

2072 COMPETITIVE PROBLEMS IN THE DRUG INDUSTRY

therapeutic class.¹⁴ At the same time, however, a vigorous form of rivalry has developed, which has taken the form of what Dr. Penrose has termed "competition in creativity".¹⁵ A policy of competitive innovation seems to have been formulated by the individual firms, and research laboratories have been established as a vehicle of this policy. Profits have come to depend primarily on the firm's position in the innovative race, and the cost of an organized and efficient research effort may be regarded as a necessary expense of entering the race. Once some firms had taken this position, moreover, others were forced to follow in order to maintain their market positions relative to their rivals.

In this manner the growth of pharmaceutical research establishments has been stimulated to a considerable extent by competitive pressures. Not only has the latent price competition, arising from these pressures, impressed upon the larger firms the need to achieve effective product differentiation, but also a highly competitive form of research and development has been promoted. Competitive factors have influenced the direction and scope as well as the size of research establishments.

PRODUCT COMPETITION WITHIN THERAPEUTIC MARKETS

The expansion of pharmaceutical research facilities and the concomitant increase in the introduction of new products have given rise to a rapid rate of product obsolescence. New products have competed with older ones, and the latter have been rapidly replaced by the former. By 1960 only 31 per cent of sales accrued from products introduced before 1951.¹⁶ As may be seen in Table 2, the sales of products introduced in a given year normally reached their peak (as a proportion of total sales) in the second year following their introduction; after that they declined rapidly in relative importance. New products were introduced, reached their peak, and declined; and all within a relatively short period of time.¹⁷

TABLE 2.—SALES OF PHARMACEUTICAL PRODUCTS BY AGE OF PRODUCTS

Year of introduction of products	Percent of sales									
	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
1960.....										4.6
1959.....									7.1	10.5
1958.....								4.7	7.2	7.3
1957.....							10.1	16.8	16.7	15.1
1956.....						5.8	9.0	8.4	7.7	6.6
1955.....					9.0	18.7	15.9	11.4	10.2	8.2
1954.....				7.4	13.7	12.8	10.8	10.2	8.8	8.1
1953.....			5.4	16.0	14.8	12.1	9.8	7.2	5.8	4.7
1952.....		4.6	9.5	7.7	6.1	4.8	4.4	4.0	3.1	2.9
1951.....	1.1	1.7	1.6	1.1	.8	.7	.6	.6	.6	.6
Before 1951.....	98.9	93.7	83.5	67.9	55.6	45.1	39.5	36.7	32.8	31.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Arthur D. Little, Inc., "A Report on the Aspects of Concentration and Product Obsolescence in the Pharmaceutical Industry in the United States," p. 33.

The table is based on a sample of 33 firms, comprised, for the most part, of the larger firms in the industry. These firms account for approximately 80 percent of industry output.

¹⁴ A similar view was expressed by the Senate Subcommittee, which reported: "When a new product is put on the market, the customary procedure is to introduce it at or very near the price charged for an existing drug used to treat the same general type of ailment". Senate Report, *op. cit.*, p. 98.

¹⁵ E. T. Penrose, *The Theory of the Growth of the Firm*, p. 106. "In the United States . . . a kind of 'competition in creativity' has become a dominant motif in the pattern of competitive behavior in many industries, where consumers and producers alike are caught up in an almost compulsive obsession for that which is 'new'. In the extreme case the individual firm is forced constantly to remould its products—to create the 'new' and 'improved' either in performance or design. To a large extent the new products are superior in performance: to a considerable extent they are merely new and can be sold only if the consumer can be convinced that the 'newest' is the 'best'."

¹⁶ Arthur D. Little, Inc., *A Report on the Aspects of Concentration and Product Obsolescence in the Pharmaceutical Industry in the United States*, p. 33.

¹⁷ Somers and Somers report that the average life-span of a new drug is said to be between two and five years. Herman M. Somers and Anne R. Somers, *Doctors, Patients and Health Insurance*, p. 96.