for greater control and efficiency. The use of centralized purchasing operations is thus likely to gain momentum.

As an IS concern, multi-unit restaurant companies that utilize centralized purchasing and/or commissaries should treat the commissaries and centralized warehouses just as large hotel properties treat their own warehouses. Requisitions should not be expensed or added to the inventories of the individual outlets until they are requisitioned. The technology used to effect the transfer should be exactly the same (electronic requisition or purchase order, bar code scanners, etc.).

REPORTING AND BUSINESS INTELLIGENCE

Back- and front-of-the-house systems may interface by transferring data to and from the central server. Profit (or loss) statements, budgets and variances, daily reports, and balance sheets are prepared with the aid of software programs. The advantage of this technology is that information is provided in real time, enabling operators to make informed decisions quickly. Quicker decisions allow managers to "keep their fingers on the pulse" of the restaurant. When the back- and front-of-house systems are interfaced, it is easier for management to monitor service times, POS food costs, labor costs, and guest counts. Again, this compilation of information helps managers make more informed decisions.

Both POS and I/P systems have extensive report options and can produce good management insights into potential problems. POS sales data provide item popularity reports; combining these with I/P costs produces item profitability as well. Analyzing sales volume by 15-minute periods is a huge help in scheduling staff efficiently. Again, selecting an enterprise management system that provides all of these capabilities in a single package makes reports generation a far easier task and almost all such systems allow managers to create custom reports.

On the cost side, checking for inaccurate inventory extensions can catch bad data entries quickly. Sorting the inventory list in both ascending and descending order allows for a quick reality check on the most and least expensive items. There shouldn't be any flour, sugar or rice valued at thousands of dollars; T-bone steaks shouldn't be priced for pennies.

POS sales totals can be tracked against inventory usage and waste/void write-offs in the I/P system. If beef tenderloin, for example, is being "used" faster than it's being sold, customer returns and possible menu specials should be checked in the POS system data against the spoilage/waste reports from the I/P system to narrow down the actual variance. Excessive waste and customer returns must be documented and the problems resolved quickly, and having access to system data gives you a much better chance of managing this.

Several POS and I/P vendors also offer separate business intelligence (BI) data analysis modules. These can pull data from multiple F&B systems into high-level reports to simplify the analysis, yet allow drill down into the underlying detail to investigate exceptions. These can provide excellent insights into the operation and are invaluable for multi-site operations in analyzing sales, usage, the profitability of each outlet, the accuracy of par levels vs. re-ordering cycles, delivery times, seasonal/day-of-week variations and much more.

Independent BI vendors' systems such as Avero's Slingshot, Compeat, CrunchTime!, erestaurantservices.com, Posera's Maitre'd and ProftSword also offer the ability to pull data from multiple different vendors' systems. As with all BI systems, though, it's important to ask them the right questions. They can all help you become better informed; the key to maximizing their worth is to act on that information to identify and correct poor business processes.

LABOR MANAGEMENT

Labor scheduling continues to be a major challenge. More detailed data on how an outlet's business varies over a day, week, month and year is really the only way to get a better handle on forecasting, but flexible and intuitive scheduling management tools do help. Better integration with hotel and catering management systems can also help forecast the volume of group and transient guests likely to show up in the restaurants, and at what times. Convention meeting schedules are also important aids in scheduling staff for food and beverage outlets.

Time management at the outlet level varies all the way from simple clockin/clock-out time stamps on a POS terminal to sophisticated time and attendance systems such as Time Management's TMx or Commeg's TimePro. Many systems prevent staff from clocking in more than ten minutes earlier or five minutes later than their scheduled shift times without a manager's override, to prevent socializing on company time. Labor management systems can also be used to force managers to meet labor percentage targets based on projected revenue. By requiring both the upcoming schedule and the revenue and cover forecasts to be entered in the labor management system, the system can kick back schedules that exceed company labor percentage standards. These systems can be programmed to put up these red flags based on weekly standards, daily standards, and even meal period standards. They can also be programmed to limit labor scheduling and spending based on job classification. The labor management system could, for example, limit hostess hours on a Monday to twelve. Therefore, if a manager scheduled one hostess for six hours and another for eight, the system would disallow that schedule. Also, if those hostesses made ten dollars per hour and the system limit for spending was \$120, it would also disallow that schedule. A manager could schedule more hostess hours, but would have to utilize employees who make a lower hourly rate.