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## INTELLECTUAL AND INNOVATIVE CAPITAL AS AN INNOVATION ACTIVITIES RESULTS OF INDUSTRIAL ENTERPRISES

### ІНТЕЛЕКТУАЛЬНИЙ ТА ІННОВАЦІЙНИЙ КАПІТАЛ ЯК РЕЗУЛЬТАТИ ІННОВАЦІЙНОЇ ДІЯЛЬНОСТІ ПРОМИСЛОВИХ ПІДПРИЄМСТВ

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*Носовець О.І., Волощук Л.О., Ковтуненко К.В. Інтелектуальний та інноваційний капітал як результати інноваційної діяльності промислових підприємств. Оглядова стаття.*

В статті було розкрито сутнісне наповнення економічних категорій «інтелектуальний капітал» та «інновація» з виділенням їх співвідношення і взаємозалежності в контексті спроби визначення результатів інноваційної діяльності. На підставі розгляду розвитку концепції інтелектуального капіталу в подальшій тематиці дослідження завдяки зіставленню моделей складу вказаного типу нетрадиційного капіталу побудовано структурно-логічну схему формування причинно-наслідкового зв'язку інтелектуального та інноваційного капіталів з відбиттям у ній проведених відповідностей між структуроутворюючими складовими капіталу знань з відповідного змістовного характеру інноваційними рішеннями, обґрунтовано циклічність виконання взаємозв'язку створення, перетворення, добування інтелектуального та інноваційного капіталів один одним.

*Ключові слова:* результати інноваційної діяльності, інтелектуальний капітал, інноваційний капітал.

*Nosovets O.I., Voloschuk L.O., Kovtunenکو K.V. Intellectual and innovative capital as an innovation activities results of industrial enterprises. Review article.*

In this article the essential content of the economic categories «intellectual capital» and «innovation» was revealed with highlighting their correlation and interdependence in the context of an attempt to determine the results of innovation activity. On the basis of the intellectual capital concept development consideration in the further research topics of the due to comparison of the specified non-traditional capital type composition models, a structurally-logical intellectual and innovative capital causal link formation scheme has been constructed, reflecting the correspondences executed in it between structure-forming components of knowledge capital and corresponding informative character innovative solutions, the interconnection implementation cyclicity of the creation, transformation, completion of intellectual and innovative capital each other has been substantiated.

*Keywords:* innovation results, intellectual capital, innovative capital

In the conditions of the knowledge economy and the definition of the key to the successful economic activity conduct of an innovative development type, since the end of the last century traditional financial indicators do not reflect the reliable financial status and an economic entities competitiveness levels and their market values, which prompted the emergence of such a concept as goodwill («Good will» from English – «dobra volya») in the financial statements of enterprises, displaying in part their invisible and not subject to documentation the cost of the mastered competencies players. The invisible enterprise values formation by intellectual property and intellectual possessions arising at the entrance through the acquisition, borrowing and on the economic process output of the innovative character results forming in consequence of the knowledge and skills application by labor resources, as the core and the main source of innovations, determines the indirect intellectual and innovative capital link. Considering the innovations inclusion, especially the own business innovations, in the intellectual capital of the entrepreneur and the provision improvements to the infrastructure providing work elements impact, thus increasing the innovation activities efficiency, this is also establishing the interrelation of these capital varieties. This decides the need to deepen the study of this dependence in order to improve the development and validity managerial decisions quality and the effectiveness and profitability of their implementation in the context of innovation development in providing strategic development of enterprises and organizations. This decides the need to deepen the study of this dependence in order to improve the

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### **Analysis of recent research and publications**

Intelligent resources of organized commercial and non-commercial purpose business and innovative transformations as connected elements of transformational innovation processes at the different economy levels do not cease to be in the view field of many scientists.

The study of the intellectual capital concept was devoted to the study of fundamentalists in this field of study capital and their followers K. Bradley, K.E. Sweib, P. Drucker, T. Stuart, L. Edvinsson, M. Melon, E. Broking, A. Mott, in particular, Russian V.L. Inozemtsev, A.E. Stepanova, S. A. Ayvazyan, M.Yu. Afanasyev, J.R. Nikolaev, M.S. Santalova, E.A. Bunina, B.B. Leontiev and Ukrainian scholars such as V. Heyets, S. Ilyashenko, A. Chukhno and others. Subsequent study of the content and structure of the investigated capital type was performed by A. Prusak, D. Tysa, T. Fortyun, K.E. Sweib, L. Edvinson, P. Sullivan.

The conceptual apparatus definition of the "innovations" category as the source of the introduction and basis for the relevant activity implementation was dealt with by J. Schumpeter, H. Hersheng, V. Kingston, E. Dichtl, M. Huchek, L.E. Mindeley, D.M. Gvishiani, R.A. Fathutdinov, N.M. Shabanova, O.V. Gugelya, P.N. Zalin, A.K. Kazantsev, D.V. Sokolov, A.B. Titov, O.O. Lapko, VS Savchuk, L.L. Antonyuk and others.

A innovations study as the main result of a lot of activity that is in line with the innovation signs was dealt with by a number of scientists from foreign and domestic schools, in particular: Porter M., Azgaddova G.G., Kostina O.V., Kalitich G.I., Sokolov D.B., Titov A.B., Shabanova N.M., Fathurdinov R.A. In turn, the research of innovations in the intellectual capital as their sources was undertaken by J. Varshata, K. Wagner, I. Gauss, D. Dobija, K. Perechuda.

### **Selection of previously unsettled parts of the general problem**

The scientific literature does not cover the complex concept of «innovation activity results» as received at the output of the innovation enterprise process, innovation infrastructure functioning, innovation system, etc. In domestic practice, innovative results are considered as a phenomenon of all external restructuring in the economy, generated by the desire to implement innovations against the globalization processes backdrop and evaluated in the field of statistical accounting. Despite the sufficient development of scientific staff and practitioners in the mutual influence field generated by the intellectual capital work results, there is a need for a tangible elaboration of the identification, determination, measurement of the links and ways of mutual

construction of intellectual and innovative capital structures in the constant expansion conditions of the solutions spectrum generated by their functioning and, as consequence, expansion, differentiation, variation of the composition of separate total capital components of enterprises in order to increase the application productivity its driving components.

*The aim of the article* is to investigate the causal link formation between the intellectual and innovative capital of business entities, to consider the impact on the innovation of the intellectual capital system in the enterprise on the content of its structural elements and the conformity of the typization commercialized innovations and developments characteristics with the essential disclosure of intellectual capital components.

### **The main part**

A characteristic feature of the XXI century is a sharp increase in the scientific and technical knowledge significance in the economy. By the definition of Marx, economic epochs differ not in what is produced, but in how it is produced and by what means of labor [1].

An innovative theories evolution analysis suggests that, unlike in the twentieth century, where innovation was associated with the material component and technological upgrading of the material production base, in the 21st century decisive factor in innovation development is precisely the intellectual capital of the enterprise [2].

Since innovations represent the developments commercialization, advocating the intellectual work results of human capital and producing the application of their knowledge and skills through the professional qualification, competence, intellectual flexibility, psychometric characteristics in the innovations emergence as completed and proven results of its implementation, regardless of the membership of scientists and developers to the subject their implementation, followed by a causal link between the intellectual and innovative kind capital, needing explanation fundamental concepts deals with the points kinds of support of the company or organization in the categorical apparatus allocation.

The implementation of any activity takes place through the definition of its elements and their structural differentiation, the mechanisms interaction formation and ensuring the proper system functioning for the certain results achievement, in which the primary task is to interpret the basic concepts of such activities.

J. Galbraith thought that intellectual capital is more than a "pure intelligence" of a person, that is, in essence, it is the intellectual activity of the firm employees, included in the production process and is associated with the ideas and profit generation [3].

It is intellectual personal abilities contribute to the formation and effective use of traditional capital types – the material and financial. The new term emergence in economic science is associated with the formation and implementation of the post-industrial development paradigm of a real economy, in which

the main factors of production, competition and profit are not only natural, material and financial resources, and, to a greater extent, intellectual and informational. It is the intellectual personal ability to create information and allow it to analyze and make decisions. In today's information society, information has become a fundamental factor in its development [4]. As innovations are mainly results of intellectual work of the indicated production factor, it forms the first stage of the intellectual and innovative capital interconnection.

One can agree with the Kovtunenکو K.V. conclusion [5] on the existence of two main approaches to the essence definition of the specified economic category:

- structural, based on the consideration of intellectual capital as a set of constituents;
- intellectual capital as a result, the ability to improve the enterprise characteristics, the growth of competitive advantages.
- However, such the intellectual kind of capital interpretation produces an intermediate link between knowledge and the result obtained from their application. Among all existing intellectual capital definitions, the disclosure directions allocation of its essence by subject aspects is observed:
- a set of knowledge as an evaluation object, which allows to consider at the level of intellectual potential (L. Edison);
- the knowledge aggregate as capital productivity, that is the effectiveness of the use of accumulated knowledge and skills, is the intellect productivity, which is manifested in the intellectual property essence (T. Stewart);
- the result of the labor resources interaction as knowledge and skills (intellect) carriers with the intellectual property components and various structural elements of intellectual capital (A.M. Gaponenko, T.L. Orlov).

Thus, the intellectual capital notion disclosure of an enterprise can be considered at the stages of formation of its final form, that is, three-tier: intellectual potential – intellectual property – intellectual capital.

A deeper vision of a links sequence building in the intellectual capital formation in the following statement: the intellectual capital essence study in conjunction with the concepts of intellectual potential, intellectual resources, intellectual assets allows us to conclude that being connected as sequential links in the chain, they form the innovation development intellectual component of the company in the triad: intellectual resources (assets), intellectual potential, intellectual capital [2].

At the same time, the intellectual component manifests itself in the intellectual potential that is part of the innovation development potential of the enterprise [6]. Therefore, the essence and tasks definition of the innovation development intellectual component of enterprises requires the essence and

role clarification in the innovation development and related categories, namely intellectual resources (assets) and intellectual potential [2].

The above categories definitions analysis suggests that intellectual capital is the result of the active use of intellectual potential in the innovation activity of an enterprise to achieve the goals of its innovation development [2].

In order to streamline and deepen the interconnection understanding of the intellectual and innovative component of capital, let's turn to a more detailed consideration of the "innovation" category features.

The multidimensionality and complexity of the investigated category is manifested in a large number of approaches to its definition. According to the results of the analysis it becomes obvious that no definition is a complete reflection of the essence of one of the approaches or directions within the framework of one of the approaches representing the «innovation» concept definition. When providing definitions in accordance with the chosen approaches, there is a clear discrepancy, this is the possibility of variability of the scope of such a powerful concept as «innovation», which depends on the severity of fixing the criteria for assigning a particular content aspect. In the case of the delimitation of the concept under study by J. Schumpeter, the most common combination of the innovation treatment as a new finished product and as a means of production (M. Dodgon, B. Santo, G.I. Kalitich, Yu.P. Morozov, D.V. Sokolov, A.B. Titov, N.M. Shabanova), the second – as the expansion of markets and the conduct of the appropriate reorganization both in the internal and external, in a relative degree controlled by the enterprise environment (R. Smits, V. Trika, M.I. Lapin). The combination of the first combination with the third aspect, which is innovation as a reorganization, is more rarely encountered. The presence of such a wide-scale aspect of the differences leads to a complication for the implementation of the regulatory function of the state by introducing and monitoring the normative acts execution on the implementation regulation of the relevant type of activity in the form of reducing the effectiveness of encouraging the conduct of such activities through the legal definition of the basic concepts.

Summarizing the existing economy views on the innovation notion, we give in the study of their definition: innovation is a purposeful change that introduces new relatively stable elements into the environment. Such an innovations interpretation makes it possible to study them both in spatial (by objects of innovations and their sources), and in time cuts [7]. Further understanding of innovations is to deepen their study with the emphasis on the allocation of their fixed types.

Considering innovation capital as determining the category of innovation activity, we turn to the legislation and problems of the information base formation on this type of activity.

The domestic legislative framework regulating the conduct of any activity in the state economic, customs and territorial boundaries has not changed in determining the results of innovation activity and allocates in their quality only innovations themselves, rejecting a wide range of the results of the preceding processes and their direct introduction, interpreting in The Law of Ukraine «On Innovation Activity» [8] is as follows: innovations - newly created (applied) and / or improved competitive technologies, products or services, as well as organization but technical solutions of industrial, administrative, commercial or otherwise, which significantly improve the structure and quality of production and (or) social sphere.

The information base forming question of the company requires special attention from both the participants of this process and users, and this is practically absent today. Therefore, it is impossible to carry out a detailed logical analysis in full and to identify the weak and strong points of the entity in relation to its innovation activities.

The scientific research synthesis suggests that the information base forming process on innovation is not sufficiently considered and investigated in Ukraine. Almost all scientific works on this problem contain certain recommendations and separate proposals. The scientific substantiation lack of system approaches to providing management decisions in the innovation activity of the information base necessitates the development of a set of measures aimed at solving these problems and their further specification, taking into account market conditions.

The innovation activity statistical base formation should be based on a combination of its various forms and include a statistical observation interrelated types complex that varies in time and frequency of the survey depending on the innovation activity investigated aspect (or purpose) [9].

An innovation survey conducted in Ukraine, designed to form an appropriate information base, and to evaluate the results of its implementation through the form of statistical reporting No. 1-innovation, based on the set of indicators presented in it, is oriented mainly to the innovation activity assessment, namely: the number of industrial enterprises, engaged in innovative activities; industrial enterprises innovative activity (the industrial enterprises share, which during the last three years were involved in innovation activities in the total number of industrial enterprises); total innovation cost; the number of industrial enterprises that introduced innovations; the

number of implemented (mastered) innovative types of products; realized innovative products volume; the number of industrial enterprises that implemented innovation processes; the number of new technologies (technical achievements) acquired (transmitted) by enterprises, etc. [11].

At present, the innovations survey in Ukraine does not meet international standards for the following reasons [10]:

- the survey did not cover the activities of some groups of enterprises (according to the classification of the CTEA);
- the survey period in Ukraine was different from the survey period in other countries, in particular, in Ukraine, the survey period was a quarter and a year, but the innovations specificity predetermined a longer development and implementation period;
- mainly considered only absolute figures;
- the methodology and approaches were based on a solid survey of medium and large enterprises;
- the survey was limited to innovative products and innovative processes.

Thus, the discrepancy between the main regulatory act on the regulation of innovation activity in Ukraine and the Methodological provisions on the innovation activity statistics [11], which reflects a different view on what can be taken into account as part of the results of the investigated entrepreneurial activity type.

Returning to the definition of the relationship between innovation and intellectual capital, we draw attention to the great influence on the formation of the classical theory of IC on the theory of values in the economy.

In a conceptual interaction model of economic types of capital, Swedish professor Leif Edvinsson connects them with the common values formation created by the expense of not only traditional types of capital (financial), but also intellectual, which contributes to the structural capital creation. Structural capital is organizational and managerial processes, trademarks, patents, corporate culture, relations with consumers, etc. The author believes that intellectual capital contributes to the formation of new types of capital (consumer, process, innovation, etc.) that create a chain of values for a firm or organization [4]. The conceptual interconnections model of the «capital» concepts on the basis of the values creating of Leif Edwinsson is given in Fig. 1.

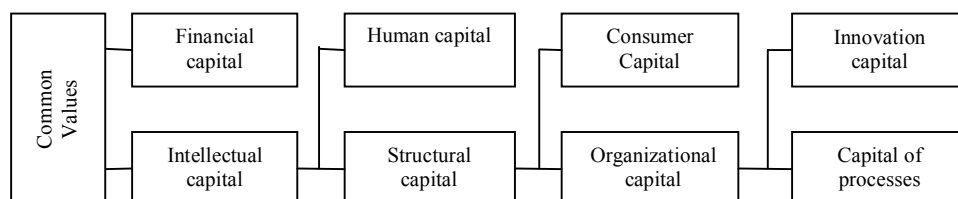


Fig. 1. The conceptual interconnections model of the «capital» concepts on the basis of the values creation of Leif Edvinsson



The intellectual capital content is manifested in the categorical apparatus definition determined by different approaches to the its structural elements allocation in the table given in the description presented in the description with the hierarchical order preservation by the conceptual interconnections

model and the values theory in the economics of L. Edvinsson and the definition of the intellectual capital definition concepts, isolated in the research course, the constituent elements of the considered type of capital, in essence, have been reflected in the forms the final «knowledge capital» structure.

Table 1. A meaningful structural elements description of intellectual capital

Structural element	Content Disclosure
1	2
The first level of intellectual capital division	
Human capital	Accumulated as a result of investments and realized in the company employees knowledge, practical skills, creative abilities, experience, general culture, moral values and attitude to the matter are the human resources quality that are not subject to adequate replacement by machines or paper documents. In the post-industrial era, human capital becomes a system-forming factor in the intellectual capital structure.
Structural capital	Everything related to the intellectual potential that remains in the company after the workforce departure, includes information systems, intellectual property, regulations, instructions, standards, certificates, awards, prizes received by the company. The structural capital includes, in addition, the firm culture and strategy, structure and system, as well as organizational procedures, etc.
The second level of intellectual capital division	
Relational capital	Business, economic and financial relations, consisting of clients, partners, consumers, suppliers, shareholders, intermediaries, competitors, government representatives, public organizations, etc. Relational resources are not the organization property and can not be fully controlled by it, as it depends to a large extent on the human factor.
Client (consumer market, brand) capital	Relations with customers and buyers that contribute to the successful implementation of the company's products and services (customer enterprise base, which is a related product of its activities). The client's capital includes: patents, licenses, trademarks and service marks, a commercial network for expanding goods and services sales, business relations with suppliers, marketing and technological cooperation agreements, fame, popularity, customers reputation, other contracts, the presence of their people (English Insiders) in the partner organizations (or clients), the regular customers presence, re-contracts with customers, etc.).
Organizational capital	The systematized and formalized company competence (awareness, conversance, authority), as well as organizational capabilities and systems that enhance its creative potential. The organizational capital includes: information resources, electronic networks, organizational structure, effective management, susceptibility to change, innovation, intellectual property (copyrights, hardware and software, computer programs, databases, etc.).
The third level of intellectual capital division	
Innovation capital	Company's ability to update, innovate (intellectual property protected by commercial law, other intangible assets and values).
Process capital	Systems of production and sale, after-sales service, etc.

Source: compiled by the authors on the materials [4], [12]

As can be seen from the table, according to generalization conducted by Sobko O.M. [13], despite not only relatively long-time equilibrium of the intellectual and innovative capital roles, but also the dominance of the second over the first, in modern scientific literature there is subordination as a separate innovation capital type in the structural hierarchical subordination of the constituent intellectual capital components, which is in contradiction gaining momentum with the latest trends in innovation-oriented development and the increasing transition pace to the sixth technological structure.

The connection of investigated non-financial capital types also manifests itself in the innovative intellectual capital concept existence. Let's consider it and some concepts, which have a significant contribution, in more detail.

The innovative intellectual enterprise capital concept development is reflected in the emergence of new proposals that complement the intellectual capital structure, taking into account new needs in providing human «progress» [13]. Thus, the Kazimierz

Perekhuda intellectual capital model (1998), based on the assertion that the innovation source is intellectual property, and human-centered assets generate added value [14]. The scientist points out that intellectual assets, representing the intangible enterprise values, are a source of innovation [13].

The most important D. Dobee model advantage is the scientific research impact consideration on the innovation capital formation, which defines promising vectors of the intellectual enterprise capital [13].

The interactive links existence between all intellectual capital elements of the enterprise leads to the emergence of a synergistic effect, which also affects the capitalization of the market enterprise value [15, 16, 17]. There are two main types of interconnections: the first group is formed by those that arise between the intellectual capital elements of the enterprise, the second - those that arise between intellectual and financial capital. It is absolutely correct if under the intellectual enterprise capital to understand the difference between its market and book value. Of course, this was reflected in the

transformations in the scientific terminology field and formed the basis for distinguishing the «cost platform» concept of the intellectual company capital, the author of Hubert Sant Onge, developed jointly with Leif Edvinson, Gordon Petrash [20], Charles Armstrong [19].

The most important feature of this concept is the interactive relationship and interdependence between intellectual and financial capital, as well as between structuring intellectual capital elements of an enterprise that determine the market value formation determinants of a business entity [13].

Along with the five intellectual capital theory development concepts of static (marketing, accounting, innovation) and dynamic (sociological, the «value platform» concept) approaches in the multilevel structural and logical scheme construction, one must also take into account the dynamic approach features of the Annie Brookings model [3], a British scholar, dealing with accounting and innovation concepts aspects, and highlights the following elements, mentioned above:

- market assets are intangible assets associated with exchange transactions that determine the firm position in the market (trademarks, customer affiliation, corporate name, orders portfolio);
- intellectual property assets are intellectual property (trademarks, service marks, patents, copyrights, production and trade secrets) protected by law;
- infrastructure assets are technologies, methods, processes that enable the company to operate (normative culture, management philosophy, market valuation methods, financial structure, databases);
- human-centered assets are intellectual assets used by the company (knowledge, skills, abilities, creativity of employees).

Relying on the O. Sobko intellectual capital concept varieties selection [13], realized through monitoring of its development on the basis the scientists and practitioners views grouping and the historical allocation of innovation capital from the intellectual with the acquisition of greater importance in the course of its development, we are going to build a structurally-logical intellectual and innovative capital causal link formation scheme as the innovation activity results (Fig. 2), compiled according to the innovations attribution principle in accordance with the «value platform concept» of the intellectual capital, in view of its structure-forming components they belong content.

Intellectual Property is a term used to designate intangible assets that are identified, described and listed in a specified organization's registry. That is fixed, documented intellectual capital, available to employees of the organization. Thus, being an important intellectual capital component, intellectual property does not exhaust its structure [12].

In view of this, the intellectual property commercialization is reflected in the innovations

commercialization, which, by its resulting intellectual work of labor resources, is its most often-stated, knowledge-based part, and at the same time transformed in the process of its registration into intellectual assets, determining the intellectual and innovative capital feedback.

As one can see from the figure, the same innovations as the core of the innovation enterprise capital, in the certain intellectual capital types composition, the changes brought forward may involve different concepts of the non-financial type of capital under consideration and be embedded in its structure by its nature and substance by the relevant elements on the one hand and used for its content and functional definition for the intellectual capital building itself.

Let's give an explanation regarding individual relationships. The organizational innovations ratio with organizational capital manifests itself in organizational transformations, in essence, in its related modernization, restructuring of the vertical and horizontal hierarchical directions, improving the infrastructure assets capital efficiency and the organization work as a whole.

In turn, aimed at increasing the innovation consumers needs satisfaction degree, reflecting the marketing concept content, laid the foundation of the modern intellectual capital «platform of value» model, find their place in the structural capital.

Economists who adhere to a marketing approach in the intellectual capital classification, within its types, necessarily allocate marketing assets or their synthesis, client, margin capital.

For example, the intellectual enterprise capital study in the framework of the marketing concept is devoted to the work of scientists S. Gildin, R. Pike (1990), which, distinguishing four intellectual property groups, justify the marketing influence on the strategic competitive enterprise advantages creation [20]:

- «value creators» are advertising, product development, other marketing elements;
- «marketing assets» are trademarks, trade marks, information systems;
- «value image» are a logo, a reputation;
- «marketing assets synthesis» or competitive advantage.

At what, doing, so-called marketing assets at the innovation stage and their subsequent transformation into the intellectual entrepreneurial activity subject property, depending on the structural element type, can be included in each of the capital: consumer, organizational, innovation. According to the same principle «value creator», «value image», «marketing assets synthesis» to structural and client capital.

Since the accounting knowledge capital development concept aims at search of ways of value displayable invisible values measurement, all developments regarding information provision and accounting reflections of the company's unrecorded values will serve as the basis for the scientific

accounting concept substantiation and relate to organizational capital and infrastructure assets in the context of the enterprise capacity increasing to transfer intellectual capital to the estimated, one of

which is innovation capital, being in its economic substance and the opportunity cost, market measurement in between non-financial and financial capital types.

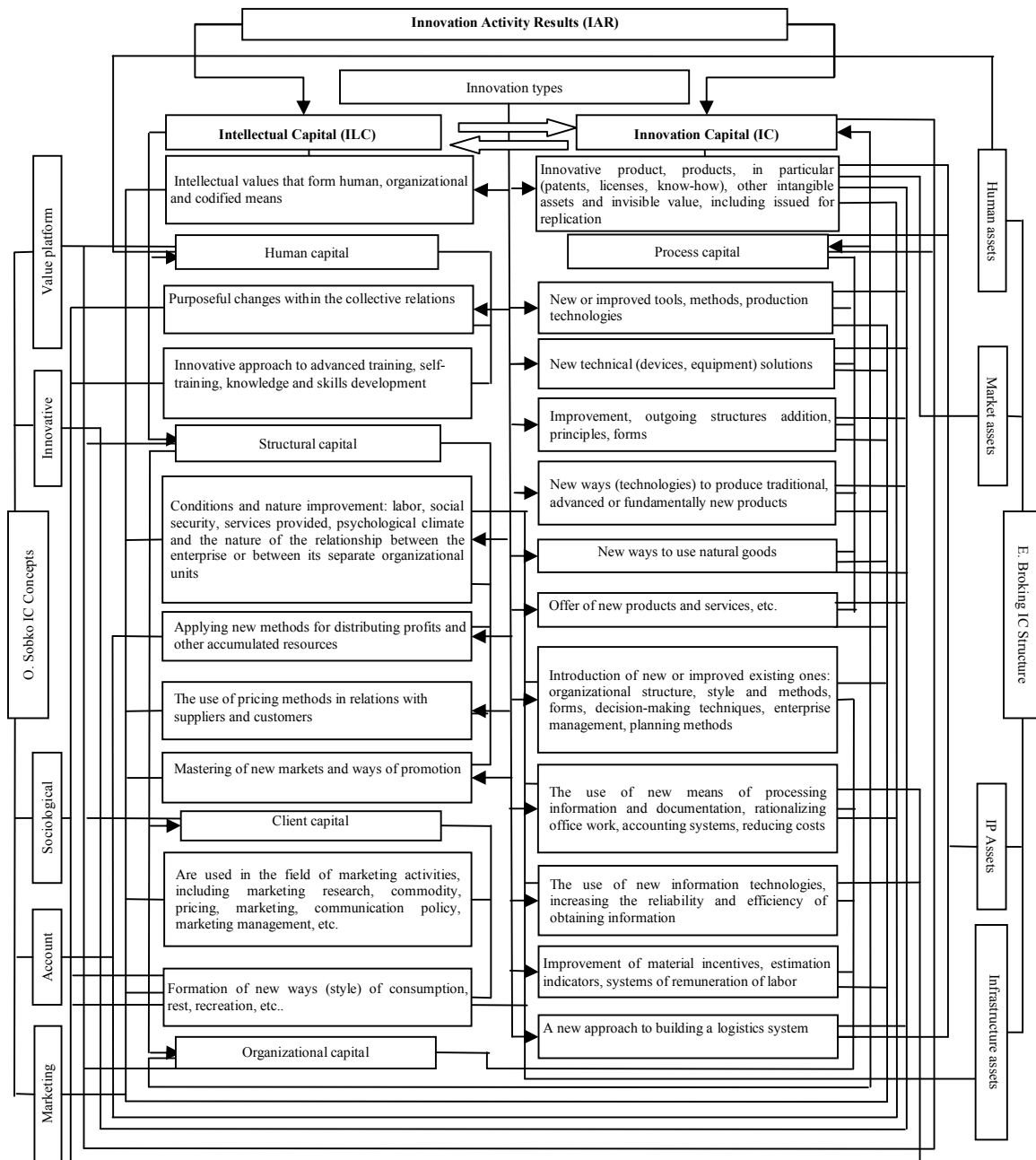


Fig. 2. A structurally-logical intellectual and innovative capital causal link formation scheme

Source: own elaboration

The changes made at each hierarchical intellectual capital form level ultimately lead to the new knowledge and skills development, that is, the individual intellectual capital development, resulting in obtaining from human capital as a result of their new solutions application and development.

If the non-technological innovation type is such as [21]: aimed at changing the methods and ways of planning all production and economic activity types, reducing production costs, improving material incentives, accounting system rationalizing, – are

embodied in the structure, market and organizational capital, then technological changes find their place isolated in terms of innovation and capital processes and are found in:

- development and implementation of technologically new products (product innovations) and processes (process innovation) [22];
- improving individual production and consumer parameters of manufactured models, techniques

and applied technologies based on the use of small inventions, which contributes to more efficient production of these models or to increase the efficiency of their use [23];

- are based on innovative proposals (improvements, additions to the original designs, principles, forms) and improve traditional products, technologies, etc. [24];
- which are the creation and fundamentally development instrument of the new products, processes, services, etc., which have no analogues in production practice [25];
- which reproduce in modern interpretation any products, principles, processes, etc., morally obsolete earlier in the original form, but are suitable for use in a new round in the development "spiral" of any kind of activity [25];
- commercialized innovative offers, patents, know-how, licenses, trademarks, trade marks, design, technological, etc. documentation, utility models, industrial designs, etc. [26].

The some technological innovation introduction requires changes in the work organization, management system, measures to ensure environmental safety [27], that commercialization, for example, to prevent the new or improved production introduction, organization, management, etc. principles. leads to gaining competitive advantages in the future for ensuring strategic development and in the context of innovation development.

As we see from a structurally-logical intellectual and innovative capital causal link formation scheme, a distinct dynamic approach elements differentiation of the E. Broking model and the innovative achievements and ready-made solutions implementation in the intellectual property assets group of the enterprise, and therefore directly and / or accordingly in the intellectual property enterprise composition and the innovative component of its capital in determining the belonging to the structural level of the analyzed non-financial capital type of the participants is established the system of relations between the supplier of goods, works, services and the consumer of these goods, works, services depending on the ability to be measurable and evaluated. But in view of the allocation of human capital under the accounting concept by L. Edvinson [28], which is the leading tool for the application, proof, improvement and use of the intellectual product, and all the last intellectual capital, that is, a structural, which clearly shows a direct connection of the creation, transformation, completion of the innovative intellectual capital on the one hand, with the integration of innovations based on the intellectual capital structure is a benchmark. In turn, mastering and applying the leading innovations implementing tool the organizational structure of the entrepreneurship subject, encouraging and contributing to the new developments and fundamental modifications creation, reflects the feedback, referring to mediation, but the vital and

irresistible sustainability of change, dictated by the innovative development type and commitment It interacts with the implementation of the relationship, emphasizes the cyclical nature of its implementation.

In confirmation of the relationship validity, we will make the typing characteristics conformity of the commercialized innovations and developments consistent with the essential disclosure of the intellectual capital form parts.

Guided by the innovations typing according to international standards [22], technological innovations in their content correspond to process and innovative structural intellectual capital, namely:

- the product innovations are the introduction into the use of a product or service and are new or significantly improved on the part of its use properties or methods. This includes significant improvements in technical features, components and materials, in embedded software, in ease of use or in other functional characteristics;
- the process innovations are the introduction of a new or significantly improved product production or delivery method. This includes significant changes in technology, production equipment and/or software.

Marketing innovations definition in its content covers the consumer capital concept disclosure videlicet the new marketing method introduction, including significant changes to the design or product packaging, its placement, promotion to the market or the sales prices assignment, aimed at more satisfying the consumer needs, opening new markets or gaining new positions for the company's products on the market in order to increase the volume sale [11].

In turn, organizational innovations are the new organizational method introduction in the enterprise, in the workplaces or external relations organization; aimed at the efficiency improving of the enterprise by reducing administrative costs or operating expenses, increasing employee satisfaction by the state of their jobs (and thereby productivity), expanding access to non-commodity assets (such as uncoded knowledge from external sources) or reducing shipping costs – correspond to the organizational capital [13].

Thus, each commercialized development type corresponds to its hierarchical level of structurally intellectual capital under the management of personnel and acts as a foundation-creating tool for its construction.

## **Conclusions**

Over time, intellectual capital not only received recognition along with the material and financial capital, but also gained more, the fundamental importance of the effective conduct of any economic activity. Proceeding from this position, in this scientific research the conceptual economic «intellectual capital» categories apparatus and one of the sources of its structural elements is «innovation» that arose as a result of the work of intellectual resources was investigated and reflected and developed from the development and distribution



process into a separate capital type, has gained a wider, more fundamental meaning in the effective innovation operation implementation, which has become synonymous with a successful nature; their mutual communication and conformity of typing commercialized innovations characteristics to the content of the constituent mentioned capital structure are specified.

The Constructed structurally-logical intellectual and innovative capital causal link formation scheme are substantiated by the necessity of a better understanding forming of the scientific environment of the practical activity needs on innovations creation demanded by the market, and not detached from their satisfaction, and also designed to highlight the mediation of the interrelation of the specified species of capital in the cyclicity of its execution in the creation, transformation, completion of each other by assigning the relevant innovations content to structure-forming elements of its intellectual form.

Given the urgent need noted by Sobko O.M., the development of a scientifically grounded accounting intellectual capital concept of an enterprise will make it possible to outline the vectors for improving the management of this important resource, and in Ukrainian realities, also, to increase the domestic enterprises capitalization, the implementation of

which is realized through the innovations introduction, in particular organizational type.

A promising research area remains a deeper innovation capital study as a category that represents the result of innovation.

There remains a controversial issue of the complexity of the intellectual and innovative capital ratio establishing with a meaningful assessment of the fact and degree of predominance over one another, determining the originality of innovation or intellectual property, intellectual potential, the understanding deepening of the cyclicity of the existing relationship between them and the appropriateness of their equivalence, the origin of intellectual capital from innovative as its result.

In the further research subject, there is an urgent need to deepen the definition and detail of the results from the innovation activities implementation of various significant effects: scientific and technical, economic, commercial, resource, social, ecological, etc. – and their influence on the formation, modification, intellectual capital restructuring, in the context productive innovation development of industrial enterprises in order to improve the quality results control, correct budgeting and strategic planning.

### Abstract

In this article the essential content of the economic categories "intellectual capital" and "innovation" was revealed with highlighting their correlation and interdependence in the context of an attempt to determine the results of innovation activity. The causal link formation between the intellectual and innovative capital of business entities is investigated, to consider the impact on the innovation of the intellectual capital system in the enterprise on the content of its structural elements and the conformity of the typization commercialized innovations and developments characteristics with the essential disclosure of intellectual capital components.

On the basis of the intellectual capital concept development consideration in the further research topics of the due to comparison of the specified non-traditional capital type composition models, a structurally-logical intellectual and innovative capital causal link formation scheme has been constructed, reflecting the correspondences executed in it between structure-forming components of knowledge capital and corresponding informative character innovative solutions, the interconnection implementation cyclicity of the creation, transformation, completion of intellectual and innovative capital each other has been substantiated.

The Constructed structurally-logical intellectual and innovative capital causal link formation scheme are substantiated by the necessity of a better understanding forming of the scientific environment of the practical activity needs on innovations creation demanded by the market, and not detached from their satisfaction, and also designed to highlight the mediation of the interrelation of the specified species of capital in the cyclicity of its execution in the creation, transformation, completion of each other by assigning the relevant innovations content to structure-forming elements of its intellectual form.

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