

4. EUROPE 1992: SMALL- AND MEDIUM-SIZED BUSINESS STRATEGIES

Within the Single Market there will be plenty of niches for small- and medium-sized high-tech firms. Although for most immediate impact of Europe 1992 will be the rationalization of European firms, there will be opportunities for many smaller firms as well. Since most Canadian firms in the telecommunications and computer sector are relatively small their opportunities will almost certainly be limited to product niches where the up-front R&D costs do not require large scale and market share. Thus, we approach the issue of strategies available to small- and medium-sized firms wishing to enter the EC market by asking what factors contribute to niche firm success in a high-tech market.

4.1 Elements of Success of a Niche Strategy

In an age of giant mergers and globalization, it is important to understand that in many high-tech industries economies of scale (sheer size) are not always present. The muted role of economies of scale in many high-tech industries is attributable, in part, to two factors: (1) product-specific learning often outweighs sheer firm scale and (2) unless development costs are great, there are limited economies of scale in the innovation process. For example, there is much evidence that large firms spend *proportionately* less on R&D than do small- and medium-sized firms, although the likelihood that a firm does R&D rises with firm size. Moreover, in high-tech industries more and more innovation is being done by smaller firms. In this regard small- and medium-sized Canadian telecommunications equipment firms have an excellent record.

The type of economies particularly important in the production of many telecommunications and computer products are production run-learning economies.

The fall in unit cost that results from a doubling of cumulative production is estimated to be on the order of 30 per cent for electric components and microcomputing.¹⁵ A doubling of cumulative production implies longer production runs and should be distinguished from a doubling of the *rate* of production, which is the basis for determining the existence of economies of scale. One reason why there are cumulative output economies is learning-by-doing. It is contended that once artificial barriers to trade in telecommunications equipment are eliminated, production costs will fall simply as a result of the assembly line and quality control economies associated with learning. The obvious implication is that high-tech firms which specialize, find their niche, and concentrate on expanding the market for their product can achieve unit cost reductions comparable to or greater than those associated with the mere size of plant or firm (economies of scale proper).

Where have niche firms succeeded in the telecommunications and computer sector? Chiefly in the CPE, microelectronic products, and computer services and software markets. How have these firms succeeded? Often by using learning economies, new ideas, acquired know-how, and marketing capabilities as means of gaining a substantial share of, or even dominating, their niche market.

4.2 Learning to Dominate

We can think of niche firm success as "learning to dominate" a market. When there are learning curve economies and when a firm's ideas, know-how, contacts and marketing capabilities allow it to successfully move into a highly specific market, it is likely that the firm will for a time have a significant market share of, if not dominate, its market.