

Social capital measurement based on “The value explorer” method

Viktor Ievdokymov^a, Serhii Lehenchuk^a, Dmytro Zakharov^a, Uliana Andrusiv^{b*}, Olga Usatenko^c and Larisa Kovalenko^d

^aZhytomyr Polytechnic State University, Ukraine

^bIvano-Frankivsk National Technical University of Oil and Gas, Ukraine

^cNational Technical University “Dnipro Polytechnic”, Ukraine

^dYaroslav Mydryi National Law University, Ukraine

CHRONICLE

ABSTRACT

Article history:

Received: October 30, 2019
Received in revised format: November 28 2019
Accepted: December 2, 2019
Available online:
December 2, 2019

Keywords:

Social capital
“The Value Explorer” method
Intangible asset
Social network
Trust
Social norms

The article substantiates the essence of the concept of “social capital” as a resource in terms of formed, permanent, established types of highly effective socio-economic interactions. In addition, the main directions of its manifestation and its structural elements are defined. It is stated that for quantitative measurement of social capital at the enterprise level, it is necessary to establish its precise framework, to determine its structure and key features. As an object of accounting, social capital should be regarded as an intangible asset. The expediency of using the Value explorer method for social capital estimation, which requires some necessary steps, has been substantiated as follows: the use of clearly established algorithm of actions in the implementation of rational selection for a new product; the use of internal and external innovations in the process of generating new ideas and production of innovations within the framework of the product realization strategy; identify areas of key competitive advantages related to social capital; determining the role of the sphere of competitive advantages in production and sales of products; gross profit distribution by key competitive advantages; calculation of the potential of the competitive advantages sphere; assessment of the durability and sustainability of the competitive advantages of the enterprise and calculation of the present value of all elements of social capital of the enterprise. Five main levels of social intangibles are identified and grounded. The study allows to form an appropriate matrix to analyze the effectiveness of their use in the enterprise.

© 2020 by the authors; licensee Growing Science, Canada

1. Introduction

Successful and effective management of an enterprise's resources is possible only if the objects of management are subject to measurement, both qualitatively and quantitatively. Intangible assets in the value of enterprises significantly exceed the value of tangible assets. An example of this is the deal where Google bought YouTube for (\$ 1.65 billion in 2006), with assets owned by YouTube amounting to only (\$ 0.55 billion, in 67%) of the amount paid was for intangible assets (Report CNBC, 2014). Today, social network, trust, and social norms are the constituent elements of social capital, which in turn is an important source of value creation for an enterprise. These elements, which have proven their abilities to generate additional income and other value, are advisable to calculate, designate them as a category of socio-economic intangible assets of the enterprise. It should be noted that the calculation is subject to what, in a certain way, appears as a value, in any other case, any attempt to quantify the economic phenomenon is inappropriate.

2. Literature review

Despite the importance of social capital for the value creation of an enterprise, there is still no definitive expression of social capital and the definition of its limits. This term also defines the relationships between subjects and their occurrence through networks, norms of interaction and trust (Putnam, 2001), and the potential of mutual trust and mutual assistance, rationally

* Corresponding author.

E-mail address: andrusivu@ukr.net (U. Andrusiv)

formed in interpersonal relationships (Coleman, 2000), and the benefits that the subject receives from managing resources based on their affiliations with a particular social network (Woolcock & Narayan, 2000). Scientists have different interpretations of the process of formation of social capital; there is no unambiguous interpretation of its attribution to one entity or group of enterprises. Moreover, some authors question the existence of “social capital” as a concept (Knocke, 1990). It should be noted that this point of view is atypical since most studies nevertheless state the presence of this form of capital and consider it as one of the important factors of the activity of the enterprise (Cohen & Prusak, 2001). According to Saukani, and Ismail (2019) “Social capital is a promising concept widely used by social scientists in analyzing the factors contributing to the persistence of various economic issues”. Bhandari and Yasunobu (2009) state that social capital is defined as a collective asset in the form of shared norms, values, beliefs, trust, networks, social relations and institutions that foster cooperation and collective action for mutual benefit. According to Portela et al. (2013), the relationship between different dimensions of social capital and subjective well-being has been analyzed in their work, and proved that social networks, social trust, and institutional trust are components that show a high correlation with subjective well-being. The influence of hybrid war on the formation of social capital under conditions of public confidence in business structures in Ukraine has been determined. Cherchata et al. (2020) offer a methodology of analysis and evaluation of business processes of enterprises, which provides for the definition of “problem” areas of certain business processes of the enterprise. Andrusiv et al. (2020) and Kinash et al. (2019) emphasize on the fact that venture capital is a way of targeted investment in innovative development and can become a catalyst for the introduction of innovative technologies, which will have a positive impact on the development of the enterprise.

Zhyhlei and Zakharov (2019) in their research have proved the role of social networks as a source of creation, accumulation and restoration of social capital, and noted the importance of networking that influence the socialization of society and widening its communicative boundaries in the conditions of development of modern socio-economic relations. Łopaciuk-Goncaryk (2019) proved the importance of participating in informal and formal social networks in enhancing social trust and respect for others. Garrigos-Simon et al. (2018) proved that academic interest in social and human capital is growing significantly, their relationship with sustainability, especially when compared to the relationship between sustainability and natural capital, as well as financial and economic capital. Roslinda (2018) considers in its work “Social Community Capital” in the management of the Danau National Park running National Park Management Center, and proved that government and the community need to cooperate and pay greater attention to resistance to changes. In a study by Swiss scientists, Guillén et al. (2015) it is highlighted how trust influences social relations in the local forestry context and reveals differences in the activities of similar farms. Afandi et al. (2017) consider the relationship between social capital and people's entrepreneurial participation in 35 countries in Europe and Asia and examine the impact of the three-dimensional concept of social capital - trust, networks and norms - on the three stages of the entrepreneurial process - preference, trial and success. Lee (2016) analyzed the relationship between social capital and task performance. The results showed that social capital had a statistically significant effect on task performance, task performance improved when perceived social capital was high. Hu (2011) proposed a model of macro-social capital measure, comprising three dimensions: network, trust and institutions, thus providing policy proposals for prioritizing investment in different areas. The scientists Lee et al. (2011) proposed to determine social capital using the social capital index, which includes four main components: social trust, norms, social networks and social structure, and identified the gap between East Asia and Western Europe in this indicator. Lins et al. (2016) as a result of the study identified: during the 2008–2009 financial crisis, firms with high social capital, as measured by corporate social responsibility (CSR) intensity, had stock returns that were four to seven percentage points higher than firms with low social capital. Thus, based on previous research, we propose the following definition: the social capital of an enterprise is a resource as formed, permanent, established forms of highly effective socio-economic interactions which has the economic value and is used in the economic activity to obtain economic benefits in the future. Hilary and Huang (2015) note that companies operating in regions where trust is more widespread, are less afflicted with agency problems, are more profitable and have higher rates. Besides, Hasan et al. (2016) found out that firms operating in regions with a higher level of social capital have moderately better conditions in private lending transactions. Non-financial reporting is essential for raising the level of social capital (Szadziewska et al., 2016). Effective non-financial reporting should communicate a comprehensive account of an organization's environmental and social impacts and performance, by providing information about its strategies, the progress and the contributions in this respect (Van & Hooks, 2007). The impact of social capital during the enterprise can most often occur through: the sustainable functioning of open network socio-economic interactions at all levels and a high level of corporate trust, from employees to management, and vice versa. In the process of economic activity, the “activators” of social capital are three of its key elements: social network (ties with stakeholders), trust (inter-company trust, image, and reputation as a reliable business partner), social norms (high level of social responsibility). The above items are a value proposition, which makes them objects to calculate a value.

3. Results

There are different methods for calculating the value of intangible assets. To assess social capital, we believe that one of the most detailed and proper techniques is *The Value explorer* method developed by KPMG (Andriessen, 2005). The primary purpose of this methodology was to assess the potential of the intellectual assets of the enterprise. One of the key reasons for the “effectiveness” of this methodology is the system of expert evaluations of various forms and methods of activity, as well as some implicit but realistically expected results. For traditional economic methods of economics, expert estimates are

considered non-standard, but such estimates are quite acceptable for the modern economy, where intangible assets and other objects resulting from an intellectual activity are the main objects of research and accounting. We suggest applying “The Value explorer” method to calculate the value of an entity's social capital. The approximate logic of management activities for valuation of intangible assets of the enterprise is as follows: first, a rational choice of the product that the enterprise plans to produce is made; secondly, generation of new ideas and production of innovations are made within the product strategy; thirdly, the areas of key competitive advantages associated with social capital are identified in the context of products of market novelty (matrix formation); fourthly, the role of the sphere of competitive advantage in the production and sale of products is determined; fifthly, the gross profit distribution is made by the areas of competitive advantage of the industrial enterprise; sixthly, a calculation of the potential of the sphere of competitive advantages as a percentage of the expected growth of profits of the enterprise for the year is made; seventhly, the durability and sustainability of the firm's competitive advantage are evaluated; eighthly, the value of the enterprise is calculated taking into account its intangible (in this case, social) assets (Andriessen, 2005).

1. In the process of the most rational choice concerning the creation of a new product one should be guided by the following algorithm: a) conducting an analysis of the innovative capacity of an industrial enterprise, that is, to answer the question: what product innovations and product modifications can an enterprise produce? b) determination of market niches and dynamics of current and future demand for products (marketing system); c) identification of the system of real and intangible factors that provide the company with current and strategic competitive advantages; d) making a final decision on the production of a new product.

2. Generation of new ideas and the production of innovations within the framework of product realization strategy includes a system of internal and external innovations. Internal innovations include: setting new goals in the development, in this case, determining the social capital of the enterprise; decisions on the purposeful use of this capital; search and definition of new forms of use of intangible social assets; qualitative updating of management of internal company knowledge. External innovations may include new forms of exploration of the client and, in general, of the social external capital of an industrial enterprise; in the creation of benefits, including added value for consumers; more substantive study of competitors and their creative capabilities; development of management in the sphere of building trust relations with counterparties, etc. The management of internal social capital should promote the qualitative updating of productive capital, designed to create marketable novelty goods based on intangible factors of production. Social and institutional entrepreneurship, in turn, are designed to create appropriate innovations that reduce “internal company’s bureaucracy” and increase the external “bargaining power” and business reputation of the enterprise. It is also necessary to identify their socio-economic competitive advantages and to develop a system of measures for their effective use.

3. Identification of areas of key competitive advantages related to social capital in the context of specific products of market novelty. Suppose company “X”, with a book value of \$ 30 million, plans to manufacture two types of products (A and B). First, we calculate the profit that the enterprise receives as a result of production (hypothetical data are given in the Table 1). Profit is calculated by deducting direct costs from income derived from the market sales of the products. Direct costs are material and financial costs that can be directly attributed to the goods produced.

Table 1
Enterprise’s financial indicators

Indicator	Product A	Product B	Total
Revenue, mln. \$	21	24	45
Direct costs, mln. \$	-15	-14	-29
Gross profit, mln. \$	6	10	16

All types of resources owned by the enterprise are used to create A and B products. It is assumed that it has certain competitive advantages, which include the following intangible social assets: high-performance networking (providing the necessary level of contact with partners and the client base of the market); high level of trust (synergy of creativity and labor potential and minimization of transaction costs is ensured); high level of business reputation of the firm (loyal consumer attitude and stable partnership with counterparties).

Next, we need to form a matrix of “competitive advantage” of the company, which is expected to receive new products. The criteria for determining the product's ability to increase social capital, generate economic benefits and enhance the innovative component of the enterprise are given in Table 2. It is worth noting that compliance with social criteria is compulsory because they are essential in calculating the usefulness of an intangible social asset. That is, in order to calculate the value of social capital, a product must meet 5 criteria that characterize its ability to generate social capital. Other criteria are additional and increase the enterprise competitiveness.

Table 2
Criteria for a product's ability to generate social capital

No	Category	The name of the criterion	Description of the criterion
1	Social	Increased trust	Inclusive presentation of financial and non-financial indicators of the enterprise, business model, risks and strategy. A synergy of creativity and labor potential and minimization of transaction costs is ensured.
2		Social network development	Involvement of partners in the development and implementation of a product that promotes the development of partner networks. The necessary level of contact with partners and the client base of the market is ensured.
3		Social norms, reputation	Compliance with regulatory, tax and other requirements in the field of accounting and reporting. The purpose is to prevent possible sanctions and other actions against the enterprise that is capable of influencing the enterprise's reputation as a socially responsible person. Consumer loyalty and sustainable partnership with counterparties.
4		Internal control	Designed systems, processes and procedures of risk management, which enable to increase the efficiency of units that generate social capital.
5		Internal audit	There is a continuous process of auditing the activity of the company, which confirms the effective work on risk management, management processes and internal control of the enterprise.
6	Economic	Cost management	An analysis of the opportunity to reduce costs while maintaining or increasing the current level of value. Continuously identification and reduction of the costs of the enterprise are envisaged, with the simultaneous release of resources to invest in innovative intangible social products that are able to create value for stakeholders.
7		Investment efficiency	Assessment of the feasibility of investing in a specific product, taking into account the enterprise strategy, priority options, cost-effectiveness, as well as the ratio between acceptable profits and unacceptable risks. Investing in a product is in line with a sustainable development strategy.
8		Financial management	Transparent corporate governance of all financial matters, the provision of external and internal sources of business financing, including currency and interest rate risk management, interaction with banking institutions, financial and cash flow management. Stakeholders of all levels have access to management information.
9	Technological	Project management	Develop a project to promote a product on the market to ensure that new knowledge and resources are available at the right time and place, in order to achieve timely, cost-effective and quality results.
10		Resource management	Set priorities in the provision of resources when making decisions in the company. It allows the enterprise to effectively manage the transformation or continuous improvement of products and processes. It provides adaptation of resources, systems, and employees, taking into account the strategic goals and priorities of the enterprise.
11		Creating innovative products	Increase in the share of new technologies and an increase in the number of scientific and technical products that ensure the creation of an intangible social asset.

Next, it is necessary to expertly determine how competitive a product is, is it capable of generating social capital, and what level of resource provision is needed to create such a social intangible asset. In the Table 3 the characteristics of the level of social intangible assets and the resources needed to create such assets to form a “competitive advantage” matrix are presented.

Table 3
Levels of social intangible assets

Level	Characterization of the level of social intangible assets	Characterization of the level of resource support for the social intangible assets development
High (A - 5)	The enterprise has a high level of competitive advantages, holds the highest positions in the market; the development of intangible social assets is aimed at maintaining market leadership.	High level of resource support for the development of intangible social assets; the uniqueness and complexity of copying resources.
Sufficient (B - 4)	The enterprise has a sufficient level of competitive advantage; the quality level of intangible social assets above the industry average; the further development of intangible social assets is needed to maintain competitiveness.	The enterprise is provided with resources for the development of intangible social assets; competitiveness is provided with rather unique resources.
Medium (C - 3)	The enterprise has a minimum level of competitive advantage and generally suitable quality of intangible social assets; which provide an industry-wide level of competitiveness; the company needs new sources of social capital formation.	The enterprise is provided with a minimum level of resources for the creation of intangible social assets; competitiveness of the enterprise at the mid-industry level.
Low (D - 2)	Poor quality of use of intangible social assets; low competitiveness; the company needs sources of intangible social assets.	The company does not have sufficient resources to create quality intangible social assets; low rates of innovative development of the enterprise.
Crisis (E - 1)	Critically poor quality of intangible social assets; social capital does not generate a competitive advantage.	The enterprise does not have the resources to support the development of intangible social assets; the need to find sources of resources for the formation of social capital.

Expert evaluation of the role of intangible social assets of an enterprise in generating profit is given (Table 4).

Table 4
Matrix of enterprise's social assets levels

Indicators	Resources for intangible social assets creation					
	Levels	Crisis	Low	Average	Sufficient	High
Intangible social assets level	Crisis	EE - 2	ED - 3	EC - 4	EB - 5	EA - 6
	Low	DE - 3	DD - 4	DC - 5	DB - 6	YES - 7
	Average	CE - 4	CD - 5	CC - 6	CB - 7	CA - 8
	Sufficient	BE - 5	BD - 6	BC - 7	BB - 8	BA - 9
	High	AE - 6	AD - 7	AC - 8	AB - 9	AA - 10

Sectors AE, BE, AD illustrate the high level of imbalance in the level of development and resource support for the development of intangible social assets of the enterprise. Despite the high level of development of intangible social assets, the lack of sufficient resources makes it difficult to maintain the level achieved in the future and impedes the use of the potential of such assets in the enterprise innovation process. The EA, EB, DA sectors also indicate an imbalance in the level of development and resource support for the development of intangible social assets of the enterprise. However, their low level of development, given the high level of resource support for the development of intangible social assets, characterizes the availability of many opportunities to increase the level of development of intangible social assets of the enterprise under the conditions of efficient use of available resources. In general, the excess of the level of resource provision over the level of development of intangible social assets of the enterprise indicates the existence of prospects for their development by the enterprise. Exceeding the level of development of intangible social assets over the level of the enterprise's resource provision of the intangible social asset development is an indicator of problems of innovative development of the enterprise in the long-run period. In such circumstances, it is important to make appropriate management decisions in order to overcome the imbalance in the system of providing innovative development of the enterprise. Suppose that the overall results of the work look are given in Table 5.

Table 5

The results of competitive advantages assessment

Competitive advantages	Product A	Product B
Social network	DD - 4	AB - 9
Trust	CC - 6	CD - 5
Social norms	DD - 4	DE - 3
Total	14	17

According to the results of the formed matrix, we have the answers to the following interrelated questions: a) the extent to which each competitive advantage of the enterprise affects the profitability of each of the products created; b) the profitability of which product (A or B) is more determined by the intangible social assets of an industrial enterprise? In our case, for example, the profitability of commodity B is much more dependent on the intangible assets of the enterprise than the profitability of commodity A.

4. Determining the role of the sphere of competitive advantages in the production and sale of products. This stage of work can be called "intermediate" because here the data of the previous table is estimated as a percentage. That is, the proportion of each product's competitive advantage is calculated. It is assumed that the identified percentages and is the role of one or another factor of competitive advantage in the formation of profitability from a particular product (Table 6).

Table 6

Share of competitive advantages in products "A" and "B"

Competitive advantages	Product A	Product B
Social network	28	53
Trust	44	30
Social norms	28	17
Total	100	100

5. Gross profit distribution by key competitive advantage, bearing in mind that the profitability of product A was \$ 6 million and the profitability of product B, respectively, \$ 10 million (Table 1). The distribution will be as follows (Table 7).

Table 7

Profit sharing for competitive advantage

Competitive advantages	Product A, \$ mln	Product B, \$ mln	Share of competitive advantage in profit, %
Social network	$(6.0 \times 28\%) = 1.7$	$(10.0 \times 53\%) = 5.3$	43.7
Trust	$(6.0 \times 44\%) = 2.6$	$(10.0 \times 30\%) = 3.0$	35.0
Social norms	$(6.0 \times 28\%) = 1.7$	$(10.0 \times 17\%) = 1.7$	21.3
Total	6.0	10.0	100

The analysis of the table data allows us to conclude the following. The most profitable competitive advantage for product A is a high level of trust (2.6); the most profitable competitive advantage for product B is network connections (5.3). From intangible social assets, the profit of the enterprise is to a greater extent provided by the efficiency of the social network (43.7%) and a high level of trust (35.0%). The development of goodwill (21.3%) requires significant additional efforts of all management entities.

6. Next, the potential of the competitive advantage sphere should be calculated as a percentage of the expected profit growth of the enterprise for the year. The calculation of the potential of the key competitive advantages of the enterprise is to determine the percentage of the expected growth of gross profit for the year, at the expense of the considered intangible assets.

Annual growth and growth rates of production are calculated based on current internal company's information. The results of the calculations are presented in Table 8.

Table 8

Competitive advantage potential

	2018			2017			Annual growth rate		Dynamics	Potential
	Product A	Product B	Total	Product A	Product B	Total	Product A	Product B		
Gross profit	5.4	13.0	18.4	6	10	16.0	-10%	+ 30%	-	-
Social network	1.5	6.9	8.4	1.7	5.3	7.0	-10%	+ 30%	1.4	20%
Trust	2.4	3.9	6.3	2.6	3.0	5.6	-10%	+ 30%	0.7	12.5%
Social norms	1.5	2.2	3.7	1.7	1.7	3.4	-10%	+ 30%	0.3	8.8%
Total	5.4	13.0	18.4	6.0	10.0	16.0	X	X	2.4	15%

In the example, the integral percentage is equal to 15%, as evidenced by the data in the table, in the system of intangible social assets of the enterprise a key role in the economic strategy, all things being equal, will be played by its highly effective social networks. Strategically, the trust system and social norms require the additional mobilization of the managerial innovation capital of managers and all staff.

7. An assessment of the longevity and sustainability of an enterprise's competitive advantage is based on internal and external information. Taking into account the "matrix of competitive advantages" of the enterprise (Tables 2 - 4), which are expected to be obtained from the release of new products, the expected periods of effective use of intangible social assets are calculated. Exemplary parameters and indicators of this assessment are shown in the Table 9.

Table 9

Assessing the sustainability of competitive advantages

Competitive advantages, years	Durability (demand estimation)	Sustainability (resource in a specific area of competitive advantage)	Priority over competitors	The average result
Social network,	3	4	4	4
Trust	3	5	6	5
Social norms	2	2	3	2

According to the table, the least durable for an enterprise is its intangible asset as a business reputation, which appears as a fairly unstable element for its prospects. The obtained average results serve as the next key indicators for calculating the economic value of the enterprise. Based on these indicators, we can reasonably believe that given the other things being equal, the company can confidently enjoy its competitive advantages in the form of social assets for 3 years.

8. Calculation of the present value of all elements of the social capital of the enterprise is performed by considering that they would be active within the enterprise within three years. The prospective cost of the elements of the social capital of the enterprise, taking into account a hypothetical bank interest equal to 17%, are presented, respectively, in Tables 10-12.

Table 10

Discounted cost of social networks

Year	Gross profit, \$ mln	Discount rate	Discounted value, \$ mln
2018	8.40	$1 / (1 + 0.17) 1 = 0.85$	7.14
2019	10.08	$1 / (1 + 0.17) 2 = 0.73$	7.36
2020	12.10	$1 / (1 + 0.17) 3 = 0.62$	7.50
Total	30.58		22.00

According to the table, we can see that the value of effective enterprise networks within 3 years is estimated at \$ 22.00 million, and this amount should be added first to the balanced sheet value of the enterprise.

Table 11

Discounted trust value

Year	Gross profit, \$ mln	Discount rate	Discounted value, \$ mln
2018	6.30	$1 / (1 + 0.17) 1 = 0.85$	5.35
2019	7.09	$1 / (1 + 0.17) 2 = 0.73$	5.18
2020	7.98	$1 / (1 + 0.17) 3 = 0.62$	4.95
Total	21.37		15.48

It can be seen that the estimated three-year value of trust held and used by both managers and staff of the enterprise is \$ 15.48 million, which should also be added to the balanced sheet value of the enterprise.

Table 12

Discounted value of social norms

Year	Gross profit, \$ mln	Discount rate	Discounted value, \$ mln
2018	3.70	$1 / (1 + 0.17) 1 = 0.85$	3.15
2019	4.03	$1 / (1 + 0.17) 2 = 0.73$	2.94
2020	4.38	$1 / (1 + 0.17) 3 = 0.62$	2.72
Total	12.11		8.81

In this case, the value of the company will increase by another \$ 8.81 million. The total discounted value of the elements of the social capital of the enterprise is shown in Table 13.

Table 13

The total present value of the enterprise's social capital elements

Competitive advantages	Present value, \$ mln	Specific weight, %
Social network	22,00	48
Trust	15,48	33
Social norms	8,81	19
Total	46,29	100

Thus, the total present value of the social capital elements of the enterprise is \$ 46.29 million. Taking into account the previously stated book value of the enterprise (\$ 30.0 million), the total market value of the firm is \$ 76.29 million. It is worth noting that the value of social capital in our case is almost twice as much as the value of the material and cash resources available in this enterprise. It can be stated that \$ 76.29 million is the real economic value of the enterprise, which is almost three times higher than its accounting value.

3. Conclusions

Social capital should be considered and presented as a limited real or potential resource for social interaction. It has the ability to reproduction, collective accumulation and transformation into other forms of capital. The resource aspect of the dual nature of social capital has some specific features: firstly, individual accumulation of social capital is impossible (only use) because it is a consequence of collective action and collective accumulation. Secondly, the benefits of investing in the social capital of an enterprise (or society) are only a likely result of influencing the social interaction system. Social capital has liquidity, but it is expressed in an indirect form (minimizing transaction costs or reducing the time to seek necessary information). Thirdly, social capital is the result of communication and cooperation between enterprises, maximizing collective benefit by increasing internal and external investment in their reproduction and development. Fourthly, social capital is capable of converting to other forms of capital. The suggested methodology for calculating the value of social capital is an advanced version of "The Value Explorer" method. The novelty of this technique is that the key elements of a company's social capital are clearly presented here; in addition, the emphasis is placed on the binding management decisions, at the same time, in the field of internal company's as well as between company's socio-economic relations.

References

- Afandi, E., Kermani, M., & Mammadov, F. (2017). Social capital and entrepreneurial process. *International Entrepreneurship and Management Journal*, 13(3), 685-716.
- Andriesson, D. (2005). Implementing the KPMG Value Explorer: Critical success factors for applying IC measurement tools. *Journal of Intellectual Capital*, 6(4), 474-488.
- Andrusiv, U., Kinash, I., Cherchata, A., Polyanska, A., Dzoba, O., Tarasova, T & Lysak, H. (2020). Experience and prospects of innovation development venture capital financing. *Management Science Letters*, 10(4), 781-788.
- Bhandari, H., & Yasunobu, K. (2009). What is social capital? A comprehensive review of the concept. *Asian Journal of Social Science*, 37(3), 480-510+323+327.
- Cherchata, A., Popovychenko, I., Andrusiv, U., Simkiv, L., Kliukha, O & Horai, O. (2020). A methodology for analysis and assessment of business processes of Ukrainian enterprises. *Management Science Letters*, 10(3), 631-640.
- Cohen, D. J., & Prusak, L. (2001). In good company: How social capital makes organizations work. *Ubiquity*, 2001(January), 3.
- Garrigos-Simon, F. J., Botella-Carrubi, M. D., & Gonzalez-Cruz, T. F. (2018). Social capital, human capital, and sustainability: A bibliometric and visualization analysis. *Sustainability (Switzerland)*, 10(12).
- Guillén, L. A., Wallin, I., & Brukas, V. (2015). Social capital in small-scale forestry: A local case study in southern sweden. *Forest Policy and Economics*, 53, 21-28.
- Hasan, I., Hoi, C., Wu, Q., and Zhang, H. (2016). Social Capital and Debt Contracting: Evidence from Bank Loans and Public Bonds. *Journal of Financial and Quantitative Analysis*, 52(3), 1017-1047.
- Hilary, G., & Huang, S. (2015). Trust and Contracting. *Chinese Accounting Professors' Association of North America 8th CAPANA 2015, July 9-10; SMU-NUS-NTU Junior Faculty Conference 2015*, 53.

- Hu, L. (2011). Human capital, social capital, and economic growth: Evidence from panel data in china. *Paper presented at the 2011 International Conference on E-Business and E-Government, ICEE2011 - Proceedings*, 3275-3278.
- Kinash, I. P., Arkhypova, L. M., Polyanska, A. S., Dzoba, O. G., Andrusiv, U. Y., & Iuras, I. I. (2019). Economic evaluation of tourism infrastructure development in ukraine. Paper presented at the *IOP Conference Series: Materials Science and Engineering*, 477(1).
- Knoke, D. (1990). *Organizing for Collective Action: The Political Economies of Associations*. New York, Aldine de Gruyter, 258 p.
- Lee, D., Jeong, K. -, & Chae, S. (2011). Measuring social capital in east asia and other world regions: Index of social capital for 72 countries. *Global Economic Review*, 40(4), 385-407.
- Lee, S. N. (2016). The relationship between social capital and task performance in the Korean service industry. *Information (Japan)*, 19(9B), 4157-4162.
- Lins, Karl V., Servaes, H., & Tamayo, A. (2015). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *Journal of Finance, Forthcoming; European Corporate Governance Institute (ECGI) - Finance Working Paper No. 446/2015*.
- Łopaciuk-Gonczyryk, B. (2019). Does Participation in Social Networks Foster Trust and Respect for Other People—Evidence from Poland. *Sustainability*, 11(6), 1733.
- Portela, M., Neira, I., & Salinas-Jiménez, M. M. (2013). Social capital and subjective wellbeing in europe: A new approach on social capital. *Social Indicators Research*, 114(2), 493-511.
- Putnam, R. (2001). *Bowling Alone: The Collapse and Revival of American Community*. N.Y., Simon and Schuster, 544.
- Report CNBC. URL: <https://www.cnbc.com/2014/08/19/googles-best-and-worst-acquisitions.html>.
- Roslinda, E. (2018). Social capital of the community in the management of danau sentarum national park, west kalimantan, indonesia. *Biodiversitas*, 19(4), 1249-1257.
- Saukani, N., & Ismail, N. A. (2019). Identifying the components of social capital by categorical principal component analysis (CATPCA). *Social Indicators Research*, 141(2), 631-655.
- Szadziewska, A., Spigarska, E., & Majerowska, E. (2018). The disclosure of non-financial information by stock-exchange-listed companies in Poland, in the light of the changes introduced by the Directive 2014/95/EU. *Zeszyty Teoretyczne Rachunkowości*, (99 (155)), 65-95.
- van Staden, C. J., & Hooks, J. (2007). A comprehensive comparison of corporate environmental reporting and responsiveness. *The British Accounting Review*, 39(3), 197-210.
- Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The world bank research observer*, 15(2), 225-249.
- Zhyhlei, I., & Zakharov, D. (2019). Social capital of business in hybrid war conditions: Concept, components, functions. *Przegląd Wschodnioeuropejski*, 10(1), 275-285.



© 2020 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).