Book Review

J. J. Gabszewicz : Strategic Interaction and Markets, Oxford University Press, 1999.

The earliest contributions to the theory of imperfect competition were made by two French economists, A. Cournot and J. Bertrand. Cournot developed a model in which firms select quantities. The setting of the corresponding price is left to somebody similar to a Walrasian auctioneer. Bertrand considered a case where firms compete in prices and showed that in a homogeneous goods market, price competition leads to the dissipation of all supernormal profits. In retrospect, the results they obtained have turned out to be the starting points of much of the subsequent developments in this area. It is therefore perhaps fitting that a contemporary French economist should have written a book entirely devoted to imperfect competition.

In the standard course on Microeconomics, the analysis of market structures is taken up in the second half of the course. Once the normative properties of perfectly competitive equilibrium are laid out, it becomes easy to consider imperfectly competitive markets and work out the departures from the perfectly competitive results in such markets. Non-price strategies are not considered in any detail and product differentiation is taken note of only to show the possibility of results that contradict the Bertrand equilibrium. On the other hand, courses on Industrial Organisation focus primarily on imperfectly competitive market structures and look at both price and non-price strategies available to firms.

Prof. Gabszewicz has written a book that amplifies the second half of the Microeconomics course and yet stops short of being a book on Industrial Organization. The book focuses almost entirely on pricing strategies, with a couple of interesting digressions on the choice of product quality.

The starting point in the book is the concept of perfect competition and the related assumptions. Contrary to the prevailing notion of competition as a bloody battle, "...firms in textbooks behave extremely gently with respect to their rivals : they simply ignore their existence!" Prof. Gabszewicz

identifies the assumptions behind perfect competition as (a) an atomistic framework relying on the premise of large numbers, (b) product homogeneity, (c) free mobility and (d) perfect information, and relaxes them one by one in the subsequent chapters.

The large numbers assumption partly rests on the free mobility of resources. When existing firms in an industry make supernormal profit, new firms are attracted to the industry and the resultant increase in supply reduces profit to the normal level. There are two ways firms can try to stop this process. One is by colluding, i.e., by coordinating decisions of the firms in the industry. As is well-known, it is not easy to reach collusive agreements or implement them - the Prisoners' Dilemma game alerts us to the incentive of any partner in a collusive agreement to cheat if everybody else is sticking to the agreement.

The second way to preserve a small numbers situation is by erecting entry barriers. The author makes a useful distinction between competitive entry and strategic entry. Competitive entry denotes a situation where each firm acts as a price-taker and ignores the consequence of its entry. In strategic entry situations, firms are conscious about the effect of their entry decisions. Compared to the former, in strategic entry situations a larger number of firms can enter before supernormal profits fall to zero. Even when supernormal profits fall to zero, price still remains above marginal cost. (Of course, these results are based on the presence of a fixed cost component). The author briefly reviews the limit pricing literature and Dixit's analysis of excess capacity formation as a barrier to entry. However, the treatment of entry barriers is rather sketchy.

The best chapter in the book is the one on product differentiation (Chapter 4). It is simple and lucid and employs numerical examples to illustrate the concepts at every stage. It begins with a couple of models of quality selection by a monopolist. It is shown that in addition to the familiar deadweight loss incurred under monopoly, there may arise problems of inappropriate choice of quality/quality level. There follows next a nice discussion of Hotelling's model and a model of vertical product differentiation. The effects of entry are also analysed. Results from product differentiation

models are notorious for not being robust. The discussion in the book does not focus on the specifics of the derivation of the results of models. But it manages to delineate the "boundaries" of the applications of the models and how and why results can change when assumptions are broadened.

The chapter on imperfect information is based on papers written by the author himself. This allows a continuity of treatment, particularly since the author takes pains to point out how the basic structures of these models correspond to the Hotelling model. But of necessity, the treatment is limited in scope. Two topics have been dealt with, the first dealing with imperfect information about prices and the second with imperfect information about quality. Consider first imperfect information about prices. Consumers have imperfect information about the prices set by firms in a particular industry. They try to improve their information but search costs introduce an inertia into the process. Rival firms can then try to manipulate their prices in order to create incentives that slow down the search process.

The second topic deals with the strategic behaviour of firms facing imperfect information held by consumers about quality. Suppose that there are two firms that sell two qualities of the same product. A particular consumer will have certain beliefs about which firm sells which quality and these beliefs may or may not be correct. It can be shown that the firm with a better reputation always quotes a higher price in equilibrium. Another interesting result is that from the point of view of consumers, it is better that there exists a dispersion of beliefs. Otherwise all consumers would assign to each firm the same probability of selling the high quality product. The firm which has been assigned a higher probability will be able to exclude the rival firm from the market and charge a very high price at the expense of consumer welfare. The model can be modified to take account of the possibility of firms launching information campaigns to change the existing beliefs.

The last chapter introduces imperfect competition into general equilibrium models. It starts with a review of the concept of the core and its relationship to the set of competitive equilibria. Next, oligopolistic structures and collusive coordination are introduced. One of the interesting issues analysed relates to the possibility of one or few traders holding all the initial

endowment of a certain good, rather than the initial endowments being dispersed among many traders. To quote the author," ...while only the competitive allocation would remain in the core when the initial ownership of both goods is adequately spread, monopoly generates possibilities of exploitation in the core in the favour of the monopolist, compared with his utility at the competitive solution".

There are a couple of typographical errors in this chapter which should be corrected in a later edition. For example, the solution to the maximization problem on page 83 is $(1/2pn, 1/2n)$, and not $\{(1/2)pn, (1/2)n\}\}$ as in the text. Moreover, some of the references in the book are to papers written in French, which might be inaccessible for the general reader.

Prof. Gabszewicz's book is going to be very useful as a supplementary text in courses on Microeconomics or Industrial Organization. In particular, the numerical examples used in the various chapters will be extremely useful as pedagogical tools. At the end, one is left feeling that Prof. Gabszewicz might have invested more time in amplifying some of the topics and giving more detailed derivations, perhaps in appendices. This would have definitely been more helpful to both teachers and students.

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Quantitative Methods for Valuation of Financial Assets by A. S. Ramasastri, Response Books – A Division of Sage Publications, New Delhi, 2000, Rs. 325 (cloth) and Rs. 175 (paper).

The book is meant for practioners who need to value financial assets. The author has answered 100 questions selected by him in the area of bonds, equities, portfolios and options.

The author has explained application of spreadsheets using MS Excel for quick calculation of financial returns, indicators etc. This will certainly help the practising professionals and managers.