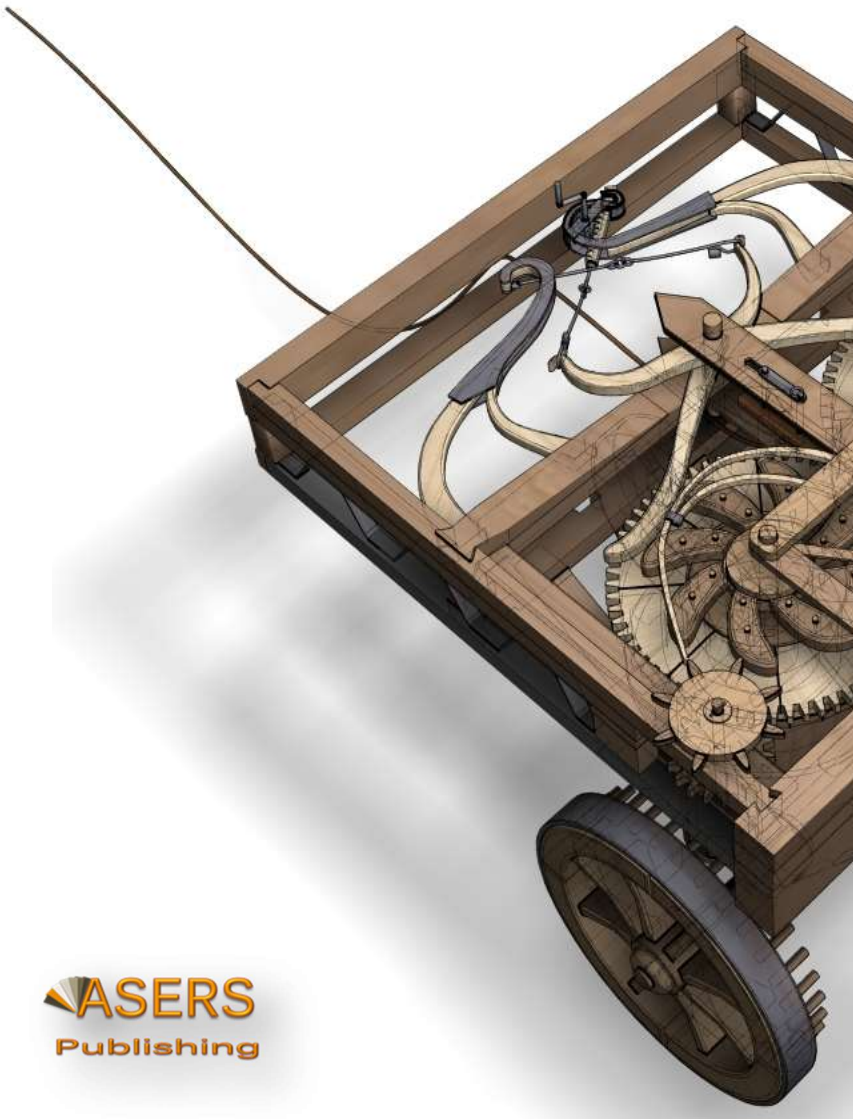
Theoretical and Practical Research in Economic Fields



Biannually

Volume XII
Issue 2(24)
Winter 2021

ISSN 2068 – 7710
Journal **DOI**
https://doi.org/10.14505/tpref

ASERS Publishing

Theoretical and Practical Research in Economic Fields

is an advanced e-publisher struggling to bring further worldwide learning, knowledge and research. This transformative mission is realized through our commitment to innovation and enterprise, placing us at the cutting-edge of electronic delivery in a world that increasingly considers the dominance of digital content and networked access not only to books and journals but to a whole range of other pedagogic services.

In both books and journals, ASERS Publishing is a hallmark of the finest scholarly publishing and cutting-edge research, maintained by our commitment to rigorous peer-review process.

Using pioneer developing technologies, ASERS Publishing keeps pace with the rapid changes in the e-publishing market.

ASERS Publishing is committed to providing customers with the information they want, when they want and how they want it. To serve this purpose, ASERS publishing offers digital Higher Education materials from its journals, courses and scientific books, in a proven way in order to engage the academic society from the entire world.

Volume XII
Issue 2(24)
Winter 2021

ASERS Publishing
http://www.asers.eu/asers-publishing
ISSN 2068 – 7710
Journal's Issue **DOI**:
https://doi.org/10.14505/tpref.v12.2(24).00

Table of Contents:

Call for Papers
Summer Issue 2022
Theoretical and Practical Research in Economic Fields

Many economists today are concerned by the proliferation of journals and the concomitant labyrinth of research to be conquered in order to reach the specific information they require. To combat this tendency, **Theoretical and Practical Research in Economic Fields** has been conceived and designed outside the realm of the traditional economics journal. It consists of concise communications that provide a means of rapid and efficient dissemination of new results, models and methods in all fields of economic research.

Theoretical and Practical Research in Economic Fields publishes original articles in all branches of economics – theoretical and empirical, abstract and applied, providing wide-ranging coverage across the subject area.

Journal promotes research that aim at the unification of the theoretical-quantitative and the empirical-quantitative approach to economic problems and that are penetrated by constructive and rigorous thinking. It explores a unique range of topics from the frontier of theoretical developments in many new and important areas, to research on current and applied economic problems, to methodologically innovative, theoretical and applied studies in economics. The interaction between empirical work and economic policy is an important feature of the journal.

Theoretical and Practical Research in Economic Fields, starting with its first issue, it is indexed in EconLit, RePEC, ProQuest, Cabell Directories and CEEOL databases.

The primary aim of the Journal has been and remains the provision of a forum for the dissemination of a variety of international issues, empirical research and other matters of interest to researchers and practitioners in a diversity of subject areas linked to the broad theme of economic sciences.

All the papers will be first considered by the Editors for general relevance, originality and significance. If accepted for review, papers will then be subject to double blind peer review.

Invited manuscripts will be due till November 10th, 2020, and shall go through the usual, albeit somewhat expedited, refereeing process.

Deadline for submission of proposals: 10th May 2022

Expected publication date: June 2022

Website: http://journals.aserspublishing.eu/tpref

E-mail: tpref@aserspublishing.eu

To prepare your paper for submission, please see full author guidelines in the following file: TPREF_Full_Paper_Template.docx, on our site.

Volume XII, Issue 2(24) Winter 2021

DOI: https://.doi.org/10.14505/tpref.v12.2(24).02

SOME EFFICIENCY ASPECTS OF MONOPOLISTIC COMPETITION: INNOVATION, VARIETY AND TRANSACTION COSTS

Tamara TODOROVA
American University in Bulgaria, Bulgaria
ttodorova@aubg.edu

Suggested Citation:
Todorova, T.P. (2021). Some Efficiency Aspects of Monopolistic Competition: Innovation, Variety and Transaction Costs. *Theoretical and Practical Research in Economic Field*, (Volume XII, Winter 2021), 2(24): 82 - 88. DOI:10.14505/tpref.v12.2(24).02
Article's History:
Received 19th of November 2021; *Revised* 24th of November 2021; *Accepted* 9th of December 2021; *Published* of 31st of December 2021.

Abstract:

We stress some efficiency aspects of monopolistic competition justifying it on account of its tendency to innovate and the questionable excess capacity paradigm. Some further efficiency aspects revealed are product variety and transaction cost savings. We view the monopolistically competitive firm as an essential source of technological innovation, product variety and cost economies. While perfect competition is universally considered a benchmark and a social optimum, we consider it a strongly unrealistic theoretical setup where the monopolistically, rather than the perfectly, competitive firm turns out to be the true type of competition and social optimum in the real world of positive transaction costs. The monopolistically competitive firm not only offers product variety and innovation but is the optimal institutional arrangement under positive transaction costs.

Keywords: efficiency; innovation; variety; monopolistic competition; perfect competition; transaction costs.

JEL Classification: D23; D24; D43; L13; O30.

Introduction

It is often considered that large corporations are the main source of innovation and scientific discoveries due to their size and ability to fund expensive research. Small competitive firms are rarely considered innovative due to their smallness and the fact that their low profits prevent them to invest in innovative projects. A sole proprietor has a vested interest in changing the technology, introducing some novelty, and eventually outstripping competition. The incentive structure of firms is thus ignored, and the focus instead is put on funding and investment opportunities.

This paper justifies monopolistic competition on account of the tendency to innovate revealing some further efficiency aspects such as product variety and transaction cost efficiencies. We view the monopolistically competitive firm as an essential source of technological innovation, product variety and cost economies. While the perfectly competitive firm remains an unrealistic type of market structure, the monopolistically competitive one turns out to be the true type of competition which gravitates most closely to the social optimum. The monopolistically competitive firm is not only strongly enticed to introduce product variety and innovation but is the optimal institutional arrangement under positive transaction costs.

Some economists doubt the efficiency of monopolistic competition. Many find it suboptimal due to its excessive advertising, high selling costs, unnecessary and excessive packaging. Some of these "sins" of monopolistic competition can be questioned. For instance, the advertising undertaken by the monopolistically competitive firm is modest due to the lack of budget opportunities and the few firms which advertise a highly differentiated product turn into an oligopoly in their sector. The fierce competition forces monopolistically

competitive firms to lower their production and marketing costs consistently. Cross transportation is another accusation but a product which consumers view as essentially different and useful must cross borders in order to satisfy their needs. Differentiated products move from one place to another following the simple economic principle that economic resources move to places where they are valued the most. Thus, what seems as unnecessary and excessive transportation may turn out to be a valuable feature of monopolistically competitive products. Some scholars go as far as criticizing monopolistic competition for the lack of product standardization and, hence, for providing too much variety.

The bias against monopolistic competition originates from the very founders of microeconomic science and industrial organization, Robinson (1933) and Chamberlin (1947). They argued that imperfect competition causes inefficiency in economic organization by giving rise to excess capacity. The very word "inefficiency" was attached to monopolistic competition since the inception of the term and has turned into one of its key attributes ever since. Monopolistic competition was condemned in part due to its small size which did not provide for large-scale production and, therefore, a standardized product. The cost-economizing effects and scale economies of market structures with market power were emphasized instead and monopoly and oligopoly were justified on the grounds of scale efficiency. Generally, there is a tendency in microeconomic theory to stress scale and the size of production much more than product use and value, consumer utility, product variety and transaction costs. The latter are ignored in neoclassical analysis where in the presence of low transaction costs monopolistically competitive firms provide for most intense competition.

This paper aims to study some welfare aspects of monopolistic competition stressing its sustainability and efficiency compared to other market structures. More specifically, it maintains that monopolistically competitive firms are more likely to adopt innovative methods of production, while providing greatest variety possible at the lowest production and transaction costs.

1. Literature Review

Robinson (1933) and Chamberlin (1947) introduced the term imperfect competition. In his discussion of the "small-group case" and the "large-group case" denoting monopolistic competition and oligopoly, respectively, Chamberlin seemed confused about the two. While trying to distinguish between them he consistently attributed oligopoly, that is, monopoly features to monopolistic competition. For instance, he saw market power as a consequence of product differentiation, as represented by a steep demand curve, but, at the same time, assumed free entry in the industry, as demonstrated by the tangency of the firm's demand curve and its long-run average cost curve. Obviously, these two cannot co-exist and a firm with excessive market power is likely to face both a very steep and extended demand curve which creates a high profit-making potential. Competitive firms, on the other hand, are clearly subject to very flat and very low demand curves which bring the potential for excess capacity to a minimum. Monopolistic competition demonstrates that the assumption of free entry cancels the effect of product differentiation, and that product differentiation alone cannot provide market power to the individual firm. Barriers to entry, natural or artificial, are needed to ensure monopoly position for the individual firm.

Chamberlin also seemed to be confused about the advertising the "small-group" and the "large-group" undertake. He saw the monopolistically competitive firm as aggressively advertising whereas that is rather a feature of huge corporations in oligopolistic industries where excessive promotional and advertising wars result in devastating losses for both the firms and society. On the accusation of excess capacity Harrod (1952) has argued that the entrepreneur will choose optimal scale for a small competitive firm and not one which will leave too much idle capacity. In their model of monopolistic competition Dixit and Stiglitz (1977) found that, product diversity added, monopolistic competition is an optimal market structure, irrespective of the lack of scale economies. Demsetz (1982) has argued that product differentiation, patents, trademarks, and economies of scale create entry barriers because of the costs of information. Monopolistically competitive firms thus operate under low costs of information although products have differentiated features. Baumol (1964) maintains that if the number of firms in the industry is reduced, the variety of products available to consumers must fall. The resulting saving in resources is a net gain only if the total physical costs increase less than the increased choice for consumers. A very recent review of the concept of productive capacity is provided by Squires and Segerson (2020) who follow two general approaches to the analysis of capacity, an engineering one based on production possibilities and an economic one based on optimization.

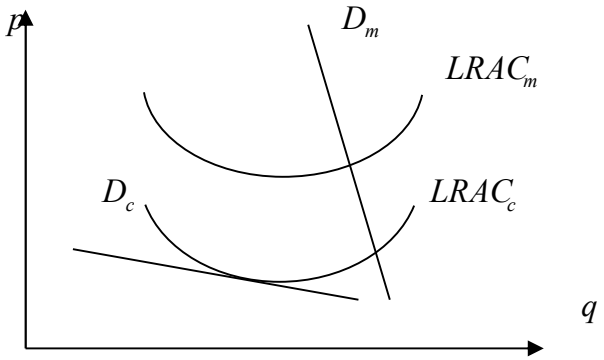
Arrow (1962) demonstrates that a competitive firm is more likely to innovate than a monopoly because it has more to win than the monopoly. The marginal benefit or revenue of innovation for the monopolist is insignificant while, if the same innovation is undertaken by a competitor, he will reap much of the industry profits

driving all other rival firms in the sector out of business. The competitor, therefore, has stronger incentives to innovate than a firm with market power.

2. The Efficiency of Monopolistic Competition

X-inefficiency and managerial slack are perhaps most illustrative of the advantages of monopolistic competition over other market structures. Due to their market power and lack of competitive threats, monopoly and oligopoly are subject to increased administrative and managerial costs which shift the average cost of the firm up to the level of $LRAC_m$, as in Figure 1. Competitive firms operate at low long-run average cost curves such as $LRAC_c$ and are, therefore, deprived of X-inefficiency. This type of inefficiency can take on various forms in monopolistic firms – rent-seeking activities, wasteful use of resources, poor organization and coordination of production, poor treatment and coordination of human resources, all kinds of managerial malpractice, managerial slack in the form of unnecessary managerial perks, rent extraction by managers at the expense of owners and all adverse effects on ownership resulting from the principal-agent problem.

Figure 1. Monopolistic competition versus the X-inefficiency of monopoly



Firms which fail to innovate and improve their production technology are also likely to face a higher $LRAC$ curve and, therefore, excess capacity. Except the efficiency of management, a given $LRAC$ curve reflects the level of technology used in the production process. A competitive entrepreneur would be enticed to consistently improve technology, lower average costs, and prevent entry. A monopolist has less incentive to lower his $LRAC$ curve and adopt a new, improved technology identical to what Figure 1 shows. Failure to innovate causes inefficiency in the form of excess capacity at the same level of demand for the firm's product. Monopolistically competitive firms improve their production technologies with the aim to prevent entry, respond to existing competition by incumbents or expand profit in an industry with a modest profit-making potential. Proprietors choose technologies and technical processes which are cost-efficient, cost-reducing or expanding the production set of the firm at the respective level of factor usage. Faced with a lower average cost curve the proprietor can beat competition on price, lower than that of the monopolist. A monopolistic competitor charges the lowest price and produces the greatest production volume at minimum inefficiency possible.

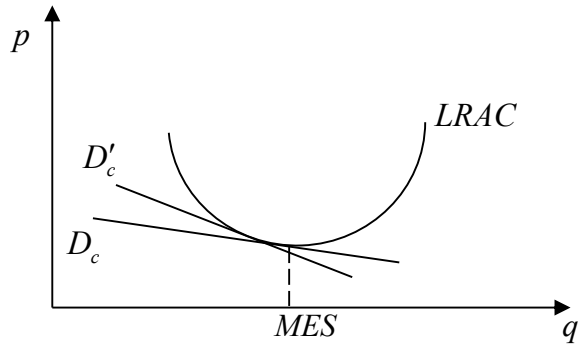
Monopoly and oligopoly are known for their indivisibilities when it comes to production factors. Indivisibilities do not allow scaling production up or down in response to changes in market demand. These technological peculiarities perhaps lie at the basis of market power since firms must operate at a large scale in order to handle indivisible factors of production. This also determines the existence of few firms in the industry. Except indivisibilities scale economies originate from sizable, fixed costs, setup costs, specialized inputs, volumetric returns to scale, etc. In addition to substantive fixed and setup costs, large firms are subject to significant administrative costs which represent a share of the fixed costs of the firm.

There are few or no indivisibilities of production in monopolistic competition. These are industries with a high scaling factor where all factors of production can easily be scaled up or down and fixed costs are almost non-existent in the short run. Setup costs of production are low which facilitates entry. Optimal scale of production is rather small with inputs being highly variable. Variable inputs prevail over fixed ones. The absence of sunk or setup costs characterizes these as contestable markets with both easy entry and exit. In contestable markets recoverable costs allow using inputs in alternative ways. Marketing, advertising, administrative and

managerial costs are minimal in monopolistically competitive firms. Machinery is general-purpose and inexpensive, while labor is unspecialized.

Monopolistic competitors, much more than monopolists, are driven by fashion and trends in changing preferences. The monopolistic competitor who relies on slightly changing product features to achieve product differentiation must consider styles, tastes, and customs which change dynamically. Monopolistic competition is the main driving factor behind fashion and style. At the same time, variety and production shifts require mostly a variable, rather than a fixed, component. Different colors, dyes, ingredients, components, or moulds necessary to produce different models, sizes, shapes, styles, flavors, textures, etc. relate to variable inputs. The share of fixed inputs in the form of unique equipment or other specific machinery is insignificant or machinery can be used in multiple production processes and operations. It could be expected that the cost structure of firms in competitive industries does not involve large indivisibilities and consists mostly of variable costs committed to variable inputs. These significant variable inputs and flexible technology lead to a relatively sharp long-run envelope curve, as opposed to the extended envelope curve in industries experiencing scale economies. Therefore, it may be wrong at all to discuss scale economies in the context of small firms, perfectly or imperfectly competitive. Stigler (1968) believes that large corporations are clumsy at providing variable, trendy products and small firms are more flexible in producing commodities such as women's apparel and shoes, novelty toys, etc.

Figure 2. Monopolistic competition under different degrees of product differentiation

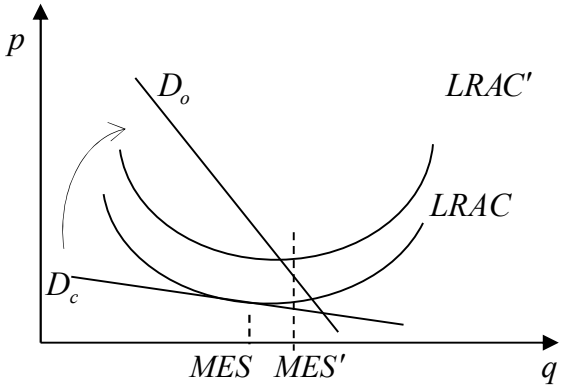


It seems, therefore, that variety originates from variable, rather than fixed, inputs and variety alone is a unique contribution of monopolistic competition at best and of oligopoly at worst. At the same time, monopoly and oligopoly which operate standardized equipment and run repetitive processes experience high learning curves of identical production. Unit costs of production drop with every successive bunch of items produced. A sole proprietor cannot achieve cost economies based on repetition in that production processes are non-standardized, unique, and subject to change. Production changes with every new color, trend, item, or model on style. The sole proprietor though gains learning experience in adapting to change, something the operational managers of big corporations cannot take pride in. While monopoly and oligopoly specialize in sameness and standardization, monopolistic competition specializes in variety.

Many essential products people consume today come from uniform, monopolistic-type production. But undoubtedly many socially important products originate from competitive industries as well. A diverse product is socially more important than a tedious, standardized one. The monopolistically competitive firm provides highly useful, valuable products with high marginal utility for society at relatively low cost and without the wasteful effect of excessive advertising. As part of the promotional mix of the large firm advertising serves as a barrier to entry by differentiating the product, as in Figure 2, and acts as fixed cost for the firm. This last outcome is often ignored when discussing advertising (Figure 3).

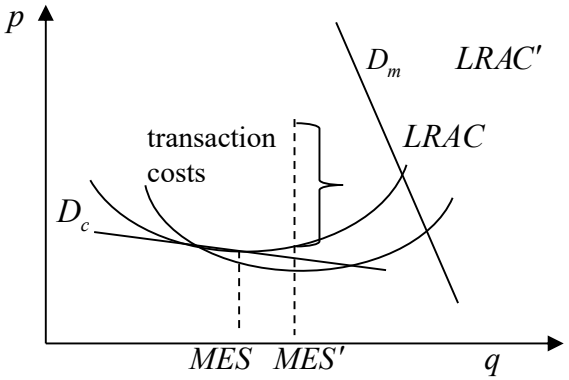
The effect of transaction costs on the total costs of the individual firm is identical to that of advertising. Transaction costs, defined as the costs of market operation or rather market substitution by firm management (Coase 1937), act as fixed costs which increase the optimal production scale similarly to advertising. Both advertising and additional transactions add a cost component to the firm structure and thus shift the total cost curve up (Figure 4).

Figure 3. Monopolistic competition versus oligopoly



Note however that in both cases since a fixed cost is added to total cost the minimum efficient scale, that is, the optimal scale of operations is increased – since large firms supplant high transaction costs and operate in industries with significant risks of market operation, they are likely faced with a substantive increase in the optimal scale of operation, much beyond the point of social optimum under zero or negligible transaction costs.

Figure 4. Optimal scale of operations under different market structures



Transaction costs are never zero in the real world. Coase (1937), Williamson (1979), Eggertsson (1990) and others have long stressed that transaction costs do exist and affect the behavior of economic agents. Williamson (1989) has gone as far as claiming that different types and levels of transaction costs bring about different types of institutional arrangements, firms, and market organization. Coase (1937) has maintained that lower levels of transaction costs pair with smaller firms, while larger firms supersede the market mechanism in cases when the transaction costs of its operation are substantive. The manager undertakes to do more and more transactions and perform the functions of the market as he saves on the costs of using market organization alternatively. What is the role of monopolistic competition in this?

Competitive markets are those where transaction costs are positive, yet negligible. The degree of competitiveness is illustrative of the ease with which information can be obtained. It is believed that in perfectly competitive markets participants both on the demand and the supply side obtain information at zero cost and are thus fully informed. Information about prices, quality levels, number and type of buyers and sellers, etc. is abundant and the level of certainty is infinite. In this ideal world of perfect certainty and information it is hard for anyone to take advantage of another. Quality cannot be misrepresented, and no form of cheating can occur. It seems that the social optimum, as implied by the perfectly competitive model, is one of honesty and fairness. However, in reality no such perfect world can exist where economic agents are perfectly honest. This renders the perfectly competitive framework unrealistic. In real terms information is never perfectly abundant and accessible (often it is even scarce) and economic agents are sometimes susceptible to all forms of market opportunism.

We can, therefore, conclude that perfect competition is an unrealistic assumption on account of three premises, 1) that products can hardly be perfectly homogeneous in reality; 2) that the market power of the individual firm is hardly ever zero; and 3) that transaction costs are always positive in the real world.

Industries which operate under low transaction costs are usually strongly competitive, without being perfectly so, entry and exit are easy, there is little opportunism on the part of market participants, information flow is free, and uncertainty is low. High-transaction cost sectors are those where significant barriers to either entry or exit exist, competition is low, if none, information is scarce, and uncertainty is infinite.

Monopolistically competitive markets tend to be markets where information can be obtained at low cost and transactions take less to organize. Since information is easy to get, the potential for opportunism is minimal. Search takes less time and is usually easier. Transactions take less to organize compared to other forms of market structure. Monopolistically competitive markets thus are real-life markets where transaction costs are positive, yet minimal. They present themselves with strong competition, easy entry and exit, little opportunism, accessible and abundant information, and nearly complete certainty. Under positive transaction costs, monopolistic competition is the true form of competition, while perfect becomes an ideal, hypothetical, and unrealistic benchmark. Monopolistic competition illustrates best the inconsistency and abstractness of perfect competition as a form of economic organization and a resource allocation system. Monopolistic competition stresses best the impossibility of perfect competition in real life.

At the same time, other market structures which present themselves with high market power gravitate around the second type of market organization where competition is absent, there is great potential for uncertainty and contractual opportunism on the part of the firm with market power, information is costly to obtain and there are natural or artificial barriers to entry. Market power turns into an essential source of opportunism since it is difficult for numerous customers to handle an opportunistic monopolist or, alternatively, difficult for numerous suppliers to handle an opportunistic monopsonist. A result of market failure, monopoly power originates in transaction costs, with transaction costs being low in monopolistically competitive markets and high in monopoly and oligopoly. Monopolistic competition, therefore, is the true type of competition in the real world, a situation which provides for optimal allocation of economic resources, since it reflects the social optimum at positive, yet minimal, transaction costs.

Conclusion

Based on innovation, variety, and transaction costs as sources of inefficiency, monopolistic competition has advantages over market structures with market power. Compared to monopoly and oligopoly monopolistic competition is more likely to adopt innovative techniques of production, provide wide variety of goods and save on transaction costs. Although deprived of repetition, a sole proprietor easily specializes and experiences a high learning curve in providing variety. In the real terms of positive transaction costs, monopolistic competition comes out as the true type of competition, compared to the unrealistic perfectly competitive setup.

References

[1] Arrow, K. J. 1962. Economic Welfare and the Allocation of Resources for Invention in *The Rate and Direction of Economic Activities: Economic and Social Factors*, Richard Nelson, ed., Princeton University Press, pp. 609-626, ISBN: 0-87014-304-2.

[2] Baumol, W.J. 1964. Monopolistic Competition and Welfare Economics. *The American Economic Review*, 54(3), Papers and Proceedings of the Seventy-sixth Annual Meeting of the American Economic Association, (May, 1964), pp. 44-52. Available at: http://www.jstor.org/stable/1818488

[3] Chamberlin, E.H. 1947. *The Theory of Monopolistic Competition*, Cambridge: Harvard University Press, 5th ed.

[4] Coase, R.H. 1937. The Nature of the Firm. *Economica*, New Series, 4: 386-405. DOI:http://doi.org/10.2307/2626876

[5] Demsetz, H. 1982. Barriers to Entry. *The American Economic Review*, 72: 47-57, DOI:http://www.jstor.org/stable/1808574

[6] Dixit, A.K and Stiglitz, J.E. 1977. Monopolistic Competition and Optimal Product Diversity. *The American Economic Review*, 67(3): 297-308. DOI: http://www.jstor.org/stable/1831401

[7] Eggertsson, T. 1990. *Economic Behavior and Institutions: Principles of Neoinstitutional Economics* (Cambridge Surveys of Economic Literature). Cambridge: Cambridge University Press, DOI:https://doi.org/10.1017/CBO9780511609404

[8] Harrod, R.F. 1952. Theory of Imperfect Competition Revised. *Economic Essays*, ISBN: 978-1-349-01496-5.

[9] Robinson, J.V. 1933. *The Economics of Imperfect Competition*. London: Macmillan, 2nd edition, 1969, ISBN: 978-0-333-10289-3.

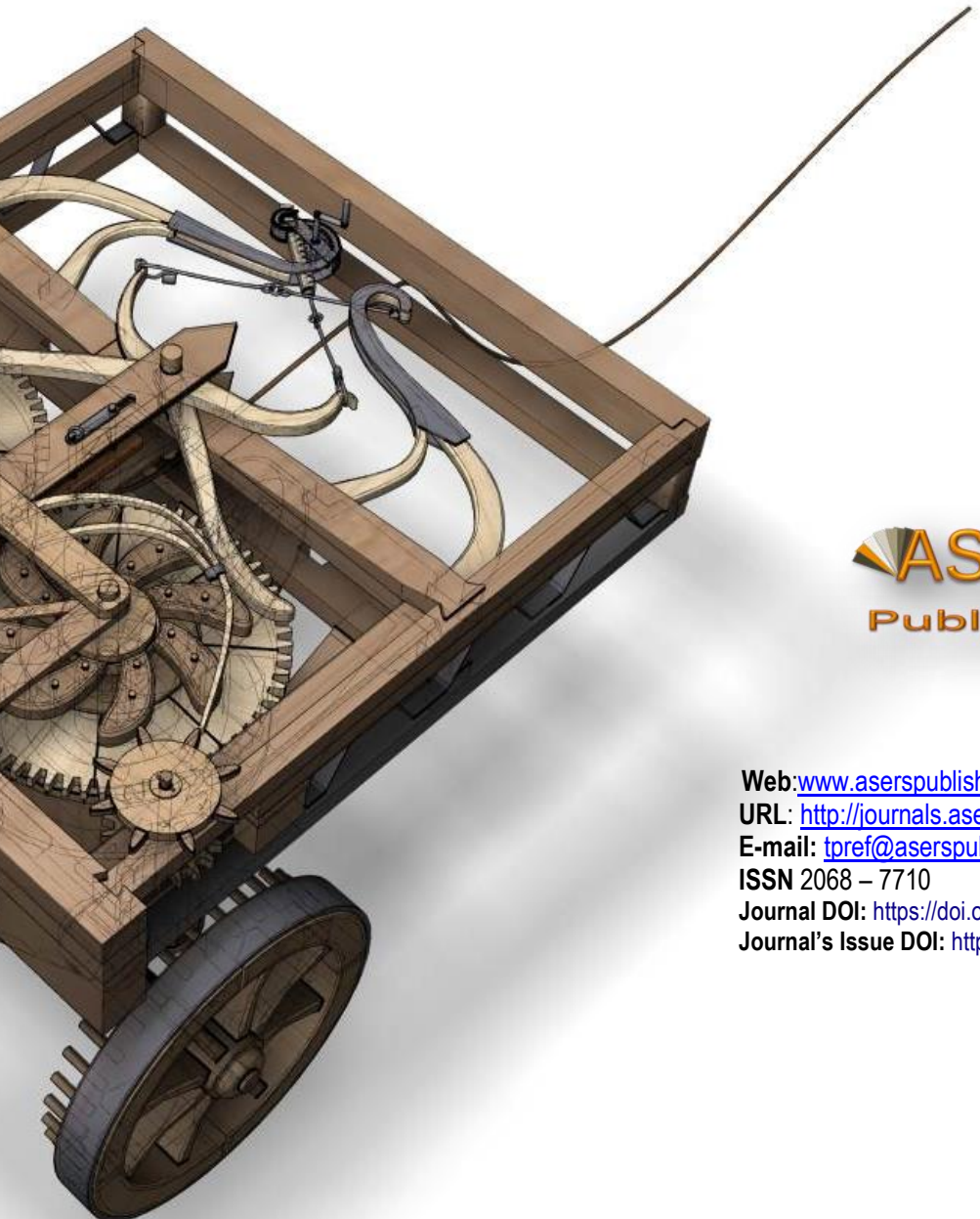
[10] Squires D. and Segerson K. (2020) Capacity and Capacity Utilization in Production Economics. In: Ray S., Chambers R., Kumbhakar S. (eds) *Handbook of Production Economics*. Springer, Singapore. DOI:https://doi.org/10.1007/978-981-10-3450-3_7-1

[11] Stigler, G.J. 1968. *The Theory of Price*, New York: Macmillan, 3rd edition, ISBN: 978-0024174000.

[12] Williamson, O.E. 1979. Transaction-cost Economics: the Governance of Contractual relations. *Journal of Law and Economics,* 22: 233–261. DOI: https://doi.org/10.1086/466942

[13] Williamson, O.E. 1989. Book Review for '*The Firm, the Market and the Law*'. *California Law Review*, 77: 223-231. DOI: https://doi.org/10.2307/3480533

ASERS



ASERS Publishing

Web:www.aserspublishing.eu
URL: http://journals.aserspublishing.eu/tpref
E-mail: tpref@aserspublishing.eu
ISSN 2068 – 7710
Journal DOI: https://doi.org/10.14505/tpref
Journal's Issue DOI: https://doi.org/10.14505/tpref.v12.2(24).00