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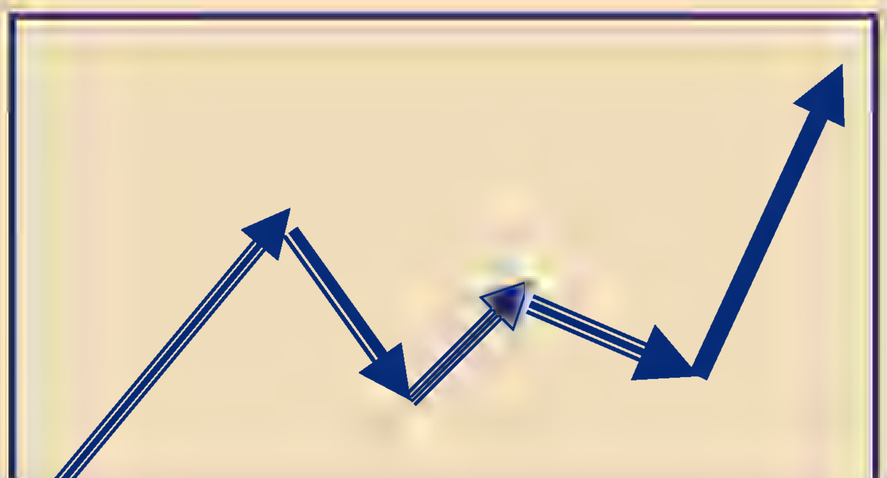
AN INTRODUCTION TO A THEORY OF MARKET COMPETITION

Volume I



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S. PIASECKI, J.W. OWSIŃSKI, AN INTRODUCTION TO A THEORY OF MARKET COMPETITION

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INTRODUCTION

This book contains the results of work done at the Systems Research Institute of the Polish Academy of Sciences in Warsaw during the years 2002-2006, partly reported in the internal Research Reports of the Institute, Piasecki (2002-2004), nos. RB/74/2002, RB/19/2003 and RB/9/2004.

The notion of market competition is always associated with economic, or business, activity, consisting in satisfying the needs of the "market", this notion referring to a definite group of consumers. In order to satisfy these needs, certain products or services are offered. As we analyse the process of market competition, we can easily note that the winner on the market is the one, who offers a more attractive product. This means that the product has higher utility than other products, satisfying the same need of the customer group considered.

Yet, answering in greater detail why one product is more attractive than another one (equivalent to its utility assessment) is not so easy. We can mention here two components of such an assessment.

Namely, a product can be attractive in terms of price and of quality. With respect to the former, product price, or, more generally, total cost of its purchase and use, might be lower than that of the competing products. As far as the latter is concerned, we might think of the aspect (e.g. colour), convenience of use, and other non measurable factors of psychological character.

The study presented neglects the role of advertising, which is meant to shape in such a manner the psychological preferences of the customer as to make him/her buy a definite product, notwithstanding common sense.

Hence, we shall assume here that a customer behaves reasonably in making purchases.

Since we do not analyse in detail the sales chain, we can assume that a “product” is the same thing as “good” or “commodity” that is being ultimately sold, and that it can consist of any definite bundle of produced objects and/or services, provided it is kept constant throughout the analysis.

It is common to admit that market price depends upon the relation between demand and supply, with demand increasing as price decreases, within, however, definite limits.

Supply is defined as the quantity of products, turned out by the producers. Every producer is driven by the principle of maximisation of own profits when establishing an own market policy.

We shall also assume that all companies considered dispose of similar technologies of production, transport and sales, with identical costs. The results, presented here, do not account, therefore, for the technological differences, which may secure an essential advantage of some companies with respect to the other ones.

We place the primary emphasis on our analyses on the factor of “production scale”, as influencing the unit cost of production and playing key role in the price competition on a common market. Let us note that price competition encompasses not only lowering of prices (retail of wholesale), but also involves granting of special credits, applying bonuses, participation in attractive lotteries etc.

The study considers the situations, which take place after a sufficiently long time period (in certain model cases this “sufficiently long time period” may go to infinity…). Thus, when it is stated that “there will ultimately remain one producer on the market”, this means that the smaller companies shall unavoidably have to go bankrupt after a certain time period.

In this here first volume of the study, considerations presented concern the optimum activity of an enterprise, allowing for its expansion, including the territorial one. A part of the conclusions forwarded refer to the optimum development of the distribution networks. In the last chapter the fundamental strategies of defence of the market share, belonging to a company, against the competitors, are described. If the analysis of the situation implies that we are not capable of defending our share, then we have to start "liking" our competitor, that is – to enter into cooperation with such a company.

In the second volume, which has yet another co-author, Andrzej Kurek, the primary subject of consideration is constituted by the offensive strategies, which ought to be undertaken in order to push the competitors away from the market.

Stanisław F. Piasecki

This book presents a complete exposition of a coherent and far-reaching theory of market competition. It is based on simple precepts, does not require deep knowledge of either economics or mathematics, and is therefore aimed primarily at undergraduate students and all those trying to put in order their vision of how the essential market mechanisms might work. Volume II, now in preparation, shall bring the theory to further problems and results.

The logic of the presentation is straightforward; it associates the microeconomic elements to arrive at both more general conclusions and at concrete formulae defining the way the market mechanisms work under definite assumed conditions.

Some may consider this exposition too simplistic. In fact, it is deliberately kept very simple, for heuristic purposes, as well as in order to make the conclusions more clear. Adding a lot of details that make theory more realistic – these details, indeed, changing from country to country, and from sector to sector – is mainly left to the Reader, who is supposed to be able to design the more accurate image on the basis of the foundations, provided in the book.

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