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Budgeting as a Key Component of University Management Success

Abstract: *Introduction.* In modern conditions of economic processes, the essence of university management does not meet the requirements of a democratic society. This is especially true of financial management methods. The need to implement budgeting in the university sector is exacerbated by the significant interest of managers and stakeholders in the autonomy of educational institutions. *Purpose and methods.* The purpose of the article is to substantiate the theoretical and methodological provisions for defining the concept of “budget” in the context of universities with further disclosure of its role and importance in ensuring effective management. The methodological basis was the fundamental provisions of modern economic concepts, a systematic approach, general and special methods. *Results.* The way of formation of the category “budget” for the university sector is investigated. The peculiarities of the transformation of scientific thought regarding the introduction of the budgeting process at the university are determined. The priority sources of filling the budgets of the universities of the leading countries for further implementation in the domestic system are identified. *Conclusions.* Formed own vision of the concept of “budget”, “budgeting” for the university sector; the universal model of realization of the process of budgeting in university considering features of educational activity is presented; the priority sources of budget financing in modern universities are defined because of their historical, geographical, and national features of formation and development. Dominant among them are state target expenditures, expenditures from local budgets of territorial communities, financial revenues from autonomous activities, and targeted funding of scientific activities by the state and business agents.

Keywords: budget, budgeting, sources of funding, university sector, higher education.

1. Introduction

The problem formulation. Modern universities, as subjects of the market environment, operate in developed competitive and business-oriented surroundings, which is constantly influencing their budgeting system. In turn, focusing the governments efforts of most countries on the effective development of the innovative component of the national economy and production of innovative products determines the priority of funding for higher education institutions in the state budget system to strengthen the national high intellectual potential. Therefore, it is natural that today higher education is not only the basis for the development of society, but it also helps to meet basic human needs and increase the welfare of the population throughout the country. The development of higher education institutions plays a crucial role in formation and implementation system of the innovative component of economic transformations into the economy and society life and therefore requires a review of basic approaches to the formation and implementation of a budgetary mechanism to ensure the greatest effect on investment.

One of the key arguments for such managerial choice is the direct reduction of state influence on managerial decision-making in domestic universities. Modern higher education institutions, given the key share of state budget allocations in the total share of university funding, feel the direct influence of the state in making important management decisions. However, as the variety of funding sources increases and budget autonomy increases, managers will have the opportunity to reduce this impact. In turn, it will improve the academic performance of higher education institutions and strengthen their managerial independence.

State study of the problem. The need for relevant research can be explained by the significant impact of the higher education sector on the well-being of the population, by confirming the persistent positive correlation between them (Feicher, 2021). On the other hand, the inability of public authorities to fully meet public expectations regarding the implementation of the budget component and obtaining the appropriate economic and social effects are of great concern to the scientific community.

World leaders of educational science (Salancik & Pfeffer, 1974; Covaleski & Dirsmith, 1988) have identified budgeting as a process of negotiation and agreement between competing coalitions. In the formation process of university education, the determining vectors of their development were the creation of internal management systems and their focus on efficient allocation of resources (Brunsson & Sahlin-Andersson, 2000; Paradeise et al., 2009; Seeber et al., 2015).

Another group of scholars (Wildavsky & Caiden, 2004; Amaral et al., 2003) interpreted the budgeting system as a system where the budgeting rules and incentives to achieve them directly determine the development strategy of modern universities. The budget process was also seen as a set of procedures and management decisions related to the resources and budgets redistribution.

In the research of H. Etzkowitz (2003), it is noted that the modern university combines the filling of the budget both at the expense of public financial support and financial revenues from external agents. The formation of the university's own and active participation in existing national and international research centers is important (Link & Müller, 2019). B. Clark (2001) also notes the importance of choosing a diversified approach to budget financing. The other scientific group also supports this approach (Gornitzka & Larsen, 2004) and argues for the need to deepen cooperation between universities and third stakeholders.

Among domestic scientists, this issue has also caused considerable debate. V. Safonova (2006) identifies the role of budgeting as a leader in ensuring sustainable development. She also identifies it as one of the most effective tools for managing financial resources. P. Kutsyk (2010) investigated in more detail the evolution of the concept of "budgeting" in higher education management. O. Grygoriv (2012) shares the above views and in his study considered budgeting as a comprehensive system of indicators and procedures, but at the same time, it will only be a subsystem of the overall management system.

Unresolved issues. Given the high interest of the scientific community in research in this area and the importance of the existing theoretical and methodological framework for solving these problems, the issues of theoretical and methodological foundations of a unified category "budget" in the field of innovation-oriented higher education institutions and the budgeting process of universities considering the specifics of their activities.

It needs to further refine the issue of identifying and grouping alternative sources of financial support for universities and determining the importance of their impact on the appropriate strategies adoption for the development of educational institutions; clarification of causal links, both internal and aimed at interaction with the environment. These research areas are extremely important for the development of management in education. The funding sources diversification and strengthening the innovative direction of university management policy allow managers to ensure a high level of sensitivity and flexibility of universities to changing market conditions. The relevance and solution of these issues determined the purpose and objectives of this study.

2. Purpose and methods

The purpose and research tasks. The purpose of the article is to substantiate the theoretical and methodological provisions for defining the concept of “budget” in the context of higher education institutions and to reveal the role and importance of the budgeting process in ensuring the effective management of the modern university.

Objectives of the study:

- to explore a way of forming the category “budget” for the system of higher education institutions following the growing competition and the bold challenges of a changing market environment;
- to determine the transformation features of the world community scientific opinion on the introduction of the budgeting process in the domestic and European university sector;
- to identify priority sources of filling the budgets in the university sector of the world’s leading countries to further implement their positive results in the management practice of domestic higher education institutions.

Methodology and methods. The methodological basis of the study is the fundamental provisions of modern economic concepts, as well as the scientific achievements of leading domestic and foreign researchers on the formation and development of the idea of introducing budgetary practices for higher education institutions. The basis for the study of this issue was carried out based on the dialectical method of cognition and a systematic approach.

To achieve this goal, general scientific and special research methods were used: systemic, complex – in determining the key elements of the budgeting process; historical, monographic – in the study of evolutionary development of the concept of “budget”, “budgeting”; terminological analysis and formal logic – the conceptual and categorical apparatus of the budgeting process in the field of higher education has been clarified; scientific comparison – when comparing different types of existing approaches to budget management of universities; systematization and classification – the study of strengths and weaknesses of the implementation of the budgeting process in the education sector; statistical and economic – for the search, collection and systematization of digital data; synergetic – when considering the university sector of the world’s leading countries in view of the instability and openness of its development; abstract-logical – during the implementation of theoretical generalizations and formulation of conclusions; graphic – when building structural and logical schemes for the budgeting process of universities.

Information base. The information base was the scientific achievements of leading scientists and researchers to determine the nature and importance of budgets for the university sector, relevant legislation on these issues, statistical and financial reporting of universities, and the results of personal observations and generalizations.

3. Results and discussion

3.1. The essence and significance of the budget in the formation the competitive profile of modern university

Positive changes in the world leading countries' economies in the late 20th century (1980s-1990s) contributed to the emergence of new approaches to the "budgeting" concept interpretation. Governments have introduced a wide variety of methods and approaches to make organizations' budgets as an effective tool for managing them and further improving the efficiency of available resources.

The issue of the budget concept forming and determining the necessary conditions for the implementation of university budgeting has been in the field of scientists' research for a long time. The foreign researchers saw budgeting as a process of negotiation and agreement between competing coalitions, which is characterized by a fairly high stability of the distribution of responsibilities between units (Salancik & Pfeffer, 1974; Covalski & Dirsmith, 1988). However, in recent decades there has been a significant transformation of the principles of innovative approach to public administration (NPM), which has undoubtedly changed the position of universities as official public institutions, for which the determining vector of development is the creation of internal management systems, internal organizational rules, and procedures, stimulating their strategic development and focusing educational institutions on the efficient allocation of resources, even through stability (Brunsson & Sahlin-Andersson, 2000; Paradeise et al., 2009; Seeber et al., 2015).

Where the impact of the new public administration has had a greater impact on the university sector, there has been growing expectations that educational institutions are moving from a formal approach to more formal bureaucracy to a budgeting system with informal negotiation between stakeholders with high-level of incrementalism (Wildavsky & Caiden, 2004), to such a budgeting system, where the management itself determines the strategy of university development and sets goals for their further development, using budgeting rules and incentives to achieve them, including and redistribution of budgets between units (Amaral et al., 2003).

Another group of scholars, B. Jongbloed and H. van der Knoop (1999), define higher education budgeting as a set of procedures and decisions that relate to resources and budgets that senior management reallocates to other accountable departments and units of the institution. The authors note that the issue of university budgeting is an important issue of universities on a par with the implementation of their development strategies, the choice of organizational structure for educational activities, human resource management and reporting to interested agents.

Given the above, the researcher P. Haeuser (2000) complements the previous thesis that the budgeting process involves a multi-vector set of management decisions. Its immediate goal is to implement plans for different levels of education. He also pointed out that in the vast majority of cases the process of creating university budgets is characterized by a high level of non-transparency. There is a constant growth of the role and direct influence of central governments on management decisions by higher education management.

In this issue, T. Chung (2009), N. Macintosh, and R. Daft (1987) made significant efforts to confirm the important interdependence in the university environment between the development strategy of the educational institution, its organizational structure, and systems for measuring the effectiveness of relevant departments and the university, which directly affects their efficiency and effectiveness. Scientists B. Bublitz and S. Martin (2007) continued to study the phenomenon of this relationship. They concluded that the existing interdependence between university departments necessitates a more complex system of control over their activities, which aims to ensure effective coordination of management resources and decisions. Therefore, an important vector of future research should be to ensure harmonization between the sustainable development strategy of universities and their budgeting system. This will further strengthen the information field on resource allocation and help monitor and control the expenditure of university budgets.

Focusing on the growing interest in the budgeting principles application in the management of higher education institutions, M. Ezzamel (2012) and others tries to identify the main budgeting advantages and disadvantages of the education system. The authors give an idea of how educational managers implement this approach in ensuring the activities of relevant institutions. They also want to understand how management reacts in the future to the introduction of changes in the budget. As a result of these studies, researchers note that the driving force in the local budgets implementation of educational institutions is conflicts between stakeholders.

The influence of political and institutional factors on the budget processes of educational institutions was confirmed by the following group of researchers

(Covaleski & Dirsmith, 1986; Cyert & March, 1963; Lepori et al., 2013; Pondy, 1970), who noted the need and usefulness of studying budget issues, given the influence of political factors on them. These scientists point to the crucial role of budgeting in the planning and conduct of political negotiations. They confirm the likelihood of using the budgeting of higher education institutions to retain power and control by government officials.

It is worth referring to the research by A. Brock (1996), who focused on the case of the failed application of the budget model in the university system of Ghana, where the planned budget model for implementation in educational practice was not comparable to the budget model, implemented by the government. This author's study confirmed the hypothesis that public policy and institutional transformation contributed to the erroneous transformation of the budget model of universities.

Researchers Y. Mensah, M. Schoderbek, and R. Werner (2009) dealt with the question of the expediency of the transition of universities from input-oriented budgets (control), based on the cost approach, to output-oriented budgets, which are implemented in the form of a structured system of performance indicators and based on the effectiveness of educational institutions. They focused their efforts on identifying cost-effective management tools that can be used by university leaders in practice. Authors noted that it is often quite problematic to measure the effectiveness of non-profit institutions. To increase the efficiency of public officials in the performance of their direct professional duties, it is necessary to ensure that they implement a systematic method of comparing the resources spent with the results, based on which man can assess the effectiveness of management.

Focusing on the interrelationships of different structural units of educational institutions in the process of implementing their budget, researchers B. Bublitz and S. Martin (2007) concluded that different departments in universities, receiving income from students of contract form of education and received state grants, quite often cross-subsidize other departments of universities, which ultimately contributes to their sustainable development.

On the other side, Ukrainian scientist O. Grygoriv (2012) also notes that one of the most advanced modern management technologies used by educational institutions is budgeting. Is the expediently organized process of creating and implementing the higher education institution budget contributes to the rational management of its financial resources, cash flow, assets, and liabilities, improving information support and comprehensive organizational links, effective analysis, control, and harmonization of the university sector in general? According to such conditions, the information basis of university budgeting is accounting, which in addition to information support of budget planning and further control and analysis of budget execution, is one of the integral com-

ponents of the budget process. Based on data of the environment state and source base of the accounting system, the budgets of educational institutions are formed and approved for further implementation and integration at all levels. After that, reports on budget execution are formed, which serve as a basis for analysis of implementation and control over their observance.

O. Grygoriv (2012) also emphasizes the shift of the economic community focus to the management systematic approach and its key components, which is due to the transition to a post-neoclassical scientific paradigm. According to systems theory, any system has its limits and external environment. Therefore, considering the university budgeting as a system, it should be noted that at the entrance managers have budget indicators, which are presented in the form of a budget system, then implements the process of execution of outlined budgets, and at the exit managers analyze the actual budget performance of educational institutions. However, such a system is characterized by integral feedback, which is provided through budgetary control. This researcher proposes to consider budgeting as a comprehensive system of planning, organization, and control of financial and commodity flows in the context of consideration of budgeting objects within the budget. However, budgeting will be only a subsystem of the general university management system, where budget planning and budget control will be only projections of the planning and control functions of the main management system of higher education institutions through the prism of accounting.

In the context of new trends in European integration, V. Safonova (2016) identifies the leading role of budgeting in ensuring the sustainable development of educational institutions. She classifies it as one of the most effective tools for managing the financial resources of higher education institutions. Budgeting provides such an innovative technology for creating a multidisciplinary work plan for an educational institution, which is based on the implementation of the forecast comprehensive analysis obtained through the relevant economic and financial calculations. Among the advantages of the budgeting system for higher education institutions, the author notes a high degree of streamlining of information support, fair distribution of managerial responsibility for decision-making, timeliness of monitoring and control over the activities of individual units, and more.

The opinion of the previous researcher is shared by the scientist P. Kutsyk (2010), who interprets the concept of “budgeting” in higher education as a process of formation and further planning of the business entity, which is expressed through the system of budgets. The actual results of the universities are compared with the planned indicators, and, as a result, managers take the necessary management actions and measures. Under such conditions, the educational institution budget is an integral part of management control to increase the performance of universities.

In contrast to these approaches, researcher K. Bezverkhyi (2013) emphasizes the definition of “budgeting” for the higher education sector more as a special management technology but only a control tool. The implementation of the budgeting process is an indicator of the quality of university management and indicates the compliance of the level of management competencies and the management decisions relevant to the conditions and challenges of the internal and external environment.

Peculiarities of budgeting mechanism implementation at the level of structural elements of higher education institutions were studied by scientist V. Vynohradnia (2011) who concluded that operating budgets of university individual structural units reflect the total budget of revenues and expenditures, planned university income from various activities (scientific, educational, industrial), current costs and projected financial results).

Having made an in-depth analysis of the existing database of domestic and foreign specialized research on this issue of university budgeting, we propose to understand the concept of “higher education institution budgeting” as a process of interrelated organizational and economic processes and appropriate management decisions aimed at implementing the necessary analytical for planning, formation, implementation, current adjustment, monitoring and control over the implementation the budgets of individual structural units and the educational institution in general to ensure its sustainable development. We propose to consider the university budget as an appropriate financial plan for the educational institution, which by its purpose, provides comprehensive coverage of the higher education institution activities in the specified period, which sets clear forecast values of income and expenditure, outlines sources of financial support of the economic entity, the procedure and special regulations for the use of assets by type of activity. Based on the study on this issue, the assumptions about the budgeting process implementation were made, outlining the positions of interested agents (*Figure 1*).

The implementation of the budgeting process based on higher education institution, given that the modern university will be a business entity in the market, also requires the development of appropriate methods of budget planning of revenues and expenditures, which will strengthen the autonomy of educational institutions and increase their motivation and effectiveness.

Analyzing the budgeting process of modern universities and outlining the structural components of their budgets, it is necessary to focus on the budget financial support sources given their variability depending on the geographical affiliation of the subject of educational activity. The main alternative sources of financial support for higher education institutions often include state target expenditures, expenditures from local budgets of territorial communities, financial revenues from autonomous activities (provision of services by various

departments to other interested agents), and targeted funding for research both by the state and agents of the business environment. The key place in providing budget funding in most cases belongs to the state. In an unstable market environment conditions and growing social tension in society, such deep interaction of state authorities and universities as social institutions is especially important, as their effective cooperation will serve as a positive indicator of modern society, country, and global space.

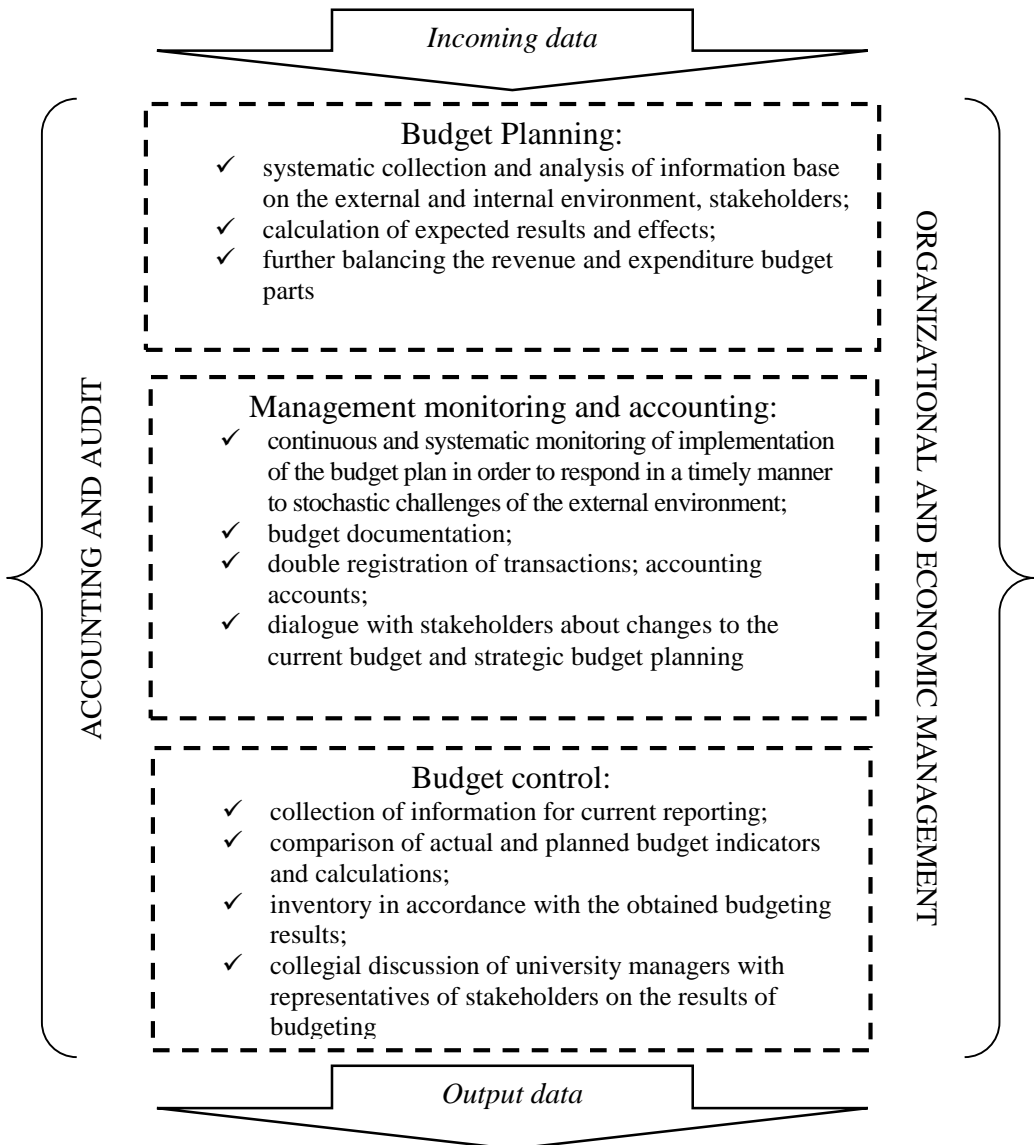


Figure 1. Universal model of university budgeting
 Source: own development based on (Grygoriv, 2012; Feicher, 2018, 2021)

3.2. Variability of budgets sources of modern universities

Leading scholars in the education field, O. Auranen and M. Nieminen (2010), B. Lepori (2007, 2009), also confirm the above assumption and identify allocations from the state budget as a key source of funding for modern universities. It can be aimed both at conducting research and at ensuring the main activities of the educational institution. I. Liefner (2003) complements these scientific considerations by saying that university research funding can be in the form of core funding, part of a core operating grant, or a separate research-only grant.

However, in recent decades there has been a steady increase in competition between universities for public funding of their academic research, especially in the field of project research in leading European countries (Geuna, 2001; Lepori et al., 2007, 2009). Governments note this trend as positive, which should ultimately improve the quality of research, increase resource efficiency, and provide funding for new university initiatives (Geuna, 2001; Laudel, 2006a, 2006b; Liefner, 2003). This method of financing reflects the ideas of the new state management on filling the university budget, which focuses on autonomous decisions of local managers of higher education institutions, increasing free competition between institutions, and improving the efficiency of the university sector (Auranen & Nieminen, 2010; Parker, 2013).

Analyzing the European path of the university budgeting process, the consensus of the active influence of transnational soft governance on the higher education system management (on the formation of university budgets), was confirmed. However, national management systems of educational institutions are still characterized by national historical, institutional, and cultural features. Since the 1990s, European university systems have been under increasing fundamental pressure to reform. The knowledge society emergence, unsatisfactory economic growth, unattractiveness awareness of European universities, educational expansion, and globalization market transformations have led to the need for changes in the European education management system, including financial support for their budgets.

According to the above research, the main impetus for global change in the management policy of educational institutions in Europe was the Bologna Process, launched in 1999. Since it introduced a transnational soft governance regime through voluntary communication mechanisms, and encouraged active information exchange. As a result, national education systems have been forced to demonstrate their legitimacy in the context of a new transnational governance platform formation (Feicher, 2021).

This development has also been supported by numerous attempts to compare university productivity. The European Commission has begun to focus on higher education governance policy, emphasizing the crucial role of business management, including diversifying funding for university budgets and strengthening and deepening the relationship between universities and business agents (European Commission, 2006). It is pertinent to suggest that the Bologna Process may have exerted some regulatory pressure on national governments to pursue appropriate governance policies with a focus on educational budgeting, which will increase competition and promote full stakeholder participation in educational processes.

There are also strong speculations by scholars that some national university sectors are still too closely linked to the budgeting process with local specific government regimes that reflect national specificities (Amaral et al., 2009). In a line with the above, German scholars M. Dobbins and Chr. Knill (2017) have deeply studied the process of bringing modern national university management systems to a common market-oriented management model. They conducted a multi-level comparative analysis of governance in Germany, France, and Italy and graphically illustrated the gradual trajectories of transformation, using “management triangles” that cover the balance of power between different actors (government, universities, their management, staff, stakeholders). The countries selected for the study were the ones that gave the initial impetus to the Bologna Process and the reform reforms in the European university sector budgeting system. While Germany has a strong tradition of academic oligarchy and self-regulation, France has a key role in centralized government regulation. Italy, for its part, combines elements of both the German and French budget management mechanisms.

In describing the peculiarities of the university management mechanism formation in these countries in terms of budget implementation, it is advisable to pay attention to the similarity of trends in changes in general principles of their financial security. In France, the state remains a key source of funding for the university sector, but there is a significant shift away from the state-oriented type of governance, in particular, in the way financial resources and strategic investments are allocated (McKenzie, 2009, p. 56). The state has also strengthened its focus on results, increasingly linking the allocation of financial resources to the performance criteria of educational institutions established by the contracting procedure. Public funds based on this principle are divided into only three global sectors – operating costs, staff costs, and investment costs, giving managers considerable freedom (Estermann et al., 2011).

For its part, the German government is demonstrating an example of adapting the budgeting process to historical change. The characteristic tradi-

tion of competitive funding of research projects has been strengthened by the financial initiatives of the Exzellenz multi-year research support program. The amount of funding for university budgets through the involvement of external agents has become an important indicator of the effectiveness of results-oriented management (Bogumil & Heinze, 2009). In the current realities of Germany's economic development, the component of budgeting based on the performance of higher education institutions is still relatively low, reaching a total of about 5 percentage points in most regions. However, most higher education institutions receive one-off funding funds (Globalhaushalte) (Bogumil et al., 2013), and, compared to France, they are more controlled by the state. All institutions in the German university sector are undergoing transformational transformations towards a market-oriented type of management.

The Italian experience of diversifying funding sources for university budgets has been characterized in most cases by the introduction of global budgets and university-based funding since the 1990s (Esposti & Geraci, 2010, p. 113; Moscati, 2001), giving management the right to charge fees at the moderate level (not more than 20% of the state financing fund). In the bring of the 2000s, results-based funding for higher education institutions was canceled due to fears of potential risks and only recently recovered.

At the same time, university strategic budgeting situation in Italy is somewhat paradoxical, as legislative innovations bring the Italian management mechanism in line with the standards of northwestern European countries, allowing universities to make their strategic investments. In many cases, this possibility of autonomy remains untapped. Managers make significant financial investments in highly qualified teaching staff selection, not paying enough attention to the financial support of other functional subsystems of the university (Capano, 2008). Interestingly, Italy was one of the first countries in continental Europe to introduce lump-sum and tuition fees. We would like to emphasize that Germany and France have also made significant changes in the market budgeting paradigm. They have begun to introduce actively lump sum funds, and a (limited) performance-based financing formula.

We also consider it appropriate to refer to the scientific works of Dutch researchers J. Enders, H. de Boer, and E. Weyer (2013), who tried to reveal more widely the relationship between university autonomy and university performance. The Dutch case is especially interesting, because the Netherlands was the continental European leader in education management reform. Among the key postulates of managerial transformations toward the “new freedom” of Dutch universities should be singled out the formation of independent financial support for their budgets based on performance and increased competition between them; strengthening the competitive position of educational institutions

and giving them more autonomy of delegation and power transfer from the state to local management; promoting the self-organization of universities; the transition from detailed state control to superficial and more general performance monitoring. Due to the analysis of the autonomy level of Dutch educational institutions in terms of budgeting, namely the allocation of financial resources, there is a significant increase in management capabilities because they have the right to autonomously distribute public grants, set tariffs, receive loans from agents in the capital market.

The result analysis of reforms in the direction of increasing the university budget autonomy of the Netherlands showed the growing interest of managers at all levels in the development and improvement of performance and efficiency indicators. Accordingly, the regulation of higher education institutions could not continue to be based on confidence. It should be based on the institution's individual contribution indicators to the development of society and the national economy (Olsen, 2007). As a result, the state policy in the field of modernization of the budgeting system provided for the improvement of tools for monitoring and control of the effectiveness of planning and implementation of educational institutions' budgets, the introduction of new requirements for the reporting system, and quality assurance of educational services.

Another important scientific contribution to understanding the phenomenon of budgeting in modern universities is the research of Austrian scientists K. Link and B. Müller (2019), who drew attention to the multi-fund approach to financing the budgets of educational institutions. According to these studies, European universities are resisting significant external pressure while reducing the share of public funding, which is insufficient to meet their needs. Researchers also point to the wide variety of European university approaches to filling their budgets. This phenomenon depends primarily on the institutional features and historical management traditions of individual countries.

Gradually, the managers interest is growing in involving third parties in the financial support of university budgets. Such additional sources of funding include not only European and national research funds but also private agent funds and the growth of project cooperation with business partners. The increase in the share of private actors in budgeting, is further exacerbated by the extremely complex and extremely high competition of universities for public grants (Bonaccorsi et al., 2014; Wilholt, 2010; Geuna, 2001).

This issue is also covered by the American researcher G. Etzkowitz (2003), who defines a modern "business university" as a subject of the market environment, following a chosen strategic direction of development and combining the budget with public funding and financial revenues from external agents through the implementation of research activities, attracting various funds for

cooperation, etc. This choice of university funding poses challenges for their managers, as the integration of requirements and the continuing conflict between different stakeholders involved in filling budgets contribute to conflicts and social tensions within the institution (Andriopoulos & Lewis, 2009).

There is also a gradual increase in the interest of European university managers in the formation of their own and active participation in existing national and international research centers. At the same time, national governments are expected to refocus on more applied research and establish sustainable cooperation with business agents. The process of attracting additional funds to the university budget is the formation of appropriate organizational intermediaries, which are public non-profit organizations (Link & Müller, 2019).

In modern conditions, the university management should realize the importance of finding the optimal balance of filling their budget through government allocations and financial revenues from other stakeholders. This awareness will allow managers to consider the budgeting process not only as an additional risk in the management field, but also provide ample opportunities for the development of universities as independent market players. Thus, the researcher B. Clark (2001) identifies a diversified approach to university finance as a unique tool for managers to avoid imbalances of supply and demand in today's market of educational services. In turn, the implementation of the idea of an "entrepreneurial" university contributes to the implementation of its development strategies, autonomous management decisions, etc.

The Norwegian case of university sector budgeting is presented in the scientific works of researchers of the Norwegian Institute for Research and Higher Education O. Gornitzka and I. Larsen (2004). An interesting feature is the focus of university management on creating formal and informal professional networks, which aim not only to create and disseminate knowledge but also to deepen cooperation between educational institutions and third stakeholders to attract external funds to local university budgets.

The Swedish experience in creating university budgets combines all the above components of European counterparts. The key source of filling the budget of Swedish universities is public spending based on the effectiveness of educational agents. The definition of this indicator is to calculate the maximum amounts that management can get for one student in one academic year. University management may independently calculate the total amount of government allocations by analyzing two possible budgeting scenarios: calculating the number of students who have confirmed their intention to study at the university by registering in the relevant digital system for relevant courses and programs (helårsstudent); calculating the contingent of those students who have obtained sufficient results after completing the relevant training courses and educational programs, and, as a result, accrued the appropriate amount of edu-

ational credits (helårsprestasjon) (Statenc Offentliga Utredningar, 2019, pp. 91-92). It should be noted that the existing limit of such state allocations varies depending on the profile direction of educational programs and courses (Statenc Offentliga Utredningar, 2019, p. 92).

The university budgeting mechanism for research is a diversified funding source. It is implemented through direct grants to universities and colleges, and through grants to research councils and authorities on grant and contract research (Statenc Offentliga Utredningar, 2019, p. 93). Over the last decade, Swedish universities have gained considerable managerial freedom to raise outside funds to increase budget funding, and university administrators have been given considerable resources for research. This scaled up the research activities of universities and had a positive effect on the process of budget management.

4. Conclusions

Based on the study about the formation of the categorical concepts of “budget” and “budgeting” in the context of university management, as well as identifying priority funding sources for modern universities under the changing market environment, the following conclusions are made:

1. The introduction of budgeting has a direct impact on the management policy of the higher education sector. Given this, the university budgeting process should be considered as a process of interrelated organizational and economic processes and appropriate management decisions that ensure the implementation of analytical and calculation procedures to gradually implement the budgets of departments and the university in general to ensure its sustainable development.

2. Based on the generalization of the research results of the domestic and European scientific community, the author proposes to consider the university budget as a university financial plan, which provides comprehensive coverage of areas of activity in the specified period with clearly defined forecast values conditions of receipt of financial resources.

3. Sources of funding for local budgets of modern universities vary depending on their geographical affiliation. Among the priority sources of financial support: are government targeted expenditures, expenditures from local budgets of territorial communities, financial revenues from autonomous activities, and targeted funding of scientific activities by the state and the business environment. The key place in providing budget financing in most cases belongs to the state.

The scientific novelty. The author proposes conceptual bases of a unified model of modern university budget formation based on generalization, systematization, and deepening of scientific achievements of leading researchers of the educational sector, which will promote the further realization of the entrepreneurial-oriented vector of higher education institution development.

The significance of the study. The obtained results of the research help to increase the efficiency of forming autonomous budgets of modern universities, given the available opportunities to diversify the sources of their financial support and harmonize the management and accounting components of the budgeting process.

Prospects for further research. To deepen the understanding of the budgeting process of higher education institutions, it is necessary to investigate in more detail the role of stakeholders in making and adjusting relevant management decisions; identify the strength of causation in this process.

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