

CASE PROBLEM

THE UNIVERSITY BOOKSTORE STUDENT COMPUTER PURCHASE PROGRAM

The University Bookstore is owned and operated by State University through an independent corporation with its own board of directors. The bookstore has three locations on or near the State University campus. It stocks a range of items, including textbooks, trade books, logo apparel, drawing and educational supplies, and computers and related products, including printers, modems, and software. The bookstore has a program to sell personal computers to incoming freshmen and other students at a substantial educational discount, partly passed on from computer manufacturers. This means that the bookstore just covers computer costs, with a very small profit margin remaining.

Each summer all incoming freshmen and their parents come to the State campus for a 3-day orientation program. The students come in groups of 100 throughout the summer. During their visit the students and their parents are given details about the bookstore's computer purchase program. Some students place their computer orders for the fall semester at this time, whereas others wait until later in the summer. The bookstore also receives orders from returning students throughout the summer. This program presents a challenging management problem for the bookstore.

Orders come in throughout the summer, many only a few weeks before school starts in the fall, and the computer suppliers require at least 6 weeks for delivery. Thus, the bookstore must forecast computer demand to build up inventory to meet student demand in the fall. The student computer program and the forecast of computer demand have repercussions all along the bookstore supply chain. The bookstore has a warehouse near campus where it must store all computers because it has no storage space at its retail locations. Ordering too many computers not only ties up the bookstore's cash reserves, it also takes up limited storage

space and limits inventories for other bookstore products during the bookstore's busiest sales period. Because the bookstore has such a low profit margin on computers, its bottom line depends on these other products. Because competition for good students has increased, the university has become very quality conscious and insists that all university facilities provide exemplary student service, which for the bookstore means meeting all student demands for computers when fall semester starts. The number of computers ordered also affects the number of temporary warehouse and bookstore workers who must be hired for handling and assisting with PC installations. The number of truck trips from the warehouse to the bookstore each day of fall registration is also affected by computer sales.

The bookstore student computer purchase program has been in place for 14 years. Although the student population has remained stable during this period, computer sales have been somewhat volatile. Following are the historical sales data for computers during the first month of fall registration:

<i>Year</i>	<i>Computers Sold</i>	<i>Year</i>	<i>Computers Sold</i>
1	518	8	792
2	651	9	877
3	708	10	693
4	921	11	841
5	775	12	1,009
6	810	13	902
7	856	14	1,103

Develop an appropriate forecast model for bookstore management to use to forecast computer demand for next fall semester and indicate how accurate it appears to be. What other forecasts might be useful to the bookstore?