they saw the expense (e.g. sticker shock), which would be further compounded by the fact that they already have some BI software in place.

# **Additional Considerations**

Scenario I does not have the analytical module, which is SYSCO's primary objective in purchasing the software, therefore it can be immediately eliminated. To decide between Scenario II and III, Day needs to ask a few additional questions: what is the value of the additional supply chain module in Scenario III; could the existing BI data of each operating company be incorporated seamlessly into the new system, and would it save on expenses; could SYSCO get immediate ROI, enough to pay for the additional up-front expenses; how many licensed users should the business have; and if they select the cheaper option, what would the additional expenses be at year two?

First, would the supply chain module described in scenario III add significant value? Most definitely. The operating companies are quite different from each other, and geographically spread out, so they likely have little knowledge of what was going on in other operating companies. The knowledge they do have (i.e. the data warehouse program) is not useful for extracting data or predicting important events. The supply chain module would identify correlations and trends across the different industries and geographies. With SYSCO's 8,000 marketing associates; 9,000 delivery associates; 45,000 employees, and a vast network of warehouses and suppliers, supply chain analytics would most certainly add value by cutting costs and waste, and anticipating problems or trends. The primary purpose of this high-level BI system was for analysis and monitoring, and for predicting the future. With that in mind, purchasing both the analytical module and especially the supply chain module would most definitely meet SYSCO's needs, and more.

Second, would it be easy and cost-effective to incorporate the existing BI data – including the existing ERP and data warehouse information -- of each operating company into the new system, especially under Scenario III? If that data could easily be rolled into the new BI system, that would be best. Since the older BI system of 1995 was also a Business Objects software product, then yes, it should definitely be easy to incorporate that data into the new system. Also, it appears that the new BI system is compatible with other systems, once connections are established between the old and new systems. As long as they do not have to enter data into 2-3 different databases, operating business managers should find the new system seamless and easier to use, but with more powerful capabilities. The advanced BI system would also save significant time in terms of not having to contact IT for reporting, wait three days, then spend hours analyzing the data by hand.

Third, if SYSCO selected scenario III, could the company get immediate ROI, enough to pay for the upfront costs of additional user licenses and software? For one thing, the BI system has the capability to increase customer orders and customer retention, as stated earlier, therefore it has great potential to increase revenue across the operating businesses. Additionally, the BI system has the potential to predict important events and notify the businesses, leading to less disasters and loss. Last, as stated above, the supply chain module specifically would most definitely increase revenue in a large company like SYSCO, which relies on a vast network of warehouse and suppliers.

Fourth, SYSCO has 45,000 employees. Have 2000 general licenses for report viewing is just 4.4% of the employee base; 3.7% of employees would have performance management licenses; only 1.5% would have analytical module and less than 1% would have supply chain module license. Even with scenario III, the percentage of employees having access to the system is relatively low; scenario III does not have an outrageously large number of licenses. Moreover, employees would no longer need to go through IT to obtain reporting, which they would need to wait days for then take hours to analyze. Last, based on the pricing structure shown in Exhibit 9, SYSCO would pay approximately 35% more to receive 2-3 times as many licenses; the cost per seat is significantly. (If there is any room for negotiation, Day might try to negotiate fewer licenses under the performance management module, if that is not an important feature to SYSCO.)

Last, if SYSCO were to go with scenario II, then add the supply chain module and/or increase the number of users later, it would likely need to pay up to \$1 million in consulting fees again. The consulting fees were about 30% of the total expense, regardless which option they select. Avoiding those duplicate consulting fees would cover the cost of the upgraded module. Moreover, Day should confirm whether the cost per seat would decrease later, if they added more users. Assuming the cost per seat remains the same, that would be more reason to go with Scenario III now. If Day is truly confident that the company will be using the system effectively in two or more years, and that all the licenses will be used, then she should go with Scenario III now.

#### **Conclusion**

Twila Day should opt for scenario III, the "Volume Discount." If one of SYSCO's goals is robust and powerful analytics and monitoring, this would immediately eliminate the first "Bare Bones" option. If SYSCO's other goal is to predict the future and anticipate key events, the business should also implement the supply chain module. The full version described in scenario III meets all of their needs, and more. Moreover, the full version would cut waste and costs and increase revenue, thereby paying for itself. Last, SYSCO would pay the consulting fees either way. By implementing everything at the same time, they would not have to pay \$1 million again later. The best option – scenario III -- seems clear. Now she needs to sell it to the operating business managers.