

## COOPETITION OF SERVICES AND THE DEVELOPMENT STRATEGY FOR COMPETITIVE INDUSTRIES

Piotr BERNAT

University of Applied Sciences in Nysa; piotr.bernat@pwsz.nysa.pl, ORCID: 0000-0001-5250-4604

**Abstract:** In the case of competing industries, proper assessment of needs and opportunities supported by market analysis and forecast allows adopting strategies for dealing with competition. Coopetition of services is one of the possibilities for the development of entities. The article indicates the reasons for competition cooperation. This cooperation may result from the expectations to increase the scale of impact, reduce operating costs or offer an extended package of services. This causes the need to study customer needs and identify market trends, and consequently build scenarios that are answer to them and allow to adapt to market changes.

**Keywords:** management, strategy, development, services, competition, coopetition, organizational space.

### 1. Introduction

Many conditions of enterprise development (Konieczna, 2012) make the future state difficult to recognize. This requires market analysis, assessment of needs and possibilities, and, as a consequence, indication of development directions. Then a development strategy is necessary (Banaszyk, 2012), and this is connected with the need to develop possible scenarios and define the conditions triggering their implementation (Perechuda, and Sobińska, 2018). Development scenarios, as the effects of analytical work, reduce the uncertainty associated with management processes. Analysis of the initial situation allows the assessment of the actual state, which is the basis for listing possible directions of potential or occurring changes (Puto, 2017), which is associated with forecasting future states taking into account the coefficient of variation (Boulton, Allen, 2007). Therefore, it is important to consider the question of which strategy to adopt in such a complicated situation (Steinerowska-Streb, 2018).

Building a development strategy within competitive industries should be done taking into account both income and cost considerations. Therefore, it is important to assess which activities generate specific consequences – e.g. they make a profit – and what is their share in

the overall balance of operations. Analysis of the structure of income and costs will allow to determine the causes and dependencies and indicate solutions that will be considered as the most effective, which correlates with the characteristics of business models exposing competitive advantage as well as based on profitability determinants (Brzóška, 2019). This will form the basis for decisions on the possibilities, needs and, consequently, the business model adopted for implementation (Borowiecki, 2011). One option is readiness to cooperate with competitors as part of a cooptation strategy (Bernat, 2017; Dagnino et al., 2008). Hence the question whether cooptation of services can be a strategy for the development of entities of competitive industries and analytical work aimed at answering them not including the analysis of the possibilities of cooptation of services of competitive entities on the basis of identified market trends translating into the entity's development scenarios, which are the objective of this study. The assumed variability of responses will be a consequence of objective market factors and subjective assessments managing individual entities, as well as customer assessments and responses to the services offered (Mitek, and Miciuła, 2012). In this context, shaping the organizational space including real, virtual and media dimensions (Bernat, 2018, pp. 69-85) should be considered together taking into account product leadership, closeness with the client and operational improvement, which highlights the complexity of the issue and the variability of decisions made. The author puts forward the thesis that taking into account both income and cost factors forcing changes in the development strategy requires the preparation of answers in the form of scenarios indicating the variant possibilities of the entity's activities. This translates into the need to build a strategy based on analytical work on the market and its development for identified trends, taking into account the entity's responses written in the form of scenarios of proceedings, including the assessment of the premises triggering change processes and possible competition behaviors, so as to duplicate or control them, but above all monitor.

At the outset, the cooptation of services is presented as one of the forms of cooperation between entities of competitive industries, indicating the advantages of such a solution, but also presenting its shortcomings and practice in this regard. As part of the assessment of market trends, supported by examples, income and cost factors were indicated as triggering market change processes, e.g. consolidation (merger) or cooperation of competitors. If a constant trend – the purpose of business – is to increase turnover, this can be done by popularizing the services offered, but also by increasing market share, and consequently at the expense of competition, which was reflected in the discussion on the competitiveness of entities in the context of development opportunities. Development by expanding the offer or increasing the impact area requires a scenario supported by an analysis of the initial state together with an assessment of implementation possibilities. Therefore, the article indicates critical external and internal factors enabling the implementation of development scenarios, without ignoring possible limiting barriers, because not only the opportunities arising from the adopted business model are important, but also limitations that may affect deterioration or even prevent implementation.

## 2. Coopetition of services

The configuration of expectations and capabilities of partners who are also business competitors allows for establishing real terms of cooperation within the coopetition of services, and as a consequence priorities and implementation schedule. The system approach to the consolidation process will then be recommended to determine if-and if so, to what extent-to cooperate or to try to take over competitors' clients or the competition itself and on what terms (Konieczna, 2012). These dilemmas can be reduced to the process of taking over customers (Banaszyk, 2012). This process is continuous and may intensify with increasing competition or other adverse market changes (Steinerowska-Streb, 2018). Therefore, it should be assumed that it will be a continuous process of change with periodically varying intensity (Borowiecki, 2011). In the case of coopetition, we also consider the process of creating and appropriating values indicating the dynamics of changes that ensure the generation of values impossible to achieve on their own (Czakon, 2009). Analyzing the market of air passenger services, one may observe periodic changes that lead to various forms of market consolidation. In the case of the American aviation market, this concerned mergers, mainly through mergers (acquisitions or mergers). An example of analysis regarding possible coopetition of services is provided by the process of merging two lines, i.e. American Airlines (AAL) and US Airways (USAW), one of which served the internal market, and the second intercontinental connections, competing with each other on a few served routes. It was a very favorable initial situation for coopetition. In the example under consideration, the organizational space did not require significant transformations (Bernat, 2012), and even these could have been very slight changes, since only 12 of 900 routes were covered. Despite this, there was a takeover and not coopetition. Hence the question about the conditions for using the given solution becomes important. And whether they are only substantive premises resulting from the analysis of the market condition and assessment of business partners (competitors) or do they cover non-territorial premises. Merger 6. on the USA, USAW aviation market with the 3rd AAL, the carrier was connected with an exchange of shares worth USD 11 billion, and at the same time was a way for AAL to exit the creditor protection procedure, and for the USAW it was a chance for development in a market dominated by great and aggressive players. These goals were not possible to achieve alone.

After determining the distribution of shares (72% for AAL creditors and 28% for USAW shareholders) or other important issues, among others retaining company names, remaining in alliances so far or leaving transfer centers, it was possible to restructure. Agreeing on the terms of the merger covering these issues begins a complicated acquisition procedure taking into account the legal and ownership situation. The legal situation may refer to the facts of the entity (AAL bankruptcy), industry regulations (market segment regulators) or national regulations (antitrust office), and the ownership situation results from the composition of the shareholders'

ownership. Therefore, the reasons for the lack of cooperation can be very different, and cooperation itself may not even occur despite favorable starting conditions, such a form of competition cooperation.

The problems of establishing cooperation of services as a strategy for the development of entities in competitive industries may result from the difficulty of predicting the time of the strategy implementation or the way of leaving the cooperation. The reason for the lack of cooperation, despite the existing premises, may also be, in addition to the listed ones, interpersonal problems, including communication or personal ones. On the other hand, there are examples of cooperation ensuring the development of entities on the competitive market of services (Bernat, 2012), such as cooperation of tourist companies - in terms of making the offer more attractive by extending the services provided by competition services or including competition services in the package of benefits offered (income reasons) – whether cooperation telephone networks – based on a joint start to tender for a selected frequency segment (cost factor).

In the analyzed case there was an advantage of cooperation over competition, and yet it did not lead to cooperation, and therefore other factors decided about it. In cooperation, the process of creating and appropriating values is long-lasting (Cieśliński, and Perechuda, 2015), but it does not manifest itself as, as complicated as merging enterprises. Cooperation is burdened with a high degree of uncertainty, because there are still two competing entities and it is difficult to predict how the cooperating entity will behave in the future. Cooperation is accompanied by the relative ease of establishing cooperation, but it seems that in the opinion of decision-makers it is a solution so "unstable" that many companies undertake a much more legally complicated and time-consuming and cost-effective merger (acquisition) procedure ensuring, after its implementation, the functional stability of the adopted solution (Mitek, and Miciuła, 2012). Hence the postulated need or necessity to recognize market trends, both in industry and services (Bernat, 2017) and to adapt business models (Brzóska, 2019) to changes taking place, ensuring the proper functioning of the entity on the market of competitive industries.

### **3. Market trends and cooperation**

In the analyzed example, the impulse for the merger was observation of the market and the dynamic changes taking place there, and the direct factor triggering the merger process was the difficult economic and legal situation of one of the entities, i.e. bankruptcy proceedings and the desire to develop the other, which was not possible to implement alone.

Another example of changes taking place on the air services market are alliances connecting several carriers into a conglomerate of service providers providing services according to common, consistent procedures. Then one can speak of external cooperation increasing the

effectiveness of cooperating enterprises (Zakrzewska-Bielawska, 2014). Next will be low-cost carriers, i.e. the creation of a competitive offer, also by subsidiaries - internal co-option. Its distinction is due to the need to systematize cases in which entities set up, separate or have in their structure units "competitive" to each other, which expand the market offer by increasing the number of recipients, while creating – as perceived by the client – real competition. However, more importantly, they also create a barrier to market access for other participants. This is a business model specific to the market of competing industries.

In both cases presented above, the cost factor can be considered as the main determinant of changes taking place, which should be considered in the context of resources and their availability. Hence, both the organizational and financial abilities of the proposed solutions are analyzed, and this directly translates into shaping the organizational space of entities (Cieśliński, and Perechuda, 2015). Carriers – participants in the agreement – gain, through economies of scale, strengthening the strength of the alliance's influence as a group. The alliance includes not competing against each other on the routes served, providing services according to a common standard, reducing costs through joint purchases or negotiating charges (e.g. airport). On the other hand, in the case of low-cost carriers – thanks to the specialization manifested in the selection of routes served, the standard of services rendered, as well as the operational intensity of their operations – a significant reduction in the operating costs of their operations is achieved. Hence, it should be concluded that shaping services, which is a consequence of the identified trends, can take place according to revenue or cost reasons, but it can also be the result of a combination of both, depending on the factors identified as the main components affecting business profitability.

Anticipating the future on the basis of ex-post analysis is difficult to implement, and in addition the description only reflects the likely future state, but at the same time these analyzes are necessary to offset uncertainty, also due to the time needed to prepare answers in the form of actions strengthening or changing the current proceedings and – what is important for the conducted considerations - duplicating or counteracting the actions of competitors (Adamik, 2012). Will there be only a few large lines forming groups in the European aviation market in a few years, and what will the consequences be for existing entities? If further restructuring is inevitable, when will they take place and what does this mean for local national carriers? How can behave those carriers who, in this scenario, appear to be at risk because of the scale of their operations? And what factor forcing changes should be considered, e.g. technological, will they be cost problems again? For air carriers, the important cost factor affecting the profitability of business is the price of fuel. This assumption reduces analytical work to the question of whether profitable operations, e.g. at a USD 50 barrel price, will be profitable at a price of USD 80-100, i.e. after a increase major cost factor of up 100%. And how to prepare for it to keep this profitability? Therefore, this is a cost issue, and the synthesis will require listing the appropriate development scenarios of the entity.

The second factor forcing changes is the scope of services rendered and a tendency to expand them and transfer the burden of fees to additional services, i.e. extensions at the expense of basic services. As a consequence, these services and the path to increase their share should be designed so that additional services could generate 20-30% of the target all proceeds. The strategic assumptions should include that they will be constantly developed. This requires answering the question whether it is achievable independently and under what conditions, so external and internal, it is feasible (Raszkowski, 2015). This illustrates the two main directions of changes that should be included in the development scenarios of industries, and which result from the desire to keep pace with competition. Therefore, the business model should take into account both product leadership, closeness to the customer, and operational excellence, which pose new challenges in shaping the organizational space of the entity, and at the same time should constitute the basis for the competitiveness of development strategies.

#### **4. Competitiveness of entities and development**

A constant trend in the activities of each entity is to increase turnover, which in the analyzed case – air transport – means a continuous increase in the number of passengers transported. This can be achieved due to the widespread use of services, but also at the expense of competition by taking over customers. The widespread use of air services is evident, as confirmed by transport statistics and forecasts (Statystyki, 2020). The number of passengers in scheduled and charter traffic at Polish airports increased from 2,514,733 in 1993 to 20,466,876 in 2010, i.e. eightfold. In the case of Warsaw, it was 2,149,768 in 1993, respectively, and 8,666,552 in 2010 (4 fold), which confirms the growing importance of air transport, but also of regional airports. This requires a change in the approach to customers so as to associate them with a given brand or even service in accordance with the change in the paradigm "customer and not product" (Steinerowska-Streb, 2018). It will be recommended then to abandon the provision of only cheap services, where the most important is the cost factor, in favor of taking into account the expectations of service recipients and adapting solutions to identified needs (Raszkowski, 2015), which requires appropriate relationships (closeness with the customer). The interactions that occur will then allow product (offer) optimization, not just cost optimization (Adamik, 2012), and this will result in a competitive advantage (product leadership) on the revenue side. Hence the development scenarios that take into account the company's situation against the background of the market and ways of reaching the anticipated future states, translating into efficiency (operational excellence), which in turn forces constant, systematic adaptation of the organizational space of the entity, to achieve these states.

The cost approach to business analysis, although it may be an impulse to create new business models (Konieczna, 2012), is far from sufficient, as it does not contribute to the development measured by increasing revenue in the long term (Brzoska, 2019), and this can only be provided by recipients, and here we have two possibilities requiring various and sometimes even contradictory actions, despite the fact that they relate to the same direction of development included in the economic analysis on the revenue side (Puto, 2017). Increasing revenue may result from the package of services offered (range of services) or the number of services rendered. The internal conflict visible here, which manifests itself in the need to simultaneously achieve contradictory goals, concerns the settlement of the dispute on how to develop the main goal in a bundle of specific goals that allow determining the expected final state and actions to achieve it. The answer will be a strategy taking into account guidelines, directions and actions, thus organizing the organizational space and allowing its systematic and targeted transformation to ensure implementation efficiency (Dźwigoł, 2009). The internal competition of goals to be achieved, and therefore the ways of reaching solutions, correlates with the need to recognize future states or development directions. Hence the recommendation of continuous analysis of the market situation and recognition of trends by the assumption of quasi-stable (Boulton, and Allen, 2007) and changes taking place, as well as emerging innovations and their potential for implementation (Zastempowski, 2013).

Development by introducing new services or extending existing ones or changing the impact area requires – in addition to the scenario supported by the analysis of the initial state – an assessment of implementation possibilities. The key restriction can then be both infra- and supra-structure. For air services, but also for other industries, both procedural and hardware matching will be important. Referring to the analyzed example, entering the long-haul flight market requires appropriate aircraft, a network of connections and interchange bases. The "moment" of introducing services is also important because the existing restrictions, e.g. in access to the transport superstructure, may cause: deterioration of the quality of services provided or the cost structure, and in extreme situations the inability to implement. Therefore, critical success factors ensuring competitiveness and possible barriers to the implementation of development scenarios should be identified.

## **5. Scenario analysis**

The starting point for considering possible actions to be carried out is the analysis of the market situation. The actual initial state, supported by the analysis of changes taking place over a longer period of time, will be the basis for designing the subject's development directions, and thus shaping the organizational space and assessing the probability of achieving the predicted future state. In the case of air transport – if traditional airlines earn by servicing long

routes and lose on short routes, which results from the cost structure of these carriers – it is necessary to specify the main cost factors, their impact on the profitability of conducted operations and to predict the trends of probable changes. Such analysis will allow to determine to what extent the implementation of a given service will translate into the most important cost factors and when it will be profitable. If there are significant cost components in the cost structure of the business, then the implementation of a given service may be made conditional on its impact on these components or an inverse relationship may be indicated, i.e. the impact of a cost factor on the service, through determining the implementation cost. In the conducted analysis, the income scenario seems to be more important, from the point of view of development, in which, in addition to the ones described above, i.e. extending services and shifting the burden to additional services as well as specialization or low-cost solutions – innovations can be helpful (Zastempowski, 2013), including rapidly developing advanced technologies, such as ICT that fall under the 4.0 concept.

Another guideline of scenario analysis is the constantly present and periodically intensifying processes of industry consolidation. There may be cooperation here, but also takeovers, including hostilities. Which is therefore a barrier to cooperation. Why do companies choose the merger process? Is it due to: an approach to a potential partner treated as a competitor or an assessment that it poses a greater threat than the rest of the market; beliefs that the entity will cope on its own, or finally attachment to discursive and implementation autonomy, and perhaps the lack of popularization of cooperation as a form of company development among managers or a business model adopted by the owners. These are questions that require answers when determining the boundary conditions that are the starting point for scenario analysis. Whether decisive about the adoption of a development strategy may be the "practice" of the market, i.e. the experience of managers, because there are many examples of acquisitions (mergers) and therefore they are known, arouse emotions, trigger discussions, and above all give the opportunity to assess ex-post and making recommendations for future behavior.

The wave of changes in business models resulting in restructuring can have many causes, such as a technological leap or economic crisis, manifested in an imbalance of demand with supply and affecting the environment. An example of this will be the collapse of the housing market in 2008 in the US, which has resulted in changes in other service sectors and has also affected Europe. This shows the strength of local markets only seemingly unrelated to each other and the power of informative feedback. Negative information causes caution by other market participants, and the signal becomes an impulse to slow down or even reverse the trends resulting in a temporary lack of liquidity by the emerging "bottlenecks". As a consequence, disruptions in information and financial flows change the conditions of business operations, and in fact their deterioration results in forced rather than planned restructuring, hence the need for scenario forecasting of market development directions, but also for modeling random events in them (Dźwigoł, 2009).



Legislation may stand in the way of the entity's development, protectionism still visible including, manifested in the interference of states in the organization of the functioning of industries, markets or the formulation of specific rules for conducting business in a given country or in a given area (economic zones). Therefore, in addition to predictable factors, development plans should include the possibility of random events, which are generally unpredictable (e.g. the introduction of a penalty of EUR 10,000 at Brussels airport for exceeding noise standards, which are not met by large aircraft), but can cause result in significant changes, impediment or even lack of business opportunities, e.g. by changing the cost structure or legal regulations. That is why the scenario analysis is so necessary, because although it requires the assumption that the models created in this way are a simplification of the real state and do not guarantee final implementation success, they are, however, a tool that allows to prepare a response limiting the uncertainty associated with predicting future states and dominant trends.

## Summary

External development problems of the company are competition on the market, lack of clear development directions or legal provisions. Random events that are difficult to predict can also be significant. Therefore, in the scenario analysis, it is necessary to anticipate possible market changes and to develop recommendations regarding the entity's behavior that are a response to identified trends. However, it is extremely difficult, because only some of the factors can be described as predictable, and therefore can be described as part of the model reflecting reality. At the same time, you should be aware that for a model to be functional it must contain the necessary simplifications. Despite this, such an analysis still remains the basic management tool, enabling the recognition of trends and deriving recommendations that fit into the specific business model adopted for implementation.

The development strategy resulting from market recognition, and written in the form of scenarios, translates into the stability of the entity's functioning, also in terms of shaping the organizational space, as internal resources or the situation of the entity against the market can be crucial for the proposed solutions. Hence, even an initial assessment favorable to a given solution (e.g. coopetition) will not always translate into practical implementation. At the same time, such a strategy, i.e. based on scenarios, allows for better preparation of the entity for events beyond these arrangements. In practice, mergers, including hostile takeovers, are much more common than coopetitions, and this may be due to the experience accumulated by managers, but also to ownership decisions or durability of the solutions adopted. Coopetition is cooperation with competitors and if it is taken into account, it appears to the decision-makers as a specific form of cooperation. The ownership structure seems to be more important, from a longer perspective, as development can be reduced to increasing turnover,

i.e. the process of expanding the group of recipients and, as a result, taking over customers, i.e. increasing market share. And although these are different approaches to the same issue and may require a different approach in implementation, they come down to taking over the market from the competition, and closer to practice and a more durable solution, it turns out to be taking over not only market share, but also the competition itself

The observed market trends and factors forcing changes, described on the example of air transport services in passenger traffic, are the scope of services provided and cost problems. Hence, on the one hand, we have income and cost factors for changes, and their occurrence can be characterized as periodically increasing, and thus temporarily reaching the most important, for business profitability significance. Thus, the business model should include both external market conditions for competition, as well as internal activities and resources of the entity characterizing its development opportunities. In the summary, we can say that this development depends equally on the correct assessment of the state of the market and trends, as well as the ability to cope with competition, which is particularly important in the context of the market of competing industries.

## References

1. Adamik, A. (2012). Konkurencyjność jako metafora gry – próba uproszczonego spojrzenia na proces kształtowania konkurencyjności przedsiębiorstw. *Zeszyty Naukowe SGH w Warszawie, Studia i prace kolegium zarządzania i finansów*, 116, 7-17.
2. Banaszyk, P. (2012). Podstawowe dylematy strategiczne w zarządzaniu przedsiębiorstwem. *Zeszyty Naukowe SGH w Warszawie*, 116, 18-24.
3. Bernat, P. (2017). Kształtowanie przestrzeni organizacyjnej w strategii horyzontalnej kooperacji. *Zeszyty Naukowe Politechniki Śląskiej, seria: Organizacja i Zarządzanie*, 113. Gliwice: Wydawnictwo Politechniki Śląskiej, 11-22.
4. Bernat, P. (2018). Kształtowanie przestrzeni organizacyjnej w kontekście trendów w przemyśle i usługach. *Zeszyty Naukowe Politechniki Śląskiej, seria: Organizacja i Zarządzanie*, 118. Gliwice: Wydawnictwo Politechniki Śląskiej, 69-85.
5. Borowiecki, R. (2011). Przedsiębiorstwo w obliczu wyzwań współczesnej gospodarki. *Nierówności Społeczne a wzrost gospodarczy*, 20, 1-15.
6. Boulton, J., Allen, P. (2007). Complexity Perspective. In: M. Jenkins, V. Abrosini, N. Collier, (Eds.), *Advanced strategic management. A multi-perspective approach*, New York: Palgrave-Macmillan, 215-216.
7. Brzóska, J. (2009). Model biznesowy – współczesna forma modelu organizacyjnego zarządzania przedsiębiorstwem. *Kwartalnik Naukowy Organizacja i Zarządzanie*, 2(6). Gliwice: Wydawnictwo Politechniki Śląskiej, 5-23.

8. Cieśliński, W., Perechuda, K. (2015). Teoretyczne aspekty sieciowania przestrzeni organizacyjnej. *Wałbrzyska Wyższa Szkoła Zarządzania i Przedsiębiorczości*, 32, 2.
9. Czakon, W. (2009). *Koopetycja – splot tworzenia i zawłaszczania wartości*. *Przegląd Organizacji*, 12, 1-9, <http://www.wojciechczakon.com/pub/koopetycja-splot-tworzenia-i-zawlaszczania-wartosci.pdf>, 14.02.2019.
10. Dagnino, G.B., Le Roy, F., Yami, S., Czakon, W. (2008). Strategie koopetycji – nowa forma dynamiki międzyorganizacyjnej? *Przegląd Organizacji*, 6, 3-7.
11. Dźwigoł, H. (2009). Model restrukturyzacji organizacyjnej przedsiębiorstwa górniczego. *Organizacja i Zarządzanie*, 2(6). Gliwice: Wyd. Politechniki Śląskiej, 25-41.
12. Konieczna, I. (2012). Rozwój koncepcji biznesowych. *Studia i prace kolegium zarządzania i finansów, Zeszyty Naukowe SGH w Warszawie*, 116, 105-117.
13. Mitek, A., Miciuła, I. (2012). Współczesne determinanty rozwoju przedsiębiorstw prywatnych. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*, 28, 53-66.
14. Perechuda, K., Sobińska, M. (Eds.) (2008). *Scenariusze, dialogi i procesy zarządzania wiedzą*. Warszawa: Difin.
15. Puto, A. (2017). Cele rozwojowe współczesnych przedsiębiorstw – wyniki badań własnych. *Handel Wewnętrzny*, 368, 374-386.
16. Raszkowski, A. (2015). Rola kreatywności w funkcjonowaniu organizacji usługowych. *Zeszyty Naukowe Uniwersytetu Szczecińskiego, Problemy Zarządzania, Finansów i Marketingu*, 37, 850, 23-31.
17. *Statystyki i analizy rynku transportu lotniczego*, <http://www.ulc.gov.pl/pl/regulacja-ryнку/statystyki-i-analizy-ryнку-transportu-lotniczego>, 12.03.2019.
18. Steinerowska-Streb, I. (2018). Zachowania rynkowe przedsiębiorstw – istota, rodzaje, kierunki badań. In: L. Kiełtyka, W. Jędrzejczyk, P. Kobis P. (Eds.), *Wyzwania współczesnego zarządzania. Nowe technologie-innowacyjność-kompetencje*. TNOiK „Dom Organizatora”, 91-103.
19. Zakrzewska-Bielawska, A. (2014). Rola koopetycji w podnoszeniu konkurencyjności przedsiębiorstw – benchmarki działań koopetycyjnych w praktyce firm high-tech. *Prace Naukowe UE we Wrocławiu*, 363. Wrocław, 75-86.
20. Zastempowski, M. (2013). Potencjał innowacyjny małych i średnich przedsiębiorstw na tle liderów polskiej gospodarki w świetle badań empirycznych. *Współczesne Zarządzanie*, 2, 68-75.
21. [http://www.ulc.gov.pl/\\_download/statystyki/2014/Dane\\_1993-2010.pdf](http://www.ulc.gov.pl/_download/statystyki/2014/Dane_1993-2010.pdf), 12.02.2019.
22. [http://www.ulc.gov.pl/\\_download/regulacja\\_ryнку/statystyki/prognozy/prognoza\\_2017.pdf](http://www.ulc.gov.pl/_download/regulacja_ryнку/statystyki/prognozy/prognoza_2017.pdf), 12.02.2019.