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EMPIRICAL METHODOLOGY OF MODERN MONOPOLISATION PROCESS ASSESSMENT: AN EXTENDED COMMENTARY

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Abstract. The research "Empirical Methodology of Modern Monopolisation Process Assessment: an Extended Commentary" is an elaborated continuation of a study, previously conducted by the Authors (Skoruks, Senfelde, 2015), which capitalises on the relevant retrospective findings and delivers a multi–perspective in–depth description of the nature, the occurrence sources, the progression algorithm and the internal conjuncture specifics of the contemporary monopolisation process, while providing an example of market trend-detecting econometrical method implementation within a unified framework of competition analysis. The main scope of the research is devoted to developing and further enhancing the existing monopolistic trend detecting practices via quantitative analysis and multi-perspective examination of monopolisation effects, observed in modern globalized markets. The current research employs a system of monopolisation process progression describing quantitative indicators, based on authentic calculations, conducted within the framework of competition structure analysis in several industries over a five sequential year period, perceived through the prism of market power distribution between the involved supply-side market actors.

Key words: monopolisation process, econometrical modelling, competition level analysis, market conjuncture.
JEL codes: D42, D43, D52

Introduction

With the vast development of the modern business and trade, numerous former unquestioned and unchallenged visions of the market functioning paradigms, mechanisms and conformity of natural conducts are being transformed, re-evaluated and analysed from a strictly economic perspectives. Based on the classic A. Smith's theory, J. M. Keynes (Keynes, 1937); Dimand, 1955; Foster, McChesney, Jonna, 2011) alternative approach and works of P. Samuelson (Samuelson, 1939) as well as contribution from such notable authors as E. Chamberlin (Chamberlin, 1947), J. Robinson (Robinson, 1932), R. Coase (Coase, 1937, 1972), economic research is developing further along with the entire society, causally following and quickly reacting to newly emerging social trends. It states in "An Inquiry into the Nature and Causes of the Wealth of Nations" Book IV, Chapter VIII: "Consumption is the sole end and purpose of all production and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer". Thus, the inventor of "invisible hand" concept underlines that no form of competition, regardless of its specifics and market conjuncture composition, is free from or can neglect the maximum level of consumption capacity, made available by the current demand (Smith, 2007). As additionally argued by P. Samuelson: "Every good cause is worth some inefficiency" (The Independent, 2009). Thus, it may be argued that for the sake of economic stability maintenance and social utility maximization, a shift from perfect or near – perfect competition can and to some extent, should be made. Furthermore, as put by J. M. Keynes: "The difficulty lays not so much in developing new ideas as in escaping from old ones" (Keynes, 2011). Consequentially, these undoubtedly widely respected authors suggest a non – conventional approach to implementing new elements into the modern day economic theory while being able to take a fresh, innovative look at the seemingly common aspects of market interactions.

Nevertheless, there is one particular existing field of economic evaluation that has not seen any changes in the public opinion since the mid XIX century. It is still as well as more than a hundred years before, being seen as concentration of "capitalism evil" that brings only losses (Motta, 2004) and price increasing to all members of the society. The currently addressed phenomenon is a legal equity, profiting from the position of absolute monopoly, so attractive and

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wanted by any actively functioning company, influencing all aspects of modern day economic processes, significantly changing the composition of any given market conjecture and reshaping all forms of business conduction possibilities (Skoruks, Senfelde, 2015).

The above mentioned position is being obtained via the process of monopolisation – one of the most topical phenomena of both developed and developing economies of the current century, significantly rising in importance of full understanding within the context of the world financial crisis aftermath. The composing element of any national economy, namely, markedly involved companies are forced to adapt to the process of globalization through finding new, sometimes quite unorthodox ways of securing the conducted business profitableness and liquidity (Dierker, Grodal, 1996), thus, consequentially increasing competition within any given market that frequently leads to the increase of market consolidation tendency, while excluding a large portion of inefficient companies from the market, leading to natural increasing of the industry monopolisation level (Skoruks, 2014).

The research objective of the current research, taking into consideration modern day economic challenges and above described tendencies, is to conduct a full – scale study on the nature of monopolisation process, detect its appearance sources, define the caused effect on modern economic systems as well as analyse and evaluate the main monopolisation influence factors that shape conduction of the process according to specifics of various industries' market conjecture.

The research hypothesis of the current study may be defined as follows: contemporary small open economies undergo a natural, economic reality-shaping factor-based and internal competition supported by market consolidation process, which leads to the acceleration of individual monopoly power concentration in specified niches, particularly in those industries and relevant markets, which are excluded from participation in international trade and are therefore constrained in the scale of positive regional convergence and cross-border entrepreneurial cooperation effects, delivered by the interconnectedness of the modern global economy.

The research object of the current research is defined as five industries of Latvian national economy, their market conjunctures and specifics of competition conduction as well as revealed monopolisation trends and its development algorithm.

The main goals of the current research may be defined as follows:

- defining the existence substantiations, causes and consequences of monopolisation process;
- conducting a study of the process of monopolisation, its structured development and composition algorithm with the use of the developed model;
- development of an innovative methodology for quantitatively assessing the contemporary monopolisation process, which considers both the current level of market power concentration and its prevalent redistribution trends;
- testing the applicability of the developed methodology via its practical implementation under dynamic and mutually substantive condition of several distinct economic environments;
- elaboration on and enhancing of the previously conducted research.

The current research employed statistical analysis, comparatively–economical, coherently–logical and economic index analysis methods.

1. Concept of the developed monopolisation process evaluation methodology

A variety of singularised methods of monopolisation level assessment currently exists, the Lerner Index (Lerner, 1934) and the Herfindal – Hirshman Index (U.S. Department of

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Justice…,2010) being of particular popularity. However, the above mentioned methods are either focused on single legal equity's individual market power measurement or are based on a zero–momentum, "time–frozen" market cluster analysis, which in either case of the distinct, formidable and undoubtedly revolutionary indexes seems to reflect a strategic focus on the current state of affairs rather than an approach, suited for evaluation of medium–term industry–level monopolisation trend. Thus, it would be rational and beneficial for both private market actors and public supervisory/regulatory bodies to have access to a quickly disposable, scientifically robust and easily applicable quantitative model, enabling a swift and resource-wise conduction of monopolistic trend analysis of an industry/relevant market level providing both numerical benchmarks and their corresponding qualitative interpretation.

The developed model will combine existing methods of both specialized monopoly and empirically–econometrical data assessment with authors' proposed innovation, consequentially designing a combined quantitatively – qualitative tool with cheap installation, easy implementation and demonstrative result outputs, suitable for use in both state sector for regulatory reasons and private equities with the goal of business planning or managerial tasks' performance improvement.

The use of already existing methods will allow to prosper from previously gained international experience, while implementation of newly developed correlations and additional influence factors shall provide a topical transformation of the necessary nature, inflicted by globalized units of merging market clustered composition, thus, creating a synergetic effect, consequentially improving the existing approaches while preventing innovative tool of assessment from untested and questionable fluctuation, reasoning scientific heritage with rational updates on a scalar scale, reaching far more flexible, fundamental and coherent model composition.

The main foundation of the developed complex model of monopolisation process evaluation is the step-by-step assessment of available data from econometrical perspective with the perspective acquired scalar results of the conducted qualitative evaluation, allowing the conduction of a complex, multi-scale analysis, suitable for all economic field of activity, meaning that the current model shall be suitable for evaluations of any national economy industry.

The developed model composition will be further described in the following sections in order to provide a complete insight and sufficient understanding of the internal quantitative correlations between the model's composing structural elements as well as working out a steady implementation algorithm, while creating a qualitative interpretation methodology for assessing the quantitative scalar outputs of the conducted multi-factor analysis.

In order to verify the research hypothesis of the current study, consequentially approve or decline its conceptual formulation, the developed model shall be implemented, tested and statistically leveraged in order to prevent any minor calculation imprecision on the five following industries of the national economy of Latvia:

- industries, unaffected by import flows: mobile communication market, banking sector and multi-purpose retail trade market;
- industries, affected by import flows: brewing industry and pharmaceuticals production market.

The reason for selecting the above mentioned industries is the need for various situations' testing of the developed model, which can be reached only by its implementation within the framework of different and partially unrelated sectors of the economy, while defining the effect of import on market consolidation processes and,

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consequentially, more rapid escalation and strengthening of monopolisation trend.

2. Quantitative functioning principles of the developed methodology

Reiterating the empirically-theoretical concept mentioned in the first section of the current research, individual market power of an enterprise consists of its ability to unilaterally implement an independently-favourable pricing policy and its current market share, defined as a fraction of the market short-term equilibrium total consumption capacity, composed of the corresponding supplier's economic activities within the mentioned relevant market. Therefore, an in-depth analysis of the two relevant crucial factors would greatly benefit the incorporation of assessment of market power phenomenon in the addressed broader problematic of monopolisation trend detection in modern globalised open markets.

Individual supply amount is critically affected by the existing or potential demand amount, with both of the mentioned fundamental economic factors being equalised or, econometrically speaking, mutually balances out by the common denominator of competitive market price. Therefore, it may be concluded that the effective size of an enterprise, measured by its presence in a market, is determined by the symbiosis of its individual supply amount and the corresponding sale price. It may be deduced that the individual supply amount multiplied by the relevant existing sale price would equal the turnover of the mentioned enterprise over a defined timeframe.

Therefore, if analysis of an industry level market's power distribution is being conducted or the required perspective dictates an evaluation, only focusing on a certain product type or non-supplementary market structures, the turnover of the supply-constituting enterprises shall deliver the required accurate and objective results (Dierker, Grodal, 1996).

In cases of imperfect or as defined by Chamberlin, monopolistic competition (Chamberlin, 1947), which is the source of monopolisation process development and monopolistic trend emergence, market power is unevenly distributed between the suppliers, active in a relevant market, and the trend of exercising the available influence causally derives from the ability to either neglect or predetermine the retaliation actions of the existing effective competitors, which consequentially leads to monopolistic trend strengthening and potential establishing of a dominant position. Following such logic, the ratio of cumulative individual distribution of market power in case of the existing monopolistic competition to the equivalent value in situation of perfect competition would objectively and rationally reflect on the current state of monopolistic trend development and, if a dynamic trend is analysed, enable the calculation of such occurrence future emergence probability. A detailed elaboration on the current issue may be found in the authors' previously conducted research. (Skoruks, Nazarova, Senfelde, 2016).

3. Implementation of the developed methodology in the context of the defined research hypothesis verification

The calculations were conducted in a manner, adherent to the principles and methods, described in the previous research (Skoruks, Senfelde, 2015) and were based on the available statistical data (CSB, 2015; Lursoft data base, 2015; SAM, 2015) for the relevant analytical period. It would be rational to analytically summarize the acquired results of the conducted experimental implementation of the developed methodology in order to transparently compare both quantitative and qualitative aspect of the introduced models' applicable functionality. The quantitative results of the developed methodology's experimental implementation are reflected in Table 1.

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Table 1

The quantitative results of the conducted experimental modelling

	Indicator group average value over 2010-2014		
Industry, used in the model implementation experiment	Current level of monopoli-sation	Further monopolisa-tion potential	Cumulative level of monopolisa-tion
Mobile communication market	35.08 %	15.62 %	28.27 %
Banking sector	31.37 %	25.53 %	29.32 %
Multi-purpose retail trade market	29.81 %	20.13 %	26.42 %
Brewing industry	11.96 %	11.94 %	11.95 %
Pharmaceuticals production market	6.97 %	8.93 %	7.66 %

Source: compiled by the authors based on previously conducted research (Skoruks, Senfelde, 2015), (Skoruks, Nazarova, Senfelde, 2015), (Skoruks, Nazarova, Senfelde, 2016)

With the goal of creating a comparison between the results of the conducted quantitative experiment in a transparent and comprehensible manner, the developed model had been supplemented by a qualitative interpretation scale of the aforementioned numerical outputs. The qualitative interpretation of the quantitative values, taken by the indicators employed in the developed model, is disclosed in Table 2:

The information given in Table 2 verifies that the level of monopolisation in the mobile communication, multi-purpose retail trade markets and banking sector had a considerably higher current level of monopolisation than the brewing industry and pharmaceuticals production market. This indicates that those of the analysed industries, which had a significant amount of imports, tended to have a visibly lower total level of monopolisation, thus upholding the theory of international trade playing a positive role in development of competition environments, hence the process of monopolisation if addressed through the prism of econometric analysis as an economically natural, ever present phenomenon, may be considered as the regressive counterpart or "the flip side" of competition, meaning that both monopolistic trend escalation and competitive strive strengthening are simultaneously present in every truly market economy and its industries (except for the public monopoly cases), while being directly-proportionately reversely orientated in terms of their maturity and conduct.

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The fact that had proven to be even more intriguing is the acknowledgement that even mild presence of imports (as in the case of Latvian brewing industry) seems to stimulate a higher level of competition and a significantly diminished strive for monopolistic tendency progression, which may be explained by the fact that the presence of imports not only indicates a sufficient degree of market openness to new entry, but, more importantly, delivers a clear message of actual involvement into cross-border economic activity and at least regional trade, thus making the relevant market a more attractive option for international investment and further non-domestic market actor involvement. Sustainable business environments emergence, rational functioning and constituent development within modern, converging and financially attracting industries, which are simultaneously competitive,

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diverse and adaptive in terms of their macroeconomic conjuncture structuring, is, therefore, a direct derivative of the scale of involvement in cross-border economic activities and international trade.

Conclusions

Taking into account the conduct, results and findings of the current research, one may conclude the following:

1) the process of monopolisation is a natural economic phenomenon, emerging from and simulated by competing enterprise strive for business process profitability, market position strengthening and gaining the desired entrepreneurial competitive advantages;
2) Monopolisation trends are most likely to emerge in situations of disproportionate individual market power distribution between supply-side market actors, engaged in economic activities within a defined relevant market and mutually competing while implementing price-related engagement strategies;
3) contemporary macroeconomic condition enable the emergence of an empirical situation in which small open economies undergo a business environment (including its cyclical competent) factor-based and internal competition-driven process of market consolidation, which leads to an accelerated concentration of individual monopoly power in specified niches, particularly in those industries and relevant markets, which are excluded from participation in international trade and are therefore constrained in the scale of positive regional convergence and cross-border entrepreneurial cooperation effects, delivered by the interconnectedness of the modern global economy;
4) monopolisation tendencies may be detected through the analysis of mutual compensation effect of individual market power in the context of the aforementioned business cycle evolution;
5) applying harmonised quantitatively-analytical methods and their qualitative interpretation algorithms in the context of synergetic econometric modelling proved to be an efficient methodological approach of detecting, recording and evaluating contemporary monopolisation trends.

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