APPROACHES TO THEORETICAL ISSUES OF COMPETITION AND COMPETITIVENESS ANALYSIS

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Abstract

Market plays a key role in the allocation of resources and the distribution of impacts within the processes of interaction of individual economic entities. The market is the meeting place of supply and demand. The supply side consists of sovereign producers whose product, as a result of the selected combinations of the factors of production, tries to win the interest of demand under the conditions of competition with other competing producers. The demand side is represented by consumers with differing behaviour. There is a relatively large number of decision alternatives and product selections. Consumers can behave rationally as well as irrationally. These facts influence the market and the competition. The competition benefits consumers in case they behave rationally and have information, which enables them to choose from the offered products. These issues include traditional as well as new approaches, that will be outlined in this paper. These are mainly related to behavioural economics, which, in the analysis of economic processes and their behaviour, is based on psychological knowledge. This is also important in the field of competition as it defines how behavioural economics and deviations from rational behaviour influence the behaviour of consumers.

Keywords: market, competition, traditional and new approaches, behavioural economics

JEL Classification: L2, L23

Introduction

Competition and its protection is based on the fact that it has to be beneficial, effective, and also benefit consumers in cases when they behave rationally and have information enabling them to choose from the offered goods. A market with functioning competition benefits consumers by forcing companies to offer a wide range of products. If the consumers behave rationally, it also helps the competition. The task of competition is different in a situation, when consumers behave irrationally, i.e. in cases, when not enough attention is being paid to information and when firms cannot benefit from the information they provided. Therefore, it is needed to know the behaviour of firms, as well as of consumers. The aim of this paper is to deal with the already known approaches to the behaviour of firms and consumers, which we view as traditional, as well as new approaches based on knowledge in the field of behavioural economics that are connected with competition.

1. BASIC THEORETICAL BACKGROUNG

In his paper marking the 100th anniversary of founding The Economic Journal, J. A. Kay noted wittily and realistically at the same time that one of the most characteristic standpoints of managers and entrepreneurs towards economics and economic research is the statement that economics is only an attempt to forecast the future economic development while having insufficient knowledge about the development in the present (Kay, 1991). And indeed, almost 240 years after Smith's "Wealth of Nations" was published as the basic philosophy of liberal market economy of private ownership, it seems that the conflict between implementing

Marshall's representative (average) firms, consumers and markets into the model of economic equilibrium, which is being related bilaterally to the scale of factors and indicators of macroeconomic dynamics, and between the differentiated reality of daily specific business and the boom of a specific market is very large and complicated. The phenomenon of "averageness" of the neoclassical marginal analysis proved to be invalid in practice even before it was defined in exact mathematical terms. However, is it then possible, using the traditional apparatus of analysing demand, supply, average costs and revenues within the logic of Pareto- or *quasi* Pareto-optimality, to analyse the dynamics of microsphere with the awareness (and conviction) of the correctness of a certain degree of competition in economy as a guarantee of efficiency, optimal allocation and distributive fairness? Are not our ambitions, specified in the formulation of the intentional policy of supporting and protecting the competitive environment in economy with regard to the desirable state of the overall performance and growth of the national economy, unrealistic? If we maintain our positive approach to these ambitions, we have to (and this is an ever-recurring task) define at least the framework conditions for assessing the state of competition. These basic characteristics, dominating the traditional approach, are outlined in the following text.

1.1 Characteristics of the traditional starting points influencing market generation

Albeit trivial, it is always worth repeating: the market plays a key role in resource allocation and income distribution in the processes of interaction of the individual economic entities. It is a place where demand and supply meet and where the market price as the basic information for all types and hierarchies of these entities is created. The supply side is created by sovereign producers, whose product as the outcome of a combination of production factors chosen by them tries to win the interest of the demand under the circumstances of competition with other competing producers. If we tried to formulate the production function of producers (supply side) while strictly adhering to the conditions of the neoclassical marginal analysis in the best way possible, we could do so using Hicks' multi-product and multi-factor firm.

This model is characterised by a production function, based on the following assumptions:

- the firm is not limited by the usability of the production factors, i.e. it can freely transform them to produce an almost infinite group of products,
- the production function is continuous (with first and second order partial derivatives other than zero) and assigns a combination of independent factor variables to combinations of independent production variables,
- the initial character of production function is determined by the existing technical conditions of the firm, implemented by its engineers and technicians,
- the firm's production function is characterised by a descending marginal rate of technical distribution between any two production factors, a descending marginal product and an increasing marginal rate of product transformation between any two products,
- all production factors and products of the firm are perfectly divisible,
- parameters determining the firm's production function are not variable during a typical production period of the firm (in unified form – day, month, year, etc.).
- parameters of the firm's production function cannot take on the character of random variables (Hicks, 1939).

Of course, defining the general shape of the production function is not sufficient to provide an overall characterisation of the firm's behaviour. Most importantly, the decision-making processes of the firm (or its managers) require a minimum of three different types of information:

– information on production methods,

– information on the supply of production factors,
– information on the character of demand for the manufactured products.

Under the circumstances of the neoclassical marginal analysis, the information on the demand for the products usually occurs in two basic forms. The firms either know prices of all products (here, it is assumed that they are constant), or they know the function of their total revenues. In the case of perfect competition, it is assumed that the prices of all products of the firm are constant and independent of the level of their output (quantity of products). In a different case, it can be assumed that the firm knows the function of its total revenues, i.e. the relation between the total revenue and quantity of individual products. All types of information are based on a certain degree and character of knowledge about the demand for given products. Theories of demand are general theories on the character of the relationship between the purchased quantities of products and a given level of their prices. Until now, three basic concepts of demand analyses have been defined:

1. demand analysis based on the utility theory (assuming that there is a continuous utility function of the cardinal type),
2. demand analysis based on the assumption of perfect indifference curves,
3. demand analysis with the assumption of unstable preference.

The basic starting points of the first two concepts of demand analysis are well known. The third concept is relatively younger (Samuelson, 1948; Houthakker, 1950; Hicks, 1956). The advantage of this more realistic approach is abandoning the requirement of a perfect knowledge and clarity of indifference curves on the part of the consumer. Here, an *ex post* understanding of the consumers' behaviour is dominant, while it is assumed that there is a relatively large number of decision-making alternatives and consumer's choices in the given static market situation, and that none of them is definitively the most preferred. Hicks' version of the demand theory is based on the following conditions:

- the consumer is confronted with a finite range of products, while their prices are constant and known,
- when purchasing different products, the consumer is limited by a fixed income,
- the consumer behaves according to the scale of preference,
- the order in the scale of preference is of a continual character,
- the consumer always prefers the opportunity to choose from a greater number of products rather than a smaller one,
- the scale of preference of a certain consumer is independent of the scales of preference of all other consumers,
- the model is of a static character and assumes perfect knowledge (Hicks, 1956).

Hicks' demand model is also defined based on these conditions, assuming continual preferences, and is characterised by a demand function with a negative slope. Hicks also defined the assumption that, while analysing demand, an exception, or invalidity of the classical demand rule is permissible (consumption grows if price is decreases, while other circumstances do not change), if three conditions are fulfilled:

1. the product has to have a character of inferior goods with a significant negative income elasticity of demand for it,
2. substitution effects are negligible,
3. the share of income spent on the consumption of this inferior good is significantly large.

The last mentioned exception from the classical assumptions is rather significant for the overall innovation of approach to the analysis of links between defining demand for a certain product as the sum of quantities of the product demanded by individual consumers at the given price,

and the knowledge, or use of information on demand defined in this way in the decision-making practice of firms. Of course, such an exception was originally defined earlier, in one of the papers of E. E. Slutsky from the beginning of the 20th century (Slutsky, 1915).

The decision of consumers and their impact on the character of the demand function are only one side of the demand analysis under the conditions of static equilibrium. The other side, which is even more relevant for us, is the degree of knowledge of the demand function on the part of the firms and the character of its utilisation. From this viewpoint, the models of market demand are most often classified on the basis of the following approaches:

1. importance of the specific individual firm for the overall market,
2. homogeneity of products sold in partial markets,
3. demand elasticity.

While analysing these approaches, traditionally, four types or models of market demand are defined – perfect competition, absolute monopoly, monopolistic competition, duopoly, and oligopoly (Tokárová, 2008). With respect to the aim of this paper, we shall not deal with the types in more detail. In the following part, we will point out new approaches connected with the behaviour of consumers, as well as competition policy.

2. NEW THEORETICAL APPROACHES CONNECTED WITH COMPETITIVENESS AND COMPETITION

New approaches connected to the behaviour of consumers are based on behavioural economics. It is a trend that makes use of psychological knowledge in the analyses of economic processes and behaviour of economic entities. Behavioural economics can also be described as a movement that tries to cope with the criticism of the economic concept of an independent individual thinking in a rational way exclusively, the so called *homo economicus*, who makes decisions based on good knowledge and sufficient information, in a rational way and always for their own benefit (Zháňalová, 2011). In reality, this is not the case. In fact, the actual behaviour of consumers diverges from rational behaviour. This also influences competition and the market. In the market, there needs to be efficient competition benefiting the competitors. It forces firms to offer a wide range of goods. Then, the consumers have a greater choice, whether they behave rationally or irrationally. If they behave rationally, competition benefits from it as well.

A different situation happens, when the consumer behaves irrationally. These are cases, when the consumer does not pay enough attention to information; in this case, firms cannot benefit from the information they provide. Thus, the competition does not benefit the consumer, leaving aside their rational behaviour. From the viewpoint of the consumer, this concerns demand for goods that they otherwise would not want. This is because competition meets demand of the consumer for goods they want rather than those, which would not be purchased in accordance with rational behaviour.

It can be stated that competition and its protection benefit the consumers in case they behave rationally, and have information enabling them to choose from the offered goods.

Thus, a question arises, whether the assumptions connected with the positive effect of competition for the consumer are not limited by rational or irrational behaviour of entities (Zháňalová, 2011).

At present, competition policy follows a Europe-wide trend, i.e. a formal assessment of competition cases is being exchanged for the so called economic approach. In the United States, economic trends have been emphasised for some time already. Therefore, the principal competition institution in the United States, the Federal Trade Commission (hereinafter referred to as "FTC"), has been paying a great attention to behavioural economics. It was especially commissioner (until 2012) J. T. Rosch who, in his study (2010), described the relationship between behavioural economics and competition. This relationship is based on the principles of the Chicago school, more specifically the following:

- the seller and the buyer behave rationally, i.e. the seller tries to maximise their profit and the buyer tries to maximise their benefits of purchase,
- imperfect market corrects by itself and does so quickly,
- a rationally thinking seller can find out when predatory conduct is in conflict with their personal interests.

Also today, several economists confirm that entities do not behave rationally in the market. Theories of the already mentioned Chicago school have been valid and recognised for over forty years. However, it cannot be assumed that the seller and the buyer, as well as other entities in the market, always behave rationally in accordance with maximising profit. Some economists even believe that there are certain "predictably irrational patterns", according to which people behave when, for instance, in situations of risk assessment, the possibilities of success are often overrated and possibilities of failure are often underrated.

As far as irrationality on the side of the seller is concerned, the situation is more complex. It is known that the Chicago school is based on the opinion that sellers always behave rationally, because their aim is to maximise profit under the conditions of perfect knowledge and information about the market. Undertakings that do not behave rationally will be pushed out of the market by undertakings that do behave rationally. However, this theory does not reflect the fact that undertakings are composed of individuals. Moreover, it should also take into account knowledge from other disciplines, such as sociology and psychology, and consider the rationality of individuals, i.e. the facts that motivate their behaviour. Thus, the human being behaves within a limited rationality, which is different for every individual (Zháňalová, 2011).

The already-mentioned J. T. Rosch (2010) describes knowledge that should be taken into account in the field of competition. Most importantly, this is the fact that markets are asymmetric, as far as information is concerned. This means that not all buyers have the same information, and this applies the sellers as well. As far as available information is concerned, the supply side and the demand side are also different. Thus, in some cases, irrational behaviour can be a result of information asymmetry. Some sellers prefer a short-term rather than a long-term profit, so their behaviour does not take into account the future situation. Lastly, human beings have a tendency to become the so called *status quo* buyers, i.e. they purchase products and services that they know and they do not change their customs (Rosch, 2010; Zháňalová, 2011).

Advocates of the knowledge of behavioural economics include also the former FTC commissioner W. E: Kovacic. For some time already, he has been emphasising the importance of application of a more intensive empirical procedure in the field of competition. He claims that investments in knowledge mean a long-term benefit and "help ensure that the [competition] agency stays abreast of important developments in economic theory, empirical study, and legal analysis." Thanks to this, the competition agencies can face challenges in the form of "complex and demanding matters" (Kovacic, 2009). Empirical sciences and especially behavioural economics help these agencies better understand the dynamic market environment and also how legal and informal norms influence the norms of behaviour of individuals and the competition as a whole.

Conclusions

Market plays a key role in the resource allocation and income distribution. It is the place where supply and demand meet. The supply side is created by sovereign producers, whose product as the outcome of a combination of production factors chosen by them tries to win the interest of the demand under the circumstances of competition with other competing producers. These facts are connected with competition that is supposed to have an effect for the consumer. Knowledge of the behaviour of both producers and consumers is inevitable. In this paper, we deal with the known approaches to these issues (Hicks, 1939; Houthhaker, 1959; Samuelson, 1948; Slutsky, 1952), as well as new ones. We mention behavioural economics and using psychological knowledge, as well as how this scientific discipline and, more importantly, deviaton from rational behaviour influence the decision-making of economic entities in the market (Kahneman, Tversky, 1979). This knowledge can contribute to a new understanding of competition policy and effective competition.

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