В И П У С К   1 (2 0 8)

A. Ignatyuk, Doctor of Sciences (Economics), Professor
ORCID iD 0000-0002-9103-6943,
M. Sobolieva, PhD in Economics
Taras Shevchenko National University of Kyiv, Kyiv, Ukraine,
M. Saykevich, PhD in Economics, Associate Professor
Zhytomyr National Agroecological University, Zhytomyr, Ukraine

MARKET POWER AND SOCIAL WELFARE:
THE IMPACT OF ADVERTISING

The article explores the influence of monopoly power, arising from the use of advertising in the pharmaceutical industry, on public welfare: from the standpoint of market equilibrium and the well-being of society (Becker-Murphy model); in terms of consumer equilibrium (Tremblay-Polaski model); from manufacturer's equilibrium position (model NEIO). Based on these models, an attempt was made to answer the question of the negative or positive impact of non-price competition (for example, advertising) on public welfare.

Keywords: advertising, generic products, monopoly power, product hopping, social welfare, pharmaceutical industry.

Introduction. In the conditions of globalization of the economy, the tendency to seize the market through the introduction of technological innovations, product quality changes, active advertising, and other non-price methods is becoming more widespread and affects more and more industries. This forms the conditions for the expansion of the market power of firms, the essence of which is their ability to determine or significantly affect the conditions of the product turnover in the market, prevent, eliminate, restrict competition, in particular, raise the price and maintain it above the price that would have existed in significant conditions of competition. Analyzing the direct influence of non-price competition methods on the welfare of individuals in markets with imperfect competition is a very difficult task due to the lack of necessary data. In this article, we briefly review the literature, which defines the main ideas for assessing the welfare loss from market power and

advertising, as well as the existing theoretical and empirical models of the loss of public welfare, and methodological approaches appropriate for this study. The research outcomes are discussed with their implications and proposals for further study in this field. We analyse the role of advertising in the pharmaceutical industry as a tool that allows manufacturers to develop consumer loyalty, awareness, and monopoly power.

Review of the literature

1. Definition of the social consequences of market power

The question of the need to assess market power is a very important area of theoretical and empirical research. In several scientific articles, it was proved that the higher the market power of firms, the wider the possibility of generating losses of social welfare.

Table **1.** The impact of market power on social welfare

Source	Description	Output data
Harberger (1964)	Made the first of several attempts to measure the welfare loss due to monopoly in the United States. His analysis showed an amazingly small welfare loss relative to national income.	data from the US manufacturing industry for 1954
Bergson (1973)	Bergson criticizes the partial equilibrium framework employed by Harberger and all previous studies and puts forward a general equilibrium model as an alternative. He then produces a series of hypothetical estimates of the welfare losses from monopoly, some of them quite large, for various combinations of the two key parameters in this model, the elasticity of substitution in consumption and the difference between monopoly and competitive price.	financial indicators of enterprises and organizations
Siegfried, Tiemann (1974)	An analysis employing less aggregated industries than commonly examined allows identifying the particular source(s) of the total welfare loss due to monopoly in mining and manufacturing, small as it might be. This less aggregated approach indicates that, while the benefits of a broad manufacturing-wide restructuring of the economy may not be worth the costs necessary to bring about such a change, adjustments in market structure for particular industries might nevertheless be desirable.	Internal Revenue Service Statistics of Income data 1963 data derived from the Source Book of Statistics of Income
Posner (1975)	Made some rough estimates of the social costs of acquiring monopoly power, but, using Harberger's calculations, concluded that the real problem was the social cost imposed by regulation rather than of private market power.	financial indicators of enterprises and organizations
Maudos, Guevara (2006)	Results show the existence of a positive relationship between market power and cost X-efficiency, allowing rejection of the so-called quiet life hypothesis.	Savings Banks Foundation and own elaboration.

Source: Compiled by the authors.

Performance of industries depends on the behavior of buyers and sellers in the following areas: the agreement between the companies, food, and advertising strategy, spending on research and development, investment in equipment, market power is influenced by non-price methods.

2. Determining the social impact of advertising

Product promotion allows consumers receive important information about product diversity and prices on certain product and service markets as well as product manufacturers and sellers to expand their sales channels to influence consumer preferences and, consequently, market demand, to implement competitive strategies more effectively.

Table **2.** The impact of advertising on social welfare

Source	Description	Output data
Kotowitz, Mathewson (1979)	They analyze two diffusion processes for the spread of information about the existence, price, and characteristics of a product: advertising and demonstration effects by existing customers. The optimal information policies of a profit-maximizing monopoly were contrasted with those, which maximize social welfare.	no empirical data, a theoretical model
Nichols (1985)	Profits are assumed to be maximized by firms' advertising choices; the effect of advertising on social welfare may be inferred by differentiating consumer's surplus concerning advertising and evaluating this derivative at the profit-maximizing level of advertising.	no empirical data, a theoretical model
Becker, Murphy (1993)	They develop a general framework to analyze the welfare effects of advertising, which has three distinguishing features: 1) it encompasses alternative models; 2) it accounts for benefits of free television and radio programming that are paid by advertising; 3) it provides an empirical test of the hypothesis that the market level of advertising is socially optimal.	firm data for the U.S. brewing industry from 1950 through 1988.
Tramblay, Polasky (2002)	The authors analyze the impact of advertising on markets where subjective horizontal and vertical product differentiation are important. A simple model shows how advertising can be used to create subjective horizontal and vertical differentiation.	price and market shares of leading rivals.
Cheng (2008)	The information provided by advertising of generic products is of questionable value, as the nature of its source is commercial, rather than unbiased and scientific.	firm data for pharmaceutical Industry

Source: compiled by the authors.

Being a widespread method of non-price competition, advertising aims to increase the volume of demand for products of the brand, improve the company's reputation, enhance the image, and, accordingly, attract new consumers of their products, including losing consumers from competitors, creating barriers to entry in the industry of competitors, the formation of market power. Thus, it is clear that the greatest effectiveness of advertising is observed in the markets of differentiated products, in which the concepts of "trade mark", "brand", "and company image" arise and become relevant.

Researchers (Dixit, Norman [7], Nichols [14], Kotowitz, and Mathewson [12], Becker [1] et. al) point out the multifaceted influence of advertising on the mechanisms of functioning of the competitive environment of the industry, as being ambiguous, has positive and negative consequences for different subjects. Depending on the nature of consumer response, advertising can reduce price competition to benefit competing firms. However, it can also lead to a pro-competitive outcome where individual firms advertise to increase own profitability, but collectively become worse off.

3. Advertising in the pharmaceutical industry

Trademark of any product has always been considered very important. Advertising allowed manufacturers to develop consumer loyalty and raise consumer awareness. Thus, advertising is an important element of the strategy of any company. Let us explain this with an example of the pharmaceutical industry.

It is important to note that in the recent history of food and pharmaceutical companies, some things have become controversial, as the spread of so-called generic drugs. The literature uses several names to describe generic products [Prendergast and Marr, 1995]: in American literature, generic products can be described as "no name" or "un-brand"; In the UK, they can be described as "plain packs" or "no-frills". In addition to the name, the feature of generic products is their simple packaging and the lack of a "recognized" brand. The main attraction for the consumer is a significant difference in price between the generic products and their brand-name equivalents. Reducing the price becomes possible due to savings in costs caused by reducing the cost of packaging and advertising costs.

"Product Hopping" is a tactic in which pharmaceutical brands traders can try to block generic competitors and maintain monopoly profits for a proprietary drug by making modest re-formulation that has little or no therapeutic benefit. Before facing a general competition, a brand name can simply recall the original product, forcing consumers to switch to a recycled medical mark and allow the firm to maintain the exclusivity of its products and prevent consumers from benefiting from generic competition.

This "product-hop" can bring the company success, despite the fact that consumers are unlikely to choose a new product. According to the FTC, "In the pharmaceutical sector, the success of the switching scheme of the product does not depend on whether consumers prefer the reformulated version of the product in its original form, or if the reformulated version gives any medical result". Product-hop switching does not lead to exclusive behavior, as the generic company still has the right to compete and is able to reach consumers through, in particular, advertising, promotion or high-quality product.

However, the information provided by the advertisement of generic products has dubious value, since the nature of its source is commercial rather than objective and scientific. Emphasizing side effects and risks, advertising can create unjustifiably high expectations of consumers, create inappropriate demand prescription drugs, and provide incomplete, superficial information [Cheng, 2008]. Client-driven advertising messages for the desire for certain drugs can free up the advice of their doctor and insist on more expensive and possibly riskier, but at least a little more effective. Although doctors still decide on the appointment of drugs, they can accept the pressure of vulnerable patients with previously anticipated expectations.

"Product hopping" requires minimal anti-monopoly regulation in the pharmaceutical market, since the launch of new product formulas and participation in successful advertising campaigns is in line with the undeniable market competition promoted by antitrust laws.

The mechanism of monopoly power strengthening through the use of advertising

In this section, we are trying to establish how the use of non-price competition techniques, including advertising, is reflected in public welfare. In our opinion, this is possible through the disclosure of the mechanism for the formation of subjective vertical product differentiation and the strengthening of monopoly power with advertising.

The study of this problem is possible based on such methodological approaches: from the position of market equilibrium and the welfare of society (Becker-Murphy model); from the point of view of the consumer's balance (Tremblay-Polasky model); from the equilibrium position of the manufacturer (NEIO model).

1. The Becker and Murphy Model

Changes in social welfare are estimated through changes in the surplus of the buyer and seller. This model defines them through monetary terms of utility and

consumer products revenue earned from sales and advertising [1, p. 368]:

$$S=V(A, p, T) + \pi (A, p, T) \qquad (1),$$

where: A – advertising, S – social welfare; V – the monetary value of consumer utility; π – the profit of the manufacturer, obtained from the sale of products and advertising; p – price; T – the profit received by the firm from the sale of advertising to consumers.

The model is characterized by a rather high level of abstraction with certain advantages over others [1, p. 367-368]. To assess the impact of advertising on social welfare, we can differentiate equation (1):

$$\frac{dS}{dA} = \frac{\partial V}{\partial A} + \frac{\partial V}{\partial p} \cdot \frac{dp}{dA} + \frac{\partial V}{\partial T} \cdot \frac{dT}{dA} + \frac{d\pi}{dA} \qquad (2)$$

The general effect of advertising on public welfare – positive or negative – depends on the signs of partial derivatives and the ratio between the absolute increments of the constituents of the given differential equation, which can be estimated on the basis of logical considerations and empirically.

Therefore, proceeding from the neoclassical principle of the equilibrium of the manufacturer, the firm-maximizer of profit, in conditions of optimum, holds the equality $\frac{d\pi}{dA} = 0$. An increase in the monetary value of a consumer's value due to a change in prices is determined by an increase in the volume of consumed products,, and the change in utility due to consumer spending on advertising is negative: $\frac{\partial V}{\partial T} = -1$.

According to the research of Dixsit and Norman [7], advertising does not have any effect on the consumer's utility, i.e. $\frac{\partial V}{\partial A} = 0$ and it costs nothing for him. If so, equation (2) is simplified to the following form:

$$\frac{dS}{dA} = -q \cdot \frac{dp}{dA}.$$

This means that the impact of advertising on public welfare will be negative if advertising leads to an increase in equilibrium prices, i.e. when $\frac{dp}{dA} > 0$.

Fischer and McGowan [8] point out that the impact of advertising on utility can be positive $\frac{\partial V}{\partial A} \geq 0$, but still. In any case, the principle of maximizing profits and the rationality of consumer behavior provide the following inequality: $\frac{\partial V}{\partial A} \geq \frac{dT}{dA}$.

Thus, the positive impact of advertising on public welfare is possible with the reduction of equilibrium price, i.e. $\frac{dS}{dA} \geq 0$, if $\frac{dp}{dA} \leq 0$. In particular, when the expansion of production and sales due to advertising will result in lower production costs due to the positive effect of the scale to a greater extent than the growth of advertising costs.

The following conclusions about the impact of advertising on public welfare are valid for the marginal increase in advertising costs. At the same time, researchers (Benham, Steiner, Cade, Sherrer, Ross et. al) agree that a complete rejection of advertising will lead to higher prices. Tremblay and Tremblay give a graphic illustration of the hypothetical relationship between price and advertising costs in the form of convex function. The equilibrium amount of advertising costs is defined as A_t, for which the equilibrium price P_t (Figure 1).

A slight reduction in advertising costs will result in lower prices, while a complete rejection of advertising will lead to an increase in the equilibrium price to the level P_0.

From this illustration, it follows that the amount of advertising costs for the interval from A_0 to A^* will be regarded by society as insufficient, and their growth is as positive because at we have a positive increase in the welfare of society from the growth of advertising: $\frac{dS}{dA} \geq 0$. However, compared to the lack of advertising in general, any current volume of advertising should be considered positively, until $A < A_{max}$.

As stated above, the increase in prices due to the use of advertising negatively affects social welfare, as it leads to loss of surplus of the consumer. On the other hand, the rise in prices as a manifestation of monopoly power, which rejects the price from the level of marginal costs, also negatively affects welfare. There is a logical assumption that there is a connection between monopoly power and advertising. The study of this connection should occur, firstly, from the standpoint of the consumer, considering advertising as a sign of product differentiation; and secondly, from the position of the company that uses the advertising to increase the gap between P and MC. This will allow a better understanding of the nature $\frac{dp}{dA}$ and the impact of advertising on social welfare.
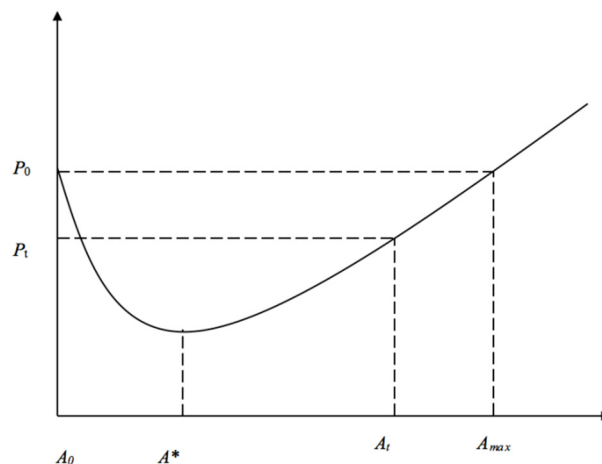

Fig. 1. Determination of the equilibrium volume of advertising

Source: [22, p. 370].

2. The Tremblay-Polasky Model

The choice of advertising strategy and price setting is based on the analysis of consumer behavior. So let us move from the abstract situation of market equilibrium to the analysis of consumer behavior to establish the relationship between advertising and price. Indeed, the decision on advertising is taken not by an abstract market in a state of equilibrium, but by firms – maximizers of profit. To be able to raise prices and increase profits, the company uses advertising to differentiate products (horizontal and vertical) and reduce the firm's elasticity. Advertising as a method of non-price competition has an important specific feature – it affects the perception of the product by the consumer. In an industry where homogeneous products are produced, advertising can form horizontal or vertical differentiation. In the Tremblay-Polasky model, a closed duopoly industry with physically homogeneous products (medicines produced under the same formula) is considered. Consumers of products are distributed in the normalized range from 0 to 1 and in the case of vertical differentiation, characterized by different levels of perception of product quality. The model is solved as a two-stage game, in the first step of which firms determine the amount of advertising costs, and the second – the prices.

The rational behavior of consumers means that at the same price they will choose a brand, which in their perception is associated with higher quality, compared with another. When the prices differ, then the price-quality dilemma is solved by consumers on the basis of such inequality: $\varphi_k z_i - p_i > \varphi_k z_j - p_j$, where z_x – consumer perception of brand quality x, p_x – brand price x, φ_k – consumer k willingness to pay for quality. When the inequality is performed with the sign "more", the consumer k buys the brand i, in the opposite case, the brand j.

Tremblay and Polasky [24] base their study on the assumption that the perception of quality is determined by the amount of advertising $z_x(A_x) = A_x$. If $A_i = A_j$, Then the consumer chooses a brand based only on the price. When one of the companies decides to advertise more than the other, in the imagination of the consumer is formed a ranking of brands in quality, there is a leader and an outsider. Thus, provided different amounts of advertising from two brands, the demand of consumers is determined by the influence of both factors – the perception of quality and price.

The level φ that makes the brands i and j equate to the consumer at prices, respectively p_i and p_j, and, denote by. Then in equilibrium, we have: $A_i\varphi(p_i, p_j) - p_i = A_j\varphi(p_i, p_j) - p_j$, from where: $\varphi(p_i, p_j) = \frac{p_i - p_j}{A_i - A_j}$.

Consumers who have $\varphi_k > \varphi(p_i, p_j)$ will buy brand i and the rest – the brand j.

Based on such a definition of the shares of the duopoly market, the functions of the profit of each firm can be written down (Tremblay and Polasky 2002, p.257) and found equilibrium prices for Nesh $p_i = \frac{2(A_i - A_j)}{3}$: and $p_j = \frac{A_i - A_j}{3}$.

Substituting price expressions in the function of profit, we get the following dependencies:

$$\pi_i = \frac{4(A_i - A_j)}{9} - C_i(A_i) \text{ and } \pi_j = \frac{A_i - A_j}{9} - C_j(A_j).$$

The profit function of the second firm is declining from advertising, so it is optimal for it when $A_j=0$. Tremblay and Polasky point out that the company, on the contrary, will choose the strategy to advertise and will do so until the marginal costs of advertising will not become too high.

If we agree with the assumptions of the Tremblay and Polasky [24] model of the equality of production costs of both firms (which is logical in view of the physical homogeneity of the product and in the absence of a scale effect), and by setting equal rates of profit, we can estimate the amount of advertising costs. It is obvious that under the terms of equilibrium the price of the brand being advertised will be 2 times the price of the non-advertised brand: $p_j = 0,5p_i$. Then the amount of advertising costs in the equilibrium price of the advertised brand will be the same as the value of the remaining costs, without advertising.

When advertising costs are higher than production per unit of output, then the profit margin of the company that advertises will be smaller compared to the firm-competitor, and vice versa. The principle of equality of income standards may not guarantee the maximum mass of profits to the firm (which is traditionally taken into account in the microeconomic analysis of the equilibrium of the manufacturer), at the same time, serves as a logical argument in making managerial decisions. Besides, this principle allows us to make sure that the total amount of advertising will still not exceed the level of A_{max}, which we determined by the results of the analysis of the Becker-Murphy model.

Thus, according to Tremblay and Polasky [24], in a market where consumers take into account the quality of the brand that they buy (its subjective perception), the possibility of vertical product differentiation with the help of advertising is created. In the duopoly (or quasi-monopoly, where there is one "leader" and "the rest of the market"), provided that the production of physically homogeneous products without a scale effect, advertising acts as a sign of market asymmetry. At one pole, a company that sells its products operates shapes consumers' perceptions of its higher quality and sets higher prices. On the opposite pole, there is another firm that considers itself the best strategy not to advertise products. At the same time, prices set by it are much lower. Both companies receive their maximum profits.

By suggesting such theoretical conclusions, the Tremblay and Polaski model does not answer the question of how in the first step firms are determined which of them will become the "leader of quality", which will advertise their products, and who will receive the maximum profit, saving on advertising expenses; How an imaginary ranking of brands in quality is formed?; prior – ranking or advertising? Obviously, additional information is needed to get answers, based in particular on the market example, where manufacturers use vertical differentiation techniques. Such markets can be found within the *pharmaceutical industry.*

Therefore, in the pharmaceutical industry, there is the practice of "hopping product" – the jump of the product. The essence of this practice is as follows. The developer of certain drugs, which has a patent-protected right to monopolize their production, for some time before the expiration of the patent protection period, issues a product that is slightly different from the original. Applying the active advertising, price discounts to encourage doctors who prescribe recipes, manufacturer stimulates the transition from the original drug to its own generic. At the time when the patent expires, other pharmaceutical companies will formally get the right to compete with the first manufacturer. In reality, the development of competition is compounded by the formation of subjective vertical differentiation, the increased inflexibility of the reaction of insurance companies. Consumers, doctors and insurance companies paying for medicines already perceive the generic one proposed by the

first firm as the best example. In this case, the first manufacturer can only support the imagination of the quality of its generic with the help of advertising, and the rest of firms will maximize profits, saving on advertising costs.

Having studied the practice of "hopping product", we can conclude that vertical product differentiation has its basis not only and not so much advertising. An important role is played by other factors that make it possible to beat competitors in the first step, or even before it. Such factors can be the intuition of the entrepreneur who creates the brand before the product, and pioneer inventions, protected for a certain time by the right of intellectual property. Then advertising is more likely not as a cause of vertical differentiation and a tool that allows you to create a monopoly power and raise the price, but as an element of the optimal strategy of the firm in the n stage, under the conditions that formed at the end of phase $n-1$.

3. The NEIO Model

Now let's consider the relationship between price and advertising from the position of the firm, which at the expense of advertising tries to increase the gap between R and MS (regardless of subjective vertical differentiation).

Applying the approach adopted within the framework of the New Empirical Industrial Organization (NEIO) allows identifying the determinants of equilibrium prices that firms set up in conditions of imperfect competition.

When the products of the industry are homogeneous, we can assume that the derivative of the demand function for the products of a separate firm $\frac{\partial p_i}{\partial q_i}$ and the derivative function of demand for products from other firms in the industry $\frac{\partial p_i}{\partial Q_j}$ are equal.

Then the condition of the equilibrium of an individual can be rewritten in the form $p_i = MC_i - (\partial p / \partial q)(1 + v)q_i$, where $v = \partial Q_j / q_i$ – expected variation of sales volumes of the remaining firms of the industry depending on the sales of the company under investigation. Parameter of market power λ will be $-(\partial p / \partial q)(1 + v)$.

It is apparent that with $v = 0$h, the condition of the equilibrium price for the firm becomes a Lerner equation: $p = \frac{MC}{1 - \frac{1}{|\varepsilon|}}$, where: $\varepsilon = \frac{\partial q}{\partial p} \cdot \frac{p}{q}$. Condition when $v = 0$ means that the supply of other firms in the industry in no way reacts to the change in the volume of the company under investigation. This is possible if the investigated firm is a pure monopoly; all firms of the industry have formed a cartel and act as a pure monopoly; or companies interact on the Cournot model. Obviously, the use of advertising is unlikely here, and the price increase will be accompanied by a reduction in the volume of market demand and negatively affect the welfare of society.

If $v = -1$, and $\lambda = 0$, we have a situation with competitive market behavior, which is solved on the basis of the Bertrand model and means the absence of monopoly power in any firm of an industry. This is the only case where the overall market volume remains unchanged, and the increase in the output of one firm is offset by exactly the same reduction in the output of other firms in the industry. Under such conditions, advertising is excessive from the point of view of social welfare, but it is not capable of providing any firm with monopoly power.

Consider the rest of the cases, based on the assumption that the investigated firm carries out advertising, increases the price and simultaneously increases the volume of the offer, having the corresponding demand. The fact that there should be less than zero neglected, since this condition

characterizes the constant function of demand, and the use of advertising can shift the demand curve to the right and ensure the simultaneous growth of both prices and volume.

Situations when $v > 0$ is positive for the society, as it indicates the simultaneous growth of sales of the company under investigation, stimulated by advertising, along with the growth of output of other firms in the industry.

When, $-1 < v < 0$, we have a reduction in the market share of other firms in the industry, offset by the faster growth of the market of the company under investigation. As a result, we have a slow increase in the total volume of supply in the industry because of advertising used by the investigated firm.

In a situation where: $v < -1$, we have a reduction of the total demand for products of the industry, when the increase in output of the company under study, the proposal of the remaining firms of the industry is reduced much faster.

It is clear that if the use of advertising does not allow the investigated firm, together with the increase in price prevent the reduction of supply, the impact of advertising on the welfare of society, depending on the value of *v* will change to the opposite. This can only be checked empirically.

Conclusions

1. If we postulate that advertising is not useful to the individual, i.e. $\frac{\partial V}{\partial A} = 0$. Then any price increase above the level of minimum production costs, even if it only covers advertising costs, is evaluated as negative from the standpoint of social welfare.

2. The exchange (even if it is equivalent from the market position), has a positive utility and provides an increase in the welfare of the exchange participants. Otherwise, it would not take place. Thus, if consumers still buy the advertised products at a higher price, this is their choice, and advertising has a positive utility (regardless of whether the economic science has found instruments for measuring it or not). The only exception to this principle is a pure monopoly, which makes the choice of an individual uncontested when he cannot choose the brand "with advertising" or "no". Then it is not about advertising, but in other barriers that establish no alternative.

3. If it is not a natural monopoly with a production volume above the effective limit, then the expansion of the output of at least one firm in the industry through advertising, without reducing the output of others, brings society closer to the optimum of prosperity, rather than distances from it.

4. Within the framework of the proposed methodology, it is not possible for the neoclassicals to give an exhaustive answer to the question of the negative or positive impact of non-price competition (advertising) on public welfare, since the diversity of states of the studied system is not described within the framework of neoclassical simplification prerequisites. The output can be an empirical assessment of the components of the models under consideration.

Implications for a future research

Questions requiring further study:

Question 1. Can an increase in advertising costs lead to an increase in the sales of an individual firm to the extent that it alone will satisfy the entire volume of market demand, i.e. due to advertising will get a purely monopolistic position? Especially interesting, when the products are homogeneous and the marginal costs of firms in the industry are equal?

Question 2. Can the profit maximization function of $\frac{d\pi}{dA} = 0$ for a firm reach its maximum at an interval where $A > A_{max}$?

Question 3. Is the price increase simply a measure of higher costs compensation (including advertising), does

advertising use monopoly power, which will allow prices to rise over the increase in advertising costs?

Indeed, it would be useful for future research to conduct a more thorough examination of the relationship between social welfare and the advertising of generic products. In addition, it would be useful for future research to examine empirical data, to answer these questions.

References:

1. Becker, G. and Merphy, K. 1993. A simple theory of advertising as good or bad. The Quaterly Journal of Economics. Vol. 108, pp. 942-964. https://doi.org/10.2307/2118455

2. Bergson, A. 1973. On monopoly welfare losses. The American Economic Review, 63, pp. 853-870.

3. Brendt, E., Mortimer, R., Bhattacharjya A., Parece, A. and Tuttle, E. 2007. Authorized Generic Drugs, Price competition and Consumers' Welfare. Health Affairs, 26, pp. 790-799. https://doi.org/10.1377/hlthaff.26.3.790

4. Carlton, D., Flyer, F. and Shefi, Y. 2016. Does the FTC's theory of product-hopping promote competition? Journal of Competition Law and Economics, [online] Available at: <http://faculty.chicagobooth.edu/dennis.carlton/research/pdfs> [Accessed 12 July 2016].

5. Carrier, M. and Shadowen S. 2016. Product hopping: a new framework. Notre Dame Law Review, 92, pp.167-230.

6. Cheng, J. 2008. Antitrust Analysis of Product Hopping in the Pharmaceutical Industry, Columbia Law Review, 108, pp. 1471-1515.

7. Dixit, A., Norman, V. 1976. Advertising and Welfare, Bell J. Econ., Spring, 9, 1-17.

8. Fisher, F. and McGowan, J. 1979. Advertising and welfare: comment. Bell Journal of Economics. pp. 726-727.

9. FTC files Amicus Brief explaining that pharmaceutical "product hopping" can be the basis for an antitrust lawsuit, [online] Available at: <https://www.ftc.gov/news-events/press-releases/2012/11/ftc-files-amicus-brief-explaining-pharmaceutical-product-hopping> [Accessed 11 September 2017].

10. Harberger, A. 1964. Taxation, resource allocation and welfare, Princeton University Press, pp. 25-80, [online] Available at: <http://www.nber.org/books/u nkn64-4> [Accessed 9 June 2017].

11. Kamerschen, D. 1996. The estimation of the "welfare losses" from monopoly in the American Economic Inquiry, 4, pp. 221-236.

12. Kotowitz, Y., Mathewson, F. 1979. Informative advertising and welfare, The American Economic Review, 69, pp. 284-294.

13. Maudos, J., Cuevara, J.F. 2006. The cost of market power in banking: social welfare loss vs. inefficiency cost, pp. 1-37, available on-line at https://mpra.ub.uni-muenchen.de/15253/1/MPRA_paper_15253.pdf https://doi.org/10.1016/j.jbankfin.2006.10.028

14. Nichols, L. 1985. Advertising and Economic Welfare, American Economic Review, Vol. 75, pp. 213-218.

15. Posner, R. 1975. The social costs of monopoly and regulation. The Journal of Political Economy, Vol. 83, №4, pp.807-828.

16. Prendergast, G. and Marr, N. 1995. Generic products: who buys them and how do they perform relative to each other? European Journal of Marketing, Vol.31, pp. 94-109.

17. Scherer, F. M., and Ross D. 1990. Industrial Market Structure and Economic Performance. Boston: Houghton Mifflin Co.

18. Seigfried, J. and Tiemann T. 1974. The welfare cost of monopoly: An inter-industry analysis. Economic Inquiry, available on-line at http://onlinelibrary.wiley.com/doi/10.11 11/j.1465-7295.1974.tb00239.x/full

19. Stigler, G.J. 1961. The Economics of Information, Journal of Political Economy, 69, pp. 213-225.

20. Sutton, J. 1992. Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration. Cambridge, MA: MIT Press. https://doi.org/10.2307/2234834

21. Telser, L. 1964. Advertising and Competition, Journal of Political Economy, 72, 551–567.

22. Tremblay, C. and Tremblay, V. 1995. Advertising, Price, and Welfare: Evidence from the U.S. Brewing Industry, Southern Economic Journal, 62, pp. 367–381.

23. Tremblay, V. and Filho C. (forthcoming) A Model of Vertical Differentiation, Brand Loyalty, and Persuasive Advertising, in Michael Baye and Jon Nelson, eds., Advances in Applied Microeconomics: Advertising and Differentiated Products, Vol. 10. JAI Press.

24. Tremblay, V. and Polasky, S. 2002. Advertising with subjective horizontal and vertical product differentiation. Review of industrial organisation. pp. 253-265.

А. Ігнатюк, д-р екон. наук, проф.,
М. Соболєва, канд. екон. наук
Київський національний університет імені Тараса Шевченка, Київ, Україна,
М. Сайкевич, канд. екон. наук, доц.
Житомирський національний агроекологічний університет, Житомир, Україна

РИНКОВА ВЛАДА ТА СУСПІЛЬНИЙ ДОБРОБУТ: ВПЛИВ РЕКЛАМИ

Проаналізовано вплив монопольної влади на основі використання реклами на суспільний добробут із позицій ринкової рівноваги та добробуту суспільства (модель Беккера – Мерфі), рівноваги споживачів (модель Тремблай – Поласкі) і положення рівноваги виробника (модель NEIO). На основі цих моделей оцінено вплив нецінової конкуренції (наприклад реклами) на суспільний добробут.
Ключові слова: реклама, монопольна влада, стрибки товарів, соціальний добробут.

А. Игнатюк, д-р экон. наук, проф.,
М. Соболева, канд. экон. наук
Киевский национальный университет имени Тараса Шевченко, Киев, Украина,
М. Сайкевич, канд. экон. наук, доц.
Житомирский национальный агроэкологический университет, Житомир, Украина

РЫНОЧНАЯ ВЛАСТЬ И ОБЩЕСТВЕННОЕ БЛАГОСОСТОЯНИЕ: ВЛИЯНИЕ РЕКЛАМЫ

Проанализировано влияние монопольной власти на основе использования рекламы на общественное благосостояние с позиций рыночного равновесия и благополучия общества (модель Беккера – Мерфи), равновесия потребителей (модель Тремблай – Поласки) и положения равновесия производителя (модель NEIO). На основе этих моделей оценено влияние неценовой конкуренции (например рекламы) на общественное благосостояние.
Ключевые слова: реклама, монопольная власть, скачки товаров, социальное благополучие.