



Formation of Internal Statistics of Machine Building Enterprises under the Hierarchic System of Expenditure Centers

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Abstract

In the article it is analyzed the existing approaches to providing company management with cost information from the centers of responsibility. An algorithm for the formation of internal reporting indicators at the machine-building enterprises is proposed. The first stage of such an algorithm is the development of information cards with a list of quantitative and cost data and a schedule of workflow for each center of responsibility. Further, the established timeliness is formed by reporting and determined by the comparison of actual indicators from the estimate. Thus, account is taken of responsibility on the principle of controlling costs, which implies the spread of responsibility of each specific manager only to those areas that he can really affect. The next step is to submit forms of reporting by the heads of production units in a hierarchical scheme. The form of the reports and their content depends on the characteristics of the center of responsibility and indicators. Application of the proposed reporting will provide managers at all levels with the necessary information on the costs of the centers of responsibility, which will increase the profitability of both separate segments of activity and machine building enterprises in general.

Keywords: internal reporting, costs, cost centers, liability centers.

1. Introduction

The efficiency of any company's operations depends directly on the quality of accounting and information provision. Reliability of the credentials is the key to making well-balanced and timely decisions at all hierarchical levels of management of the business entity.

The variety and large volume of economic operations carried out on the modern machine-building enterprise complicate the control over them. In such circumstances, it is necessary to divide the organization into separate segments and allow the responsible persons to act on their own, giving them the degree of independence through delegation of powers, with the goal of forming internal reporting. Based on information provided by the centers of responsibility and cost centers, a system for monitoring the activities of the machine-building enterprise as a whole is being built.

Properly organized order of formation and giving reports by the centers of responsibility provides the information necessary for prioritization of the activities of the enterprise and planning, creates a basis for assessing the prospects of the opportunities being opened and ensures control over the implementation of the decisions taken. That is why developing an algorithm for internal reporting based on the hierarchical system of response centers in the context of controlled costs in the enterprises of the machine-building complex is an urgent task.

The theoretical basis for the formation of internal (managerial) reporting is highlighted in the writings of many scholars, in particular: Bachinsky V.I. [1], Bezverkhoy K.V. [2], Gutsale-nko L.V.

[3], Drury K. [4], Dikareva H. L. [5], Zemi Yu.P. [6], Ivanchenkova L.V., Tkachuk G.O. [7], Ishchenko Ya.P. [8], Zubarevoy S.A. [9], Kolos IV [10], King S.Ya. [11], Koryagin MV, Kutsik P.O. [12, 13], Lemeshchuk AV, Duskevich VG [14], Matyukhi MM [15], Mervenets'ka MF [16], Nagirskaya K.E. [17, 18], Napadovskaya L.V. [19], Pavlia V.F. [20], Pushkar M.S. [21], Pinchuk T.A., Shram T.V., Isakov V.Ye. [22], A.Zh. [23], Rybakova L.P. [24], Savchuk VP, Vinnichenko MM [25], Skrypnyk MI, Grigorevskaya O.O. [26], Haymionova N.S. [27], Hensen R., Merien M. Moeven, Nebil S. Elias, David U. Senkov [28], Tsvetkova N. [29]. Yes, in works by Bachinsky V.I. and Gutsalenko L.V. the problems of the formation of internal reporting in the contemporary conditions were determined and the perspective directions of its implementation were clarified [1, 3].

Paliy V.F. notes the disadvantages and advantages of using the information of internal reporting of industrial enterprises [20].

The procedure for internal reporting of expenses in accordance with the requirements of corporate governance is considered in the work of Ishchenko Ya.P. [8]. According to the author, the main requirement when setting up effective internal reporting in the system of cost centers (liability) is a single approach, that is, the reports should be systematized, and their forms and methods are reflected in the accounting policy. This reporting will enable you to identify the cost center (responsibility), the metrics system and the ability to build data at the enterprise level.

Ivanchenkova L.V., Tkachuk G.O. [7] devoted their work to an attempt to systematize internal reporting information that industrial enterprises should use for operational, ongoing and strategic management, control and planning purposes. However, they acknowledged that in the organization of internal (managerial) re-

porting, there are still some disadvantages associated with the lack of managers' awareness of the issues of the informatics of the accounting and analytical system of the enterprise (accounting, analysis and control systems); inconsistency of indicators of various forms of internal accounting; lack of external regulation; a clear accounting policy for the content of internal reporting; methodological support for the formation of managerial reporting, clear principles of corporate policy regarding the goals and objectives of operational and ongoing management.

Recent discoveries in the works of Mervenetsky MF [16], Kouzik P.O. [13], Skrypyk MI [26]. So, Skrypyk MI, summarizing the views of scientists formulates the following principles of the formation of managerial reporting:

- submission of data in the form of comparison;
- compliance with managerial tasks (targeting and sufficiency), clarity;
- reliability and accuracy;
- timeliness (efficiency) of submission, frequency of reporting;
- connection with obligatory forms of reporting;
- flexibility, initiative;
- significant feedback;
- utility;
- sufficient profitability;
- monotony.

General organizational approaches to the formation of management reporting were considered in works by Kolos IV. [10], Ma-Tiuh MM [15], Tsvetkova N. [29] and King S.Ya. [11]. For the most part, the authors distinguish the following stages of the formation of managerial reporting:

- defining the main goal and setting the tasks of management accounting;
- definition of the composition, structure, forms and timing of submission of management accounts
- Determining the relationship between the structure of indicators of financial, tax, statistical and other reporting with the flow of additional indicators of managerial reporting
- consolidation of management reporting
- Definition and display of performance indicators in management reporting
- control and analysis of the tasks of managerial reporting.

The main problem issues of the internal management reporting system development are Koryagin MV and Kouzik P.O. [12] call: development of standardized forms and formats of internal management reporting; definition of the subjects responsible for the process of compiling and submitting internal management reporting; limited time orientation of managerial reporting information; determining the interconnection of the system of internal management accounting with the analytical system of the enterprise.

To summarize, it may be noted that the management needs of a machine-building enterprise require the standardization of information at the level of a particular entity, that is, the creation of internal firm management accounting standards. This should be facilitated by the development of a phased procedure for the formation of internal reporting by the hierarchical system of cost centers of the machine-building enterprise in the context of controlled costs presented in this article.

2. Main body

An important element of the management accounting system of the entity is the accountability centers, which is a system for collecting, mapping and grouping information about the activity of separate structural divisions of the enterprise (centers of responsibility). The centers of responsibility are determined individually, depending on the size of the enterprise, the type of industrial production, the nature of technological processes and organizational structure.

Information about the results of each Responsibility Center is periodically summarized in the report, which is made up of man-

agers, thereby informing the management of deviations from the estimates in the areas assigned to them [3].

The Responsibility Center report is a report that contains activity indicators controlled by the staff of the respective center. Most of the information given in this report is expressed in the monetary instrument, but the report may also include non-monetary (non-financial) indicators. The Center of Responsibility report is used by the Center's chief for planning, controlling, and making managerial decisions. The senior management, based on the data of such a report, evaluates the activities of each unit and its manager. It is important to distinguish between the results of the activities of the manager and the economic performance.

The main purpose of the report's indicators is to provide management with the information necessary for decision-making and effective management. Thus formed accountability centers solves - such tasks:

- shows the results of the work of individual segments (activities, product groups or other elements depending on the specifics of the business), regardless of how these segments are distributed among the legal entities of the company;
- provides an opportunity to control expenses by means of their accounting by types and centers of responsibility;
- allows you to create a break-even portfolio of commodity products and services;
- promotes monitoring of incomes and expenses of the enterprise in a certain way and reveals general tendencies;
- ensures the planning and control of the implementation of the budget as separate liability centers, as well as company in general;
- Depending on the data collection system, it allows us to assess the company's performance not only financially but also on qualitative indicators and indicators of the company's attractiveness assessment for customers and indicators of the assessment of managers.

The performance of the manager characterizes his ability to provide day-to-day effective management of the processes under his control. Economic results of activity characterize the success of the unit as an economic unit. Various indicators that take into account differences for evaluation purposes are often used to assess the activities of the manager and his unit. Taking into account the differences in the assessments of the department's activities and its manager, in practice, there are two approaches to accountability of the accountability centers [29].

The first approach involves drawing up a single center of responsibility report, which separately presents controlled and uncontrolled costs and revenues.

The second approach implies the use of two separate reports. In one, all expenses and revenues of the division are given, and in the second one only the expenses and incomes controlled by the head of this unit [4].

Reports of liability centers are usually compiled on a monthly basis and contain a comparison of actual and budget indicators. For the purpose of operational control, the head of the center of responsibility should identify and study significant deviations from the budget until they are included in the report, identify the causes and make the necessary adjustments. At the time of receiving the report of the Liability Center, the senior manager should take into account the reasons that led to the deviation or explanation given why these problems were not or can not be solved.

The reports of the centers of responsibility at the middle and lower levels usually contain a comparison of the actual results with the indicators of a flexible budget. This makes it possible to assess the efficiency and effectiveness of the Mejder's activities. At the same time, senior management can receive reports, in which actual results are compared with the general budget, which allows more accurate estimation of the deviation of the actual results from the expected volume, range, costs and prices.

Particular attention is paid to the content of control reports, in particular, the degree of detail of data. The level of detail of information in the reports for managers of different levels is deter-

mined taking into account specific conditions. The format of the reports, and especially their content, depends on the characteristics of the center of expertise and the indicators of their evaluation. In general terms, the lower the level of managers in the service hierarchy, the more detailed the reports must be made for them, then their reaction will be more effective. Conversely, the higher the level of responsibility of the manager, the more concise and generalized information should be. That is, the data of the reports of the centers of responsibility of the middle level generalize the results of the activities of subordinate units. In turn, the report of the highest responsibility center summarizes the results of the activities of all its subordinate liability centers.

Such hierarchical subordination resembles a peculiar liability pyramid in which the report of the lower center of responsibility is consistently included in the report of the Higher Liability Center.

The main task of forming internal reporting in the machine-building enterprises is to present data on deviations from the es-

tablished norms, timely detection of such deviations and the reasons for their occurrence and prompt correction of the situation. To solve this problem, it is proposed that the author develops a phased procedure for the formation of internal reporting at machine-building enterprises, tested in the structural subdivisions of PJSC "Poltava Machine-Building Plant".

AND STEP For a detailed definition of the tasks that managers solve at the management levels and the identification of information needs that depend on the authority to make specific management decisions, information cards are formed that contain the information required for use in different structural sub-sections (Table 1). Next, a chart of the document flow is developed, which provides executors of the source information, timing, frequency of preparation and submission of forms of internal reporting and responsible persons (table 2).

Table 1: Information card for the subdivisions of PJSC "Poltava Machine-Building Plant" (developed by the authors)

Centers of Responsibility, and Centers costs	Data type	List of key indicators	Frequency of assembly
1	2	3	4
1. Main production shops	Quantitative, costly	Use of material resources	What changes
1.1. Harvesting workshop	Quantitative, costly	Number of used materials, load capacity	What changes
1.1.1. Cast iron casting section	Quantitative, costly	Man-hours worked, capacity utilization, quantity of used materials	What changes
1.1.2. Steel mill	Quantitative, costly	Worked man-hours, load capacity	What changes
1.1.3. The press-procurement section	Quantitative, costly	Man-hours worked, production volume, capacity utilization	What changes
1.2. Machining shop (mechanical)	Quantitative, costly	Incomplete production, man-hours worked, capacity utilization	What changes
1.3. Assembly workshop	Quantitative, costly	Man-hours worked, production volume	
1.3.1. Assembly and welding shop number 1	Quantitative, costly	Number of finished products, load capacity	Everyday
1.3.2. Assembly and welding shop number 2	Quantitative, costly	Number of finished products, load capacity	Everyday
1.3.3. Painting shop of finished products	Quantitative, costly	Issue of finished products, capacity of work, quantity of used materials	Monthly
2. Auxiliary production workshops	Quantitative, costly		Monthly
2.1. Instrumental economy	Quantitative, costly	Number of tools, volume of production, capacity utilization	Monthly
2.2. Repair economy	Quantitative, costly		Monthly
2.2.1. Repair shop	Quantitative, costly	Costs for ongoing repairs	Monthly
2.2.2. Building workshop	Quantitative, costly	Construction costs	Monthly
2.2.3. Operational service	Quantitative, costly	Machine hours worked	Monthly
2.3. Power industry	Quantitative, costly		Monthly
2.3.1. Boiler house	Quantitative, costly	Energy costs	Monthly
2.3.2. Compressor station	Quantitative, costly	Energy costs	Monthly
2.4. Transport	Quantitative, costly	Fuel consumption, man-hours worked, production volume	Monthly
3. Serving economy			Monthly
3.1. Warehousing			Monthly
3.1.1. Composition of raw materials	Quantitative, costly	The movement of materials, the amount of materials used	Monthly
3.1.2. Composition of finished products	Quantitative, costly	Movement of finished products	Monthly
3.2. Testing laboratory	Quantitative, costly	Expenditures for research, spent man-hours	Monthly
3.3. Security and security service			Monthly
3.3.1. Fire safety service	Quantitative, costly	Man-hours worked	Monthly
3.3.2. Security service	Quantitative, costly	Man-hours worked	Monthly
3.4. Engineering			
3.4.1. Sewage plants	Quantitative, costly	Man-hours worked	Monthly
3.4.2. Drainage and water supply plants	Quantitative, costly	Energy costs	Monthly

Developed by the authors

Accountability is based on accountability, which consists of clearly defined terms. This report contains information on deviations from the estimates of actual indicators for which the head of a particular center is responsible.

Stage II. Submission of the prescribed forms of reporting by the heads of production units in a hierarchical system. Basis of accounting principle responsibility is controlled, meaning inclusion of the responsibility center manager specific areas of responsibility only performance-UAH Duration, nights, which it can actually affect. This principle can be ensured by eliminating non-

controlling articles from the report and clarifying the scope for which the manager responds or calculating the impact of uncontrolled sites, which allows the reports to show the difference between controlled and uncontrolled articles.

In practice, the application of the principle of controllability is difficult to implement, since many areas of activity can not be clearly divided into controlled and uncontrolled. They are usually partially controlled. Ideally reports submitted managers accountable responsibility centers, would have to include only those indicators that are directly controlled by the center and fully accountable.

But in practice there are always reports the article to which those responsible can not influence so as to manage them or managed at all is questionable.

It is necessary to determine the level of detail of the information in

the reports for the jurors of different levels, taking into account the following principles:

Table 2: Schedule of document flow accounting for costs of responsibility centers (developed by the authors)

Title of the document	Creation			Audit		Audit Generalization / verification of data in the accounting department of the enterprise		Transfer to the enterprise archive	
	Number of copies	Responsible		Term	Performer	Term	Performer	Term	Performer
		Responsible for the statement	Responsible for registration						
Accounting for the use of working time	1	Normalist	Planning and Economic Department	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Development card	1	Normalist	Planning and Economic Department	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Payroll account	1	Accountant	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Act for writing off material assets	1	Commission	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Act of processing	1	Economist-accountant	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Limit-winning card	2	Storekeeper	Chief of the barn	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Calculation of depreciation of fixed assets	1	Accountant	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Consignment note requirement	2	Chief of the barn	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Consignment note on inventory of inventory items	2	Storekeeper	Chief of the barn	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Material report	2	Chief of the barn	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year
Costing of items by element	2	Accountant	Accounting	At the end of the month	Senior Accountant	Accountant	At the end of the reporting period	Accountant	At the end of the year

Developed by the authors.

1. Information in the reports submitted for senior management levels should be summarized, summarized and refer to the results of the responsibility centers, which the manager of the center reports to his supervisor.

2. Reports should include information on planned and factual indicators as well as deviations from the flexible budget, taking into account favorable and unfavorable (positive and negative) deviations.

3. Articles that are controlled by managers at this level of government, should be presented separately from those that are subject to control only partially.

The form of reports, and especially their content, depends on the characteristics of the center of responsibility and the indicators of its evaluation.

Figure 1 shows a fragment of the hierarchical structure of reporting by the heads of the centers of responsibility in the context of controlled costs of PJSC "Poltava Machine-Building Plant".

Interest heads of responsibility centers in the positive-Term result: compliance costs and, if possible, their reduction, achieved through incentives. The manager, who is interested in increasing the profit of the enterprise, will achieve this, independently performing all functions of control and regulation. Motivation can be provided with material incentives, career growth, and further growth of expectations.

The decision on bonuses of the head of the shop or section should be taken by the production director, the decision to encourage the employee of the shop - the head of the shop. The bonus is in the amount set by the budget. In addition, to support the motivation of

the cost centers staff, it is necessary to apply a bonus system that takes into account personal qualities of employees. Free incentives

can be given to free-of-charge trips to health facilities and holiday homes.

Report of Director of Production of PJSC "Poltava Machine-Building Plant"

Control costs	Plan, UAH	In fact, UAH	Deviation		
			Amount, UAH	Growth rate, %	Savings (overcosts), %
Harvesting workshop	55 375	55 481	+106	100,19	+0,19
Machine shop	45 890	45 560	-330	99,28	-0,72
Assembly workshop	14 440	14568	+128	100,89	+0,89
Instrumental economy	40 200	40 350	+150	100,37	+0,37
Repair economy	69 100	69 210	+110	100,16	+0,16
Power industry	40 200	40 350	+150	100,37	+0,37
Transport	60 500	61 195	+695	101,15	+1,15
Warehousing	12 345	12 360	+15	100,12	+0,12
Testing laboratory	5 600	5 500	-100	98,21	-1,79
Security and security service	16 500	16 500	-	100	-
Engineering	7 543	7 589	+46	100,61	+0,61
Total	367 693	368 663	+970	100,26	+0,26

Report of the chief of the procurement department of OJSC "Poltava Machine-Building Plant"

Control costs	Plan, UAH	In fact, UAH	Deviation		
			Amount, UAH	Growth rate, %	Savings (overcosts), %
Cast iron-casting costs	24 834	24 706	-128	99,48	-0,52
The costs of the steelmaking section	19 876	20 123	+247	101,24	+1,24
Expenditures of the press-procurement division	8 567	8 456	-111	98,70	-1,30
Permanent shop costs:					
- the cost of utilities	2000	2100	+100	105	+5
- depreciation of equipment	8 657	8657	-	100	-
- depreciation of equipment	5 670	5 670	-	100	-
- deductions for social events	2097,9	2097,9	-	100	-
- costs for the current repair of equipment	560	580	+20	103,57	+3,57
- other expenses of the shop	120	98	-22	81,67	-18,33
Total	55 375	55 481	+106	100,19	+0,19

Permanent shop costs:

Report of the head of the cast-in-casting section of OJSC "Poltava Machine-Building Plant"

Control costs	Plan, UAH	In fact, UAH	Deviation		
			Amount, UAH	Growth rate, %	Savings (overcosts), %
Basic materials	15 300	15 250	-50	99,67	-0,33
Salary	6 200	6 136	-64	98,97	-1,03
Deductions for social events	2 294	2 270	-24	98,95	-1,05
Electricity for technological needs	340	300	-40	88,24	-11,76
Other controlled expenses	700	750	+50	107,14	+7,14
Total	24 834	24 706	-128	99,48	-0,52

Fig.1: Hierarchical system of reporting accountability of Poltava Machine-Building Plant OJSC (made by the authors (developed by the authors)).

3. Conclusion

The proposed system of improving the formation of internal reporting of production units by cost centers, which reflects the work of all segments of the machine-building industry, will allow:

- to establish and achieve concrete indicators of the efficiency of the enterprise;
- to identify the problem sides in the organizational structure of the enterprise;
- to increase the level of control over the results of the economic activity of the enterprise;
- to ensure transparency of cash flow; - to strengthen the payment discipline;

- To form a system of motivation of employees;
- to react promptly to changes in the external environment (market conditions, sales channels, etc.);
- to identify internal reserves of the enterprise;
- assess risks;
- increase profitability;
- to provide financial stability, etc.

References

- [1] Bachynskiy V.I. Aktualni pyannia teorii y praktyky vnutri-shnohospodarskoi (upravlinskoi) zvitnosti u kooperatyvnykh systemakh / V.I. Bachynskiy // Visnyk Natsionalnoho universytetu vod-

- noho hospodarstva ta prirodokorystuvannia. – Vyp. 4 (44). – Rivne : NUVHP. – 2008. – s. 22-28.
- [2] Bezverkhyi K. V. Formuvannia vnutrishnohospodarskoi (upravlinskoj) zvitnosti / K. V. Bezverkhyi // *Ekonomika: teoriia ta praktyka*. – 2015. – № 2 (6). – S. 49 – 55.
 - [3] Hutsalenko L.V. Vnutrishnohospodarska zvitnist yak informatsiine dzherelo dlia efektyvnoho upravlinnia pidpriemstvom / L.V. Hutsalenko // *Ekonomika APK*. – 2008. – №4. – S. 64-66.
 - [4] Drury, K. *Upravlencheskyi y proizvodstvennyi uchet*: per. s anh.: uchenyk / K.Drury. – M.: YuNYTY–DANA, 2002. – 1017 s.
 - [5] Diukarieva Kh.L. Vnutrishnohospodarskyi oblik i analiz diia-lnosti pidpriemstva za tsentramy vidpovidalnosti: dys. kand. ekon. nauk: 08.00.09 / Kh.L. Diukarieva: Kyivskyi natsionalnyi torhovno-ekonomichnyi un-t. – K., 2009. – 200 s.
 - [6] Zyma Yu.P. Modeliuvannia upravlinskoj zvitnosti / Yu.P. Zyma // *Biznesinform*. – № 12. – 2014. – S. 214-219. [Elektronnyi resurs]. – Rezhym dostupu: http://business-inform.net/export_pdf/business-inform-2014-12_0-pages214_219.pdf
 - [7] Ivanchenkova L.V. Vnutrishnohospodarska zvitnist v systemi upravlinnia biznesom / L.V. Ivanchenkova, H.O. Tka-chuk // *Ekonomika kharchovoi promyslovosti*. – 2016. – T. 8, Vyp. 1. – S. 73–80. – Rezhym dostu-pu: http://nbuv.gov.ua/UJRN/echp_2016_8_1_13.
 - [8] Ishchenko Ya.P. Formuvannia vnutrishnoi zvitnosti pro vytraty u vidpovidnosti do vymoh korporatyvnoho upravlinnia / Ya.P. Ishchenko // *Oblik i finansy APK: bukhhalterskyi portal* [Elektronnyi resurs]. – Rezhym dostupu: <http://magazine.ffaaf.org.ua/formuvannya-vnutrishnoi-zvitnosti-pro-vytraty-u-vidpovidnosti-do-vimog-korporatyvnoho-upravlinnia.html>
 - [9] Zubareva S.A. Osnovnye prynsyпы orhanyzatsyy upravlencheskoi otchetnosti / S.A. Zabareva // *Bukhhalterskyi uchet*. – 2003. – № 2. – S. 45-47.
 - [10] Kolos I.V. Zvitnist yak element systemy upravlinnia pidpriemstvom / I.V. Kolos // *Ekonomika ta derzhava*. – 2006. – №8. – S. 26-31.
 - [11] Korol S.Ia. Upravlinska zvitnist: sutnist i alhorytm formuvannia [Elektronnyi resurs] / S.Ia. Korol // *Biznes -inform*. – 2014. – № 7. – S.325-331. – Rezhym dostupu: / www.business-inform.net/pdf/.../325_331.pdf.
 - [12] Koriahin M.V. Problemy ta perspektyvy rozvytku bukhhalterskoi zvitnosti [Tekst]: monohrafiia / M.V. Koriahin, P.O. Kutsyk. – Kyiv: Informservis, 2016. – 276 s.
 - [13] Kutsyk P.O. Suchasne traktuvannia, sklad i osoblyvosti formuvannia upravlinskoj zvitnosti pidpriemstva / P.O.Kutsyk // *Visnyk Natsionalnoho universytetu «Lvivska politehnika»*. Menedzhment ta pidpriemnytstvo v Ukraini: etapy stanovlenni i problemy rozvytku. – 2014. – № 797. – S. 248 –254.
 - [14] Lemeschuk A.V., Vnutrishnia i zovnishnia zvitnist i yii vykorystannia v upravlinni [Elektronnyi resurs] / A.V. Lemeschuk, V.H. Dushkevych. – Rezhym dostupu: http://www.rusnauka.com/35_OINBG_2010/Economics/75588.doc.htm.
 - [15] Matiukha M.M. Orhanizatsiini pidkhody formuvannia upravlinskoj zvitnosti / M.M. Matiukha // *Bukhhalterskyi oblik i audyt*. – 2012 – № 9. – S. 14-20.
 - [16] Mervenetska M.F. Pryntsypy formuvannia upravlinskoj zvitnosti / M.F. Marvenetska // *Ekonomika APK*. – 2008. – №6. – S. 89-92.
 - [17] Nahirska K.Ie. Formuvannia upravlinskoj zvitnosti silskohospodarskykh pidpriemstv: avtoref. dys. kand. ekon. nauk: spets. 08.00.09 «Bukhhalterskyi oblik, analiz ta audyt (za vy-damy ekonomichnoi diialnosti)» / K.Ie.Nahirska. –K., 2012. –26 s.
 - [18] Nahirska K.Ie. Pryntsypy ta vymohy do formuvannia zvitno-sti pidpriemstv: upravlinskyi aspekt / K.Ie. Nahirska, Ya.Ie. Herus // *Ekonomichni nauky. Ceriia «Oblik i finansy»*. – 2013. – Vyp. 10(2). – S. 176–183 [Elektronnyi resurs]. – Rezhym dostupu : [http://nbuv.gov.ua/j-df/ecnof_2013_10\(2\)_25.pdf](http://nbuv.gov.ua/j-df/ecnof_2013_10(2)_25.pdf).
 - [19] Napadovska L.V. Bazovi prynsyпы upravlinskoho obliku / L.V. Napadovska // *Aktualni problemy ekonomiky*. – 2013. – № 1. – S. 173–181 [Elektronnyi resurs]. – Rezhym dostupu : http://nbuv.gov.ua/j-pdf/ape_2013_1_22.pdf.
 - [20] Palyi V.F. Orhanyzatsiia upravlencheskoho ucheta / V.F. Pa-lyi – M. : Breator Press, 2003. – 224 s.
 - [21] Pushkar M.S. Kreatyvnyi oblik (stvorenna informatsii dlia menedzheriv): Monohr. – Ternopil, Kart-blansh, 2006. – 334 s.
 - [22] Pinchuk T.A. Teoretychni aspekty skladannia upravlinskoj zvitnosti / T.A. Pinchuk, T.V. Shram, V.Ie. Isakova // *Ekonomika i suspilstvo*. - № 4. – 2016. – S. 347-351. [Elektronnyi resurs]. – Rezhym dostupu: http://www.economyandsociety.in.ua/journal/4_ukr/57.pdf.
 - [23] Pozov A.Kh. Formuvannia vnutrishnohospodarskoi (uprav-linskoj) zvitnosti promyslovykh pidpriemstv : avtoref. dys. kand. ekon. nauk : spets. 08.00.09 «Bukhhalterskyi oblik, analiz ta audyt (za vydamy ekonomichnoi diialnosti)» / A.Kh. Pozov. – K., 2013. – 22 s.
 - [24] Rybakova L.P. Orhanizatsiia upravlinskoho obliku za tsen-tramy vytrat: teoriia i praktyka / L.P. Rybakova // *Ekonomika*. Upravlinnia. Innovatsii. – Vypusk № 1 (16). – 2 016.
 - [25] Savchuk V.P. Osoblyvosti systemy biudzhetuвання pidpriemstva / V.P. Savchuk, M.M. Vinnychenko // *Finansy Ukrainy*. – 2002. – № 11. – S. 55-60.
 - [26] Skrypnyk M.I. Bukhhalterska upravlinska zvitnist: kry-tychnyi analiz poriadku skladannia y osoblyvostei praktychnoho zastosuvannia / M.I. Skrypnyk, Hryhorevska O.O. *Intelekt KhKhI*. – № 5. – 2016. – S.111-115. [Elektronnyi resurs]. – Rezhym do-stupu: http://chtei-knteu.cv.ua/herald/content/download/archive/2016/v2/NV-2016-v2_17.pdf.
 - [27] Khaimonova N.S. Vnutrishnia zvitnist u systemi upravlin-skoho obliku vytrat pidpriemstva / N.S. Khaimonova // *Hlo-balni ta natsionalni problemy ekonomika: Elektronne naukovе fakhove vydannia Mykolaivskoho natsionalnoho universytetu imeni V.O. Sukhomlynskoho*. – 2015. – № 5. – S.1044-1047.
 - [28] Khensen, R. *Upravlinskyi oblik* / Don R. Khensen, Meriien M. Mouven, Nebil S. Elias, Devid U. Sienkov. / Per. s anh. – K.: Milenium, 2002. – 974 s.
 - [29] Tsvietkova N. Suchasna orhanizatsiia obliku ta skladannia zvitnosti dlia pryiniattia upravlinskykh rishen / N. Tsvietkova // *Bukhhalterskyi oblik i audyt*. – 2008. – № 3. – S. 14–2.
 - [30] Chernysh, I., Glebova, A., & Maksymenko, O. (2018). Business processes outsourcing in building enterprises. *International Journal of Engineering and Technology(UAE)*, 7(3), 59-64. <https://doi.org/10.14419/ijet.v7i3.2.14376>
 - [31] Byba, V. V., Koba, O. V., & Mironova, Y. Y. (2016). Optimal method of allocating indirect costs at machine-building enterprises. *Actual Problems of Economics*, 175(1), 332-339.
 - [32] Komelina, O., Hrynko, O., & Khrystenko, O. (2018). Stakeholder management in the development of building organizations. *International Journal of Engineering and Technology(UAE)*, 7(3), 191-194. <https://doi.org/10.14419/ijet.v7i3.2.14401>
 - [33] Bakalo, N., Hunchenko, M., & Makhovka, V. (2018). Business processes administration at a construction enterprise. *International Journal of Engineering and Technology(UAE)*, 7(3), 40-45. <https://doi.org/10.14419/ijet.v7i3.2.14373>