

ACCOUNTING FOR INNOVATIONS IN VENTURE CAPITAL ACTIVITY PROPOSED FOR THE REPUBLIC OF MOLDOVA

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Abstract: *In businesses with a risk profile, from which innovative projects originate, investments have an important place. When venturing into a project, the investor must be extremely cautious and calculated, correctly assess the risks related to venture capital activity, and the position of the economic agent, who initiates the project, must be an exemplary one, which accurately reflects the economic reality and its perspective to generate as high a return as possible. For this purpose, the accounting of innovations in venture capital activity must provide all users with the most truthful information. In the study, the author formulated a hypothesis: the financing sources of innovative projects represent capital investment sources, this is why it is necessary to know the capital market and its efficiency, from which it can be deduced that the innovative activity requires special knowledge of the field, starting from the operational record to the accounting record of all operations, including financial reporting based on fair value according to International Financial Reporting Standards. Under the conditions of the operation of the venture activity mechanism, the meaning of information and reporting in the financial statements takes on particular importance, because the results of the venture capital activity are reflected in slips, registers, order journals, trial balances and financial statements, the purpose of which is to provide actionable information for the adoption of the most effective solutions by its users.*

Keywords: *innovations, accountancy, funding investment, capital venture, Business-angels, IFRS.*

JEL Classification: *M41.*

1. Introduction

Venture capital investments are investments in a developing business or start-up whose prospects for success are not yet known. For the reasons that venture capital investors take a lot of risks in choosing innovative projects, they are extremely careful and use several sources of information such as accounting data and records, financial reports, reports of financial analysts, etc., according to which they base their decisions of investment. Although a leading part in the process of financing innovative projects belongs to the state through the elaboration of normative acts and laws intended to regulate the activity with a risk profile, nevertheless a special place in this chain belongs to the capital market and the efficiency in terms of resource allocation. In a contemporary and competitive economy, "the role of capital markets is to allocate available resources, in a way that allows for the most efficient use" (Vilcu, 2019, p.107). Thus, the capital market can be considered efficient if it is simultaneously efficient: a) from the point of view of resource allocation, b) from the operational point of view, c) from the informational point of view. The market must meet the following conditions to be considered efficient (Duțescu, 2000):

- there should be no securities trading costs;
- all information to be valid, fairly and free of charge, for all market participants;
- participants in capital markets transactions to have homogeneous forecasts regarding the implications of the information received.

Equally current is the opinion according to "a modern accounting system is the one that ensures the opening of accounting to investors" (Ștefănescu, 2005, p.226). In this sense, the application of International Financial Reporting Standards (IFRS) for financial instruments is an optimal solution for reasons of comparability of accounting information and financial reporting on capital markets. Contemporary economic reality comes in arguing the hypothesis that accounting information now allows investors to analyze past, present and even future events in the entity, which can confirm or deny the initial forecasts for the

purpose of financing innovative projects. The accounting profession should be particularly concerned with the presentation of financial statements and reliable and appropriate information based on fair value according to IFRS 13 (Fair Value Measurement). Otherwise, accounting information can become an additional risk factor in the innovation process, especially at the funding stage.

2. Literature review

The state's interest in the development of venture activity is manifested through the support provided, a fact indicated in the strategic development documents. Innovation was the core of the Europe 2030 Strategy agreed upon by the member states within the European Council and which supports smart, sustainable and inclusive growth. The Europe 2030 Strategy approaches the concept of innovation in a broader sense: both research-based innovation and research aimed at business models, design, brand strategies and services. The creativity and diversity of European citizens and the strength of European creative industries offer a high potential to generate growth and create new jobs through innovation, especially for SMEs. The need to strengthen the links between the research environment and the business environment, as well as the acceleration of the importance of scientific research for the needs of the business field, is indicated in all the policy documents that governed and govern the field of innovations (the National Program in the fields of research and innovation for the years 2020- 2023, the Research and Development Strategy of the Republic of Moldova until the year 2020, the Innovation Strategy of the Republic of Moldova for the period 2013-2020 "Innovations for competitiveness" and the National Development Strategy "European Moldova 2030"). The tendency to promote venture capital activity is enshrined in the basic strategies both at the level of the international communities and at the national level. For example, the European Commission (EC) issued in 2008 The Small Business Act for Europe, in which the role of innovations in economic growth is eloquently described and the number of principles are determined, among which: the creation of the institutional framework; facilitating the access of small and medium enterprises to sources of financing and the development of a favourable business environment. Back in 2010, the European Commission approved a European strategy for economic development - "Europe 2020", which represents a strategy for smart, sustainable and inclusive growth, in which such a strategy was approved for rapid development and the achievement of predetermined objectives flagship initiative as an Innovation Union, with the aim of encouraging innovations and facilitating the financing conditions of scientific research. Then, at the national level, in 2012, the Government of the Republic of Moldova approved the Strategy for the development of the small and medium-sized enterprises sector for the years 2012-2020. In addition to this, in a parallel sequence, the Activity Program of the Government of the Republic of Moldova 2016-2018 was developed, in which it was stipulated to ensure the European course in the business sphere, improving the climate of the investment environment for the development of small business. The Moldova 2030 Strategy describes implementation tools that provide financial support to venture-type research and innovations capable of producing new progress in the business sphere. This financial support is carried out at any stage of development of the venture capital enterprise in two forms: loans to innovative companies and joint ventures (stock package) with risk capital.

On the way to the normative regulation of innovative activities, only in 2020, the law on alternative collective investment bodies is adopted, which is the basic law for the legislation of venture activity. In the same way, the law on small and medium-sized enterprises, which is part of the institutional framework for the development of innovative

activity, is adopted, and a draft law with reference to venture capital is also proposed for examination and approval.

With reference to the accounting of operations related to innovations, it is necessary to develop an accounting mechanism specific to the risk activity guided by the provisions of different standards, because in the International System (Financial Reporting Standards - IFRS) there is no single standard of accounting regulation and reporting for businesses of risk. So, for this, it is proposed to apply IAS 20 "Accounting for Government Grants and Disclosure of Government Assistance", in combination with IFRS 9 "Financial Instruments" and IFRS 2 "Share-Based Payment".

3. Research design and methods

The purpose and objectives of the research consist in studying the financial instruments and the accounting of innovations in venture capital activity, the specific features of the management of creation and innovation activities, the specific mechanism of accounting, financing with venture capital, financial reporting, improving the legal framework in the field of innovation and of venture activity, analysis of the interdependence and interaction of venture activity subjects. In this research, we resorted to the fundamental methods of investigation of the legislation, among which we mention the logical method, which is generally based on the logical interpretation of the provisions of national and European Union legislation in the field of innovations. We also used the analytical method of research with the help of which we studied and analyzed the primary and secondary regulations adopted to implement the provisions of the legislation in the given field. The research carried out is also based on methodologies based on theoretical-scientific and empirical principles and analytical methods: analysis and synthesis of scientific literature documents, comparative analysis of information, statistical methods; observation; induction and deduction. We also used the comparative method in examining the "Global Innovation Index 2021" Report.

4. Results

In the ranking of the Global Innovation Index 2021, the Republic of Moldova is placed 64th out of 132 countries in the world, accumulating a total of 32.3 points out of 100 (The Global Innovation Index, GII).

Tab. 1. The positioning of the Republic of Moldova according to different criteria

Anul	Innovation Input	Innovation Output	Infrastructure	Human capital and research	Market sophistication	Business sophistication	Institutions	Creative outlets	Knowledge and technological results
2021	80	54	82	77	74	87	81	53	54

Source: Global Innovation Index 2021

The need to implement innovations is already visible at different levels of the country's development on the path of European integration, having the current status of the EU country, especially in the conditions of the energy crisis in which our country is currently. Thus, objective no. 1 of the "European Moldova 2030" National Development Strategy is to increase incomes from sustainable sources and mitigate inequalities, and the premise is the development of opportunities for innovations and entrepreneurship. The EU could be a

worthy model to follow, especially for the IFRS portable accounting model based on the fair valuation value of financial instruments and investments, but also in terms of strategies. SND "European Moldova 2030" is a national long-term strategic vision document, which indicates the country's development directions and which adapts the priorities, objectives, indicators and targets of the international commitments that the Republic of Moldova has assumed in the national context. According to her, on the one hand, the implementation of innovations in practice for development, on the other - the investment of financial resources in organizations whose activities are related to the development and innovative ideas, most of which do not have sufficient financial resources.

The investment is based on two important pillars: 1) the risks, and 2) expected profit. Any investor seeks to obtain from venture companies with innovative activities increased profitability or a super-profit, which is possible only through a risky venture, where the risks incurred can lead to losses throughout the entire period of development of the innovative project, and the end to obtain a profit surplus. Financing a new entity, as a result, the venture company appears. For the efficient use of the financing program with the increased risk of losses, and the probability of obtaining super profits is low, a special mechanism for structuring free financial resources, called risk funds or venture funds (from the law – the body of collective alternative placement OPCA), whose activities are mostly stimulated and regulated by the state. This OPCA, arising from certain conditions, invests in an individual entrepreneur (usually a start-up), who is co-interested in the possibility of obtaining super-profits (Țurcanu and Golocalova, 2017). From a legal point of view, the venture fund is an investment fund made up of investors, with or without legal studies, legal entities and/or natural persons with any organizational-legal form in the manner provided by the legislation in force. The main objective of financing with venture capital consists in the fact that the financial resources that belong to investors (private entities, funds, banks, the state) and the intellectual possibilities of venture companies, as well as their opportunities in the form of original ideas and technologies will be able to come together in order to organize the business to achieve increased profitability.

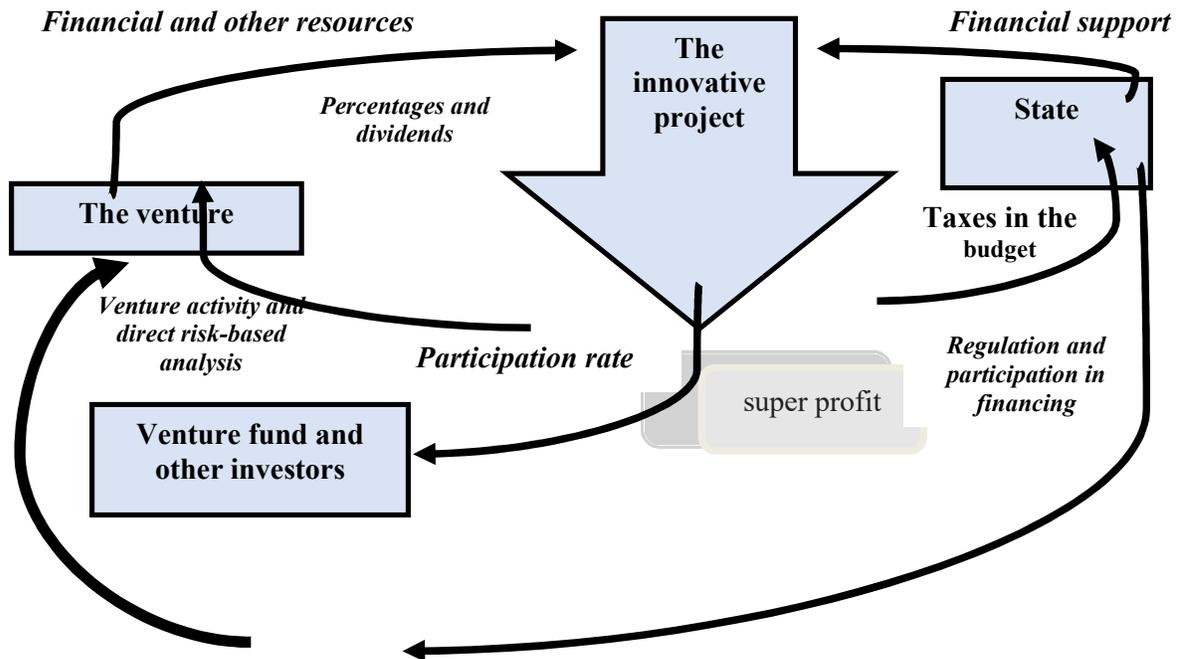
Each investor pursues his own objectives: the internal ones - primarily count on realizing the idea, occupying a new niche on the market and obtaining his share of the capital, the external ones - expect the recovery of investments and obtaining a profit surplus, the state sees the economic advantages for the improvement of the economic situation, the stimulation of employment and the possibility of consolidating the budget from the account of fiscal obligations (Țurcanu and Golocalova, 2017, pp. 47-52).

The venture capital investor does not invest directly in production, but in the company's share or statutory capital, which cannot be withdrawn on its own initiative until the end of the term indicated in the financing agreement.

Figure no. 1 schematically shows the interaction and interdependence of three venture activity subjects.

At the current stage, in the Republic of Moldova, there is the necessary legal framework and the development perspective in the field of innovations, but the implementation mechanisms are poorly developed, because there is no alternative collective investment body with risk capital like a venture fund (Found Venture) registered and approved by the Supervisory Body - the National Financial Market Commission. Accordingly, we cannot develop any accounting and financial reporting mechanism specific to this type of risky activity.

Fig. 1 The relationship, interaction and interdependence of the entities of the venture activity

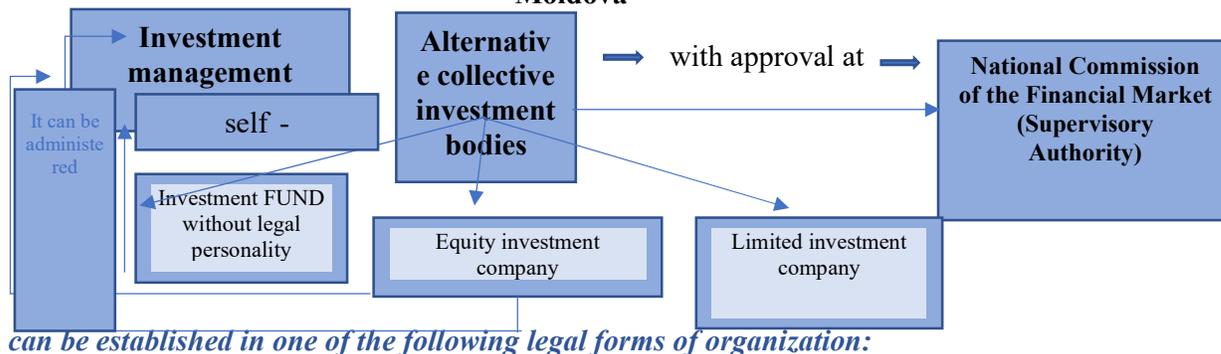


Source: Țurcanu V.I., Golocalova I.N. (2017). Some aspects of venture activities: implementation and accounting (in the example of the Republic of Moldova). Economic. Edition 1 (49). T.1

According to art.1, The Law on Alternative Collective Investment Bodies has the following purpose and fields of application:

- regulates the constitution, approval and operation of OPCA;
- regulates the requirements for the organization, licensing and activities carried out by SAI, the obligations related to the management of OPCA with risk capital and long-term investments;
- regulates the rules regarding OPCA asset depositories.

Fig. 2 Model for setting up an alternative collective placement body according to the legal form of the organization according to the legislation in force of the Republic of Moldova

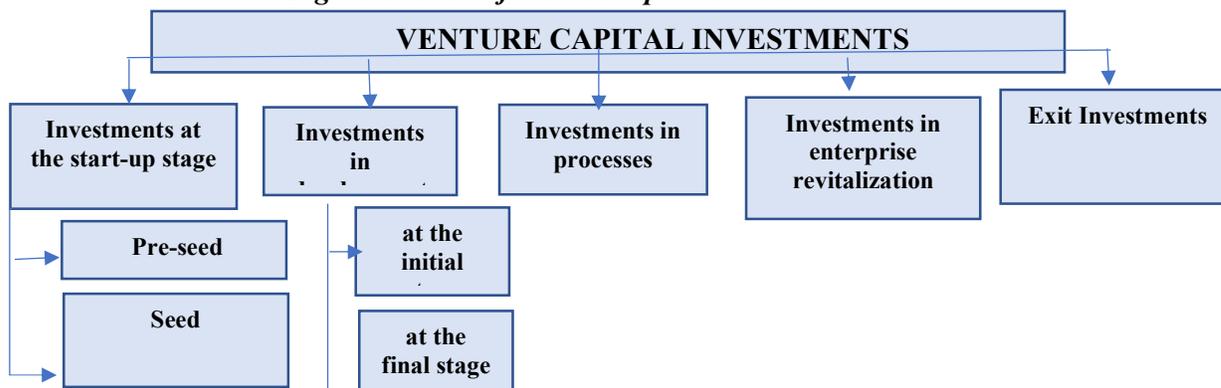


Source: Prepared by the author

Although it was possible to adopt a law for the legal foundation of OPCA, which, in fact, refers more to venture funds, which attract financial resources from certain investors in order to place them according to the investment policy promoted in their interest, however, the coverage area of the entire venture activity is much wider. Since the actors of this type of activity with risk capital carry out activities on the capital market, compliance with the regulations of the capital market law (2012) is also required, and the professionals who select the innovative projects in order to establish the financing criteria must be certified on the market of capital and possess necessary and specific knowledge in this respect.

At the same time, it is found that investments with venture capital represent a direction of perspective in financing the innovative activity of entities through flows of venture capital within the national economy. Based on these benchmarks, the specific operating mechanism inside the entities that deal with the development of innovative projects and the accounting mechanism of operations that depends on the funding sources are also built. Next, I will schematically present the types of investments with venture capital (Figure 3):

Fig.3 Structure of venture capital investments

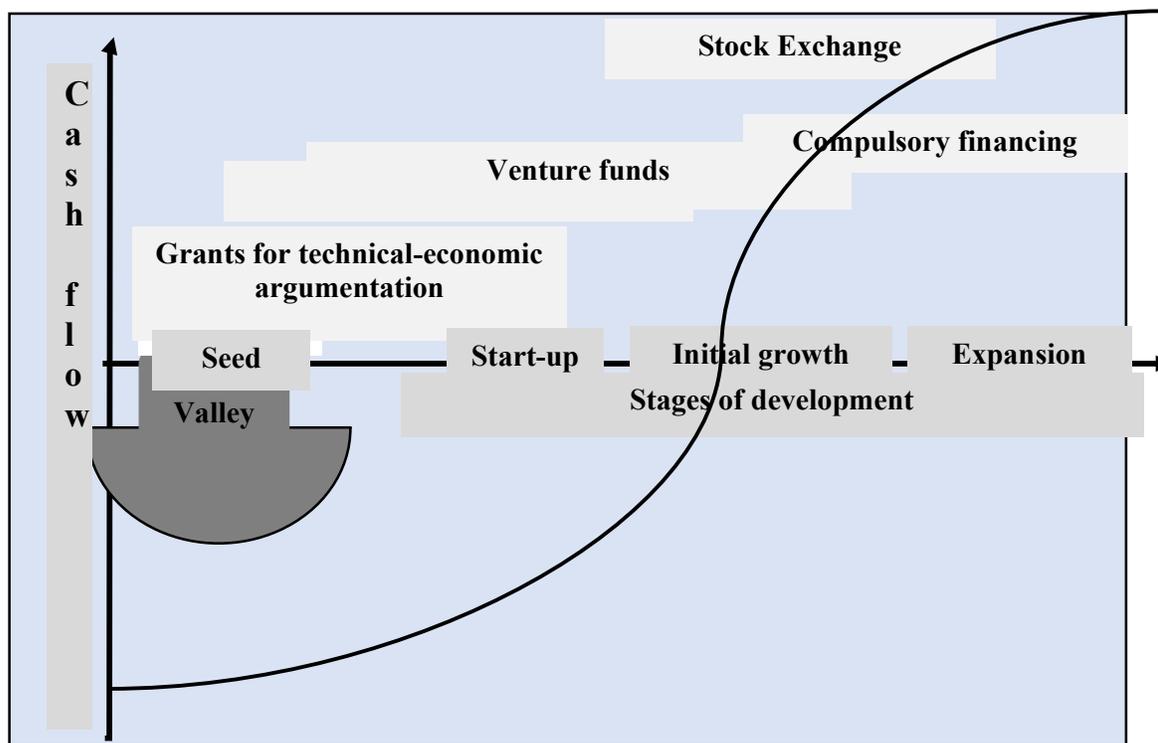


Source: Prepared by the author

5. Discussion

Every product, service, market or enterprise, by essence, develops like a human being, i.e. they are born, develop, grow old and die. Innovative companies are no exception, operating in accordance with the life cycle concept. The profitability and success of the venture company depend on several factors and, most importantly, on the value of its shares. Actions must be clearly systematized in stages and accurately executed only in the sequence shown below:

Fig. 4 Graphical representation of development stages, cash flow and funding sources of innovative projects



Source: Mochalina, Y.V., 2010. №11.

Researching theoretical approaches to the concept of accounting as a process of providing information for subsequent financial and managerial analysis offered by scientists allows for defining its general notion. Accounting is an important part of the management system and can be referred to as the process of collecting, preparing, recording and combining information about the operations of a company. It provides the justification and effectiveness of managerial decisions aimed at defending the financial interests of the owners against internal and external challenges and threats (Țurcanu and Golocalova, 2017).

At the "seed" stage, the accounting records will reflect the quantitative and estimated value of the initial research on the basis of which the business concept designs will be made, including operational data such as technical-economic arguments, determination of market potential and economic viability. At the given stage, the entity is in the initiation process: the team is being formed, which will manage the project, respectively costs will accumulate in accounting and from the team members' salaries. Since, at this stage, the profit and income are completely missing, the entrepreneur, in the given case, will be in the position of the

researcher or the inventor, who needs resources to carry out some activities of theoretical and applied argumentation of the commercial potential of the concept.

The "**Start-up**" stage involves the accounting of the activities of creating the production model, and the trial testing of the innovative product. From an operational point of view, the market will be thoroughly researched and sales channels will be sought, also the company will be given an official status. Major importance must be given to the start-up phase of venture-type activity, because it is precisely at the initial stage of development of the innovative project that the main complication in the evaluation of the innovation manifests itself, as a result of demonstrating the quality of human capital (Legenchuk and Usatenko, 2020). At the start-up phase of the implementation of the venture activity, the intellectual contribution of the author of the idea is of primary importance (Ivanov, 2014), and he must be included in the form of human capital in the statutory capital in the stage of its formation. At this stage, the legal form of the future relationship between the human capital holder and the venture capital investor is also established. From this context, it is necessary to draw attention to the issue of evaluation and the financial reporting scheme of innovations, as a result of the investment of human capital in venture activity as a modern trend in accounting methodology. Human capital represents the totality of acquired skills and knowledge, skills and innovations, the efficient use of which contributes to increasing income and other benefits.

In the accounting records **at the stage of initial growth**, accounting entries related to reaching a stable level of sales and the start of growth will be reflected. An expansion of the production process will be observed in the operational activity of the venture entity. The initial growth stage can be divided into three phases:

- The first phase of the initial increase – the organization of the records through primary documents of the production process;
- The second phase of the company's development will reflect in the accounting data a volume of production, which determines the real demand on the market;
- The third phase of initial development refers to a rather rapid increase in the volume of production and will record in the accounting records the obtaining of a real profit, which significantly reduces the level of investment risk.

At the stage of initial growth, the main source of financing for innovation entities is venture funds. Venture capital funds and the financing process will be properly reflected in the accounting records, and at the operational level, the process of receiving financial resources from funds that invest in the high-risk business will be followed. As a rule, 70-80% of innovative projects do not generate profits, but the profit of the other 20-30% covers almost all losses, damages and scraps.

At the expansion stage, to increase the production volume of the innovative product, the entities can obtain financing from various sources. At this stage, the company already has a certain history, all accounting operations aim to reflect these indicators, and visible results of innovative activity are pursued. Therefore, the financing sources of innovative entities at the expansion stage are much more varied than at the previous stages.

At the stage of expansion in the accounting system, a significant increase in the production volume will be observed, at the operational level, respectively - a significant increase in the market share.

The provisions, which would also cover innovative processes, which would not be contradictory and would serve the purpose of developing a transparent representation in the financial reporting of scientific progress, are not defined in the normative basis of the accounting system of the Republic of Moldova. For this reason, we will use the International Financial Reporting Standards (IFRS). Although here too, there is a lack of a basic standard

to regulate the issue of reporting and accounting in venture activity, nevertheless these questions can be resolved based on the concept of fair value measurement. In order to evaluate human capital at the start-up phase, two estimation models are accepted in the IFRS system:

- 1) based on the cost model - IAS 38 "Intangible assets"
- 2) based on income - IFRS 2 "Payment based on shares" (Golocialova I., Maior V., conf. 15.03.2018).

Applying one of the evaluation models requires a separate mechanism for representing innovation-related operations. For analysis in the table below, the traditional mechanism and the one proposed for representing the operations of venture activities based on the comparison of the existing approaches within the concept of valuation according to IFRS (Țurcanu V., Golocialova, I., ACAP, 2015).

Tab.2 The accounting mechanism of operations related to venture activity in the context of IFRS

Choice	Regulation	Accounting evaluation	The model of ASSESSMENT	The representation mechanism of innovations
Traditional	IAS 38	The pattern cost	Initial cost	<ul style="list-style-type: none"> ➤ At the research stage: Dt "Operating expenses" Kt "Obligations" or "Accounts expenses incurred" ➤ At the development stage: Dt "Intangible assets" Kt "Obligations" or "Accounts expenses incurred"
Proposed	IFRS 2	The model on income base	Binomial, Monte-Carlo	<ul style="list-style-type: none"> ➤ At the initial phase of the formation of the statutory capital: Dt "Intangible assets" Kt "Social capital"

Source: developed by the authors (Țurcanu V., Golocialova, I., ACAP, 2015)

6. Conclusion

As we have already mentioned, the key point of risk activity is the realization of an innovative project or an innovative idea. I believe that the evaluation of this idea, as a result of its financing, will be possible only on the basis of the concept of fair value. Namely, this explains the rationale for using IFRS to reflect accounting operations in venture activity. In this sense, I note that the accounting and reporting system of the Republic of Moldova built on the basis of the National Accounting Standards (SNC) lacks regulations to reflect transparently the accounting operations related to venture capital activity. According to the studies carried out, I can conclude that state support of innovative activity is, indisputably, necessary and, in some cases, mandatory. The tax reliefs and facilities, the simplification, promotion and implementation of venture capital will have a beneficial influence from the macroeconomic perspective on the development of the process of financing innovative activity in the Republic of Moldova.

Although a step forward towards the legislation of the financing of innovative projects was made, with the appearance of the legislative acts on risk capital, namely Law No. 2 of 06.02.2020 on alternative collective investment bodies, however, no positive trends are observed in terms of implementation mechanisms and concrete for entities with venture activity. Based on the above, the improvement of accounting is requested, namely:

- development of an accounting model for venture activities, as well as venture funds;
- formation of an informational-accounting system to systematize analytical operations;
- developing financial reporting methods for participants in venture capital activities and accounting for innovations at each stage of the development of the innovative project;
- development of accounting methods for the results of venture activities and evaluation of the efficiency of the use of venture capital for financing based on the use of the forecast balances of the post-investment value;
- development of strategic accounting of property in enterprises with venture activity.

Since accounting is closely related to taxation and legislation, there is a need for moderate regulation of all phases of the venture activity, it is also necessary to develop mechanisms for reflecting all accounting operations, for the formation of appropriate management reports, statistical and fiscal Financial Reports through structuring corresponding to the field of venture activity. It is necessary, not only to harmonize the legislation but also to stimulate entrepreneurs to innovate, to develop venture funds, which it seems will not be successfully achieved without the rigorous support of the state or without having access to European funds with venture capital.

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