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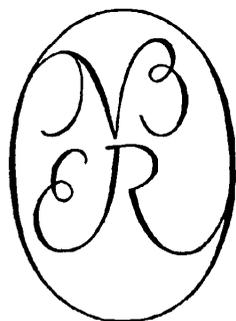
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**DIVERSIFICATION AND INTEGRATION
IN AMERICAN INDUSTRY**

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in American Industry

By MICHAEL GORT



A STUDY BY THE
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(Resolution adopted October 25, 1926, as revised February 6, 1933, and February 24, 1941)

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MICHAEL GORT

Foreword

THERE never was a business with only one productive process and one final product; there never will be. A firm that merely bought and sold the same commodity would find that it was engaged in a host of different productive processes—collecting information, lending or borrowing, keeping records, safeguarding goods or the titles to goods, making tax returns, and what not. A firm that appears to make only “one” product almost always makes this product in a variety of qualities, with differing sizes of order, speeds of delivery, period of payment, etc. Diversification and integration in the strictest sense are universal.

Diversification usually connotes more than the performance of a variety of productive activities within the firm—in some sense the activities are not closely related in a technological or economic sense. When Willard Thorp made the first statistical study of the structure of manufacturing companies, he distinguished five kinds of relationships between the plants belonging to one firm:

1. Uniform functions—the plants make the same product.
2. Divergent functions—by-products, joint products, similar production processes.
3. Convergent functions—complementary products, auxiliary products, similar markets.
4. Continuing functions—vertical integration.
5. Unrelated functions.¹

Of these, only the fifth class might be termed “pure” diversification. Thorp found such unrelated activities to be rare, and essentially accidental.

On this pure view of diversification, where the concept does not include even the dissimilar products with a common market, diversification is necessarily an act of pure investment, devoid of any operating connections (other than those entailed by common ownership) between the plants. This, however, is probably still an unimportant category—usually it is possible to find *some* connections: use of the same salesmen, appeal to the same customer, utilization of the results of a research laboratory, and so on.

And if we view diversification broadly as the encompassing within a single company of two or more activities each of which constitutes the sole activity of more specialized companies, diversification is a very widespread phenomenon. How widespread it is, of course, depends upon how finely we divide the activities (or “industries”). In our first census of

¹ *The Integration of Industrial Operations*, U.S. Bureau of the Census, 1924, p. 161.

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companies (as distinguished from plants) in 1954, it was found that of the 263,100 companies assigned to manufacturing, 259,700 operated in only one industry—where the industry was a fairly broad “3-digit” industry, to be sure. But the 3,400 companies operating in more than one industry had more than one-third of the employees in manufacturing; and of their 9.1 million employees—an average of almost 3,000 per company—3.6 million were in nonmanufacturing industries. On the other hand, a seventh of the employees in manufacturing worked for companies assigned to other areas. And the role of diversified enterprises would of course be larger with a finer (4-digit) underlying industry classification, which one would prefer to use.

Michael Gort now provides us with the first comprehensive study of the interindustry structure of the large, diversified enterprise. In order to trace the history of diversification as well as to analyze the causes which have been proposed for its development, his basic statistical record covers 111 of the largest companies in the country, for which the product structures in 1929, 1939, 1947, 1950, and 1954 have been compiled. These enterprises do not exhaust the list of even diversified large companies, since it was advisable to cluster the sample; but judged either by their own importance or as samples of all diversified enterprises, Gort’s record makes an essential and illuminating contribution to our knowledge of the area.²

These 111 companies were operating in an average of 9.7 (4-digit) manufacturing industries in 1954, and 36 per cent of their activity (measured by payrolls) was in the nonprimary industries. They were making an average of 15.6 products, in addition to operating in another 4.8 non-manufacturing industries. There is some evidence of a recent acceleration in diversification: these companies together added 40 to 50 products a year from 1929 to 1950, but twice as many from 1950–54.

How can we explain this increasing and (among the 111 companies) even accelerating diversification, when one of the most famous theorems in economics says that the division of labor increases with the size of the market? There are, of course, contrary hypotheses—such as that businessmen wish to achieve a greater stability of operations than specialization allows (Gort finds that the product additions are generally in relatively

² In a recent unpublished Columbia University dissertation by Jerome Strong, a somewhat less intensive study has been made of diversification of companies of smaller size—most of Gort’s companies are among the 200 largest in the country, whereas Strong’s are on average nearer the 800th largest in rank. Although diversification was much less extensive among these medium-sized companies (they produced an average of 3.8 4-digit products in 1954), they displayed the same acceleration in recent years as the large companies.

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unstable industries, however), or that businessmen seek entry to young, rapidly growing industries. (He finds such a tendency, but with no resulting relationship between diversification and profit rates.)

One more attractive explanation lies in the ability of large companies to raise capital at relatively attractive terms. The industries which the diversifying firms enter commonly have large average sizes of firms. In addition there is a strong tax incentive to diversification: if a corporation invests in a new industry instead of paying out its earnings and allowing stockholders to make the investment, the stockholders are postponing personal income taxes (and perhaps converting income into capital gains).

Gort's is only the most recent of a long series of National Bureau studies dealing with the firm structure of industries and the product structure of firms, a series which in recent years has included Rosenbluth on concentration and Nelson on mergers. But the forces of diversification seem to be much stronger in economic research even than in large corporations: it is instructive that the problem of industrial organization insists on spilling over into areas such as business finance, taxation, and technological advance, so that a full list of the National Bureau's relevant work would be a tolerable sample of its entire research program.

I suspect this is a sign that we are progressing in our understanding of the structure of our surpassingly complex economy. The initial studies of a subject concentrate upon its most immediate and dominant characteristics, and only after these begin to be understood and measured do the subtler and wider-flung relationships beckon for attention. When Gort fixes the main contours of diversification and raises a host of questions on its relationships to other aspects of economic life, he is illustrating the most fundamental characteristic of the scholar, for whom research means much more the discovery of relevant questions than the giving of conclusive answers.

GEORGE J. STIGLER

