

INTELLECTUAL POTENTIAL MANAGEMENT IN FORMING STRATEGIC PARTNERSHIP OF SCIENCE-BUSINESS-EDUCATION

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Abstract. The *purpose* of the paper is to identify the components of the enterprise intellectual potential, which are promising areas of intellectual potential management that is the basis of a strategic partnership between business, science and education in the brewing industry of Ukraine. The novelty of the research is represented by the created theoretical model disclosing the specific advantages of such partnership for business, science and education in the context of intellectual potential management. The *object* of the scientific research is the process of the intellectual potential management and its role in forming strategic partnership of science-business-education. The research *method* includes the method of structural-logical analysis, the method of analysis and synthesis, the method of comparative analysis, statistical data and information analysis etc. The proposed algorithm for estimating the enterprise intellectual potential at the appropriate level of management includes ten stages, performing of which allows to get the calculated use level of the intellectual potential and its components: 1) providing the definition of generalized components of the enterprise's potential and its important subspecies; 2) selecting and calculating the list of the indicators for defining the relative efficiency; 3) calculating the relative coefficients' values for each enterprise considering average values in dependence of the type of activity; 4) aligning the contribution of the each subspecies of the potential; 5) calculating the efficiency coefficient of the consolidated relative use for each subspecies; 6) rationing the consolidated relative efficiency coefficient depending on their product; 7) calculating the potential share of each subspecies in the total value; 8) redistributing the obtained results by the components of the potential; 9) calculating the realized value of intellectual potential; 10) calculating the use level of intellectual potential and its components. The research is based on the Ukrainian brewing industry's data for the period of 2016-2019. The obtained *results* highlight the most problematic components of the intellectual resources of the brewing companies in Ukraine such as "human resources", "technological resources" and "management resources". These components are recommended to be considered as the most promising areas of the intellectual potential development of the brewing enterprises in strategic partnership with educational and scientific institutions. The *practical value* of the proposed instruments for the brewing enterprises is in the use of the adapted graph-analytical model, which gives the opportunity to assess the structural components of intellectual potential of the enterprise and define the strategic directions of perspective partnership.

Key words: intellectual resources, estimation algorithm, intellectual potential, management, strategic partnership, brewing enterprises.

JEL Classification: I23, J16, J71

1. Introduction

The modern business environment is in a constant turbulent state, which encourages the development of

economics and the formation of new paradigms that update new resource combinations, strategic vectors of development fundamentally, which in turn ensures the

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investment attractiveness of enterprises. In the current conditions of functioning and dynamic development, the business environment is characterized by the attraction of traditional and intellectual resources, which are the basis of business activity.

Effective management of a modern enterprise, which is based on the process of creating and maximizing value for owners and other stakeholders, involves, first of all, managing its potential. However, the world economy, especially the economies of developed countries, is qualitatively different from their state a century ago. There is a need to form modern concepts of enterprise management, taking into account a new priority source of value creation – intellectual potential. In the process of intellectual potential management of the enterprise, the strategic partnership of science-business-education is formed.

Intellectualization, innovation, professionalism, competence are the unifying components of the strategic partnership of science, education and business (Mazur, 2014). In turn, these components have a significant impact in the process of managing the intellectual potential of the enterprise.

2019 was a successful year for the brewing industry in terms of profitability of sales. A characteristic aspect of the development of the beer market is the strong branding policy of most beer producers (Beer Business, 2019). Most beer market leaders, such as AB InBev Efes, Carlsberg Group, PJSC "First Private Brewery", JSC "Obolon", maintained their positions in 2019, but are actively in need of additional tools to strengthen their competitive position. A strategic partnership with scientific and educational institutions can be one of such tools by involving them in the development of intellectual potential of these companies.

2. Literature review

The founder of the knowledge society concept P. Drucker, the author of the famous expression "*in the knowledge society managers should be ready to give up everything they know*", considered the priority task of managers to manage continuous flows of knowledge (Drucker, 1993), in turn updates the issues of this research. This trend has become a powerful driver for the formation of a new approach to effective management of intellectual resources – "*knowledge workers*". Many researchers note (Powell & Snellman, 2004) that the ability to form focus groups, motivate personnel and enable them to enrich their knowledge, in turn will lead to the absolute uniqueness of management, success, business idealism and prolonged competitive advantage.

In the context of the modern knowledge concept of K. Shannon's "information theory" (Shannon & Weaver, 1964) and F. Knight's "profit theory" (Knight, 2016), it is noted that "information" is not only an economic resource, but also a means of reducing risk

and overcoming uncertainty, which allows the business entity to achieve entrepreneurial success. Information as an economic resource differs significantly from other types of company resources. Characteristic features are timeliness, ease of distribution, self-growth in the process of use, uniqueness and value. That is, it can be noted that "information" is a powerful tool in competition. However, the use of information as an economic resource to create value occurs in two ways: the commercialization of information and direct impact on economic entities (Carayannis, 2004).

For modern business structures with long-term orientations for the future it is necessary to optimize resource management taking into account the possibility of ensuring the investment attractiveness of the enterprise. Despite the global patterns of market changes taking place in the business environment, the law of "*multiplicity of causes and effects*" (Kuršvietienė, Stanevičienė, Mongirdienė & Bernatoniene, 2016) is becoming increasingly important, the "*effect of strategic drift*" (Harris, Dopson, & Fitzpatrick, 2009), competition and etc. The corresponding tendency should be reflected in the system approach in management of activity of the enterprise, considering mental features of development of domestic business. That is, a key factor in achieving entrepreneurial success in modern business conditions is the focus on changing the management paradigm, which should be based on the principles of knowledge economy, which polarizes the company's ability to generate, create and implement product-technological and organizational-managerial innovations in symbiosis with companies to form a new product and take responsibility for their implementation. The new management paradigm requires a fundamental update of management methods and principles: the construction of a new functional matrix, the formation of effective mechanisms to enhance personnel behavior. In this regard, the principles of new management should be: diversity, initiative, adaptability, flexible distribution of power, intrinsic motivation and etc.

Considering the transformation of "*resource economy*" (Hibbard & Lurie, 2013) into "*open knowledge economy*" (Peters, Besley & Araya, 2014), the main factor in achieving success is the capacity and ability of employees to think, make decisions in conditions of increasing uncertainty, be able to use dynamic opportunities, resist global market changes, which in turn requires new approaches in assessment, motivation, control, behavior management. It should be noted that the "*open knowledge economy*" is an economic formation based on the relationship between the integration processes of the economic system. According to the concept of new management, the development of human potential and its effective use are necessary only if human interests are taken into account (Castro, 2012).

It should be noted that scientists are increasingly characterizing the modern business environment as a knowledge economy, although they do not give an unambiguous interpretation of this category. In particular, the scientific position of L. Melnyk (2018) is that she defines the knowledge economy as an economy in which everyday knowledge creates added value and ensures its competitiveness. Knowledge economy is also considered (Stefanita, Emelyanenko, Shkoda, 2017) as a system, where the leading role is played by the processes of generation, application and dissemination of knowledge in creating tangible, material and intellectual wealth, and generally accepted social values.

At the same time, at the level of enterprises, according to the categorical matrix of the theoretical and methodological basis of the knowledge economy, knowledge is represented by technologies. W. Powell and K. Shellman in their study under this term understand the production of goods and services based on knowledge-intensive activities, which simultaneously accelerates both technological and scientific growth and moral aging (Powell, Snellman, 2004). R. Baker notes that in such conditions enterprises are able to "use unique characteristics of knowledge to form competitive advantages through their storage, distribution and analysis through networks and associations, using new information technologies," that is, transform them into equal economic benefits (Baker, 2007).

L. Emelyanenko and T. Shkoda (2016), G. Bashnyanin, V. Kutsyk and I. Svidruk (2019) note the international exchange of technologies and the transfer of intellectual potential as a sign of our time. Thus, in modern economic conditions, the management of intellectual potential becomes one of the cornerstones of strategic management of the enterprise, focused on the concept of value maximization. Formulation and solution of theoretical and methodological problems of intellectual potential management is based primarily on the analysis of the economic content of this concept.

According to this position in the economic aspect, in the authors' opinion, the economic concept of "intellectual resources" can and should include the characteristics and results of intellectual activity, as well as other elements of intellectual functioning of the enterprise, including culture, relationships, leadership, trust, which provide control of the enterprise, receiving external and internal signals and forming models of appropriate actions (Diefenbach, 2006). Therefore, the authors tend to use the definition of "intellectual potential", because it not only reflects the features of the studied resources – infinity and intangibility, but also the nature and mechanism of their impact on the enterprise and its success: through a unique process of perception, processing and analysis of external signals, and synthesis based

on the obtained results of optimal decision models taking into account the criterion of cost maximization. That is, the intellectual potential should include both direct human resources and functional aspects of their use – marketing, management, innovation, including codified results of intellectual activity in the form of intangible assets (Andriushchenko et al., 2018).

Thus, it can be highlighted the advantages of this scientific position: determining the role of intellectual resources in the business cycle of the enterprise; selection of the classification criterion in view of the functions performed by them; formation of a hierarchical structure, according to which intellectual resources can be divided into those that directly form value and those that indirectly contribute to its creation; the possibility of using alternative management approaches as they complement each other (as in the case of a horizontal structure). One of the main shortcomings of the approach, in the authors' opinion, is the limited study of only the innovation process at the stage of value release that is focusing exclusively on new elements, while creating value for all stakeholders is also provided by existing "supporting" intellectual resources. Another point of discussion is the incomplete disclosure of the essence of the value formation mechanism in the process of intellectual potential management.

In the knowledge economy, the process of intellectual potential management is more effective, as it becomes the basis for the formation and development of strategic partnership of science-business-education. After all, all three spheres are represented by certain organizations, for each of which the strategic partnership is a specific model of development (Seleznova, 2019), when there is involvement and use of knowledge and skills of third parties from other two spheres to achieve strategic goals and gain or strengthen competitive advantage. In this case, as noted by H. Yamnenko (2014), a sign of the strategic nature of the partnership is also the unique contribution of each partner to achieve a common goal.

Salimova T., Vatolina N. and Makolov V. (2014) believe that the strategic partnership in education has its own specific. Strategic partnership in the field of education is performed on the basis of the appropriate agreement. And the purpose of such partnership is in realizing various innovative and educational targets including the intellectual potential development that let obtaining synergies effects due to interaction. In the authors' opinion, it can be considered as the example of the unique contribution of the educational institutions in strategic partnership with scientific institutions and business entities.

The purpose of the scientific article is to define the components of intellectual potential of the enterprise and justify intellectual potential management as the

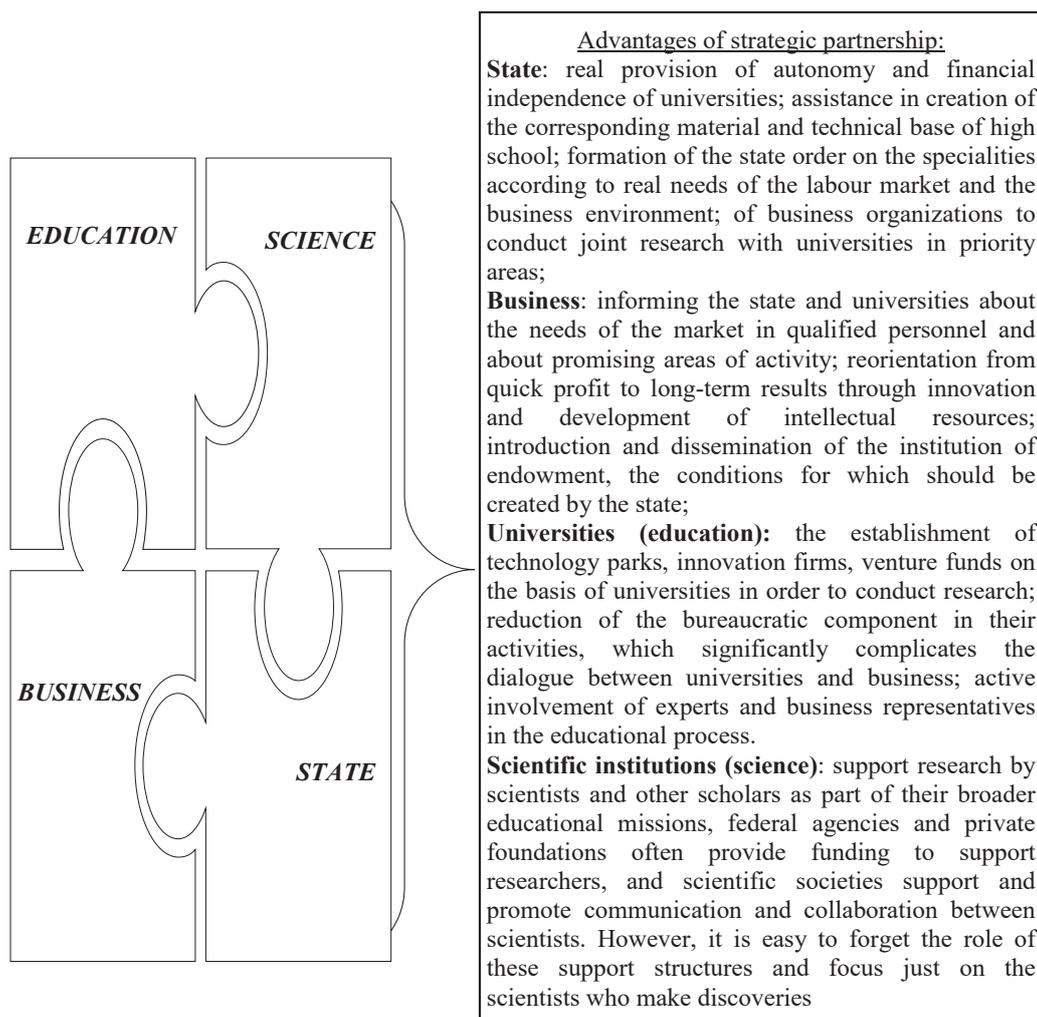


Figure 1. Advantages of the Strategic Partnership of Science-Business-Education

Source: developed by the authors

basis of a strategic partnership between business, science, and education.

3. Methods

To achieve the aim of the article, a set of general scientific and special methods of scientific research was used, namely: the method of structural-logical analysis to build the logic and structure of the study; the method of analysis and synthesis in building the model of specific advantages of the strategic partnership of science, education and business; the method of comparative analysis is used in the development of the algorithm for assessing the intellectual potential of the enterprise recommended for use as a tool for managing intellectual potential in the context of a strategic partnership of science, education and business; statistical data and information analysis using computer processing were used to conduct a comprehensive analysis of the assessment of the components of the intellectual potential of brewing enterprises.

The research is relied on the data of the financial reports of leading brewing companies in Ukraine during the period of 2016-2019 (SMIDA, 2020).

To increase the efficiency of intellectual potential management, it is proposed to comprehensively apply estimation methods depending on the level of management and its objectives (Table 1). Classical methods of estimation (revenue, cost, market) also have their own specificity in application by intellectual potential (Saaty, 2017). It is worth noting that at the strategic stage of management it is important to obtain aggregate cost information on the intellectual potential for long-term decisions, while the role of quality indicators is growing at the operational level.

It is necessary to assess not just the intellectual resources but the cost they can generate for an enterprise. Importantly, because of the significant synergistic effect of determining the aggregate intellectual potential, it can be much easier than its element-by-element assessment. The next step is the formation of an assessment model of intellectual potential, which corresponds to the goals

Table 1

Initial parameters of the algorithm for estimating the magnitude and level of use of the enterprise intellectual potential

A significant subspecies of potential	Coefficient of efficiency K_1^n	Adjusting multiplier k_1^n
Intellectual resources of the main personnel Π_1^I	Labor productivity Return on expenses on personnel behind net income	$k_1^n = 1$ Share of expenses on personnel in operating expenses of the period
Intellectual resources of administrative personnel Π_2^I	0,5 · Return on administrative expenses behind net income	Share of administrative expenses in operating expenses of the period
Intangible assets Π_3^I	Return on intangible assets behind net income	Share of depreciation of intangible assets in operating expenses of the period
Brand Π_4^I	(Gain of the customer base) / /(1 + Gain of the customer base) · · Market share coefficient Return on distribution costs behind net income	$k_1^n = 1$ Share of distribution costs in operating expenses of the period
Organizational resources Π_5^I	0,5 · Return on administrative expenses behind net income	Share of administrative expenses in operating expenses of the period
Client resources Π_6^I	$(1 - \frac{\text{Gain of the customer base}}{1 + \text{Gain of the customer base}})$ · Market share coefficient Return on distribution costs behind net income	$k_1^n = 1$ Share of distribution costs in operating expenses of the period
Resources of the relations Π_7^I	Return on other operating expenses behind net income	Share of other operating expenses cumulative costs of the period

The proposed algorithm uses the following parameters and symbols:
 Π^M, Π^F, Π^I are material, financial and intellectual components of potential;
 $\Pi_m^M, \Pi_f^F, \Pi_i^I$ are its subspecies, for which it is possible to determine the relative share of influence on the overall performance of the enterprise (number of subspecies $n=(1, A), A \in N$);
 K_l^n is use-efficiency coefficient of a potential's subspecies (for the n -th subspecies l such coefficients can be calculated, $l=(1, \bar{a}), a \in N$);
 R_l^n is the relative efficiency ratio for the indicator K_l^n ;
 k_l^n is the adjusting multiplier (to reconcile income and expenses). Determined for relative efficiency ratios;
 B_l^n are costs associated with a particular subspecies of potential;
 AR^n is the cumulative relative use-efficiency coefficient of a potential's subspecies;
 AR_N^n is the normalized value of use-efficiency coefficient AR^n ;
 $w(\Pi_n)$ is the share of the n -th subspecies of the potential in its total value;
 $w(\Pi^I)$ is the share of the intellectual component of the potential;
 $P(\Pi^I)$ is the level of use of intellectual potential;
 Π_n^I are subspecies of potential that are part of the intellectual component ($n=(1, \bar{t}), t \in N$).

Source: improved by the authors on the basis of Boiko (2014)

of enterprise management and its strategy. At the same time, intellectual resources have a certain intangible form, that is, their direct manifestation may not get into the focus of the management of the enterprise. Accordingly, only part of the available potential is detected, that is, available for use and control. Further, in the course of activity, only one is chosen among different variations of combination and consumption of intellectual resources, which produces intellectual potential.

That is, the identified potential may be different than realized, as it covers the value that can be generated by resources available to the enterprise, but not involved in operating activities in a particular period of time, as well as the value that could be created with optimal use of resources. In the first case, it may be, for example, codified business processes of the enterprise,

which employees do not use, as a result of which the activity is more costly than, with optimal adherence to procedures. The second situation may reflect the alternative use of, for example, an intellectual property object: an enterprise uses the technology alone, even if under market conditions it could obtain a higher value from royalties by transferring the technology license to others.

The overall result of the realization of the company's potential is also characterized by the economic added value of EVA TM. That is, the value of EVA (Bounfur, 2003) allows the researchers to fully assess the effectiveness of the use of intelligent resources. One of the common indicators, which gives a generalized idea of the use of intellectual potential, is an indicator of the Calculated Intangible Value CIV (Diefenbach, 2006).

To determine the contribution of a particular intellectual resource in the generation of net income further substantiated methodological approaches to assessing the intellectual potential of enterprises, which are the basis of the algorithm for determining its size and level of use. The algorithm is based on the allocation of components of the enterprise potential – material (fixed and working capital), financial and intellectual (human, organizational, relations).

The step-by-step logic of determining the share of elements takes into account author's works and suggestions. It should be noted that the algorithm is based on different use efficiency level of enterprises types of potential in a certain area. Under the same operating conditions and capacity consumption under the proposed algorithm (Figure 2), the shares would be equal for all components and additional analysis would be needed for redistribution.

Stage 1. Provides for the definition of generalized components and significant subspecies of the enterprise's potential, for which it is possible to determine the relative share of influence on the overall performance of the enterprise. Thus, for each structural component of the potential, in the authors' opinion, it is advisable to identify the main subspecies, between which net income will be distributed as the total value of the potential realized during the period of the enterprise. Such significant subspecies can be considered the potential of: fixed and working capital; invested capital; intangible assets, main and administrative personnel, customer and brand, other organizational resources, other relationship resources (Grant, 2004).

Stage 2. Selection and calculation of the indicators list K_i^n , which characterizes the relative efficiency use of the subspecies of the enterprise's potential; calculation of their absolute value. That is, the comparison of the use effectiveness of a particular element of potential by enterprises engaged in a particular activity is based on the calculation of relevant indicators. A significant number of such indicators for each type of potential gives a higher accuracy of assessment, but requires more complex calculations. However, one or two key coefficients are enough to build an abstract model by T. Boiko (2014).

Stage 3. Calculation of relative values of coefficients K_i^n for each enterprise on average values by type of activity:

$$R_{i,j}^n = \frac{K_{i,j}^n}{K_i^n} \tag{3}$$

Stage 4. Since certain subspecies of potential affect the performance of the enterprise through the implementation of costs, it is advisable to "align" their contribution with those that generate net income. As a correction factor, in the authors' opinion, the share of certain costs associated with a particular subspecies of capacity in their total value should be used:

$$k_{i,j}^n = \frac{B_{i,j}^n}{B_j} \tag{4}$$

Mathematically, $k_i^n = 1$, if the calculation of K_i^n for the corresponding subspecies of potential is associated only with income.

Stage 5. Calculation of the consolidated relative use efficiency coefficient for each subspecies of potential as the product of the corresponding relative efficiency and correction factors:

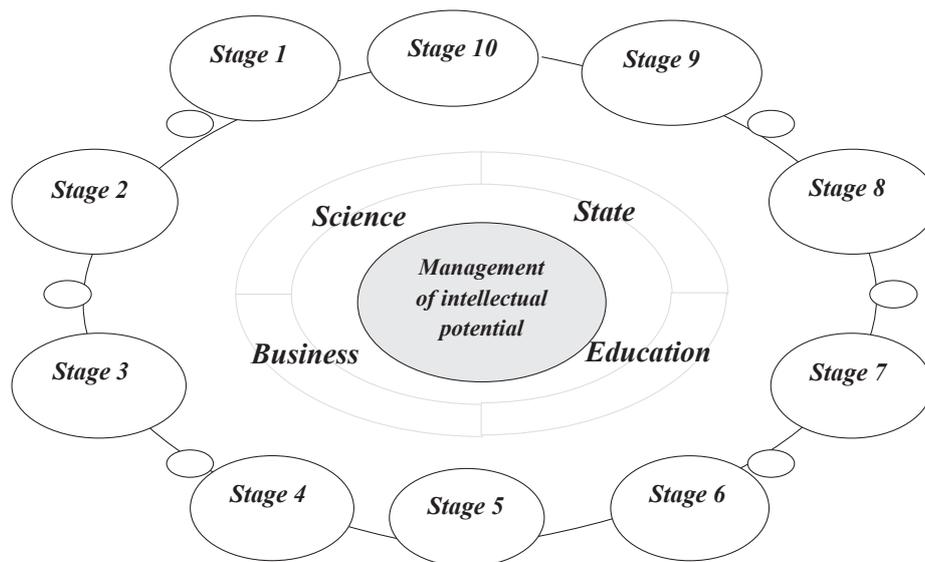


Figure 2. Management of intellectual potential as the basis of forming strategic partnership of science-business-education

Source: developed by the authors

$$AR_j^n = \prod_{i=1}^a R_{ij}^n \cdot k_i^n \quad (5)$$

Stage 6. Rationing of the consolidated relative efficiency coefficients by their product:

$$AR_{Nj}^n = \frac{AR_j^n}{\prod_{i=1}^a AR_j^n} \quad (6)$$

Stage 7. Calculation of the subspecies' share of potential in its total value:

$$w(\Pi_n) = \frac{AR_{Nj}^n}{\sum_{n=1}^A AR_{Nj}^n} \quad (7)$$

Stage 8. Redistribution and grouping of the subspecies' share of potential by its components. The subspecies' share of potential is calculated as the sum of the shares of its corresponding subspecies.

Stage 9. Calculation of the realized intellectual potential value:

$$\Pi' = w(\Pi') \cdot \Pi \quad (8)$$

The obtained indicative values of the potential components, including intellectual, give an understanding of their impact on the enterprise effectiveness; priority of formation, development and consumption; "gaps" and weaknesses in the process of use; guidelines for building and updating.

Stage 10. Calculation of the intellectual potential use level and its components (for the j-th enterprise):

$$P(\Pi^l)_j = \frac{w(\Pi^l)_j}{\sum_{n=1}^t w(\Pi_n^l)_{max}} \quad (9)$$

It should be noted that, since it is impossible to accurately determine the available intellectual potential, the level of its use will be conditional, and will be determined in relation to the best performance indicators.

Full and effective implementation of the intellectual potential management system also involves risk management, which will reduce the likely negative results of the use of intellectual resources. The category of "risk" has various aspects of understanding, but, in the authors' opinion, in the study of intellectual potential the economic risk should be considered as a specific characteristic of the economic situation deviation from the goals, the desired result, and the loss of the subject.

4. Results

Directly realized intellectual potential has two sections of measurement – as the resulting absolute value and as the net cash flow from resource consumption. To diagnose the use of intellectual potential in the first

aspect, it is proposed the authors' developed algorithm for comparing performance indicators, pre-specifying some of its parameters. It is also taken into account that, first, when distributing the value created between the component of the brand and the resources of customer relations, it is proposed by the authors to allocate the used potential of the brand based on the net growth of the customer base. Accordingly, the rest will be set aside for client resources. This approach is due to the fact that in this type of activity, long-term customer loyalty is an element of the relationship potential, while the brand affects the attraction of new customers. The value of the brand may also be manifested in mergers or acquisitions, but for the analyzed companies such events are absent. When allocating the potential of other organizational and managerial human resources, it will be optimal to determine equal shares, as there are no objective factors in determining the other relationship, and with such a choice, the shift in one direction or another will be minimal.

The adjustment factor for the financial component of the potential should be considered the share of capital investment in assets, which best reflects the possibility of re-involvement of financial resources in business development.

The analysis allows to identify the elements of intellectual potential that are used most fully or insufficiently by the brewing industry's enterprises in Ukraine (Figure 3). Those species that occupy the highest share in the potential used may be at the limit of their capabilities, that is to increase the effectiveness of activities it will need to expand the relevant resource base. On the contrary, low-weight potential components are underused, and it becomes necessary to find reserves for more efficient consumption of available resources. At the same time, the full use of such resources will result in the growth of other elements of capacity. To illustrate and better understand the results obtained, the dynamics of changes is reflected in the share of elements of the potential of brewing industry's enterprises.

Analyzing the data it can be seen that the best level of the potential of the "Carlsberg Ukraine" (organization – 49%, intellectual 48%, relationships – 47%, managerial – 44%, human – 42%, financial – 40%, innovative – 39%, technological – 40 %) and "Obolon" (organization – 39%, intellectual – 40%, relationships – 40%, managerial – 42%, human – 40%, financial – 40%, innovative – 37%, technological-39%) for all criteria. The rest of the studied enterprises lag behind the market leaders in terms of their potential level with indicators of Okhtyrka Brewery (organization – 8%, intellectual 8%, relationships – 8%, managerial – 9%, human – 13%, financial – 15%, innovative – 18%, technological – 16%), AB InBev Efes, Ukraine (organization – 5%, intellectual 4%, relationships – 5%, managerial – 6%, human – 6%, financial – 6%, innovative – 5%, technological – 39%), BeerDrug (organization – 17%, intellectual – 18%,

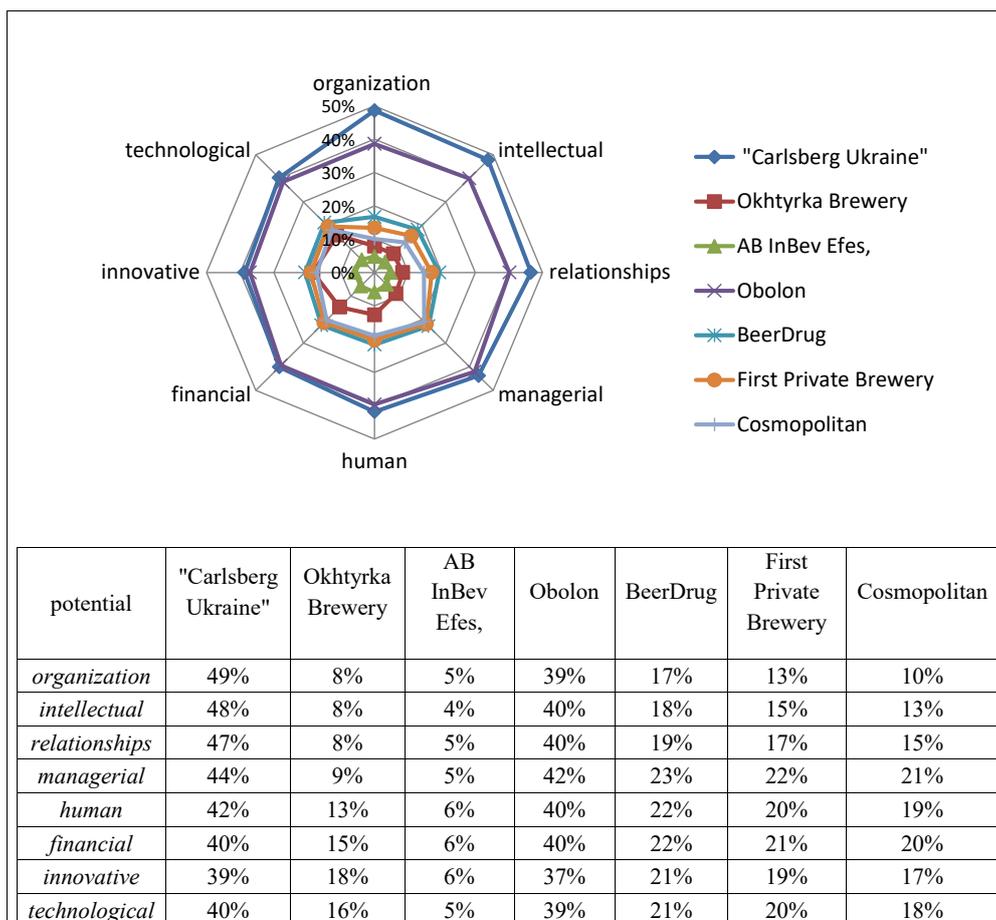


Figure 3. Indicators of intellectual potential realization elements of brewing industry enterprises in Ukraine during 2020

Source: calculated by the authors on the basis of (Smida, 2020)

relationships – 19%, managerial – 23%, human – 22%, financial – 22%, innovative – 21%, technological – 21%), First Private Brewery (organization – 13%, intellectual 15%, relationships – 17%, managerial – 22%, human – 20%, financial – 21%, innovative – 19%, technological – 20%), Cosmopolitan (organization – 10%, intellectual – 13%, relationships – 15%, managerial – 21%, human – 19%, financial – 20%, innovative – 17%, technological – 18%). For all enterprises in the brewing industry there is a steady trend towards a significant impact of the potential of fixed assets and intellectual potential on performance with much less significant potential of working capital and financial resources. This is due, firstly, to the significant capital intensity and lower need for working capital, as there is no production process, and the provision of services requires facilities and equipment. Secondly, the stagnation in the industry does not create the need for enterprises to attract additional financial resources (except for the needs of financing enterprises in certain periods). The discrepancy of the trend for PJSC “Carlsberg” in terms of financial resources is most likely due to the new policy and strategy of the company after the change of owners.

In the context of financial resources, the balance that indicates the economic stability of the industry as a whole is observed. There is a decreased efficiency in the use of traditional resources due to the rupture of economic ties between market participants, lack of raw materials of appropriate quality, high level of depreciation of fixed assets, imperfect pricing and tariff policy. Although at the present stage there is a tendency to level the main causes of reduced performance of economic entities and stabilize the situation, in particular among member companies of the association “Ukrpyvo”. The highest scores are observed in terms of the intellectual component, namely: “consumer resources”, have a positive development trend due to the fact that the brewing industry is aimed at the preferences of the end consumer. The brand is directly represented by the name of the company and its business reputation. A successful picture of a package of “organizational resources” is directly related to the mainstream corporate governance, as the key to successful entrepreneurship.

There are some differences in management resources, as PJSC SunInBev Ukraine and PJSC Carlsberg Ukraine are part of multinational

companies, so the management system is closely linked to the parent company, which complicates the speed and adaptability of decision-making, as sometimes managerial innovations are detached from the real situation in the country. PJSC "Obolon" and PJSC "Okhtyrka Brewery" are domestic enterprises, so they quickly adapt to the dynamic realities of the market environment due to the experience of the management staff. The beer market is very demanding, which encourages the development of the technological component of economic activity, and is a troublesome production process.

The situation with the taste of intoxicating drink is more complicated, because it depends on many factors that are almost impossible to control. Regarding PJSC Obolon and PJSC SanInBev Ukraine, they have a separate prescription unit, which controls the taste quality of raw materials and beverages, as well as creates new intoxicating products, which is an important tool of competition. Separately, it is necessary to pay attention to the enterprises of LLC BeerDrug which make craft beer. According to indicators in the field of intellectual resources, have significant advantages. This situation is explained by the speed of decision-making due to the simplified organizational structure, the possibility of rapid implementation of innovative products that meet the latest consumer and stakeholders' demands.

Also, the results are atypical for the analyzed period (2016 – 2019), due to both the general economic and political situation in the country and some changes in the use of potential elements by enterprises, which led to a relative modification of indicators for others. In particular, the loss of markets in the temporarily occupied territories affects the overall performance of enterprises and the potential of customer relations. The role of relations with other contractors, in particular suppliers, with government agencies is growing (due to increased payments to the budget, for example, payments for the use of radio frequencies). The value of borrowed capital in Ukraine has also changed dramatically due to the increased risk of losing it.

Three components of intellectual resources remain more problematic: "human resources", "technological resources" and "management resources". The employees' productive work emphasizes the importance of human resources. It is the driving force to achieve competitive advantage. In this package PJSC "Obolon" is the undisputed leader; this is primarily due to the careful selection of specialists and low staff turnover, with a successful motivational program and the introduction of corporate values. In general, breweries are positioned as socially responsible, primarily by involving employees with disabilities and investing in the training of their employees, as well as by developing their cooperation with educational institutions.

5. Discussion

Full use and development of intellectual potential requires an adequate process of assessing its value and impact on the effectiveness of the enterprise. In view of this, one of the objectives of the study was to assess not just intellectual resources but the economic value they can create for the company. To determine the contribution of a single element of potential in the achieved performance of the enterprise for a certain period and measure the level of use of existing intellectual potential, an evaluation algorithm is proposed, which is based on a comparison of general performance indicators. Important generalizations on the realization of intellectual potential also allow us to draw indicators of intangible intellectual value of CIV and added intellectual value of EVA.

Complete diagnostics, which can serve as an objective, adequate and timely basis for justification and implementation of management decisions to improve the efficiency of the enterprise, also involves determining the effectiveness of the management system of intellectual potential. To do this, it is proposed to use an adapted graph-analytical model in the form of a quadrilateral, which is based on a comparison of enterprises on a selected list of criteria within each area of research. This model allows determining the effectiveness of management by structural elements of intellectual resources, to study their impact on the enterprise as a whole, to assess the level of balance of use and development of intellectual potential, as well as to outline strategic goals and areas for improving its management and possible partnership with educational and scientific institutions, which have a great experience in such improving.

Theoretical generalizations allow consider the concept of "intellectual potential management" as a complex, subordinated to the strategic intentions and goals of the enterprise, the continuous process of forming and balancing the portfolio of intellectual resources, their consumption in economic activity, and increasing intellectual capacity. Particular attention is paid to the essence and content of the principles of intellectual potential management as basic vectors, the application of which allows to achieve the goals, as well as clarifying their essence and content. The proposed classification of management principles into basic and specific is expedient and practically oriented. The basic principles (scientific, purposefulness, objectivity, flexibility and adaptability, efficiency, continuity, economic feasibility and optimality) should be used at all levels of management, as they define the conceptual foundations of intellectual capacity management. Specific principles, which include adequacy of resources, availability of prospects for use, interdependence, dynamic equilibrium, reflect the characteristics of intellectual potential as an object of management, in particular, on

the one hand, its resource nature, and on the other – the probabilistic nature.

Management of intellectual potential forms the basic prerequisites for achieving the strategic intentions of the enterprise within a defined strategy. Considering the intellectual potential management system in the general hierarchy of enterprise management, it is important to identify its main elements: purpose, subject and object, principles, functions and methods. Each of them acquires a special essential value and affects the achievement of certain results. It is proved that a clear interaction of the main control elements can ensure high efficiency of reproduction, use and development of intellectual potential. It is substantiated that the process of managing the intellectual potential of enterprises is accompanied by a significant level of risks, the root cause of which stems from the nature of intellectual resources (incomplete exclusion, internal risks, difficulties of their purchase and sale), and the specifics of their use in terms of resource-oriented theory, which there is a high probability of possible gaps in the competitive position of the enterprise due to the loss of resources of such important characteristics as value, rarity, inability to copy or involvement in internal organizational processes during the involvement in economic activities.

6. Conclusion

Dynamic changes in the market environment encourage the reorientation of the economy to the values of business development, where the key to success is active innovation. In order to conduct large-

scale research, the subjects of market relations are united in associations, consortia, clusters and other organizational and legal forms to increase the resource base and conduct scientific and technical research. The key to success is: intelligence, competence, values, innovation, creativity, extraordinary methods and models that are difficult to copy. Through the interaction of existing knowledge and the constant search for new economic patterns, effective methods of economic activity, organization of business processes, as well as effective relationships with stakeholders are generated, which in turn is the basis for innovative business development and strategic partnership of science-business-education.

The analysis of assessing the intellectual potential components of the brewing enterprises in Ukraine demonstrated the potential areas of developing the intellectual potential management such as “human resources”, “management resources” and “technological resources”. However, it is also recommended to consider them as directions of possible strategic partnership with science and education institutions. It will differentiate the impact of the external environment and internal financial and economic condition of the enterprise and help to develop alternative strategies for managing intellectual potential.

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