



APPLICATION OF BUDGETING IN SELECTED MUNICIPAL COMPANIES IN THE WARMIŃSKO-MAZURSKIE VOIVODESHIP

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Abstract

This study aimed to determine the scope to which budgeting is used as a management method in selected enterprises of the municipal sector in the Warmińsko-Mazurskie Voivodeship. The research goal was achieved through the following tasks: identification of the reasons for and methods of budgeting used in enterprises of the municipal sector in the Warmińsko-Mazurskie Voivodeship and determining the methods of controlling budget implementation in the examined entities.

The use of budgeting in the practice of Polish municipal enterprises, as well as the knowledge of how to use this management instrument, seems to be relatively common. Nevertheless, there are still entities convinced of the insufficient amount of benefits resulting from budgeting and that these benefits may be lower than the labour input and costs incurred in budgeting.

Research has revealed that budgeting is used primarily in medium and large companies with annual revenues of over PLN 50,000,000 and employing over 200 employees. An important feature that connects all entities using budgeting is the desire to reduce costs and improve financial results. The desire to increase internal control and make more effective decisions was the main reason for the implementation of budgeting in these enterprises. The dominant methods of budgeting are the top-down and incremental methods. Budget control is exercised by various people and units. Disclosed deviations most often relate to exceeding the planned level of costs and failure to meet the deadlines for renovation and investment tasks.

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WYKORZYSTANIE BUDŻETOWANIA W WYBRANYCH SPÓŁKACH KOMUNALNYCH W WOJEWÓDZTWIE WARMIŃSKO-MAZURSKIM

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A b s t r a k t

Celem badań było określenie zakresu wykorzystania budżetowej metody zarządzania w wybranych przedsiębiorstwach branży komunalnej w województwie warmińsko-mazurskim. Cel badań zrealizowano przez wykonanie następujących zadań: identyfikacja przesłanek i metod budżetowania występujących w przedsiębiorstwach branży komunalnej w woj. warmińsko-mazurskim oraz określenie sposobów prowadzenia kontroli realizacji budżetu w badanych podmiotach.

Wykorzystanie budżetowania w praktyce polskich przedsiębiorstw komunalnych, jak również wiedza dotycząca sposobów korzystania z tego instrumentu zarządzania wydają się być stosunkowo powszechne. Mimo to istnieją wciąż podmioty przekonane o niedostatecznej skali korzyści płynących z budżetowania oraz o tym, że korzyści te mogą być niższe niż wkład pracy i koszty poniesione na budżetowanie.

Na podstawie przeprowadzonych badań stwierdzono, że budżetowanie jest stosowane przede wszystkim w spółkach średnich i dużych, o rocznych przychodach kształtujących się na poziomie ponad 50 000 000 zł i zatrudniających powyżej 200 pracowników. Istotną cechą, która łączy wszystkie podmioty wykorzystujące budżetowanie jest chęć redukcji kosztów i poprawy wyników finansowych. Dążenie do zwiększenia kontroli wewnętrznej i podejmowania skuteczniejszych decyzji było główną przyczyną wdrożenia budżetowania w tych przedsiębiorstwach. Dominującymi metodami budżetowania są metoda odgórna i przyrostowa. Kontrola budżetu jest sprawowana przez różne osoby i komórki. Ujawniane odchylenia najczęściej dotyczą przekroczenia planowanego poziomu kosztów oraz niedotrzymania terminów realizacji zadań remontowych i inwestycyjnych.

Introduction

One of the basic tasks of local government authorities is conducting business activities, particularly in the field of public utilities. This area is served by municipal economic entities¹. Although water and sewage companies, heating plants, public transport companies and municipal waste management companies fulfil the statutory obligations of local governments, they must conduct their activities in such a way as to maintain the ability to develop and adapt to the

¹ There are also budgetary units and entities in this area, which operate under the regulations of public sector accounting rules.

growing requirements of environmental protection. Due to these circumstances, processes related to the broadly understood domain of resource management are becoming increasingly important in municipal enterprises. They necessitate, among others, searching for more and more optimal management methods to ensure rational and effective use of both resources and planning. Budgeting, defined as a method of managing an economic entity, supporting the processes of planning, organising, motivating and controlling, plays a significant role in this process.

Budgeting, as a method of enterprise management, as well as a component of financial planning, is the result of translating the category of public finance into corporate finance. The very concept of budgeting, characterised in many ways in the literature, can be reduced in the simplest sense to a management method, in which the planning and use of financial resources are harnessed towards the effective operation of the enterprise. There is a strong link between budgeting and management functions. However, there is no single, proper, typical budgeting scheme that can be used by every entity. Choosing a budgeting method also means the necessity to strictly adhere to the rules that aim to standardise the entire budgeting process. The budgeting procedure should undergo review as well.

The present research aims to determine the scope to which budgeting is used as a management method in selected enterprises of the municipal sector in the *Warmińsko-Mazurskie Voivodeship*.

The research goal was achieved through the following tasks:

- identification of the premises and methods of budgeting used in enterprises of the municipal sector in the *Warmińsko-Mazurskie Voivodeship*;
- determining the methods of controlling budget implementation in the examined entities.

Only companies have been examined in this research. Budgetary units and entities, which operate under public accounting rules, were not involved in this research.

Budgeting in the literature

Budgeting as an instrument of management and accounting supports the achievement of the company's goals. It forms an obligation to apply appropriate rules and procedures that will guide the use of the enterprise's resources so that it agrees with its mission (Nita, 2014, p. 98). Covaleski and Dirsmith (1983, p. 323) emphasise that in traditional terms, budgeting is one of the instruments of control over activities carried out at the middle and basic level through the flow of information "downstream" of the organisation². As the surroundings

² A similar view is presented by Dynowska and Bartoszewicz (2014, p. 173) that budgeting as a method of monitoring the degree of achievement of the company's goals is one of the instruments of internal control.

of an organization evolve, and project management and its tool – budgeting – gain growing recognition, managers are forced to enhance their awareness of the dysfunctional phenomena related to budgeting (Kochański, 2010, p. 287).

Through budgeting, all management functions are performed (Fig. 1).

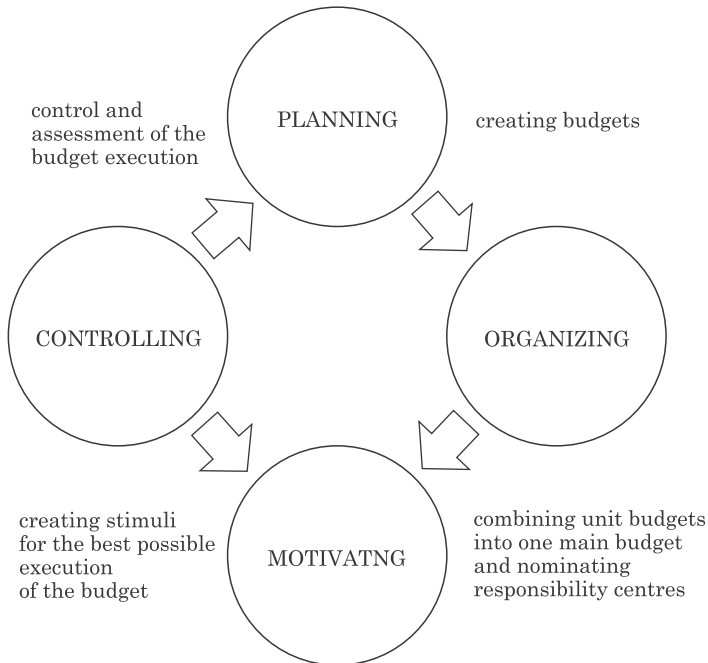


Fig. 1. Implementation of management functions through budgeting

Source: own research based on Nita and Nowak (2010, p. 16).

According to Dynowska and Kes (2010, p. 127), “the stage of budgeting consisting in creating budgets is conceptually and functionally similar to the planning function. Hence, the conclusion can be drawn that, in this respect, budgeting supports and even permeates planning”. Budgeting can be the basis for creating new or changing existing plans. Thus, in a way, it “forces” managers to design future activities. It consists of translating the company’s tangible plans into financial plans while taking into account the existing limitations (Nowak, 2010, p. 17).

Buk (2006) and Komorowski (1997) identify budgeting functions that favour effective management (Tab. 1).

Table 1

Budgeting Functions and Effective Management

Budgeting functions according to H. Buk	Budgeting functions according to J. Komorowski
Command function – systemic and detailed designation of tasks and means of achieving strategic and operational goals, and their coordination	command function – ensuring the use of the economic potential of the enterprise in pursuit of set strategic goals
Optimisation function – disciplining costs, limiting expenses and promoting the best economic decisions	optimisation function – shaping the most economically advantageous development of the company
Information function – obtaining systematic knowledge about the degree of achievement of goals and the use of funds at all levels of management	the function of economic equilibrium – maintaining proper balance relations and financial liquidity of the company
Motivational function – providing an objective, numerical basis for assessing the work of employees and managers and the effects of the functioning of internal units of the organisation	motivational function – use of financial incentives to induce positive attitudes of employees
Control function – assessing the purposefulness and effectiveness of the activities carried out so far and drawing conclusions in a timely manner for a possible correction of the implemented plans	control function – controlling the processes of collecting and using financial resources in terms of purposefulness and efficiency of management

Source: based on: Buk (2006, p. 144, 145) and Komorowski (1997, p. 26).

Both authors emphasise the importance of functions such as command, optimisation, motivation and control. H. Buk also mentions the information function, while J. Komorowski stressed the economic equilibrium function.

It should be noted that criticism of traditional budgeting, based mainly on annual static budgets, has been growing for ca. 25 years (Hansen *et al.*, 2003). Traditional budgeting methods are often criticised for inflexibility and an excessive focus on resource allocation in the organisation. A contemporary, clearly noticeable trend is the implementation of flexible, decentralised budgeting systems strongly related to the use of key performance indicators (KPI) (Popesko, 2018, p. 203). Cygańska and Marcinkiewicz (2014, p. 238) emphasise that the effectiveness of budgeting depends on its successful implementation.

According to Nowak (2010, p. 32), “it should be noted that budgeting is considered as one of the most politicized activities related to management, which is confirmed by the surveys conducted in American companies and other organizations”.

Characteristics of the surveyed entities

According to a study by the Provincial Statistical Office in Olsztyn, in 2019, 182 commercial companies in which local authorities had shares operated in the Warmińsko-Mazurskie Voivodeship, including (*Zmiany strukturalne...*, 2020, p. 17):

- 31 companies producing and supplying electricity, gas, steam and hot water (17%);
- 82 entities dealing with water supply and sewage management, as well as waste management (45%);
- 10 companies dealing in transport and warehouse management (5,5%);
- 20 real-estate companies (11%).

The companies that participated in this research have been selected in a purposive, quota manner. As part of the study, questionnaires were delivered to 43 selected municipal companies in the Warmińsko-Mazurskie Voivodeship (i.e. approx. 24% of such companies in the voivodeship) in the first quarter of 2020 (in person or via e-mail). The shares of the industries represented in this selected group were comparable to the shares in the voivodeship. Out of 43 entities, 24 agreed to answer the questions, while the remaining entities (21) refused to take part in the study without giving any reason. Unfortunately, due to the emerging pandemic situation, there was no possibility to increase the number of companies surveyed. Among the enterprises that participated in the study, the largest sized group was medium (10), followed by small (8), large (4) and micro-enterprises (2)³. They represented the following industries:

- water supply and sewage – 6,
- heating – 6,
- public transport – 4,
- municipal solid waste management – 4,
- municipal property management – 4.

Most often, the questionnaire was filled in by employees of the accounting department, in rare cases (2) it was also the person managing the unit or the only person (1). Each entity had operated for a period longer than five years, and their legal form was a limited liability company.

Out of 24 surveyed enterprises, 18 entities (75%) used budgeting, and six entities (25%) did not use budgeting (Fig. 2).

Figure 2 shows that the larger the enterprise, the more likely it used budgeting. All micro-enterprises and three out of eight small enterprises did not use budgeting. The use of budgeting was declared by larger companies – all (4) with the status of a large enterprise and nine out of 10 medium ones.

³ Criteria for classifying business entities in terms of size are included in the Act on the freedom of economic activity of July 2, 2004, Journal of Laws No. 173, item 1807.

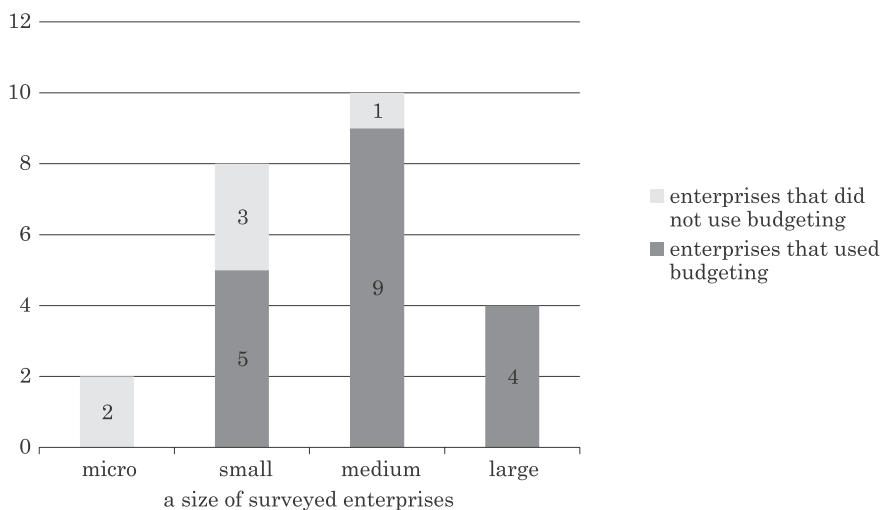


Fig. 2. The number of surveyed enterprises that used budgeting (n = 24)

Source: own research.

This is in line with international literature (e.g. Leone & Rock, 2002, p. 46; Seng & Yew, 2017, p. 83; Armitage *et al.*, 2016).

A detailed breakdown by industries and the size of the enterprise in the context of budgeting use is presented in Table 2.

The industry in which budgeting was used the least frequently was municipal property management (one company out of 4), and the only entity in this industry using budgeting was a small enterprise, while entities in which budgeting was not used were micro-companies (2) as well as a medium-sized company. In other industries, the vast majority of entities used budgeting, the few exceptions being small companies.

Table 2

The size and industry of enterprises in the context of their use of budgeting

Content	Water supply and sewage				Heat plants				Public transport				Municipal solid waste management				Municipal property management				Total
	micro	small	medium	large	micro	small	medium	large	micro	small	medium	large	micro	small	medium	large	micro	small	medium	large	
Not using budgeting	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	1	0	6
Using budgeting	0	1	2	2	0	1	3	1	0	1	2	1	0	1	2	0	0	1	0	0	18

Source: own research.

Reasons for budgeting implementation

Table 3 presents a detailed distribution of responses from the surveyed companies (taking into account the possibility of multiple responses). The most frequently indicated reason for implementing budgeting in enterprises from the water supply and heating sectors was the desire to reduce costs and improve results (five companies from each industry). The second answer was “a shortage of information needed to make effective decisions” (three indications in the water supply industry and four in the heating industry).

Table 3

Reasons for implementing budgeting in the surveyed companies, by industry

Term	Water supply and sewage	Heat plants	Public transport	Municipal solid waste management	Municipal property management
Employees' expectations/requests	0	0	0	0	0
Increased pressure from competition	0	0	0	0	0
Unsatisfactory previous planning methods	0	0	0	0	0
A change in strategy	0	0	0	0	0
A desire to secure new markets, customers, contractors	0	0	0	0	0
Employees' sentiment favouring change	0	0	0	0	0
Implementation of new technologies	0	0	1	0	0
Availability of financing	0	1	0	0	0
Availability of human resources	0	1	0	0	0
A change in management	1	0	0	1	0
Requirement from head office	2	1	0	1	0
Change in management's information needs	0	2	2	0	1
Striving to improve control	1	3	2	0	0
Lack of information to make effective decisions	3	4	2	2	0
Desire to reduce costs and improve financial results	5	5	4	2	1

Source: own research.

Enterprises providing public transport services have also implemented budgeting with the hope of improving results by reducing costs (four indications). It was similar in the case of entities dealing with waste management and municipal property management (two indications and one indication, respectively). None of the companies indicated that the reasons for introducing budgeting were:

- employees' expectations/requests;
- increased pressure from competition;
- unsatisfactory previous planning methods;
- a change in strategy;
- a desire to secure new markets, customers, contractors;
- employees' sentiment favouring change.

All surveyed companies, regardless of the industry in which they operate, want to improve their financial results through budgeting.

The budgeting method chosen by enterprises during the implementation process has never been changed – all entities have declared this. Therefore, it can be assumed that it was well matched to the needs of these companies or that sufficient long-term experience has not yet been gathered to allow for the assessment and possible verification of the methods used. Three companies used the selected method of budgeting for less than a year, six (33.3%) used it for a period from one to three years, and the remaining nine enterprises (50%) used it for three years or longer. Based on the above results, it can be concluded that, in most cases, budgeting as a management method has been introduced relatively recently.

Companies participating in the study declared the use of four budgeting methods which are considered traditional:

- top-down,
- bottom-up,
- incremental,
- mixed (a combination of incremental and zero-based methods).

It was possible to indicate several methods, e.g. top-down and incremental.

Based on Table 4, it can be concluded that the dominant method of budgeting is the top-down method (16 companies). Only two companies indicated the bottom-up method. This indicates a relatively low level of participation of responsibility centres in budget preparation and broad prerogatives of budget teams appointed by management boards. At the same time, the municipal entities covered by the study largely favoured the incremental method, in which the new budget is created on the basis of the budget realised in the previous year, subject to an appropriate

Table 4

Budgeting methods in enterprises by industry

Industry/budgeting method	Top-down	Bottom-up	Incremental	Mixed
Water supply	5	–	5	–
Heat plants	4	1	4	1
Public transport	4	–	4	–
Municipal solid waste management	2	1	2	1
Municipal property management	1	–	1	–

Source: own research.

update. It is a relatively cheap and quick method of budget preparation, but at the same time widely criticised for the possibility of contributing to a waste of certain resources, the non-objective nature of the budget, or the efforts of managers to spend all available funds in fear of limiting the budget in the future (cf. Świdorska (Ed.), 2010, p. 472, 473; Gmińska, 2011, p. 370). Only two entities out of 18 which used budgeting employed the mixed method, in which, in selected responsibility centres, budgets were prepared using the zero-based method.

The choice of the method was most often determined by:

- the management board (6 entities),
- the chief accountant (4),
- the management board in consultation with the chief accountant (5),
- the director in consultation with the chief accountant (3),

Control in the budgeting process

In small and medium-sized municipal enterprises covered by the study, the chief accountant was most often responsible for budget control. In large enterprises, a special budget committee is appointed for this role. However, this is not a ubiquitous practice. As shown in Table 5, in small municipal enterprises participating in the study, the budget is also controlled by the director and the financial department or the president of the board. In medium-sized entities, verification is carried out by the controlling department, the director or the financial department. In large companies, budget implementation is controlled by the controlling department and responsibilities are divided: managers of individual organisational units are responsible for partial budgets and the chief accountant is responsible for the entire budget.

Table 5

Responsibility for budget control in the surveyed entities, by municipal sector

Term	Water supply	Heat plants	Public transport	Municipal solid waste management	Municipal property management
Controlling Department	0	3	0	0	0
Committee on Budgets	2	0	0	0	0
Managers of individual units (partial budgets), chief accountant (total budget)	0	0	1	0	0
Director	2	0	3	0	0
Chief Accountant	3	1	2	1	1
Finance Department	0	0	1	2	0
President of the Management Board	0	1	0	0	0

Source: own research.

The most frequently indicated answer by small, medium and large enterprises to the question regarding budget deviations revealed during control is exceeding the planned cost level (6 entities). The second-most indicated type of deviation (five enterprises) is the postponement of deadlines for the completion of renovation/investment tasks.

Apart from those mentioned, the following were also indicated:

- planning inaccuracy, such as exceeding/underestimating individual cost items;
- over-planning/under-estimation of individual budget items.

Most enterprises (in each industry) declared that detecting deviations during budget control prompted them to perform detailed analysis and constituted the basis for changes in budget implementation and budget assumptions for future periods. Only four companies used the detected deviations to assign responsibility to specific persons from relevant responsibility centres. In addition, the surveyed entities declared that the deviations were:

- the basis for creating reports,
- the basis for creating incentive systems.

Conclusions

The use of budgeting in the practice of Polish municipal enterprises, as well as the knowledge of how to use this management instrument, seem to be relatively common. Nevertheless, there are still entities convinced of the insufficient amount of benefits resulting from budgeting, and that these benefits may be lower than the labour input and costs incurred in budgeting.

Based on the research, the following conclusions were drawn:

1) Budgeting is used primarily in medium and large companies within the surveyed group, with annual revenues of over PLN 50,000,000 and employing over 200 employees. This is mainly due to a greater awareness of the benefits of budgeting, a suitably numerous management team and the complexity of processes and activities carried out in individual spheres of activity of such entities. Smaller enterprises, having fewer resources and operating on a smaller scale, did not implement this method of management.

2) An important feature that connects all entities using budgeting is the desire to reduce costs and improve financial results. The desire to increase internal control and make more effective decisions were other factors that led these companies to introduce budgeting.

3) The dominant method of budgeting within the surveyed group is the top-down method. This indicates a relatively low level of participation of responsibility centres in budget preparation and broad prerogatives of budget teams appointed by management boards. At the same time, municipal entities covered by the study largely favoured the incremental method, in which the new budget is created based on the budget realised in the previous year, subject to an appropriate update.

4) Budget control is exercised by various people and units. Disclosed deviations most often relate to exceeding the planned level of costs and failure to meet the deadlines for renovation and investment tasks.

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References

- Armitage, H.M., Webb, A., & Glynn, J. (2016). The use of management accounting techniques by small and medium-sized enterprises: a field study of Canadian and Australian practice. *Accounting Perspectives*, 1(15), 31-69. <http://dx.doi.org/10.1111/1911-3838.12089>.
- Buk, H. (2006). *Nowoczesne zarządzanie finansami. Planowanie i kontrola*. Warszawa: C.H. BECK.
- Covaleski, M.A., & Dirsmith, M.W. (1983). Budgeting as a means for control and loose coupling. *Accounting, Organizations and Society*, 8(4), 323-340. [http://dx.doi.org/10.1016/0361-3682\(83\)90047-8](http://dx.doi.org/10.1016/0361-3682(83)90047-8).
- Cygańska, M., & Marcinkiewicz, Z. (2014). Behavior of hospital mid-level managers in budgeting implementation – an empirical study. *Olsztyn Economic Journal*, 9(3), 237-249.
- Dynowska, J., & Bartoszewicz, A. (2014). Controlling as an information source in risk management process. *Olsztyn Economic Journal*, 9(2), 165-176.
- Dynowska, J., & Kes, Z. (2011). Identyfikacja etapów procesu budżetowania w aspekcie funkcji zarządzania. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 123 *Rachunkowość a controlling*, 122-133.
- Gmińska, R. (2011). Wykorzystanie budżetowania w modelu rachunkowości zarządczej. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse, Rynki, Ubezpieczenia*, 625(32), 363-376.
- Hansen, S.C., Otley, D.T., & van der Stede, W.A. (2003). Practice developments in budgeting: an overview and research perspective. *Journal of Management Accounting Research*, 15(1), 95-116. <http://dx.doi.org/10.2308/jmar.2003.15.1.95>
- Kochański, K. (2016). Zjawiska dysfunkcyjne w budżetowaniu projektów. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 440, 287-295.
- Komorowski, J. (1997). *Budżetowanie jako metoda zarządzania przedsiębiorstwem*. Warszawa: Wydawnictwo Naukowe PWN.
- Leone, A.J., & Rock, S. (2002). Empirical tests of budget ratcheting and its effect on managers' discretionary accrual choices. *Journal of Accounting and Economics*, 33(1), 43-67. [http://dx.doi.org/10.1016/S0165-4101\(01\)00044-1](http://dx.doi.org/10.1016/S0165-4101(01)00044-1).
- Nita, B. (2014). Budżetowanie jako instrument sterowania w przedsiębiorstwie. *Studia Oeconomica Posnaniensia*, 2(5), 97-110.
- Nowak, M. (2010). *Budżetowanie jako instrument zarządzania*. In B. Nita & E. Nowak (Eds.). *Budżetowanie w przedsiębiorstwie. Organizacja, procedury, zastosowanie*. Warszawa: Wolters Kluwer SA.
- Popesko, B. (2018). Transformations in budgeting practices: evidence from the Czech Republic. *International Advances in Economic Research*, 24, 203-204. <https://doi.org/10.1007/s11294-018-9679-7>.
- Seng, T.B., & Yew, L.K. (2017). Budgeting practice in Singapore – an exploratory study using a survey. *Asia-Pacific Management Accounting Journal*, 12(1), 77-103.
- Structural changes of groups of the national economy entities in the REGON register, 2019*. (2020). Główny Urząd Statystyczny. <https://stat.gov.pl/en/topics/economic-activities-finances/structural-changes-of-groups-of-entities-of-the-national-economy/structural-changes-of-groups-of-the-national-economy-entities-in-the-regon-register-2019,2,4.html> (12.06.2020).
- Świdarska, G.K. (Ed.) (2010). *Controlling kosztów i rachunkowość zarządcza*. Warszawa: Difin.
- Ustawa o swobodzie działalności gospodarczej z 2 lipca 2004 r. Dz.U., nr 173, poz. 1807.
- Zmiany strukturalne grup podmiotów gospodarki narodowej w rejestrze REGON w województwie warmińsko-mazurskim, 2019 r.* (2020). Olsztyn: Urząd Statystyczny.