



## EMPIRICAL STUDY OF THE IMPLEMENTATION OF CERTAIN BUDGETING CONCEPTS IN MANUFACTURING COMPANIES IN SERBIA

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**Abstract:** The basic indicators of manufacturing industry's level of development are still at an unenviable level, although it provides the majority of tradable goods of Serbian economy and has the most significant share in gross domestic product. This state of the manufacturing industry in Serbia is the result of an unstable macroeconomic environment and institutional insecurity, as well as an inadequate management approach in companies of this sector. Taking into account the situation, there is an obvious need to change management approach in these companies, which includes improving their budgeting processes and systems. Budgeting, as a management instrument, has become important in companies in Serbia only in the last decades, that is, after the change of the economic system. The results of the conducted empirical study, aiming to perceive the current state and relevant management attitudes regarding the implementation of certain budgeting concepts in manufacturing companies in Serbia, are presented in this paper. The study aims to determine the current presence of certain budgeting concepts, as well as which concepts the management of the sample companies intends to implement in the future, since it considers them an appropriate and a good solution for its company, taking into account the specifics of its environment and business. The presented results will show whether manufacturing companies in Serbia follow global trends in budgeting practices that relate to the implementation of modern budgeting concepts with flexibility, customer focus and performance based as their key features.

**Keywords:** budgeting, budgeting concepts, traditional budgeting, manufacturing companies, Serbia

**JEL classification:** M41, L69

## **1. Introduction**

Budgeting is an efficient management instrument that turns goals and selected strategies into formal-quantitative projections of specific future activities. It is a tool for the quantitative formulation of plans which connects strategy and operational activities, that is, it provides concretization and operationalization of the strategic plan. The budget, as a result of the budgeting process, is a comprehensive and coordinated plan, expressed in financial terms, for the operations and resources of an enterprise for a specified period in the future (Khan & Jain, 2007). Budgeting should not be understood only as a preparation of a financial plan, but as a comprehensive performance management process that leads to and executes that plan (Babatunde et al., 2017). Although the key role of budgeting is related to planning, it has shown its utility in many areas. Budgeting enables the projection of the future with consideration of all important aspects of business, provides monitoring of strategy implementation, facilitates coordination of activities and communication, contributes to efficient resource allocation, increasing motivation, performance control, establishing accountability, better decision-making, etc. (Shim et al., 2012; Khan & Jain, 2007; Novičević, 2005; Hansen, 2011; Shastri & Stout, 2008). Numerous studies have shown that there is a direct link between the budgeting process and profit maximization; therefore, budgeting is recognized as a useful tool for achieving the basic goal of the company – optimization of long-term profit (Khan & Jain, 2007). Due to these benefits, budgets have become popular and widely used over time, regardless of size, business activity or level of management.

The paper shows the results of the empirical research on the budgeting practice in manufacturing companies in Serbia. Empirical research is focused on manufacturing industry, because it is the biggest sector of the economy and the sector of crucial importance for economic development. Respondents' attitudes regarding the importance of budgeting as a management instrument and the extent to which the respondents are satisfied with the existing budgeting system of their company were investigated. Which budgeting concepts are currently implemented in the respondents' companies, as well as which concepts the respondents consider appropriate for their company, taking into account the specifics of their internal and external business environment, were also examined. The research sought to find out whether in today's dynamic business environment, the traditional static budgeting can meet the needs of the management of manufacturing companies in Serbia or whether it can be achieved through some of the alternative concepts that were created to eliminate or reduce its shortcomings.

The paper is structured in four chapters. The shortcomings of traditional budgeting and the necessity for introduction of alternative concepts are described in the first chapter. The second chapter gives a brief overview of the state of the manufacturing industry of Serbia. The third chapter deals with the design and methodology of the empirical research while the fourth section is dedicated to the research results and discussion. At the end of the paper, the concluding remarks are presented.

## **2. Shortcomings of traditional budgeting and the necessity for introduction of alternative budgeting concepts**

Traditional budgeting has been widespread in various types of organizations for a long time as a conventional management instrument. It is characterized by static budgets covering a predetermined time period, incremental approach, implementation of conventional costing systems, top-down approach, control as the most dominant activity and immutability of projections during the budgeting period (Malinić, 2011; Bunce et al., 1995). In recent decades, market changes and technological advancement have posed new challenges to traditional planning and budgeting. As the business environment became more dynamic and complex, there has been a growing dissatisfaction with this concept of budgeting. Due to that, traditional budgeting has been receiving significant criticism in literature and practice for a certain period of time. The criticism of traditional budgeting relates primarily to its inability to adequately respond to “the situations characterized by high business uncertainty resulting from changes in technology and global markets, government regulation, competition, and the rise of new knowledge” (Ekholm & Wallin, 2011, p. 145). Traditional budgets and budgeting processes have been observed as inflexible and inadequate for today’s chaotic economic environment, and, consequently, its implementation may lead to suboptimal performances (Coulmas & Law, 2010).

Some of the commonly mentioned shortcomings of traditional budgeting are: being too time-consuming and costly, quickly becoming obsolete, focus on cost reduction rather than value creation, inappropriately reflecting the business strategy, inability to adequately achieve strategic alignment and to create closer relations between strategy and operations etc. (Barrett, 2005; Libby & Lindsay, 2007; Østergren & Stensaker, 2011, Neely et al, 2003). Hansen et al. (2003) also mentioned the following shortcomings: the lack of responsiveness to changing environmental or organizational conditions, creating little value in comparison with time necessary for budget preparation, inability to create a high performance climate based on competitive success because of the fixed target as the definitive measure of success, making employees feel undervalued, exclusive focus on annual financial performance, inadequate performance evaluation unsuitable for bonus systems, inability to empower people to act since resources are committed for the budgeting period, encouraging budget gaming etc. As one can see from the aforementioned shortcomings, the weaknesses of traditional budgeting are mainly related to the business process, competitive strategy and organizational capabilities (Neely et al, 2003).

Considering that traditional budgeting has proved to be no longer efficient in responding to frequent and rapid changes in the business environment, a necessity to apply new budgeting methods, developed to enable adapting to new environmental conditions, has become obvious (Bunce et al., 1995, Pietrzak, 2013;

Becker, 2014; Klimaitienė & Ramanauskaitė, 2019). Therefore, in business practice, traditional budgeting has been replaced by new budgeting methods. Some of the most commonly mentioned alternatives used in an attempt to overcome the shortcomings of traditional budgeting are Activity-Based Budgeting, Rolling Budgeting, Zero-Based Budgeting, Program-Based Budgeting, Performance-Based Budgeting, Hoshin Kanri, Beyond Budgeting etc. To summarize, due to the growing incompatibility with current changes in the business environment, it has become clear that traditional budgeting requires improvement. Changes and improvements in the original budgeting concept have taken place in two directions. The first direction refers to the improvement of the existing budgeting practice, more specifically, the improvements of the original budgeting concept through the implementation of new approaches and techniques. As opposed to “better budgeting”, a direction called “beyond budgeting” has been developed, which means abandoning budgeting (Malinić, 2011; Neely et al, 2003; Libby & Lindsay, 2007).

In spite of many shortcomings pointed above, traditional budgeting still remains important in practice. Actually, the research results in this field point out that, in practice, many companies have not abandoned traditional annual budgets despite its inefficiency (Dugdale & Lyne, 2006; Ekholm and Wallin, 2000). This implies an existence of a paradox that, even though traditional budgeting is heavily criticized, companies actually often hesitate to replace it with alternative methods (Becker, 2014). Also, the research results found out that, even though companies replaced the budgeting system with new management accounting tools, the key budgeting functions - planning, control and evaluation remained (Henttu-Aho & Järvinen, 2013). Such situation implicated the conclusion that organizations do not plan to entirely abandon budgeting, but they prefer to modify and adapt it to current organizational needs (Pietrzak, 2013). Considering that, Ekholm & Wallin (2011) pointed out that both traditional and modern budgeting concepts should not be observed as opposites, but as complements. Actually, many organizations in practice use more than one budgeting concept at the same time, that is, a “package” of budgeting concepts is used (Šljivić et al., 2013).

### **3. A brief overview of the state of the manufacturing industry of Serbia**

The empirical research (the results of which are presented in the paper) is focused on the manufacturing industry because of its importance for economic development, but also for the overall development of each country, including ours. Manufacturing sector is often considered as the main driver of economic growth and productivity, as well as the main creator of new jobs in the economy (Štrbac, 2018). “Manufacturing offers greater opportunities than other sectors to accumulate capital, exploit economies of scale, acquire new technologies and – more fundamentally – foster embodied and disembodied technological change. It is, thus, the core of economic growth and structural transformation” (UNIDO, 2013, p. 1).

In order to better understand the results of the research, it is necessary to address the state of the manufacturing industry of Serbia. This industry produces the majority of tradable goods of Serbian economy, has the most significant share in gross domestic product, contributes the most to generating the gross value added of the economy and makes a key contribution to reducing Serbia's external imbalance (Mičić & Janković, 2017; Ćorović et al., 2019; Štrbac, 2018). The basic indicators of the development level of this sector, as the most important part of industrial production in Serbia and the biggest sector of the economy are still at an unenviable level. "The Serbia industry is still far from the period of three decades ago, when transition from market socialism to liberal capitalism had just started. It was significantly destroyed during the UN sanctions in the early 1990s, then by the wars, NATO bombing and, finally, by privatization" (China-CEE Institute, 2019). After 2000, the model of economic development of Serbia was based on foreign direct investments, privatization, growth of imports and strengthening of the service sector and, in such conditions, the industry could not be strengthened. Unfavorable macroeconomic trends characteristic for that period (foreign trade deficit, budget deficit, relatively high unemployment rate, etc.), deep structural imbalances and the slow process of structural and institutional reforms were accompanied by low industrial production growth rates, as well as deindustrialization that was visible in the structure of production and employment (Štrbac, 2018; Ćorović et al., 2019).

The capacity and structure of production and exports, competitiveness, as well as the contribution of the manufacturing sector to the overall newly created value of the economy, were also at a low level. Although this sector has the major share in gross domestic product, it has experienced a rather intensive decline in participation from 24.9% in 2000. to 14.5% in 2018. (Statistical Office of the Republic of Serbia, 2019). The absolute number of employees in the manufacturing industry also decreased, as well as a proportion of manufacturing employment in the total employment. The positive growth rates of labor productivity were achieved as a consequence of the continuous reduction in the number of employees, rather than an increase in the physical volume of production or technological progress (Štrbac, 2018). The production structure is dominated by resource and labor intensive products, as well as the products of low and medium-low technological intensity. At the same time, there are still no significant qualitative changes in the structure, an increase in technological complexity, knowledge transfer and technological modernization, so there is a low share of the added value of medium and high technology-intensive products, which is reflected in the volume and quality of exports (Mičić, 2015). Thus, the manufacturing industry in Serbia has not yet been revitalized or qualified for the higher degree of the finalization of primary products, so the structure of exports is dominated by primary products of the lowest degree of processing (Drobnjak, 2013). One of the basic problems regarding strengthening the competitiveness and open comparative advantages of the manufacturing industry are related to the

volume and structure of investments, and especially to the low volume and outdated structure of domestic investment (Ćorović et al., 2019).

While in modern period of the fourth Industrial revolution the main issues are automation, digitization of operations and development of Industry 4.0, Serbia still has another main task - reindustrialization, as the best way to “push” economic development (Mičić, 2019; China-CEE Institute, 2019). “Obviously, Serbia lacks a realistically feasible strategy for the economic growth and development of the manufacturing industry, with balanced funding sources, long-term development goals and an effective industrial policy” (Ćorović et al.).

The poor performance of the manufacturing industry in Serbia is the result of an unstable macroeconomic environment and institutional insecurity, as well as the inadequate management of companies belonging to this sector. It is clear that there is a real need to change management approach in these companies, which includes improving their budgeting processes and systems. It should be noted that budgeting, as a management instrument, has gained importance among companies in Serbia only in recent decades, that is, after the change of the economic system during which it was “practically excluded from business management practice” (Stevanović et al., 2009, p. 396). The research we conducted enables us to gain a better understanding of how the management in manufacturing companies evaluates the usefulness of budgeting, which budgeting concepts are currently implemented and which concepts the management considers an appropriate “solution” for their company, so that their implementation could contribute to a more efficient management and performance improvement, productivity growth, shifting production orientations towards products with a higher level of added value and competitiveness growth.

#### **4. Research design and methodology**

Empirical research on budgeting in companies in Serbia is quite rare. Our empirical research aims to investigate the current budgeting practices and to identify budgeting trends in the manufacturing companies in Serbia. The results will be compared with the results of similar empirical research, conducted by other authors in other countries (Tanase, 2014; Antonova & Tamulevičienė, 2016; Klimaitienė & Ramanauskaitė, 2019; Wagner et al., 2019).

The sampling frame consists of the companies from the private sector (limited liability companies and joint-stock companies) registered with the Business Registers Agency, whose predominant activity belongs to Sector C - Manufacturing. Manufacturing industry involves the physical or chemical transformation of materials, substances or components into a new product (output) that can be finished, in the sense that it is ready for use or consumption or semi-finished, meaning that it becomes an input for further industrial processing

(Regulation on Classification of Activities, 2010). Therefore, a questionnaire was sent to the companies engaged in the production of food, beverages, tobacco products, textiles, clothing, leather and leather goods, paper and paper products, wood products, furniture, chemical and pharmaceutical products, metals and metal products, computers, electronic and optical products, electrical equipment, motor vehicles, etc. (for more details see the Regulation on Classification of Activities).

The empirical research was conducted by applying the survey methods and statistical processing of the obtained data. Primary data collection was performed in the period from April to July 2018 and involved sending a Google questionnaire to the company's official e-mail addresses with a request to forward the questionnaire to the sector or person in charge of budgeting (financial manager, head of controlling or accounting, etc.). In addition to guaranteeing the anonymity of the data, the aim was to ensure that the respondents are persons with relevant experience in budgeting. In order to facilitate the analysis and obtain the most accurate and statistically useful data, the questions in the questionnaire were closed-ended, meaning that the respondent can simply choose the suitable answer. The questionnaire consisted of seven questions, of which the first three questions were related to the basic characteristics of the surveyed companies. The main method for the analysis of the data collected in this research are descriptive statistics, data visualization and cross-sectional analysis of the results.

From 152 questionnaires distributed, 23 completed questionnaires were returned, so the response rate was 15,13 %. In order to find out more about the basic characteristics of the surveyed companies, the respondents answered questions about the size, the origin of capital and the duration of the company in which they had been employed.

**Table 1. Basic characteristics of the company in the sample**

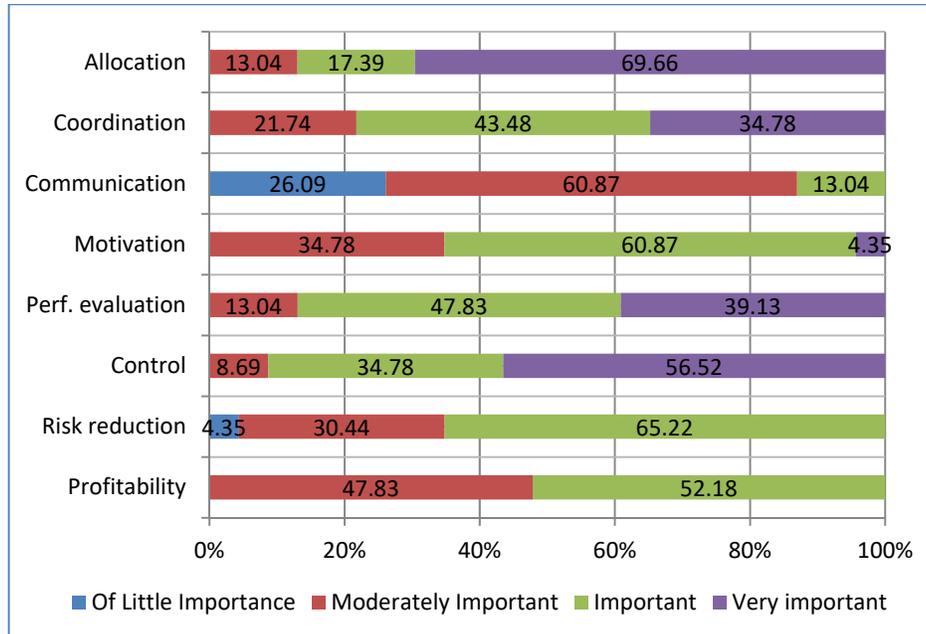
Size	Small	Medium	Large	Total
%	30,44	56,52	13,04	100,00
Origin of capital	Domestic	Foreign	Mixed, mostly Foreign	Total
%	52,18	34,78	13,04	100,00
Duration of the company	More than 20 years	Between 10 and 20 years	Between 5 and 10 years	Total
%	30,44	60,87	8,69	100,00

Based on the presented data in Table 1, in the sample by size, 30,44% of the companies are small, 56,52% are medium-sized and 13,04% are large companies. When it comes to the origin of capital, the sample is dominated by companies with the domestic origin of capital (52,18%), followed by companies with the foreign origin of capital (34,78%) and companies with mixed, mostly foreign origin (13,04%). Regarding the duration of the company, 60,87% of the companies in the sample have been operating between 10 and 20 years, 30,44% of the companies more than 20 years and 8,69% of the companies in the sample have been operating between 5 and 10 years.

## 5. Research results and discussion

In order to find out the attitudes on the importance of budgeting as a management instrument, the respondents were asked to assess its importance for certain areas (resource allocation, coordination, communication, motivation, performance evaluation, control, risk reduction and profitability) on a scale from 1 (*not important at all*) to 5 (*very important*). The answers to this question expressed as a percentage are shown in Figure 1.

**Figure 1. The respondents' attitude on the importance of budgeting as a management instrument**



Source: Author's Calculation

Based on the presented data, it can be noted that none of the respondents answered that budgeting is *not important at all*. When it comes to the answer *very important*, we can see that respondents believe that budgeting has the greatest importance for resource allocation (69,66%), control (56,52%) and performance evaluation (39,13%). If the answers *important* and *very important* are observed cumulatively, budgeting holds the greatest importance for control (91,30%), then for resource allocation (87,05%) and performance evaluation (86,96%). The respondents think that budgeting has the least importance for the communication. Similar results were obtained in relevant studies conducted by other authors. In research conducted by Klimaitienė & Ramanauskaitė (2019), the respondents from the manufacturing companies in Lithuania assess importance of budgeting in the scale from 1 (not important) to 5 (very important) in the following order: planning and control (4.44 points), coordination of activity (4.11 points), identifying problems (3.78 points) are important, employee motivation and engagement are neither important nor unimportant (3 points each). Based on the responses from Ukrainian manufacturing companies, the following order by priority was obtained: allocation of resources, control, prediction and performance evaluation (Antonova & Tamulevičienė, 2016). For Czech manufacturing companies, budgeting is of the greatest importance for cost control, followed by performance assessment, forecasting of financial needs and the allocation of resources (Wagner et al., 2019).

The attitude of the respondents about the existing budgeting system in their companies was observed through the answers to the question of how satisfied they are with it on a scale from 1 (*completely dissatisfied*) to 5 (*completely satisfied*). The answers show that the largest number of respondents (52,17%) are *satisfied*, 4,35% are *completely dissatisfied*, while 43,48% of the respondents are *neither satisfied nor dissatisfied* with the existing budgeting system in their company. None of the respondents chose the answers *not satisfied* and *completely satisfied*. A similar distribution of satisfaction with budgeting system was seen in the study of manufacturing companies in Lithuania – 56 % of the respondents gave the budgeting system implemented in their companies the highest rating and the remaining 44 % gave it the average rating (Klimaitienė & Ramanauskaitė, 2019). In the study of Czech and Ukrainian manufacturing companies, the majority of the companies gave the budgetary system the average rating (Wagner et al., 2019; Antonova & Tamulevičienė, 2016).

Respondents were then asked to choose which of the listed budgeting concepts they are currently implementing (sixth question in questionnaire) and which concept is the most appropriate for their company taking into account the specifics of their environment and management needs (seventh question). The respondents were able to choose a maximum of three of nine possible answers: Traditional Budgeting – original concept, Activity-Based Budgeting, Rolling Budgeting, Zero-Based Budgeting, Program-Based Budgeting, Performance-Based Budgeting, Beyond Budgeting, Hoshin Kanri and Other. Respondents' answers are shown in Table 2.

**Table 2. Implementation of budgeting concepts  
in the respondent manufacturing companies in Serbia**

Budgeting concepts	Implemented		Appropriate	
	Frequency	% of cases	Frequency	% of cases
Traditional Budgeting – original	14	60,87%	6	26,09%
Activity-Based Budgeting	18	78,26%	19	82,61%
Rolling Budgeting	7	30,43%	12	52,17%
Zero-Based Budgeting	1	4,35%	5	21,74%
Program-Based Budgeting	2	8,70%	3	13,04%
Performance-Based Budgeting	1	4,35%	9	39,13%
Beyond Budgeting	/	/	/	/
Hoshin Kanri	1	4,35%	5	21,74%
Other	/	/	/	/
Total	44	191,30%	59	256,52%

*Source:* Author's Calculation

The data presented in the Table 2 indicate that none of the respondents chose answers Beyond Budgeting and Other. The largest number of respondents (78,26% of cases) stated that Activity-Based Budgeting is implemented in their company, followed by Traditional Budgeting – original concept (60,87%) and Rolling Budgeting (30,43%). In the largest percentage of cases, the respondents stated that appropriate concepts for their company are: Activity-Based Budgeting (82,61%), Rolling Budgeting (52,17%), Performance-Based Budgeting (39,13%) and Traditional Budgeting (26,09%). Observed in relation to the current implementation in companies, it can be noticed that a large number of respondents would replace traditional budgeting with some of the newer budgeting concepts, such as Performance-Based Budgeting and Hoshin Kanri. Besides these two concepts, as an appropriate “solution”, Rolling Budgeting and Zero-Based Budgeting also had the significant increase in the number of responses, which indicates the companies’ need to ensure continuity in budgeting, faster response to environmental changes, clearer presentation of input-output relationship and the allocation of resources to activities that contribute to value creation.

It was discerned that the respondent companies implement more than one budgeting concept at the same time, that is, a “package” of budgeting concepts is used. In the majority of respondent companies, this package consists of Traditional Budgeting and Activity-Based Budgeting. Speaking about the concepts and packages that the respondents consider as the most appropriate ones for their companies, in the majority of cases Activity-Based Budgeting, Rolling Budgeting and Performance-Based Budgeting were chosen. Similarly, the research conducted in Ukraine revealed that traditional budgeting is still widely used and that more than a half (58 %) of surveyed companies preparing budgets apply additional

budgeting models next to the traditional one. In the majority of cases Zero-Based Budgeting (53,73%), Activity-Based Budgeting (40,30%), Performance-Based Budgeting (23,88%) and Beyond Budgeting (20,90%) were chosen (Antonova & Tamulevičienė, 2016). It should be noted that the mentioned concepts were the only possible answers. Also, the empirical research from Romania indicates that in this country the improvement of budgeting system and alternative budgeting models are preferred instead of abandoning budgets (Tanase, 2014).

Further discussion of the obtained answers focuses on the relationship between the implemented budgeting concepts and the level of satisfaction with the existing budgeting system in the company. From the total of 14 respondents who stated that Traditional Budgeting was used in their company, 5 chose the answer *Satisfied*, 8 *Somewhat satisfied* and 1 chose *Completely dissatisfied*. The respondents are most satisfied with the Activity-Based Budgeting concept, so of the total of 18 companies that implement this concept, 7 are *Somewhat satisfied* and 11 are *Satisfied*. The high level of satisfaction with the Activity-Based Budgeting concept was confirmed by the number of respondents who consider this concept as appropriate for their company. When it comes to other concepts, from a total of 7 companies that use Rolling Budgeting, 3 answered that they were *Somewhat satisfied* and 4 chose *Satisfied*. All of the several companies that stated that they implemented Program-Based Budgeting, Zero-Based Budgeting, Performance-Based Budgeting and Hoshin Kanri responded that they were satisfied with the existing budgeting system. Similarly, the performed questionnaire-based survey indicates that manufacturing companies in Lithuania with highly rated budget implement more sophisticated budgeting methods and, conversely, companies that rated their budget with the average rating use traditional budgeting (Klimaitienė & Ramanauskaitė, 2019).

## 6. Conclusion

The poor performance of the manufacturing industry of Serbia is the result of the inappropriate economic growth model and inefficient process of institutional and structural reforms, as well as the inadequate management of companies belonging to this sector. The modern business environment in Serbia requires from all companies, including manufacturing ones, to implement new management approaches and tools, which includes the adoption of new budgeting models, techniques and concepts that can respond to challenges and problems that arise in the new business conditions. The results of the conducted empirical research enabled the overview of the relevant management attitudes regarding budgeting, as well as the implementation of certain budgeting concepts in manufacturing companies in Serbia.

Based on the obtained answers, it can be concluded that, despite numerous criticisms of traditional budgeting, this concept is still in use in 60,87% of the

respondent companies. However, most companies that implement the traditional budgeting think that its implementation is not the appropriate solution and that it should be replaced in the future by concepts that would enable faster response to changes in the environment and more efficient performance management. The “most popular”, i.e. the most used budgeting concept among the respondent manufacturing companies is Activity-Based Budgeting, which was assessed in most cases as the concept that can meet the requirements of management. The selective use of certain budgeting concepts in a certain period, as well as for certain departments, projects, areas of responsibility within the company, was also observed.

The attitude of the management of the analyzed companies is that their managerial needs cannot be met by the implementation of only one budgeting concept, but a combination of multiple concepts used at the same time. The majority of respondents believe that Activity-Based Budgeting, Rolling Budgeting and Performance-Based Budgeting are the optimal “package”. The presented results show that the management notices the need for change in the budgeting system and indicate a more intensive implementation of concepts that improve cost control, assist to identify and eliminate redundant and uneconomical activities, provide a better insight into the relationship between the used resources and the achieved performances, dynamically adapt resource allocations and enable the optimal use of limited resources by identifying priority activities. Furthermore, there is also a growing interest to adopt budgeting concepts with flexibility, customer focus, the use of key performance indicators being their key features, in order to provide greater budget precision and accuracy, as well as a stronger link between the strategy and operational activities.

The results of the conducted research confirmed that manufacturing companies in Serbia also follow some of the modern global trends in budgeting practice and show a tendency to improve their budgeting systems. None of the sample companies intends to abandon budgeting, but the management attitude evidently indicates that it is a very useful management instrument that needs to be further developed and “refined” with new techniques and methods. Controllers and top managers have an important role in the process of improving the budgeting system and implementing new concepts in manufacturing companies in Serbia. Starting from the characteristics of their external and internal environment, specifics of the business and chosen strategy, they should consider the positive and negative effects of the desired change in the budgeting system, assess whether their company could implement that change and work actively on creating conditions for successful implementation of the desired budgeting concept in their company. Manufacturing companies interested in adopting one of the new budgeting concepts must keep in mind that this process is accompanied by numerous challenges such as: changing the structure of the budgeting process, upgrading an accounting information system, employee resistance to change, developing an appropriate performance measurement system, determining the cause-effect

relationship between inputs, activities/processes and final results and outcomes, etc. Therefore, companies must be aware that transformation in accordance with new budgeting concepts is not a quick, easy and universal process, but a continuous process that is specific for each company and whose effects should be expected only in the long run.

The main limitation of this research relates to the quality of the data collected. The obtained answers are mostly based on the subjective assessment and attitude of the respondents. However, it should be taken into account that subjectivism is an indispensable element of such a research. Since the survey questionnaire was sent to the e-mail addresses of the surveyed companies, one cannot say with certainty that the questions were answered by the persons the questionnaire was intended for, i.e. the persons with sufficient knowledge and experience in the relevant field and employed at a certain position in the company. The limitation of the research also refers to the size of the sample and to the problem of the small realized sample due to the weak response of the companies which were contacted. Despite the observed limitations of the research, the analogy with comparable foreign studies allows the obtained results to be accepted as appropriate and relevant.

The results of our research contribute to the further development of the theory and expand the findings in the budgeting literature. A special contribution of the paper refers to the results of the conducted empirical research on the implementation of certain budgeting concepts in manufacturing companies in Serbia, as an insufficiently researched area. The results can be an incentive for future research studies, aimed at a deeper understanding of this issue and further theoretical and conceptual structuring of the examined phenomenon.

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## PRIMENA ODREĐENIH KONCEPATA BUDŽETIRANJA U PRERAĐIVAČKIM PREDUZEĆIMA U SRBIJI - EMPIRIJSKO ISTRAŽIVANJE

**Apstrakt:** Iako prerađivačka industrija proizvodi najveći deo razmenjivih dobara privrede Srbije i ima najznačajnije učešće u stvaranju bruto domaćeg proizvoda, osnovni indikatori nivoa njenog razvoja su, ipak, na nezavidnom nivou. Takvo stanje prerađivačke industrije u Srbiji rezultat je kako nestabilnog makroekonomskog ambijenta i institucionalne nesređenosti, tako i neadekvatog upravljačkog pristupa u preduzećima koji pripadaju ovom sektoru. Imajući u vidu takvo stanje, očigledna je potreba za promenom načina upravljanja u ovim preduzećima, što uključuje i unapređenje procesa i sistema budžetiranja. Budžetiranje kao upravljački instrument u preduzećima u Srbiji, dobilo je na značaju tek poslednjih decenija, odnosno nakon promene privrednog sistema. U cilju sagledavanja aktuelnog stanja i relevantnih stavova menadžmenta u pogledu primene pojedinih koncepata budžetiranja u prerađivačkim preduzećima u Srbiji, sprovedeno je empirijsko istraživanje čiji su rezultati prikazani u radu. Cilj istraživanja je utvrditi trenutnu zastupljenost pojedinih koncepata budžetiranja, kao i koje koncepte menadžment preduzeća iz uzorka namerava da primeni u budućnosti pošto ih smatra odgovarajućim i dobrim rešenjem za svoje preduzeće, imajući u vidu specifičnosti svog okruženja i poslovanja. Prikazani rezultati će pokazati da li se u prerađivačkim preduzećima u Srbiji prate globalni trendovi u praksi budžetiranja, koji se odnose na primenu savremenih koncepata budžetiranja, čija su ključna obeležja fleksibilnost, fokusiranost ka kupcima i zasnovanost na performansama.

**Ključne reči:** budžetiranje, koncepti budžetiranja, tradicionalno budžetiranje, prerađivačka preduzeća, Srbija

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