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ADDRESS, DEDICATED TO THE 93D ANNIVERSARY OF THE
ESTABLISHMENT OF UNIVERSITY OF ECONOMICS – VARNA

Assoc. Prof. Dr. Violeta Dimitrova

Dear Rector, dear colleagues and guests,

Today the University of Economics – Varna marks its 93rd anniversary. It is a
day of admiration, honor and respect for the predecessors and everyone after them
who continued their deeds.

Deep meaning was set in the annual ritual on this day for the academic community
to gather together and address their spiritual heritage, to reread what they once wrote.
The words uttered fly away – the written ones remain. Rituals bear hidden messages
that are passed on from generation to generation and deciphering them is the key to
the nearly century-old experience, knowledge and spiritual development of our university.

Going back in history to the idea for establishing a higher school of commerce is
an opportunity to cherish inspiration and discover landmarks for the future. Knowing
the spiritual tradition allows us to rediscover the right way of development. The condition
of every educational institution in any single moment presupposes its own history.

The significance and relevance of current issues could not be grasped fully without
awareness of former problems and the methods for solving them. Today society is
facing difficulties as a result of the economic and political crisis. However, much
bigger and deeper is the crisis of the spirit.

If we go back to the distant 1920 when at its regular XXVth session the Varna
Chamber of commerce and industry made the decision for turning the School of Trade
set up in 1911 into a university, we have to report that the economic situation then was
not easy either.

The idea of a higher school was born when Varna had a population of 41 thousand
citizens\(^1\), of those a little more than half were literate. After the wars, in 1920 compared
to 1911, import decreased almost 7 times and export – considerably more. With losing
Dobrudzha the turnover of the Port of Varna started going down as well.

It is exactly at that time that the spiritual energy of the university forefathers in
the face of the first lecturers Tsani Kalyandzhiev, Feodor Belmer, Marin Kotarov,
Israel Shalom, Mincho Minchev and Naoum Dolinski was focused on how to improve
the economic development of the region and the community.

In his report before the Chamber in 1920 the champion for establishing the
university and first rector Prof. Tsani Kalyandzhiev pointed out: “the conditions in
Bulgaria after the end of the First World war were much more unfavorable compared
to 8-10 years ago when we came up with the idea of setting up a Higher school of
trade” and added that “the need requires it even more”.

\(^1\) 41 317 citizens according to the „Statement about the situation of the Varna region in 1910-1911 г.”,
He underlined that “given the burden inherited from the wars and the common backwardness, our country could not cope with only copying the methods of the more advanced countries. Instead, there was a demand for creative forces prepared on the basis of social theories and academic knowledge about our reality – something which could happen only in educational institutions that exist and develop in our situation.”

Today his words about the basic principles of higher schools sound up-to-date:

• “to adjust the education of every citizen to the real conditions of production of time and to inspire those feelings and ideas without which no progressive development of any advanced civil organization is possible.”

• “to direct theory and methodology towards practical issues in order to achieve a more perfect organization of social forces in manufacturing, exchange and human relations.”

The needs of the society, region and country were set into the understanding of the university founders about its mission. Its goal was formulated in the first regulations of the Higher school of trade – to cultivate those socioeconomic and commercial-and-technical sciences that are necessary for studying and researching commerce and industry and thus meet the needs of the country.

Prof. Kalyandzhiev used well-grounded arguments to reject the practice of centralizing “all important Bulgarian cultural offices in the capital of the country” and underlined that “the special goals of a higher school of trade requires their objective environment and appropriate professional ground that are now presented mostly in Varna.”

Taking into account the need for “that, as he called it economic psyche that gives cultural and professional food to lecturers and students”, he pointed out that the economic lifestyle and the pace of life as a whole are reflected into the Higher school, they leave an imprint in the psyche of lecturers and students by uplifting or lowering it.

For Prof. Kalyandzhiev the development of Varna and the region was a cause he worked for all his life: he chaired the cultural-and-educational community centre in the city that organized the first musical festivities in Varna in 1926 (known today as the “Varna summer” festival); in the 30s he was the initiator, founder and first chairman of the “League for Varna as a resort”; he worked tirelessly for turning Varna into a first-class sea resort.

Prof. Kalyandzhiev spoke about cultivating science because if “science, knowledge and culture do not underpin the state-and-political and economic life of the country, the latter would not be able to endure the pressure of the modern, experienced and far richer overseas competitors.” A champion for developing professional education, he pointed out repeatedly that “every professional education bears fruit only when it is set upon high literacy.”

In a paper written on the occasion of the annual deed of HST Prof. Naoum Dolinski says: “In the higher school the task of delivering a certain amount of positive knowledge steps back compared to the strive to educate the student’s thinking

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2 Regulations of the Higher School of Trade at the Varna chamber of commerce and industry, “News” magazine of the University of Economics – Varna, 1995, issue 1, p. 82.
methodically in order to uplift his spiritual activity, make him learn to accept the surrounding reality with self-criticism and to provide him with a set of manners with which to have a real key to the complicated code of life.”

To live means to think, says an ancient wisdom. Happy is this that can learn the causes for things. To study and remember what you have learnt is a supreme joy.

Acquiring a higher degree of education with which to contribute for the spiritual development of a personality and society allows the citizens of Varna to call the Higher school of trade an Academy of trade – an institution which is entitled to “the completion and addition of all knowledge”.

Intensity of thinking, writes Prof. Dolinski, is a condition common for both sides of scientific teaching: the teacher’s intensity lies in the fact that he inspires for action the spiritual apparatus of his listener, whereas the listener’s intensity lies in an independent strive for finding the scientific solvation of the issues assigned.

Today again we rediscover the place of the live connection “lecturer – student” in the conditions of information overload of virtual space – an issue comparable to the access of information as a result of book printing for our predecessors.

A professor, Prof. Dolinski continues, cannot repeat other’s opinion or deliver accessible viewpoints, he has to create and teach, i.e. teach the summarized life and his own attempts to interpret it through his own viewpoint, otherwise lectures are pointless since Guttenberg’s invention makes it possible and accessible for everyone to read what is simply retold in lecture halls.

However, he added something essential – a student “cannot attend”, he has to “participate”. If he does not follow all mental movements of his lecturer, if he does not strive to go ahead of the output and discover his own logical way, in other words if after studying in the lecture hall he “doesn’t grow calluses in his brain”, then his lecture attendance is pointless because he is actually present at someone else’s mental feast and where other people get real food he has to do with a few useful remains only.

We are here in this university in order to teach and educate the human within ourselves – something that takes a whole life. The development of the university doesn’t lie in endless optimism, it is not only in keeping achievements either. It lies in farsightedness as regards changes, trends and variety of options.

Or, as Ovid and Seneca wrote a long time ago – “Times change and we change, too.” Yet, we need to add – we change with respect for the affirmed values of the institution, honoring our own history, taking pride in our achievements and trusting our own significance.

Students, lecturers and employees together – the whole academic community – we make the institution of the University of Economics-Varna alive.

Happy anniversary!

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7 Komenski Yan, Great didactics. Sofia: published by the Bulgarian Academy of Science, p. 272.
9 ibid, p. 61.
Introduction

Positioning is among the basic elements of the contemporary marketing management¹ and a benchmark for determining the parameters of market offers. Marketing experts use the positioning strategy in order to differentiate their companies’ offers from the offers of their competitors and to communicate their desired positions².

The concept of market positioning is applicable in different aspects: companies, companies’ divisions, outlets, brands, product lines, personalities. Irrespective of the aspect of application, the purpose of positioning is to create a unique and favourable image in the minds of target customers”³. Therefore, marketing experts have to plan the positions in which their offers have clear points of differentiation from their competitors and to communicate them appropriately to their target market. Towards the implementation of this task T. Krastevich⁴ defines the following informative and analytical questions in the process of developing a positioning strategy at the “product” level⁵:

- What needs can be met or satisfied through the specific product?
- What are the main purchase determinants of the consumer behavior in terms of the respective product?
- To what extent do the proposed product and the products of its main competitors match the purchase determinants?

The above questions can provide an explanation to marketing experts as to the development trends of the tools for studying the positioning of products, brands and companies, as well as the operation of the said tools. Identifying needs and the fundamental determinants of consumer behavior in a specific context, as well as assessing the degree of correspondence between companies’ offers and the purchase determinants can be done by assessing the perceived quality of the seller’s offer, as well as by assessing the strength of the corporate image.

⁵ The issues raised are related to positioning on the “product” level, but after adaptation they can be successfully used also for the positioning of brands and companies.
The purpose of this article is by clarifying the nature and role of the concept of positioning and following its evolution, to present and analyze the results of a study of the market positions of particular companies, through the quality of their offers and their corporate image.

The companies featured in the research are ‘Interservice Uzunovi’ plc and ‘Ralitza Furniture Houses’. The classic approach to estimating the market position requires an examination of customers’ opinion. The article, however, contains an unconventional approach to positioning: the employees of both companies were the respondents in the opinion poll. The logic that was applied is that staff opinion about corporate image and the components of their employers’ offers is inevitably projected onto customers through direct and indirect channels of influence. The selected objects of the study (the two companies) cannot guarantee representativeness that could make it possible to formulate clear-cut global conclusions. However, the total number of respondents in the two companies (50 in each) allows us to test the selected methodology using classical research instruments applied to an atypical target group.

1. Evolution of the positioning concept

The interest in the concept of positioning occurs in the context of the established three-step model of market development: “segmentation - target market selection - positioning” (STP). The process of market development is launched in response to the decreasing effectiveness of the offers in the 60s of the 20th century. The reason for reducing marketing efficiency was the standardization of product and service quality, and the massification of consumption, whereby clients lost their personalised image. The unification of the offers of the different sellers reduced the profit margin per unit of product. The marketing costs rose dramatically in order to attract more customers and to increase the profits. In that period marketing experts found that the ability of companies to tailor their offers according to the requirements of individual segments provided an opportunity to attract and retain more customers. This resulted in the concept of market segmentation, in the more precise determination of its scope and the application of several tools to help customers to build a specific image (position) of the offers of individual sellers. Tailoring of the offers and directing the costs of reporting the performance and potential of the respective market segment are based upon preconceived ideas of the brand positioning, product or company in the minds of customers in that segment.

It can therefore be concluded that the positioning is associated with the perceptions of customers, i.e the analyzed concept is psychological in its nature. Ries and Trout (1986)⁶ were the first to analyze the so-called “psychological positioning”, claiming that it does not simply refer to the product. They believe that positioning concerns above all the customer’s mind and his/her opinion on the respective product. In terms of the instruments used, positioning represents “the development of a specific marketing mix for impacting the general perception of potential customers of the brand, product or company as a whole”⁷. This means that after establishing the market position of the

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respective object of research (product, brand, company, etc.), suitable instruments need to be developed to attract the respective group of customers.

The indisputable importance of positioning for the companies’ market performance has promoted the development of different positioning models: Abbot’s concept, the perfect point model, the perfect vector model. Irrespective of the interest of different researchers in the positioning strategy there were no documented strategic positioning models in the specialized literature within a few decades until the 90s of the 20th century, which would have allowed a comprehensive view of positioning and its operation. In the 80s and 90s of the 20th century a number of researchers (Park, Jaworski, MacInnis, 1986; Hooley, Saunders, Piercy, 1998) made attempts at developing and testing conceptual positioning frameworks. A few years later Blankson and Kalafatis combined the ideas of the researchers from the 80s and 90s of the 20th century and developed a strategic positioning framework, in which they followed the process of defining a positioning goal, setting positioning tasks, implementation and monitoring of positioning strategies.

The conceptual positioning framework defines the process and the main interacting components as per the different stages without specifying how exactly the positioning can be implemented. The specific parameters through which it would be possible to determine the market positions of companies (as a whole or as per the elements in their offers) are the following: the perceived quality and the corporate image.

Golder et al (2012) believed that quality was the most important and complex component of the business strategy, which defines its position at the core of companies’ positioning. Marketing experts emphasize on the perceived quality as one of the possible dimensions of quality in principle. In this line Zaithaml (1988) argues that “the objective quality might not exist, since any quality is perceived by an individual”. Therefore, using a suitable set of instruments it is possible to assess the perceptions of a specific group of respondents as concerns the objective elements of the offers.

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Corporate image is another measure that can be used to determine companies’ market positions. It is an “important instrument of differentiation from the competition”\textsuperscript{16}. Image exists in people’s minds as an interrelated flow of information that triggers a picture and emotional reaction. Image is perceived as a totality of brand associations which are organized in a specific meaningful way in the consumers’ memory.

2. Methodology of the research

The descriptive method was chosen with a view of achieving the basic aim of the research. A standardized questionnaire was designed as a data collection instrument. The monitored units are the companies’ employees, distributed in groups: senior managers, middle managers and employees.

The volume of the sample is, as follows: 71\% of the general totality for the ‘Ralitsa Furniture Houses’ and 47\% of the general totality for ‘Interservice Uzunovi’ plc.

A juxtaposition of each of the researched companies with the “ideal company for the respondents” was made in order to assess the established perceptions in the minds of the employees. The responses of the polled individuals provide an indication of the distance of each of the companies from the ideal formulated by the employees. The evaluation of the views was made using a 5-point scale: from 1 – “very far” to 5 – “very close”.

The assessment of the method of positioning of the company was done also through the perception of the quality of the offer and the image of the researched companies. The perception of the quality of the offer was assessed in the following cross-sections:

- **Summary of the quality assessment of the offer in comparison to the offers of other companies selling similar products.** A 5-point scale was used: from 1 – “much worse” to 5 – “much better”.

- **Assessment by separate components of the offer** through a 5-point scale with Likert-type statements: from 1 – “I don’t agree at all” to 5 – “I completely agree”.

The companies’ corporate image was studied in two aspects:

- **General evaluation of the companies’ corporate image.** Measured by a 5-point scale: from 1 – “very negative” to 5 – “very positive”.

- **Evaluation of the companies’ corporate image by operationalizing variables.** A 5-point scale was used for the purpose, where 1 is the most unfavourable mark, while 5 is the most favourable mark). The assessment of the image through this technique was done in three aspects: functional, social and psychological.

The functional image was assessed through the following opposing pairs of statements: “offers good solutions for its customers – doesn’t offer good solutions for

its customers”, “committed to the problems of its customers – not committed to the problems of its customers”, “experienced – inexperienced”, “capable – incapable”, “flexible – inflexible”.

The social image was assessed through the following pairs of antonyms: “stable - unstable”, “friendly - unfriendly”, “confident – unconfident”, “honest – dishonest”.

The psychological image was assessed in the following aspects: “prestigious – not prestigious”, “socially committed – socially not committed”, “modern - conservative”, “respected – not respected”, “luxurious - ordinary”, “leader company – follower company”, “intelligent – not intelligent”.

To ensure the reliability of the data, the following statistical tests were performed: test for the reliability of the instruments used (through the Cronbach’s Alpha criterion) and the criteria validity test. The conducted statistical tests show a high degree of reliability and validity, which means that the data obtained are reliable.

The actual statistical data processing was implemented through: content analysis (of the open questions with initial definition of the dimensions of the quality and image), averages, regression analysis.

3. Results of the study and discussion

The comparison of the researched companies with the respondents’ perception of the ideal company allows for the following average grades to be formed: 3.18 for ‘Interservice Uzunovi’ and 2.88 for ‘Ralitza Furniture Houses’. These marks indicate that employees of ‘Interservice Uzunovi’ perceive the company as “mid-level” at almost equal distance from the “worst” and the “ideal company”, while the assessment of ‘Ralitza Furniture Houses’ is in the negative specter of the scale. The said distance is influenced by the respondents’ satisfaction under the individual motivators. The distance from the ideal company results from the frustration of the employees in the following areas: the fair moral evaluation for the efforts used, compensation, a sense of job security, attitude of managers to subordinates.

The discussed distance is influenced also by the perception of employees of the overall offer of the company, as well as by their perception of the corporate image. An important point in the evaluation of the quality and image is the subjective nature of the assessment for these two constructs. Even if employees are not competent to objectively assess the quality of the offer, it has to be taken into consideration that each of them has their own understanding of quality, which can often differ significantly from objective quality (as per the specifications). Reasons for this may include: level of intelligence of respondents, their experience, aptitude for selective perception, retention and distortion of reality, mutual influences between different constructs (eg, perceived quality can be influenced by the perceived image).

When interpreting the resulting average grades the possibility that none of the real market players comes close to the ideal company has to be accounted for. Therefore, the average marks in comparison with the ideal may be materially different from the average marks in competitive terms. The data concerning the quality of the offer (Table 1) confirm this conclusion.
Table 1

Average grades of the quality of the offers of the researched companies

<table>
<thead>
<tr>
<th>Assertions</th>
<th>Interservice Uzunovi</th>
<th>Ralitsa Furniture Houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compared to competitors selling similar products, the overall offer of the company is: from 1 – “much worse” to 5 – “much better”</td>
<td>3.13</td>
<td>3.43</td>
</tr>
<tr>
<td>The company provides for its customers sufficient volume of information about the sold products</td>
<td>3.88</td>
<td>3.73</td>
</tr>
<tr>
<td>The company provides for its customers precise information about the sold products</td>
<td>4.09</td>
<td>3.88</td>
</tr>
<tr>
<td>The company satisfies its customers’ specific needs</td>
<td>3.77</td>
<td>4.06</td>
</tr>
<tr>
<td>With their actions the company’s employees ensure the high quality of the service</td>
<td>4.07</td>
<td>4.17</td>
</tr>
<tr>
<td>The company’s employees are capable of solving any arisen problems of customers</td>
<td>4.33</td>
<td>4.25</td>
</tr>
<tr>
<td>The company’s employees are quick to respond to an occurred problem</td>
<td>4.29</td>
<td>4.00</td>
</tr>
<tr>
<td>The company has a flexible price policy in line with market changes</td>
<td>3.11</td>
<td>3.35</td>
</tr>
</tbody>
</table>

All average scores are in the positive part of the scale (above 3.00). This shows as concerns the studied eight aspects of perceived quality, that the employees believe that their employers are doing well or very well. The overall quality rating for ‘Interservice Uzunovi’ (3.13) to a large extent overlaps with the overall assessment of the positioning of the company in comparison with the ideal of the respondents (3.18). In general, the offer of ‘Interservice Uzunovi’ does not have any competitive advantage. The employees of ‘Ralitsa Furniture Houses’ believe that the quality of the offer is slightly better than the average performance of competitors. However, the evaluation of perceived quality (3.43) is substantially higher than the evaluation of the positioning relative to the ideal company.

The areas in which it can be strongly argued that the companies are able to maintain the quality of their offers are the following:
- ‘Interservice Uzunovi’ provides accurate information to customers; it ensures a high quality service; it responds relatively quickly whenever a problem occurs and manages to resolve it.
- ‘Ralitsa Furniture Houses’ manages to solve the problems of clients, ensuring high quality service and meeting the specific needs of its customers.

The most significant problems are related to the following elements of the offer:

**First problem.** The pricing policy of both companies is not flexible enough. Part of the orders of ‘Ralitsa Furniture Houses’ are executed within three months,
and prices are perceived as being high. Both companies are characterized by spontaneity in their promotions. The price problem is most significant in the offer of ‘Interservice Uzunovi’. This is confirmed by the conducted additional multiple regression analysis. It was found that pricing carries a 35.5% weight on employee perception of quality of the overall offer.

**Second problem.** ‘Interservice Uzunovi’ has difficulties meeting specific customer needs (average score of 3.77). The reason for this is its limited product range in the outlets.

**Third problem.** Customers of ‘Interservice Uzunovi’ do not get enough information about the products sold (3.88).

**Fourth problem.** The employees of ‘Ralitsa Furniture Houses’ fail to provide an adequate amount of information about the products sold (average score 3.73). This is mainly due to the use of untranslated catalogs of foreign partners, lack of information about the advantages and disadvantages of materials used, insufficient information about competitive deals.

The second major aspect of determining the market position of the companies is their corporate image. The overall image of both companies is assessed as “rather positive” (average score of 3.58 for ‘Interservice Uzunovi’ and 3.62 for ‘Ralitsa Furniture Houses’). Among the factors that adversely affect the image are the following (only factors are displayed whose scores are lower than the average score of the total image: 3.58 for ‘Interservice Uzunovi’ and 3.62 for ‘Ralitsa Furniture Houses’):

- Factors of the functional image group: the two companies are not flexible enough;
- Factors of the psychological image group: ‘Interservice Uzunovi’ is not perceived as the market leader (3.27); it is not sufficiently advanced (3.46) and not top-of-the-range company (3.50). ‘Ralitsa Furniture Houses’ is not sufficiently socially committed (3.39) and it could put more effort so that it is perceived as the market leader (3.46).

Along with the aforementioned problems other factors can also be identified which favor the development of the companies’ image:

- Factors of the functional image group: both companies are experienced and capable, they offer better solutions and engage with customer problems.
- Factors of the social image group: ‘Interservice Uzunovi’ is perceived as an honest, friendly and stable company. ‘Ralitsa Furniture Houses’ is a friendly, confident and honest company.
- Factors of the psychological image group: in the minds of the respondents, both companies are intelligent and prestigious.
It is necessary to identify components of all three types of image (functional, social and psychological) that impact most strongly the formation of the overall image of the respective company\(^\text{17}\). Provided that the managers of ‘Interservice Uzunovi’ plc and ‘Ralitsa Furniture Houses’ decide to purposefully maintain and develop the companies’ corporate image, the effect will be the greatest if the emphasis was placed on the following most important variables in the image types (Table 3).

Identifying the most important variables that make up the image allows us to draw the following main conclusions:

**Firstly.** In the case of both companies flexibility is identified as one of the problems that adversely affect the employees’ perceptions of the quality of the offers and the corporate image. At the same time, flexibility is one of the most important image components. How do respondents understand the concept of “flexibility” when they have to rate it? Staff believe that ‘Interservice Uzunovi’ is not flexible enough in its pricing. Under the new market conditions customers are more cautious when purchasing and consider the basic functionality of the devices. Employees of ‘Ralitsa Furniture Houses’ perceive the prices as being high, the delivery terms as unacceptable and promotions as insufficient.

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### Table 2

Average scores for the image of the studied companies

<table>
<thead>
<tr>
<th>Types of image</th>
<th>Interservice Uzunovi</th>
<th>Ralitsa Furniture Houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>3.75</td>
<td>3.91</td>
</tr>
<tr>
<td>Social</td>
<td>3.91</td>
<td>3.95</td>
</tr>
<tr>
<td>Psychological</td>
<td>3.61</td>
<td>3.74</td>
</tr>
</tbody>
</table>

---

### Table 3

The most important image variables

<table>
<thead>
<tr>
<th>Type of image</th>
<th>Interservice Uzunovi</th>
<th>Ralitsa Furniture Houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>Flexibility of the company</td>
<td>Flexibility of the company</td>
</tr>
<tr>
<td>Social</td>
<td>The company is confident</td>
<td>The company is stable</td>
</tr>
<tr>
<td>Psychological</td>
<td>Respect for the company(^\text{18})</td>
<td>The company is luxurious</td>
</tr>
</tbody>
</table>

\(^{17}\) To establish the relative importance of the individual components of the image the formed \(b\)-coefficients in multiple regression analysis can be used.

\(^{18}\) The correct use of tools does not allow to definitely determine which component of the psychological image is the most significant. With some compromise (ie, perceived risk of error of 13\%) it can be assumed that the “respectable - not respected” is the most important variable in this group.
Secondly. It is necessary that ‘Interservice Uzunovi’ plc exhibits a higher degree of initiative and flexibility with regard to promotions. This includes direct sales promotions in the stores selling equipment. Employees recommend that promotions are held on a regular basis (every week or every other week until the selected models are sold out).

Thirdly. It is necessary to ensure that current market models make their way into the stores promptly and are kept in stock.

Fourth. Another identified problem is the speed and accuracy of service of the equipment, resulting in dissatisfaction of some of the customers and impacting the overall image of the whole company.

Fifth. Part of the management staff in both companies believes that they do not have enough freedom to make decisions and act on their own initiative.

Sixth. Among the most important variables of the image of ‘Interservice Uzunovi’ and ‘Ralitsa Furniture Houses’ are “stability” and “confidence”. Hereinafter, the shortcomings of both companies have been identified as follows:
- horizontal and vertical communication is not good;
- some staff are not familiar with the purpose of taking certain actions;
- feedback from store managers is not always taken into account, in spite of the fact that they have a thorough knowledge of customer behavior.

When studying the image of the companies and in the course of evaluation of its aspects (especially the comparison between the functional and psychological image) it is a good idea to answer the question “What exactly do respondents like: the product or the company?” The answer to this question allows a precise assessment of the positioning strategy of each company. If you like a product, it means that the company’s name does not contribute significantly to the formation of loyalty. Comparing the estimates of perceived quality and image shows that the image of both companies gets a higher average grade than the grade for perceived quality. Therefore we can infer that employees like the respective company to a greater extent than they like the overall quality of its offer. This means that other things being equal the image of the company is very important and strongly influences the motivation of employees to feel involved in the business of their employer.

When making an analysis of the positioning of the companies, it is a good idea to try to answer the question “What are the factors and to what extent do they influence building of the company’s image?” For this purpose the summarized rating for the quality of the offer and the image (as factor variables) are regressed against the assessment of the company’s positioning. It turns out that the quality of the offer and the image determine in aggregate 37% of the changes in the perceptions of respondents about ‘Interservice Uzunovi’. The aggregate effect of the quality and image on the positioning of ‘Ralitsa Furniture Houses’ is nearly the same - 36%. Therefore, there are other factors that determine the companies’ position.

From a pragmatic perspective, it is important to know which of the two factors (quality or image) exerts a stronger impact on the positioning of the respective company. In the case of ‘Interservice Uzunovi’ the importance of the two factors (quality and image) is almost equal, the quality having a slightly greater weight than the image for the positioning of the company. Therefore, ‘Interservice Uzunovi’ should focus on
developing the quality of the offer and the image with an emphasis on the following elements: flexibility in pricing and organizing promotions, outlining a clear vision, goals and strategies of the company; improving communication between the levels of management (vertical) and the functions of the organization (horizontal).

In the case of ‘Ralitsa Furniture Houses’ it has been established that the image is a 16 times more important factor in positioning as compared to the quality. This means that managers at ‘Ralitsa Furniture Houses’ have to strive to develop the image of the company by focusing on the following image components: flexibility and stability of the company.

Conclusion

The article employs a research approach which differs significantly from the established marketing practices for assessment of the perceptions of customers. The idea is to establish what is the market position of the companies through the eyes of their employees. The logic is that employees through their behavior translate information to actual and potential clients in relation to the microclimate and the parameters of the market offers of their employers.

As a result of the performed analysis it can be concluded that the components of the offers and of the corporate image can be used as benchmarks for the positioning of the companies. The used tool allows to identify the relative importance of the perceived quality and of the image and their constituting elements to form an adequate market position. The ability to determine the weight of these factors is grounds for allocating resources to the appropriate areas to achieve the desired market effect. The conclusions drawn suggest subsequent verification procedures, since only two strategic business units are not sufficient to formulate global conclusions.

The following guidelines for future research can be mentioned:

- a parallel study of the perceptions of managers, employees and customers per companies and markets. This will enable us to determine with regard to which of the evaluated parameters there are discrepancies, to identify the reasons for their occurrence and on this basis to formulate conclusions about rethinking the positioning strategy.
- a study of satisfaction, loyalty and commitment of employees to the employer, insofar as those psychological constructs have a direct and/or indirect impact on the perception of the company’s offer and have a bearing on customer satisfaction and loyalty.

POSITIONING OF COMPANIES’ MARKET OFFERS

Assoc. Prof. Dr Evgeni Stanimirov

Abstract

Through positioning marketers seek to create a unique and favourable image in the mind of the target customer. The aim of this article is, after clarifying the nature and role and tracing back the evolution of the concept of positioning, to present and analyse the results of the study of the market positions of specific companies through the quality of their offers and their corporate image.
The classic approach to positioning involves a study of the perceptions of customers of a particular company, product, brand or outlet. In the article there is used an unconventional approach: instead of customers in the study there are included employees of the companies being assessed.

**Keywords:** positioning, perceived quality, corporate image.
COMPARATIVE EFFICIENCY OF BULGARIAN BANKS THROUGH DEA

Assoc. Prof. Dr Veselin Hadzhiev

The globalization in the offering of financial services at the current stage of the development of the world economy is a factor for the continuous increase in the competition between commercial banks. This requires a constant raise in the efficiency of their activity. The satisfaction of this need is connected with the performance of both an activity analysis of the individual commercial bank, and a comparative analysis of competing commercial banks.

The need for improving the analysis of banks’ activities and the limitations of the traditional methods necessitate the creation and use of new methods for analysis. Those use multi-layer concepts and complex mathematical tools for metrification. The new methods for analysis create opportunities for going deeply into the activity of commercial banks, into the relations between commercial banks and for improving the comparison criteria. The aim of this article is a study of the comparative efficiency of commercial banks through DEA analysis.

The early publications dealing with the use of the analysis of comparative efficiency in the banking sector are connected with the optimization of Operating efficiency. Later on the application of the method expands in the area of optimizing Service quality efficiency and in the area of optimizing Profitability efficiency.

For the period after 2000 the main part of the studies by means of DEA in the banking sector are focused on operating efficiency. J. Paradi proposes a two-stage approach to the study of operating efficiency. According to those first there is measured the profitability and the intermediary efficiency of the individual industries. After that the results are aggregated by means of the Slack Based Model in an overall benchmark index of the sector. A. Camanho puts forward a generalized model of comparative efficiency, based on four input and four output variables. H. Sherman studies the

1 Data Envelopment Analysis.

effect of banks’ mergers on operating efficiency.\textsuperscript{7} For the study of the operating efficiency by means of DEA of the Bulgarian banks from the first group there is used a model with constant scale efficiency, three input and two output variables.\textsuperscript{8}

The analysis of comparative efficiency is a non-parametric method, based on linear programming. This approach is developed originally by M. Farrell and is based on the so-called “efficiency limit”.\textsuperscript{9} A. Charnes develops a technique for evaluating overall efficiency and introduces the method for practical use.\textsuperscript{10} His model is based on the assumption of constant scale efficiency and is known under the abbreviation CCR model. R. Banker develops a model based on the assumption of variable scale efficiency, known as the BCC model.\textsuperscript{11} Besides these two base models there are developed entire classes of derivative models, known under the names of Slack Based Models, Free Disposal Hull, Stochastic DEA, Network DEA, Dynamic DEA, Super Efficiency Models, etc.

As already stated above the main models in the analysis of comparative efficiency are CCR and BCC. The CCR model assumes that the efficiency line features constant return to scale.\textsuperscript{12} Having in mind that the principal idea of DEA analysis is to compare the efficiency of a particular unit and the efficiency of its competitors, then the CRS characteristics assume constant efficiency irrespective of scale. The BCC model is of a broader concept and assumes that the efficiency line has variable return to scale.\textsuperscript{13} This means that the VRS characteristics assume variable efficiency of the units of different sizes. In the literature no preference is given to either one of the models. About 1/3 of the studies in the banking sector are conducted using CCR models and about another 1/3 of the studies – using BCC models.

As has been pointed out the nature of DEA analysis is finding the ratio between the efficiency of a particular unit and the efficiency of its competitors. For that purpose there is used a set of input variables, generally metrifying the resources, and a set of output variables, generally metrifying the results. DEA analysis hypothetically evaluates the highest efficiency for each individual unit.

According to some authors\textsuperscript{14}, as input variables in the study of the comparative efficiency of banks there should be used various resources such as labour, capital,

\begin{itemize}
  \item \textsuperscript{12} Constant Return to Scale, CRS.
  \item \textsuperscript{13} Variable Return to Scale, VRS.
\end{itemize}
area of service offices, etc., and as output variables – various products of the bank’s activity such as deposits, loans, insurance policies, etc. According to other authors\textsuperscript{15}, as input variables there should be used the costs of core and ancillary activities such as interest costs and non-interest costs, while for the output variables – products from the bank’s activity such as deposits and loans. According to the overview of \textit{M. Eken} and \textit{S. Kale}\textsuperscript{16} as input variables in the studies of the comparative efficiency of the banking sector most frequently there are used staff connected with the core activity, staff indirectly connected with the core activity, business area including rented area, classified by location, quality of staff, loan-related losses, interest costs, nominal value, environmental factors, etc. As output variables in the studies of the comparative efficiency of the banking sector most often there are used net deposits, net loans, number of deposit accounts or transactions, number of credit accounts or transactions, other transactions, income from interest rates, non-interest income, profit, other products, quality of services, etc. In the study of the operating efficiency of commercial banks in Bulgaria as input variables there are used interest costs, non-interest costs and tangible fixed assets, and as output variables – total deposits and total loans.\textsuperscript{17} The overview of the studies of comparative efficiency in the banking sector shows that there are used different numbers of input and output variables. In the studies there are used on average 4 input variables and 5 output variables. Their number varies within 2-9 for input variables and within 1-11 for output variables.

This study is a continuation and extension of a previously conducted study of the comparative efficiency of the banks from the first group.\textsuperscript{18} In choosing variables the following have been taken into consideration: the sets of variables used in similar studies, their possibilities for information services and their percentage in the balance sheets and income statements. Following this approach, for the study of the comparative efficiency of commercial banks there are used 9 variables (4 input variables and 5 output variables). The combination of input resources (costs) and results (products) is as follows:

\textbf{Table 1}

<table>
<thead>
<tr>
<th>№</th>
<th>Input variables</th>
<th>№</th>
<th>Output variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>$I_1$</td>
<td>Tangible assets</td>
<td>$O_1$</td>
<td>Loans</td>
</tr>
<tr>
<td>$I_2$</td>
<td>Interest costs</td>
<td>$O_2$</td>
<td>Deposits</td>
</tr>
<tr>
<td>$I_3$</td>
<td>Administrative costs</td>
<td>$O_3$</td>
<td>Interest income</td>
</tr>
<tr>
<td>$I_4$</td>
<td>Depreciation</td>
<td>$O_4$</td>
<td>Income from fees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$O_5$</td>
<td>Profit</td>
</tr>
</tbody>
</table>


\textsuperscript{17} Op. cit., p. 52.

In developing the study model there should be taken into consideration the character of the target function – optimization of the input variables\(^{19}\), optimization of the output variables\(^{20}\) or both\(^{21}\). The optimization of input variables is aimed at minimizing the input resources at invariable results with the methods of linear programming. The optimization of output variables is aimed at maximizing the output results at invariable input resources, again by means of linear programming. Each of the approaches has its advantages and benefits. The optimization of input variables provides the opportunity for them to be used as tool variables, subject to adjustment by the management of commercial banks. The optimization of output variables provides the opportunity for balance structure management, which is the core of bank management.

In this study the emphasis is placed on the optimization of input variables. In this way there are revealed possibilities for adjustments and catching up with the operating efficiency of competitive banks. This, however, does not - depending on the goals and the policy of bank management - rule out the study of the operating efficiency also in a performance-oriented framework.

In comparing a given unit with its competitive units it is necessary to choose in advance a standard or measure of distance. The options are radial distance, non-radial distance, hyperbolic distance, etc. Most widely used is radial distance, whose properties are well-studied and which is a classical proposition of A. Charnes, W. Cooper and E. Rhodes. Also radial distance provides the opportunity to assess the effect of scale. This suggests that in the study of comparative efficiency of commercial banks in Bulgaria it is also expedient to use radial distance. For the assessment of comparative efficiency there is used the convex efficiency threshold.\(^{22}\)

In this study there is compared the operating efficiency of the thirty commercial banks of the first, second and third group, operating on the Bulgarian market as at March 2013. For each commercial bank there is provided statistical data\(^{23}\) on the four input and the five output variables as shown in Table 1. The descriptive statistics of the input and output variables in totals for all commercial banks is presented in Table 2.

| Descriptive statistics of input and output variables by commercial bank |
|-------------------------------------------------|-----------------|----------------|----------------|--------------------|----------------|
| Tangible assets, thou levs                      | 63803           | 110073         | 177            | 524538             | 1.73           |
| Interest costs, thou levs                       | 35499           | 45378          | 55             | 168088             | 1.28           |
| Administrative expenses, thou levs              | 28492           | 30038          | 541            | 110972             | 1.05           |
| Depreciation, thou levs                         | 16648           | 23548          | -1525          | 80568              | 1.41           |

\(^{19}\) Input oriented.
\(^{20}\) Output oriented.
\(^{21}\) Non oriented.
\(^{22}\) Convex.
It was established that with regard to input variables a major share belongs to tangible assets – the average per commercial bank amounting to 63,803 thou levs (BGN). At the same time there are observed very big differences in tangible assets among the banks. Thus for instance the minimum amount of tangible assets is 177 thou levs, whereas the maximum – 524,538 thou levs. The next resource in terms of weight is interest costs. The average amount of interest costs per bank is 35,499 thou levs. The variation of this resource by commercial bank is also very broad – from 55 thou levs to 168,088 thou levs.

It was found that the dominant role in the configuration of selected resultant variables belongs to the loans and the deposits. Their amount averages 2,081,857 thou levs for the loans and 2,374,681 thou levs for the deposits. The results also vary within very broad limits. The value of the resultant variable loans varies from 10,554 thou levs to 10,319,945 thou levs. The amount of deposits varies from 12,018 thou levs to 10,260,544 thou levs, respectively. Of all the variables included in the study, profit features the highest coefficient of variation – 2.69.

The conducted descriptive analysis gives us also the reason to conclude that commercial banks differ substantially in terms of resources and performance. In the context of the special features of application it should be noted that DEA analysis is particularly sensitive to big differences and small quantities.

Operating efficiency is compared by means of the two major models: the model with constant scale efficiency (CCR) and the model with variable scale efficiency (BCC). All models are oriented towards optimization of the input variables. For measuring the distances between the commercial banks there is used radial distance and convex efficiency threshold. In order to prove the stability of the model and the effects of the resources and results included in it there are used additional sets of variables. First, from the variables set out in Table 1 there is subtracted O5- Profit. This variable features the highest coefficient of variation, with many small and large values and is a potential source of interference in the model. This yields a configuration of 8 variables (4 input + 4 output variables). Second, from the variables set out in Table 1 there are subtracted O5- Profit and I4- Depreciation. The second variable also varies in broad limits and has both positive and negative values. This yields a configuration of 7 variables (3 input + 4 output variables). The optimization and the estimation of comparative efficiency is carried out using the specialized software applications DEA Solver and EMS. The results are presented in Table 3.
## Comparative operating efficiency of commercial banks in Bulgaria as at March 2013

<table>
<thead>
<tr>
<th>Variables</th>
<th>Input-4, Output-5</th>
<th>Input-4, Output-4*</th>
<th>Input-3, Output-4**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>CCR</td>
<td>BCC</td>
<td>CCR</td>
</tr>
<tr>
<td>Commercial banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UniCredit Bulbank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>DSK Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>FB</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>UBB</td>
<td>95.73%</td>
<td>100.00%</td>
<td>95.73%</td>
</tr>
<tr>
<td>Corporate Commercial Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Raiffeisen Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Eurobank</td>
<td>92.31%</td>
<td>100.00%</td>
<td>92.31%</td>
</tr>
<tr>
<td>Societe Generale EB</td>
<td>94.33%</td>
<td>96.65%</td>
<td>94.33%</td>
</tr>
<tr>
<td>CCB</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Piraeus Bank</td>
<td>80.82%</td>
<td>87.17%</td>
<td>80.82%</td>
</tr>
<tr>
<td>Cibank</td>
<td>85.51%</td>
<td>100.00%</td>
<td>85.51%</td>
</tr>
<tr>
<td>Allianz Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Bulgarian Development Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>MKB Unionbank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Investbank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>ProCredit Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Municipal Bank</td>
<td>65.80%</td>
<td>66.61%</td>
<td>65.80%</td>
</tr>
<tr>
<td>International Asset Bank</td>
<td>99.04%</td>
<td>99.46%</td>
<td>99.04%</td>
</tr>
<tr>
<td>Bulgarian American Credit Bank</td>
<td>47.84%</td>
<td>50.69%</td>
<td>47.84%</td>
</tr>
<tr>
<td>Commercial Bank AD</td>
<td>80.11%</td>
<td>81.62%</td>
<td>80.11%</td>
</tr>
<tr>
<td>Credit Agricole</td>
<td>50.02%</td>
<td>51.82%</td>
<td>50.02%</td>
</tr>
<tr>
<td>Tokuda Bank</td>
<td>76.06%</td>
<td>80.35%</td>
<td>76.06%</td>
</tr>
<tr>
<td>TBI Bank</td>
<td>84.37%</td>
<td>84.64%</td>
<td>84.37%</td>
</tr>
<tr>
<td>Texit Bank</td>
<td>53.54%</td>
<td>58.43%</td>
<td>53.54%</td>
</tr>
<tr>
<td>Alpha Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>ING Bank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Citibank</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>T.C. Ziraat Bank</td>
<td>93.25%</td>
<td>100.00%</td>
<td>93.25%</td>
</tr>
<tr>
<td>Isbank</td>
<td>46.90%</td>
<td>100.00%</td>
<td>46.90%</td>
</tr>
</tbody>
</table>

**Note:** * - without profit, ** - without profit and depreciation.

From the analysis of operating efficiency by means of CCR and 9 variables (4 input + 5 output variables) it was found that one half of the commercial banks under study are efficient, i.e. they lie on the threshold of efficiency. With them the ratio between radial distances is 1, or 100%. To this group belong 4 banks from the first
group, 7 banks from the second group and 4 banks from the third group. The remaining commercial banks are situated below efficiency level. With them the ratio between radial distances is less than 1, that is less than 100%.

The inclusion of the adjustment for variable scale efficiency changes the ratios substantially. Through the analysis of operating efficiency through BCC and 9 variables (4 input + 5 output variables) it was found that 2/3-ds of the surveyed commercial banks are efficient. Among those are all banks from the first group, 9 banks from the second group and all banks from the third group. It can be concluded that the BCC model is more flexible and assesses more fairly the efficiency threshold.

In the evaluation of the CCR and BCC model using 8 variables (4 input + 4 output variables) there occurs an interesting, but rare situation. In this case the ratios between radial distances completely coincide with the models with 9 (4 input + 5 output) variables. At the same time the parameters of the models are different. For instance the weights $\lambda_i$ for UniCredit Bulbank for CCR with 9 variables are 0.13 0.00 0.87 0.00 0.11 0.00 0.16 0.68 0.04. For the CCR model with 8 variables the weights are 0.11 0.00 0.78 0.10 0.12 0.00 0.21 0.67, respectively. This paradox is an expression of the multivariability of the analysis of comparative efficiency. The convex line of efficiency is shifting in n-dimensional space in such a way that radial distances remain unchanged.

From the analysis of operating efficiency using CCR and 7 variables (3 input + 4 output variables) it was found that only 11 banks are on the threshold of efficiency. Of those 3 are from the first group, 5 are from the second group and 4 from the third group. All the remaining banks fall under the efficiency threshold. Similar results are obtained using the BCC model. The general conclusion from the analysis of comparative efficiency with 7 variables is that there is a decrease in the number of banks on the threshold of efficiency. That can be explained with the variety of goals and policies of banks with which the removal of a certain variable leads to a change in comparative efficiency.

Steadily, through all the experimented models on the threshold of efficiency there lie UniCredit Bulbank, DSK Bank, Corporate Commercial Bank, Raiffeisen Bank, Bulgarian Development Bank, MKB Unionbank, Investbank and the branches Alpha Bank, ING Bank, Citibank and BNP Paribas. All the rest of the banks, at least in some of the models, fall under the efficiency threshold.

It was found that the branches of banks almost always fall on the threshold of efficiency. Taking into consideration also the very small values of the individual variables typical of the former, there can be drawn the conclusion that this is probably a manifestation of the small quantity effect in seeking the extremum through linear programming. From that standpoint it is advisable that banks’ branches are not included in studies of comparative efficiency. In this way there will be ensured a homogeneous set of units, which is actually a prerequisite of DEA.

In conclusion it should be pointed out that more than 1/3 of the banks under study lie on the threshold of efficiency. This means that these banks have attained the optimal ratio between the input resources in respect of the actual results as at the time of the study. From the first group those are UniCredit Bulbank, DSK Bank and Corporate
Commercial Bank. From the second group those are Raiffeisenbank, Bulgarian Development Bank, MKB Unionbank and Investbank. Close to the efficiency threshold are FIB, UBB, Societe Generale EB, CCB, Allianz Bank, ProCredit Bank and International Asset Bank. All the remaining banks (excluding the branches) are situated at varying distances from the efficiency threshold.

With regard to the use of DEA analysis for the study of the operating efficiency of commercial banks there should be given several recommendations. First, it is necessary to select homogeneous units, both in terms of the subject of activity, and in terms of variables. Second, as has been mentioned above, DEA analysis is rather sensitive to big differences between variables and their values due to the search for an extremum. In this respect there should be avoided variables having values that are either too small or too large. Irrespective of the potential hazards emphasized here, it can be said that the analysis of comparative efficiency is a modern and useful tool for the study of the activities of commercial banks and raising their competitiveness.

**COMPARI**

**EFFICIENCY**

**OF BULGARIAN BANKS THROUGH DEA**

Assoc. Prof. Dr Veselin Hadzhiev

**Abstract**

The need for improving the analysis of banks’ activities and the limitations of conventional methods necessitate the creation and use of new methods of analysis. To this group of new methods there belongs the analysis of comparative efficiency. It is a non-parametric method, based on linear programming.

In order to study the operating efficiency of commercial banks in Bulgaria there are used two models of the analysis of comparative efficiency – CCR and BCC. It has been found that one half of the commercial banks are efficient with respect to the variables used. The rest of the commercial banks fall below the efficiency line. The reduction of variables leads to a decrease in the number of efficient commercial banks. That is explained with the variety of goals and policies of bank management thus the removal of variables leads to a change in comparative efficiency.

**Keywords:** comparative efficiency, banks, model.
EVERY THEORY IS INCOMPLETE
AND IS SUBJECT TO DEVELOPMENT

Prof. Dr Ec. Sc. Penyu Mihaylov

1. Introduction

Every grand age is tragic, but the tragedy today is in the lack of grandeur. Everything falls apart, there is no building up, only destruction – economic, spiritual, moral and any other, a crisis of values. Former virtues are regarded as sins, whereas sin is now regarded as a virtue. Such is the logic of historical development.

This kind of logic did not bypass social sciences either, including the economic science. Being held captive by the euphoria, political economy is light-handedly ignored as a science. Under the hidden veil of ideologization and depoliticization in an administrative way there is abolished its study as a subject. The considerations are that the old theory is steeped in the Bolshevist spirit, it is scholastic and dogmatic and therefore it must yield to “pure” economy.

No one questions the fact that the old economic theory must be cleansed from ideological labels and dogmas, which were attributed to it. The question is whether this is reason enough for it to be replaced with the “pure” economy (economics).

The rejection of a particular theory is not new in the history of economic thought. It dates back to ancient times, but most notably it is manifested in times of specific social perturbations, especially revolutionary ones, such as those of today. Every theory is the product of its own time, of certain needs. With their change there also changes the theory itself, but from this it does not follow that political economy must be replaced with another name. The fight with it began as early as the dawn of its emergence. The first to use that term was A. Mont Chretien. However, he and many of his followers view political economy not as a theory, but rather as a state economic policy.

Subsequently this situation is changed and rectified by the classics of political economy – F. Quesnay, Adam Smith, D. Ricardo, J. S. Mill and others. The classical school, according to Marx, was the first in the history of economic thought to lend theoretical character to political economy.

Marx adopts the name political economy from his predecessors. However, he brings new content into its subject-matter. Since his theory is not disproved and denied, eventually there is denied political economy itself and there is a transition to a new name – economics. This occurs almost three centuries after its appearance.

The Austrian school is the first to support this change – a substitution of political economy with the so-called “pure” economics. Such a change we see also in W. P. Jevons – Theory of Political Economy (1871), and in the famous work of A. Marshall Principles of Economics (1890). This view is supported also by the marginalist theory. Political economy is transformed from a science of the social regularities of society
into a science of the technical regularities of economics with the scarcity of resources and their use. There is a change in the goal and the subject of the very science. This thing is present also today, economic science is deprived of its social energy, it is turning into a kind of econometrics. This approach is the product of ideological considerations – denial of the labour paradigm and praise of the theory of marginal utility and neo-classicism.

The aim of the article is to reveal the unity and difference between the labour paradigm and the theory of marginal utility; that both of these have their place in the economic analysis and the teaching of economic theory.

2. The labour theory of value and the theory of marginal utility – two alternatives in scientific cognition

This issue can be the subject of an independent study. We discuss it in the section related to the proposition formulated before that: there does not exist an eternally fixed universal theory. Every theory is unfinished and is subject to development.

Hence the conclusion that there is no pure theory of the economic development of society. The postulates of the classical theory, according to Keynes, are applicable not to the general theory, but only to special cases. The issues run into contradictory deviations, trends, which do not fit the theory itself. The essence entails variation, and it is studied through its change. Since that is so and since economic necessity is realized in ambiguous ways, i.e. there is non-linearity of historical dynamics, this means that there are needed different approaches, theories for the explanation of this essence, of the very historical dynamics.

The world is diverse and cannot be expressed (explained) with a single theory. Society, according to K. Popper, is always imperfect, it is open to perfection and improvement, which is not a matter of a synoptic project, but rather of trial, of its testing. In this line of thoughts, the criticism of P. Sraffa of the marginalist theory of value and distribution is justified. In his work *The Production of Commodities by Means of Commodities* (1960) he tries to restore the classical approach to the theory of value and that the approach, based on the demand and supply cannot solve this problem. For these reasons it is necessary to restore the viewpoint of the old economists from A. Smith to Ricardo, here I would also add Marx, which was forgotten for a while.

The Revival of the classical political economy is not only desired, but also necessary. It is the result of the fact that an ever-increasing number of economists get disappointed with the postulates of neoclassical theory. The reorganization of the economy is not in line with it (the latter), scepticism is growing, the theory does not provide an impartial assessment of reality and that being as it is, there must be sought other alternatives.

With regard to this today we cannot accept the proposition that the labour theory of value has exhausted its potential and must be obliterated. This also applies to marginal utility. The reasons for the latter to come to the fore are rooted in the following circumstances:
First, marginal utility today has new dimensions and estimations.

Second, change of the economic paradigm, there is a transition going on in economic analysis - the dictate of the producer is replaced with that of the consumer.

Third, change in consumer behaviour.

Fourth, the connection between the labour theory of value and the theory of marginal utility is treated in a new manner.

Fifth, old theories may contain both answers and alternative views in solving new problems.

Sixth, there is attributed a sin to the Marxist doctrine - there is disregarded the utility in determining value, in that it gives precedence to the labour theory of value.

Seventh, the two theories (that of labour and that of marginal utility) do not reflect adequately economic reality and for this reason a synthesis between those is impossible. The attempts of Tugan Baranovski, A. Marshall and others in this respect have proven to be unsuccessful.

Eighth, the differences between the two theories are more ideological in nature than economic.

The labour theory of value, according to N. Bukharin, has always been the sticking place of the bourgeois political economy, which necessitated that it be built upon different grounds and that gave rise to the theory of marginal utility. However, it turned out to be ill-suited for theoretical research, yet it was the only one which could oppose the Marxist theory. And again in this connection: the Austrian School is an ideology of the marginal type of bourgeois, the fullest antithesis of the ideology of the proletariat, the most powerful enemy of Marxism. As a theory it is utterly useless, it has no cognitive value. Marx’s worth does not come into contact with Bohm-Bawerk’s worth at all, stresses Bukharin.

Ninth, such thoughts are to be met with even today: the synthesis between the two theories is impossible; in some cases there is used the labour theory of value, while in others – the marginal utility.

Tenth, it is believed that the theory of marginal utility has a substantial contribution to the development of the labour theory of value and therefore it should come to the fore. Others claim that the two theories are surrounded by fortifications, that they refer to different things and there can be no connection between them.

Eleventh, there is the following opinion - the labour theory insufficiently accounts for the public need and therefore it must give way to the theory of marginal utility.

Let’s see if that is so

Marx is a critic of every philosophy of turning back. He ridicules those, who want to return to Kant, even to Aristotle.

1 Buharin, N. Politicheskaya ekonomiya bez cennosti (socialnaya teoriya rspredeleniya), Osnovnyie problemyi politicheskoi ekonomii, sb. statej, 1922, p. 401.
4 V. Afanasev op. cit.
But what is to be done?

Theory develops along with history. We return to Marx in order to shed light upon and reassess better the doctrine from the point of view of the present time. The thesis that utility is disregarded is not true. In his early works and later on he defends utility, but did not have the time to fully develop it, and perhaps the time did not require it. As early as in *The Holy Family* or toward *Critique of the Critical Critique* (1844) in collaboration with Engels, they claim: “value is initially given a seemingly sensible definition: it is determined by the production costs of an object and by its utility. Later on it turned out that value is a purely accidental definition, which bears no relation to either production costs, or utility”.5

F. Engels in *Outline of a Critique of Political Economy* (1844) two decades before the emergence of marginalist theory writes: “the utility of the object is something purely subjective, which defies definition in its absolute form: naturally, it is not subject to definition - at least not until people still wander about among opposites. According to this theory (Say’s theory emphasized by me) essential commodities should have higher value than luxury objects.”6

Whether a particular object should be produced or not depends on its usefulness to cover production costs. “No one will sell cheaper than what they have spent. If the production costs of two objects are equal, then the utility will be the decisive moment in determining their comparative value”.7

Labour is a measure of value. It is determined by the publicly needed cost of producing the product. The attacks on Marx are aimed at the fact that he disregards utility as a factor determining value, there is attributed the sin that he does not understand the effect of demand and supply on the price. These attacks however are unfounded. In the third volume of *Capital* there is considered the relation between public need and value. A product which exceeds the framework of this need has neither consumer value (utility), nor value. The labour input into its production does not acquire a socially beneficial character.

**Marx does not disregard utility.** For him it is the material bearer of value; a product which is not useful has no value. Similar thoughts are developed also in *Toward a Critique of Political Economy*, where it is emphasized - value is determined by the cost of production of the object and by the social utility of the latter.

Marx does not aim to reveal the social characteristics of utility - he mentions them en route, his task is to reveal the law of the movement of the formation (capitalism), to expound the exploitation of labour on the part of capital by means of the relation of wage labour and capital. In this connection the speculations around his work are huge.

Long before Marx utility is the object of attention in the works of Smith and Ricardo. In their work there are contained views that are close to those of the Austrian school, the rudiments of a subjective evaluation of exchange goods.

Smith’s theory is controversial, the method – dualistic, it goes around in perpetual circles. On the one hand he is a supporter of the labour theory, while in other cases he

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5 Marx K. and Fr. Engels, vol. 2, p. 34.
7 Ibid, vol. 1, p. 531.
abandons it – preference is given to utility. The value of the commodity, according to him, has twofold significance: “sometimes it expresses the utility of a particular object, while at other times - the possibility for acquiring other objects. The first may be called consumer value, the second – exchange value”. The exchange ratios of the goods are determined by the quantity of goods, which can be obtained for them at the exchange.

Ricardo is the continuator of Smith’s labour theory of value. However, it does not satisfy him, he sees the contradictions, but is unable to eliminate them. For him utility is not a measure of exchange value, although it is required for the latter. He better than Smith distinguishes between the two aspects of a commodity: consumer value and value. But at the exchange of labour for capital he is unable to explain the law of value. If this law is observed, the worker should receive the full value of the product created by him, but in this case he receives compensation that is much lower than the created value. What Ricardo has failed to accomplish is done by Marx.

The labour theory of value and the subjective theory of value examine one and the same problem - value - only from different standpoints. To recognize subjective theory is to reveal its nature. The crux of the question is how do we manage exchange ratios and how do we determine utility from the point of view of the subjective school?

First, the exchange is done by the will of the participants in the deal (trade) led by psychological and - from an economic viewpoint - selfish motives. The criterion for the exchange is the subjective valuation of the good. The law of value does not exist, it is fiction – the product of human imagination.

Second, the ratio in the exchange is really done according to the will of those accomplishing the deal, but behind them rests labour. That, however, is not taken into consideration by the subjective school. Everybody strives to gain maximum benefit by exchanging a smaller quantity of a product for a greater quantity of labour - product. The market price is formed not by the will of the counterparties, but rather by virtue of the competition, which is objective, and in accordance with its fluctuations the economic subjects shape their behaviour.

Third, the commodities which are exchanged are the product of human labour. Everyone, as already pointed out, aims to exchange a smaller amount of their own labour for a different - greater - amount of labour. This is precisely where the benefit of the exchange lies. If there is no gain, no exchange takes place. The valuation may be subjective, but is has an objective motive. The subjective valuation is there all right, but it is not the underlying principle of the exchange.

Does the subject himself really set the price of their product with the interindustry competition, does he align the individual value to the level of market value and market price on his own? Isn’t that the case also with the interindustry competition, where value turns into manufacturer’s price? To say nothing of the monopoly, is it really the subject that sets the price here?

The producers in a particular industry cannot possibly sell their goods under more favourable conditions in comparison with other industries for a long time. If so, there will be an influx of capital from unprofitable to profitable industries, which will

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continue until there is formed a common balanced profit margin, i.e. equal in volume capital investments create one and the same profit margin, irrespective of the industry they have been invested in. The products of one and the same amount of labour, irrespective of the industry, have one and the same exchange value.

**Fourth**, the theory of utility, which has culminated in the theory of marginal utility, is based on the following: goods are bought not because in them there is invested labour, but rather because they are valuable and useful, i.e. in their parlance they have worth (value). The theorists themselves do not deny the fact that value is at a certain proportion against the costs of production, but the costs themselves (land, labour, capital) are determined by utility and more precisely by their marginal utility. However, by the valuation of the good on the part of the subject we cannot make a judgement on the labour input into the value of the commodity, since that is unique. In order for the good to be exchanged, based on its marginal utility, the subject must possess a certain supply, in accordance with which he prioritizes his needs. Even if that is so, the marginal utility for the wealthy person will be quite different from that for the poor. The product, however, is sold at the same price, the difference being that the increased price will not have an effect on the consumption of the wealthy person, but it will have an effect on the consumption of the poor.

If as a result of a natural disaster the production of wheat suffers, the price will go up, but the marginal utility and the consumption of bread for the wealthy person will not change, while for the poor the situation will be different. But in both cases the product is bought at the same price, irrespective of the differences in marginal utility.

**Fifth**, the produced goods do not have marginal utility for the seller on the market, which is why he cannot evaluate them through it and on that basis establish their value and price. That being so, he is devoid of the possibility to take part in the formation of the price, i.e. he blindly follows the whims and the dictate of the consumer. The reality, however, is different: the seller takes into account not so much the marginal utility of the good purchased by the consumer, but the costs of production. He cannot ignore them for long. Also, the following thesis is untrue: the consumer is always the master and exercises a dictate over the producer; the dictate of the producer is no less merciless than that of the consumer. The price in many cases is dictated by the producer, not to mention the monopoly.

The underestimation on the part of the labour value and the theory of utility is in the fact that the first seems to give a greater precedence to production, and the second - to consumption, whereas in reality those go hand-in-hand - two communicating vessels of the same entity.

The value problem cannot be solved on the basis of demand and supply. The marginalist theory treats them as something independent, outside and irrespective of the value, of the costs of production, and that should not be so. The price of a particular good, according to it, is determined by demand and supply. But if those coincide, how will the latter be determined? Demand and supply do not set the price, but its value. At one and the same ratio (cheap and expensive goods) the price differential increases, but this does not determine the content of the price. The contradiction is overcome if price is viewed as something set in advance, as a monetary expression of the value, dependent on the costs of production.
Demand and supply form the price only in the short term, in the long term it depends on the costs of production (Ricardo). “The price of goods is ultimately regulated by the costs of production, and not, as has often been claimed, by the ratio of demand and supply. Naturally, the relation between demand and supply will temporarily affect the market value of goods. But this effect will have a transient nature.”

A. Marshall arms himself with this formulation of Ricardo’s and thus builds a bridge of sorts between the labour theory of value and the theory of marginal utility. He discusses the impact of utility and the costs of production on value. In this connection he writes: “... having clarified the reasons determining the price of supply, he thoroughly reassesses the costs of production”. The shorter the period under study, the more necessary it is to take into account the effect of demand on value, and the longer the period, the greater the importance of the effect of the costs of production on value.

The costs of production, the intensity of demand, the limit of production and the price of the product regulate one another, each one of them experiences the influence of the other. The marginal costs are equal to the marginal incomes and the price. Value is regulated both by utility and by the costs of production. The marginal costs and marginal utility are equivalent factors, determining the worth (value) of the commodity, the supply depends not on the prices of the goods on the market, but rather on the costs of production.

A. Marshall does not separate marginal utility from the value (worth) of goods. On the contrary, although inconsistent in his proposition, he joins these two theories into one, he believes that the curve of market demand is the sum total of the individual curves of demand. But it (the curve of market demand) is nothing but a manifestation of a social need, about which Marx talks in the third volume of Capital, and to Marshall it is an expression of the social utility, forming the market price. The point of intersection between the curves of demand and supply determines the market (equilibrium) price, where the equilibrium price corresponds to the normal costs of production, and the needed quantity of goods – to the public need.

If in the theory of Marshall there is common ground between the labour theory of value and the theory of marginal utility, then this cannot be said about the other economists of the subjective-psychological school (C. Menger, Bohm-Bawerk, etc.). To them value is not an objective reality, but a logical construct, which has nothing to do with the social costs of production. In the theory of marginal utility this is illustrated with the following example: five producers make and sell on the market five diamonds. The sixth, found by chance, is also for sale. The person who has found it has not input any labour into it and yet he is selling it on the market. Hence the conclusion – the product is not the result of labour, value is not an objective category. Marginalist theory, however, in this case confuses individual value with social value. The exchange value is determined by the marginal utility, by the subjective assessment of the economic subjects. Everybody seeks to gain maximum benefit, otherwise the deal cannot be

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carried out. People, however, are not just consumers, but also producers. The valuation of the goods should be carried out not only according to the need, which they cover (the amount of supplies), but also according to the labour restoring these goods.\(^\text{12}\)

If goods are unlimited (God’s gift) they would be assessed only from the point of view of marginal utility, but as scarce, limited - the assessment should be done also from the point of view of the labour, which reproduces them. The ratio in the exchange is indeed done according to the will of those making the deal, but behind them is labour. Everybody tries to gain maximum benefit by exchanging a smaller amount of a product in return for a greater amount of live labour - product. The market price is formed not by the will of the contracting parties, but rather by virtue of the competition, which is objectively present and in accordance with its fluctuations economic subjects form their behaviour. Therefore the law of value cannot be obliterated. But attempts at such obliteration exist today as well as in the past. K. Popper gives a false impression of the Marxist theory of value. He, just like many other economists, identifies exchange value with value, and the law of value with the law of demand and supply, he rejects demand and supply as a manifestation of the law of activity, as its mechanism of action.\(^\text{13}\)

The theory of marginal utility has always been the subject of spirited debates. We have not discussed it in detail, since it is not the objective of our exposition. There can, however, be pointed out two significant facts: the contribution of the Austrian school to economic theory is appreciated in a well-deserved way\(^\text{14}\), there is sought common ground between it and the labour theory of value, i.e. the possibility for synthesis. Others deny this possibility\(^\text{15}\), the pretence being that the two theories (the labour theory of value and the theory of marginal utility) are two different theories, which cannot be united into a single whole. Their unification would grow into a new quality, i.e. into an entirely new theory.

The methodological foundations on which these two theories are based, according to us, are different, but that does not mean that between them there should not be sought common ground. Economic theory has paid a heavy tax that only phenomena of the same kind are enriched and that with the heterogeneous ones such enrichment is not possible.

**Hence the conclusion: in some cases the price (mass production) is determined by the costs of production, while in others (uniqueness, irreproducibility, scarcity of the product) it is determined subjectively.** Ricardo’s doctrine is set in operation here: value is derived from labour and scarcity. The price of rare specimens - the paintings of great artists - is determined not so much by the labour, but by their irreproducibility, by the willingness of the subject to pay the price,


\(^{13}\) Pop’r K. “Otkrytoe obshtestvo i ego vragi”, tom 2, ., 1992, s. 197-198.

\(^{14}\) Afanasiev, V. Vklad avstriyskoy shkoli v razviti trudovoy teorii stoimosti, Voprozy ekonomiki, 2002, № 2.

i.e. by the individual valuation. Even in that case labour cannot be disregarded. This can be confirmed by the following example.

Tokay and any other matured wine is of a higher price not merely because it is scarce and of better palatability, but also because of the fact that there have been incurred greater expenses on its storage. The worth determines the costs. These are costs of a higher level, society recognizes them as higher than they actually are. 

**Such is the case also with certain unique works of art.** The consumer is willing to pay a high price for them. With this, however, the labour input into their creation is not rejected and denied. The labour is unique, because it is irreproducible in nature, labour per se, labour of the highest nature and therefore it is much more valuable than the other types of labour.

So the assessment of the good depends not only on the properties, which are attributed to it by the subject, but also on the uniqueness of the labour which creates it.

The theory of marginal utility has not only strong, but also weak sides: the strong sides are the rate of consumption and the satisfaction of needs as a factor affecting the price; the weak sides - subjective valuation, determined by the marginal utility of the good being bought, the role of the seller is excluded from the formation of the price in respect of it. He is of no importance.

This assertion cannot give us a satisfactory answer to the following: why are the prices of certain goods (machines, cars, motorcycles, etc.) higher in comparison with others - bicycles, grain, etc., despite the fact that to some the marginal utility of the latter is higher than that of the former, but on the market everyone buys the commodity at the same price.

**The attacks and the hatred towards the labour theory of value are more of an ideological than of an economic nature.** From it Marx drew the exploitation, unrequited labour, the surplus value and the derived from it categories - profit, rent, interest, etc. The Western non-Marxist thought does not use the term exploitation, while Smith and Ricardo speak of it long before that. Under market economy there isn’t and there cannot be any exploitation. In so far as it exists, it is a rare phenomenon and it arises under specific conditions.

What is more, in this perspective there are some extreme views. The argument is as follows: surplus value is derived from live labour; should it disappear or decrease under conditions of computerization, the so-called third wave (A. Toffler), there also disappears or decreases value itself, hence also the profit as part of it. Then we are left with just one thing - profit is the exclusive result of capital, labour theory disappears, nowadays it is no longer valid. But if we accept that sort of principle of reasoning, then the salary should disappear as well.

Hence the conclusion, exploitation is dying out, there is no need for strikes, no need for trade unions, there is class harmony, and there is a revival of the old theory of Bastiat.

Exploitation is regarded as a market phenomenon, its origins must be sought not in the sphere of production, but rather in the sphere of exchange, in the course of which with a nonequivalent exchange labour can receive income greater than its contribution to the creation of the product. But if that principle is followed strictly, it
It turns out that it is not capital that exploits the worker, but just the opposite, it is the worker that exploits capital. This theory explains labour value inaccurately. What is more, it distorts the latter. Variable capital is not proportionate to the surplus value, but to the value of the labour force. Due to the increased productivity (relative surplus value), the value of the labour force decreases and the surplus value increases. As regards complex labour in automated manufacturing based on computerization, there the costs of live and embodied labour increase, and there is used a more qualified labour force of a higher value, i.e. a greater amount of variable capital, as a result of which there is also an increase in surplus value itself.

As can be seen, there are two different approaches to this question: Marx draws exploitation from the labour theory of value and in particular from the surplus value, while the other - from the factors of production and utility. So in this case the worker earns his living with the sweat of his brow, whereas this rule is not valid for the capitalist - he appropriates income without working.

Perhaps there will be raised the following objection - capital appropriates income, because it is restrained. But the act of restraining is not an act of creation, just as the act of refraining from making children is not an act of making children.

Labour theory, just like every other theory has its merits, too, but also deficiencies. It easily explains value with the socially needed cost of producing the product, but provides no satisfactory explanation of the elements of that labour, their quantity, the reduction of complex labour to simple labour. Also, this theory is difficult to apply to the calculation of value, of the socially required costs of labour, which in practice makes it difficult to use.

This gives some eminent economists sufficient reason to formulate their thesis in a different way: it is not speculative reasoning, but experience that decides the fate of the theory. “A theory which cannot be compared with the facts or cannot be tested quantitatively with the help of observation data is actually deprived of all scientific worth”.

That is not yet a criterion for the denial of the labour theory of value. Maybe the stated thesis is based on the first volume of Capital, where it (the value) is viewed in its abstract state, and the price - as a monetary expression. But in the third volume of Capital Marx considers the transformation of value into production cost, the goods are not sold according to their value, but according to their production cost. Many Western economists have not understood the discrepancy between the first and the third volume of Capital, which leads them to make false conclusions.

The contradiction between experience and theory can be purely theoretical, but that does not mean we should reject the labour theory of value. We have on occasion quoted Ricardo, let us remind ourselves once again: how do you unite exploitation at nonequivalent exchange of wage labour and capital with the labour theory of value, which presupposes equivalent exchange (labour - capital)?

The labour theory of value cannot be ignored. Many questions today remain open: value under the new economy; automotion of value, virtual economics;
modification of labour and change in its structure; changes in the form of exchange and consumption (e-commerce, consumption, etc.). The new economy does not come out of the subject of political economy. The old definition of economic system, to quote Hegel, must be contained and preserved in the new one.

So, theory and practice must be based on common sense. There should be sought a synthesis of theories for the explanation and changes of the world, rather than strict adherence to one theory or other. This is valid not only about the theory of marginal utility, but also about Marxist theory. In this respect the West turned out to be more practical and flexible - pluralism in the schools of economics in transforming the socioeconomic reality. The reasoning shows us - there is no universal theory of all times, there are needed other approaches.

Theory develops if it enters into disputes with its own concepts, if it is “challenged and falsified” (a term used by Karl Popper). But there is a catch here. We find it difficult to part with what has established itself and difficult to get used to what’s going on. Our minds are riveted to the being (neoclassical theory), as if we are blind and mute towards other theories and systems. No theory possesses the perfect mechanism and tools to explain reality. Economics cannot be considered to be the highest form of education in economic science, since it does not exhaust economic theory. Every theory must come out of the circle of its explanatory principle; if it is locked in itself, it leads to stagnation and unproductiveness.

The task of science is to discover and reveal: “all our theories are (remain) riddles, suppositions, hypotheses” (Karl Popper). Within the rational a theory can be preferred more than another one, provided it explains the world better. Truth has no monopoly. Opinions, although contradictory, can give a better idea of the world. This holds true both of the labour theory of value and of the theory of marginal utility. Each of them suffers from historical narrow-mindedness - taken in their unity, they explain the world better.

EVERY THEORY IS INCOMPLETE
AND IS SUBJECT TO DEVELOPMENT

Prof. Dr Ec. Sc. Penyu Mihaylov

Abstract

In the article there are discussed the unity and difference between the labour theory of value and the theory of marginal utility. The author is for the revival of political economy. Despite the criticism and hatred for the latter, it has not lost its significance to the analysis of economic processes in our contemporaneity. This holds true also of the theory of marginal utility. In this work there are shown the strengths and weaknesses of the two theories, their contributions to the development of economic thought as well as their trials through time.
It would be difficult to neglect or underestimate the importance of the pharmaceutical markets. On the one hand, the progress in pharmaceuticals has had a dramatic effect on reducing mortality and illness rates and increasing life expectancy. On the other, the general cost of medicine intake is impressive. For example, the sale of pharmaceutical products in Bulgaria’s general health costs represents 41%.

Pharmaceutical markets are different from all other product markets. Although they have some characteristics in common with the health and medical service markets – which are quite specific in their own right, there are a number of differences even among these related spheres. The following article adopts the viewpoint of economics theory to present the need for impartial treatment of the market and the state as simply two distinct mechanisms (or a collection of rules and institutions) for interactions between individuals in order to fulfill specific goals in production, distribution, supply and use of pharmaceutical goods. The purpose of this approach is to contradict the unreasonable but persistent in economics literature and political thought view that one type of markets (or mechanisms) – private ones – have a number of faults and failures, and therefore, the other type – public (or political ones) are a cure-all for each issue. Our argument instead follows the logic that both types of mechanisms and markets, private and political, apart from their benefits (which fall outside the scope of this article), have some serious failures (faults), and it is this complex overview that should be taken into account when designing appropriate policies.

The article is structured on the following principle. First, we would analyze the peculiarities of pharmaceutical markets exchange. Then, we would briefly describe their complex structure; identify the stakeholders and their roles. The final part deals with issues in terms of efficiency both in private markets and their regulatory centre – the state.

1. Characteristics of pharmaceutical markets exchange

There are a number of specifics concerning the exchange in pharmaceutical markets which mark the whole nature of these markets:

- The objects of exchange are drugs, which in terms of their uses, are specialty goods. Each medicine is a powerful chemically or biologically active product with a clearly defined pharmacology and toxicology. Given that one follows the directions for use responsibly, it could save a life or improve health, but in case of negligence, it may not only harm the patient but actually lead to a fatal end.
• **The patient is not a customer in the traditional sense.** In the case of pharmaceuticals, there is a breach of a major assumption in economics – that of the autonomy and sovereignty of the customer in an exchange. The incapacity of the patient as a customer has several aspects. First of all, the choice of a given medicine often does not lie with him/her, it is predetermined by the doctor or the pharmacist. The medicine’s effect depends on a wide range of factors: the health state of the patient, contraindications, side effects, interactions with other drugs used, method of administering and dosage, age, health habits etc., therefore the customer/client is quite incompetent (or at least not properly informed) to make a decision about the transaction. He or she is not in a position to make an educated choice between alternatives. Besides, the patient may not be able to evaluate the possible effects of not taking the medicine. By purchasing a given medicine, he or she does not acquire an ‘asset’ that they could then dispose of in any way they like. In terms of the patient’s incapacity, pharmaceutical markets have a lot in common with health markets, but in this case the informational disparity has additional aspects and includes an additional ‘actor’, the pharmacist (manufacturer, vendor etc.). In fact, even a common doctor or a pharmacist may not be competent enough to assess the safety, quality and efficacy of the product.

• Both the information flow and the decision making are quite peculiar to the pharmaceutical markets. However, the **payment aspect**, similarly to health markets as a whole, defines the **specific demand structure**. In many cases the payer is a third party – the insurer, who has their complex and multilayered motivation: clinical, health-economical, financial, political etc. The fact that the medical professional acts both as the patient’s agent but also as a ‘gatekeeper’ to the pharmaceutical market, without paying for the medicine, and often not knowing or not caring about the costs to the patient or the third party – the insurer, makes the price elasticity of demand considerably lower. What that means is, in practice, prices do not fulfil their key market function – the signalling function that guarantees the distributional efficiency. The transmission of information signals to stimulate adequate economic behavior is hindered, and sometimes completely distorted. Such an effect is additionally compounded by the fact that the middleman (agent) could be influenced by a number of factors when making a choice, as far as he/she has a vested interest (e.g. pharmaceutical promotions). Caution or the natural worry of being ill makes patients choose or try to pressure their doctors into prescribing expensive medicines, when it could be the case that cheaper or no medicines at all could be the more appropriate solution. Besides, patients’ behavior is definitely influenced by their role in paying for a particular treatment.

The complex motives and considerations of all three parties in the transaction are shown in Table 1.
Medicines purchase – decision making participants

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<tr>
<th>Decision maker</th>
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<th>Possible motives for the decision</th>
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<td>Payer (insurer)</td>
<td>Whether to reimburse the medicine purchase</td>
<td>Priority of the condition</td>
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<td>Needs (un)fulfillment</td>
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<td>Demand/pressure by patients</td>
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<td>Personal considerations of the payer</td>
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<td>Doctor (the prescriber)</td>
<td>Whether to prescribe the medicine</td>
<td>Professional considerations</td>
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<td>Patient</td>
<td>Whether to purchase the prescription</td>
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<td>Amount paid by the patient (with a proportion paid by the insurer)</td>
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<td>Price – when paid directly out of pocket</td>
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- Medicines (similar to all health services) have a dual character as economic goods\(^2\). They may have the characteristics of consumer goods, to carry immediate usefulness so that the patient feels instant gratification upon their intake. However, in the majority of cases, they are more of investment goods. The patient would gain or return his investment at a future point, or may never benefit at all. Additionally, there is a considerable percentage of uncertainty, which marks the normal action of market forces. The patient may be unable to judge for themselves whether to take a certain drug (for high cholesterol, for example) (that is, to invest), or not to take it (not to invest). He/she must take into consideration the possible benefits of prevention of potential harm and illness before experiencing it, which is practically impossible.

- The decision to use or not a certain medicine could be irreversible.

- A particular aspect, although rather more regulatory than economic, is the community engagement with the issue of equity and equitable access in transactions of this sort. The considerations may be ethical and pragmatic, but they mark the way the sector functions.

2. Structure, stakeholders and their roles

It is largely due to the above-mentioned characteristics that pharmaceutical markets have evolved and reached their current state of complex, heterogeneous structures with a large number of stakeholders and varying proportions of private and public subsystems. It could, however, be argued that state participation and interference with the pharmaceutical market is much more widespread and systematic than usual. Decomposing the pharmaceutical market allows us to single out several subsystems according to their phases and functions in the overall production and distribution process till the endpoint – the customer; it also allows us to identify the stakeholders or “actors” involved in these subsystems. Due to format constraints, this article will only outline the stakeholders inasmuch as this will support the main argument.

- **Drug development** – the stakeholders in this phase could be either private – pharmaceutical companies, or public – state-owned research institutes and laboratories, state universities, state grants etc. Often at this stage, as well as in a number of others, a variety of private institutions are also involved, such as private universities or non-for-profit organisations – foundations and research institutes.
- **Drug registration and regulation** - usually the state, through its executive bodies, controls the entry to the market of various medical products – new, generic and over-the-counter drugs (In Bulgaria this is a function of the Bulgarian Drug Agency, in the States it’s the U.S. Food and Drug Administration and so on). Private agents can participate at this stage through contracts for drug quality testing.
- **Drug manufacture/import** – this is mostly the domain of private companies (local or branches of multinational corporations), but the state could also own its production facilities, import plants or wholesale stores.
- **Wholesale drug distribution** – once again both private agents – wholesale drug merchants and public institutions are involved. The state participates through licensing and regulation of private businesses.
- **Drug prescription/supply/sales** - private stakeholders are private hospitals, clinics, pharmacies etc., while the state is also an active participant in this phase with its hospitals, clinics, dispensaries, pharmacies etc. It subsidizes drugs for certain groups and has an active role in educating and licensing medical practitioners (pharmacists, doctors etc.), as well as in establishing and enforcing a code of practice.
- **Drug information supply** – the state plays a major role in forming the standards and requirements for drug information, it educates health practitioners, patients and society as a whole, while private market actors produce and disseminate this information.
- **Final drug consumption** naturally rests with individual consumers/patients, who are the final market stakeholder.

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On the whole, it could be argued that the state, as an embodiment of the public, forms, enforces and controls the national drug policy through its legislative branch and the corresponding health ministry, as well as other ministries and bodies. For their own part, private stakeholders – manufacturers, importers and providers, as well as professional associations, patients’ organisations, consumer organisations etc. are all influenced by and in turn actively influence these policies and institutions.

3. Efficient resource use failures

What causes this overwhelmingly complex structure of the pharmaceutical markets? Standard economic theory gives a standard answer: a series of market failures to ensure the efficient resource allocation, with either too much or too little being produced, and the possibility that some goods may not be produced at all. That is why the other major stakeholder – the state, has so many roles. However, it would be too simplistic to blame the markets for all the issues with the pharmaceutical sector. (We would then be making the same mistake as the unreasonable ruler who once held a contest between two singers in order to decide who was more talented. After hearing the first performance, he simply awarded the prize to the second one, without even wanting to test his abilities. Obviously, the chances of him having the same faults were equal, if not higher. I owe this wonderful analogy to Boettke4 [3]). Unfortunately, we have been constantly reminded of the fact that the state is just as susceptible to failures and faults, and these could be called ‘political failures’. Once again, due to text limits we would only outline some of the failures of the two main stakeholders in the pharmaceutical markets.

Market failures:

1. Asymmetric information. On the whole, manufacturers, sellers and consumers of common goods are usually equally aware of the quality and efficacy of the products. If, however, one party knows more than another, the markets could produce suboptimal results, i.e. fail. Similar to health markets in general, here the patient is quite disadvantaged with regards to information access. Depending on the nature and time frame for accessing quality information, goods could be classified as search goods – products whose quality could be verified prior to purchase (e.g. a coat that one is about to buy), experience goods – products whose quality can only be established upon experience (e.g. a new wine one is about to try out), and credence goods – whose quality can only be confirmed after additional expenditure (either informational or other)5.

The majority of drugs fall under the third category. It takes time to verify their quality, efficacy and safety. In some cases, they may share some of the characteristics of the second type, where the efficiency is easily established, especially through widespread use (e.g. cold medicines or Viagra). However, for most medicine products the desired effect is far from immediate and that makes it harder to make an assessment.

Not to mention the difficulties in evaluating long-term effects, possible complications etc. Even if he/she could afford it financially, the patient cannot randomly try out and turn down drugs, as this might be harmful or even fatal for their health. In other words, the patient needs to know the drug would work. This informational imbalance between patient and doctor allows the latter to possibly act in their own interest, which is an inherent trait of health markets as a whole.

In the case of pharmaceutical markets, however, there are additional substantial informational differences between stakeholders. As the effect of a given drug would vary depending on the patient, it is only through large-scale research samples and careful application of statistical methods that significant information can be gathered. This is not only far beyond the abilities of a single patient who remains totally and painfully ignorant, but could be out of reach for even the best medical specialist. Lack of knowledge in the prescribing subject (the doctor) could once again lead to a suboptimal solution to the problem. The manufacturers (pharmaceutical companies) and distributors have an overwhelming informational advantage and could manipulate the situation in order to obtain the best financial results. Asymmetric information, which causes the market failure of health markets, plays an even bigger and more active role here. The state’s counteractions against such a failure are various: promotional practice regulations; establishing of standards and requirements for drug information, as well as monitoring their observance; educational campaigns for health practitioners, patients and society as a whole, etc.

2. Pharmaceutical markets illustrate another classic example of market failure - externalities through control and treatment of infectious disease such as tuberculosis and HIV/AIDS, and their prevention through vaccines and immunization. Since both treated and vaccinated patients note only the immediate private benefit of disease prevention, but not the wider social benefit of protecting others, the market can lead to a level of immunization and treatment which falls below the socially optimal. The state balances this process out through subsidies. By lowering the prices for consumers, it helps to increase drug use and encourage treatment. Through buying vaccines and/or arranging vaccinations, the state acts to fill in the gap left by the market till the socially acceptable result is reached.

3. Some functions of the pharmaceutical market have the characteristics of public goods. Those are collectively consumed goods. Due to their specific nature, public goods are non-exclusive, that is they cannot be offered to an individual without everybody else having access to them, and they are non-rivalrous, the use by one individual does not make them unavailable to others which means that the marginal cost to every subsequent consumer is zero. Therefore, the market fails to monetize their value and this holds the possibility for such goods to not be produced in the first place. For example safety testing of drugs may have the nature of a public good. Once ‘produced’, such an evaluation can be freely used by all others, even if they have not contributed (by co-financing the rather costly testing process). In other words, the free rider’s problem is extremely topical in this stage of the pharmaceutical process. If left on its own, the market may not produce a similar safety evaluation, and the public organ is called upon to right the market failure.
4. The barriers to entering the market are an important trait of drug supply, which creates a tendency towards a monopoly of the market, and therefore, inefficiency. A main barrier here is patents as a monopoly right given to the drug manufacturer to be a sole manufacturer for a certain period (20 years), which guarantees the innovator high return and stimulates risky and costly, but socially valuable, research projects. Of course, there are multiple levels of monopoly market power. It is strongest with patented, innovative, major drugs, for which there is no alternative medicine or an intervention, so-called single source medicines (a classic example would be Herciptin for breast cancer), and for which demand is highly inelastic. But even in this case the monopoly power is not limitless and it could be counteracted (through buyer monopsony, when an institution such as the National Health Insurance Fund, NHIF, buys on behalf of all users; through state price regulation mechanisms, etc.)

State Failures (political failures)

1. A possible failure (suboptimal result) due to personal interest of the approval body for new drugs stems from the uncertainty and lack of knowledge over the efficacy and safety of each new medicine. Such an uncertainty may cause the drug approval body to commit two types of mistakes\(^6\): type 1 mistake – to reject a medicine, which is safe and effective; type 2 mistake – to approve a medicine, which is not safe and/or ineffective. Obviously, both types affect patients’ health and well-being, whether we are talking about legalizing a ‘bad’ medicine, or discarding a ‘good’ one.

The free (unregulated) market supposes the motivation for type 2 mistakes - a manufacturer is always interested to reap the benefits of a new drug. On the other hand, where there is regulation, the state (the regulating body) has its own motivation: 1) In case of a ‘bad’ medicine approval (type 2 mistake), the remedy cost is too high and the failure is too obvious – losing posts, public scandals etc.; 2) When a ‘good’ medicine is discarded (type 1 mistake), however, the cost is borne by a third party (manufacturers and patients) and is rather less visible. Therefore, the state agency has a motive to make type 1 mistakes – to deny permission or to at least slow down the process of approval. A number of empirical studies\(^7\) show that the regulatory effect on ‘new chemical entities’, that is, the imposed requirement for companies to demonstrate the efficacy of new drugs and the over-cautious attitude of the States’ Federal Drug Agency, is to considerably slow down the introduction of new medicines without any perceptible improvements in quality. As a result, the drugs which eventually get approved for sale, reach the market a couple of years later than the same medicines sold in the UK, for example. The result is comparable to imposing a 5-10% tax on all drug purchase during the 70s and 80s and has led to the loss of thousands of lives.

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2. Another possible failure is linked to formulating and implementing the pharmaceutical policy. Such a failure would be a function of the whole political system and its operations: legislative and executive, party configurations and programmes, susceptibility to group interests. The failure may be due to relationships with powerful interested individuals, or just to a limited capacity, etc. In the Bulgarian context, it is the Bulgarian Drug Agency that controls the registration, import and production of medicines, as well as clinical tests, wholesale and retail of drugs and their advertising. In practice, however, just a handful of inspectors are responsible for the whole process of control nationally, which is partly the reason behind the agency’s notoriously ponderous reactions.

A special mention needs to be made of the unstable management of the health system and its pharmaceutical segment, the inconsistency and lack of logic behind a large proportion of all decisions. Here we can mention two examples that are highly indicative of this trend. The first is the idea (gone unrealized) of a previous government to relocate the drug regulating body from Sofia to Pleven. The other one is the non-market limit for patients and prescriptions imposed on pharmacies, a measure later ruled out by the Commission for Protection of Competition. Furthermore, the executives who are responsible for the national drug policy are in fact political figures and there is a constant process of changing post holders, or at least the expectation of such changes, which further adds to the chaotic and unpredictable character of the field.

3. The short-sighted effect is the inevitable consequence of every democracy, and its negative effect is especially strong when it comes to sensitive topics, such as public health and drug policy. This effect concerns the short time span in which decisions are made by the economic circle. Private markets are more successful in sensing future effects (cost and benefit). But in political markets such effects are largely devalued. And the reason for this is the relatively short electoral mandate of politicians. Therefore, future costs and benefits are frequently underestimated (discounted), and the effects of current benefits and costs are considerably heightened. This to a large extent explains the half-hearted nature of drug policies, the numerous ad hoc measures and the lack of major and profound reform.

4. The state administration has its own priorities and goals, which, in a context lacking suitable institutional limits, can be an additional source of inefficiency. According to the European directive, for a clinical try-out to be initiated in Europe, the company responsible needs to present 17 documents. The corresponding requirement in Bulgaria is for over 40 documents, the collection of which would take at least 90 days, and their review – an additional 60 days. „The heavy bureaucracy, illogical requirements, delays and institutionalized nonsensical examples cause a daily clash between the state on the one side and the hospitals, doctors, patients, pharmacists and pharmaceutical companies, and all those in between.“

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9 *Kapital - Zdrave*, may 2013.
5. Another pathology of the political markets is their susceptibility to various groups of interests and lobbies, which strive for their own, and not necessarily parallel to the public interest, gain. An undeniable aspect of the political process is rent seeking, that is individual and group actions in support of political events, which redistribute income to their benefit or to the benefit of projects sanctioned by them. Group interests may engender inefficiency as they produce substantial individual gains for a limited circle, which in turn causes small dispersed costs for a large number of individuals. In fact, pure costs for the victims may be larger than pure gain for the winners and this is socially inefficient.

The national drug policy is a striking example of such a failure. Patients have an undeniable interest in lower drug prices. Local manufacturers and importers aim for precisely the opposite. Collective action can be viewed as a type of public good being non-exclusive and non-rivalrous. If an individual decides that his/her contribution to common efforts would be negligible, yet he/she cannot be refused consumption, then he/she has all the more reason to not take action, that is, to free ride. According to market failure theory, such a line of action would lead to suboptimal production of the public good. It is mainly due to the second factor that group members are tempted to inaction, or at least, to a minimal action, therefore they are free-loaders. As a result, in some groups rational individuals would be responsible for insufficiently collective action.

The problem looks differently for the different groups, with a decisive part played by the size and coherence of the group, as well as its ability to mobilize individuals into action. For example, manufacturers lobbies are usually small, but highly focused and effective groups. As illogical as it may seem, the larger the group, the less likely it is to succeed in obtaining the optimal quantity of collective good (action), and the less effective it is in establishing the public interest. Such a group is that of consumers, who unlike the manufacturers are numerous but scattered. The manufacturers group is small and able to lobby, even through individual members. Patients, however, are so many, that it is impossible for an individual’s efforts to be noticed. More specifically, there are several reasons for the lack of collective action. When a group grows 1) the individual member’s proportion of the collective gain becomes smaller; 2) the chance for a specific community within the group, let alone a specific individual, to show initiative in obtaining the common goal is smaller, as the gain is reduced 3) organizational costs are higher, that is, the challenges that need to be overcome are bigger. As a result, patients tend not to take action and their rational behaviour tells them to free ride. In economic terms, as each producer’s or importer’s lobbying actions would get noticed and would eventually influence profits, their strategic behaviour (collaboration and coordination) within the group would lead to an optimal result - pressure on the responsible state bodies. The phrase ‘lobbyist pressure’, which has been in wide circulation lately with regards to drug policies and price formation within NHIF, is the almost universal explanation to all conflicts within the system. Position reshuffling on

higher levels, the removal of a vice minister in connection to allegations that he was pushing through a certain manufacturer’s interests, as well as yet another change of the health minister were all marked by this political pathology.

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This short analysis of the major stakeholders and principals in the pharmaceutical markets and their failures shows that the popular and conventional approach of blaming all issues and problems on market defects is unjustified. The questions that need to be asked and then answered are not who is perfect (obviously none of the singers deserves the first prize), but what we could expect from various combinations between institutions and collaborations between the two major actors (with the rising participation of civic society representatives) and which one of the limited alternatives on offer we would prefer.

PHARMACEUTICAL MARKETS: PUBLIC AND PRIVATE ROLES AND FAILURES

Prof. Dr Ec. Sc. Stefka Koeva

Abstract

The article presents an analysis of the specific character of pharmaceutical markets from the point of view of participating parties or “players” and the failures those suffer, in view of the efficiency of the market outcome. The proposition which is defended is that it is not only the private markets and the stakeholders participating in them, who are at times unable to ensure the efficient allocation of resources (as demonstrated successfully by standard economic theory), but also that the regulating centre, the state, too, is responsible for a series of failures and defects, which are typical of the pharmaceutical sector. The two kinds of markets, private and political, as well as their failures must be measured impartially and there must be sought the best combination in choosing a suitable policy.

Keywords: pharmaceutical markets, market failures, political failures, interested parties.
KEY ASPECTS OF TRANSFORMATION OF THE REGIONAL FOREIGN ECONOMIC POLICY

Assoc. Prof. Dr Iermakova Olga

1. The Role of a Region in the Global Economy

World globalization processes cause the formation of a globe information, finance, trade, infrastructure space together with a complication of relationship and interdependence between nations. Globalization objectively leads to the depreciation of usual regulatory functions of a national state, which doesn’t protect the domestic economy from adverse external influences as it used to. National and global economic relations are changing roles in a globalized world. In the past, the leading role belonged to the first. In the last decade, the world economy is gradually turning into a single hunting field for big business, where the geography of the location of productive forces, the sectoral structure of investment, production and distribution are determined by taking into account the global situation. National economies are experiencing the increasing pressure from uncontrollable and unpredictable global factors.

The processes of globalization are contradictory. On the one hand, globalization creates incentives for economic growth for majority of countries. At the same time, globalization is accompanied by negative consequences, among them are the following:

1) \textbf{Increasing of social and economic inequalities} between countries and nations due to the collapse of major structures - the colonial empires and multinational states – that caused a global asymmetry, when the major actors (states, multinational corporations, associations, integrations of developed countries) are opposed to poor developing countries. Globalization has transformed from the objective process to the project of domination of the group of countries in the world economy. As a result, the “chronic diseases” of society - terrorism, separatism and extremism – are exacerbated;

2) \textbf{The deterioration of social security}: globalization has led to a redistribution of resources between private and public sectors. Markets succeed in capital making, but they don’t implement social programmes;

3) \textbf{Strengthening the interdependence of countries} on a global level that leads to a potential global instability, to susceptibility of the financial markets to the crisis;

4) \textbf{The destruction of the environment} as a side effect of reckless pursuit of profit;

5) \textbf{Destruction of national identity}: Globalization provides market-driven, ‘branded’ homogenization of the political, economic, social, cultural spheres of people’s life, destroys stable localities, displaces people, obliterates the differences between locality-detained lifestyle.

Global economy crisis 2007-09 demonstrated an intensification of contradictions of globalization. A society in which the global economy is subject to the idea of profit
maximization for limited number of global actors is doomed. Modern society is moving
towards a new “post-global” phase of development, whose motto is “think globally,
but act locally” (Brower D., et al., 1969). Effective use of regional specificity, which
is determined by unique climatic, historical, cultural, social and economic features of a
region, becomes a crucial minimizing factor of the negative consequences of integration
into the global economy. The phenomenon of global and local combination in modern
literature is called “glocalization” (Pollifroni M., 2006). It turns national regions into
global actors and key determiners of national competitiveness.

Modern regional policy of developed countries characterized by strengthening
global-local linkages and delegation of a wide range of former state functions to a
region, including foreign economic activities.

2. Problems of the Formation of Ukrainian Regions
   as Members of the Competitive Relations and Objective
   Conditions for the Transformation of Regional Policy
   on the Principles of Self-Development

Ukraine is in the stage of rethinking the role of regions in national competitiveness.
Problems of the formation of Ukrainian regions as members of the competitive relations
are the following:

- the ambiguity of the Ukrainian legislation in this area;
- limitations of conducting regional independent policy;
- high risk of the state disintegration, that led to the stopping of the administrative-
territorial reform;
- stereotypes of the centrally planned economy.

Due to the Act of Ukraine “On Foreign Economic Activity” the main actors of
foreign economic activity in the country are enterprises and associations of all kinds,
as well as organizations and individuals. The state is also determined as a legal entity
with broad powers of foreign economic regulation through its bodies (Verkhovna Rada,
Cabinet of Ministers, the National Bank, State Custom Committee an others). As for
regions, their authorities, in accordance with Article 10 of this Act, acting as agents of
foreign economic activities only through commercial organizations with legal identity
in Ukraine. Due to the Act of Ukraine “On Local Councils of People’s Deputies and
Local and Regional Self-Government”, March 26, 1992, local authorities’ power in the
field of foreign economic relations is reduced mainly to coordination of management
bodies in this field and issuance of export and import licenses for certain product
groups.

The current legislation of Ukraine, in spite of objective laws of development and
international experience, limits the functions of regions in foreign economic activities.

At the same time, there are objective conditions for the transformation of regional
policy on the principles of self-development, among others there are the following:

1) strengthening the negative effects of globalization;
2) necessity harmonization of local cultures with a global multicultural civilization
   - the phenomenon of glocalization;
3) formation of a new economy based on knowledge, in which the role of material and energy resources significantly weakened, while information becomes fundamental resource. A powerful source of long-term competitive advantage is the ability to innovate, whose carrier is a society;

4) separation of the local economy from national: some big cities (agglomerations) compete with each other in the international market, relying on their own resources. Moreover, the macroeconomic scheme unsuitable for overcoming the economic crisis at the local level. Key economic stimuli that are currently used by the national government, designed primarily to speed up overall recovery of the national economy, rather than deal with problems in specific segments of the population or localities;

5) emergence of the phenomenon “new regionalism” - the emergence of regions that are not related to the current administrative division of the country and are characterized by high international competitive status;

6) reducing the role of the location of economic activity due to the rapid technological development and modernization of the economic structure.

3. Institutional Support of Region’s Foreign Economic Activities

Region’s foreign economic activities are realized in a particular institutional environment, which is a set of institutions (organizations), organizational and economic instruments of implementation of these activities. Institutional support of region’s foreign economic activities has the following components (Figure 1):

1) actors with powerful competence: a) central government bodies, which regulate foreign economic activity, b) regional and local authorities;

2) legislative support of foreign economic activity: a) at the national level - the legal framework of foreign economic activity and b) at the regional level – regional strategic and program documents, agreements on cross-border and interregional cooperation;

3) direct participants of foreign economic activity: a) native foreign economic operators (enterprises and organizations, clusters of enterprises, joint ventures, virtual corporations, etc.), b) foreign economic activity entities that operate in the region (foreign companies, multinational corporations);

4) business infrastructure in a region: chamber of commerce, customs, regional development agencies, industrial parks, consulting companies, research institutions, educational institutions, information network, specialized banks, specialized insurance companies, stock exchanges, auctions, exhibitions, cross-border institutions, professional, public and international organizations;

5) financial and economic support of foreign economic activity in a region: taxes and fees, grants and subsidies, export credits, tariffs, special economic zones and territories of priority development;

6) skilled labor market.

The basis of the system of institutional support of a region’s foreign economic activity is represented by state and regional authorities, as well as relevant legislation. These two elements define the “rules of the game” for all participants of foreign economic activity of a region. Therefore, the effectiveness of regional economic activity depends, to a large extent, on prudent government actions and policies in this field.
Figure. 1. Model of the institutional support of region’s foreign economic activities
Direct participants of region’s foreign economic activities are domestic and foreign businesses who provide foreign economic activities in a region. They form the core of a region’s foreign economic system, the activities of other elements of the system aims to provide favorable conditions for enterprises engaged in foreign economic activities. The competitiveness of enterprises and their products influence on region’s development and quality of life in a region. Without this core element - business entities - the system of institutional support of region’s foreign economic activities is meaningless.

Activities of economic operators, as well as the interaction between them, are provided by a business infrastructure. The level of development of infrastructure determines the maturity of a region’s foreign economic activity.

One of the most effective instruments of attraction of businesses to a region is a favorable tax environment within a region. Regional authorities use a setting up free economic zones as a lever of influence on a regional economy structure, increasing of the share of innovative enterprises.

A necessary condition for the functioning of foreign economic activities in a region is an availability of skilled labor, which is a “lifeblood” of the system. Educational and scientific institutions, centers of vocational training, language courses, which prepare highly qualified specialists for the field of foreign economic activities, must be present in a region. Equally important is the issue of welfare of young professionals, creation of favorable conditions for them to stay in a region in order to reduce a “brain drain” from a region. Particularly acute this problem is revealed with domestic professionals who work in offices of foreign companies, or affiliates of TNCs, where the best specialists are transferred to headquarters abroad.

Investment climate and image of a region form a carcass of institutional system of a region’s foreign economic activity. On the one hand, the effectiveness of institutional support for economic activity, comfortable environment for business in a region affect the investment climate and image of a region. On the other hand, the image of the region helps or prevents the involvement of business in a region. A characteristic feature of the investment climate and image of a region is that they are influenced not only by economic factors but also by non-economic factors, including political, cultural, social and others. In addition, the image of a region is influenced significantly, positively or negatively, by the investment climate and image of the state as a whole.

Conclusion

Thus, regional authorities have available mainly institutional instruments for regulation of foreign economic activities, among others there are the following: legal, prognosticative and programmatic, financial and economic, organizational and economic, scientific and educational, image tools. The main objective of the regional policy of Ukraine in the field of foreign economic activity is to increase the usage of existing and new world adopted instruments of foreign economic development.
KEY ASPECTS OF TRANSFORMATION OF THE REGIONAL FOREIGN ECONOMIC POLICY

Assoc. Prof. Dr Iermakova Olga,

Abstract

In the article the role of a region in the global economy is investigated, problems of the formation of Ukrainian regions as members of the competitive relations and objective conditions for the transformation of regional policy on the principles of self-development are analyzed, the model of the institutional support of region’s foreign economic activities is proposed.

Key words: region, foreign economic activity, self-development, institutional system.
PROBLEM AREAS IN THE MANAGEMENT OF PUBLIC CONTRACTS AND IMPLEMENTATION OF MUNICIPAL PROJECTS

Chief Assist. Prof. Dr Sevdalina Hristova

A major responsibility for the municipal authorities is to address problems of local nature by implementing policies for local region development. A key tool in achieving this is to attract EU funds made available to Bulgaria after its accession to the European Community. These are the Structural and Cohesion Funds, the European Agricultural Fund, allotted to help develop rural regions and the European Fisheries Fund. During the present programming period, local municipalities are among the major beneficiaries of the Operational Program (OP) ‘Regional Development’, Operational Program ‘Environment’, Operational Program for ‘Administrative Capacity’ (OPAC) and last but not least, the Rural Development Program.

One of the main problems in absorbing euro funds is the beneficiaries’ administrative capacity which is directly related to the drawing up and submission of project ideas and pulling the expert capacity of the beneficiary, which have a strong bearing on the execution of the financed projects. More importantly, successful implementation of the project is in direct relationship with the quality of project ideas thereof it highly depends on the capacity of team members to manage the project and on the administrative capacity of the beneficiary. An important step towards successful project fulfilment and effective absorption of financial funds is carrying out due procedures to appoint a project contractor. Procurement of public contracts is looked upon as a key element in project implementation as the beneficiary bears upon himself great responsibility which increases the risk of making mistakes.

The purpose of the present article is to study problem areas in the management of public contracts and implementation of municipality projects which are financed by European funds and identify remedial procedures in order to overcome existing problems and deficiencies and enhance the capacity of the beneficiary’s administration. This can be achieved by performing the following tasks:

- elicit the main stages in the public procurement cycle;
- conduct a systematic analysis on irregularities during public procurement;
- identify problem areas in procurement of public contracts and projects receiving EU funds.

1 For the purposes of this article, the Structural funds (the European fund for regional development and the European social fund), the Cohesion fund, the European Agricultural fund for rural development and the European Fisheries Fund, will be called ‘European funds’ or simply euro funds, whereas projects being fully or partially financed by these funds will be referred to as European projects or Euro projects.

2 http://eufunds.bg – Information Portal of EU Structural Funds.
Key stages in the public procurement cycle and management

Since January 1, 2007 Bulgaria has had access to all EU financial instruments as a full-fledged member state of the European Union. During the 2007 – 2013 programming period Bulgaria received a considerable financial resource. The total amount of financial help received for the quoted period is over €9 billion: €6,674 billion from the Structural and Cohesion funds, and €2,682 billion from the European Agricultural fund for rural development and the European Fisheries Fund3.

The government and local authorities respectively are in a position to use this huge financial resource to help develop the national and regional economies and catch up with the rest of EU member countries by absorbing the funds through EU-funded projects which aim to improve local infrastructure, create job opportunities, provide training and expertise and increase the country’s competitiveness through new technologies and innovations.

According to specialized sources, the project cycle usually goes through six interrelated stages: the programming stage (setting targets and priorities for development), identification stage (discussing ideas for future projects), formulation stage (developing good ideas into project proposals), the stage of financing (considering calls for proposals by donor organizations and on approval, concluding grant contracts), implementation and monitoring (project implementation stage) and project appraisal (evaluation of project progress and results achieved)4.

Procurement of public contracts is seen as part of the fifth “Implementation and monitoring” stage of the project cycle. Under the signed contract, the beneficiary is obliged to act towards project fulfilment by adhering strictly to all activities outlined in the project proposal within the set timeframe and budget.

Applicable sector legislation5 lays down all obligatory rules, principles and procedures involved in public procurement. In this line, the management cycle of public procurement and the project cycle accordingly, can be seen as activities in a logical sequence starting by planning of orders, initiation of procedures to appoint a subcontractor until the final stage of contract fulfilment with dates of deliveries, services or construction (see fig.1).

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5 The current law was put into force on October 1, 2004 and subsequently revised in the State Gazette (SG), issue 82, dated 26 October 2012, to ensure correspondence with existing European Directives. It was followed by a number of bylaws laying down the legislative framework in the area of public contracts. The complete set of regulations which comprise current legislation (national and European) in the area of public contracts was published on the site of PPA. www.aop.bg.
The first stage of the management cycle of public procurement is not regulated by the current legislation thereby its content becomes subject to the internal rules of contractors or beneficiaries. Planning of public procurement involves coordinated efforts on the part of the beneficiary’s administration and project team members. Traditionally, public procurement planning comprises the following steps:

- identification of objective needs by the Contractor;
- prioritizing said needs;
- defining procedures to be applied;
- setting and approval of an annual timeframe for public procurement;
- setting a timescale at the onset of each procedure.

Despite the fact that this stage in the public procurement management cycle is not binding or compulsory, it should nonetheless be placed in the focus of the beneficiary’s administrative staff and their efforts as it is considered a reliable tool in the distribution and management of the limited financial resource available to public authorities. Moreover, if annual planning is not carried out properly, certain irregularities may occur such as for example, the splitting of public contracts, which is in violation of the Public Procurement Act (PPA).

The main procedures for awarding public contracts in accordance with PPA in Bulgaria are as follows: open procedure, restricted procedure, negotiated procedure, competitive dialogue procedure and tender. Depending on the type of procedure, the preparation and call for tenders to award public contracts is recognized as the second stage in the management cycle which can be broken down into the following sub-stages:

- preparing the tender documentation and giving notice of the procurement (decision of contracting authority to approve the Notice (Call) for procurement and documentation for the procedure in accordance with PPL);
- decision and notice (call) are sent for publication in the State Gazette and subsequent entry in the registry of PPA for public contracts is made;
- receipt of offers submitted by tenderers to be considered by an appointed commission;
- on request by a candidate, discussions about submitted tender documentation must be held, within a minimum set time period;
- appointment of a Committee to conduct procedure for the award of order (procurement of public contracts);
- preparation of a list of candidates and received bids;
- consideration and evaluation of submitted bids (offers) by the Commission and shortlisting candidates;

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6 Public Procurement Act, in force since 30.10.2012.
appointment of a contracting authority designated as Contractor to be awarded the public contract, based on the Committee’s formal decision;

notifying unsuccessful bidders of the contract award decision.

In view of the above sub-stages, certain discrepancies may occur, arising from the type of selected procedure, namely in terms of timescale and provisions made for documentation, responsibilities and functions of the commissions.

The third stage in the management cycle of public contracts ends by concluding a public contract or by a decision to terminate the procedure. Termination of the procedure is possible only before the actual signing of contract whereby the contractor is obliged to reimburse the tender fee or guarantee. As a rule, the contract is awarded to the successful bidder appointed by the Committee. Contracting authorities must allow at least 14 days between the date of dispatch of the notice of award and the date on which it proposes to enter into the contract. This stage can be subdivided into the following:

unsuccessful bidders have the right to appeal the decision of contracting authority before the Prosecutor’s Office and Anti-competitive Practices Committee;

the successful bidder is obliged to prepare a set of documents and present them to the contracting authority before signing of contract;

signing of contract for execution;

notifying the Public Procurement Agency on the contract awarded.

The process of public contracts will not end on signing contracts with subcontractors for construction, delivery or services. The fourth stage is paramount in the procurement of public contracts as it starts with contract performance and ends in paying off for delivered goods, services done or construction works, if any. The last stage relates to the actual execution of signed contract and can be subdivided into the following stages:

coordination of activities during contract execution;

acceptance or rejection of contract performance;

payments to the party responsible for the contract execution;

sending information to the Public Procurement Agency on completion of contract;

other relationships with contractor party (for example maintenance under the guarantee period);

remission of fee against contract failure.

Alongside execution of signed contracts, the contracting authorities have the duty to conduct internal inspection on the delivery of goods, services procured or construction works. Object of inspection can be the physical contract performance, from a qualitative and quantitative point of view, timescale of contract, financial parameters, etc. Internal inspection of contract performance is seen as one of the key elements in the management cycle of public procurement. In addition, internal inspection ensures contract fulfilment and adequate spending of public funds in accordance with statutory requirements and adherence to the principles of good financial management.

One of the main objectives in contract regulation and management (of goods and services procured or construction done) is effective spending of public funds. It is important to note that quality contract execution largely depends on what had preceded contract signature. Good planning of orders and procedures is among the main factors which determine efficient contract fulfilment.
In summary of the above, we can conclude that given the cyclic character of public procurement, strict observation of regulations and procedures is paramount for the execution of each of the stages outlined in public procurement and management. Failure to comply with rules and procedures may affect fulfilment of projects financed by European funds and hinder successful contract performance.

**Common violations in the procurement of public contracts**

EU funded projects and projects that are fully or partially based on grant financial aid are subject to monitoring and control (ongoing or subsequent) performed by the respective authorities: managing authority\(^7\), certifying authority\(^8\), auditing authority\(^9\), European Commission authorities, etc. Basically, these inspections aim to check project execution and whether progress is going according to schedule for project activities; they also aim to check archiving and document flowcharts, including technical and financial progress; further on, inspections aim to establish compliance with the requirements for transparency of information and accountability and verify the systems for financial management and control. Public procurement procedures also fall within the scope of said inspections.

Under EU funded projects, the beneficiaries sign contracts with subcontractors, natural or legal entities to secure proper execution of project related activities. The appointment of a contractor is done in accordance with existing national legislature. Municipalities can act as contracting authorities under the provision of Article 7 and Article 14, par. 4 and 5 of PPA\(^10\) which state that the choice of contractors should be done in conformity to PPL and relevant bylaws or secondary legislation.

The Public Financial Inspection Agency (PFIA) is one of the inspection authorities which exercises a subsequent control over the procurement of public contracts\(^11\).

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\(^7\) Managing Authority – national, regional or local public body, responsible for the efficiency and legality of running and implementation of a given operational programme. Each operational programme (OP) has its managing authority appointed.

\(^8\) Certifying authority – responsible for the certification (verification) of the declarations for expenses, received by the Managing Authority and preparation and submission of payment orders to the EU Commission. The certifying authority in Bulgaria, accountable for EU Structural and Cohesion Funds is the ‘National Fund’ Directorate with the Ministry of Finance.

\(^9\) Auditing authority. Performs audit in accordance with internationally accepted auditing standards and provides an independent and unbiased evaluation on the effectiveness of systems for financial management and control and accuracy of statements of expenses submitted to EU Commission. The Auditing authority in Bulgaria which is accountable for the EU Structural and Cohesion Funds is the Executive Agency ‘Audit of EU Funds’ under the Finance Minister.

\(^10\) Public Procurement Law, Promulgated in SG, No. 28 as of 06.04.2004, effective as of October 1st, 2004, subsequently revised and amended.

\(^11\) Public Financial Inspection Agency (PFIA) is an administration under the Ministry of Finance, created in 2006 following a reform in the area of State Internal Financial Control. The main objective of PFIA is to protect public financial interests by conducting ex-post financial inspections on the observance of statutory acts, regulating the budget, economic or accounting activities of organizations and entities under Article 4. It shall exercise ex-post control for legitimacy over the assignment and implementation of public procurement. It shall analyze the reasons and conditions for the violations of financial discipline affecting the financial interests of EU countries. www.adfi.minfin.bg
Over the period January 2009 – December 2011, a total of 689 inspections have been conducted, detecting a series of violations, of which 280 under PHARE and SAPARD programs, 387 in spending funds of the Structural and Cohesion Funds (OP “Regional Development”, OP “HR Development”, OP “Transport”, OP “Environment”, OP “Administrative Capacity”) and 7 under the European Agricultural Fund for rural development (OP “Rural region development”).

### Table 1

<table>
<thead>
<tr>
<th>Legislative Act</th>
<th>All inspected entities</th>
<th></th>
<th></th>
<th>Municipalities</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Relative share</td>
<td>Number</td>
<td>Relative share</td>
<td>Number</td>
<td>Relative share</td>
</tr>
<tr>
<td>Public Procurement Law (PPL)</td>
<td>232</td>
<td>33.65 %</td>
<td>160</td>
<td>27.92 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinance for the award of small public procurement contracts</td>
<td>389</td>
<td>56.46 %</td>
<td>369</td>
<td>64.40 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulations on implementation of PPA</td>
<td>44</td>
<td>6.39 %</td>
<td>36</td>
<td>6.46 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting Law</td>
<td>7</td>
<td>1.01 %</td>
<td>7</td>
<td>1.22 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinance of the Council of Ministers № 55 dated March 12, 2007</td>
<td>17</td>
<td>2.47 %</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>689</strong></td>
<td><strong>100.00 %</strong></td>
<td><strong>573</strong></td>
<td><strong>100.00 %</strong></td>
<td></td>
<td></td>
</tr>
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</table>

**Source:** [www.aop.bg](http://www.aop.bg)

Table 1 summarizes data on administrative irregularities in violation of Regulations and penalty acts that were established over the period January 2009 - December 2011.

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12 Under Article 19, par. 2 item 26 of PPA (new - SG, No 94 in 2008, entered into force on January 1, 2009) the executive director of the Public Procurement Agency keeps a file of persons or entities with a record of violations in spending EU funds and EU financed projects. The Regulations has been repealed with a subsequent amendment of the PPL, SG No. 93 from 2011, entering into force on 25.01.2012. Information on recorded cases of violations in public spending by PFIA has been published on the official site of PPA covering the period January 2009 - December 2011.

13 Ordinance for the award of small public procurement contracts – promulgated in State Gazette., issue 84, dated 27.09.2004, effective as of the date of coming into force 01.10.2004, amended and supplemented, repealed under § 2 of Ordinance № 38 dated 23 February 2012 discussing amendment and supplement of statutory acts of the Council of Ministers - SG, No. 17 of 28 February 2011, effective as of 26.02.2012, except for the provisions of Article 34, par. 6, which was annulled on April 1, 2012.

Inspections carried out by PFIA cover a total of 125 beneficiaries, out of which only 16 are not municipalities. Official statistics show that 101 municipalities, accounting for 38.26% of all municipalities, have allowed at least one project violation of EU funded projects (see Fig.2). With rural municipalities, the share of beneficiaries having more than one violation is considerably lower (30.34%) as compared to large municipalities (60.26%).

![Fig. 2. Municipalities – beneficiaries of EU funded projects with established irregularities during PFIA inspections for the period January 2009 – December 2011](image)

It is worth highlighting the number and relative share of beneficiaries i.e. municipalities for which irregularities were found, as compared to the average rate of violations per beneficiary. Fig. 3 shows that a total of 308 violations have been detected for 54 beneficiaries – mainly rural municipalities, which gives an average of 6 violations per municipality. With large municipalities, the ratio is slightly over 5 violations per beneficiary.

![Fig. 3. Municipalities – beneficiaries of EU funded projects with established irregularities in spending EU funds during PFIA inspections for the period January 2009 – December 2011](image)

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15 Dividing municipalities into ‘rural’ and ‘large’ is done against criteria applied by OP ‘Regional Development’ 2007-2013. The group ‘large municipalities’ is comprising municipalities within the territorial domain of agglomerations (86 in total), and those outside the agglomeration area comprise the group of ‘rural municipalities’ (178 in total).
Data from PFIA conducted inspections on contracting authorities under public procurement gives us reasons to draw the following conclusions:

1. Public procurement has been perceived as an area where there is a high chance of irregularities and mistakes in the implementation of EU funded projects.
2. The share of irregularities in the area of public contracts won by municipalities can reach as high as 99%.
3. Nearly 5 of the violations detected in public procurement, where the beneficiaries are rural municipalities, are violations of procedures regulated by the *Ordinance for the award of small public procurement contracts*.
4. With large municipalities, the share of violations of the Public Procurement Act tends to increase, although small public procurement contracts can also be in the focus of concern.
5. Taking into account both large and rural municipalities with at least one irregularity in the implementation of European projects, we arrive at an average of 6 violations of PPA, which means that their capacity for awarding public orders is almost the same.

On closer inspection of the above findings, it becomes possible to outline the most common irregularities or violations in the area of public procurement.

**a) Violations of procedures awarded under PPA are as follows:**

- Under the provisions of Art. 25, par. 2, 5 and 7 (26 violations have been detected) – announced public procurement has failed to contain minimum required information; included are terms and conditions favouring one of the tenderers and/or restricting unreasonably the number of tenderers; the evaluation of tenders is not done exactly as per notified criteria;
- Art. 42, par. 1, item 2 and 3 (26 violations detected) – on signing the public contract, the chosen contracting authority has failed to submit documents presenting evidence for fulfilment of stipulated conditions under Art. 47 of PPA or a guarantee for contract performance;
- Art. 43, par. 1 (21 violations detected) – contract signed with contractor has been modified in breach of statutory requirements;
- Art. 44, par. 1 (33 violations detected) – the contractor failed to send information on contract to the Public Procurement Agency within the required term;
- Art. 69, par. 1, item 1 & 3 (69 violations detected) – the Committee has accepted tenders which do not conform to requirements and/or the credentials of bidders are not matched or verified with the notified criteria.

**b) Violations of procedures under the Ordinance for the award of small public procurement contracts are as follows:**

- Art. 21, par. 1 (82 irregularities) – the Committee has accepted offers which do not conform to statutory requirements or to criteria for tender submission and documentation;
- Art. 28 (33 irregularities) – the performance guarantee clause is not stipulated by the contractor or is outside validity period;
- Art. 32 (46 irregularities) – on signing the public contract, the appointed contracting authority has failed to submit documents presenting evidence on fulfilment of stipulated conditions under Art. 47 of PPA or a guarantee for contract performance;
• Art. 34, par. 1 (31 irregularities) - the contractor has failed to send information to the Public Procurement Agency on contract awarded or fulfilled within validity period;
• Art. 38, par. 3 & 10 (33 irregularities) – the signatures of at least three Committee members on the “Bid offers” envelopes are missing and so are the proposals to be evaluated by the Committee (or other competent authority) according to the published criteria; the envelope with the bidder price was not opened upon evaluation of all offers against stipulated criteria and attested by the signatures of Commission members on the written statement.

Based on the data submitted by the Public Procurement Agency and the cycles in the public procurement management, the following irregularities in the awarding of public contracts and selection of contractors can be identified:

1. Irregularities associated with the preparation and opening of bidding documents in the public procurement, resulting from inappropriate procedures, failure to submit accurate tender information, unduly restrictive or relaxed criteria, etc.

2. Irregularities in carrying out of procedures in public procurement such as failure to meet validity periods and rules; the Commission has accepted a bid in breach of contractor’s requirements, etc.

3. Irregularities with contract execution such as delay or failure to send information to the PPA on awarded public contract; signing of contract without obtaining performance guarantee, etc.

4. Other irregularities in public procurement contracts such as inclusion of annexes which are in violation of PPL; failure to conform to contract terms and conditions; delays in sending information to PPA; restricting performance guarantees, etc.

Any violation of the national and/or community legislation in the area of public procurement which tends to incur financial losses should be treated as irregularity\(^\text{16}\), subject to financial penalties\(^\text{17}\). The extent of said penalties\(^\text{16}\), depending on the degree of violation or financial damage can vary within a range of 2\% to 100\% of the value of contract signed with the contracting party. It should be noted that apart from violations\(^\text{16}\)

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\(^{16}\) Under Art. 1, paragraph 2 of Council Regulation № 2988/95, ‘irregularity’ is defined as “any infringement of provision of community law resulting from an act or omission by an economic operator, which has or would have, the effect of prejudicing the general budget of the Communities or budgets managed by them, either by reducing or losing revenue accruing from own resources, collected directly on behalf of the Communities, or by an unjustified item of expenditure.” In the Convention on protection of European Communities financial interests ‘fraud’ is defined as - generally any intentional act or omission of such, incurring financial losses to the Community. The terms ‘irregularity’ and ‘fraud’ differ only by the degree of intentional act.

\(^{17}\) Financial correction – The purpose of ‘financial corrections’ is to restore a situation where 100\% of the expenditure declared for co-financing from the Structural Funds or EU funds is in line with the applicable national and EU rules and regulations. The amount of financial correction will be assessed where possible on the basis of the amount wrongly charged to the Funds in the cases concerned, including EU funds. Irrespective of the nature of irregularity – intentional or unintentional, the expenditure in question shall be deducted from community funding.

\(^{18}\) Financial correction involves the application of two methods – differential and proportional. The second finds a wider scope as it allows for the calculation of the amount to be corrected on the basis of extrapolation or at flat rates.
explicitly stated in the Methodology, financial penalties may ensue from any violation of PPL, as a result of non-compliance with the basic principles of awarding public procurement. For instance, the most severe financial penalty is imposed in the case of public procurement procedure, where the contract was awarded without complying with the advertising requirements, which is a flagrant disregard of the principles for **openness** and **transparency**. In the case of infringement of the other two principles of public procurement – **free and fair competition** and **lack of discrimination**, where the amount of financial correction can be 25, 10, 5 or 2% of contract value.

In view of the above, it is clear that spending of EU funds should not only be based on the three principles of financial management, i.e. effectiveness, efficiency and cost saving, but above all, it should be based on statutory regulations and comply with the rules and procedures for public procurement.

**Conclusion**

Common irregularities associated with violations committed by beneficiaries of EU funded projects and appointment of contracting authorities give us grounds to draw the following conclusions:

1. Poor knowledge of rules and regulations associated with public procurement and inadequate management of the process of awarding public contracts.

2. Lack of required administrative capacity on the part of beneficiary and team members to exercise adequate project management in terms of procurement, awarding and execution of public contracts for construction, delivery and services.

Successful project fulfilment is at hand only when no financial corrections have been imposed which means that no faults or deficiencies have been detected to be classified as irregularities. Therefore, in order to reduce the amount of irregularities in the area of public procurement and ensure that similar concerns will be addressed effectively, we shall offer the following recommendations to all parties involved in the process of project management:

1. First, it is important to enhance the administrative capacity for project management by providing specialized training to persons managing public funds and administrative staff involved in public procurement.

2. Improve professional competences and knowledge of municipalities and their administrative staff in the area of public procurement to guarantee procedures that are in compliance with the rules and regulations of PPA, towards effective absorption and spending of EU funds.

3. More active utilization of resources to enhance the capacity of potential beneficiaries – municipalities within the framework of OP ‘Administrative Capacity’ and the ‘Technical Assistance’ axis, providing support for different operational programs.

4. Drawing up guidelines for selection of commission members who are to examine, assess and shortlist tender offers, so that only competent and qualified individuals in the area of public procurement sit on these commissions.

5. Development of general guidelines for the beneficiaries which aim to improve own systems for internal control and prevent possible irregularities in the area of public procurement.
6. Development of a mechanism for the adoption and promulgation of good practices with regard to tender documentation – technical specifications, selection criteria, assessment indices, etc.

The outlined deficiencies in the beneficiaries administrations – central, regional and local administrations and project management teams in the implementation of public procurement tend to affect in a negative way the effective absorption of EU funds and lower the quality in the provision of public services and spending of public funds. Arguably, a very important factor in achieving effective management of projects is the recruitment of experts and competent and experienced staff. In order to strengthen the successful completion of EU financed projects and degree of absorption of EU funds, it is vital to create conditions to maintain and develop the beneficiaries’ administrative capacity.

PROBLEM AREAS IN THE MANAGEMENT OF PUBLIC CONTRACTS AND IMPLEMENTATION OF MUNICIPAL PROJECTS

Chief Assist. Prof. Dr Sevdalina Hristova

Abstract

In the article there are studied some principal issues of the management of public procurement by municipalities with respect to the realization of projects financed from European Funds, and on that basis there are pointed out possibilities for their overcoming with a view to assisting the administration of the beneficiaries in order to raise its capacity. There are clarified the main phases of the cycle of procurement, there are systematized the main violations in awarding procurement contracts and are outlined some possibilities for overcoming the existing problems in public procurement for projects financed from EU Funds.

Keywords: cycle of the management of public procurement, violations in awarding procurement contracts, administrative capacity.
RELIABILITY LEVEL OF THE PRODUCTION SCHEDULE
DESIGN IN THE CONSTRUCTION COMPANY

Assist. Prof. Velina Yordanova

Introduction

The advance of modern market economy is characterized with significant complexity of relations between economic entities. This determines the need to seek different methods and means to increase probability for adequate decision making process connected with managing the company. The efficiency of economic activity of the construction company is closely related with well prepared and reliable production schedule, which is the basis for providing economic sustainability and stability of the enterprise.

Looking for resources to enhance reliability of the production schedule is of utmost significance in market orientated economy. With reference to this, one has to take into account the impact of random factors regarding human and technical resources when defining the production capacity of construction enterprises.

The objective, set in the present research is to put forward economics - mathematical model to assess reliability level when developing the production schedule of the construction company.

Achieving this goal requires solving the following issues:

1. Specifying the peculiarities of the production schedule of the construction company.
2. Working out analytical indicators for assessment of production schedule reliability.
3. Designing an economics-mathematical model for assessing the reliability level in the development of the production schedule of the construction enterprise.

The paper supports the thesis that the production schedule takes the central position in the management of the construction enterprise and measuring its reliability has an utmost significance for its efficient operation.

1. Characteristics of the construction company production schedule

Perfection of business planning is one of the significant factors for efficient production and economic activity in each company. Development of well-grounded production schedule of the company is an important core direction for it. The production schedule is a determinant

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1 For the purpose of the present research, we assume that the economic sustainability of a construction enterprise can be characterized as a guarantee for its profitable, operational activity by raising efficiency of production resources and production management, stable financial situation, sustainable development of production capacity and social development of staff through self-funding in the dynamic environment.
in the company’s business plan. It has a decisive role in defining the development guidelines of a company’s production, the volume, type and quality of produce.

Tangibly construction output comprises:
- Production processes of building and assembly activities at construction sites;
- Processes of production of construction articles, semi-manufactured articles, assembly items in subsidiary manufacture of construction companies;
- Servicing of production processes of construction and assembly activities and manufacture of articles, semi-manufactured articles, assembly items in subsidiary manufacture (acquiring and delivery of construction mechanisms, materials, resources, raw materials, horizontal and vertical transportation of construction mechanisms and materials on the construction sites, activities in organizing and maintaining the construction sites, organization and management of construction production, etc.).

That is why when designing the production schedule for the construction enterprise one has to consider and render an account of the following components:
- The processes of manufacture of construction and assembly works;
- The production processes when construction mechanisms and articles, semi-articles, installation items in subsidiary production are manufactured;
- Production processes for servicing the manufacture itself, as well as the construction company.

The production schedule should be perceived as a basic section and document in the business plan and “represents an assignment for the volume of the construction and assembly works, the type of buildings and installations (a list of construction sites) and the deadlines for bringing them into use, assigned to the construction enterprise (chief constructor) for a defined planned term”.

However, in considering the process of production resources utilization when developing a construction product one should bear in mind the circumstance that the project and design decisions for the buildings and facilities under construction influence significantly the extent of their use in fulfilling construction and assembly works. It is not necessary to give reasons that, firstly, different project decisions of same design elements require different costs for labour, resources, power, mechanization working time and, secondly, not all the applied project and design decisions for the buildings and facilities elements are technologically feasible and cost-effective in the plan of the production schedule. That is the reason why in developing the production schedule one has to report on the rationality of the project and design decisions for buildings and facilities, drawing up and applying fewer resources in construction units.

Therefore, the strive to fully encompass the whole cycle from design of the building to bringing it into use, is definitely considered an important characteristic of the construction company production schedule: investments – purchasing the land (expropriation) of land (lots) for construction - design – construction – putting into possession – utilizing (sale) of ready-built objects.

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Another characteristic that one has to report on when developing a production schedule of such kind of investment – construction structures, finds expression in their contingent integration with other similar organizations, taking part in financing, designing, material and technical procurement of construction and assembly works, fulfillment of construction output (possibly as subcontractor) and implementation of the completed object. This calls for considering the construction enterprise as a systematic formation of effective sections for achieving the main objective – creating a complete construction product (efficiently functioning object for social, public or industrial purposes) in short terms and at optimal costs of financial, material and human resources and its realization at the real estate market, considered „as a system of economic and law relations, originated on the basis of interactions of goods and money turnover “[3].

It should be noted, that the construction company production schedule is distinguished by the fact, that the result of its implementation (construction output) is directly connected with the land. Therefore, the immobility of the construction output determines the mobility of the construction process. This causes mobility of all resources (materials, labour, equipment), continuous organization of construction production, expedient export of some construction processes outside the construction site, effective delivery planning, rational use of mechanization in the implementation of the production schedule.

In so far as the processes of construction production are sufficiently multilateral and with various aspects, in support of the above stated, one should barely expect the content and quality of the production schedule to be developed making use of only several indicators. In our opinion, a whole set of indicators is required which allows planning the standard of construction production for all its components.

In developing the production schedule of the construction enterprise, the following key indicators for the different lifecycle phases of the construction site could be drawn in order to improve the system of utilization of production resources. (table 1).

### Table 1

<table>
<thead>
<tr>
<th>Phase</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic validity and object design</td>
<td>Site cost estimation</td>
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<tr>
<td></td>
<td>Site resource consumption</td>
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<td></td>
<td>Operational costs</td>
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<tr>
<td>Preparation for construction</td>
<td>Preparation for construction costs</td>
</tr>
<tr>
<td>Construction and equipment installation</td>
<td>Construction costs</td>
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<tr>
<td></td>
<td>Construction and assembly duration</td>
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<td></td>
<td>Construction quality</td>
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<tr>
<td>Completion of construction object</td>
<td>Financial result</td>
</tr>
<tr>
<td></td>
<td>Realization of construction output costs</td>
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<tr>
<td></td>
<td>Cost-effectiveness</td>
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<tr>
<td>Exploitation</td>
<td>Financial result</td>
</tr>
<tr>
<td>Modernization</td>
<td>Renovation costs</td>
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</tbody>
</table>

It should be noted, that other quantitative indicators, showing the dynamics of construction output processes are known, namely, the extent of implementation of production standards (labour costs), fund facilities of the construction companies, mechanical equipment of labour, indicators for construction mechanization use in time, power and productivity, indicators for efficient preparation of construction site, etc. The above mentioned indicators could widely be used to evaluate the intensification of construction production after the fulfillment of the production schedule.

The ensuing items should also be taken into consideration when developing the production schedule of the construction enterprise:
  - The actual outcome data of the company production schedule fulfillment from preceding periods;
  - Information about output volume for preceding years;
  - Estimates about demand for the construction production offered by the company;
  - Observations on quality of the construction and assembly activities and the output (according to the list of items and range);
  - Calculating the company’s available production capacity and its structural subdivisions;
  - Mapping out initiatives to renovate construction output, improving its quality and reducing operation costs, construction site update, technical renovation of construction mechanization, reconstruction of production processes, etc.

A well-developed and well-designed construction company production schedule needs to define accurately:
  - the type of construction output (buildings and facilities) and the volume that needs to be produced;
  - the deadlines for buildings completion and their transfer for occupancy;
  - the company’s facilities to undertake additional construction and assembly activities in case of unexpected offers;
  - the standard and quality system for the completed construction and assembly activities;
  - the volume of required resources and mechanization for accomplishing the construction processes and the system of their acquisition;
  - facilities for conservation of construction sites or project termination, etc.

It should be noted, as a conclusion to this part of the study, that the peculiarities of the production schedule, stated above, do not exhaust the wide range of different isolated cases that exist. In our opinion these characteristics are typical for most of the company production schedules in the construction sector.

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2. Reliability of the construction company production schedule

Providing a reliable production schedule turns out to be an important strategy in conditions of competition. A reliable schedule is the one which provides for the needed resources, materials, fuels, power, human, economic, financial and other resources for the period of completion of the particular construction site and the company as a whole. At the preliminary stage of development ensuring the reliability of the production schedule requires researching and estimating market needs, thus, it is made market orientated and responding to the market demand and customers needs. Hence, the production schedule reliability is the significant factor, which ensures enhanced level of utilization of means and tools of trade, its productivity, quality and efficiency of construction and assembly activities and the company’s operation as a whole.

Developing a reliable production schedule of the construction company requires reporting on peculiarities of construction and assembly activities, ensuing from the production immobility and discontinuity of construction sites, the individual and unique character of the building process and construction output, the long duration of the building process, etc. One of the practical approaches for handling the reliability issue of the production schedule lies in the development of a set of analytic indicators for assessment of business processes management of the construction company.

Analysis of theory and practice of economic system management, the study of specific characteristics of construction companies and construction output allows us to draw the conclusion that, for that particular case, it is advisable, to structure the set of indicators in the following way:

- management of the company as a whole unit;
- management of the types of activities;
- management of the company’s functional subdivisions;
- management of the construction sites lifecycles.

Performance appraisal of the construction company as a whole unit ought to be orientated to the subsequent indicators: cost effectiveness; net assets; reinvestment ratio, company’s accrued surplus value, financial figures.

All calculated indicators are compared to the ones from the base period in the production schedule and conclusions are drawn about availability of adequate reliability. Having no pretensions for comprehensiveness, we could recommend the indicators, exposed in table 2 for analyzing the results from the different types of activities.

---

5 Here we use strategy for a general model of activities, required for achieving the goals set in the production schedule through coordination of production capacities and rational resources allocation in the construction company.

6 Business-processes are perceived as a combination of mutually connected types of activities, using resources and converting them into valuable for consumers produce, within the organizational structures reflecting the functional links and relations. Barkanov, A. S. Sovershenstvovanie biznes-procesov deyatelnosti stroitelnyih organizacii. Ekstroitelstva, 2005, № 3.

Table 2

Model analytical indicators

<table>
<thead>
<tr>
<th>Activities trends</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Deadlines for project costs cover</td>
</tr>
<tr>
<td></td>
<td>Relative use of resources for designed objects</td>
</tr>
<tr>
<td></td>
<td>(according to the basic types of resources)</td>
</tr>
<tr>
<td></td>
<td>Yield upon investments</td>
</tr>
<tr>
<td>Construction</td>
<td>Costs for sites construction</td>
</tr>
<tr>
<td></td>
<td>Cost effectiveness</td>
</tr>
<tr>
<td></td>
<td>Real duration of construction</td>
</tr>
<tr>
<td>Production of materials</td>
<td>Production costs for mechanisms</td>
</tr>
<tr>
<td>and mechanisms</td>
<td>Cost effectiveness</td>
</tr>
<tr>
<td>Sites exploitation</td>
<td>Operational costs</td>
</tr>
<tr>
<td></td>
<td>Cost effectiveness</td>
</tr>
</tbody>
</table>

In the present study, we think it is correct to stress the fact that indefiniteness is an essential feature of the business process, characterized by imbalance in commercial, production and financial goals of the construction company. Therefore, random factors influence the system of analytic indicators for business processes management appraisal, hence, upon reliability of production schedule, which calls for directing our attention towards their reporting.

The analysis of the production activities in the construction enterprise shows that the overall impact of random factors in their most diverse combination and dissimilar nature, in the long run leads to a diversion of the real duration of the performed activities and the real costs of the resources used, from the meanings, adopted in the initial plans and work-schedules. If it becomes possible to forecast diversions of real work parameters from the planned ones as a result of total impact of random factors and their quantity assessment, an opportunity arises to report the probability nature of construction activities.

To calculate probability for flawless accomplishment of some construction processes is connected with significant difficulties in their computation and can be fulfilled only for some periods, chosen in advance. In the subsequent uses of probabilities for construction company flawless work, it is advisable to approximate some of their tabular values with preliminary well selected functions\(^8\). The very form of the approximating functions underlying the econometric research ought to be logical to the assumption for rationality of the construction company, for consistency and efficiency of its activities. In short, econometric studies, as well as ‘pure’ theoretical economic analysis are based on analysis of statistics data about the explored human and technical resources. It should be noted here, that the empirical meanings support to a great extent the impact of random factors and reporting the mistakes when using these meanings is very difficult. An attempt is made, further on the basis of functional

---

\(^8\) See e.g., Ventsel E. S., Issledovanie operacii. Moskva: Sovetskoe radio, 1972, p. 372.
dependency between indicators for production resources used and production capacity to report on the random factors impact which leads to the reduction of efficiency of given resources. The real quantity of production capacity $PR_m$ at the end of a definite base period, if stemmed from the volume of accomplished construction and assembly activities for previous periods and reporting on the efficiency of human and technical resources used and changes in work structure for the period planned, can be determined by the formula:

$$PR_m = V_f \left( \frac{D_t}{K_t} + \frac{1 - D_t}{K_{ch}} \right)$$

(1)

Where the following designations are used:
- $V_f$ – volume of construction and assembly activities accomplished with company own resources for the base year, in thousand levs.;
- $D_t$ – the share of mechanically accomplished work in the total volume of the real accomplished construction and assembly activities, in relative unit;
- $K_t, K_{ch}$ – coefficients, defining the use of technical and human resources, available in the construction company.

The meanings of $V_f$ and $D_t$ in the formula should be considered as determinant quantitative, whose value can be determined on the basis of reported data. As regards the meanings of $K_t$ and $K_{ch}$, it should be noted, that they are random variables, subject to the impact of internal and external destabilizing factors upon the level of utilization of both technical and human resources. It means that the production capacity quantity as function of $K_t$ and $K_{ch}$ also appears to be a random variable; to determine it one ought to be familiar with the function of distribution of given coefficients.

Coefficients $K_t$ and $K_{ch}$ can assume different meanings, therefore by definition, they are random variables. When the distribution function of random variables is known, one can find their distribution functions by which it is possible to define all probable meanings of $K_t$ and $K_{ch}$ and the probabilities for their attainment.

For definiteness let us assume, that probabilities $P(t)$ can be calculated for argument values divisible by $t$, i.e. $t_k = kt$, where $t_k$ is the time, when there is no interruption of construction and assembly processes under the impact of random factors, $k = 1 \div n$. For shorter designation, let $P(t_k) = p_k$. As an option for approximating these probabilities let us use the formula:

$$\varphi(t_k) = \begin{cases} e^{-\kappa t} & \text{when } \kappa = 1, \\ e^{-\kappa t - (k-1)\mu - (k-1)\theta} & \text{when } \kappa \geq 1, \end{cases}$$

9. By production capacity we mean the volume of construction and assembly activities which the company can complete with its own resources for a fixed period of time by using the human resources, construction machines and mechanisms in the most efficient way.

10. The formula is adapted and elaborated on the basis of the evaluation stated in the article: Serov, V.M., B. A. Furman, T. B. Nikanorova, Estimation of the conditions and the effectiveness of the intensive production // Ekonomika stroitelstva 2004, № 10, s.15.

where the parameter \( \lambda \) is known, but the quantities \( \alpha \) and \( \beta \) need to be defined by the condition, according to which the multitude of values \( t_k = kt \) where \( k = 1 \div n \) guarantees the inferior limit of maximum deviation of \( p_k \) from \( \text{ln} \varphi(t_k) \), i.e.

\[
\min \max_{k \in \mathbb{N}} \left[ \varphi_k + \lambda t + \frac{(k-1) \alpha t}{n} + (k-1)^2 \beta t^2 \right]
\] (2)

To simplify the expressions above the following symbols can be used \( b_k = \ln p_k + \lambda t, \ x_1 = at, \ x_2 = \beta t^2 \). The expression (2) then will be of the following type:

\[
\min \max_{k \in \mathbb{N}} [b_k + (k-1)x_1 + (k-1)^2x_2]
\]

In this way the problem for finding the quantities \( \alpha \) and \( \beta \) can be shown as a problem of linear optimization:

Find the minimum of the linear form

\[
G(Y) = x_1
\]

with limits

\[
\begin{align*}
b_k + (k-1)x_1 + (k-1)^2x_2 & \leq x_3, \\
b_k + (k-1)x_1 + (k-1)^2x_2 & \geq -x_3, \\
x_1 & \geq 0, \ x_2 \geq 0, \ x_3 \geq 0 \quad \text{for} \ k = 1 \div n.
\end{align*}
\] (4)

For example, when \( k = 4 \) the system will have the following limits:

\[
\begin{align*}
x_1 + x_2 + x_3 & \geq -b_4, \\
2x_1 + 4x_2 + x_3 & \geq -b_3, \\
3x_1 + 9x_2 + x_3 & \geq -b_3
\end{align*}
\] (5)

It should be noted that the inequalities where \( k = 1, \ i.e. \ x_3 \geq -b_1 \) and \( x_3 \geq b_4 \) do not belong to the system (5), because \( b_1 = 0 \) and, tangibly, they meet the requirement for a positive number.

To solve the newly obtained problem of linear optimization, it is advisable, to use its duality, which, in this case, will be of the type:

\[
\max : G(Y) = -b_3y_3 - b_3y_2 - b_2y_1 + b_2y_4 + b_1y_3 + b_4y_i
\] (6)

if

\[
\begin{align*}
y_1 + 2y_2 + 3y_3 - y_4 - 2y_1 - 3y_2 & \leq 0, \\
y_1 + 4y_2 + 9y_3 - y_4 - 4y_3 - 9y_2 & \leq 0, \\
y_1 + y_2 + y_3 + y_4 + y_5 & \leq 1, \\
y_1 \geq 0, \ y_2 \geq 0, \ y_3 \geq 0, \ y_4 \geq 0, \ y_5 \geq 0.
\end{align*}
\] (7)

Solving the problems (6)-(7) requires introducing additional positive variables, which will perform the functions of basic ones.

As long as the planned production capacity represents a stochastic value we ought to use probabilities (reliability levels) for implementation of the production schedule. Depending on this exponent when implementing the distribution functions, its value is defined and later used in the following calculations. It should be noted here, that practically, the reverse problem might be solved in scheduling – to determine
reliability for meeting the production schedule depending on the set probability values $K_t$ and $K_{ch}$.

Conclusion

The efficiency of economic activity in the construction company is closely related to the well designed production schedule. It is the basic and most significant section in the construction company’s business plan. So, when developing it, we think it is necessary to report on the reliability level which will ensure capacities proportion and coordination and effective use of available resources. With regard to this, the uncertainty when reporting on reliability is a significant issue because it directly influences the aims set. A great number of random factors cause diversions, which reduce reliability and this fact should urge us to find ways to forecast and report on them while designing the production schedule.

RELIABILITY LEVEL OF THE PRODUCTION SCHEDULE DESIGN IN THE CONSTRUCTION COMPANY

Assist. Prof. Velina Yordanova

Abstract

A reliable production schedule is an important prerequisite for the achievement of good economic results on the part of the construction enterprise and for ensuring rhythmical and effective work in its functioning. In this respect in the present article there are considered the peculiarities of the production schedule, which we believe it is necessary to consider during its development. Taking into consideration the characteristics of construction production there is made an attempt at proposing an economic and mathematical model for assessing the level of reliability in the formation of a production schedule for the construction enterprise.

Keywords: production schedule, reliability, construction enterprise.
STRATEGIC ASPECTS OF OUTSOURCING
Assist. Prof. Vladi Kurshumov

Introduction

The term “outsourcing” is a compound noun made of two words: “out” and “sourcing”. According to Power, Desouza and Bonifazi, “sourcing” refers to contracting work, responsibilities or decisions to someone else, the way managers delegate work to their employees. “Out” suggests transferring to a foreign contractor. As Heywood claims, the object of outsourcing are inter-company business functions, activities and processes as well as the respective assets which are handed over to a third-party service provider who is specially qualified to perform these services within a specified time period and at an agreed competitive price. A distinctive characteristic of outsourcing is the striving towards the building of a long-term cooperation, based on contractors’ mutual trust (Brown and Wilson, 2005). The long-term character of the process calls for senior managers’ participation in decision making concerning outsourcing, which, in any one company, places it within the range of strategic planning. Essentially, its role consists in defining the basic priorities in the field of outsourcing in response to the dynamic environment, the globalization of the economy, changes in the market situation, change in the company’s competitive advantages and positions. According to L. Varamezov, the decision to outsource activities “is among the hardest choices facing management and should not be taken lightly”. He goes on to add that it is necessary for organizations to perform a re-assessment of existing processes, technologies, products or services in order to focus on the strategic activities for the organization.

The aim of this article is to bring forward the types of strategies and relationships in the field of outsourcing and present a methodology for their characterization.

To achieve this aim, the following major research tasks have been set:
- Generalize the basic characteristics of the outsourcing strategy;
- Define the types of outsourcing strategy according to their “width” and “depth”;
- Define research criteria to study relationships between outsourcing partners and the manners of their categorization;
- Draw fundamental conclusions about the essence and content of the outsourcing strategy.

1. Essence and peculiarities of the outsourcing strategy

Strategy is, according to Porter\(^6\), the creation of a unique and valuable position comprising several activities. He goes on to add that when formulating a strategy one should also take into consideration what one shouldn’t do. Competitive strategy is about being different and leads to a choice from a set of activities bringing along a mix of values. Daniell\(^7\) points out that strategy is both an art and a science aiming to achieve a definite vision, objective or higher value for the business organization by means of purposeful action, while according to Burkholder\(^8\) strategy is an action plan for the achievement of definite goals that have been pre-defined in the process of formulating the organization’s mission and objectives. These characteristics apply to both corporate strategy and outsourcing strategy. In this line of thoughts, if we assume that corporate strategy shows the way to achieving corporate goals, then outsourcing strategy is directed towards the goals pertaining to the transfer of facilities. Speaking of outsourcing strategy we need to take the entire outsourcing process for a starting point. The correct definition can only be made after a detailed analysis of the environment, formulation of clear goals, assessment of the benefits and risks involved in the export of activities, etc. Based on this, we believe that the essential characteristics of the outsourcing strategy are the following:

- It is based on corporate strategy and maps the road to achieving the goals in the outsourcing policy of the company;
- It reflects the changes expected in the environment the company operates in;
- The need for developing the strategy stems from the fact that accomplishing outsourcing goals contributes towards achieving the company’s corporate goals.

In our opinion, the right set of tools for characterization of the strategy is a methodology including defining outsourcing “width” and “depth”. Gilley and Rasheed\(^9\) define width according to the number of outsourced activities’ share in the overall number of activities that the business performs. Depth relates to the proportion of every activity that has been assigned to an outside contractor to perform. The authors quoted use this approach in order to prove the influence of the intensity\(^10\) of the practiced outsourcing on the economic activity of the firm. Since in certain cases it might be very difficult to break down a particular activity into parts, we propose another approach

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\(^10\) In K. M. Gilley and A. Rasheed’s study the intensity of outsourcing is a summarizing indicator, containing its width and depth (during the contracting out of core and peripheral activities) and it is also one of the factors to influence the overall performance of the firm. The remaining factors are the dynamics of the environment and the peculiarities of corporate strategy.
to the study of the above mentioned categories. In determining width the number of company functions affected by outsourcing is studied, and in determining depth – the number of activities in the particular functional area. It should be emphasized that the categories of “width” and “depth” in themselves do not have strategy status, but are only used as measurement tools on the basis of which the company’s outsourcing strategy is to be defined. In our opinion the set of tools we identified is appropriate, in that it allows us to link the range of the economic activity with the level of outsourcing that is practised. It is an important fact that defining the outsourcing strategy does not preclude the process of contracting activities out to a third party agent, but sets the limits and the direction for this process to be planned and forecasted.

For quantitative measurement of the “width” and “depth” values we suggest that formulae 1 and 2 be used.

\[
W(\text{outs}) = \frac{F(\text{outs})}{Nf},
\]

(1)

Where:

\(W(\text{outs})\) – width of outsourcing;
\(F(\text{outs})\) – number of functions affected by outsourcing;
\(Nf\) – total number of functions.

The quotient “\(W(\text{outs})\)” varies within the range of 0 – 1. With \(W(\text{outs})=0\), the business does not practise outsourcing. With \(W(\text{outs})=1\) the business has outsourced activities relating to each of the company’s functional areas.

\[
D(\text{outs}) = \frac{\text{Act}(\text{outs})}{\text{Nact}},
\]

(2)

Where:

\(D(\text{outs})\) – depth of outsourcing;
\(\text{Act}(\text{outs})\) – activities affected by outsourcing;
\(\text{Nact}\) – Total number of activities included in the function.

The quotient “\(D(\text{outs})\)” also varies within the 0 – 1 range. The quotient is calculated separately for each affected function. With \(D(\text{outs})=0\) it follows that the functional area is not affected by outsourcing. In practice, if the quotient is only calculated for the affected functions, then a \(D(\text{outs})=0\) does not exist. With \(D(\text{outs})=1\) it follows that all activities belonging to the particular functional area are affected by outsourcing. In this case we can speak of functional outsourcing\(^{11}\) or outsourcing of entire business processes within the range of the particular function.

To study the depth of outsourcing for the business as a whole, formula 3 can be used.

\[
DF(\text{outs}) = \frac{\sum_i D_i(\text{outs})}{F(\text{outs})},
\]

(3)

\(^{11}\) Functional outsourcing is present when all or a significantly large number of activities belonging to a certain functional area are contracted out to a third party. The grouping together of activities into functional areas has an individual character for each company. Typically they include activities like: human resources, production, marketing, finance, research and development, supply and distribution, etc.
Where:

- **DF(outs)** – depth of outsourcing for the whole company;
- **Di(outs)** – depth of the i-th function;
- **F(outs)** – number of functions affected by outsourcing.

In order for the outsourcing strategy of a company to be studied and typologized, it is necessary that the width and depth of the company’s functional areas and activities be presented as a combination. To this end we suggest that a matrix be built (fig.1), on whose X-axis we enter the meanings of the depth of the practiced outsourcing – the „DF(outs)” quotient.

![Figure 1. “Outsourcing strategy” Matrix](image)

Thus three values of depth are formed: small (0-0.33); medium (0.34-0.66) and big (0.67-1.00). On the Y-axis we enter, respectively, the meanings according to width, calculated using the „W(outs)” quotient. Again, there can be distinguished a small (0-0.33); medium (0.34-0.66) and big (0.67-1.00) width. In the combination of width and depth, 9 zones emerge, each characterizing a certain type of outsourcing strategy. Based on these, 9 types of outsourcing strategy can be outlined:

- **Zone 1** is characterized by a **selective outsourcing** strategy (small depth and small width). When using this strategy, the company contracts out only a small proportion of its activities and these activities have been carefully selected according to the needs of the economic performance. Zone 1 is distinguished by the greatest degree of

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12 Values 0.33 and 0.66 result as average quantities for the 0-1 range, dividing it into three equal sections
selectivity and the smallest number of both affected functions and the total number of affected activities.

Zone 2 is characterized by the strategy of a selective, function-orientated outsourcing (small width and medium depth). The total number of outsourced activities is larger, but they are limited to fewer functional areas.

Zone 3 – strategy of functional outsourcing (small width and big depth). Under this strategy a large number of activities have been outsourced, but these activities affect few functional areas.

Zone 4 – strategy of selective, activity-orientated outsourcing (small depth and medium width). A small number of activities have been outsourced, but they belong to a wider range of functional areas.

Zone 5 – strategy of balanced outsourcing (medium width and medium depth). The company has contracted out a reasonable number of activities that affect approximately half of the company’s functional areas.

Zone 6 – strategy of a large-scale, in-depth outsourcing (medium width and big depth). A large number of activities have been outsourced, belonging to approximately half of the functional areas of the company.

Zone 7 – strategy of dispersed outsourcing (small depth but big width). A small number of activities have been outsourced but belonging to all (with \( W(\text{outs})=1 \)) or nearly all functional areas.

Zone 8 – strategy of a wide, large-scale outsourcing (big width and medium depth). About half of the total number of activities, affecting all or nearly all functional areas of the company, have been contracted out.

Zone 9 – strategy of total outsourcing (big width and big depth). All or nearly all activities belonging to all or nearly all functional areas of the company have been outsourced.

Point “A” from the matrix (fig. 1) reflecting \( DF(\text{outs})=1 \) and \( W(\text{outs})=1 \) is possible only in the case of having the whole production done by hiring outside contractors. Such a situation would be plausible in offshore outsourcing, where large multinational companies set up entire manufacturing complexes overseas and these factories are managed by executives who have nothing to do with the parent company.13

To sum up, we believe that companies have at their disposal a number of variants in using outsourcing as an instrument for enhancing economic efficiency. To succeed, defining a strategy as a means to achieve outsourcing goals is of great importance. As it has become clear, it is necessary that this strategy be formulated along with the corporate and functional strategies of the company, and all three strategies be tied up and balanced. This requirement is dictated by the existing links between outsourcing and the separate functional areas, as well as by the connection to one of the essential principles of planning the company’s economic activity; the subordination of parts of the plan to the overall business plan.

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13 Examples of such companies are mostly found in the automobile industry, textiles, food and high-tech sectors. According to a report by the international consultancy company A. T. Kearney, Bulgaria ranks 17th in the world as an attractive outsourcing destination for multinationals in 2011. See “A.T. Kearney Global Services Location Index, 2011”. At present, this activity is being performed in the country by companies like IBM, Hewlett-Packard, Coca-Cola, the Canadian company „Telus”, Johnson Controls, Great Wall, etc.
When planning in the area of outsourcing, along with defining the type of strategy, it is also necessary to study the relationships between the business partners. According to McIvor\textsuperscript{14}, the choice of the optimal relationships is of immense importance for the success of the strategy followed and achieving the goals set.

2. Peculiarities of the relationships between outsourcing partners

When studying the kind of contractors’ relationships in outsourcing, we need to explore the degree of mutual commitment. In our opinion the factors that most influence this commitment are broadly the following:

- \textbf{First}, the length of the outsourcing contract;
- \textbf{Second}, the degree of dependency\textsuperscript{15}.

As has been pointed out already, long-term relationships prevail in outsourcing. At the same time, under unfavourable economic circumstances and trends and a volatile business environment, there are obstacles to long-term planning and companies choose shorter-term business solutions in order to keep their positions on the market. Therefore, the length of the eventual outsourcing contract can be divided into three groups: up to 2 years; from 2 to 5 years and over 5 years.

As for the degree of dependency on the supplier, that encompasses several sub-factors, and namely: value of funds engaged in starting business with the partner; value of resources transferred to the supplier; degree of flexibility of the contract\textsuperscript{16}; meaning of the supplier’s work about the economic end results for the client.

In our opinion, the degree of dependency can be established by means of an evaluation of each of the sub-factors on a five-grade scale (Table 1). Weight determines the importance of each indicator in the overall evaluation. As most important is defined the indicator “meaning for the end results”, followed by “flexibility of contract”,

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline
Indicators & Weight & Significance & Grade & Significance & Grade & Significance \\
\hline
Funds engaged & 0.15 & little & 1 & 2 & 3 & 4 & 5 & much \\
Resources transferred & 0.15 & little & 1 & 2 & 3 & 4 & 5 & much \\
Flexibility of contract & 0.3 & flexible & 1 & 2 & 3 & 4 & 5 & stable \\
Meaning for end results & 0.4 & little & 1 & 2 & 3 & 4 & 5 & great \\
\hline
\end{tabular}
\caption{Evaluation of the degree of dependency upon the supplier}
\end{table}


\textsuperscript{15} By “degree of dependency” we mean the extent to which the client party in the relationship depends on the performance of the supplier of outsourcing services.

\textsuperscript{16} The extent is meant to which the contract’s terms and conditions can be changed.
“resources transferred” and “funds engaged”. This is so, because irrespective of how much funding and resources have been dedicated, given a flexible contract, they can be utilized back again or the conditions of their governance can be changed in time.

On the other hand, the greater the significance of the supplier for the end result, the stronger he is and in a better position to press on the client. The final evaluation of the degree of dependency for the particular contract is defined as a sum of the weighed grades for each of the criteria along formula 4.

\[
\text{Rel} = \sum_{i=1}^{4} X_i \times Y_i,
\]

(4)

Where:
- \(\text{Rel}\) – degree of dependency;
- \(X_i\) – grade for \(i\)-th indicator;
- \(Y_i\) – weight of \(i\)-th indicator.

The “Rel” quotient varies from 1 to 5, depending on the grades. The more its significance, the stronger the supplier is, and the client is in a less favourable position, and vice versa; with a lower “Rel” value the client’s strength is growing. In the case of average value of the summary weighed grade, the positions of the outsourcing partners are approximately equalized.\(^{17}\)

To find out the degree of commitment with the supplier there will have to be combined the significances\(^{18}\) of both groups of indicators: length of contract and dependency on the supplier (fig. 2). Resulting from the combination is a matrix, consisting of nine areas with the following characteristics:

Area 1 (short-term contract; low degree of dependence) – very low level of commitment to the supplier;

Areas 2 and 4 (medium-term contract; low degree of dependence and short-term contract; medium degree of dependence) – low level of commitment to the supplier;

\(^{17}\) With the five-grade scale we use, the average grade, where partners’ strengths are approximately equal is grade 3.

\(^{18}\) The nine areas division is carried out according to the significance of the established indicators. Based on the length of contract three levels for this indicator are formulated: short-term (up to 2 years); medium-term (over 2 up to 5 years) and long-term (over 5 years). Based on the dependency upon supplier, another 3 values have been found: low dependency (0-1.66); medium (1.67-3.33) and high (3.34-5.00). Values for the indicator (1.66 and 3.33) have been calculated as average values for the 0-5 range, dividing it into equal intervals.
Areas 3, 5 and 7 (long-term contract with low degree of dependency; mid-term contract with medium degree of dependency; short-term contract with high degree of dependency) – characterized as moderate/reasonable commitment to supplier;

Areas 6 and 8 (long-term contract with medium degree of dependency; mid-term contract with high degree of dependency) – characterized by high commitment to supplier;

Area 9 (long-term contract and high degree of dependency) – very high level of commitment.

What follows in conclusion is that the characterization of the relationships between outsourcing partners is as important as the development of effective strategy. It is necessary to carefully establish the company’s priorities in a strategic aspect, so that the most-suitable type of future outsourcing relationships is found. The connection between the length of contract and the interdependency between client and supplier is also very important in the outsourcing of activities.

Based on what has been pointed out so far, we can come up with the following conclusions and recommendations for managers, in order to facilitate their work, and particularly the tasks concerning the formulation of a general policy in the practice of outsourcing:

• The strategic character of outsourcing calls for the development of an adequate strategy about its effective implementation. For this purpose managers should have detailed knowledge of the peculiarities of their company – its mission, its
objectives, strategic plans, functional areas, processes and activities, as well as the specific features of the business environment and tie these up with the planning of outsourcing.

• A suitable means for defining the outsourcing strategy of the company is the study of the outsourcing width and depth. This approach can be implemented both in the case of existing outsourcing contracts in order to perform a revaluation, and in planning new ones. Managers should be well aware that strategies of great width (the strategy of dispersed outsourcing; the strategy of a wide, large-scale outsourcing and the strategy of total outsourcing) demand more effort, a great deal of expertise and are harder to implement because of the fact that the outsourced activities belong to various functional areas.

• Defining the optimal relationships between the outsourcing partners is important in view of the correct identification of the priorities in the cooperation with outside contractors, as well as the adequate modelling of the outsourcing service contract. In a very dynamic environment companies should seek relationships characterized by lower degree of dependency upon the supplier, including a contract of significant flexibility, and a relatively small influence of the outside contractor on the end results of the client company. On the other hand, under favourable business conditions, outsourcing should be based on long-term relationships of mutual trust and interdependence.

Conclusion

Outsourcing is an effective instrument for achieving competitive advantage in today’s business environment. An important stage of the planning of activities within the outsourcing range for any one company is establishing the company’s strategic priorities at a corporate level, so that these priorities correspond to the dynamics of the environment and the changes in market conditions. Typically for this kind of relationships, the best outsourcing strategy and the most suitable relationships are an individual solution for the particular company. The methodology for their characterization that we have proposed in this paper is important in both theoretical and practical aspect. On the one hand it brings forward strategic core characteristics of outsourcing; on the other hand it would be of great help for managers when they plan a purposeful outsourcing policy, which is crucial for achieving a long-term high competitiveness.
The decisions in the area of outsourcing are of importance to the competitiveness of each and every company and are among the main priorities of top management. It is necessary for managers to develop an adequate outsourcing strategy, based on the indicators breadth and depth. It must be bound both to the corporate and the functional strategies of the firm. Along with the type of strategy it is necessary to determine also the most suitable business relations among partners in accordance with their commitment and interdependence for achieving efficient economic activity.

**Keywords:** outsourcing, outsourcing strategy, outsourcing relations.
THE ROLE OF MARKETING STRATEGIES FOR CORPORATE DEVELOPMENT OF BULGARIAN SUPPLIERS OF LOGISTIC SERVICES

PhD student Vladimir Hristov

1. Introduction

The democratic changes in Bulgaria in 1989 set the start of a period of transition from centralized managed economy to a market one. Gradually, conditions were created for affirming private initiative as a basic pillar of the development of a number of sectors in Bulgarian economy. Such is the example with the logistics branch whose evolution in the last 23 years has been associated mainly with the correct usage of foreign logistics practices that enter the country rapidly and have proven to be applied with success. The process of adapting the Bulgarian logistics sector to modern world and European tendencies in the field of logistics services has gained considerable speed since the moment of Bulgaria’s accession to the European Union in 2007. The use of opportunities a similar membership gives to logistics companies turns into a prerequisite for business organizations to try to implement corporate policy in a way that provides them with the necessary competitive advantages. This inevitably helps them to deploy the potential for developing the logistics sector.

The aim of this paper is to offer to Bulgarian suppliers of logistic services particular models of company behavior in their aspiration for quick integration to the commonly accepted good practices that are characteristic for the ever globalizing logistics sector. Achieving the goal defined in this way is done by a theoretical analysis of the specifics of some marketing strategies and the adjoining marketing tactics defined by the author as suitable for achieving successful corporate development in the field of logistics. The opportunities to apply them in practice among Bulgarian logistic companies are completely well founded having in mind the fact that they create prerequisites for purposeful improvement of companies’ logistic efficiency in their attempt for rational business functioning.

2. Possible marketing strategies for stimulating company development of Bulgarian logistics suppliers

The main subject of activity of logistic companies concerns the provision of logistic services that are single or related with each other. This presupposes the implementation of a corporate policy which takes into consideration, on the one hand, rivals’ strengths and weaknesses and, on the other hand, is constructed in such a way that allows effective management of the relations with business clients who are users of logistic services. In both cases the main task is to develop the logistic potential in a manner that earns competitive advantages for the logistic company and to affirm it as a preferable partner...
for long-term cooperation. To achieve such goal requires that a complex concept of company behavior is followed – one that sticks to a strategic management approach through rational use of the corporate competences and abilities of the logistic supplier. A correctly selected marketing strategy reveals opportunities for demonstrating flexibility in the business actions and achieving rapid adaptability in conditions of the obvious constant dynamics in the sector of providing logistic services. Typical for the sector is that it is difficult to make success and the marketing strategy does not take into consideration the fact that the business clients and competitors are equally important for the success of the company. Having in mind the modern aspects of economic development, one can make the conclusion that clients are a valuable asset for logistic organizations. This requires that this asset’s worth is improved and, if possible, retained for a long period of time. Competitors in turn, are a key indicator for expectations and tendencies in the sector. Taking into consideration their actions has to detect this line of behavior that needs to be followed in order to achieve the preliminary set goal for successful logistics development. It is exactly the business clients and competitors that are the reason for classifying the four marketing strategies, presented in this paper, into two basic groups.

In specialized scientific literature there are a number of definitions for the concept marketing strategy. Philip Kotler defines it as “a common marketing scheme to achieve end goals”\(^1\). According to N. Mitev and M. Chipriyanov “it is actually the ground for marketing management of an enterprise that is built upon a strategic vision for the development of the business organization and the market”\(^2\). The definition is elaborated further with the idea that the marketing strategy “reflects the long-term prospects for making changes concerning the basic dimensions of the company’s marketing policy”\(^3\). Other authors support the definition in which “the marketing strategy concerns an integrated model of organizational decisions that determine the key choice of the company as regards products, markets, marketing activities and marketing resources in creating, communicating and/or supplying products which add value for the clients in the process of exchange with the organization and thus give it the opportunity to achieve particular goals”\(^4\). Stressed is also the idea that the marketing strategy is “the effort of the corporation to be distinguished positively among its competitors by use of its strengths in order to meet its clients’ needs better in the particular situation”\(^5\).

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definitions quoted above fully support the idea that the marketing strategy is equally important for the business organization both for modelling a suitable behavior and implementing a purposeful policy in the process of communicating with clients. In both cases it is necessary to take into consideration the fact that achieving the preliminary set end goals requires the application of well-reasoned marketing tactics. It is these tactics that turn into the tools whose role is to transform the strategic ideas and decisions into real actions. To define them precisely and then use them well helps for solving particular business tasks successfully.

The challenge before suppliers of logistic services called adequate marketing strategy does not refer only to following a program that meets certain requirements of corporate clients in a particular time. The aim is to set up and then develop business relations built on the principle of mutual trust combined with creating and affirming long-term competitive advantages.

Contrary to any logics, when speaking about relations between rivals in the logistic sector one can offer the marketing strategy of integration as suitable for application. Building up logistic strategic alliances ensures the use of logistic suppliers’ strengths. It is possible to observe control or a takeover, characteristic for horizontal integration, through mergers or acquisitions. In most cases, however, the specifics of the logistic business presupposes above all that participants in various sections of the “supply chain” cooperate in order to achieve risk diversification, together with optimizing costs in producing the provided logistic services.

The other essential moment of following a similar strategy is to lower competition to a considerable degree. By their very nature logistic suppliers remain competitors, yet, in certain business situations they manage to make use of each other. Thus they increase their efficiency in servicing business clients.

As an inseparable part of the modern economic reality on this stage of its development, the Bulgarian market of logistic services does not have the scope yet that is characteristic of the leading world and European economies. It is not always that companies have the necessary capacity and resources (material, financial, information and human) in order to maintain an effective management organization through which to be able to react fast and well to the changing conditions on the market, regulatory requirements and clients’ wishes. That is why in the Bulgarian logistic sector one should not accept that uniting the efforts of the suppliers of logistic services in implementing a certain project can result into negative consequences incurred by the fact that know-how is disclosed. On the contrary, in order for more logistic companies to be able to establish themselves as competitive, the model of integration needs to lie in the base of their thorough corporate policy. The sector does not presuppose success as a result of isolated existence that excludes the use of competitors’ abilities, whereas these competitors successfully play the role of sub-suppliers in covering a particular project. The basic tactics necessary to follow in the process of integration concerns keeping and perfecting company uniqueness and identity. To do this, suppliers of logistic services need to have detailed knowledge of the structure and intensity of competition in the sector. This requires the analysis of the five competitive forces (intensity of competition, threat from emerging competitors,
threat from substituent services\(^6\), the force of clients, the force of suppliers\(^7\)) as part of Michael Porter’s\(^8\) model that is commonly accepted in marketing theory and practice. In this way logistic suppliers can establish their competitive position as regards their business rivals. Taking into consideration the tendencies in the sector, the providers of logistic services are able to follow the most suitable behavior model that would contribute considerably for affirming them as companies which have the capacity to take part in the process of logistic cooperation.

Even though cooperation has its positive sides, by no means logistic business organizations should turn it into their one and only goal. They should rather accept it as a constituent part of putting into practice their basic marketing strategy of dominating the market through leadership among their competitors. Above all, the aspiration should be oriented to taking a leading position among the companies that offer similar logistic services.

The approach in this case requires an analysis and evaluation of the companies defined as direct competition, i.e. the so-called competitive analysis. Systematizing those companies’ strengths and weaknesses could be used as a basic tool for defining the outstanding opportunities and existing threats before the particular logistic supplier. Tactic actions require all its structural units and the support mainly of the marketing department to make regular and purposeful observation of the various business events of the real and potential competitors. Of course, one could also use the services of an outside consultancy. In most cases, however, a similar choice involves considerable financial means which is another burden for the company budget.

The systematic study of competitors’ moves inevitably has an impact on the direction of development of the respective provider of logistic services. Judging on the results of the competitive analysis, the company can accept an offensive behavior model, i.e. take advantage of the competitors’ weaknesses by making use of the emerging opportunities on the logistic market. In case that the competitors have more strengths, the logical behavior model presupposes a defensive corporate policy which has to prevent the logistic supplier from the threats it is exposed to as a result of the competitive advantages.

The media, mostly specialized editions on logistics and above all Internet space, are some of the supposed sources of data, which could be used skillfully to diagnose the competition in the branch. Besides those, relationship with business partners could also contribute for information about the positive and negative sides in competitive corporate policy. Most often similar information is provided when aiming to achieve a

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\(^6\) Substituent services in this case mean logistic services of rival companies to the particular logistic provider. Having in mind the core requirements for their supply, such services are similar to the ones, provided by the respective logistic company but at the same time offer a number of extras which gives them certain advantages.

\(^7\) By “suppliers” we mean providers of logistic services that turn out to be partners of the respective logistic provider in the particular situation, they add to range of provided logistic services for ensuring the supply chain.

common goal, for instance winning subsidies for a particular logistic project. Clients are another way to get data on competitors’ logistic opportunities. This usually happens when a particular client is dissatisfied with the logistic services provided for him and has searched for another provider.

Creating a clear notion of the potential of the main business rivals can turn into a key factor for the corporate development of a logistic company. It is important to be aware of competition at a time when the management’s business intuition hints at something, while actually the reality is different. In a sector like logistics most successful happens to be the informed logistic provider. That is why being aware of competitors’ advantages and disadvantages turns into a reference point for the direction into which the respective logistic intermediary is expected to focus its efforts. Thus it can achieve a steady competitive advantage. Even if it doesn’t turn into a logistic company – a proven leader, it could be among the leading providers of logistic services.

However, the real corrective of how competitive providers of logistic services are, including those as part of the Bulgarian logistic sector, are the clients with their behavior in the communication process. It is not enough only to attract the latter. It is necessary for the company to follow a preliminary outlined marketing concept aimed at taking adequate actions for further developing the relations with the users of logistic services in a way that leads to satisfaction proved by their customer loyalty. This is turned into one of the leading indicators that show whether the logistic provider is holding a good position in the sector and is actually among the companies on demand on the market of logistic services. Strengthening its position implies showing the ability to encourage clients’ behavior pointed at multiple purchases of logistic services. In this case the main requirement is communication that goes on in time and whose aim is to perfect the established relations with clients.

An important stage in making a dialogue with users of logistic services is to be aware of the idea that the process of developing relations with them presupposes the logistic organizations manage it purposefully through well-designed marketing strategies. At a time when one observes the first signs of “getting rid” of the world economic crisis as most adequate for the Bulgarian logistic sector one can offer those strategies that directly influence the way of providing logistic services so that they can have an impact on modelling rational interrelations with clients who get even more demanding. Among the opportunities for achieving similar purposeful interrelations are the marketing strategy of differentiating manufactured products\(^9\) and the innovation marketing strategy.

Implementing the first one has the task to offer logistic services to clients in a way that differs considerably from the traditional ones for the sector. This helps the business organization to be assessed as a suitable and preferred partner for logistic cooperation. Following the strategy of differentiation presupposes that logistic providers study and analyze very well the clients’ requirements by striving to integrate them in forming and providing services. In the logistic sector the scope of basic services to be offered is no secret for logistic companies. Of course, formulating an absolutely new service is the best but the most difficult variant that could bring them positive and

\(^9\) Here in particular we mean logistic services.
competitive advantages. That is why the main challenge for logistic providers is the so-called modification of services in a shrewd way that is accepted as untypical and distinguished and, at the same time, assessed by clients as absolutely applicable in practice in the particular situation.

The logistic service itself can be offered by lots of companies; however, its uniqueness is defined mainly by intangible characteristics that accompany its implementation. They are claimed to be its distinguished positive aspects in negotiating with clients and are manifested in the so-called “logistic servicing”. It is “a process comprising a set of operations (tasks) that are linked with each other. Carrying out (solving) those one after the other ensures the creation of added value for the user”\textsuperscript{10}. With the purpose to satisfy clients completely in the process of their “logistic servicing” and achieve a competitive advantage it is necessary for the selling company to direct its marketing efforts to an on-going improvement of the quality of services and the organization while carrying out the services.

Turning logistic services into preferred ones to those of the competitors requires the availability of the following tactic actions in providing the services:

- efficiency in work (speed of action);
- precise execution of negotiated conditions;
- orientation to the specific needs of clients;
- regular and detailed information about the status of a current project or order;
- timely competent reaction when questions arise;
- solving problems efficiently and effectively;
- ethical behavior and commitment on behalf of employees (politeness, honesty, accessibility, responsiveness, flexibility).

Above all, every logistic organization is necessary to have a clearly defined policy, which is oriented to the client’s needs of servicing that should influence for constantly adding value in respect to the provision of logistic services. In specialized literature the value is accepted as “the sum of money that a client is inclined to pay for the goods and services provided by a particular organization”\textsuperscript{11}. In other words, one means to what extent logistic services are provided in a way that meets the client’s needs which, in turn, makes him pay the particular sum of money for using them. Of paramount importance here is that the client is completely convinced that what he pays matches what he receives in return, i.e. the price he pays corresponds to the benefits he takes.

The value added can be viewed in two aspects. For clients it is the difference between the expenses they make (on time, efforts, energy and money) for receiving the respective service and the general advantages that are a consequence of this difference. Apart from clients, there is added value for the organization as well. It is “the difference between what the clients pay and the costs of the organization for providing the goods or carrying out the service”\textsuperscript{12}. The bigger the difference - the

\textsuperscript{11} Gattorna, J. Handbook of logistics and distribution management. – Bourgas: Dolphin press.1996, p 26
\textsuperscript{12} Ibid, p. 26.
more essential the profit for the organization. It is important to clarify that this should not turn into the ultimate goal for companies, since there is a risk to lose the client and making him find another provider of logistic services. From financial point of view, if a business organization allows itself to offer a particular service at a price lower than the cost for producing it, this will lead to financial loss. However, from the point of view of what goals are set to achieve, the case is not exactly like this in the logistic branch. Striving to win a bigger market share by being involved in strategically important logistic projects, for a big part of providers of logistic services it can turn out to be more cost-efficient to make a similar financial loss. It will be of no consideration against the background of the finances that are to be earned in the future as a result of the fact that there will be value added to the quality of the services offered to clients.

Because of the specifics of logistic services and the way their users wish to develop and adjust them to their individual preferences, earning the trust of clients is not an easy task, by any means it isn’t unachievable either.

The goal of logistic-services providers to be as close as possible to their clients, to understand their wishes, to offer to solve their problems in an non-standard way is unthinkable if the marketing strategy of differentiation does not comply with the innovation strategy that takes into consideration the tendencies in the field of information-and-communication technologies. The nature of the logistic business turns the use of scientific-and technical achievements, namely hardware and software decisions, as well as being available in internet space into a compulsory condition that logistic companies need to meet in their aspiration to have a successful logistic development.

It is good to orientate tactic actions mainly to introducing CRM, ERP and project-management systems. Together with their advantages, such systems offer also opportunities for optimizing logistic providers’ operating costs which influences the creation of end logistic prices and adds up to a higher overall business value of companies.

It is logical for the logistic sector where the products offered are actually services, the CRM systems to be identified as one of the basic and necessary corporate software that helps for achieving a competitive edge. Conditions are created for systematization of data on client-companies. This allows making a constant detailed analysis of their preferences and, based on it, offer specifically adapted logistic services at prices that are acceptable both for users and service providers. The applications of the ERP systems, in turn, underpin the formation of an optimum cost price for the offered logistic services that allows those offering them to be as flexible as possible in the process of negotiating with real and potential clients. It is necessary for the managerial staff of logistic business organizations not to undermine also the project-management systems. The main reason for this is that to what extent a company is unique can be judged best in financing a specific project since the project itself presupposes that several interdependent logistic services are provided. The necessary synchronization of activities in this case would be made considerably easier if one uses the functionalities of a similar type of IT application.

Parallel to the offered software decisions, another tactic method associated with the innovation strategy and exceptionally suitable for achieving a competitive advantage for logistic-services providers is internet marketing. Nowadays internet turns into a
preferred space for business communication. This requires a professional approach in applying the marketing tools. Among the tactic actions a company can take are:

- **Making a functional website that plays the role of a business card.** On the one hand, it has to orientate potential clients about the logistic opportunities of the particular service provider and, on the other, it has to affirm its image of a preferred partner among the already existent clients.

- **Creating and introducing mobile applications for online access and use of logistic services.** The main requirement for applications is to be compatible with basic mobile platforms like Android, iOS, BlackBerry OS, Windows Phone and others. The goal set is to achieve greater efficiency expressed in flexibility and better customer service. Through mobile applications their users get the chance to always track in real time the status of the provided logistic services and make consistent business decisions.

- **Careful analysis aimed at selecting the most suitable places for online advertisement of logistic services.** As such one can offer specialized electronic issues that focus on what happens in the logistic sector. It is supposed that most of these issues’ readers are strictly streamlined specialists who are aware of the logistic-services market. That is why it is good for logistic companies to target their presentations exactly at a similar type of thematic issues instead of using chaotically advertising banners in internet space.

- **Corporate presence in professional social networks that gives the opportunity for a business-oriented dialogue for promoting the activity of logistic companies.** Among the basic advantages of creating a company profile in similar professional networks is the automatic ranking of the respective logistic-services provider on a higher position when browsing in Google. The commitment with the online search-engine ensures an easier access for current and future clients to information about the main activity of the logistic company. Another advantage is the technical feature for potential clients to know whether there are enough references from other clients of the company which can convince them or not in choosing exactly this provider of logistic services to be their business partner.

The constantly changing outside environment as a result of technical progress suggests a flexible adaptation on behalf of logistic providers as they wish to have competitive advantages that can earn them leading logistic positions. In the last decade it is exactly information technologies that turn into being the most essential for the development of the logistic sector as a whole. Implementing any marketing strategy in any form depends on the opportunities that they can provide. This fully concerns also the success of the four strategies (that of integration, of dominating the market through leadership among competitors, of differentiating the manufactured products and that of innovation) reviewed in this paper. They would be helpful for Bulgarian logistic-services providers because of the fact that their essence is specifically directed to applying tactic actions that have direct influence on the corporate image for successful logistic development.
3. Conclusion

On the ground of the theoretical analysis made above one can summarize several important items and it is necessary to take them into consideration as a factor for developing Bulgarian logistic companies when marketing strategies are concerned:

- It is not enough to apply one strategy only. It is necessary to strive for the impact of several marketing strategies that are combined cleverly so that a positive synergetic effect is obtained.
- A successful corporate policy presupposes that a company follows marketing strategies which takes into account the trinity: logistic company – client – competitor.
- Marketing strategies in the logistic sector require the use of clearly and precisely defined marketing tactics, i.e. a relevant set of tools for designing a suitable model of business behavior that corresponds with the constantly changing logistic conditions.
- Applying suitable marketing strategies is able to develop the logistic potential in a way that has positive impact on the long-term performance of logistic-services providers.

THE ROLE OF THE MARKETING STRATEGIES FOR THE CORPORATE DEVELOPMENT OF THE BULGARIAN LOGISTICS SERVICE PROVIDERS

PhD Student Vladimir Hristov

Abstract

In times of global economic uncertainty, in which the logistics sector - one of the most dynamic and promising sectors in the Bulgarian economy - functions, it is more important than ever for the logistics service providers to conduct targeted corporate policy, allowing them not only to survive among the rivals in the industry, but also to establish themselves as a preferred business partner for long – term cooperation. With this paper the author attempts to prioritize the use of appropriate marketing strategies as a source of achieving competitive advantage by the client - oriented business organizations, whose economic activities are aimed at providing logistics services. For this purpose, possible marketing tactics are viewed and analyzed, specific to the different strategies, whose implementation helps to achieve the pre-set target of successful logistics development.

Keywords: Logistics service providers, marketing strategies, marketing tactics, logistics development.
DETERMINING THE FAIR PRICE OF WEATHER HEDGING

PhD student Miroslava Mahlebashieva

Introduction

Weather derivatives are relatively new a la Arrow Debreu financial instruments that allow companies to limit their exposure to financial risks such as unusually high or low temperatures, the amount and duration of rainfall, the wind speed and power, etc. The dependence on the financial performance of a number of economic sectors and activities on climatic conditions and the increasing volatility of global weather pose the question whether and to what extent weather derivatives could be a useful addition to the risk management tools for Bulgarian companies. Research on the potential success of weather derivatives requires consideration of a number of interrelated issues, including the issue of fair pricing of weather hedging.

The nature of the underlying “assets” which are physical quantities instead of tradable financial instruments or commodities hinders the application of conventional pricing methods for derivative instruments in the case of weather derivatives. Instead, methods are used which have been borrowed from the insurance industry. The actuarial approach is based on assessing the likelihood of realization of various financial results of the climatic contract and requires the construction of a model of basic climate variables (method of daily simulation) or climate indices (index simulation method). This article aims to establish the cost of weather hedging by applying the method of daily simulation for the pricing of the weather put option with underlying asset the average temperature in Varna in March.

1. Basic components of the average daily temperatures model

For the purpose of modelling the daily climatic variables, daily observations of the maximum and minimum temperatures in the city of Varna in the course of 14 years (from 1997 to 2010) were elicited from electronic Internet sources. In the thus-determined temperature series no missing or incorrect values are observed, and the observations are realistic for the respective season. From the series of the minimum and maximum temperatures a dynamic series is formed of the underlying weather derivatives ‘assets’, namely the average daily temperatures, calculated as the arithmetic mean of the daily minimum and maximum values.

Some of the main features of the temperature process, governing the dynamics of daily temperatures over time, are shown in Figure 1. Besides the obvious seasonal cycle, average daily temperatures contain a low growing trend, despite the relatively short study period. It can also be observed that the average temperatures in winter are more volatile than the temperatures in the summer period, which is one of the main features of the temperature process in Europe. Another feature that should be taken into account when modelling the average daily temperature is that daytime temperatures tend to deviate briefly from their usual levels and approximate them in the long run. This characteristic of atmospheric temperatures to return to their long-term average can be incorporated into the model of daily temperatures by the AR\((p)\) process. And last but not least, the autocorrelation between neighboring members of the time series of temperatures should also be taken into account. Thus, in the present study the following general additive model\(^3\) has been used, describing the process of average daily temperatures in the city of Varna:

\[
T_t = \bar{T}_t + U_t + \epsilon_t
\]  

where: \(T_t\) is the average daily temperature in day \(t\), calculated as an average of the daily minimum and the daily maximum;  
\(\bar{T}_t\) is a deterministic function of the seasonal mean temperature, including trend and seasonal cycle;  
\(U_t\) - intermediate temperature anomalies\(^4\), whose values depend on the intermediate anomalies measured in the preceding \(p\) days (AR\((p)\) process),

\[
U_t = \sum_{i=1}^{p} \alpha_i U_{t-i},
\]

where \(\alpha_i\) are auto regression parameters;

\(^3\) A similar model has been used by a number of authors in the researched area. See, for example: Benth, F.E. and J. Saltyte-Benth. Stochastic modelling of temperature variations with a view towards weather derivatives. //Applied Mathematical Finance, 2005, Vol. 12(1), pp. 53-85; Cao, M. and J. Wei. Equilibrium Valuation of Weather Derivatives. Working Paper, University of Toronto, Toronto, Canada, 2001; Jewson St., A. Brix, op.cit.

\(^4\) The term „temperature anomalies” describes the deviations of daily temperatures from their average values, characteristic of a given geographic latitude.
Articles

\( \varepsilon_t \) – temperature noise with a zero average and standard deviation \( \sigma_t \), which varies over time.

Each of the indicated components of the temperature series is modeled separately, and the characteristics of the resulting intermediate residuals were examined at each stage. A similar approach is used in meteorology, while in the context of weather derivatives it was launched by Benth et al.\(^5\)

2. Modelling the average seasonal temperature

In the thus defined model of daily temperatures the determinist function \( \bar{T}_t \) represents a long-term average to which daily temperatures revert as a result of the mean-reversion feature, expressed through the \( AR(p) \) structure. For the modelling of this temperature process component a regression has been applied, presenting the average daily temperatures as a linear trend sum, ensuring the stationarity of the process, and a sinewave describing the periodic fluctuations in average temperatures that vary with the seasons change\(^6\). The following results\(^7\) have been achieved for the coefficients of the equation, along with the statistics concerning the adequacy of the model (determination coefficient \( R^2 \), corrected determination coefficient \( \tilde{R}^2 \), standard error of regression \( S.E. \) and F-statistics \( F-stat. \)) and the significance of the parameters (t-statistics):

\[
\bar{T}_t = 12.3606 + 0.0002t - 3.8293\sin(\omega \cdot t) - 9.8509\cos(\omega \cdot t) \quad (2)
\]

<table>
<thead>
<tr>
<th>t-stat.</th>
<th>Prob.</th>
<th>( R^2 )</th>
<th>( S.E. )</th>
<th>F-stat. (Prob)</th>
</tr>
</thead>
<tbody>
<tr>
<td>124,7388</td>
<td>0,0000</td>
<td>0,8173</td>
<td>3.5382</td>
<td>7615,936 (0,0000)</td>
</tr>
</tbody>
</table>

\( \omega = \frac{2\pi}{365} \) – angular frequency, which measures the speed of “reversal” of the sine wave (29 February is excluded from all leap years).

All parameters were statistically significantly different from zero. According to the evaluated model, the average temperature is 12.36°C. Although the assessed influence of the linear trend might seem insignificant (0.0002), the trend points to an increase of average daily temperatures by approximately 0.9°C only for the researched 14-year period. The determination coefficient \( (R^2) \) shows that the trend and the seasonal cycle account for 81.73% of the fluctuation of the temperature time lines. With the help of the evaluated model parameters also the amplitude \( (c) \) and the phase \( (d) \) of the sine wave have been calculated\(^8\):

\(^5\) Benth, F.E. and J. Saltyte-Benth., op.cit, pp. 53-85.
\(^6\) Cao, M. and J. Wei, op.cit.
\(^7\) The models in this article have been assessed with the help of the programme product EViews 6.
A sine wave amplitude of 10,569°C means that the absolute difference between the average daily temperature in a typical winter day and in a typical summer day is about 21.14°C. During the year, daytime temperatures “oscillate” around their annual average with a breadth of 10,569°C. The negative value of the phase of the curve indicates that the entire function of the wavelength is shifted “up” on the time axis, i.e., the coldest day of the year is after 01 January, and the warmest day is after 01 July. These days can be found by transforming the value of the initial phase into time units (in this case days):

\[ d = \frac{9,8509}{3,8293} \approx 2.57 \text{ days} \]

Thus, the graph of the function of the average daily temperature crosses a value of approximately 12.36°C, and then continues to grow approximately on the 113th day of the year, or April 23. Hence, the coldest and the warmest day of the year are respectively January 22 and July 23 (112,788 ± 365/4).

\[ c = \sqrt{3.8293^2 + 9.8509^2} = 10.569°C \quad (3) \]

\[ \tan d = \frac{9.8509}{3.8293} \Rightarrow d = \arctan \left( \frac{9.8509}{3.8293} \right) - \pi = -1.942 \text{ radians} \quad (4) \]

Fig. 2 shows that the sinusoidal function approximates well the seasonal movement of average temperatures. Adjusting the series of the long-term trend and seasonal cycle results in a new time series with intermediate temperature residuals \( U_t \) calculated as the difference between the measured \( T_t \) and the evaluated average daily temperatures \( \bar{T}_t \), or \( U_t = T_t - \bar{T}_t \).

The order of the intermediate temperature anomalies is not stationary either. Instead, the resulting White-criterion (\( WT-stat.(Prob.): 567.34 (0.0000) \)) leads to the rejection of the hypothesis of variance homoscedasticity, while the Durbin-Watson statistics (\( DW-stat.: 0.4359 \)) shows a positive autocorrelation between the residuals.

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9 “Oscillation” is intended to mean a recurring fluctuation in time or variation of a variable around its mean value. In this case, the daytime temperatures fluctuate around its annual mean value with the change of seasons, the fluctuation being repeated over a period of one year.
which is confirmed also by the study of the diagram of the autocorrelation and the partial autocorrelation function:

![Graph of autocorrelation and partial autocorrelation](image)

**Fig. 3. Correlogram of the intermediate temperature anomalies**

The gradually decreasing autocorrelation and the plummeting partial autocorrelation give grounds for claims that the intermediate temperature anomalies follow the autoregressive process. The partial autocorrelation is negligible after the third lag, suggesting an AR process of third order according to which the intermediate temperature anomalies in day $t$ depend on anomalies measured over the previous three days:

$$U_t = 0.91 U_{t-1} - 0.198 U_{t-2} + 0.047 U_{t-3}$$

(5)

t-stat.: 65.142, -10.558, 3.369
Prob.: 0.0000, 0.0000, 0.0008

$R^2 = 0.6217; \quad \bar{R}^2 = 0.6216; \quad \text{WT-stat. (Prob.): 132.96 (0.0000)}$

All evaluated coefficients are statistically significant with 62.17% of the variation of the intermediate temperature anomalies being accounted for by the anomalies during the previous three days. After the elimination of the dependence of the intermediate temperature anomalies on their lag values, the resulting new residuals ($\epsilon = U_t - \sum_{i=1}^{t-3} U_{t-i}$) are linearly independent in time (fig. 4) and have a zero average, however their variance is not constant. The empirical White-statistics exceeds the respective theoretical value of

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$^{10}$ An AR (3) regression model with a free member has also been subjected to an experimentation, but the parameter estimate is not statistically significantly different from zero (t-statistics -0.0118 and probability 0.9906), which is consistent with the results obtained by other authors in the area of researched problems (see eg.: Bent and Saltyte-Bent, 2005) and is also a logical consequence of the seasonal adjustment of average daily temperatures.
the χ²-distribution (12.59 (α = 0.05) with degrees of freedom \(d.f. = 6\)), which results in the rejection of the zero hypothesis for homoscedasticity of the variance. The presence of a seasonal heteroscedasticity in the temperature variance is confirmed also by the wave movement of the autocorrelation function of the squares of \(\epsilon_t\), shown on fig. 4b.

The seasonal heteroscedasticity in the residuals requires the inclusion in the model of daytime temperatures of the deterministic seasonal function of the variance. If, instead, the intermediate anomalies are modeled as independent and normally distributed with a constant variation, similar to Davis (2001) and Dornier and Querel (2000), this will lead to a significant underestimation of the actual variation of the temperature noise, and thus to incorrect pricing of weather contracts.

The following multiplicative model has been used for the modelling of the seasonal variation:

\[
\epsilon_t = \sigma^2_{\sigma} \epsilon_t,
\]

where: \(\sigma^2_{\sigma}\) is the deterministic function of the seasonality of the variation;
\(\epsilon_t\) is white noise with average deviation 0 and standard deviation 1.

Since \(\sigma^2_{\sigma} = E(\epsilon_t^2)\), \(\sigma^2_{\sigma}\) describes the seasonal variation of temperatures, the daily empirical variation is calculated as an arithmetic average of the squares of the residuals for each day of the calendar year. The thus obtained estimates have been presented in the Furie series, comprising four harmonics:

---

13 Depending on the geographical location, the residual variation of the temperatures can be more or less variable throughout the year, which requires the use of a different number of harmonics. For example, when modelling daily temperatures for several cities in Lithuania, Benth et al. (2007) found that the seasonality of variation is well described by four harmonics; Campbell and Diebold (2002) applied to two harmonics temperature variation in 10 U.S. cities and Benth and Saltyte-Benth (2004) concluded that seasonal function of three harmonics approximates very well the variable variance of the residuals for several cities in Norway. In this study the temperature in Varna, on the basis of statistical criteria such as the F-statistic, AIC, SIC and t-statistics of significance of parameter estimates, the variance is represented as the sum of four harmonic variations.
\[ \sigma^2_{\epsilon_i} = \alpha_0 + \sum_{i=1}^{k} \left[ \alpha_i \sin \left( \frac{2k\pi}{365} \right) + \beta_i \cos \left( \frac{2k\pi}{365} \right) \right] \]  
(7)

where: \( \alpha_0 \) – mathematical expectation of the variance process;
\( \alpha_i, \beta_i \) – Furie coefficients.

The estimated coefficients of the parameters together with the t-statistics, and the probability of error are shown in Table 1. All estimates are statistically significantly different from zero and the model represents adequately the studied dependence. The main wave has the greatest intensity \( (i = 1) \) and its dispersion has the largest share in the overall dispersion process (59.75\%). The average annual level of the variance is 4.73.

**Table 12**

<table>
<thead>
<tr>
<th>Coeff.</th>
<th>4.7343</th>
<th>0.8443</th>
<th>2.49</th>
<th>0.0968</th>
<th>0.1263</th>
<th>0.2015</th>
<th>-0.2756</th>
<th>-0.2807</th>
<th>0.143</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-stat.</td>
<td>140,582</td>
<td>17,729</td>
<td>52,281</td>
<td>2.032</td>
<td>2.653</td>
<td>4.231</td>
<td>-5.784</td>
<td>-5.893</td>
<td>3.003</td>
</tr>
<tr>
<td>Prob.</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0422</td>
<td>0.0080</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0027</td>
</tr>
</tbody>
</table>

The assessed and evaluated squares of the residual errors are presented in the following figure, which shows clearly that the variation of temperatures is highest during the period from December to February and lowest in July and August.

---

\(^{14}\) The intensity of each harmonic oscillation is determined as the sum of the squares of its determining Furie coefficients \((\alpha^2 + \beta^2)\). The greater the value of intensity of a harmonic, the greater the probability that the latter represents the most significant cyclic oscillation in the studied time series. The dispersion of an individual harmonic oscillation is calculated by the expression \(\frac{\alpha^2 + \beta^2}{2}\), while the dispersion of the series is calculated by the expression \(\frac{\sum_{i=1}^{N}(\alpha_i - \bar{\alpha})^2}{N}\), where N is the number of observations. See Roussev, Chavdar. Statistical methods for the analysis of time series. Varna, University Press, Varna University of Economics, 1999, pages 143-145.
Next, it is necessary to check whether the residuals obtained after the elimination of the influence of the seasonal variance $\varepsilon_t$, possess the characteristic of white noise, i.e. whether they are identically and independently distributed, with a 0 average and 1 standard deviation. For this purpose the correlograms of the extreme residuals and their squares have been studied, as well as the latters’ diagrams.

Figure 7 shows that the seasonal cycle in the conventional dispersion of temperatures is adjusted using the periodic function. From the graph of the autocorrelation function of the squares of the extreme residuals some resistance in the variation is still visible, which is likely to be due to other weather factors and processes not dependent on the seasons. However the GARCH effect remains unexplained in this study.$^{15}$

$^{15}$ Two other models of the conditional variance were subjected to experimentation, aiming to explain the non-seasonal resistance of the latter - an additive GARCH model applied to temperature volatility of several U.S. cities by Cambell and Diebold (2005) and a multiplicative GARCH model used by Saltyte-Benth and Benth (2011). Nevertheless, no statistically significant results for the additional parameters of the function of the conditional variance were obtained from the two models.
The next figure shows the empirical distribution of extreme temperature residuals, which is a fairly good approximation of a normal distribution with a 0 mean and 1 standard deviation.16

Thus, the general model which is used to simulate the average daily temperatures during the term of climatic contracts is as follows:

\[ T_j = \bar{T} + U_j + \sigma_{\epsilon_j} \epsilon_j \]  

where \( \epsilon \) is standard normally distributed temperature noise.

3. Simulation and evaluation of climatic options

The application of the method of daily simulation is demonstrated by pricing a put option on the index of average monthly temperature in March (\( AAT_{\text{mar}} \)). The evaluated model is used to simulate virtual climate scenarios of daily temperatures in March, then daily variables are transformed into indices of average monthly

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16 The sample mean and standard deviation of the empirical distribution of the temperature residuals are respectively 0.002093 and 0.999319. Tests were carried out to check the hypotheses for \( m(\epsilon) = 0 \) (bilateral \( t \)-test) and for \( \text{var}(\epsilon) = 1 \) (\( \chi^2 \) test). The results of both tests do not provide grounds to reject the zero hypotheses, namely that the process of \( \epsilon \) has a zero mean (\( p = 0.9194 \)) and 1 variance (\( p = 0.4321 \)).
temperatures in the following way. First a forecast is made for 2011 of the deterministic components of the temperature process (seasonal mean and variance). Secondly, 10,000 realizations of the extreme temperature anomalies from the standard normal distribution are simulated. Thirdly, the resulting residuals are used to form a sample from the distribution of possible daily temperatures for each day of 2011, whereby the average of each distribution is the expected value of the temperature for that day. The actually measured average daily temperatures in 2011 and the average of the 10 000 simulated values for each day of the year are presented in Fig. 9.

Fig. 9. Simulated and measured average daily temperatures in 2011

By combining the various possible realizations of the temperatures in each day of the relevant month, and calculating their average, a sample distribution of the climate index was formed which is represented in Fig. 10, together with the estimated parameters of the distribution.

Fig. 10. Simulated distribution of the climatic index AAT and comparison with the normal distribution
According to the actuarial approach to assess weather derivatives, the fair value of the options (premium) is defined so that the expected profit of the contract is zero, or the premium is equal to the expected return, discounted until the time of signing the option contract\textsuperscript{17}. Put options ensure payment to their holder if the value of the climatic index is below the strike price by the maturity date of the contract. Otherwise the option will not be exercised and the payment will be equal to zero. The financial settlement of the contract requires that the difference between the strike price and the value of the index be converted to cash flow, which is performed by the contract step. Thus, the expected return of a weather put option can be represented as the sum of the possible financial outcomes weighted by their probabilities\textsuperscript{18}:

\[ E(F_t) = \left[ (S - E(I_t | I_t < S)) \cdot Pr(I_t < S) + 0 \cdot (1 - Pr(I_t < S)) \right] \cdot V \]

where: 
- \( E(F_t) \) is the expected payment at the maturity of the option;
- \( S \) is the strike price of the contract;
- \( E(I_t | I_t < S) \) – conditional expectation of the distribution of the index provided that \( I_t < S \);
- \( Pr(I_t < S) \) – the probability that the index has a value that is lower than the strike;
- \( V \) – contract step or the sum of payment of every unit of deviation of the index from the strike.

Therefore, the fair price of the put option is determined in the following way:

\[ F_0 = \left[ (S - E(I_t | I_t < S)) \cdot Pr(I_t < S) \right] V e^{-r \Delta t} \]

where:
- \( F_0 \) is the fair price of the option;
- \( r \) is the risk-free interest rate;
- \( \Delta t \) is the contract term.

In the above example it has been assumed that the step \( V \) is BGN 40 for one index point (1\(^\circ\)C)\textsuperscript{19}, while the strike price is set at the level of the expected value of the index or \( S = 6.7^\circ C \). This means that for every 1\(^\circ\)C deviation of the index under 6.7\(^\circ\)C, the option contract will ensure a payment of BGN 40 to its holder. Since the simulated index is normally distributed, the probability of realization of values under the average \( Pr(I_t < 6.7) \) is 0.5. For the conditional expected value \( E(I_t | I_t < 6.7) \), representing the average of the part of the index distribution which is “cut” by the strike, the value is


\textsuperscript{19} The contracts on climatic indexes for European cities traded on the Chicago Mercantile Exchange Group are EUR per index point.
Therefore, the expected payment of a put option with the specified parameters is \((6.7 - 6.3) \times 0.5 \times 40 = 8\) BGN per contract, while the premium due for the term of the contract is 

\[ F_0 = 8 \times e^{-0.0833 \times 0.0018} = 7.9988 \text{ per option.} \]

The actual value of the index of the average monthly temperature for 2011, calculated on the basis of the daily minimum and maximum temperatures, is 6.1°C. This means that the put option would bring payment of \((6.7 - 6.1) \times 40 = 24\) BGN on the maturity date.

The economic function of a put option on the underlying index of average monthly temperature is to hedge against lower than normal temperatures for the month, which would adversely affect the financial performance of a company. Thus, the reduction of corporate income, profits or production results due to adverse weather conditions is offset by payments of the option at maturity. On the other hand, if the weather conditions are favorable and the option is not exercised, the result of hedging would be a loss of the option premium, but this loss will be covered by the operating profit. In all cases, by using weather options hedges will ensure their normal revenue.

**Conclusion**

The results of the actuarial method applied in this article for pricing weather options demonstrate that climate risk can be hedged at a relatively low cost. The fair premium for a put option on the index of the average temperature in Varna in March amounted to 7.9988 BGN while the option ensures payment to its holder of 40 BGN per 1°C deviation from the average monthly temperatures below the long-term average for March. In 2011, the value of the climate index was by 0.6°C lower than the strike price, which would result in payment of 24 BGN per each option. Obviously, under favorable weather conditions for the activity, the result of climate hedging would be loss of the option premium which provides a competitive advantage to companies that have not hedged the weather risk during the respective year. However, the benefits of hedging consist in adjusting the value of the company’s financial performance over time and thereby improve its predictability. This on the other hand would help reduce potential and actual costs associated with financial distress and the cost of capital.

The conditional expected value has been determined with the help of the program product @Risk 5.5. For normal distribution the same can be calculated with the help of the following formula: 

\[ \mathbb{E}(S|F_t < S) = \mathbb{E}(F_t) + \frac{\phi(z)}{\Phi(z)} \left(1 - \frac{S - \mathbb{E}(F_t)}{\sigma}\right) \]

where: \(\phi(.)\) is the function of the density of the probability for standard normal distribution; \(\Phi(.)\) is the cumulative probability and \(z\) is the rated deviation (z-evaluation).

For \(z = \frac{S - \mathbb{E}(F_t)}{\sigma} = \frac{6.6914 - 6.6914}{0.462} = 0\), the expectation of the distribution under strike is \(6.6914 + 0.462 \times \frac{0.4}{0.5} = 6.3218°C\). See Landsman, Zinoviy M. and Emiliano A. Valdez. Tail Conditional Expectations for Elliptical Distributions. //North American Actuarial Journal, Vol. 7 (4), October 2003.

The basic interest rate (BIR) determined by the BNB has been used as a risk-free interest rate. Its value for March 2011 was 0.18%.
effects that are essential in the current market conditions. The weather derivatives do not require developed markets of underlying “assets”, while their application would lead to better management of the financial consequences of climate risks that objectively exist within the borders of Bulgaria.

DETERMINING THE FAIR PRICE OF WEATHER HEDGING

PhD student Miroslava Mahlebashieva

Abstract

The present article brings to the fore the issue of the fair pricing of hedging against climatic risks in Bulgaria by applying an actuarial approach for determining the price of a climatic put option. On the basis of data on the daily maximum and minimum temperatures in the town of Varna for the period from 2007 to 2010 there has been developed and evaluated a model of average daily temperatures, which summarizes the main characteristics of the process of air temperatures: long-term trend, seasonal cycle, autocorrelation and heteroscedasticity.

Keywords: climatic options, pricing, actuarial methods, modelling of temperatures, simulation.
STRUCTURAL CONSIDERATIONS IN DEFINING THE NON-PROFIT SECTOR BOUNDARIES

PhD student Vanya Kraleva,

Introduction

Civil organizations as a form of free will and creative energy of their members have been part of our social life since ancient times. Today, they go beyond the friends circle as they appear to play an active role in the social and economic life, fighting for good causes, setting out global policies and creating job opportunities. On the one hand, their special status could be attributed to the wide scope of activities typical of non-profit organizations whereas the fact that they do not operate to make profit has drawn the interest of many a specialist. This explains the spread of different terms that mark off non-profit organizations such as non-governmental, independent, “third party”, voluntary, social, civil, non-profit, to name but a few. In spite of their claim to encompass similar organizational structures as stated by J. Thayer Scott, they attribute various nuances to the meaning and scope of the non-profit sector since they reflect different aspects of academic thought. Various scientists argue that non-profit sector boundaries are fuzzy and lack clarity which impedes in a way said sector definition and may produce invalid or low level results. To address the need for terminological clarity, the present study seeks to elucidate the nature and scope of usage of the most common terms associated with the non-profit sector and proposes a way to define it. Further on, the study focuses on some basic characteristics of non-profit organizations and sets out identification criteria to help distinguish different structuring levels within the sector itself. The object of study are organizations that pursue no profit ends, which sets them apart from any activities aiming at generation and distribution of profit (including partnerships, foundations, political parties, religious organizations, syndicates, trade unions, social organizations, etc.). To sum up, the present theoretical analysis focuses on the structural variants that serve to define the non-profit sector.

Terminological framework of the non-profit sector

According to the national classification of economic activities (NCEA) and the European Classification of Economic Activities (NACE), non-profit organizations do not cut a separate category but their activities are seen as part of several different sectors while some are even classified under the category “miscellaneous”. Still, due to their specific characteristics in the social domain, nonprofit organizations are perceived as separate and independent entities. The term “non-profit” among other synonymous designations has grown in popularity lately.

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1 Thayer-Scott, J. Defining the Nonprofit Sector, in Reed, P., and Howe, V., Defining and Classifying the Nonprofit Sector. - Statistics Canada and Carleton University, 1999.- p. 47-49.
The term “not for profit” is used by sector organizations in an effort to explain their activities within the theoretical framework of a market economy driven by supply and demand forces, labour and capital. Non-profit organizations are opposed to business in general and its main objective – to make profit. There exist two terms in the Anglo-Saxon literature which provide an economic insight into the non-profit sector: “non-profit” and “not-for-profit”. And even though these are often looked upon as synonyms, Conway outlines some important differences. Whereas “non-profit” refers to activities, which exclude accumulation and distribution of profit, “not-for-profit” does not exclude the possibility for economic activity, providing there were no personal gains for leaders of the organization. The term “not for profit” has been borrowed from Russian and accepted in Bulgarian usage. It is important to note that in our country non-profit organizations cut across all the different types of legal institutions. The term “non-profit legal entities” in the legislative framework implies that the basic attribute used to characterize an organization as non-profit is that its activities are seen as not productive in the sense of profit making. However, all characteristics pertaining to non-profit organizations tend to remain in shadow. Despite the explicitness of the law, both in theory and practice there exist opposing/contradictory views on the core attribute which acts as the main stabilizing factor in the realm of social relations. From a social perspective, many organizations both at home and abroad tend to remain as distant from state and political power and they opt for nonprofit as befits their focus on the market. What follows is only a quick introduction as to the choice of term such as ‘vis-a-vis government’, ‘independent’ or ‘third’ sector which have come into existence.

The category ‘non-governmental sector’ clearly contrasts with the formations of state power as it often stands for social groups and organizations defending the interests of their members and/or communities through lobbying and persuasion. In Bulgaria, the term has probably grown in popularity because it implies free enterprise and initiative but it also relates to freedom of opinion. Moreover, the term is all-embracing as it is generally used for all nonprofit civil organizations. Some researchers argue (we too go along with their opinion) that the term is imprecise since ‘non-governmental’ is just one aspect of the functional state of nonprofit organizations.

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2 Literally, these notions translate into ‘without profit’ and “not for profit”. The accepted Bulgarian equivalents of these terms are ‘not-for-profit’ and ‘non-profit’, which refer to the distinction we make between economic and not economic activity.


5 On the data base of ‘Information gate for non-governmental organizations in Bulgaria’. (http://www.ngobg.info) various organizations can be found, including branch organizations, culture and sports clubs, libraries.

6 Lulanski, P. Non-profit organizations (overview) in: Management of non-profit organizations, Union of Bulgarian foundations and alliances, Sofia, 1997, p. 15.
In addition, non-profit organizations are often described as ‘third sector’ organizations. The term was introduced by Etzioni7 in 1973, with the idea to identify an alternative third sector, reflecting the interrelation between state and market sectors. A major advantage of organizations in the ‘third sector’ is that they combine certain unique characteristics – entrepreneurial spirit, expertise and organizational efficiency borrowed from the business world and provision of public goods, the latter being a typical state related function. Theodore Levitt8, unlike Etzioni, sees the third sector as a corrective tool to business or state as it is made up by “organizations whose original goal was to institutionalize activism and address issues ignored by the other two sectors”. However, both authors agree that the third sector is neither ‘governmental’ nor ‘private’. Due to its rather loose nature, some authors believe that the term is suitable to conduct comparative studies of different countries. Anheier and Siebel9 argue that notwithstanding considerable historic differences, legal norms and organizational structure and activities, the term ‘third sector’ encompasses the French term „économie sociale” (social economy), the British “non-statutory sector”, the German “gemeinnützige organisationen” (charity organizations) and “gemeinwirtschaftliche Unternehmen” (public organizations) and the American “nonprofit sector”.

Similarly, as the term ‘independent sector’ is often used in opposition to the public sector (the state) and the private sector (businesses), it mainly puts an emphasis on the free initiative and non-involvement with the other two sectors, yet it bears serious criticism due to the overdependence on resources, exhibited by its constituent organizations10. This gives us reasons to believe that the term ‘independent sector’ shall not be used as synonymous for ‘third sector’.

Despite their popularity, the above two terms are often criticized for their negative nature. Either attempts to define the sector on the basis of characteristics it tends to exclude. A similar approach describes said organizations as ‘residual’ as compared to the other two sectors, leaving its boundaries undefined and open and its definitions rather general. Presumably, the rise of some ‘positive’ concepts such as voluntary, charity, social or civic sector has come about in answer to the above criticism.

The term voluntary sector is rarely used in Bulgaria, as compared to its common usage in foreign literature. It reflects the social dynamics and refers to some of the sector’s inherent characteristics such as giving, volunteering and participating. Nonetheless, the term varies considerably in usage from one country to another. While in the USA it is mainly used to refer to the ‘not-for-profit’ sector, in the UK non-profit organizations are classified as public and voluntary, thus outlining two separate sectors11. In terms of

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10 Thayer-Scott, J. Defining the Nonprofit Sector. Citation, source. - p. 48
their legal status, a similar classification of non-profit organizations can be found in Bulgaria. Under the Law on Non-profit Legal Entities, two types of organizations are discussed – associations and foundations\textsuperscript{12}. The legal status of the remainder of nonprofit organizations is the subject of other statutory acts. Bulgarian universities, the Bulgarian Academy of Sciences, National Radio and Television, etc., fall within this category. The reason why their activities are seen as distinct from those of associations and foundations is the fact that these institutions receive subsidies from the state budget, they are entitled to tax relief and are subject to different liquidation and termination procedures, not to mention that some of them also own state property. According to Krasen Stoychev\textsuperscript{13} these specifics give us the right to distinguish between ‘public’ and ‘private’ nonprofit legal entities which can be seen as counterparts of British ‘public’ and ‘voluntary’ organizations.

Yet another term that can be closely associated with the idealistic aims of public formations is ‘social economy’. The term has been traditionally used in France but over the last years it has been increasingly brought into focus by other countries as well. Nachko Radev\textsuperscript{14} describes social economy “as part of the real economy and civil society in which volunteers and organizations being legal entities undertake activities of mutual benefit or commercial activities aiming to be of personal or social benefit”. When defining the above term, the emphasis is placed upon the immediate social effect of the business, no matter whether profit is generated or not. On the contrary, a key factor for the progress of social economy is the so-called social entrepreneurship which aims at active economic activity while at the same time it performs social tasks seen as more important than making profit. In the author’s opinion, the term ‘social economy’ is somewhere in between the state and the market, overlapping to some extent with other quasi synonymous terms such informal sector, third sector, nonprofit sector, independent sector, voluntary organizations, to name but a few. A major structural unit of the social economy is ‘social enterprise’. It is run as a business entity, producing goods and services for the market economy while at the same time it allocates some of its resources to implement social and environmental policies. The social enterprise is legally manifested by co-operations, societies, foundations, benefit associations, etc.

The term “civil society” and the respective sector to which it refers, seem to have an even broader meaning. To quote Michael Walzer\textsuperscript{15} “the term ‘civil society’ is used to designate the domain of all civil organizations and interrelated networks saturating it, which are established in the name of the family, faith, affiliations and ideology”. The above sector boundaries often present the focal point of literary discourse since these vary considerably in view of existing multicultural, historic and political perceptions. Glushenko\textsuperscript{16} argues that said sector tends to encompass any organizations,

\textsuperscript{12} Art. 1, paragraph 2 ‘Law on Non-profit Legal Entities’.
\textsuperscript{14} Radev, N. Voluntary work and civil initiative. Veliko Turnovo: University Publishing House “St Cyril and Methodius”, 2012. - p. 15 – 45.
the main activities of which are centered around the principles of civil society, in particular, public visibility, equality, freedom, solidarity, compassion, trust, etc. The following are seen by the author as sector structural components: religious organizations, political parties, national diasporas, social groups, community centers, social organizations, charity funds, consumer co-operatives, civil right movements, etc.

Levels of Structuring the Non-Profit Sector

However, the availability of different terms used to designate the civil sector (comprising non-profit organizations), the lack of consensus with regard to its boundaries and other dissimilarities are among the issues still to be resolved. Salamon and Anheier\(^\text{17}\) are highly doubtful as to the actual existence of the discussed sector, posing arguments that such a sector could be defined and shaped only if a substantial number of organizations share certain common characteristics. Despite the terminological variety and variations as to the scope and meaning of the herein discussed terms, there are certain characteristics which justify the existence and uniqueness of the outlined civil sector.

Firstly, it is important to throw some light upon the targets which organizations of the non-profit sector have set before themselves. Unlike economic entities whose purpose is to produce a surplus revenue (i.e. generate a positive financial result), non-profit organizations have a wider target range, thereby excluding personal or material benefits. According to Lulanski\(^\text{18}\) “the mission of non-profit organizations is through a variety of informal means to mobilize the energy of society and its members and undertake appropriate actions to ensure conditions for its inevitable transformation to a civil society”. The non-profit concept does not necessarily exclude performing economic activity which can financially aid the attainment of the organization’s goals.

Secondly, nonprofit organizations are specifically distinctive from the state structures. One of their marked features is their voluntary and amateur nature. Unlike governmental entities whose liabilities are provided on a statutory basis, civil organizations define the scope of their activities independently, driven solely by the free initiative of their members and supporters. More often than never, their activities are seen as an alternative to the mundane state services aiming to satisfy public needs more fully. In addition, nonprofit organizations operate on the principles of self-regulation and private initiative which is another distinctive feature from the state organizations.

Given the above peculiarities we have reasons to speak about consolidation in the sphere of public interrelations, even though the extremely diverse nature of the nonprofit sector blurs its fine definition. Moreover, different views on the nonprofit sector can be largely attributed to political and historical reasons. Comparability of terms and their usage internationally has been studied in a project initiated by the American University John Hopkins. Trying to introduce some order into an existing


\(^\text{18}\) Lulanski, P. Nonprofit organizations (an overview). Citation, quote. - p 18.
‘terminological chaos’\textsuperscript{19}, Salamon and Anheier who were the project leaders\textsuperscript{20} identified four principal approaches at defining the nonprofit sector: legal, economic, functional and criterial. The legal approach, in view of interdisciplinary differences has proved ineffective in formulating a simple definition. The economic approach also provided a rather limited description of the economy, finding significant distinction only in terms of sources of finance. As a result, nonprofit organizations are perceived as receiving revenue mainly through charities. This confines further said sector boundaries, as it excludes all organizations that are funded by the state or engaged in economic activity. The functional approach, on the other hand, is basically preoccupied with enumerating the functions performed by nonprofit organizations. Despite its organizational efficiency, this approach is devoid of accuracy as some of the functions can be performed by both state agencies and nonprofit organizations. Taking into consideration the setbacks of the above approaches, the authors propose to apply a set of criteria aiming to define more fully the nonprofit sector, this time shifting the focus to the structure and activity of these organizations. The elicited “structural-operational definition” is based upon the following criteria: formal character, self-governing, independence from state power, non-distribution of profit and voluntary nature. In addition, in order to limit the scope of herein discussed nonprofit organizations, the authors propose the exclusion of political and religious organizations from the scope of the present study. Indeed, opinions differ as to the inclusion or exclusion of these two categories. Trying to present a summary of the problem, Denitsa Gorchilova\textsuperscript{21} has drafted a broader version of the “structural-operational definition” based on five positive, two negative and one extra criteria, namely: institutionality, nonprofit distributing (in terms of its retained earnings and not for profit ends), self-governing (organizations that are not political or religious), emphasizing their private, voluntary and socially useful nature. The inclusion of the ‘socially useful’ criterion has been prompted by the various degrees at which organizations working for private or community benefit have contributed to the social system.

Taking into account the work of researchers from John Hopkins University Centre for Civil Society Studies and their contribution to defining the boundaries of the nonprofit sector, we thereby defend the opinion that in view of its broader scope and terminological diversity, it is not possible or even healthy to explicitly define the nonprofit sector. We propose therefore, with the idea to simply clarify the terminological haze, to add the criteria suggested by Gorchilova, D. and thus identify structural levels in nonprofit organizations. Table 1 presents a revised version of the author’s criterial identification which is also indicative of our view on the broader nature of the herein discussed terms.

\textsuperscript{19} A term used by Salamon and Anheier in the quoted document.
Table 1

Criterial Identification and Structural Levels in Nonprofit Organizations

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Narrow Nonprofit Sector</th>
<th>Third Sector</th>
<th>Social Economy*</th>
<th>Civil Sector</th>
<th>Broad Nonprofit Sector</th>
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<tbody>
<tr>
<td>Institutionalized</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Nonprofit distributing</td>
<td>√</td>
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<td></td>
<td>√</td>
</tr>
<tr>
<td>Private</td>
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<td>√</td>
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<td>√*</td>
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<td>Self-governing</td>
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<td>Voluntary</td>
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<tr>
<td>Not political</td>
<td>√</td>
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<td>Not religious</td>
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<tr>
<td>Community service</td>
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Legend: “ √” – obligatory presence of the selected attribute
~ – the specified attribute is not obligatory
* – designation of author’s revisions


In view of the above criterial identification of structuring the nonprofit sector, we shall discuss the following five basic notions. Under the term ‘narrow nonprofit sector’ we tend to understand only those organizations that simultaneously meet all the above criteria. Dismissal of the two negative criteria, i.e. non-political and non-religious organizations and the need for community service provide for the inclusion of political, religious and private organizations in the nonprofit sector. This leads to the formation of the so-called ‘third sector’ which fills up the space between the state and the market. ‘Social economy’ extends sector boundaries even further with the inclusion of economic entities which alongside attaining profit ends, place a special emphasis on social activities and community service. The term ‘civil sector’ takes into account both formal and informal public formations with nonprofit ends, in the name of community or private interests. The term ‘broad nonprofit sector’ is all-embracing as alongside other public nonprofit organizations it also encompasses organizations such as the Bulgarian Medical Union. The terms ‘non-governmental’, ‘independent’ and ‘voluntary’ sector are not included as separate structural entities since their scope and content largely overlap with those of the ‘third sector’.

Conclusion

The above terminological review is but an attempt to distinguish between the content of separate notions that are used to designate the nonprofit sector, having no claims whatsoever at setting clear-cut boundaries between them. Arguably, their parallel existence in scientific literature speaks in defense of Kendall and Knapp’s22 views according

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to which “it is not possible to have a simple and all-around definition applied to all cases”. Despite efforts to explicitly define sector boundaries characteristic of the previous century, over the last years researchers have exhibited a new kind of ‘definition sensitivity’ recognizing the fact that definitions and concepts that are created under specific circumstances may fall short of meeting new or different conditions. In this line of thought we can conclude that there are no good or bad terms in designating the sector, comprising nonprofit organizations. Conversely, each of the herein discussed terms may exhibit various degrees of adaptability in terms of context and scope, depending on the specific purpose of usage.

The present study aims to clarify the content and scope of the nonprofit sector by trying to differentiate between terms currently used in literature and practice as its synonyms. A thorough review of nonprofit sector characteristics in light of the structural-operational definition showed that said definition helps to reveal the real boundaries, scope and size of the nonprofit organizations. In conclusion, the scope of the nonprofit sector can vary, depending on its identified targets, which allows for a criterial identification to be applied to structure the nonprofit sector.

References


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STRUCTURAL CONSIDERATIONS IN DEFINING THE NON-PROFIT SECTOR BOUNDARIES

PhD student Vanya Kraleva

Abstract

After the beginning of the democratic changes the number of civil organizations in this country has increased considerably, causing a heightened scientific interest in the forming non-commercial sector. The variegated character of the organizations constituting it, however, renders the unequivocal determination of its scope difficult and creates conditions for conducting studies with low rate of validity. In this context the differentiation of the various concepts, which have entered the literature and practice as synonyms of the non-commercial sector is a step towards the clarification of its boundaries and nature. Defending the proposition that their parallel existence reflects different levels of structuralization, in the present article there is offered a variant of their criteria-based identification.

Keywords: non-commercial sector, structural-operating definition, criteria-based identification.
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