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Software Associates

Susan, I have just seen the quarterly P&L. It's great that we exceeded our billed hours and revenue targets. But why, with higher revenues, is our bottom line less than half of what we had budgeted. Can we have a meeting tomorrow morning at 8 AM so you can explain this discrepancy to me?

—Richard Norton, CEO of Software Associates

Norton, the founder and CEO of Software Associates called Susan Jenkins, CFO of Software Associates, after skimming the second quarter profit and loss statement (see **Exhibit 1**). Jenkins had been preparing to go home but now anticipated a long evening ahead to prepare for the next morning's meeting.

Assignment Question 1: Prepare a variance analysis report based on the information in *Exhibit 1*. Would this be sufficient to explain the profit shortfall to Norton at the 8 AM meeting?

History

Richard Norton had founded Software Associates ten years ago to perform system integration projects for clients. While initially set up to operate in client-server environments, Norton had been nimble enough to make the transition to web applications, and his company had continued to grow and prosper during the rapid technological evolution of the 1990s.

Annual revenues exceeded $12 million, and profit margins were usually between 15% and 20%. Currently, Software Associates offered two types of services to clients. The Solutions business helped clients rapidly develop targeted information management strategies, and then mobilized business and technology resources to deliver software solutions. Typical services included IT strategy and management, IT architecture and design, information management, and data warehousing. The Contract business offered clients experienced software engineers, programmers, and consultants, on a short-term project basis, to help the clients implement their own IT tools and solutions. This service enabled clients to implement major IT projects without having to hire expensive, experienced software personnel.

Professor Robert S. Kaplan prepared this case. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

Preparing the Budget

Each quarter Norton and Jenkins prepared a detailed budget for the next three months, based on the annual plan, and recent operating experience and information from the market. Norton knew that in his fast-paced business, he could not manage with just an annual budget. He wanted to continually scan the environment and industry trends before locking into a hiring plan, an operating plan, and a budget for a period. For the quarterly budget, Jenkins estimated consulting revenues by multiplying together the expected number of full-time-equivalent (FTE) consultants at the firm, the number of hours available (450 per quarter) per FTE, the expected billing percentage (the ratio of hours billed to total hours available), and the average hourly billing rate. She calculated consultant expenses by multiplying the average compensation (including fringe benefits) per consultant by the number of FTE consultants. She then estimated operating expenses such as advertising, administrative support, education and training, information systems, occupancy, office expense, postage and telecommunications. **Exhibit 2** contains the budget and the actual financial results for the second quarter of 2000.

Assignment Question 2: Prepare a variance analysis report based on the information in *Exhibit 2*.

Expense Analysis

Jenkins knew that the budgeted operating expenses were neither entirely variable nor entirely fixed during the quarter. Some expenses varied during the quarter based on the number of consultants hired and working, while other were "fixed," independent of the number of consultants on board. Obviously, consultant expense varied with the number of consultants hired. Occupancy expenses, however, were fixed through the quarter unless she authorized the acquisition or rental of additional space. Expenses such as computing and telecommunications had both fixed and variable components. Because of the profit shortfall in Q2 2000, Jenkins knew that she had better be prepared to explain to Norton why expenses had exceeded the budgeted amounts. During the evening, she spent several hours studying the operating expense categories, eventually preparing **Exhibit 3**, which showed budgeted operating expenses by category and her judgment about their degree of variability. She also listed the actual operating expenses for the period on the exhibit.

Assignment Question 3: Prepare a spending and volume variance analysis of operating expenses based on the additional information supplied in *Exhibit 3*.

Billing Percentage

Jenkins wondered why if the actual number of consultants was nearly 8% higher than budgeted (see **Exhibit 2**), revenues had increased only 1%. Were consultants becoming less productive? She knew that a key operating statistic for consulting organizations was the percentage of time billed.

Assignment Question 4: Prepare an analysis of the revenue change, separating the volume effect (increase in number of consultants) from the productivity effect (billing percentage).

Lines of Business

Jenkins was, by now, getting quite tired and was looking forward to returning home to catch a few hours of sleep. As she prepared to leave, however, she realized that Exhibits 1 and 2 only reported on the aggregate financial performance of the firm. She knew that its two lines of business, Contract and Solutions, had quite different operating characteristics. Typically Richard Norton didn't want to get too involved in the details of these different business lines. But perhaps some of the decline in profit margin and lower revenue per consultant could be attributed to operating results within each of the two lines of business. Jenkins reluctantly returned to her desk and started to gather more detailed information about the Contracting and Solution business lines. Several hours later, she had produced the data shown in **Exhibit 4**.

Assignment Question 5: Prepare an analysis of actual versus budgeted revenues, consultant expenses, and margins using the additional information supplied in *Exhibit 4*.

Additional Analysis

Jenkins was finally driving home at 2 AM. She felt well equipped for the meeting the next morning but wondered about other forms of analysis she might have done if she had more time. For example, Norton had been quite pleased with the growth in revenues and billed hours. But was that due to good work by the firm, or had the overall consulting industry grown faster than expected during the quarter. In other words, was Software Associates increasing or decreasing its share of software consulting business? Also, Jenkins had assumed that operating expenses varied only with the number of consultants. She pondered whether the consultants from the Solutions business required more support than did the consultants in the Contract business. Also, did support expenses vary with the number of consultants, of either type, or with the number of hours they worked or billed? Within each business line, she had used an average billing and cost rate per consultant. Would she get additional insights by looking at the mix of consultants used within each business or even on each job to understand better the economics of the business. She resolved to think more about these issues in the upcoming quarter, but her most urgent task was to get some sleep before presenting her analysis to Richard Norton in a few hours.

Exhibit 1 Software Associates Income Statement, Q2, 2000

	Actual	Budget
Revenues	$3,264,000	$3,231,900
Expenses	2,967,610	2,625,550
Operating profit	$296,390	$606,350
Profit percentage	9.1%	18.8%

Exhibit 2 Budget and Actual Income Statement: Quarter 2 2000

	Actual	Budget
Revenues	$3,264,000	$3,231,900
Less:		
Consultants' salaries and fringes	$2,029,050	$1,748,250
Operating expenses	938,560	877,300
Total expenses	$2,967,610	$2,625,550
Operating profit	$ 296,390	$ 606,350
Profit %	9.1%	18.8%
Operating Statistics		
Number of consultants (FTE)	113	105
Hours supplied	50,850	47,250
Hours billed	39,000	35,910
Average billing rate	$83.69	$90.00

Exhibit 3 Expense Items: Budget Q2 2000

	Actual	Budget	% Variable
Advertising and promotion	$22,100	$15,100	0%
Administrative and support staff	225,000	191,250	80
Information systems	126,200	120,000	80
Depreciation	23,400	22,700	0
Dues and subscriptions	11,800	13,100	80
Education and training	36,200	38,900	80
Equipment leases	23,500	22,440	25
Insurance	33,600	32,200	0
Professional services	39,500	34,700	0
Office expense	42,100	36,550	100
Office supplies	86,200	89,600	80
Postage	27,300	24,700	80
Rent - real estate	117,260	117,260	0
Telephone	40,000	38,500	100
Travel and entertainment	57,800	56,300	100
Utilities	26,600	24,000	25
Total	$938,560	$877,300	

Exhibit 4 Line of Business Budget and Actual Operating Statistics: Q2 2000

	Contract	Solutions	Total
Actual			
Number of consultants (FTE)	64	49	113
Billed hours	24,000	15,000	39,000
Billed revenues	$1,344,000	$1,920,000	$3,264,000
Hours supplied	28,800	22,050	50,850
Consultant costs	$1,036,800	$992,250	$2,029,050
Budget			
Number of consultants (FTE)	56	49	105
Billed hours	20,160	15,750	35,910
Billed revenues	$1,088,640	$2,143,260	$3,231,900
Hours supplied	25,200	22,050	47,250
Consultant costs	$756,000	$992,250	$1,748,250