computers are used for applications such as feasibility studies, payroll, billing and personnel management.

In addition to the banks, the financial sector consists of about 75 insurance and service companies, all of which are highly computerized.

COMPETITION

Canadian firms have competitive advantages in certain market segments, but they must compete with established Mexican suppliers, as well as the many international corporations already active in the market. Given this broad competition, some of the more successful Canadian companies operating in Mexico have concentrated on market niches where they have a particular advantage, or have formed consortia with other Canadian companies.

Computers and Software

The computer hardware market is dominated by the larger producers, or by their Mexican partners. U.S. companies account for 80 percent of imports. About two-thirds of computer software is sold by computer manufacturers or their distributors. The rest is sold through software houses.

There are roughly 100 software producers in Mexico, most of them in the Mexico City area. Domestic producers specialize in Spanish programs for the local market, although there are some exports to the U.S. and Canada.

The level of competition is expected to increase due to Asian manufacturers aggressively entering the market, as they have in the U.S. and Canada, and to the increasing market share being claimed by personal computers.

Telecommunications

The Mexican telecommunications industry is highly competitive. Local production, which supplied 80 percent of apparent consumption for several years, dropped to 52 percent in 1990 and is expected to fall further as foreign companies take advantage of the government's trade liberalization policies.

INTERNATIONAL TELECOMMUNICATIONS COMPANIES OPERATING IN MEXICO

AT&T	MCI
Bull	NEC
CGE	Northern Telecom
Ericsson	Philips
Fujitsu	Siemens
Hitachi	U.S. Sprint
IBM	

Source: Vérut, Caroline. *Market Study on the Mexican Market for Computers and Software*, Mexico City: Canadian Embassy, 1991, page 22.

The United States accounts for about two-thirds of all imports, and European and Japanese competitors are actively trying to increase their market shares. Other countries have penetrated this market by offering attractive financing arrangements.

OPPORTUNITIES IN THE COMPUTER AND SOFTWARE SUBSECTORS

The larger users of computers in Mexico, such as government agencies and the banks, tend to be fairly well served by current suppliers. Canadian suppliers of custom software, such as SHL Systemhouse and Cognos, have been the most notable Canadian success stories in this market but there are growing opportunities to supply information technology to small and medium-sized companies who are only beginning to use computer technology. These companies tend to use PC-based systems, but there is also a market for mainframe timesharing.

There is a trend towards greater use of the more sophisticated personal computers, although there is still a large installed base of 8088/8086 systems. The market for microcomputer software is growing rapidly and is heavily biased towards IBM-compatible products. Multi-user environments are becoming increasingly common, generating a market for networks using personal computers as intelligent workstations.

The market for mainframe software is strongly oriented towards customized applications. Illegal copying of software is common in Mexico, but has been the subject of increased law enforcement efforts.


MAJOR COMPUTER COMPANIES OPERATING IN MEXICO

Hardware	Software
IBM	Software A.G. de México
Unisys	Siga Desarrollo
Hewlett Packard	Microsoft Corp.
Sigma Commodore	Sistemas Integrales de Cómputo
Digital Equipment Corp.	Execuplan
Honeywell Bull	Apemex
Control Data	Softron
Tandem	Datanet Sistemas
Micrológica Aplicada	Grupo Tea
Mai de México	Computer Associates
Infosistemas	Micro Negoplan
Cromex	Kuazar

Source: Vérut, Caroline. *Market Study on the Mexican Market for Computers and Software*, Mexico City: Canadian Embassy, 1991, section 3.3.

SOFTWARE SALES BY COMPUTER TYPE IN MEXICO (Estimated)
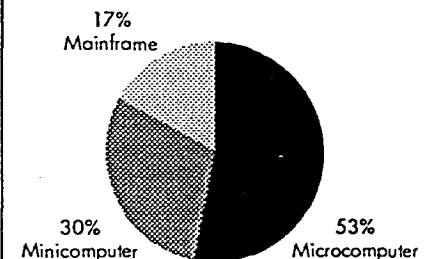
17% Mainframe
30% Minicomputer
53% Microcomputer

Source: Vérut, Caroline. *Market Study on the Mexican Market for Computers and Software*, Mexico City: Canadian Embassy, 1991, chapter 10, page 15.