

Aims & Scope (Accounting)

Article

ORGANIZATION OF MANAGEMENT ACCOUNTING OF INTANGIBLE ASSETS OF THE ENTERPRISE IN THE INFORMATION SOCIETY

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Abstract. The theoretical features of rational organization of management accounting of intangible assets at the enterprise are considered. It is proved that the effective organization of management accounting of intangible assets is realized based on the optimization of the flow of accounting documents. This requires a change in the element of accounting methods. Thus, the study suggests ways to improve the accounting of intangible assets in the enterprise. The ways to optimize the movement of accounting documents for intangible assets are identified. The flow diagram of primary accounting documents between divisions of the enterprise on operations of intangible assets on the basis of the concept of "responsibility centers" and cost pool system is constructed. The movement flow chart of the certificate of the introduction of the intellectual property into economic turnover as a part of intangible assets is presented. It is the rational orderly movement of accounting documents and the implementation of various procedures that affects the effective management system of all resources of the economic entity. Thus, all the developed documents, namely: movement flow charts and accounting records flow diagrams, allow optimizing the accounting process for intangible assets. Their use in the enterprise allows clearly tracing the stages of the document and tracking possible deviations, for the further analysis and elimination of them. To assess the entity's fair value of intangible assets for management accounting purposes, it has been proposed to establish the fair value intangible asset assessment certificate. To increase the relevance and eliminate the asymmetry of accounting information, managers monitor the use of fixed capital in order to make effective decisions about the development of the company.

Keywords: intangible assets, responsibility centers, cost pool system, accounting records flow diagram, fair value.

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Introduction

In addition to material resources, resources that do not have a material form (hereinafter - IA) are used in the economic activity of the enterprise. Especially in the era of the information society, when intangible assets form the value of an enterprise, its business reputation, and brand. The presence of intangible assets in the composition of the enterprise's resources increases its market value and increases investment attractiveness.

Since intangible assets are a rather specific object of accounting, they are a debatable issue of many scientists since, in addition to valuation, such assets are characterized by insufficient classification, separation into the balance sheet and off-balance sheet accounting, depreciation policies, differing degrees of influence on the final financial result of the enterprise, and insufficient market development of such assets compared to work, goods, services or financial instruments markets. The relevance of the above problems and the need to improve the accounting system of IA of an enterprise determined the choice of the research topic.

The aim of the work is to study the organization of accounting for intangible assets of enterprises, as well as the development of specific ways to improve it.

Literature Review

As are a very specific accounting item and a debatable issue for many scientists since such assets are characterized by insufficient classification, separation into the balance sheet and off-balance sheet accounting, valuation, depreciation policy, differing degrees of influence on the final financial result of the enterprise, and insufficient development of the market for such assets compared to work, goods, services or financial instruments markets.

Modern theoretical and practical developments in accounting for intangible assets at the enterprise reflect a thorough understanding of the problems associated with the transformation of the accounting system in the context of the development of society. However, a number of questions on improving the methodology for accounting for intangible assets in enterprises are insufficiently investigated and remain unresolved.

Since IA are a very specific accounting item, one of the most problematic aspects of their accounting is the correct reflection of the assessment. The complexity of the valuation of IA is due to:

1. A variety of intellectual property, each of which must be original under the law (Bryan, D., Rafferty, M., & Wigan, D.; 2017).
2. In different ways of receipt (recognition) of the enterprise.
3. The various forms of practical use in the enterprise (Cañibano, L.; 2018).

The concept of “intangible assets” is quite versatile and is studied by many economists, theorists, accountants, marketers, and the literature has a significant number of approaches to the definition of this rather capacious and broad concept (Li, K. K., & Sloan, R. G. (2017)). Thus, some scientists consider intangible assets as part of the enterprise’s resources as an integral part of non-current funds (Nebel, T., O'Mahony, M., & Saam, M. (2017)), others as intellectual property, some scientists study the field of intangible production. In addition, in separate sources, along with the term “intangible assets”, they use the concept of “intangible resources”, “knowledge assets”, “Intangible factors”, and “intellectual capital”.

Methods

The theoretical and methodological basis of the study are scientific methods based on the dialectical method of cognition and the objective laws of economics. When studying the theoretical aspects of accounting for intangible assets of the enterprise, the documents and accounting registers in form and content are investigated (in order to identify their compliance with existing standards and requirements). In the process of performing the work, traditional methods and techniques of economic analysis of economic activity were used: system analysis (for detailing and dividing the object of study into separate components); synthesis (in order to generalize various aspects of accounting and analysis); analytical calculations (in order to calculate the necessary indicators).

Results

Information on the operations of IA arises at the time of processing the document already at the initial stage and is on the move to registering the impact of such an operation in reports that are generated by processing accounting documents. Therefore, ensuring the orderliness and efficiency of the movement of these documents, which are called as document management, becomes an important stage in the formation of rational accounting.

Untimely submission of relevant information, inadequate analytical processing regarding the actual implementation of operations from a certain stage of the operation of intangible assets reduce the level of reliability of the data. This creates barriers to successful management decisions to continue long-term activities.

Information on transactions of intangible assets arises at the time of execution of the document at the initial stage and is on the move to register the impact of such a transaction in the reports generated by processing accounting documents. Therefore, ensuring the orderliness and efficiency of the movement of these documents through the formation of formal document management (schedule, flow chart) becomes an important step in the formation of rational accounting.

In general, the accounting process is divided into three process stages – initial, current, and final. Accounting processes are divided into partial processes that are formed by the objects of accounting (Table 1). In turn, partial processes are divided into operations.

Table 1. Distribution of accounting transactions with IA by process stages of accounting (author's development)

Stages of accounting		
Initial stage	Current stage	Final stage
monitoring the receipt, use, and disposal (liquidation) of IA;	registration of data on IA with the help of accounting accounts and display of information about them in accounting documents;	generalization of information in the form of preparation of appropriate reporting forms for IA;
determination and evaluation with the help of monetary and physical measures;	preparation of intermediate consolidated accounting documents of IA;	ensuring the provision of generalized information on IA in the form of reports to internal and external users;
recording relevant information on IA in primary documents.	grouping of data from IA data recording media.	storage of documents created at all process stages of accounting.

The study of the organization of the accounting process in space and time (calculation of the standard number of accounting services, building the organizational structure of accounting, staffing) allows making effective management decisions to optimize the costs of organizing accounting.

Perspectives for further research in this field of knowledge are: improving the distribution methodology among functional groups of accounting specialists, building a network model of accounting operations, and the like.

Partial processes are divided into separate stages at which primary, current, and final accounting operations are carried out. Stages of accounting are the basis of the accounting process on the basis of rationing.

Accounting operations for the content are divided into technical, logical, analytical, creative, organizational, and auxiliary. In terms of content, accounting operations are divided into technical, logical, analytical, creative, organizational, and auxiliary. The grouping of accounting operations by content is shown in Table 2.

Table 2. Separation of accounting transactions with IA by content (author's development)

No	Stages of accounting	Type of transaction by content	Content of the operation
1.	Receipts of IA	Technical	Fixation of information in primary documents.
		Logical	Arrangement of input data arrays.
		Analytical	Valuation of IA.
		Organizational	Confirmation of receipt of IA on the enterprise.
2.	Depreciation of IA	Technical	Entering information into relevant documents.
		Analytical	Depreciation calculation.
		Organizational	Control over the correctness of the calculation.
		Creative	Choice of depreciation method.
3.	Inventory of IA	Technical	Execution of the order on the inventory commission.
		Logical	Data ordering.
3.	Inventory of IA	Analytical	Actual verification, detection and correction of accounting errors.
		Organizational	Confirmation of the commission's conclusions.
		Auxiliary	Record keeping.
4.	Disposal (liquidation) of IA	Technical	Display of information in primary documents.
		Logical	Preparation of documents for disposal.
		Analytical	Calculation of liquidation value.
		Organizational	Control over the correctness of calculations.

According to the results of the study, the following conclusion can be made: operations that are different in content can be present at several stages at once since accounting operations only in

that case will perform their functions to ensure the accuracy and reliability of information when they are used comprehensively, in close interdependence with each other.

According to the considered flows of accounting information for accounting for intangible assets, a significant cycle of movement is carried out from the moment of receipt of the object and the formation of a document management schedule. However, the risk of inconsistency and inaccuracy in a large array of documents increases. In turn, the discovered deficiency causes complexity in the activities of the enterprise and the adoption of appropriate decisions.

To introduce further optimization of the documentation of accounting processes of intangible assets, the stages of movement at the level of enterprise units can be reflected.

Any type of activity is associated with working with documents that can be formed both at the enterprise itself and come from contractors. Each of these documents must be accepted, processed, executed, and transferred to the archive. The movement of all documents in the enterprise is called document management.

Since this process is an important and integral part of accounting, it should be regulated. To achieve this goal, the document management schedule and flow chart are formed.

However, there is no unified form, therefore, an economic entity has the right to create these documents depending on the purpose of the activity, such as the organizational structure of management and the like. The main advantage of creating the document management schedule is the ability to carry out operational control over the entire set of accounting procedures in order to provide complete, reliable, and relevant management information.

The scheduling method allows establishing a logical connection between the various stages of work with certain types of documents in the enterprise, to trace the sequence of such accounting work and its content. Such visualization of information data simplifies their perception and allows quickly identifying the presence of double spending of time on the same operation.

In addition to the document management schedule, the so-called flow charts of the movement of the primary documents are important for the rational use of working time.

They are compiled on the basis of the developed document management schedule in any form since their typical form is not fixed at the legislative level, so the user can independently develop it based on its information needs and the perception of information.

The use of the flow charts helps to reflect the organization of the algorithm for the formation, verification, approval, processing, and transfer to the archive of the accounting document at the end of the existence of the intangible asset of the enterprise. Thus, the time spent on the formation of the document is minimized. The flow chart also shows the movement of the primary accounting document in order to optimize the accounting process.

Thus, for greater clarity, it is possible to display flow charts of the movement of the certificate of the introduction of the intellectual property into economic turnover as part of intangible assets (form No. HA-1) (Table 3).

Through the formation of the flow chart, the movement of accounting documents on the main component of the organization's assets is accelerated, the level of control, mechanization, and automation is increased and the necessary information is obtained to make further decisions on such objects in accounting.

With the rapid development of information technology, the visual display of document movement in the enterprise can be created using special batch programs such as Microsoft Office Visio. This software product allows separating by means of "pools" separate structural divisions that considerably simplifies the analysis of the resulted information.

The use of this software product helps to increase the level of automation, minimize material costs, ensure the rational location of departments, determine the sequence of movement of intangible assets, and ensure the avoidance of cyclical document processing in a particular workplace.

Form No. HA-1 is used by enterprises, institutions, and organizations, regardless of the form of ownership, to register operations on the introduction of the intellectual property into economic turnover as part of intangible assets.

Table 3. Movement flow chart of the certificate of the introduction of the intellectual property into economic turnover as part of intangible assets (form No. HA-1) (author's development)

position	executive person					
	capitalization commission		manager	chief accountant	intangible asset accountant	archive
	head	members				
Creation of an order on the establishment of a commission for the acceptance of an object			★			
Approval of the order			★			
Overview and feature description	★	★				
Registration of the act		★				
Signature act	★	★				
Verification of the act			★	★		
Approval of an act			★	★		
Transmission Act for Processing					★	
Entering information in the inventory card of the object					★	
Reflection of operations on accounts					★	
Fill Inventory					★	
Transfer to archive						★
Archive removal after expiration of storage periods						★

The formed flow diagram of intangible asset accounting documents is presented in Figure 1.

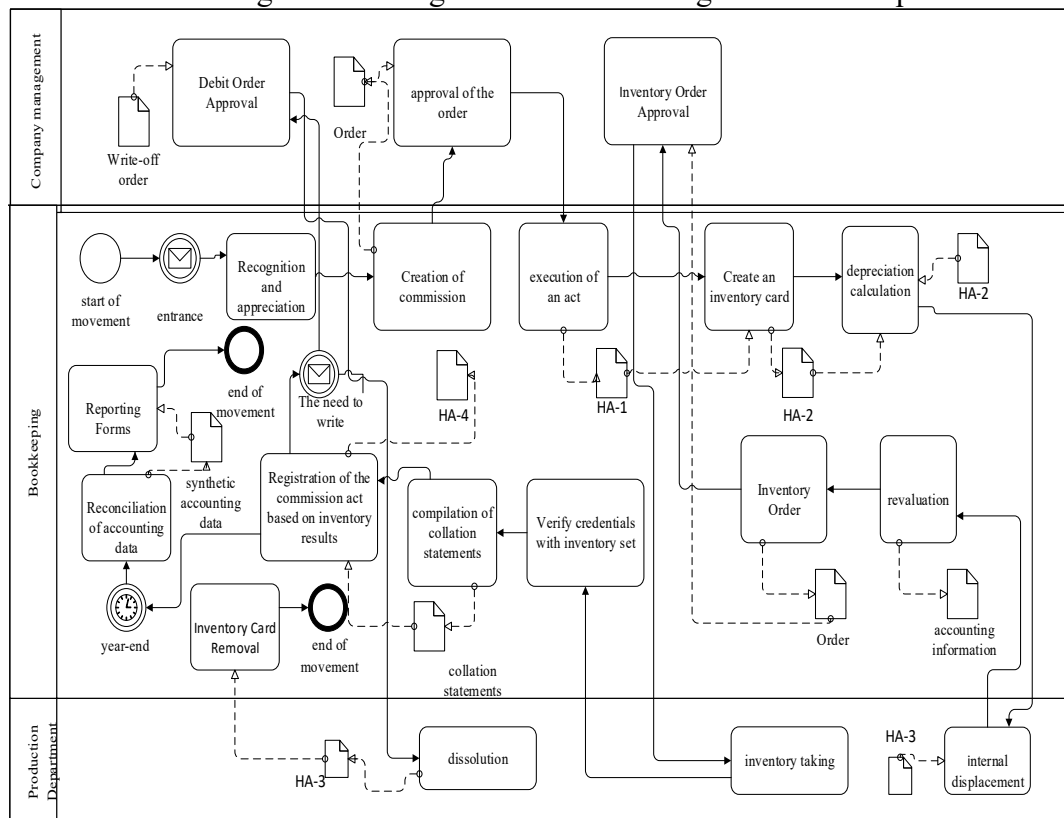


Figure 1. Flow diagram of accounting documents for accounting of intangible assets between divisions of the enterprise on the basis of the concept of "responsibility centers" and the cost pool system (author's development)

Notes: HA-1 - Certificate of the introduction of the intellectual property into economic turnover as part of intangible assets; HA-2 - inventory card of accounting of the intellectual property a part of intangible assets; HA-3 - Certificate of disposal (liquidation) of the intellectual property as part of intangible assets; HA-4 - Inventory of intellectual properties as part of intangible assets.

The certificate is drawn up in one copy for each individual object on the basis of technical, scientific and technical, and other documentation (license agreement, copyright agreement, patent, etc.), signed by the chairman and members of the commission, the person responsible for accepting the right to intellectual property. The certificate is approved by the chief accountant and the head of the enterprise.

Inventory card of accounting of intellectual property as part of intangible assets (form No.HA-2) is used for analytical accounting of intellectual property, as well as for analytical accounting of a group of similar, in terms of purpose and conditions, use of objects received in one calendar month and to one person responsible for their use.

Form No. HA-3 is used for registration of disposal of intellectual property as part of intangible assets upon their write-off (liquidation). The certificate is drawn up in duplicate by a commission appointed by the head of the enterprise. This certificate is approved by the chief accountant and the head of the enterprise.

The inventory of intellectual properties as part of intangible assets (form No. HA-4) is made in one copy for registration of inventory data separately for each location of intellectual property and for each person responsible for the use of intellectual properties.

Therefore, the implementation of the effective organization of accounting for intangible assets in the enterprise is quite labor-intensive work, which requires a solid base of theoretical and methodological knowledge and skills, as well as a large amount of time. Therefore, when forming it, a lot of effort should be made, starting from the calculation of the number of accounting and division, which is engaged in intangible assets, and ending with the development of information flows by creating flow charts or using other programs. The implementation of this will improve the efficiency of accounting and the level of automation in the enterprise.

Discussion

One of the most problematic aspects of IA accounting is the correctness of their valuation in accounting. Due to the lack of tangible physical form of such assets, it is much more difficult to estimate their value than any other objects.

If the company can reliably assess the IA objects, it will receive a number of benefits: balancing the accounting of all assets of the enterprise; optimization of the ratio of assets, as well as their structure; increasing the market value of the enterprise; accounting for the full value of IA in the merger or acquisition of the enterprise; control of the amount of depreciation deductions. Therefore, it is necessary to focus on innovative approaches in the valuation of these assets (Thum-Thysen, A., et al. (2017)) in order to borrow their experience and improve the accounting of IA in enterprises.

Since the market economy conditions require economic entities to measure IA at fair value, and all primary documents have standardized forms, the fair value intangible asset assessment certificate has been developed to improve the management accounting process for IA valuation transactions, which is presented in Table 4.

Table 4. Fair value intangible asset assessment certificate (author's development)

Object information			Fair value components					Real value of IA, USD	
Name	Group / Type Proof of ownership The market price of a similar asset in the market, USD	Document of title	Market price of a similar asset in the market, USD	Costs incurred by the company, USD					
				#1	#2	#3	#4		#5
Integrated microcircuit	Right to industrial property	Patent No 50218	20 000	-	-	300	-	1 200	22 000

Notes: # 1 - staff salaries; # 2 - deductions from staff salaries; # 3 - services of third parties; # 4 - depreciation costs; # 5 – experts' services.

The peculiarity of this certificate is that it is unified for use in the case when the enterprise independently conducted the valuation of IA at fair value, as well as in the case of the services of an expert appraiser

Conclusion

Information about the business transaction is in the information space of the enterprise in the movement from the moment of formation of the primary document to the reflection of the impact of the business transaction in the reporting, which is provided by the movement of accounting documents at the stages of its processing.

It is the rational orderly movement of accounting documents and the implementation of various procedures affect the effective management system of all resources of the economic entity.

Thus, all the developed documents, namely: movement flow charts and accounting records flow diagrams, allow optimizing the accounting process for intangible assets. Their use in the enterprise allows clearly tracing the stages of the document and tracking possible deviations, for the further analysis and elimination of them.

Equally important is the proper organization of the accounting service, especially in the regulatory number of such employees, as their insufficient number will lead to the poor performance of their duties and uncover of all aspects of accounting processes, and their excessive - to overstate costs and, accordingly, non-rational use of labor and material resources.

Perspectives for further research in the system of accounting for intangible assets include the development of a technical card of working accounts, accumulated flow chart of primary documents with the specification of time and performance of certain work by responsible persons in the units of responsibility centers.

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References

- Bryan, D., Rafferty, M., & Wigan, D. (2017). Capital unchained: finance, intangible assets and the double life of capital in the offshore world. *Review of International Political Economy*, 24(1), 56-86.
- Cañibano, L. (2018). Accounting and intangibles. *Revista de Contabilidad-Spanish Accounting Review*, 21(1), 1-6.
- Li, K. K., & Sloan, R. G. (2017). Has goodwill accounting gone bad?. *Review of Accounting Studies*, 22(2), 964-1003.
- Niebel, T., O'Mahony, M., & Saam, M. (2017). The contribution of intangible assets to sectoral productivity growth in the EU. *Review of Income and Wealth*, 63, 49-S67.
- Thum-Thysen, A., Voigt, P., Maier, C., Bilbao-Osorio, B., & Ognyanova, D. (2017). Unlocking investment in intangible assets in Europe. *Quarterly Report on the Euro Area (QREA)*, 16(1), 23-35.



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