

Size and Commercial Efficiency

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The motive for a study of the effects of size, or in the economists' language "economies of scale", on co-operative retailing was provided by "A Co-operative Official" who, writing in the *Co-operative News* of 31st August 1968, pointed out that "in 1966, 70 societies of the size recommended (by the Regional Plan) already had 55.61 per cent of the membership" and "one would have thought that these societies would already have benefited from the advantages which are indicated as likely to come from regionalised functioning." In other words, regional societies are already with us, and it seemed sensible to try and make some comparisons between the performance of these and the smaller societies in order to measure, in a quantifiable form, the economic benefits of increased size. Much of the argument on the merits and demerits of regionalisation has been impressionistic, since there is no clear indication of *how much* better a regional society is likely to perform, and *how much* of this is due to its size alone.

TECHNIQUES OF STATISTICAL ANALYSIS

There are established techniques of statistical analysis which enable variations in some characteristic of the subjects being studied to be quantitatively related to variations in each of several other characteristics. For example, societies differ in a number of ways, including their rate of return on capital employed, annual sales per full time equivalent employee, food sales as a proportion of total sales, dividend rate, proportion of staff holding certain qualifications, geographical location and, of course, size (measured in various ways). Given a sufficiently large response from societies over a wide range of sizes it may be possible to relate some of these variables to each other. Of course, the fact that two characteristics often occur together does not tell us which is cause and which effect, and we depend for this judgement on our theories of how the system under investigation works. For example, annual sales per full time equivalent retail employee may be affected by:

- (1) the proportion of food sales to total sales of the society (since turnover per head is highest in the food trades)
- (2) the dividend rate (since a high rate of dividend may be an incentive to sales, provided it is not reflected in uncompetitive prices)
- (3) the academic qualifications of management (which should enable a society of any size to be more efficiently run)
- (4) geographical location (since one might expect sales per employee to be greater in a prosperous area)
- (5) the size of the society (because of the advantages of size mentioned in the Regional Plan, e.g. larger units, more scope for specialised personnel, and greater buying power reflected in keener prices).

In the course of the study some 350 questionnaires have been distributed to retail societies in England and Wales through the good offices of the Co-operative Union, and at the time of writing 77 have been returned. Of these 19 are from societies of 'regional' size (50,000 members and over), and if the Plan is correct in its judgement of the relationship between size and commercial efficiency one would expect to find significant differences in performance between such societies and the rest. To some extent these differences may be explained by factors other than size, and the analysis to be used is capable of making allowances for this and of giving an estimate of the effect of each factor separately.

STANDARDS OF EFFICIENCY

One of the most difficult aspects of the study is the choice of general standards of efficiency to be applied to all societies, whatever their circumstances. Valuable work on this topic has been done by D. G. Hopwood and D. W. Birch, Manchester College of Commerce (reported to the 1969 Conference of the Society for Co-operative Studies and in "*Co-operative Management and Marketing*"), who show that societies differ in their financial objectives and often have no clear objective. It is clear that the rate of dividend on sales, historically an important criterion of efficiency, is inversely related to size of society, and that there are serious shortcomings in using it to judge efficiency. Increasing importance is attached to productivity and to rate of return on capital employed, and objectives of revenue maximisation or of surplus maximisation are finding favour.

While computation on the data gathered has not yet begun, since some additional response is in prospect, preliminary work has shown that the median rate of return earned by the smaller responding societies on their capital employed was 6.9 per cent in 1968, compared with 8.5 per cent by the societies of "regional" dimensions. If both these figures seem low compared with those often quoted when co-operators rebut criticism of low dividend rates it is because some care has been taken to value assets at their true cost or replacement value. In fact these figures are an over-estimate as the asset figures are based on insurance valuation which generally excludes land as indestructible. The more detailed analysis to be undertaken may reveal further differences in efficiency between large and small societies, or it may be that "A Co-operative Official" was correct when he wrote "size seems not to be a major factor".