THE PLANT LOCATION DECISION PROCESSES: A COMMENT

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Professor Dean has presented an interesting and detailed description of the plant location decision making process in several different firms. His study suggests several areas which merit further inquiry and the following comments are concerned with these:

The objective function of the firm, properly defined, determines a plant's location decision. If this objective function is clearly profit maximization, as in the XYZ case study, then the only constraints on location are those determined by marketing considerations. This is the profit maximizing firm found in microeconomic theory and often used in location models.

On the other hand, it is argued that the objective function of the smaller firm often reflects the entrepreneur's utility function. He may, for instance, have a strong preference for locating the firm near his present home. This preference is reinforced by the cost of acquiring information about locations outside his awareness space. These dissimilar objective functions are the poles of a wise spectrum of firm sizes and/or objective functions.

For purposes of location theory and public policy it would be helpful to know which objective function is associated with a given firm. Without this information it is not certain whether firm size is an adequate proxy for a firm's objective function or whether other indicators might be used to estimate the constraints upon the firm.

It should also be noted that the discussion of space illustrates the importance of the costs of gaining information. Firms will try to locate in the most profitable location but do not have perfect information about all available locations. Consequently they will limit their search to the point where the marginal cost of gaining the information will be equal to their estimate of possible marginal savings. The awareness space in Dean's paper is a space where costs of information are lower than outside it. The activity space is characterized by even lower costs of acquiring information because the firm already has some direct contracts. The activity space of a large, national, multi-plant firm may be a potential significant economy of scale in plant location decisions. This possibility could be tested empirically.

More case studies of firms' location decision-making processes, such as in Dean's paper, would make it easier to generalize the role of objective functions and information spaces in these critical location decisions.

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