

FOREIGN TRADE

Imported hardware has been hard hit by the devaluation of the peso and the economic crisis which followed. While services have been less affected, the crisis has created an advantage for local firms and products. Software has suffered the least because it is relatively inexpensive, and because customers have made considerable investments in hardware over the past two or three years.

According to estimates from the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, the total software market in Mexico totalled US \$460 million in 1994. By some estimates, import penetration exceeded 80 percent. There is no official data on foreign trade in computer services. The total Mexican services market was about US \$1.1 billion in 1994.

The United States claimed an 85 percent import market share for software and computer services in 1994. Canada's share was about 2 percent. Other significant suppliers were Ireland, Taiwan, Denmark and the United Kingdom.

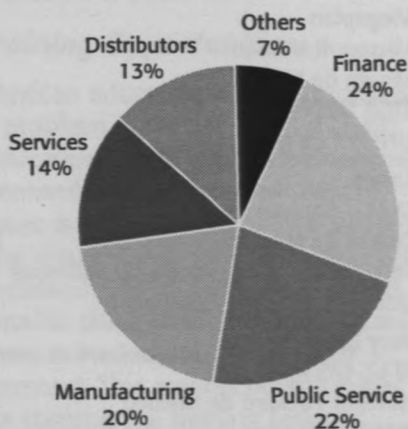
CUSTOMERS

The devaluation of the peso has constrained the computer market, just as Mexican firms had been freed to import badly needed foreign technology. The need continues, even if the ability to finance imports does not. Until the crisis is resolved, the demand will be for software that maximizes the productivity of existing hardware. In particular, industry observers say that there is a strong demand for software packages aimed at specific industries or industrial processes.

Computer sales by sector for 1992 have been estimated by *Servicios de Estrategia en Electrónica (Select)*, a

consulting firm based in Mexico City. Industry observers believe that this distribution will continue to be representative of the market for the next few years.

Computer Users by Sector



Source: *Servicios de Estrategia en Electrónica*. 1992.

Financial Sector

The financial sector is the largest group of end-users. Banks are the largest customers in this sector, followed by stock brokerage houses and insurance companies. The sector includes about 500 institutions.

Government Agencies

Government agencies comprise the second largest group of customers. Government agencies use the full range of packaged software, but many applications are developed in-house, sometimes with links to commercial packages.

Retail and Wholesale Distribution

Retailers and wholesalers are the third largest group of computer users. The biggest demand is for administrative applications, including payroll. Point-of-sale systems are being increasingly demanded by retailers, particularly large supermarkets and chains.

Wholesale distributors are struggling to meet rising demands from their customers for just-in-time (JIT) delivery, and this creates a demand for specialized packages.

Manufacturing and Processing

The manufacturing and processing industries are substantial computer users. The most-frequently used software applications are for payroll, word processing, spreadsheets, accounting and project management. Companies in this sector also use process control applications, but many of these are developed in-house.

Service Sector

Companies offering consulting services to business are under increasing pressure to become competitive and many of them are computerizing their operations. Typical applications include project planning and professional billing.

Educational Institutions

Educational institutions, especially the larger universities, are important users of computer systems. The *Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM)*, Monterrey's Technological Institute and the *Universidad Nacional Autónoma de México (UNAM)*, National Autonomous University of Mexico, have the largest installed base.

COMPETITION

Most of the major computer manufacturers are active in the Mexican market. The market shares established by these companies has an influence on software sales because of the software that is usually bundled with them. The market is dominated by the large international companies. ACER alone claimed 29 percent of the market in 1994, and the top ten companies combined hold a market share of almost 90 percent.