

# Investment Decisions Formation: Innovative Assets



Nataliya Stepanovna Plaskova, Natalia Alekseevna Prodanova, Alexander Sergeevich Samusenko, Elmira Arsenovna Erzinkyan, Karine Alexandrovna Barmuta, Rustem Adamovich Shichiyakh

**Abstract:** *The article deals with theoretical and methodological problems of valid information, accounting and methodological support of investment decisions formation given a boost to innovative activity for management at microeconomy and macroeconomy. Based on critical review of regulations and literature, the clear definition of innovative asset, which is an element of intangible assets in an organization, is formulated. Characteristics of objects conformed to characteristics of innovative assets are described for formation of relevant section in accounting policy of an organization performed innovative activity. Tips for perfection in accounting procedures structuring in stages of innovative activity are performed. Contained in the article scientific and practical tips are instrumental in improvement of quality of financial and consolidated reporting disclosure about business activity results. It leads to reliable formation of business image and investment attractiveness of an organization, activation capital inflow to innovation sector of the wider economy.*

**Index Terms:** *accounting of intellectual property; intangible assets; innovative assets; International Financial Reporting Standards; Russian Accounting Standards; valuing of innovative assets.*

## I. INTRODUCTION

The first-order problem in the research of special aspects of economic elements accounting in the innovative activity is the identification of their results which are output or bought innovative assets, criteria, conditions of recognition as a type of intangible assets, preliminary estimation and subsequent measurement of investments cost efficiency into innovative output [1]. Acknowledgement of financial benefits earned from proprietorship of innovative assets, identification of

their useful life, including problems in accounting of innovative assets with indefinite useful life; selection of depreciation method according to accounting and taxation rules by Russian and international standards are reliant on correct classification of innovative assets [2].

## II. LITERATURE REVIEW

Number of accounting and analytical problems derives in identifications of initial and subsequent costs of innovative assets, accounted as a part of all assets in a business unit, what is connected with absence of their clear classification. In turn it leads to great imbalance in accounting and market values of innovative assets. It can have a great impact on feasibility level of financial information disclosure for interested users about innovative activity of business units and their investment attractiveness [3-5]. Process of conditioning of innovative costs to commercial operation by business unit should be construed as a daisy chain of innovative asset output. Different stages of innovative activity performed in the paper “Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development” by Organization for Economic Cooperation and Development (OECD, 2002) [6] govern the need for development tools and organizing of accounting and analytical procedures and have a great impact on methods of accounting of initial and subsequent investment costs directed for creating ready for commercial production innovative product (innovative technology, goods, services, etc.) [7]. Firstly, for formation of organization accounting policy in part of innovative assets the problem of conceptual identification of innovative assets should be defined. Innovative assets can be formed in a process of innovative activity in organization as accounted as a result of buying, contribution to the equity capital, swap, uncompensated receipts and others. Because innovative assets generally are elements of intangible assets, their definition should be based on regulations which regulate accounting methods of intangible assets. From the economy-wide point of view objects of intangible assets are long-term objects, which don't have physical form, are subjected to costs valuing, have opportunities for generation future benefits for the organization and have documented legal defense. Definition of intangible assets in the world and Russian professional literature are used often as substitutable term for some definitions such as “knowledge assets” and “intellectual property”.

Revised Manuscript Received on October 30, 2019.

\* Correspondence Author

**Nataliya Stepanovna Plaskova**, Plekhanov Russian University of Economics, Moscow, Russian Federation.

**Natalia Alekseevna Prodanova**, Plekhanov Russian University of Economics, Moscow, Russian Federation.

**Alexander Sergeevich Samusenko**, Plekhanov Russian University of Economics, Moscow, Russian Federation.

**Elmira Arsenovna Erzinkyan**, State Academic University for Humanities (GAUGN), Moscow, Russian Federation.

**Karine Alexandrovna Barmuta**, Don State Technical University, Rostov-on-Don, Russian Federation.

**Rustem Adamovich Shichiyakh**, Kuban State Agrarian University named after I.T. Trubilin, Krasnodar, Russian Federation.

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](http://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

International Accounting standard 38 “Intangible assets” defines characteristics of object identified as intangible asset. According to standard “the three critical attributes of an intangible asset are: identifiability control (power to obtain benefits from the asset) future economic benefits (such as revenues or reduced future costs)... An intangible asset is identifiable when it:

- Is separable (capable of being separated and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract) or
- Arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations (IAS 38, 2015) [8].

For the intangible assets accounting the next stipulations must be fulfilled:

- The organization must be sure in earning the future benefits due to the asset.
- The initial cost of the asset can be valued reliably.

According to Russian Accounting Standard 14/2007 “Accounting of intangible assets” (RAS 14//2007) [9] an asset is accounted as intangible asset if some condition about it can be satisfied:

- The asset is able to provide a benefit in the future;
- The organization has rights for benefits from intangible asset using;
- There is possibility to identify the object from other assets;
- The object is to be used for long-term (if the useful life is more than 12 months or if the period of the operational cycle is more than 12 months);
- The organization is not going to sell the object during the next 12 months or during the period of the operational cycle if it is more than 12 months;
- The initial or fact cost of the asset can be defined;
- The object does not have material and physical form (RAS 14/2007) [9].

Moreover today the most part of intangible assets in big modern progressive companies is intellectual property. So by 2017 “According to Interbrand consulting company, tangible and intangible assets of the world well-known companies are correlated as follows: British Petroleum (BP) – 30:70, IBM – 17:83, Coca-Cola – 4:96” [10]. But relations in Russia are much worse. According to search above in Russian companies “the volume of investment in intellectual property objects has not exceeded 1 % so far” [10]. The same time intellectual property can be accounted incorrectly due to absence of competent valuing methods intellectual activity results.

### III. PROPOSED METHODOLOGY

#### A. General description

It is received wisdom that real valuing in intangible assets is extremely complicated not alone according to Russian methods of valuing, but with glance of international practice also. It is noted by G.V. Mikhailova, A.S. Pavlov: “Valuing and accounting of intangible assets are considered as one of the most complicated section of accounting due to special characteristics of intangible assets and absence of material form of them. Even in the world practice where great

experience of intangible assets valuing and accounting are collected, the accounting of intangible assets section have not been developed completely” [11]. Accounting of innovative assets, which are the part of intangible assets, is complexified more yet because in addition to the fact that “Intellectual assets are hardly identifiable separately, determining their value is more difficult than for intangible assets and their value is also more volatile” [12], intellectual property rights are within the framework of the civil law. It means that beside accounting of expenses for innovative activity an organization need to account expenses and take measures for copyright protection of intellectual activity object (innovative asset), what is executed by patent divisions, other non-commercial organizations and government agents.

#### B. Algorithm

For more competent accounting and valuing of innovative assets it is necessary to study specific of the asset. For the purpose we should to see in details the division of innovations into types according to direction of innovation presented in Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data (OECD, 2005) [13].

Firstly we need to note the identification of innovation according to the Oslo Manual. The product or process is an innovation if it is used inside the organization for the first time and used with commercial goal (increasing of benefits due to growth of revenue or reduction of expenses).

Technological innovations are innovations which are new and improved products or services, or new and improved process of production or provision of services. They are:

Product innovations are connected with introduction into use brand new or improved goods, development of new modes of use them in production activity; development and introduction of brand new services, improved ways for provisions of services due to adding of new characteristics and functions, supported their significant improvement in a part of their provisions in service industries.

Process innovations touch development and implementation of new or high improved technologies and method for production processes, provision of services, their delivery.

Marketing innovations are considered as new and improved marketing methods, including different ways of products promotion, provision to customers, opening development of new market places and methods of competitions on current markets [14].

Organizational innovations are connected with implementation of new and improved organizational processes, including business methods, organization of workplaces, establishing of external relations and others.

Much more doubtful according to this division there is procedure of accounting of process, organizational and marketing in a part of pricing and placement innovations because they are planned and used ad hoc inside of organization and do not depend on external copyrights holders. That is why suggestions and specific natures of innovative assets valuing presented below should be compared with technological innovations only.

High risk level in relation to future benefits of a firm as a result of investments to innovative assets, not enough clear distinction of innovative expenses, operating costs on innovative activity and separation of benefits generated by innovative assets are reasons often for nonobjective identification of incurred expenses directly related on financial results, but not capitalized as a part of noncurrent assets. Different processes of innovative assets accounting sometimes lead to forming nonobjective information used by investors and creditors, at the same time internal management of the organization knows more about real value of innovative assets and its opportunity to generate economic benefits in the future. The difference in access level of interested users to information is named by “information asymmetry”, which can have a great influence on innovative asset value and value of business as a whole, create some degree of uncertainty in substantiation of investment and credit policy of different investment activity subjects.

Legal defense is one of the most important characteristics of innovative assets. Due to it owner of innovative assets together with rights on using for earning of economic or other benefits takes series of liabilities. As an example he is responsible for inflicted damages (under legal disputes about ownership of intellectual property), pays taxes connected with using of innovative assets.

It leads to necessity of definition about innovative assets and study of its accounting and valuing features.

#### IV. RESULT ANALYSIS

Based on review of characteristics and conditions for primary recognition in the accounting of intangible assets definition of innovative asset can be formulated. The conception of innovative asset can be defined as identified and measurable reliably in monetary value intangible object, which can provide future benefits, is bough or produced in organization not for reselling, destined to long-term using (more than 12 months), right on which are legal documented.

The primary valuing and accounting of innovative asset as element of intangible assets according to Russian Accounting Standards is performed by fact cost value which depends on type of acquisition: buying, producing, swap, uncompensated receipt, and contribution to the equity capital, privatizing and others (RAS 14/2007) [9]. Taking into account specific of innovative assets which are part of intangible assets of organization, it is useful to see in details the specific of accounting of operational and investments expenses connected with innovative assets accounting, which have a great impact on primary valuing as well as on subsequent accounting procedures. Adequate valuing of intellectual assets costs is one of key aspects for management of innovative activity in the certain organization as well as for the national economic. Creation of the Advisory group on the intangible economy in the European Union is confirmation of it. In 2001 the group has performed the next policy paper: “The economy of intangible sector, its influence and problems of national policy” (RICS, 2004) [15]. In the guide ways to valuing of intangible assets influenced on the world and European economy development are investigated inter alia. In several questions the document deals with reliable valuing of innovative objects and improvement of information disclosure for different users (owners, investors,

financial market participants). A number of recommendations for improvement of national policy for stimulating of innovative activity is demonstrated in the document also (RICS, 2006) [16].

The problem of innovative assets valuing for accounting is connected with some problems which are:

- The flexibility in detection of features and characteristics of innovative asset, which allow to separate it from other assets;
- Frequent absence of legal documented rights on innovative asset;
- High risk level of investments to innovative assets;
- Almost full absence of organized innovative assets markets and information about their market values on these objects.

Despite of value of applied researches and developments (R&D), ongoing in organization, can be accounted and included in value of certain innovative assets through allocation of innovative activity expenses proportional to values of produced innovative assets (though the issue about exactly valuing of innovative assets is opened), method of cost absorption of fundamental R&D is questionable. At the one side costs for fundamental R&D cannot be charged to value of certain worked out innovative asset because fundamental researches touch a great layer of specific type innovations. At the other side charging of costs for fundamental R&D to administrative or general production expenses is difficult because the researches are proceed within a framework of special activity – innovative activity – and results of them cannot be commercialized in the reporting period at all times. It should be noted that classic valuing procedures (such as Cost method, Market method, Income method) and special methods of assets valuing (such as Adjusted net assets method, Net assets value method, Liquidation value method, Substitution method, Method of analogue companies, Transaction method, Industry formulas method, Discounted cash flow method, Capitalization of income method) have certain strengths and weaknesses, which should be accounted in calculations of innovative assets value. The Cost method has a substantial advantage, what means an availability of measured reliable enough fact incurred charges. But real value of innovative assets usually is so far from accounted value of primary expenses for innovative assets creating. The fact is that some part of expenses can be diffused and included in other elements of self-cost. For example if separated accounting of expenses connected with the first stages of innovative product creating, which are included into articles of expenditure (generation of innovative idea, research and technology, pilot testing of development prototype, etc.), is not organized, then identification of real value of produced innovative asset by fact expenses value for its creating is problematic to some extent. Methods of assets valuing based on sales comparison approach can be matched the most when there is the opportunity for looking for prices on innovative products markets. But at the practical point of view the using of sales comparison approach is difficult because of unavailability or general lack of information about affiliate deals because

The income approach to innovative assets valuing based on forecast of discounted cash flow and profit capitalization allows evaluating future economic benefits basing on expected values of their generating with using of calculated variative coefficients and correcting indicators. It does not allow calculating with adequate accuracy value of innovative asset for accounting and analytical objectives.

Moreover variety of methods of innovative assets valuing allows to use them as mutually supportive, what need a collection of information from different sources (for example, queries from innovative technology specialists, management and marketing specialists with focused specialization on innovative goods and services. With it from the practical point of view using of information differ by quantity and quality for identification of primary and subsequent values of innovative assets would have an impact for choice of certain approaches and methods of their valuing.

The Decree of the Government of the Russian Federation No. 107 "On the recognition of IFRS for using in the Russian Federation" by 25.02.2011 acceptance means that organizations accounted available objects of intangible assets have an opportunity to disclosure information about intangible assets in the Financial Statement in accordance to statements of IFRS (Government Resolution No. 217n, 25.02.2011) [16]. However acceptance of the document doesn't provide an opportunity to form the Financial Statement in accordance to IFRS only, without the Financial Statement by Russian Accounting Standards. This situation breaks large-scale implementations of international accounting standards to Russian accounting practice. More that accounting and Financial Statement forming according to Russian and international accounting standards lead to too high administrative expenses which cannot be expended in small and medium-sized enterprises Thereby there is a mismatch: IFRS using allows to account and perform innovative assets more realistic in the Statement, but this process is not necessary according to Russian regulations of Financial Statements while obedience to Russian Accounting Standards often leads to material misstatement of innovative assets values and generated economic benefits which are incurred in organizations.

After all we agree with A. Marin and L. Boanta that competent innovative assets using and protection of intellectual property leads to growth of value for such intangible assets as business image and reputation [17]. And correct methods business image and reputation valuing should to account intellectual property forming positive opinions about organization on the market. Farther it leads to increasing of financial results of business activity.

Forming of the Report about innovative assets values should be done according on ratable approaches above. The report layout should to account different points of view and sources for identification of the most realistic range of innovative assets values.

## V. CONCLUSION

Adequate disclosure of information for accounting and analytical goals about innovative activity position gives a boost of innovative activity, what has a positive impact on dynamics of indicators in the macroeconomics, strengthen

competitive ability of innovative products, methods and technologies of Russian entities abroad, growth of public image and investment attractiveness of the wider Russian economy.

## REFERENCES

1. E.M. Akhmetshin, V.L. Vasilev, D.S. Mironov, A.V. Yumashev, A.S. Puryaev, V.V. Lvov, "Innovation process and control function in management", *European Research Studies Journal*, 21(1), 2018, pp. 663-674.
2. E.A. Osadchy, "Accounting and control of indirect costs of organization as a condition of optimizing its financial and economic activities", *International Business Management*, 9(7), 2015, pp. 1705-1709. doi:10.3923/ibm.2015.1705.1709
3. E.A. Osadchy, E.F. Amirova, T.N. Bochkareva, Y.Y. Gazizyanova, A.V. Yumashev, "Financial statements of a company as an information base for decision-making in a transforming economy", *European Research Studies Journal*, 21(2), 2018, pp. 339-350.
4. O.V. Takhumova, E.V. Kasatkina, E.A. Maslianova, A.V. Yumashev, M.V. Yumasheva, "The main directions of increasing the investment attractiveness of the Russian regions in the conditions of institutional transformations", *Espacios*, 39(37), 2018.
5. A.G. Polyakova, M.P. Loginov, E.V. Strelnikov, N.V. Usova, "Managerial decision support algorithm based on network analysis and big data", *International Journal of Civil Engineering and Technology*, 10(2), 2019, pp. 291-300.
6. OECD, "Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development", 6th ed, OECD Publishing, 2002, pp. 254.
7. E.M. Akhmetshin, V.L. Vasilev, A.S. Puryaev, R.R. Sharipov, T.N. Bochkareva, "Exchange of property rights and control as a condition of the innovation process effectiveness at collaboration between university and enterprise", *Academy of Strategic Management Journal*, 16(Specialissue1), 2017, pp. 1-9.
8. "International Accounting Standard "Intangible assets", (IAS 38), IASB, (introduced in the territory of the Russian Federation by the Order of the Ministry of Finance of the Russian Federation No. 217n, 28.12.2015, in force since 01.01.2018), 2015.
9. "The Order of the Ministry of Finance of the Russian Federation "On approval of the Russian Accounting Standards "Accounting of intangible assets", (RAS 14/2007)" No. 153n, 27.12.2007.
10. S.M. Nikitenko, M.A. Mesyats, O.V. Rozhkova, "Intellectual property as an instrument of interaction between government, business, science and society", Paper presented at the IOP Conference Series: Earth and Environmental Science, 84(1), 2017. doi:10.1088/1755-1315/84/1/012015
11. G.V. Mikhailova, A.S. Pavlov, "Innovative assets in the accounting and national accounting", *Newsletter Of North-Caucasus Federal University*, 3(36), 2013, pp. 261-264.
12. D. Pastor, J. Glova, F. Lipták, V. Kováč, "Intangibles and methods for their valuation in financial terms: Literature review", *Intangible Capital*, 13(2), 2017, pp. 387-410. doi:10.3926/ic.752
13. OECD, "Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data", 3rd ed, OECD Publishing, p. 166, 2005.
14. K.S. Mullakhmetov, R.D. Sadriev, G.S. Gabidinova, "Control in marketing-based management", *Academy of Marketing Studies Journal*, 20(Specialissue2), 2016, pp. 13-19.
15. RICS, "Guide "Valuing Intangible Assets", RICS Machinery and Plant Faculty, UK, 2004.
16. Government Resolution, "On approval of the Regulations on recognition of International Financial Reporting Standards and Clarifications to International Financial Reporting Standards for introduction in the territory of the Russian Federation", No. 217n, 25.02.2011.
16. RICS, "Machinery and Business Assets faculty "Analysis and valuation of intangible assets: the best international practice", *Issues of valuation Transl. the Russian Society of Appraisers*, vol. 4, pp. 2-25, 2006.
17. A. Marin, L. Bonata, "Intangible assets as "nucleus" of process innovation. Proceedings of the 12th International Conference on Business Excellence (ICBE), May 2018, Bucharest, Romania, 12(1), 2018, pp. 592-600.