707

Int. J Sup. Chain. Mgt   Vol. 9, No. 1, February 2020

Assessment Methodology of the Supply Chain Management in Social Entrepreneurship Development at the Macro-regional Level

Takmasheva I.V.

Yugra State University

Abstract- **Effective supply chain management of the active development process of the social economy requires the use of separate tools to measure the level of social entrepreneurship, including the state of the environment in which enterprises are created. In this regard, the author proposes a method for assessing the level of the social entrepreneurship development in the macro-region. The method of calculating the integrated index of innovative development of the region as the basis of the proposed tools was used and subsequently adapted. The proposed calculation model was adapted to the problem of measuring the level of development of social entrepreneurship by including an expert method for determining the weight coefficients of each thematic block. An evaluation scale was also introduced, which can serve as a basis for making recommendations for consistently improving the level of social entrepreneurship development in the region. The evaluation is calculated in four consecutive stages: collecting the values of each indicator, rationing each indicator included in the evaluation system, calculating the index for each thematic block, and calculating the integral index for the development of social entrepreneurship.**

Keywords- *methodology, social entrepreneurship, supply chain management, evaluation indicators, macro-region, social innovations.*

1. Introduction

Social enterprises are businesses supplying all kinds of products and services. Building a social enterprise supply chain means we now work with some really amazing organisations. Social entrepreneurship is characterized by a high degree of innovation and creativity. The problem of social entrepreneurship is currently under genuine interest from the general public, and its development is supported at the state level in many countries of the world, including Russia. Global forecasts show that environmental, demographic and social problems will worsen in the coming years. In this regard, the demand for services and products of social enterprises will grow [1]. For example, an increase in the number of elderly people and an increase in life expectancy will lead to changes in the costs of health care and care for elderly citizens [3].

Referring to the existing methods of evaluating social entrepreneurship, including at the regional level, it can be noted that Russia has developed the practice of evaluating social projects. Thus, the criteria and methods for evaluating investment projects of social entrepreneurship are presented in the work of A.V. Minaev, in which the author offers a classification of types of social effect [11].

Criteria-based methodology for evaluating social projects is described in the work of L.N. Boronin and Z.V. Senuk. The tools for evaluating social entrepreneurship of these authors are based on the implementation of two important requirements for the competition procedure: transparency of the procedure itself and effective monitoring at the stage of implementation of the winning projects [9].

Yu.V Gimazova. and N.A. Omelchenko point to the methodological lack of development and technological eclecticism in evaluating competitive projects of socially-oriented non-profit organizations. In their opinion, evaluation groups of non-profit organizations and social projects can be presented as evaluation modules [10].

Improving the conditions for the active development of social entrepreneurship requires the use of separate tools that allow a systematic assessment of the state of social entrepreneurship. Taking into account the above, the purpose of this work is to develop a methodology for assessing the level of social entrepreneurship development in the macro-region and the formation of the business environment for the implementation of social innovations [14]-[20].

2. Methodology

If there is a supply gap and a social enterprise can compete on cost, quality, and service – while doing good for the community. The theoretical basis for the development of the methodology was the institutional and evolutionary approaches. In the first approach, we proceed from the thesis that favorable institutional conditions, in particular, state assistance and quality of regulation, contribute to the development of social entrepreneurship in the region [4]. According to U. Stephan the application of the institutional approach is conditioned by the need to study the impact on the development of social entrepreneurship of formal regulatory state measures, public institutions and initiatives presented by non-state actors, as well as informal institutions expressed as socially-oriented cultural norms, traditions and values that form the basis of local social capital. These three blocks allow access

to material and non-material resources through official and unofficial channels [6].

G.Surie explains that the boundaries of the institutional approach allow covering two levels of analysis: the national (macro) level and the enterprise (micro) level. The national level sets the framework for providing support infrastructure, including for creating new institutions and stimulating links between all actors in order to strengthen their capacity [7]. Examples of implementing micro-level support include: providing assistance to social entrepreneurs to meet the needs of the rural population, creating technology platforms, and implementing professional development programs aimed at developing business competencies.

The coevolutionary approach assumes that any system is formed over a long period of time through the interaction and mutual influence of its main elements [2]. Wu, J., Zhuo, S., & Wu, Z. note that applying a "bottom-up" approach to building a regional socio-economic system based on innovation will reduce the degree of government intervention, increase the role of universities, promote cooperation between investors and local entrepreneurs, and form network business communities.

To implement the most complete assessment of social entrepreneurship in the region and the business environment, this paper uses a conceptual model of co-evolution of social entrepreneurship, the state and the population. The co-evolution of social entrepreneurship is understood as the self-regulated development of hybrid altruistic forms of business activity and their adaptation to the conditions of the existing external environment regulated by state institutions, which results in the creation of innovative products (services) and increases the level of social protection of citizens in need of special social protection [8]. The proposed methodology for assessing the level of social entrepreneurship development was based on the model for calculating the integrated index of innovative development of the region, proposed by S.N. Yashin and Yu.S. Korobova [13]. The calculation procedure involves the use of statistical analysis methods and the principles of a systematic approach.

3. Results

Supply chain management effects in social entrepreneurship development and its trend is illustrated in figure 1. The dynamics of growth of expenditures for the social entrepreneurship development in the Northern macro-region-Khanty-Mansi Autonomous Okrug-Ugra indicates an increase in the popularity of this type of business
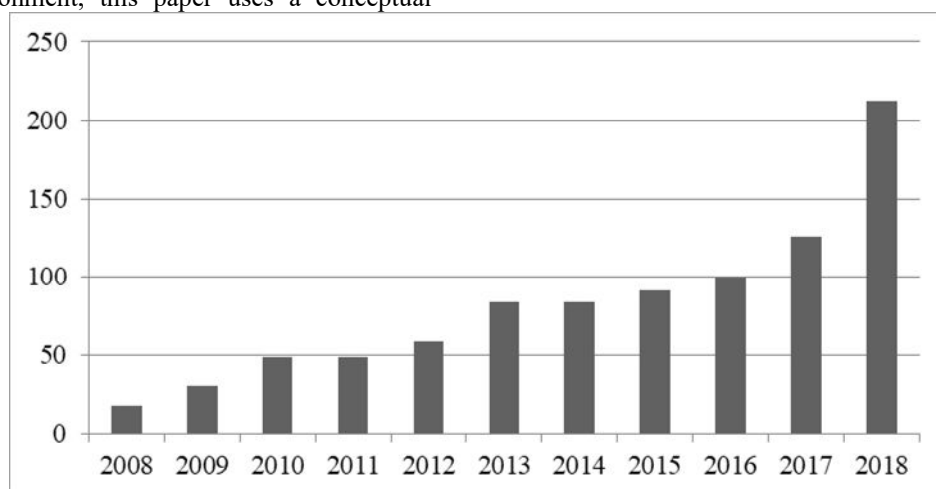

Figure 1. Dynamics of expenditures on promotion and financial support of social entrepreneurship in the Northern macro-region of Russia Ugra for the period 2008-2018, mln. rub.

Natural-climatic and environmental factors have a serious impact on regional business in Ugra. The results obtained on the basis of the conducted sociological survey suggest that in the XXI century the influence of this factor is significantly leveled by the development of digital technologies and improvement of transport infrastructure in the region. Scientific and technical factors, as it turned out, do not have a significant impact on the development of the business environment in Ugra.

The author's proposed tools for assessing the development of social entrepreneurship in the macro-region are based on indicators grouped into five thematic blocks: social capital, innovative environment, institutional support, social entrepreneurship effectiveness, and social entrepreneurship activity (table 1).

1. Social capital describes the level of quality of life of the population by analyzing the following data: the proportion of the population with higher education; the number of students; the availability of personal computers among households, crime rates, and the share of organizations that use electronic document management [12].

2. When selecting indicators of innovation in the regional environment, the starting point was the thesis that social innovations are not carried out alone by entrepreneurs, but are rather formed by a wide range of organizations and institutions that influence events in certain areas to meet social needs or stimulate social development. Social enterprises and social

709

Int. J Sup. Chain. Mgt   Vol. 9, No. 1, February 2020

entrepreneurs exist within the framework of the social innovation system — a community of practitioners and institutions that work together to solve social issues and help form innovation [5].

3. Indicators of institutional support include relative indicators of financing activities for the development of small and medium-sized businesses and non-governmental social service organizations from the federal and regional budgets per capita.

4. The effectiveness of social entrepreneurship reflects the actual share of social entrepreneurship in the regional segment of social services.

5. The activity of social entrepreneurship is designed to demonstrate socially significant effects from the results of social entrepreneurship.

Table 1. A system of indicators for calculating the integral index of the level of social entrepreneurship development in the region

Indicator	Denomination	Data source
1. Social capital		
The number of students studying in bachelor's, specialty, and master's programs per 10 thousand people, people	x_{11}	Rosstat, Regions of Russia. Socio-economic indicators.
Percentage of the population with higher education, %	x_{12}	
Gross regional product per capita, thousand rubles	x_{13}	
Percentage of households with personal computers, %	x_{14}	
Number of registered crimes per 100 thousand people	$1 - x_{15}$	
Share of organizations using electronic document management in the total number of organizations, %	x_{16}	
2. Innovative environment		
Proportion of persons with academic degrees in the total number of employees engaged in research and development, %	x_{21}	Rosstat, Regions of Russia. Socio-economic indicators.
The share of domestic expenditure on research and development in GRP, %	x_{22}	
The share of organizations that implemented innovations that improve environmental safety in the production of goods, works, and services, % of the total number of organizations that implemented environmental innovations	x_{23}	
Proportion of organizations using organizational innovations from the total number of surveyed organizations %	x_{24}	Rosstat, form № 4-innovation
Proportion of small enterprises that implemented organizational innovations in the reporting year in the total number of surveyed small enterprises, %	x_{25}	Rosstat, form № 2-MP-innovation
Proportion of innovative goods, works, and services in the total volume of goods shipped, works performed, and services provided by small businesses, %	x_{26}	
3. Institutional support		
The amount of subsidies allocated from the Federal budget for state support of small and medium-sized businesses, including peasant farms, per capita, rubles	x_{31}	Reports of regional authorities on the implementation of state support for small and medium-sized businesses
The amount of subsidies allocated from the regional budget for state support of small and medium-sized businesses, including peasant farms, per capita, rubles	x_{32}	
Share of the regional budget allocated for support measures for non-governmental organizations, %	x_{33}	Reports of regional authorities on the implementation of support to non-governmental social service organizations
The amount of subsidies provided from the district budget to non-governmental social service organizations per capita, rubles	x_{34}	
4. Social entrepreneurship effectiveness		
Share of non-profit organizations in the total number of organizations, %	x_{41}	Rosstat, Regions of Russia. Socio-economic indicators.
Share of public and religious organizations (associations) by form of ownership, in the total number of organizations, %	x_{42}	
The share of non-state (non-municipal) medical organizations participating in the implementation of the territorial compulsory health insurance program in the total number of medical organizations participating in the implementation of the territorial compulsory health insurance program	x_{43}	Reports of regional authorities on the implementation of support to non-governmental social service organizations (Order of the Government of the Russian Federation of 27.12.2012 No. 2553-R, Order of the Government of the Russian Federation of 08.06.2016 No. 1144-R)
Share of non-governmental social service organizations in the total number of social service organizations of all forms of ownership, %	x_{44}	
Number of small businesses by type of economic activity "real estate operations, rent and provision of services" per 10 thousand people	x_{45}	Rosstat. Small and medium-sized businesses in Russia.
5. Social entrepreneurship activity		
Growth rate of the number of non-governmental social service organizations, % compared to the previous year	x_{51}	Reports of regional authorities on the implementation of support to non-

Indicator	Denomination	Data source
Share of employees in non-governmental social service organizations in the total number of social workers	x_{52}	governmental social service organizations (Order of the Government of the Russian Federation of 27.12.2012 No. 2553-R, Order of the Government of the Russian Federation of 08.06.2016 No. 1144-R)
Share of the number of children attending private preschool educational organizations in total number of children attending preschool educational institution, %	x_{53}	
Share of the average number of employees (without external part-time employees) of small enterprises by type of economic activity "real estate operations, rent and provision of services" in the average annual number of employees in the region's economy, %	x_{54}	Rosstat. Small and medium-sized businesses in Russia.

Source: compiled by the author.

Within the framework of this methodology, the choice of using the calculation scale is due to the need to assign the territory to a group of regions characterized by a certain level of social entrepreneurship development. The scale is divided into five equal consecutive levels. The obtained numerical values were assigned with qualitative characteristics of the level of development of social entrepreneurship: "extremely low", "low", "average", "developed" or "high". Using this ordinal scale will allow comparing several regions at the same time. The selection of five levels allows distinguishing regions, ranging from the "extremely low" level of social entrepreneurship development to the "high", which describes the region as innovative in terms of development and implementation of social innovations (table 2).

Table 2. Evaluation of the values of the integral index of the level of the social entrepreneurship development in the macro-region

№	Possible values of the integral index	Level assessment	Description
1.	$0 \leq I \leq 0,20$	Extremely low	Factors for the development of social entrepreneurship are not developed
2.	$0,20 < I \leq 0,40$	Low	The environment for the development of social entrepreneurship is poorly developed
3.	$0,40 < I \leq 0,60$	Average	The basic level of social entrepreneurship development is sufficient for the implementation of traditional forms and types of social services, but not sufficient for the creation, development and implementation of social innovations
4.	$0,60 < I \leq 0,80$	Developed	The level of development of social entrepreneurship is sufficient for the creation, development and implementation of social innovations
5.	$0,80 < I \leq 1$	High	The level of development of social entrepreneurship is characterized as innovative

Source: compiled by the author

4. Result discussion

Based on the results of the assessment of the level of social entrepreneurship development in the region and the formation of the business environment for the implementation of social innovations, the research group can offer practical recommendations for the development of this area. The proposed assessment tool can serve as a general guide for the progressive improvement of the level of social entrepreneurship in the region. The logic of the evaluation scale does not allow the evolution of social entrepreneurship in the region, bypassing any of the levels. This means that in practice it will be difficult to move from a "low" to a "developed" level using, for example, only active financial support measures. It is assumed that the region should reach a basic level of social entrepreneurship development sufficient for the implementation of traditional forms and types of social services. Only then the region can move on to the development of social innovations.

5. Conclusion

The development of inclusive supply chains, by local or international companies that include our beneficiaries in their business, as suppliers or distributors. Summarizing the results of the study, we can conclude that in relation to Russian regions, approaches to evaluating social projects are mainly developed. At the same time, the tools for measuring the level of development of social entrepreneurship in the region, including the level of formation of the business environment for the implementation of social innovations, are poorly presented.

When adapting the model for calculating the integrated index of innovative development to the problem of measuring the level of social entrepreneurship development in the region, two significant additions were made. The first addition is represented by the inclusion of an expert method for determining the weight coefficients of each thematic block used at the stage of calculating the integral index. The second addition is related to the introduction of an assessment scale for the level of development of social entrepreneurship in the region, which allows to group regions by levels and develop common recommendations for them or conduct additional research in search of common causes or factors.

6. Acknowledgments

References

[1] Evers, A., Heinze, R. G., & Olk, T. "*Einleitung: Soziale Dienste–Arenen und Impulsgeber sozialen Wandels*" In Handbuch Soziale Dienste (pp. 9-32). VS Verlag für Sozialwissenschaften, 2011.

[2] Fagerberg, J. & Fosaas, M. "*Innovation and innovation policy in the Nordic region*" Accessed 22 April 2016, 2014.

[3] Heinze, R. G., & Naegele, G. "*Integration und Vernetzung–Soziale Innovationen im Bereich sozialer Dienste*" In Soziale Innovation (pp. 297-313). VS Verlag für Sozialwissenschaften, 2010.

[4] Hoogendoorn, B. "*The prevalence and determinants of social entrepreneurship at the macro level*" Journal of Small Business Management, 54, 278-296, 2016.

[5] Phillips, W., Lee, H., Ghobadian, A., O'Regan, N., & James, P. "*Social innovation and social entrepreneurship: A systematic review*" Group & Organization Management, 40(3), 428-461, 2015.

[6] Stephan, U., Uhlaner, L. M., & Stride, C. "*Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations*" Journal of International Business Studies, 46(3), 308-331, 2015.

[7] Surie, G. "*Creating the innovation ecosystem for renewable energy via social entrepreneurship: Insights from India*" Technological Forecasting and Social Change, 121, 184-195, 2017.

[8] Takmasheva, I.V. and L.L. Bogomolova "*Social entrepreneurship in northern Russia: new opportunities for development*". Amazonia Investiga, vol. 7, no. 17, 2018, p. 253-260, 2018.

[9] Boronina L.N., Senuk Z.V. "*Development of a methodology for evaluating social projects of non-profit public organizations*" Discussion. №10 (73), 2016.

[10] Gimazova, Yu.V., Omelchenko N.A. "*Development of methods and technologies for evaluating projects of socially oriented non-profit organizations in Russia*" SUM Bulletin. №12, 2015.

[11] Minaev A.V. "*Criteria and methods for evaluating social entrepreneurship projects*" Proceedings of MIPT. № 3, 2011.

[12] Regions of Russia. Socio-economic indicators (2018): Stat. col./ Rosstat. M., 1162 p.

[13] Yashin S.N., Korobova Yu.S. "*Method for calculating the integral index of innovative development of the region*" Financial Analytics: problems and solutions, 10 (4 (334)), 360-374, 2017.

[14] Komarova S.L. "*The assessment of the consumer basket for the analysis of the region competitiveness*" Russian Economic Bulletin. Vol. 1. Issue 2. P. 19 – 25, 2018.

[15] Kobets E.A. "*The implementation of import substitution programme in the agricultural sector*" Modern Scientist. № 2. P. 71 – 74, 2017.

[16] Kupryushin P.A., Chernyatina G.N. "*Economic and environmental aspects of rational nature management and optimization of the process of import substitution in the agro-industrial complex*" Modern Economy Success. № 3. P. 44 – 48, 2017.

[17] Narkevich L.V. "*Analysis of industrial capacity and break-even production in the crisis management system*" Russian Economic Bulletin. Vol. 1. Issue 3. P. 28 – 41, 2018.

[18] Olkhovskiy V.V. "*Assessment of the impact of macroeconomic and demographic factors on the Russian model of employment*" Modern Economy Success. № 2. P. 31 – 37, 2018.

[19] Minakova I.V. "*Social and economic condition of Russia and possibility of its transition to innovative hi-tech model*" Modern Economy Success. № 6. P. 24-27, 2017.

[20] Gnatyuk S.N., Pekert N.A. "*Education as a factor of sustainable development of agriculture*", Russian Economic Bulletin. Vol. 1. Issue 3. P. 18 – 27, 2018.