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PROSPECTS FOR THE DEVELOPMENT OF SUSTAINABLE ENTREPRENEURSHIP IN LATVIA

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Abstract

Sustainable entrepreneurship revolves around a number of factors: resource management (including water and energy use, waste production, generation of GHG and other emissions), financial management (innovative capacity, CEO-to-average employee pay ratio), personnel management (employee turnover, clean revenue – the percentage of total revenue generated from ecological products and services), as well as the operational and strategic processes within the company.

Aim

To define prospects for the development of sustainable entrepreneurship in Latvia.

Tasks

To define sustainability in the context of business, to identify the factors that motivate and determine the sustainability of the company and to evaluate sustainable business perspectives in Latvia.

Materials and methods

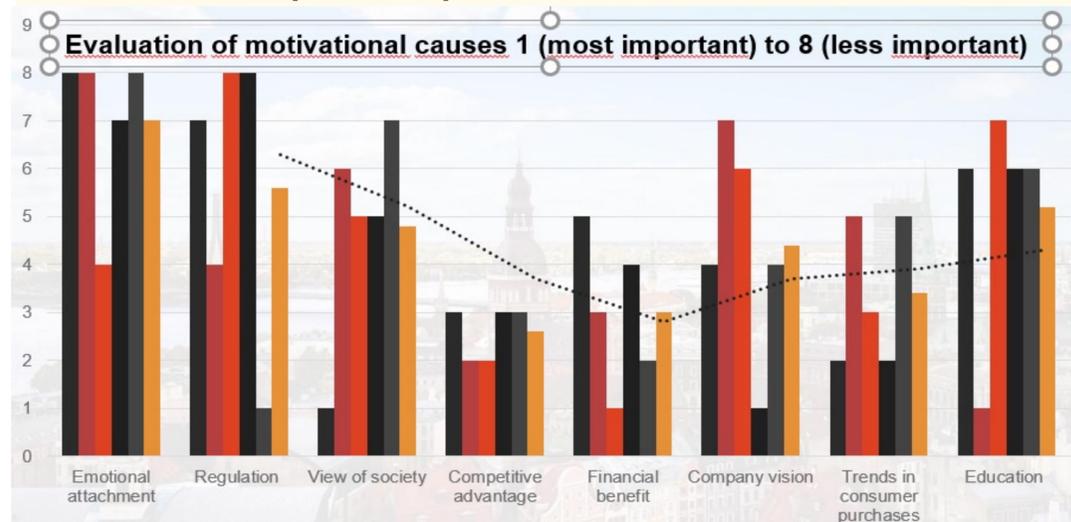
This research includes secondary and primary research methods. The research used the results of the author's previous studies and there were expert interviews conducted to assess the prospects of sustainable entrepreneurship in Latvia. Qualitative research method was used - expert interviews, the opinions and recommendations of five independent experts were obtained, the representatives were selected from among both the academic and the business fields.

Results

A number of directions have been set forth for sustainable development in Latvia: cultural space development, investment in human capital, change of paradigm in education, promotion of innovative and efficient economy, treating nature as future capital, observance of spatial development prospects, innovative governance, and public participation. Social norms and consumer purchase trends contribute favorably to the development of sustainable entrepreneurship in Latvia, but to a limited extent for now, which is why building consumer awareness for evaluating the long-term benefit and a change of consumer lifestyle and purchase trends towards sustainability is important.

1. The development of sustainable entrepreneurship in Latvia is propelled by the regulatory pressure exerted by the European Union, as well as the increasing public interest in sustainability matters aroused by the available informational space.
2. Industries that are major impact makers – energy, forestry, agriculture, the banking sector, food production, the financial sector and transport – possess a high potential of promoting sustainability.

Fig. 1. Evaluation of motivational causes for sustainable entrepreneurship in Latvia



According to the experts, when it comes to the development of sustainability, Latvia needs improvements in transport infrastructure, energy efficiency and renewable energy diversity in terms of better profitability of public spending, reduced dependency on EU funds, and enhanced financial support for investments in business environment. The experts named educational programmes, standards and requirements, product labelling regulations, special tax conditions (for natural resource tax, individual income tax), public availability of studies, reports and open access information, and state and municipal procurement requirements incorporating the principles of sustainability as the main instruments towards sustainable development on a state level.

Proposals, recommendations:

- 1) The key instruments for the promotion of sustainable entrepreneurship in Latvia are educational programme supply, improvement of standards, requirements and regulations to incorporate the principles of sustainability, special conditions for the application of natural resource tax, individual income tax, social tax, public availability of studies, reports and open access information, requirements of state and municipal procurements.
- 2) There are in-depth studies of consumers needed that would reveal the emergence of a need for sustainable products and the factors in favour of buying sustainable products.
- 3) The main tools for the development of sustainability from the state level - educational programs, regulations and requirements, regulations on product labeling, tax rebates (natural resources tax, personal income tax, social tax), studies, reports and open access information to the public, procurement tenders and their sustainable requirements.
- 4) The development of sustainable entrepreneurship in Latvia is hampered by insufficient interplay between the public awareness and the regulatory system from a sustainability perspective, reducing the effectiveness of motivation towards sustainable choices.

Conclusion

1. The development of sustainable entrepreneurship in Latvia is propelled by the regulatory pressure exerted by the European Union, as well as the increasing public interest in sustainability matters aroused by the available informational space.
2. Industries that are major impact makers – energy, forestry, agriculture, the banking sector, food production, the financial sector and transport – possess a high potential of promoting sustainability.
3. The development of sustainable entrepreneurship in Latvia is hampered by insufficient interplay between the public awareness and the regulatory system from a sustainability perspective, reducing the effectiveness of motivation towards sustainable choices.

HEALTH LITERACY ASSESSMENT OF VIDZEME STATISTICAL REGION

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Abstract

Data on Health Literacy in the population of Latvia is limited. The aim of the study was to determine the Health Literacy impacting factors of inhabitants of Vidzeme Statistical region in Latvia (LV008). Respondent survey (n=383), using a paper-and-pencil self-administered approach and telephone interviews, was conducted based the European Health Literacy Survey Questionnaire (HLS-EU-Q47). In order to ensure internal consistency and reliability were conducted, by using Cronbach's α ($\alpha = 0.965$). The confirmatory factor analysis (CFA) allowed to determine that factor results differentiate between genders and there is a strong positive correlation ($r = 0.945$), that impacts results. Factors Access, Appraise and Apply explained each 30% of the variance, and factors Understand explained 31%. HL index division by gender indicated that 47.4% of female respondents and 46.6% of male respondents have "limited health literacy" ("inadequate" + "problematic"). The largest age group among respondents are 18-39 year old where there is lower level of education and lower income. However cases have been observed when respondents even with higher education have "limited health literacy," which indicates towards a need for further HL research in Latvia, because compared to HL of other memberstates, LV008 HL index is by 38.9% larger than the EU average (47.6%).

Aim

Determination of factors affecting health literacy of the population of Vidzeme statistical region in Latvia

Tasks

- 1) to carry out analysis of scientific literature about health literacy survey HLS-Q (questionnaire), used methods in factor determination;
- 2) to carry out survey, to determine and evaluate factors limiting the HL;
- 3) to determine the HL index divisions by gender, age, education, and bruto income per month;
- 4) to compare the statistical sample of Vidzeme Statistical Region HL index with that of other EU memberstates.

Materials and methods

The Statistical region Vidzeme of Latvia (LV 008) as a research region is one of six regions of Latvia (NUTS III) (Nomenclature of territorial units for statistics, small regions for specific diagnoses), where the number of population of working age (in the range of 18-64 years) population according to the Central Statistical Bureau (CSB), is 110 868 (CSB, 2020). The calculated sample size is 383 respondents, calculation of survey respondent size has been created proportionally to LV 008 working age population. The survey was conducted from May 2020 till December 2021, while deployed with mixed technique, using a paper-and-pencil self-administered approach (PAPI), and phone interviews. The methods applied: Descriptive method, Pearson's correlation, Chi-square test, KMO and BARLETT'S, Cronbach's Alpha, Manova and Mancova tests, Exploratory Factor Analysis and Principal Components Analysis

Results

The authors identified inconsistencies between respondents of different education levels and HL skills. The common tendencies can be observed (Fig.1), where, compared to evaluation of the HL index by foreign researchers indicated that respondents of LV008 in "limited health literacy" level exceeds that of Bulgaria by 24.4%.

Table 1

HL index division by gender, age, education, and bruto income per month

Predictor variables		HL index (%)				N
		0-25	>25-33	>33-42	>42-50	
Gender	Women	16.6	20.8	32.9	29.7	192
	Men	14.6	22.0	43.5	19.9	191
Age	18-19	6.7	1.9	17.1	74.3	95
	20-29	14.2	24.6	57.5	3.7	134
	30-39	51.3	30.8	9.4	8.5	117
	40-49	60.0	30.0	0.0	10.0	10
	50-59	50.0	40.0	10.0	0.0	10
	60>	14.4	57.1	14.3	14.3	7
Education	Higher	6.7	1.9	17.1	74.3	105
	Vocational or vocational secondary	14.2	24.6	57.5	3.7	144
	General secondary	51.3	30.8	9.4	8.5	117
	Primary or lower than primary	44.4	40.7	7.4	7.4	27
Bruto income per month (EUR)	<=200	52.8	28.3	18.9	0.0	53
	200-400	37.8	32.4	29.7	0.0	37
	>400-700	27.2	21.3	32.4	19.1	136
	>700-1000	9.6	13.8	29.8	46.8	94
	>1000-1500	17.8	24.4	22.2	35.6	45
	>1500	11.1	11.1	27.8	50.0	18

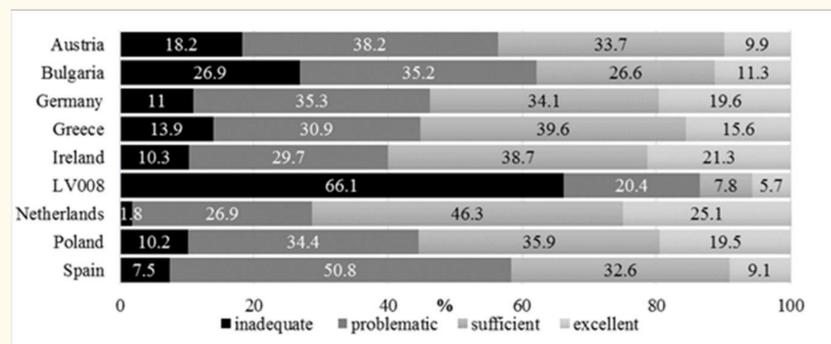


Fig. 1. Unemployment rate in the Baltic states by quarter, as per cent

Conclusion

1. The research allowed to determine four Health Literacy impacting factors within the Vidzeme Statistical Region of Latvia (LV008): Access, Understand, Appraise, and Apply. Study revealed that according to respondents' gender different Health Literacy factor impact was determined. Factors Access and Understand in female respondent population were 35%, Appraise 34%, and Apply 30%, meanwhile for male respondents the factor Access was 27%, Understand 29%, Appraise 27%, and Apply 30%. Differences were related to the higher education among female respondents, as well as lower impact of the predictor of bruto income per month (EUR). It was determined that there are inconsistencies between different levels of education and HL factors.
2. European wide research on Levels of health literacy index by country revealed that the proportion of responses indicating HL index "limited health literacy" in Vidzeme statistical region of Latvia exceeded even the other largest result by a Member state i.e., Bulgaria, where its national HL index for the given answer was by 24.4% lower than that of Latvia.

THE ROLE OF INTEGRATED MARKETING COMMUNICATION FOR SUSTAINABLE DEVELOPMENT IN FOOD PRODUCTION

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Abstract

The decrease in food production output, the suspension of production, and the decrease in product demand have influenced the operation of producers and their communication with customers in 2020. This brings to the forefront the producer's role in the use of integrated marketing communication (IMC) for sustainable development in Latvia. Importantly, as motivated as the product seller – i.e., food retail chains – may be to contribute to sustainable development through their offering of food products, a key role is played by the food producers who supply the retailers with products and are the first link of the supply chain.

Aim

The purpose of the survey of leading specialists at Latvian food producers was to find out their opinion on the trends of development and a sustainable use of IMC in business.

Tasks

To find out Latvian food producers' opinion on the trends of development at their companies and a sustainable use of IMC in business.

Materials and methods

The study uses monographic, quantitative, qualitative methods – interviews of leading specialists of producers. It represents a follow-up to the author's previous studies in the food retail industry where author researched food retail chains and conducted a survey of buyers. The author developed a conceptual model of IMC for sustainable business development and found that each sector has peculiarities in product selling, service provision, etc., yet there are also common trends that apply to all industries. Thus, urges further market research, covering producers.

Results

The results show some trends:

1. the motivation to use IMC for sustainable development has grown due to the increased use of technologies;
2. extended periods of sedentarism have exacerbated the problem of overweight in society and given rise to demand for healthy ecological products, including natural ingredients in production;
3. the author has identified the complex factors that influence buyers' buying decisions in the context of sustainable development. Those can be sorted in the order of importance as follows: a) product packaging, b) availability of information, c) consumer involvement, d) loyalty system and programmes, e) availability of results of scientific research, f) affordability, g) product quantity and availability, h) functional product features, i) company information online.
4. the risk of employee illness and the reorganization of production has contributed to the use of digital marketing. Specifically, businesses need to work on making their messages more visible yet distinct, appealing and easily comprehensible through various colours and symbols etc. Thus, instead of spending funds on personnel training, purchases of new technologies etc., specialists are outsourced (photographers, proofreaders, designers, social media administrators, analysts etc.). This leads to a conclusion that more and more free agents offer their skills and abilities to several employers for limited periods. They are specialised, highly organised, super connected and able to work from wherever and whenever.

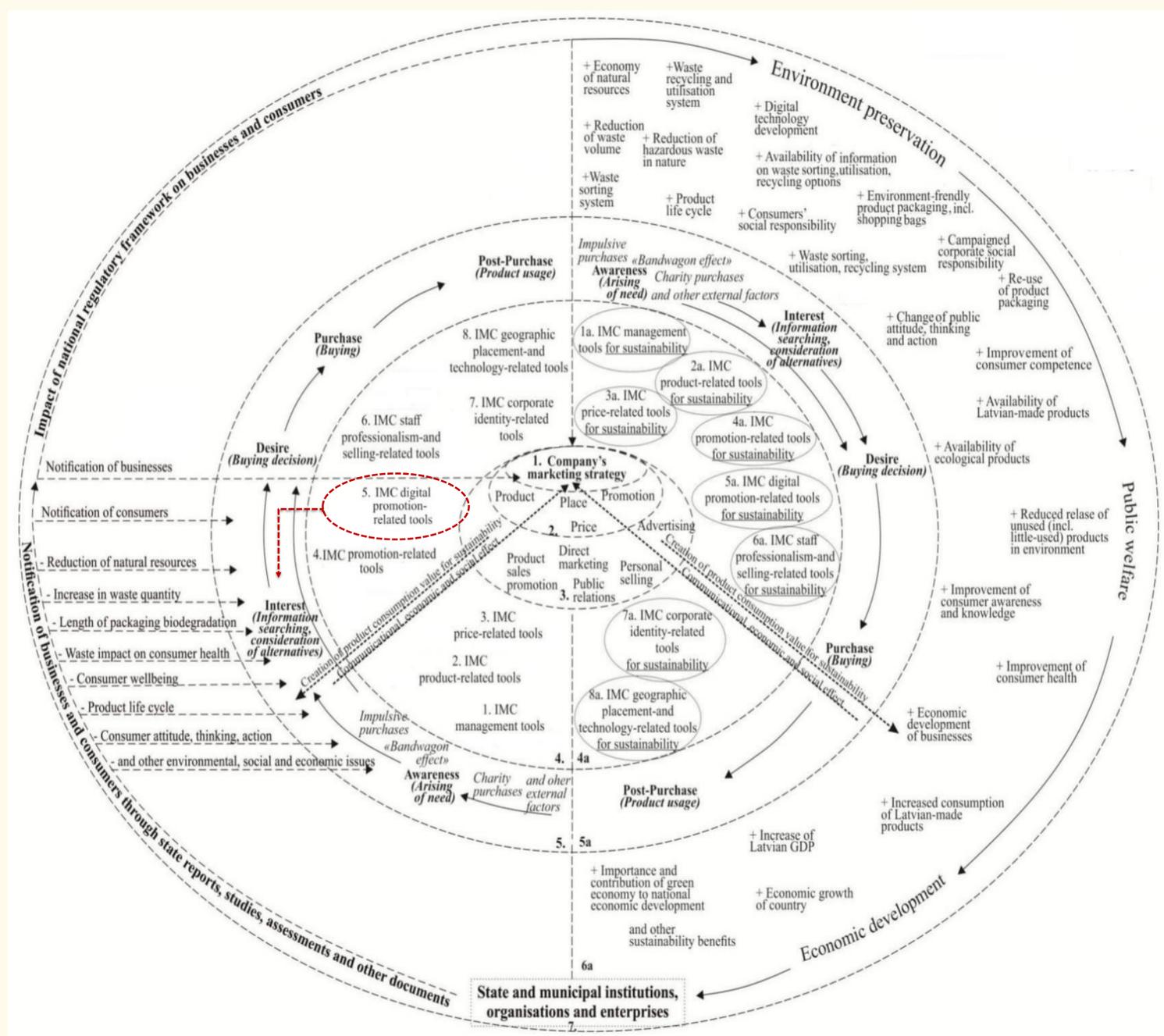


Fig. 1. The conceptual model of IMC for sustainable business development

Conclusion

1. The motivation of using IMC for sustainable development has substantially grown due to the increased use of the Internet and technologies for people's needs in work, study, shopping and other processes.
2. Extended periods of sedentarism have exacerbated the problem of overweight in society and given rise to demand for healthy ecological products, including using natural ingredients in the production process which prompts producers to consider entering new product categories.
3. The role of information about product ingredients, healthiness, nutritional value etc. on product packaging has increased. In order to draw consumers' attention, more content needs to be published in the digital environment – when addressing consumers on social media, producers need to **focus on informing as a marketing communication goal**.
4. Given the variety of types of pre-packaging, as traders strive to enable contactless ordering, sale and delivery, it becomes increasingly topical to find new innovative solutions for making the packaging suitable for daily use (not just for recycling or returning to the producer for reuse), for instance, edible, soluble or destroyable without polluting nature.

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ENVIRONMENTAL INVESTMENT GOVERNANCE PROCESS IN LATVIA: DECISION-MAKING FRAMEWORK DEVELOPMENT

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Abstract

The study focuses on the environmental investment governance process at the national level, particularly, on planning stages, analysing the national approach and the existent planning practices, by structuring and characterizing the process using environmental governance cycle steps model (5P model). The investment planning process was explored through the integrative in-depth analysis of the planning of thematic content and framework, and the use of instruments. The structure and specifics of the planning stages of environmental investment governance process were identified along with deficiencies and improvement needs, incl. the structured decision-making frame recommendation, which suggest 12 aspects assisting to decide on the investment allocations.

Aim

The aim of the study was to explore, structure governance and to frame the decision-making process as how the environmental investments are governed at the national level in Latvia.

Tasks

- (1) through the appliance of environmental governance cycle model approach, to analyse environmental investments governance;
- (2) to explore how the use of governance instruments are planned;
- (3) to characterize deficiencies and strengths of Latvian EU investment governance process and to propose improvements.

Materials and methods

The study employs research-and-development (R&D) frame elements because the R&D method allows producing a certain product (i.e., strategical investment document) that inter alia allows describing the practice and test its effectiveness though the integrative appliance and analysis of environmental governance cycle approach in this context.

The study also included the participatory action research elements within the Ministry of Environmental Protection and Regional Development. In the study, the environmental investment governance process is analysed through the prism of management (policy/planning) process cycle models, particularly, using "5P" environmental governance cycle model.

Results

Environmental investment planning is ensured at 2 levels – EU and national one. Fig.1 illustrates the EU investment framework at these levels.

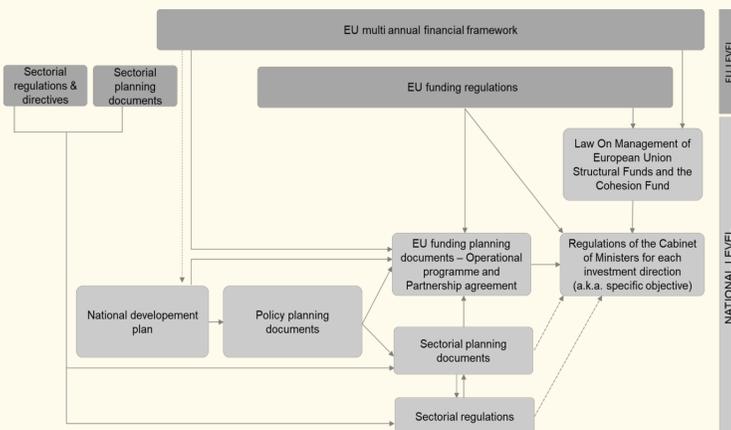


Fig. 1. The block-scheme of EU investment framework at both levels (authors)



Fig 2. EU investment stages in 5P governance model framework (authors)

EU environmental investments are planned for seven-year period, starting with the assessment of status quo, definition of main policy directions and targets to be reached, and the implementation instruments, identification of the actions and the preparation of the action plan, as well as ensuring the involvement of social partners. EU investment stages in 5P governance model framework is illustrated in the Fig.2. First three stages are analysed in details.

- P1** The problem analysis done helps to formulate the existing status quo and future forecast data, and identify gaps till the set targets (in policy and regulative documents).
- P2** This stage includes the setting of goals, particular targets main principles, as well as main priorities. The environmental investment goals are also closely related also to the policy priorities, as investments should follow the sectoral development directions, supporting their implementation. It is of utmost importance that that these priorities are also set in the policy planning documents that are well consulted with social partners.
- P3** After policy design and formulation stage, a specific investment implementation plan is developed, that sets main actions, indicators, timetables, etc. However, as investment needs in almost every sector is higher than available resources, it is crucial to determine, when investment as policy implementation tool must be used and is the best alternative before including them in the plan. The decision-making framework is illustrated in Table 1.

Table 1
The decision making framework for the investment allocation

Factors	Regulative/exclusion factor	State aid and business-related factor	Factor of societal and environmental interests
Aspects	Additional / stimulation support (carrot) should be, especially if there is new regulations (stick)	There is no overstimulation of business	They are detected in other policy planning documents
	There is a national, EU-level or global goal and commitments that must be reached, but the costs of reaching it are high	Investment comply with the state aid rules	Investment needs do not significantly harm the environment (including the future perspective)
	They are allowed in the Common provision and fund specific regulations	Market obstacles do not allow to grant bank support	It is needed for public interests
	There are demarcation, synergy with or continuation of other support programs	Support is not needed for the operational costs	Polluter pays principle is observed

Conclusion

1. Different EU requirement over several last planning periods do not allow to provide strategic and structured outcomes summary of environmental investment governance process in Latvia for last decades. In the meantime, the EU level investment governance practices have improved over time by new, more tailor-made, and focused requirements on intervention logics, new tools and unified indicators for all member states to be able to measure fund impact.
2. At the P1 stage several challenges were identified. That were related to availability of timely and qualitative status quo and future forecast data that limits development and investment gap analysis. To improve this, the structural changes in data collection system, incl. well-thought reporting forms, is required along with the increased administrative capacity, as well as education of the employees on how to qualitatively fill the reports.
3. At the P2 stage, the main challenges are interlinked with previous stage, i.e., available data and readiness of documents and overlapping of the processes. It was concluded that policymakers make their decisions before the previous investment period is finished, limiting the for effective decision-taking. There is a risk, that social partner involvement in the preparation of planning documents were insufficient or unsuccessful that would impact the investment plans.
4. The study on P3 stage allowed concluding that in all sectors investment needs are higher than available financing. Thus, it is necessary not only to have sectorial and cross-sectorial knowledge, but also algorithms to determine, when investment as policy implementation tool must be used and is the best alternative. The authors therefore proposes decision making framework for the investment allocation that consists of three decision-making factors and 12 aspects. After detection of investment actions, macro level cost breakdown, most appropriate output and result indicators, the Operational program and related documents are drafted, incl. information on activities and their justification, financial allocations and indicators, that are followed by public consultations.

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INTEGRATED FARMING: THE WAY TO SUSTAINABLE AGRICULTURE IN LATVIA

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Abstract

Agricultural production is currently at a crossroads due to the need to balance the requirements of climate, biodiversity, air quality, and access to food health, farmers' incomes and economic conditions. Based on the analysis of the scientific literature and the current situation, the paper has concluded that a logical path to sustainability is integrated agriculture. It is a whole farm management system that allows farmers to identify opportunities and threats and act accordingly, while also taking into account the interests of consumers in their business. Integrated management is the knowledge-based management of all available resources integrated farms are able to provide climate benefits, provide more diverse (especially pasture) land management, farm animals have a higher quality of life and survival

Materials and methods

The monograph method used in the article is based on statistical information and scientific literature. The article uses CSB statistics, National Inventory Report 2020, Agriculture Data Center statistics.

Aim

The paper aims to outline the role of integrated agriculture in the development of sustainable agriculture based on the analysis of the relevant scientific literature and the current situation

Results

Integrated agricultural production focuses on managing ecological processes and their interactions on the farm to optimize the exploitation of the farm's internal resources, minimize the need for external resources and avoid or reduce the environmental impacts of agricultural practices, including GHG and ammonia emissions.

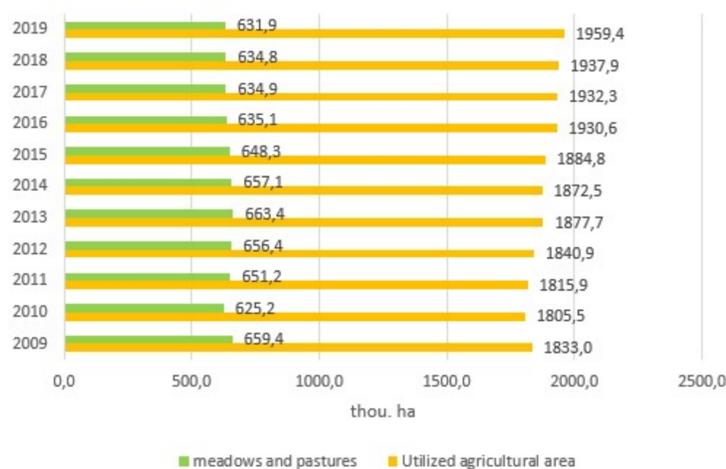
Table 1

N₂O emissions from N input into managed soils in the period in Latvia 2014-2018, kt

Source of emissions	2014	2015	2016	2017	2018
Inorganic nitrogen fertilizer	1.15	1.19	1.23	1.22	1.17
Manure	0.26	0.26	0.25	0.24	0.21
Sludge	0.006	0.004	0.003	0.003	0.004
Urine and manure of grazing animals	0.18	0.19	0.20	0.20	0.20
Crop residues	0.41	0.51	0.48	0.49	0.39
Managed organic soil in pastures and crop areas	2.66	2.64	2.62	2.63	2.63

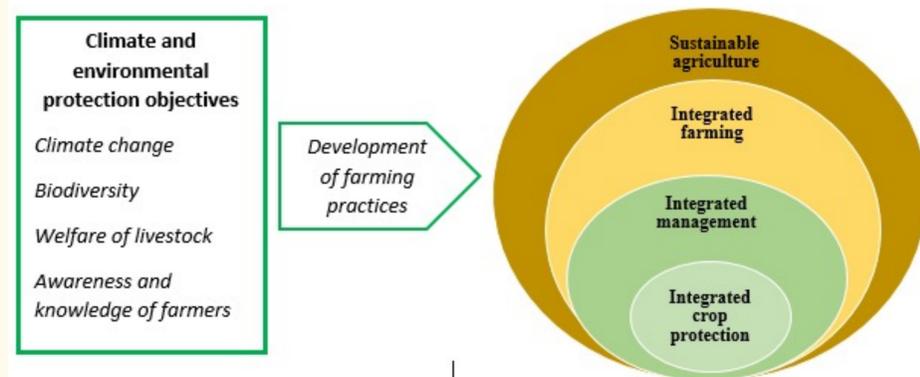
Source: authors' calculations based on the National Inventory Report, 2020.

Owing to the environmental policy guidelines, it is not possible to significantly reduce the amount of meadows and pastures, which means that practically the only way to manage them economically is to produce livestock products.



Source: authors' construction based on the CSB

Fig.2. Uses of agricultural land in Latvia (thou. hectares)



Source: authors' construction

Fig.1. Integrated farming in the context of sustainable agriculture

Farming systems placing a focus on ecological objectives either reduce the amount of mineral fertilizer (e.g. integrated farming) and/or the stocking density or the amount of purchased feed (e.g. organic farming), thereby reducing the excess of nitrogen and other elements and their inputs into the soil.

Table 2

Characteristics of dairy cows and farms in Latvia 2019

Kind of dairy cows	Number of cows	As % of total cows	Number of farms	As % of total farms	Milk yield, kg		Lactations	
					avg.	WAVE	avg.	WAVE
Organic	17 751	13.6	880	21.4	5861.00	5742.00	4.28	4.0
Intensive (>300)	36 394	27.9	64	1.6	9799.70	9839.70	3.04	3.0
Conventional home farm (<5)	1 883	1.4	654	15.9	6185.51	6162.30	4.48	4.3
Conventional (5-300)	74 318	57.0	2 523	61.2	6634.96	7394.69	3.94	3.5

Source: authors' calculations based on the ADC 33

On organic and home farms, cows live longer, in some cases the entire lifetime, which is not possible in intensive farming, leading to a rapid deterioration in cow health and their discarding.

Conclusion

1. Climate and environmental protection requirements tend to increase, which requires a review of farming practices, especially in animal production.
2. Integrated and organic farms produce less GHG emissions, absorb more C (mixed type farms) and have higher resilience to various shocks.
3. Integrated and organic farms are able to manage organic soils by means of pastures, which is not typical of conventional intensive farms.
4. Integrated and organic farms ensure a higher quality of life for farm animals, which involves keeping them in natural conditions (pastures) and feeding a better diet, which results in more lactations and a longer lifespan. It should be noted that this also means lower GHG emissions, as cow discarding is reduced and fewer offspring are required.
5. Integrated and organic farms are more knowledge intensive, which increases their environmental awareness compared with conventional farms.

Acknowledgements

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**CHANGES AND PROPOSALS TO BOOST BUSINESS PRODUCTIVITY
AND COMPETITIVENESS IN THE RIGA PLANNING REGION (RPR)**

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Abstract

The result of the wider application of new digital skills is an increase in productivity as a basis for the growth of Latvian companies in the global market and an increase in material well-being in the market as a whole. In turn, the growth and competitiveness of companies is based on the ability to create and sell demanded, knowledge-intensive products and services on the basis of science, integrating into increasingly higher value-added global chains.

Aim

to evaluate the changes that have taken place in the companies of various sectors and to develop proposals for increasing business productivity and competitiveness.

Tasks: 1) Identify the factors affecting productivity and competitiveness; 2) Explore the views of entrepreneurs on the consequences of Covid-19 on business

Materials and methods

Labour productivity increases if added value increases thanks to better use of all production factors, coordination, etc. Added value can grow if the workforce works smarter, harder, faster or with better skills.

compilation of statistical data, survey of entrepreneurs.

Results

RPR is the region of the capital city of Latvia. Geographical location in the centre of Baltic states on the border of European and eastern cultures has carved Riga region as a bridge between different countries and their people. The region is characterised by the dynamic capital city of Riga, organically including influences from different nations. Other cities of the region – Jūrmala, Limbaži, Tukums, Ogre and Sigulda - as well as the pure countryside, are important as well.

Socio-economic, technological, and scientific development is defined by the centre of national, international, and European importance – Riga city and Riga Metropolitan area.

Table 1
Pierīga planning region (RPR) economic profile

Territory	Area 10 437 km ²	Local governments 30	Republic cities: Riga, Jurmala
	Coastline 185 km	Regional centres: Tukums, Ogre, Sigulda, Limbaži	
Inhabitants	Population(2018) 1 096 411	Net population change (2017) -3,9 %	
	Population density 105 ppl/km ²	in Riga 165 ppl/km ²	
Economic	IKP (2018) 25 820 EUR per capita.		Income tax (2018) 777 EUR/pers.
	Number of businesses (2018) 104 656	Average wage (2018) 949 EUR	

Fig. 1. Riga planning region (RPR) administrative division



RPR economy is dominated by service businesses with the associated areas – sales, professional services, property market. Each of these areas individually make up more than 10% of the total economy of Riga planning region. Sales come close to a quarter. Significant portions in the total economy are taken up by agriculture, construction, transport and storage businesses. Processing manufacturing take up 6% of the total economy of Riga planning region. (Action plan for the development of the Riga metropolitan area, 2018)

A survey of experts at www.visidati.lv. The aim of the expert survey was to assess the consequences of Covid-19. In order to develop proposals to increase business productivity and competitiveness, it is necessary to clarify the views of entrepreneurs, which have changed since the first wave of the pandemic, what future trends are expected and planned in the company, which will be the biggest challenges following the pandemic crisis. As well as comparing the results of the study, depending on the number of employees in the company and the economic sector.

The survey of experts was conducted by 76 respondents to the Riga Council of the Latvian Chamber of Commerce and Industry (LTRK), all of whom are businessmen who run a manufacturing, manufacturing and services company. Some of the experts are members of the Board of Governors of Riga Regional Entrepreneurship Associations, as well as some deputies of local municipalities.

A number of important conclusions can be drawn when compiling the data from the study. Activities were not interrupted and support programmes from State and local authorities were not used by undertakings operating in the manufacturing industry, electricity, gas supply, heating and air conditioning, construction companies, bulk trading and retail businesses, transport and storage companies. It was noted that both manufacturing and services companies are planning to make more use of the latest technology in the future - forms of digital sales and communication with customers. Service companies plan to introduce new forms of cooperation within the company: forms of digital communication with employees and remote and/or semi-remote work. Companies in all sectors of the economy acknowledge that the biggest challenges following the pandemic crisis will be the acquisition of new digital technologies, the acquisition of new management/management skills and the attraction of investment.

Conclusion

1. Provide productive investment and develop human capital.
 2. Investment in human capital (health, education, skills) needs to be balanced with investment in infrastructure.
- The following priority actions need to be promoted in order to be practical in ensuring increased productivity and competitive pay, promoting the creation and commercialisation of high value added technologies, promoting environmentally friendly technology and business development: 1) Digital transformation (development). 2) Economic transformations (development). 3) Infrastructure transformation (development). 4) Mobility and economic growth.

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Modelling the neo-industrialization strategy as a mechanism of innovative activity of industrial business



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Abstract

The most important competitive advantage of industrial enterprises, especially in the current situation - the coronavirus crisis, are innovations formed in the product concept, technological vector, management tactics and the general strategy of the organization. To bring an idea to the market requires its detailed feasibility study, testing, commercialization, scaling, and re-innovation. Successfully passed the stages of approbation and implementation of new innovations create a basic complex of competitive advantages of the industry, and its new orts of development. The role of scientific and educational potential, the introduction of a cooperative model of resource use to achieve economic and social effect has been determined. The paper proposes a toolkit for assessing the effectiveness of a neo-industrialization strategy in the direction of enhancing the innovative activity of industrial business entities, analysing the calculated results, including using the proposed visualization toolkit. Types of neo-industrialization strategies with a set of key components of the impact on the level of development of the sector are presented. Research innovation: a stage model for the introduction of useful innovations from science - education to production has been developed.

Aim

discover the importance of the innovation process in the context of education - science and production.

Tasks

describe the theoretical elements of the innovation process in relation to the Belarusian experience; to develop a model of innovation implementation science - education – production.

Materials and methods

Methods of situation description and process systematics were used in the research; statistical and modelling method of data.

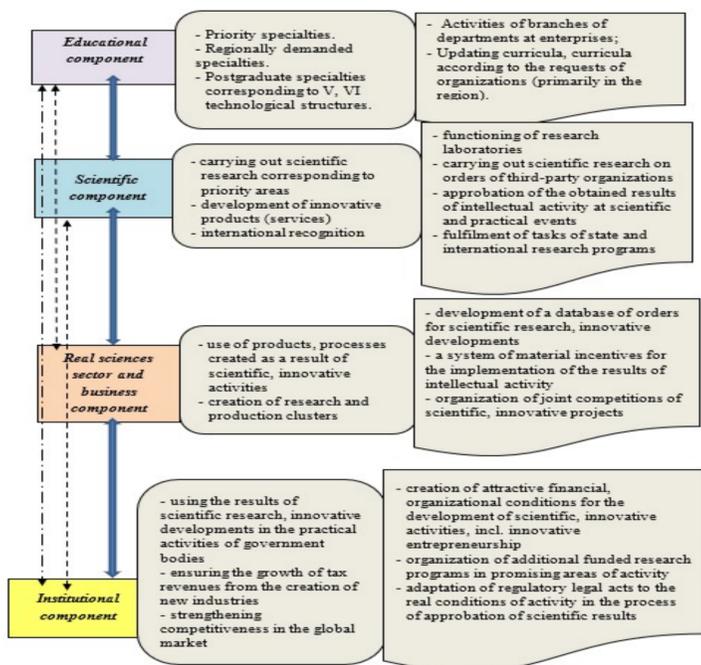
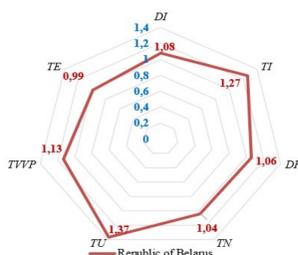


Fig. 1. The cooperative model of the development of the innovative potential of the region



Where:
 DI - is the rate of change in the share of innovative products in the total volume of industrial production;
 TI - is the rate of change in the volume of production of innovative industrial products;
 DP - is the rate of change in the volume of investments in the industrial sector;
 TN - is the rate of change in the share of employed workers performing research and development in the industrial sector in the total number of employed in industry;
 TU - is the rate of change in the volume of production of the "latest" technological modes;
 TVVP - is the ratio of the rate of change in the volume of production of innovative industrial products to the rate of change in gross domestic product;
 TE - is the ratio of the rate of change in the volume of exports of innovative industrial products to the rate of change in the volume of imports of this product.

Fig. 3. Component vectors of neo-industrialization according to the data of the Republic of Belarus for 2019

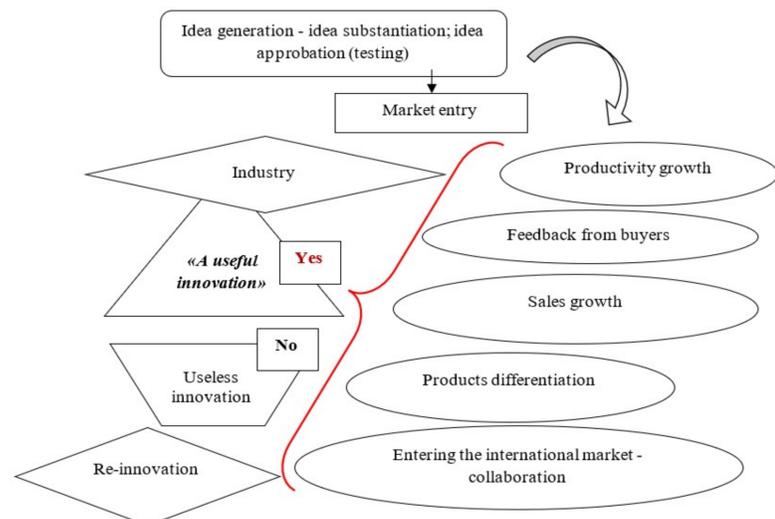


Fig. 2. Step-by-step process of creating a "useful" innovation

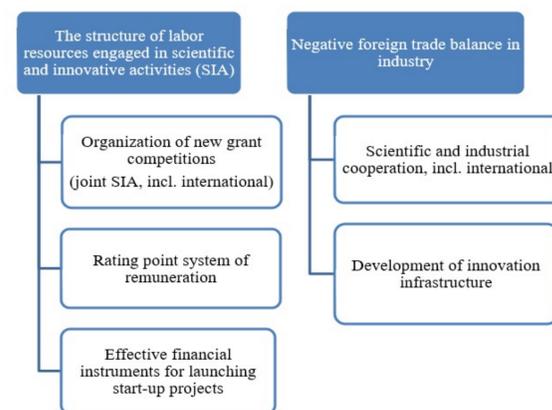


Fig. 4. Directions for enhancing innovation in industry

Conclusion

1. The current situation (2020 - 2021) requires the development of new knowledge, introduction of new technologies and communication opportunities in the country and in the international environment to promote the implementation of science and innovation.
2. The analysis of the development of the innovation process in the Republic of Belarus reveals that the biggest obstacle to the successful implementation of innovations in production is the insufficient knowledge of employees (low level of education) about innovations and their implementation.
3. The development of production requires an increase in productivity, an increase in the production of innovative products, the promotion of the development of sectoral innovations, an increase in the level of knowledge of those working in production to promote innovative processes.
4. To promote the introduction of innovations in production, motivating elements must be used, which would promote the acquisition of new knowledge, create the need to work on the implementation of new technologies, products, organizational forms. Cooperation between scientists, universities and manufacturing companies is important for a successful innovation process, where a common position is formed - the innovation ecosystem.

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11-14 May 2021, Jelgava, Latvia



Batumi Shota Rustaveli
State University

Value Chain Analysis of adventure tourism: a case study of Ajara Autonomous Republic (Georgia)

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Abstract

Ajara Autonomous Republic, both within the country and in the world tourist market, has always been positioned as a maritime tourist destination. However, over recent years diversification of tourist products and appealing new market segments have become one of the main priorities of the tourism development strategy of Ajara Autonomous Republic. As a result, the government is creating an appropriate tourist infrastructure, especially in rural areas to support developing such tourist products as adventure and eco-tourism. Adventure tourism can deliver significant benefits at the local level and it is a developing segment in Ajara. Creating adventure tourism products requires integration of various interdependent services. A tourism value chain is defined as a system that describes the cooperation of private and state sectors in providing resources, which creates costs and adds value through various processes and delivers final products to visitors. The purpose of the research was to determine weak links in the value chain and creating a comprehensive value chain model to form the competitive adventure tourism product. The research involved all actors, which operate in the tourism sector. Based on the results of the survey, in the value chain, the food link turned out to be the weakest, whereas the accommodation with the highest share was distinguished in the visitor spending structure. Overall, the cost of the adventure tour will be affordable for both international and domestic tourists. At this stage, government support and participation are crucial in the formation of adventure tourism infrastructure. Through using the case study and qualitative research methods, we tried to identify challenges to the growth of adventure tourism in Ajara and developed recommendations to overcome these challenges.

Aim asks

The research aims to determine the current level of development of adventure tourism and further perspectives, besides finding out the weak links in the existing value chain that prevent the creation of a competitive tourism product.

Tasks

- ✓ Study existing types of adventure tourism activities and infrastructure in Ajara
- ✓ Search tourist expenditures by the components of adventure tourist service and do appropriate calculation to determine the average value of it.

Materials and methods

Qualitative and statistical research methods have been used in the research. To assess the current state of adventure tourism in Adjara and the opportunities and threats for its further development, qualitative information was collected using in-depth interviews with specialists in the field, mainly representatives of the department of tourism and resorts of Ajara Autonomous Republic and tourist agencies offering adventure tourism activities.

The information sources used includes the data of the Adventure Travel Trade Association (ATTA), World Tourism Organizations and Department of tourism and resorts of Ajara Autonomous Republic.

Results

Adventure tourism is one of the fastest-growing categories of tourism, represented in virtually every country at all levels of economic development. The priority of this direction of tourism is that the formation of adventure tourism product is accompanied by the involvement of ecological, cultural and economic values. According to types of adventure tourism activities identified by WTO, in Ajara we have mainly developed soft and other activities. The development of hard activities is hindered by the low professionalism, experience of instructors, and lack of appropriate infrastructure. Proper branding of the region, creation of a special online platform, formation of specific activities as a tourist product and their corresponding promotion are important for positioning locations in terms of adventure tourism. Along with adventure activities, it is no less important to create customized accommodation for the target customer, creating campsites, taking into account eco-tourism trends, in particular healthy, organic food, using alternative energy sources, training relevant staff and purchasing equipment.

The adventure tourism product value chain includes 6 main stages:

- 1.Creating and developing a product concept.** The main initiators of creating the concept of adventure product in Adjara are governmental organizations, they create route routes, mark them, create appropriate infrastructure and interest tour operators and tour bureaus with relevant tours.
- 2.Promotion and sale.** Adventure tours are promoted by the Department of Tourism and Corrections through social media, websites and print ads in information centers. Special brochures and maps have been prepared
- 3.Accommodation and meals**
- 4.Transportation to the destination**
- 5.Support tourist services: Guide, instructor services, and more**
- 6.International transportation**

As the research showed, most of the locations have accommodation and food facilities, however, the low quality of service remains a significant problem in this area. Based on the value chain analysis, it is possible to visualize the general structure of visitor costs by considering the elements of tourism services.

Figure 1. Value chain links in Tourism



Table 1. Tourist Expenditures by the components of adventure tourist service

Adventure tourism service components	Cost per person per day (euro)	Cost in %
Transportation from Batumi to the destination	5	10
Accommodation	12.5	25
Food	10	20
Guide service	10	20
Shopping, souvenirs	7.5	15
Taxes	5	10
Sum	50	100

Conclusion

1. The role of state investments in the diversification of tourism products is important, in particular, the arrangement of relevant tourism infrastructure and business support;
2. It is important to create specialized locations for different types of adventure tourism activities based on the tourism-recreational potential of the Adjara region.
3. In the process of forming adventure products, more attention should be paid to staff training in terms of providing relevant services;
4. Based on the results of the survey, the food line appeared to be a weak line in the value chain, because it is important for tourists to find a healthy, local product, and in general, it is necessary to increase the quality of service in all lines.
5. Accommodation with the highest share in the structure at the expense of visitors is distinguished. Overall, the cost of the adventure tour is affordable for both international and domestic tourists, which is a contributing factor to the development of this type of tourism.

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REGIONAL SUSTAINABLE DEVELOPMENT THROUGH ENHANCING THE REGIONAL GRADUATES EMPLOYABILITY, CASE OF GEORGIA

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/Invited Lecturer

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Abstract

Education, in general, creates strong basics of sustainable development. Higher education is one of the important settings for accomplishing better education and quality of human life. Region based higher educational institutions (HEIs) have high input in regional economic development through traditional functions of teaching and research. Educational institutions acquiring graduates with relevant knowledge and skills for the labor market.

Results show that institutions have weak interaction with regional enterprises and SMEs: HEIs do not have skills anticipation strategy based on the regional business sector to avoid potential misbalance in the labor market. HEIs are not initiative, they often take a proactive position and looking interactions from labor market stakeholders; they have weak interaction with public and private enterprises. Regional SMEs' participation in creating curriculums is uncommon.

Aim

The given paper aimed to analyze role of the region-based HEIs in regards of labor market formation at regional and national level. Study graduates' unemployment tendency, its causes and effects. Explore relationship between Georgian HEIs based in regions and SME's. Investigate the main challenges between this two sectors and define the optimization ways.

Tasks

Analyze the background information, that enhances the bed climate for recent graduates on the labor market; Investigate the unemployment and employment rate, proportion of horizontal mismatch, fields or groups of studies that students are most likely to be mismatched; Study its cause and effects relationship.

Materials and methods

The article is using a qualitative research method with a combination of mixed research techniques by collecting and analyzing other qualitative and quantitative information from national governmental reports, scientific articles, and annual statistical data.

Results

The given paper examines: how Georgian regional universities enhance the graduates' employability and workforce formation? Do the institutions encouraging university-business interactions? What are the main challenges and optimal ways of improvement? The results were obtained from different sources, qualitative research with HEIs, exploring descriptive and analytical databases, as well as diverse national and international documents/reports.

Qualitative research has been done among all Georgian Higher educational Institutions and Teaching Institutes located at the regional based in Georgia. Two educational institutions refuse to participate in the research due to internal politics. As a result, 10 institutions have been involved in the study. Participants of the in-depth interview from each university were vice-rectors or head of the quality assurance services or head of the career centers and other competent persons depending on the structure of the HEIs. The total majority of HEIs participating in the study have undergone authorization and program accreditation, as they have the right to implement BA, MA, Ph.D. programs, according to the type of institution.

General results are drawn bellow:

- *Research participants' approach that general unemployment in the country have high impact on regional unemployment trend. The labor market in Georgian had trouble alongside governmental and economic changes and nemployment rates are permanently high with the young generation;*
- *HEIs' market condition influence graduates' unemployment;*
- *Higher education policy planning problems cause the mismatching demand and supply at the national and regional level;*
- *There is no preliminary research or correspondence between the educational institutions and the needs of labor market stakeholders in regards to graduates' qualifications and skills. Enterprises need to spend some amount of time and money to retrain graduates and prepare them for particular work. Due to that, enterprises mostly avoid recruiting fresh graduates. The educational mismatch is rather high among bachelor graduate women. Even if they get some particular positions, women are 10% less paid rather than men. Overall, graduates experience disappointment at the beginning of their careers.*
- *To a certain extent graduates unemployment is encouraged by educational institutions, because they dramatically increase and recruit students in some particular fields (such es: Economics and Business, International Relations, Law, Humanities and etc.) whereas a significant proportion of the workforce in that segment is self-employed (under the shadow economy) mismatched by occupation or/and unemployed. As a result, most of future graduates will be just additional oversupply on the labor market.*
- *Region based HEIs have very week connection with SMEs and they are partly involved in the educational/training process.*
- *Higher educational institutions should establish structural units for supporting the graduates' employability.*

In order to expand the findings and deepen research results, we recommend further research by combining qualitative and quantitative research in the future, involving not only HEIs and SMEs, but including the alumni and current students of HEIs.

Conclusion

1. Majority of region based HEIs do not research labor require skills and qualifications yearly, institutions do not collect annual databases about graduates' employability, neither professional employability records.
2. Region based HEIs have very week connection with SMEs and they are partly involved in the educational/training process.
3. Higher educational institutions should establish structural units for supporting the graduates' employability.
4. With the intention of increase the role of the HEIs' in regional sustainable development by forming qualitative labor force, universities should use all advantages that they have, create a strong ties with SMEs, attract various stakeholders from different transdisciplinary sets and ensure continuous process of discourse

Acknowledgements

To all our colleagues from different Higher educational Institutions, that participate in the qualitative research and make an significant input to the present work.

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REMUNERATION SYSTEM ELEMENTS' IMPACT ON THE PERFORMANCE OF THE TEACHERS OF GENERAL EDUCATION INSTITUTIONS IN THE REGIONS OF LATVIA

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Latvia University of Life Sciences and Technologies



Abstract

The authors of the article present the results of a study on the evaluation of the remuneration and performance of teachers in general education institutions in the regions of Latvia, which is a topical issue in the implementation of education system reforms.

Aim

The aim is to find out the opinion of teachers working in general education institutions about the factors influencing work performance, paying special attention to the regional aspects of this problem

Tasks

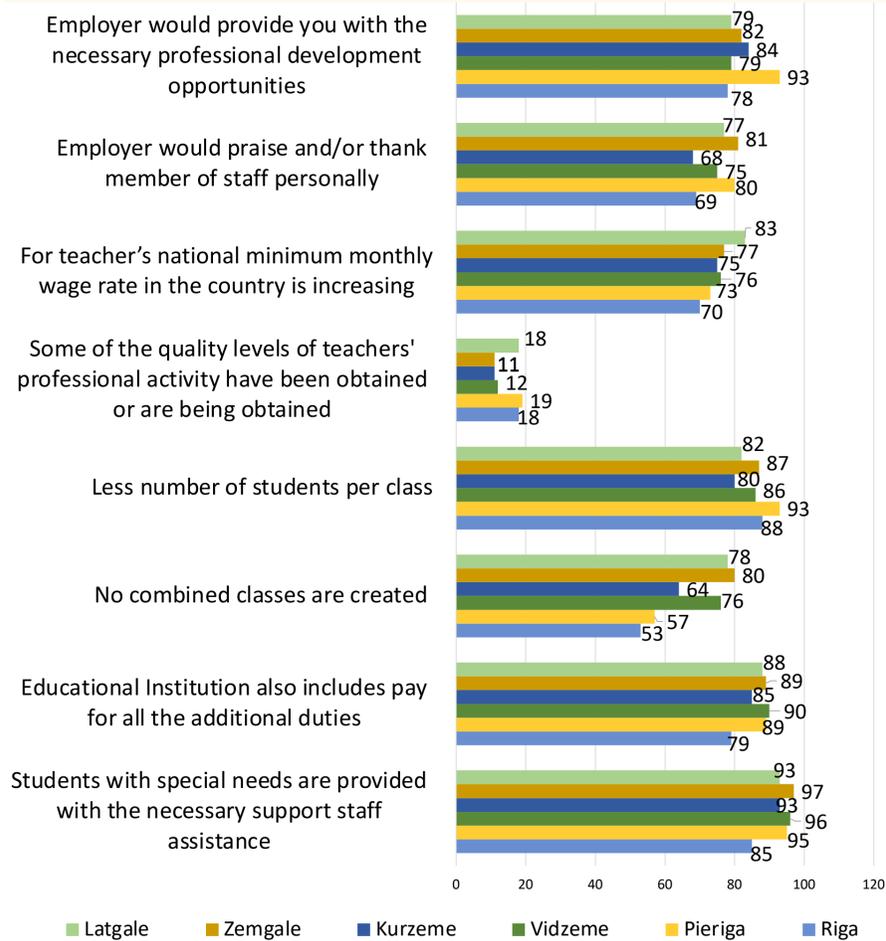
1) to identify problems in various aspects related to teachers' financial and non-financial remuneration; 2) to determine which of the factors influencing performance most increases the performance of teachers; 3) to compare the results in the regions and in Latvia in general

Materials and methods

(1) the quantitative survey of the teachers (n=603) via web tool visidati.lv (September and October, 2020); (2) graphic method - using graphical method helped to clearly and efficiently reveal object's relationships and dynamics; (3) method of synthesis and analysis - separate elements of the object under investigation were connected in a single system by studying their interrelations

Results

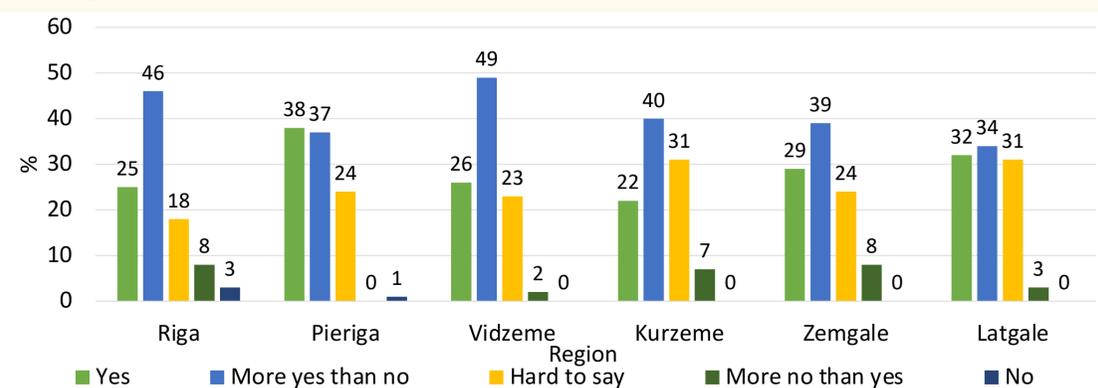
1. The financial and non-financial dimensions of remuneration



Source: Author's calculations based on research data

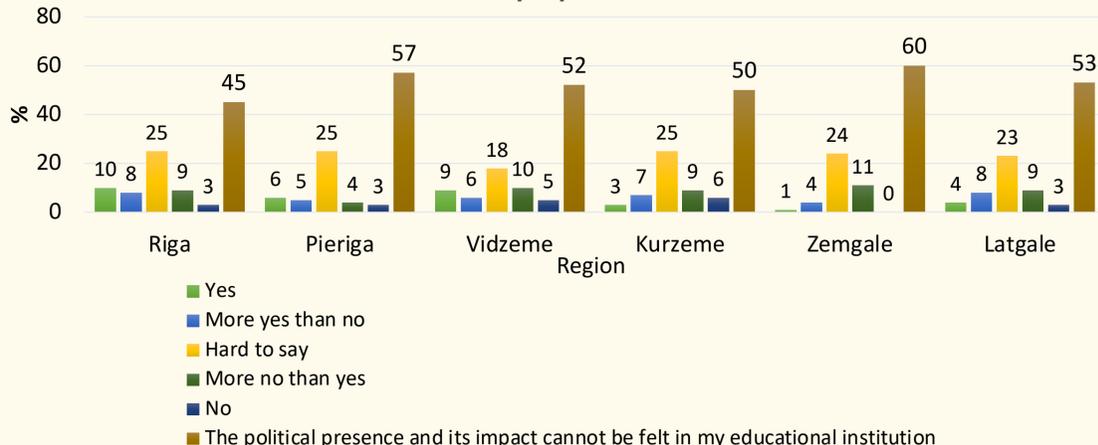
Fig. 1. Teachers' opinion on financial and non-financial remuneration factors that would improve work performance (optional set "yes" and "more yes than no", %), n = 603

2. Organizational culture and politics



Source: Author's calculations based on research data

Fig. 2. Teachers' opinion on the work performance improvement if the head of the educational institution paid increased attention to the organizational culture, %, n = 603



Source: Author's calculations based on research data

Fig. 3. Teachers' opinion on work performance improvement if there was no political presence or its influence in the educational institution, %, n = 603

Conclusions

- Among the factors influencing teachers' performance - financial remuneration, non-financial remuneration, organizational culture and policy, the most significant influence on teachers' performance is financial remuneration. The performance of teachers in all the regions of Latvia would be most improved if students with special needs were provided with the necessary support staff assistance (teaching assistant, special teaching assistant, speech therapist, psychologist). In Latgale, 88% of the surveyed teachers, in Vidzeme - 90%, in Zemgale - 89%, as an important determining factor of performance is also acknowledged - if all additional duties to be performed in the educational institution (correction of student's works/papers, preparation for lessons, individual work with students, class education) and in Zemgale 93% of the surveyed teachers, in Kurzeme - 89% and in Latgale - 88% admit that their performance would increase if teachers did not have to work in several educational institutions to ensure full workload. 88% of the surveyed teachers in the Riga region admit that performance would increase if there was a smaller number of students in the classrooms.
- In all statistical regions of Latvia, the performance of teachers would be least affected by the possibility to obtain some of the quality levels of teachers' professional activity.
- Increasing the minimum monthly wage rate of teachers or the wage is not the determining factor that would increase the performance of teachers.
- In all the regions of Latvia, an important factor of non-financial remuneration for teachers is the approach according to which the employer provides the necessary professional development opportunities and employer praises or expresses gratitude personally.
- Organizational culture was recognized in all the regions as an important determinant of teachers' performance, while a strong political presence and impact was not observed in any region of Latvia.

Acknowledgements

The paper was supported by the National Research Programme "Latvian Heritage and Future Challenges for the Sustainability of the State", project "Challenges for the Latvian State and Society and the Solutions in the International Context (INTERFRAME-LV)".

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ANALYSIS OF THE FINANCIAL MARKET AS A DRIVING FORCE OF THE REGIONAL ECONOMY IN THE CONDITIONS OF PRE- AND POST - PANDEMIC

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Abstract

The pandemic has negatively affected the financial sector, as well as the real sector of the economy, both losses and credit risks in the financial market have increased on the background of the economic activity slowed-down. In 2019, the credit activity was high, however after the spread of the virus the activity slowed down significantly. In general, saving the business is considered as a priority. The current situation in the banking, insurance and stock markets and their role in the fight for maintaining the economic stability are analysed in the present article.

Aim

The goal of the present article is to analyse the role of the financial market in the economy of a developing country, sustainability of the financial institutions functioning in the institutional matrix during the pre-and-post pandemic period.

Tasks

The main players of the financial market - banking institutions, insurance institutions and securities markets as the mechanisms for development of above listed institutions and vice versa, are selected as the study objects.

Materials and methods

Using empirical analysis, the article identifies trends in the country's financial market development, comparing it with the level of development of financial institutions in European countries and outlines opportunities and problems associated with the implementation of the association directives in relation to both market development and European directives. The information sources used includes the data of the Organization for Economic Co-operation and Development, and the National Statistics Office Georgia, and the National Bank of Georgia.

Results

It should be noted that the pandemic, along with the real sector of the economic, had also a negative impact on the financial sector, both losses and credit risks in the financial market had been increased on the background of the economic activity slowed-down. The recession caused by the pandemic is different from the global financial crisis of the years 2008-2009 by its nature. In this case the source of the recession is not the real and financial sector of the economic, but the restrictions introduced in order to avoid the rapid spread of the virus. The banking system accounts for over 90 percent of Georgia's financial sector.



Fig. 1. Annual growth rate of loans

The crisis of the year 2020 once more clearly shows the importance of the country's economic stability against the shocks. In 2019, the credit activity was high and by the end of the year the annual growth rate of loans (by excluding exchange rate effect) amounted to 16 percent (Figure 1).

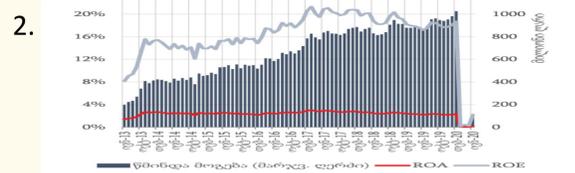


Fig. 2. Profitability of the bank sector

In 2020, the profitability of commercial banks will be close to zero. The banks' sectors were characterized with high profitability before the pandemic, in 2019 the average return on equity (ROE) was within 18 percent (Figure 2).

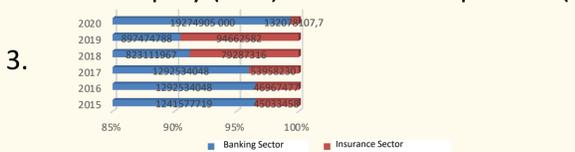


Fig. 3. The share of insurance capital in bank deposits

The Figure 3 demonstrates that the share of insurance companies' deposits is very small in bank deposits (2015-2016- 4%; 2017-5,3%; 2018-9%; 2019 -9,8%; 2010-1%). Before the pandemic in 2018-2019, the investment potential of the insurance companies is within the 9-19% (Figure 3). But in the pandemic condition it dropped to 1%, however in the absolute value, the investment capital in 2020 has been increased 1,4 times, according to which the percentage indicator of the bank deposits have been decreased.

ქვეყანა	2020	2019	2018	2017	2016	2015	Rating
ბელგია	5 904	3 248	7 601	50 436	18	AAA	AAA
დანიის	8 723	10 423	19 323	225 757	16	AA	AA
გერმანიის	12 215	1 643	149 180	120 153	6	AAA	AAA
იტალიის	13 986	35 732	162 286	92 979	25	AAA	AAA
ბრიტანეთის	8 604	6 429	69 022	565 366	8	BBB-	BBB-
საერთაშორისო საწყობი	94 573	4 911	19 324	368 602	4	AA	AA
შვედეთის	10 931	12 774	132 763	145 008	10	AAA	AAA
საშუალო	19 864	47 866	21 560	357 950	13	AAA	AAA
საშუალო	20 000	13 003	18 252	257 081	31	A-	A-
საშუალო	117	21	10	664	82	A-	A-
საშუალო	98	8	146	765	64	A-	A-
საშუალო	59	6	71	0	118	BB-	BB-

Table 1. The state of investments of the insurance industry in developed countries in various activities

The statistics in the table shows, that the country that has a developed insurance market, volume of investing in the securities market is high (Belgium, Denmark, Germany, Italy, the United Kingdom, etc.), which is in compliance with the rating of the life accumulative insurance and is confirmed by the ratings given by the rating company- Fitch to the financial markets of these countries in 2020

Conclusion

As the study shows, individual insurance companies perform profitably in the reporting year, but their role in the development of the financial market and consequently in the growth of the economy is insignificant. In our opinion, this is not a problem created by one company, it is based on the socio-economic situation, which occupies the first place in the development of the insurance sector. Accordingly, the authors believe that:

1. the problem of unemployment should be solved first, the average salary should correspond to the average standard of living;
2. the introduction of accumulative life insurance should become a priority of the Government, which will be achieved by compulsory insurance of employed citizens, otherwise the insurance sector will remain only an individual protection mechanism and will not fulfil the role of supplying free capital market.

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PREREQUISITES FOR PROMOTING INNOVATION PROJECTS IN THE AGRICULTURAL SECTOR

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Abstract

According to the European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI) that started 2012, the Europe 2020 Flagship Initiative "Innovation Union" specifies European Innovation Partnerships (EIP) as a new tool for speeding up innovation through linking existing policies and instruments. Based on the report "Innovation, Agricultural Productivity and Sustainability in Latvia" prepared by the Organization for Economic Co-operation and Development (OECD) in 2019, it analyses innovations in agriculture in order to promote further development of the sector. The agricultural sector has progressed more slowly than the economic sector and slightly more needs to be invested in order to ensure a well-functioning innovation system and a policy environment that would increase agricultural productivity and improve sustainability.

Aim

The aim of paper is to reveal what prerequisites are necessary to promote the development of innovation projects in agricultural sector

Tasks

1. To study the theoretical characteristics of innovation projects and innovation project management; 2. To study the promotion of innovation projects in the agricultural sector; 3. To carry out research of preconditions for the development of innovation projects.

Materials and methods

The research based on analysis of documents exploring the views of European Innovation Partnership project managers on how the innovation process in European Innovation Partnership projects has taken place and what are the main prerequisites for promoting the development of innovation projects, as well as observation and semi-structured interview, in turn, exploring, which can contribute to the development of innovation projects and which is already being done. A total of four interviews were conducted with European Innovation Partnership project managers and five events were observed.

Results

The first part of the study covers the monitoring of measures to promote five innovation projects in agriculture: Administrative issues in European Innovation Partnership operational group projects (2 venue), Nordic-Baltic Rural Network Innovation seminar, Conference "Innovation for Development", Publicity of the final report of the European Innovation Partnership project (Table 1). All events are focused on the challenges and solutions for the development of innovation projects, they took place in the period from March 14, 2019 - March 4, 2020.

Observed Innovation Venues

Table 1

No.	Name of the event	Target audience	Time	Venue
1., 2.	Administrative issues in European Innovation Partnership operational group projects I, II (2 working groups organized)	Project managers, coordinators, RSS, MA, NRN	14.03.2019. 15.10.2019.	LRATC, Ozolnieki, Latvia
3.	Nordic-Baltic Rural Network Innovation seminar	Nordic-Baltic Rural Network employees, EIP-AGRI contactpersons	21.01.2020.	Tallinn, Estonia
4.	Conference "Innovation for Development"	All those who are interested in innovation	27.02.2020.	Vidzeme Concert Hall, Cesis, Latvia
5.	Publicity of the final report of the European Innovation Partnership project	Project team, MA, RSS, NRN	04.03.2020.	Cesvaine dairy plant, Latvia

Source: created by authors

Through the interviews, the project managers of the European Innovation Partnership were interviewed in order to be able to find out how the innovation process in EIP projects has taken place and what are the main preconditions for the development of innovation projects. The interviewees were selected on the basis of an analysis of documents, which identified which innovation projects in agriculture have been launched in this programming period. In general, the introduction of innovation projects in the agricultural sector can certainly contribute to the development of the sector. According to the described part of the theory and research, the essence of innovation projects is that it is a great daring to change something that has been traditionally accepted before. And by accepting something new, there is an opportunity to work differently, which can bring unprecedented success.

However, summarizing the results of the research, as well as the opinions of the innovation project managers themselves, the authors conclude that innovation projects have a future for the future growth of the agricultural sector. However, a lot of effort is needed to improve the overall Rural Development Program support measure Nr.16 "Cooperation".

Conclusions

1. The interrelationship between innovation and project management identifies new innovation projects that can ensure that the project outcome is in line with its objectives. The theory of the analysis of the stages of the innovation spiral process is as an essential tool for the implementation of innovation projects in practice, because the stages of the innovation spiral can be compared with the traditional project life cycle. Innovation projects in the agricultural sector are needed to diversify and increase the development of the sector, thus facilitating the implementation of innovation projects.
2. As a result of the study, 8 prerequisites for promoting innovation projects in the agricultural sector were identified: 1) The desire of farmers, consultants, researchers etc. to accept new challenges and, most importantly, to accept innovation; 2) Educating and informing the general public about what innovation is and about European Innovation Partnership projects; 3) Promoting the development of innovation requires an innovation-oriented environment as well as leaders with strong leadership skills; 4) The project team must establish strong communication both with each other and with the employees of the responsible institutions; 5) In order to prepare high-quality project applications, one of the preconditions is to organize pre-preparation training, introducing potential project managers to the main activities of the project; 6) Reducing the administrative burden of projects; 7) Involvement of European Innovation Partnership project managers in publicizing project results to the general public; 8) Training of innovation brokers, as brokers are the most direct promoters of innovation projects.

Recommendations

1. In order to promote the development of innovation projects, the authors recommend that the State Rural Network organize an innovation camp. This approach is already widely accepted and used in Europe. Organizing an innovation camp would be an opportunity for all potential European Innovation Partnership project promoters to meet and share their ideas and knowledge.
2. The authors recommend that the National Rural Network develop a communication plan aimed at improving mutual communication between all parties involved - the Rural Support Service, the Ministry of Agriculture, the National Rural Network, as well as with the European Innovation Partnership project managers.
3. In order to be able to develop innovation projects, the Ministry of Agriculture must improve the rules of the support measure, thus including all the above-mentioned aspects, which are necessary to facilitate the implementation and realization of the European Innovation Partnership project.

Table 2

Preconditions for the development of innovation projects

No.	Problems / weaknesses	Possible activities
1.	Low interest	Organization of informative, educational seminars throughout Latvia
2.	Explanation of innovation	Organization of informative, educational seminars
3.	Innovation-oriented environment	If possible, build a successful project team
4.	Communication	Create a feedback mechanism, develop a communication plan
5.	Lack of understanding in the implementation of the project	Organize pre-preparation courses to get acquainted with the main activities of the project
6.	Administrative burden of projects	The RSS reduces the administrative burden in project implementation as much as possible
7.	Publicity of projects	NRN has developed a specific action plan
8.	Promoting innovation	Curriculum development for potential innovation brokers

Source: created by the authors

One of the most important preconditions for the development of innovation is the desire of farmers, consultants, researchers and others themselves to accept new challenges and, most importantly, to accept innovation and start thinking about how to cooperate and find solutions for the development of the industry.

The study also revealed the essence of the concept of innovation. For some, this will be a known practice, for some it will be something new and unprecedented, so it is important that the public is informed about what innovation and innovation are in the sector. An important precondition for being able to foster innovation is its environment. That is, if the innovative idea has no supporters, then the idea will not be advanced at all, although it is very likely that the idea could solve an industry problem.

It is also important to mention that in order for innovation projects to be able to develop, the newly formed project team needs to establish strong communication both with each other and with the employees of the responsible institutions.

In order for the RSS and the Ministry of Agriculture to receive high-quality project applications, one of the suggestions and preconditions was to organize pre-training.

It follows from the above that project managers are keen to reduce the administrative burden, as farmers refuse to participate in the project due to these strict administrative requirements. Therefore, one of the preconditions for further improvement of the event could be that the RSS could reduce the administrative burden. Another precondition for the development of innovation is the involvement of existing EIP project managers in the publicity of project results. Publicity is important precisely in order to inspire potential participants in EIP projects to further develop their idea. An important precondition for the further development of innovation is the development of a training program for innovation brokers.

11-14 May 2021, Jelgava, Latvia

**FAMILY HOMESTEADS AND SUSTAINABLE DEVELOPMENT OF
RURAL AREAS IN THE POST-COVID ERA**

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Abstract

In recent decades, in the rural areas of Russia and some other states, a new form of land management - family estates - has been developing. This form, without a legal status, has significant distinctive features from farms and horticultural associations. Family estates form entire settlements, functioning on the principles of preserving family values, master's motivation, cooperation, and environmental friendliness. Coronavirus crisis has exacerbated the desire of residents of large urban agglomerations to move to live in rural areas. The authors investigate the features of the current state of management of the settlements of family estates and their prospects in the post- COVID period.

Aim

The aim of the work is to assess the potential of family homesteads in the formation of conditions for sustainable development of rural areas.

Tasks

Discuss the main features of family homesteads as a form of farming in rural areas;
Analyze the relationship between the development of family homesteads and sustainable development of rural areas;

Identify the possibilities and problems of increasing the number of family homesteads and the necessary measures of state support

Materials and methods

The article provides an assessment of the current state and forms of economic activity of settlements from family estates based on the results of surveys and structured interviews conducted by the authors.

Results

The differences of family homesteads include:

- orientation to family values and the formation of a "place of procreation";
- maintaining a healthy lifestyle for members of family homesteads and the settlement as a whole;
- ecological orientation of agricultural production, the implementation of the principles of organic farming and the creation of balanced biogeocenoses within both an individual estate and in the settlement as a whole;
- the relatively large size of the land plots on which the estate is located (usually 1-2 hectares), in contrast to summer cottages, household and horticultural farms;
- striving for cooperation and mutual assistance of the members of the settlements;
- optional high level of marketability of agricultural production, in contrast to farms;
- a combination of different sources of income generation for members of the economy (agricultural production, self-employment in other areas of the economy, employment, etc.);
- a combination of different sources of income generation for members of the economy (agricultural production, self-employment in other areas of the economy, employment, etc.

The main problems most often mentioned by the respondents are the following:

- the lack of a legal status of a family estate and a settlement consisting of family homesteads, which makes the settlements look for surrogate mechanisms for the legal legitimization of their existence and complicates the possibilities of active development within the framework of basic goals;
- restrictions on the construction of housing on agricultural land restricts the possibilities of permanent residence within settlements;
- difficulties with ensuring the supply of infrastructure objects to settlements (electricity, gas, communications, roads, etc.), while as a rule, the internal infrastructure of the settlement is provided at the expense of its members' own resources through cooperation.

Assessing the potential for the development of family homesteads and their settlements from the point of view of the possibilities of accommodating a part of the employed population, which can be transferred to a remote mode of work in the Russian Federation, the possibilities of resettlement to family homesteads of up to 29 million people were identified, incl. at least 11 million employed population.

Table 1
**The incidence rate in urban and rural areas of the
Leningrad region, people per 1000 inhabitants 2020-2021**

Districts	Urban settlements	Rural settlements	District centers
Leningrad region	20.09	17.60	26.56
Boksitogorsk municipal district	24.96	15.76	31.74
Volosovsky municipal district	24.86	20.13	24.86
Volkhov municipal district	15.66	12.17	15.21
Vsevolozhsk municipal district	18.54	16.95	24.41
Vyborg municipal district	20.71	12.50	26.32
Gatchina municipal district	22.62	20.24	24.06
Kingiseppsky municipal district	19.78	13.53	20.15
Kirishi municipal district	32.29	20.50	32.80
Kirovsky municipal district	13.83	12.47	16.59
Lodeynopolsky municipal district	40.44	19.27	40.97
Lomonosov municipal district	16.08	17.67	19.75
Luga municipal district	21.43	19.76	21.61
Podporozhsky municipal district	30.41	40.39	32.08
Priozersky municipal district	39.95	22.72	42.78
Slantsevsky municipal district	30.56	16.29	30.56
Tikhvin municipal district	28.75	26.89	28.75
Tosno Municipal District	14.38	14.56	18.87
Average	24.43	18.93	26.56

* - compared to 2000. Source: Rosstat; The total number of registered ..., 2021

Conclusion

1. Family estates and settlements consisting of them are a promising form of farming in the countryside for solving the problems of sustainable development of not only rural areas, but also cities. Their benefits are amplified in the face of the COVID-19 pandemic.
2. On the basis of statistical data for the Leningrad Region, the existence of significant differences in the level of the pandemic spread in rural, urban settlements and regional centers has been proved. The lower morbidity rate in rural areas enhances the feasibility of reducing the level of urbanization of the Russian economy. Other advantages of this process are the reduction of the severity of the country's demographic problems, the provision of the labor market with human capital with high indicators of manifestation of the values of trust, economic motivation, and responsibility typical of rural residents.
3. Sustainable development of rural areas and cities are interrelated and cannot be considered in isolation from each other.
4. The potential for the development of family homesteads is provided by the availability of land, the possibility of remote work in rural areas in the interests of urban agglomerations, as well as the existence of a request for the resettlement of townspeople in the countryside.
5. A similar potential for the development of family homesteads is characteristic not only for Russia, but also for many economically developed states.
6. The development of family homesteads is constrained by the lack of a legal status of this form of management, restrictions on the use of land for the development of estates and general problems of infrastructure development in rural areas. Without solving these problems within the framework of state regulation, family estates will not be able to reveal their potential in solving the problems of sustainable development of territories.

SOCIAL ENTREPRENEURSHIP AND SOCIAL INEQUALITY: A CASE STUDY OF LATVIA

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Abstract

The present research analyses the theoretical and practical aspects of interaction between social entrepreneurship and socio-economic processes, thereby building up scientific experience in analyses of social entrepreneurship processes. The authors analysed the elements of the social entrepreneurship ecosystem, the impacts of social entrepreneurship and statistical data on social inequality in Latvia.

Aim

Aim was analyse the role of social entrepreneurship in Latvia in reducing poverty and social exclusion.

Tasks

To analyse the social business ecosystem in Latvia and the areas of social impact in Latvia in reducing the differences in Latvia between poverty and social exclusion.

Materials and methods

1. Theoretical literature review.
2. Documentary analysis to identify social enterprises in Latvia in the period 2018-2021.
3. Statistical analysis to perform the specific research tasks.

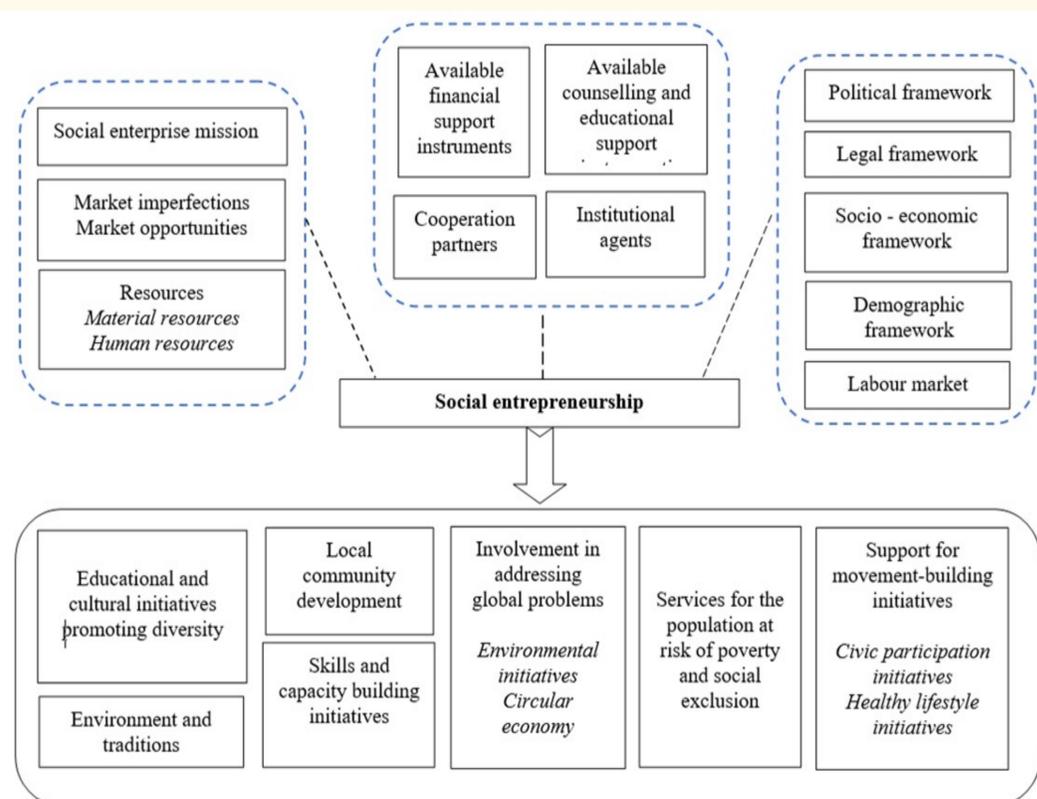
Results

Although social entrepreneurship is a widely known kind of entrepreneurship in the world, in Latvia its development has been seen only for the third year, as the Social Enterprise Law became effective on 1 April 2018. Social development in Latvia is at the initial stage. In Latvia in accordance with the relevant regulatory framework, social enterprises are limited liability companies.

The authors, based on a theoretical literature review (European Union, 2020; Prato, Sutanti, 2016; Kim, Lee, Roh, Son, 2020; Social Entrepreneurship Association of Latvia, 2019b; Penwick, 2011; Babson Global, 2017; Saeima of the Republic of Latvia, 2017; Cabinet of the Republic of Latvia, 2018a, 2018b; Ministry of Welfare of the Republic of Latvia, 2020a, 2020b; Bærenholdt, 2009) and research studies on social entrepreneurship in Latvia, concluded that social entrepreneurship was carried out in a complex ecosystem, and it depended on each country's regulatory framework, political support, socio-economic situation in the regions and demographic trends as well as other exogenous factors. However, the development of social entrepreneurship was affected by available resources, which were exploited within the strategy chosen and components promoting socio-economic development by employing market imperfections (Figure 1)

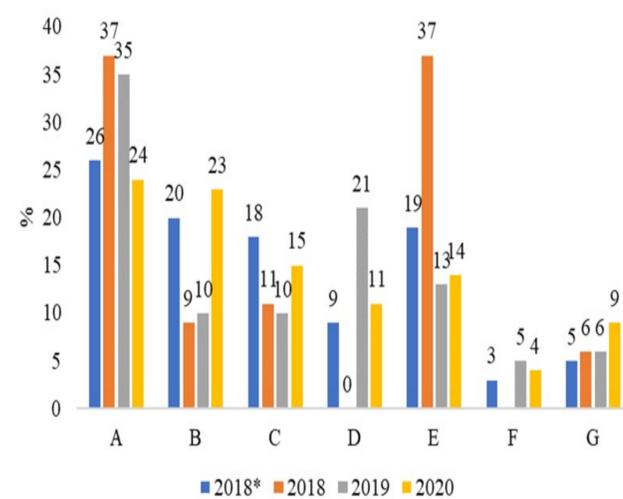
To identify whether there was a difference between the total number of economically active enterprises (CSB, 2020a) and the number of social enterprises in the regions of Latvia in 2019, a Wilcoxon signed ranks test was performed by the authors. The results showed 95% confidence level indicated that social entrepreneurship was conducted in an ecosystem where there were also factors that significantly influenced the development of social entrepreneurship.

The authors' analysis revealed that from the very beginning, the dominant field of impacts of social enterprises was support for persons at risk of social exclusion and poverty – in 2018, 26% participants and 37% social enterprises provided such direct employment support (Figure 2).



Source: authors' construction

Fig. 1. Social entrepreneurship ecosystem and the impacts



Notes: data at the end of the calendar year; 2018* - participants - NGOs and enterprises that were registered before the adoption of the Social Enterprise Law; 2018 - enterprises registered in accordance with the Social Enterprise Law (Saeima of the Republic of Latvia a, 2017), A- work integration; B- education; C- sports and health promotion; D- civic society and cultural diversity; E- social services and support for people at risk of poverty and social exclusion, F- environmental protection; G- other services
Source: authors' construction based on social entrepreneurship research documents in Latvia

Fig. 2. Fields for social entrepreneurship in Latvia in the period 2018-2020

Conclusion

1. In Latvia social entrepreneurship develops within a complex ecosystem.
2. Social entrepreneurship makes a positive qualitative effect on the reduction of regional disparities in poverty and social exclusion in Latvia, yet the effect is not the same across the regions. Important social entrepreneurship's measures were aimed at the education of the target groups, their involvement in sports activities and a healthy lifestyle, as well as the support provided in the field of health promotion.
3. The number of population at risk of social exclusion and poverty in a region makes a little effect on the development of social entrepreneurship.

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DIGITALIZATION IN PUBLIC ADMINISTRATION INSTITUTIONS

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Abstract

There is no doubt that digitalization processes make positive effects on the development of a company as emphasized and evidenced by many research papers and studies. However, there are a few empirical research studies on digitalization in the public sector, particularly in public administration institutions. Therefore, the present research aims to identify and compare the level of digitalization in four national public administration institutions: the State Revenue Service, the Office of Citizenship and Migration Affairs, the State Social Insurance Agency and the State Employment Agency.

Aim and Tasks

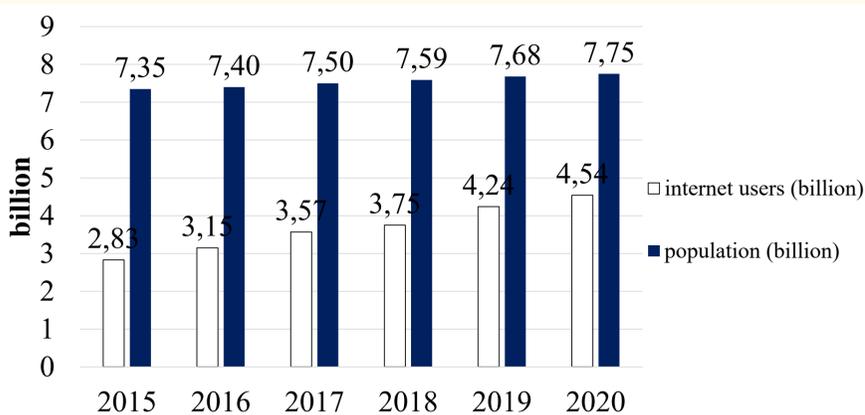
The present research aims to identify and compare the levels of digitalization in four public administration institutions of Latvia. 1) to examine theoretical discussion on digitalization in public administration; 2) to compare the levels of digitalization in the State Revenue Service (SRS), the State Employment Agency (SEA), the Office of Citizenship and Migration Affairs (OCMA) and the State Social Insurance Agency (SSIA) in Latvia.

Materials and methods

The empirical research identified the proportion of Internet users in the total world population and the current trend. To assess and compare the levels of digitalization in the four public administration institutions, the authors employed the e-index and the digitalization assessment method. The data were obtained from the public data portal data.gov.lv, a report on the e-index for national institutions, a report on e-government monitoring published. The digitalization assessment method developed by the authors is based on a method proposed by Georg Rasch.

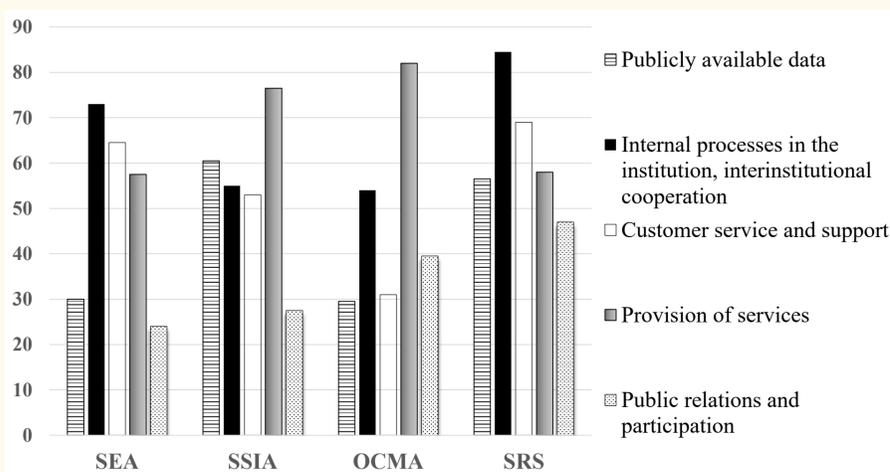
Results

The main factor contributing to the use of digital technologies by public administration institutions was Internet accessibility and the digital skills of the population to use it. According to the CSB data, 76% households in Latvia had an Internet connection in 2015, in 2020 this figure increased to 89.7%. In 2020, 86.9% of the total population used the Internet regularly (at least once a week). Global statistics reveals - of the 7.75 billion people, more than 4.54 billion used the Internet, while social media users exceeded the 3.8 billion mark.



Source: authors' calculations based on Digital 2020: global digital overview

Fig. 1. Numbers of the population and Internet users in the world in 2015-2020, in billions



Source: authors' construction based on the 2019 e-index

Fig.2 E-index values for the selected public administration institutions by criterion in Latvia in 2019

The SRS achieved the highest level of digitalization and efficiency of digitalization among the analysed public administration institutions of Latvia, the level was low in the State Employment Agency and the Office of Citizenship and Migration Affairs, which might hinder their progress towards digital transformation.

Conclusion

- National institutions should establish a range of public administration services, which are available 24 hours a day and 7 days a week, meaning that it is not the institution that sets its working hours but the service recipient chooses them.
- The digitalization assessment method developed by the authors, compared with the e-index, yielded different results regarding the levels of digitalization in national institutions. This was mainly due to the fact that the digitalization assessment method also took into account the management of change at the institution with regard to the provision of services.

Acknowledgements

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Table 1

Expenditures of the public administration institutions on IS, IT and computer equipment in Latvia in 2019

Expenditures	SRS	OCMA	SSIA	SEA
Total	123 206 313	25 417 922	217 087 830	32 705 580
IT, IS and computers	18 442 919	994 324	1 419 571	661 425
% of total	13	4	1	2

Source: authors' calculations based on government budget estimates and data from the SRS, the OCMA, the SSIA and the SEA, 2019

The quality of digital public administration services is a hindering factor for digital growth in the country as a whole. In Latvia, ICT governance is fragmented at the national level, namely, almost every public administration institution has an IT department, as well as this field is under the responsibility of several ministries

Table 2

Digitalization assessment results for the SEA, the OCMA, the SSIA and the SRS in 2019

Criterion (maximum score)	Public administration institution (score)			
	SEA	OCMA	SSIA	SRS
Public relations (21)	14	14	11	17
Customer service (16)	9	14	15	15
Publicly available data (13)	4	7	1	5
Provision of services (12)	8	8	10	11
Internal processes in the institution (17)	10	8	8	16
Total	45	45	51	64
Percentage	56%	56%	64%	80%

Source: authors' calculations based on a comparison of criteria and data.gov.lv., 2020

A comparison of the four public administration institutions of Latvia revealed that the more a public institution invested in IT and IS from its own resources, the higher the level of digitalization in this institution. On average, the SRS spent 13% of its total budget on ICT maintenance, and technological development and the provision of e-services was one of its priorities. This was also evident in relation to digital maturity, as 85% SRS internal processes were digitalized.

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DIFFERENCES IN FISHERY AND AQUACULTURE PRODUCTS, THEIR PRODUCTION AND SALE TECHNICAL REGULATIONS IN EURASIAN ECONOMIC UNION AND LEGISLATION AND PRACTICE OF THE EUROPEAN UNION

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Abstract

The mandatory requirements for the fishery and aquaculture products, their production and sale in force in the territory of the Customs Union of the Eurasian Economic Union (CU EAEU) arise from the regulatory and legal acts of the Eurasian Economic Union and its predecessor - the Customs Union - and apply in a package approach similar to the law of the European Union pertaining to the food safety area. The requirements of the EAEU technical regulations have been analysed taking into account that European exporting enterprises are first of all obliged to comply with the requirements of the listed EU regulatory and legal acts applicable to their production process and products. The aim of this paper was to run a comparative analysis on the mandatory requirements of the food legislation of the European and Customs Unions regarding fishery and aquaculture products, their production and sale. The issues of certification of certain product categories are analysed separately, the requirements for canned fish being highlighted. The analysis is relevant for all fish processing companies which may consider the possibility of starting export to the countries of the CU EAEU and are intended to reduce costs associated with products' entry into these markets.

All the differences in the requirements of the EAEU technical regulations discussed in this article are given taking into account that European exporting enterprises, first of all, are obliged to comply with the requirements of the internal EU regulations. The sources of information included legislation acts of EAEU and EU regulating import, production and sale of fishery and aquaculture products.

Aim

The aim of this work was to conduct a comparative analysis on the mandatory requirements of the food legislation of the European and Customs Unions regarding fishery and aquaculture products, their production and sale.

The purpose of this comparative analysis is to provide food processing companies with information on the specifics of EU and CU legal requirements, to help evaluate and expand their potential to meet these requirements and enter new export markets

Tasks and question scope

Tasks of the research include:

- analysis of the application of procedures based on HACCP principles;
- requirements for the use of particular ingredients in fish products;
- information provided for the labelling of fish products;
- requirements for enterprises and foreign enterprises certification procedure for compliance with the EAEU technical regulations.

The research implemented a qualitative research methodology based on the comparative analysis of the relevant EAEU and the EU regulations.

Results

The Customs Union of the Eurasian Economic Union includes Russia, Belarus and Kazakhstan, which is a significant existing and potential market for the export of fish and aquaculture products produced in the EU, including Latvia. In this context, set of requirements for imported fish and aquaculture products is formed by "horizontal" technical regulations (TR) - TR CU 021/2011 "On food safety", TR CU 022/2011 "Food products in terms of their labelling", TR CU 005 / 2011 "On the safety of packaging", TR CU 029/2012 "Requirements for the safety of food additives, flavourings and other aids" - and the "vertical" technical regulation TR EAEU 040/2016 "On the safety of fish and fish products", the provisions of which should be considered as exclusively interrelated.

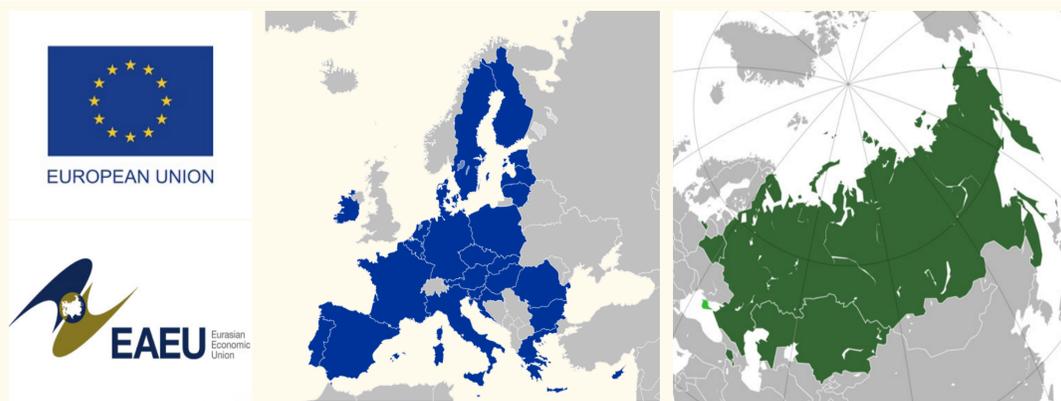


Fig. 1. Logos and geographies of the European Union and the Customs Union of the Eurasian Economic Union

Conclusion, proposals, recommendations

1. The Customs Union of the Eurasian Economic Union and the European Union have established strict control over the safety of food products from fisheries and aquaculture, their production and sale. However, to ensure food safety, fundamentally different legal frameworks, regulatory methods, systems and control procedures are used.
2. The technical regulations of the EAEU, unlike the European regulations, do not provide for the drawing up of guidelines for the development and implementation of own control systems at the supranational, national or industrial levels - therefore, all the requirements that they contain must be met literally. In particular, availability of ISO 22000 system is not a proof that the requirements are met.
3. The list of safety indicators for any group of fish products in the EAEU is much wider in comparison with the EU requirements - this applies to both sanitary and hygienic and microbiological indicators, while the standardized levels and applied test methods are not equivalent. Taking this into account, it is advisable to conduct a thorough expert study of the standardized indicators for a specific product and their determination methods before supplying products to the EAEU market.
4. The regulation of the use of food additives is significantly different. The list of prohibited food additives according to TR CU 029/2012 is much wider in comparison with Regulation (EC) No. 1333/2008 of the European Parliament and of the Council of 16.12.2008.
5. There are significant differences in labelling used for fishery and aquaculture products. It is advisable to conduct an examination of the labelling prior to delivery of products to the EAEU market.
6. Requirements for voluntary certification of imported products can only originate from retail chains - this is exclusively an agreement within the framework of civil law and cannot be considered a common practice.

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EMPIRICAL ANALYSIS OF AGRICULTURAL DEVELOPMENT FINANCING AND THE WAYS TO IMPROVE AGRIBUSINESS MANAGEMENT

George Abuselidze, Doctor of Economics/ Professor; **Irma Chkhaidze**, Doctor of Economics/ Professor and **Nanuli Makharadze**, Academic Doctor of Business and Management / Professor
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Abstract

Uncertain future under the conditions of COVID-19 has changed population's behavior, views, daily rhythm without coercion in real practice. Global world suddenly found himself in the midst of an economic recession. All branches of sectorial structure of economy have actually become a hostage of the healthcare. It's begun not only the strengthen of population's interests on the development of the domestic economy, but it's begun the reverse migration of the village immigrated population from town to the village too. In such conditions, the introduction of integrated management practice of agribusiness plays a great role in the country, which should ensure the effectiveness of the natural resources management. In the article, it's been reviewed one of the priority branch in the sectorial structure of Georgian economy - problems and perspectives of rural and agricultural development, the effectiveness of sector funding has been assessed. In particular, what kind of influence international and state projects, funded in agro-sphere, have on rural development, raising the level of welfare, growth the volume of products, produced in agriculture and at the development level of the national economy of the country.

Aim

The goal of the research is to learn, analyze and evaluate the effectiveness of the state programs, funded and implemented for the development of agribusiness, features of project management.

Tasks

According to economic and statistical analysis and synthesis methods of the research, it's been determined how was able the projects, funded for the development of rural entrepreneurship to develop the sector, also how personal and public welfare was created by them. The results of the research have revealed the influence of COVID-19 on the development of family farming and new strategies for the development of agribusiness have been set.

Materials and methods

Except for theoretical and methodological basis of the work, the scientific works of Georgian and foreign scientists are: data of the National Statistics Office of Georgia (2020), Ministry of Environmental Protection and agriculture of Georgia (2021), Ministry of Economy and Sustainable Development of Georgia (2020), legislative and sub-legislative acts, resolutions, decrees and etc., researches of governmental and non-governmental international organizations, acting in the country, studies - conducted by the authors. Economic-statistical, analysis and synthesis methods are used in the work to conduct the research process properly.

Results

The analysis of the research results showed that family farming will develop their defined field in agriculture on the basis of natural and acquired (acquired through financing or own funds) advantages and receive small economic benefits from the sale of the produced crop / product.

The rural and agricultural development in Georgia provides the sustainable development of the country, which is revealed with economic, social and ecological benefit. Economic benefit can be: growth of the gross domestic product (GDP), caused due to increased production of ecological products, diversification of the product or service, improvement of economic risks management and reduction of the risks, innovative growth by using modern ecological technologies and others. The effectiveness of using the natural resources is reviewed as an ecological benefit and increased living conditions, improvement of incomes and/or quality of life, especially for poor population, creation of additional workplaces, equalization of living standards inequality, protection of the green policy and environment - is reviewed as a social benefit.

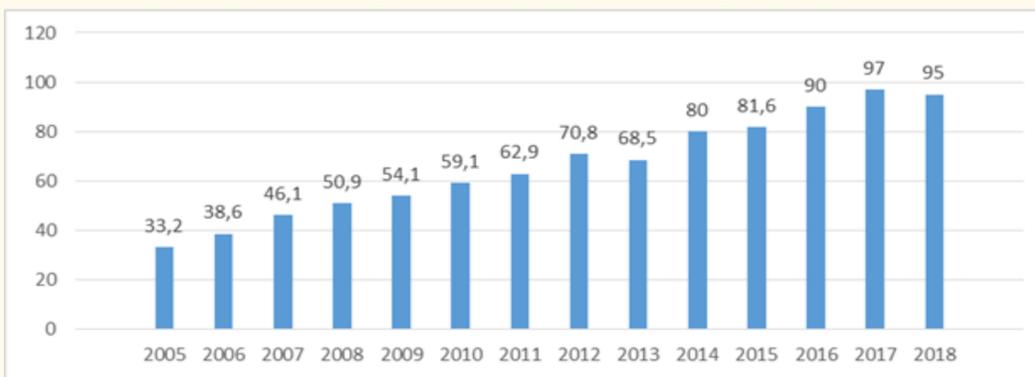


Fig. 1. Worldwide sales of organic food (2005-2018)

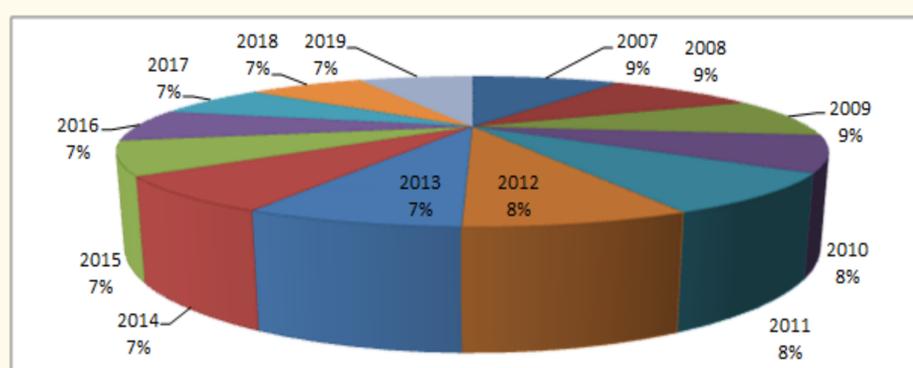


Fig.4. The share of expenditure of food



Fig. 2. Financing of agriculture (million GEL; %)

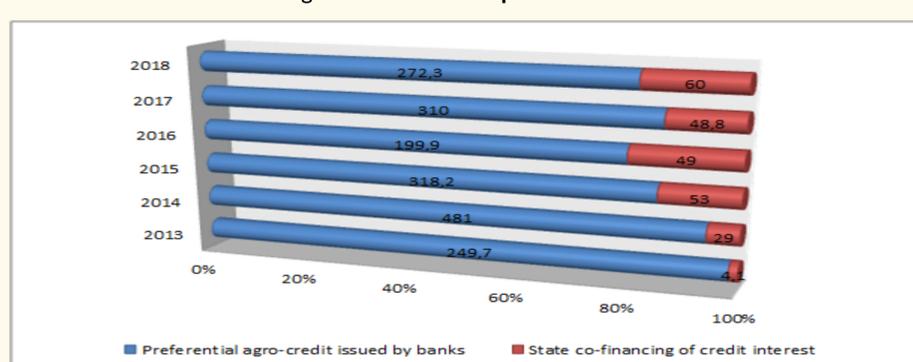


Fig. 5. The value of credits, issued in accordance with 2013-2018 years (million GEL)



Fig. 3. Real growth of agriculture and GDP sector (million GEL; %)

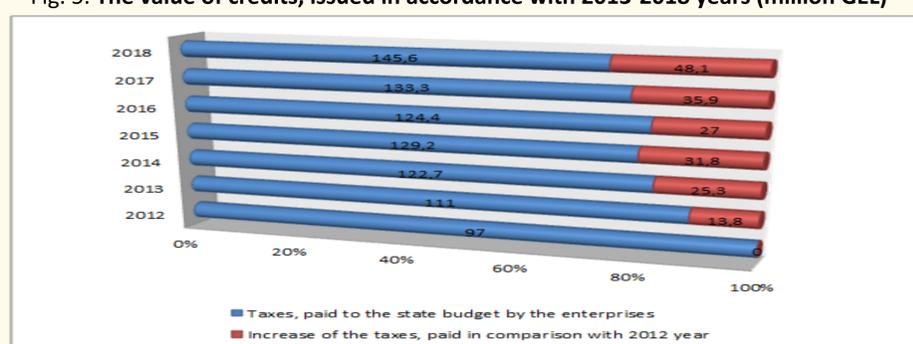


Fig. 6. Taxes, paid to the state budget by the beneficiary enterprises of preferential agro-credit project (2010-2018. Beneficiaries registered as taxpayers only)

Conclusion

The existence of a deep and comprehensive free trade area with the European Union has a positive effect on the prospects of world market integration, on the existence of a global supply network and it creates a significant basis for the growth of direct foreign investments. All the above mentioned promotes the introduction of new technologies and know-how, stimulates the production of competitive local organic products and creates work places, forms trading system, compatible with the market of European Union and stimulates the economic growth. However, it's also necessary to activate an effective financial and economic mechanism for agribusiness management, which contributes the growth of the production of organic products; The formation of a multi-sectorial economy should establish market relations, characterized for agribusiness; A state strategy for the consolidation of agricultural lands should be developed. Targeted budget funding should be increased for the development of agrarian sector, which will firstly be used to increase land productivity, land-reclamation and for the construction of the relevant agro-industrial infrastructure.

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FACTORS AFFECTING THE DEVELOPMENT OF THE BIOECONOMY IN LATVIA

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Abstract

In the European Union, including Latvia, the development of the bioeconomy by exploiting the potential of research, innovation and knowledge transfer is considered to be the basis for economic growth. To effectively manage a process, it is necessary to identify all potential exogenous and endogenous factors that affect its development as well as the interaction of the factors and their impacts on the development of the process; therefore, the research put forward a **hypothesis**: the impact of exogenous factors affecting the development of the bioeconomy on endogenous factors is positive, thereby contributing to the endogenous factors.

Aim

to assess the drivers of and barriers to bioeconomic development in Latvia and define actions facilitating the development of the national bioeconomy.

Tasks

(1) to perform a SWOT analysis, which reveals the strengths, weaknesses, opportunities and threats relevant for the bioeconomy in Latvia by doing a qualitative analysis of secondary sources, (2) to assess the quantitative impact of exogenous factors affecting the development of the bioeconomy on the endogenous factors affecting it.

Materials and methods

The research consists of four successive stages. At the first stage of the research (Data Collection), the factors affecting the development of the bioeconomy in Latvia were identified by performing a qualitative analysis of publicly available documents or secondary sources. At the second stage of the research (Validation of the SWOT), the endogenous and exogenous factors affecting the development of the bioeconomy identified by the authors were validated and supplemented by twenty national experts. At the third stage of the research (Factor Ranking), the factors included in each category of endogenous factors (SV) and exogenous factors (ID) were ranked in order of importance. The ranking of endogenous and exogenous factors was performed by national experts in the bioeconomic field according to the methodology suggested by Rauch P. et al. (2015). At the fourth stage of the research (Impact Assessment), the quantitative impact of each exogenous factor on each endogenous factor was determined, and each exogenous factor was assigned certain impact significance Z for each endogenous factor. The present research employed mostly SWOT analysis in combination with expert judgement.

Results

The endogenous and exogenous factors that affected the development of the bioeconomy in Latvia:

STRENGTHS

- Research infrastructure and modern technical equipment for the development of the bioeconomic knowledge base (3S).
- Extensive initial activities and the knowledge base for bioeconomic research (2S).
- Vast regional coverage of and cooperation among leading research institutions in the field of bioeconomics (compared with other fields of smart specialization) (1S).

WEAKNESSES

- Insufficient and unpredictable government and private sector funding for research and development (3W).
- Dependence of R&D on the availability of foreign (mainly EU) funding (2W).
- Weak cooperation with researchers from other fields (biometrics, engineering, economics) in interdisciplinary research (1W).

OPPORTUNITIES

- Effective support for independent innovation projects implemented by large companies (3O).
- Stimulation of innovation in the small and medium enterprise sector in active synergy with national research priorities and available funding (2O).
- Ensuring the stability and sustainability of the research system and developing long-term research and innovation capacity (1O).

THREATS

- Insufficient replacement of scientific personnel (3T).
- Public policies and insufficient and unpredictable funding for research and development hinder the development of bioeconomy industries and steady growth opportunities (2T).
- The slow and fragmented development of the technology transfer and innovation system hampers productivity growth and the production and export of high value-added products by the bioeconomy industries (1T).

The quantitative impacts of exogenous factors on endogenous factors are presented in Table 1.

Table 1

Impacts of the most significant exogenous factors on the most significant endogenous factors affecting the development of the bioeconomy in Latvia

3S	2S	1S	3W	2W	1W	Indicator
6	9	3	12	12	9	3O
4	4	2	6	6	8	2O
3	4	2	4	4	4	1O
+13	+17	+7	+22	+22	+21	Total impact of opportunities on endogenous factors
6	9	6	3	3	6	3T
8	4	6	8	8	6	2T
1	2	1	3	2	2	1T
-15	-15	-13	-14	-13	-12	Total impact of threats on endogenous factors
-2	+2	-6	+8	+9	+9	Total impact of exogenous factors on endogenous factors

Source: authors' own compilation

Conclusion

1. The overall trend in the strengths of the bioeconomy *Research infrastructure and modern technical equipment for the development of the bioeconomic knowledge base (3S)* and *Vast regional coverage of and cooperation among leading research institutions in the field of bioeconomics (1S)* was negative, as the total impact of the threats exceeded the total impact of the opportunities. However, the overall trend in the strength *Extensive initial activities and the knowledge base for bioeconomic research (2S)* was positive, as the total impact of the opportunities exceeded the total impact of the threats.
2. The total impact of exogenous factors on the weaknesses affecting the development of the bioeconomy *Insufficient and unpredictable government and private sector funding for research and development (3W)*, *Dependence of R&D on the availability of foreign (mainly EU) funding (2W)* and *Weak cooperation with researchers from other fields in interdisciplinary research (1W)* was positive; therefore, the total impact of exogenous factors tended to weaken the weaknesses.
3. Since the largest positive impact on endogenous factors was made by the opportunities *Effective support for independent innovation projects implemented by large companies (3O)* and *Stimulation of innovation in the small and medium enterprise sector in active synergy with national research priorities and available funding (2O)*, it is necessary to increase government and private sector funding for R&D in order to contribute to the development of the bioeconomy in Latvia. The availability of funding should be balanced and predictable in the long term in order to reduce the impact of the threat *Public policies and insufficient and unpredictable funding for research and development hinder the development of bioeconomy industries and steady growth opportunities (2T)*.

Acknowledgements

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MUNICIPAL COASTAL GOVERNANCE SYSTEM DEVELOPMENT: TRIPLE COASTAL GOVERNANCE DIMENSIONS PRINCIPLE

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Abstract

Integrated coastal governance (ICG) is becoming increasingly important nowadays, since the problems at coastal territories are continuously growing. The coastal zone, however, is a complex socio-ecological system (SES) which is extremely difficult to govern and **issue of municipal coastal governance system** in place is getting more actual. Coastal area is characterized by a unique and diverse natural and cultural heritage as is the **case with Jurmala municipality in Latvia**. Besides integrated approach for the governance of such a complex socio-ecological system, also disciplinary/branch approaches and instruments are particularly complementary necessary.

Aim

To study and evaluate the complex situation of the coastal governance at the local level, via prism of **three coastal governance dimensions** in the pilot territory Jurmala municipality.

Tasks: initial assessment of the coastal governance situation in the Jurmala municipality by using the model of three environmental governance dimensions: **(1) coastal governance sectors; (2) governance segments (stakeholders); and (3) coastal governance instruments.**

Materials and methods

The target territory of the present study was the municipality of Jurmala. Jurmala was chosen because it is the largest resort city on the coast of the Baltic Sea which is visited by more than a hundred thousand tourists every year. The main study method within the present investigation was the **case study research of the municipality of Jurmala**. The case study included several complementary methods: (1) municipal document studies; (2) stakeholder interviews; and (3) observational field studies. In addition, we also conducted interviews with experts (i.e., specialists in coastal/environmental governance issues).

Results

An **integrated coastal management approach** is an important concept in sustainable coastal governance, as it takes into account all the sectors that may affect the coast and its resources. However, the integrated approach is much more complicated than the **traditional single sector approach** (sectoral/disciplinary approach) and Latvia has not yet fully mastered the integrated approach, so in practice it is not really happening yet. The disciplinary approach still prevails, when each specialist plans issues that affect his narrow field, and thus there is no one who would see the coast as a single and indivisible **socio-ecological system**. The municipality of Jurmala has a similar problem – each municipal employee has a narrow specialization and no one knows or is particularly interested in what happens in other fields.

Generally, the Jurmala municipality copes quite well with the protection of the **nature environment** and Jurmala is a relatively good example in the context of nature and beach protection compare even with many European coasts. More than a half of the territory of Jurmala is occupied by the protected nature territories. There are also many valuable and unique cultural and historical heritage elements in Jurmala. The municipality has relatively well appreciated these natural and cultural values in its territory and deals with their management quite satisfactory, even some disagreement between the natural environment preservation goals and the economic development in the municipality could be seen.

The study revealed that **not all target groups are involved** in the municipal processes and coastal governance in Jurmala. Besides, there are problems in both directions – in the **Top-down involvement**, as well as in the **Bottom-up involvement**. The main problem with the *Top-down* approach is that although the municipality ensures the public involvement required by law, this involvement is quite formal and even if the municipality listens to the public opinion, it does not take it into consideration. Meanwhile, the most important problem with the *Bottom-up* approach is the inertness of the society – people do not want to involve in the governance processes. In Jurmala, the *Bottom-up* governance is provided mainly only by the NGOs.

The Jurmala municipality possess a rather rich spectrum of different **governance instruments** that could be used to solve the coastal governance issues, however, these instruments are not always fully and complementarily used. Particularly serious problems exist with the communication instruments which are used very minimally by the municipality. Moreover, the coastal governance **instruments are distributed** among different municipal departments and governance levels, which indicates the problem of **fragmentation and non-systemic manner**. However, there are also some positive things, for example, the infrastructure instruments have been used very successfully within the municipality – the beach/dunes are extremely rich in various infrastructure elements.

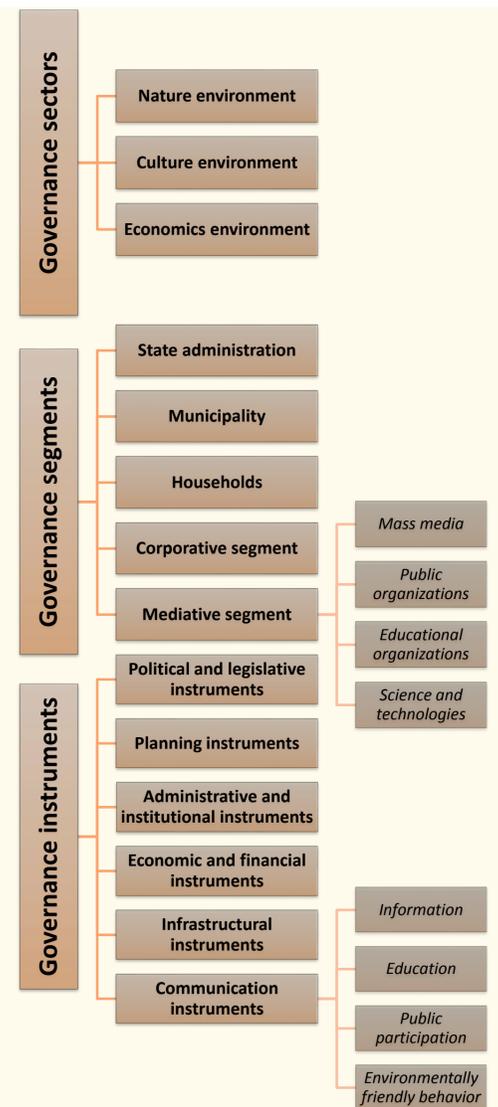


Fig. 1. Three coastal governance dimensions

Conclusion

- Coastal governance sectors.** Jurmala municipality is very rich in various rare and unique natural and cultural-historical resource, seen together with almost two centuries old coastal resource economics. **The traditional issue of balance between economic development and protection and expansion of the natural environment**, having diverse resortology resources, many specially protected nature territories and coastal and other tourism developments, but facing also threats of environmental protection – there is requirement of the SES approach understanding and its municipal application perspective developments.
- Coastal governance segments.** Within the Jurmala municipality there is to be seen large capacities of different governance segments (target groups) that could potentially help collaboratively govern the coastal zone in Jurmala. The municipality, however, is lacking information and involvement understanding about all the target groups in Jurmala, and target groups are not particularly involved in the governance processes, and in average, neither used to be pro-active.
- Coastal governance instruments.** Jurmala municipality has an extremely rich range of various governance instruments. Particularly plentiful are the planning instruments, institutional instruments, and infrastructure instruments. On the other hand, Jurmala municipality uses certain instruments very minimally – this is especially true for communication instruments.
- All **three governance dimensions complementary together** are to be set for **triple coastal governance dimensions' principle** to be required for **coastal governance system** development. Jurmala municipality has wide perspective with many coastal related sectors, rather developed stakeholders capacity, but both governance dimensions are vague involved yet, as well as having many different governance instruments with the help of which it could successfully manage the unique natural and cultural heritage of the coastal zone of Jurmala, these dimensions are not fully perceived and understood, their capacities utilized, used in a regular, systemically planned & managed complementary way yet.

Acknowledgement to all respondents & experts/consultants involved, particularly, Ilze Cernovska for provided invaluable help and cooperation with researchers.



MUNICIPAL INTEGRATED COASTAL GOVERNANCE APPROACH APPLICATION: COMPLIMENTARY DISCIPLINARY INSTRUMENTS AND COLLABORATION PRE-CONDITIONS

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Abstract

Municipal integrated coastal governance practice also in Latvia has various limitations **new understanding and new approaches** are to be studied and tested. Overall study frame is based on research-and-development approach. Long existing traditional disciplinary/branch approaches of former and formal municipal planning and management does **not really permit necessary integration innovations**, particularly, **with cross-sectorial and cross-level integration perspectives**, and, also this Jurmala municipality territory with international coastal resort status and well developed municipal administration capacities have **limited success on integrated coastal management (ICM)** approach implementation.

Aim

To study how integrated coastal governance is functioning in municipal practice, particularly, in the relation to long existing traditional disciplinary/branch approaches to municipal administration. **Tasks were oriented towards:** (1) coastal dune protection zones and further coastal territory behind that; (2) the complementary governance instruments, (3) and, particularly, to the institutional instruments in four vertical mgt layers, (4) coasta; governance Outlook application.

Materials and methods

The study was carried out in the **Jurmala municipality, a coastal city**, spread along the Riga Bay of the Baltic Sea. Study area included the whole territory of this peninsula shape (between sea and the river Lielupe) municipality, **starting from 150/300 m coastal dune protection belt up to 5 km limited economic activity belt**. The Case Study Research methodology was applied in Jurmala coastal city, being framed via Research-and-Development approach, subsequently including complementary set of research methods – **document studies, stakeholder interviews, and coastal site observations**.

Results

Jurmala, as any other Latvian local municipality, has management structure, which could be divided between **four vertical levels of governance:** (1) Municipal legislative institutions; (2) Municipal executive institutions; (3) Institutions subordinated to the municipality; (4) Municipal capital companies. **Vertical coordination or integration** as well as **horizontal integration** between the thematial units of each level and in eventual partnership with outside stakeholders are very important to successfully govern the coastal area. There are many institutions to be seen involved **in ICM, but the structure can be recognized as fragmented in the Jurmala municipality** and vertical and horizontal collaboration importance could not be underestimated.

Table 1
List of coastal governance instruments in Jurmala (6 groups)

Instrument groups	Examples	List of instruments in Jurmala municipality
Political and legislative instruments	Normative acts, binding regulations	<ul style="list-style-type: none"> Binding regulations No. 3 "On the use of Jurmala city beach and swimming areas" Binding regulations No. 20 "Jurmala port regulations" Binding regulations No. 27 "On the use of the river Lielupe in the administrative territory of the city of Jurmala"
Planning instruments	Development planning documents (mandatory + voluntary)	<ul style="list-style-type: none"> Sustainable Development Strategy 2010–2030 Development Program 2014–2020 Spatial (territorial) Plan 2009–2022 Municipal annual public report Tourism Development Strategy 2007–2018 Tourism Development Action Plan 2018–2020 Resort Concept 2009–2018 Water Resources Protection Action Plan 2016–2020
Administrative and institutional instruments	Commissions, committees, boards, departments, capital companies	<ul style="list-style-type: none"> Beach Management Commission Committee on Development and Environmental issues Committee on Tourism and Resortology Urban Planning Department Urban Economy and Improvement Department Environmental Department Municipal Property Department Municipal Police Jurmala City Museum + its branch – Open Air Museum Jurmala port (or Lielupe port)
Economic and financial instruments	Budget, taxes, fines	<ul style="list-style-type: none"> Municipal basic budget Natural resources tax Initiative projects Attraction of European funds
Infrastructural instruments	Infrastructure elements	<ul style="list-style-type: none"> Pathways to beach Toilets, rubbish bins Benches, changing cabins Playgrounds and sports fields Rescue service Information signs and information stands Educational nature trails Bicycle paths
Communication instruments	Information sources, educational institutions	<ul style="list-style-type: none"> The website of the municipality Newspapers ("Jurmālas Avīze", "Jurmālas Vārds") Municipal social network accounts (Facebook, Twitter) Tourism information center Outdoor information stands Jurmala eco-schools Inhabitant surveys and public consultations Beach clean-ups Dune stabilization measures Blue Flag programme (from 1998 till 2019)

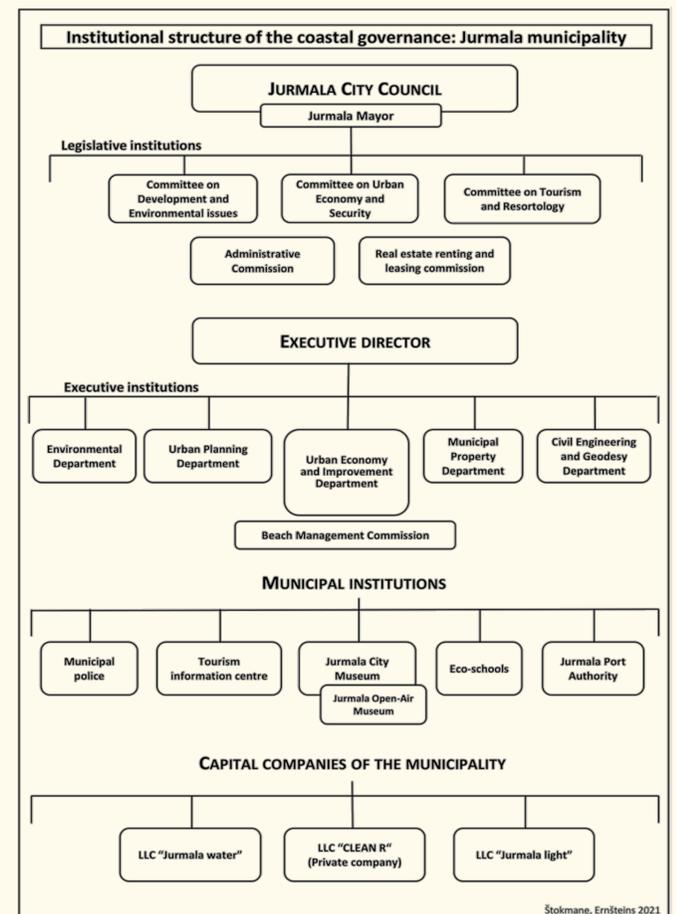


Fig. 1. Hierarchical institutional instruments for coastal governance in Jurmala municipality

Conclusion

- Municipality-based **integrated coastal governance approach** as internationally widely recommended for its application into municipal practice, but, unfortunately, this is **difficult to reach due to traditional municipal branch/sector-oriented management** and, subsequently, only partial integration as there is generally the real municipal situation, could not alone fulfill all main necessarily coastal governance management functions, particularly, for its horizontal and vertical integration, and stakeholders participation integration, due to various existing administrative structural and processual limitations, and, subsequently, there is to be seen requirements for **additional and innovative instruments and processes**. This could be viewed as **pre-conditional requirements for eventual more successful implementation of integrated coastal governance approach**.
- Subsequently, **first pre-condition to be mentioned are to be oriented towards re-use and/or re-development of disciplinary ICM instruments**, especially, to be designed and realized as **complementary as possible**. And for the **second main pre-condition is to be mentioned collaboration governance development**, focusing on all three governance dimensions – content/governance **sectors collaboration**, collaboration **between instruments** available or to be designed, and, obviously, **stakeholders' real collaboration development**.
- Taking into account that limited success with coastal integration into their development planning documents and institutional management practice – there is **space for some instruments to make this integration easier**. One of such instruments could be the **Coastal Governance Outlook (CGO)**. The CGO would be a **pre-planning document which systemically and systematically summarizes all the important information** about the three complementary coastal governance dimensions in the municipality. Such material might be used in both ways – by its own (as a separate planning/management document) or as a tool for the development of other coastal friendly planning documents, since it would facilitate the integration of coastal issues into all other future and to-be-renewed documents.

Acknowledgements

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ECONOMIC BENEFITS OF REMOTE WORK FROM THE EMPLOYER PERSPECTIVE

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Abstract

In recent years, remote work, driven by mobile technology, the availability of the Internet and the spread of Covid-19 limiting work to be done at the workplace, has become increasingly popular. However, many companies still do not want to introduce such practices on a permanent basis. The results of the research revealed that potential financial savings from applying remote work practices in companies varied, depending on the specifics of the industry and jobs, as well as the funds that the company was initially willing to invest in its employees.

Companies could introduce part-time work practices if a large proportion of the tasks could be performed remotely, yet only the companies with a high level of automation of tasks might fully switch to remote work.

Aim

to examine the experience of companies in remote work to identify the economic benefits of remote work as well as develop scenarios for remote work.

Tasks

1) to perform a case study on the economic benefits of remote work from the employer perspective; 2) to describe the development opportunities of remote work in business.

Materials and methods

The research methodology is based on case study analysis, comparative analysis, economic analysis and the scenario method.

Results

Three companies operating in different fields of economic activity were selected for a case study analysis, thereby drawing conclusions on remote work practices, taking into account the specifics of the industry.

As shown in Table 1, the companies implemented different practices regarding working remotely, depending on the industry the company was engaged in, as well as the specifics of the economic activity and the company's policy on remote work in general.

Table 1
Comparison of the companies selected for the case study with regard to working remotely

Indicator	Company A	Company B	Company C
Kind of economic activity	Insurance	Outsourcing: accounting and a call centre	IT
Kind of remote work	From home, from the client's office, in public places	From home, from another office	From home
Proportion of employees in total employees who were allowed to work remotely	60%	50%	100%
Frequency (how often employees work remotely)	10% more often than once a week 20% less than once a week	More often than once a week	Less often than once a week
Departments where working remotely is implemented	IT, product development, customer service, management	Accounting, finance, IT, personnel management	IT

Source: authors' own compilation based on the information obtained in interviews with company representatives

To determine the economic benefits of remote work practices, companies were analysed in detail. The economic analysis did not fully take into account all potential savings by the companies, but identified only the most important ones. The amount of savings largely depends on the financial resources that the employer is willing to invest in its employees. Working remotely also allows employers to save on indirect costs, such as absenteeism. However, indirect costs were much more difficult to determine and therefore were not included in the case study calculation. The preliminary financial savings by the companies analysed in the case study if practicing working remotely are summarized in Table 2.

Conclusions

- The potential financial savings from working remotely made by the companies varied, depending on the specifics of the industry and jobs, as well as the funds that the companies were initially willing to invest in their employees, thereby providing them with additional benefits.
- The largest economic savings from applying remote work practices came from maintenance of premises, as well as electricity and Internet bills, while the provision of equipment and drinks to employees accounted for the smallest proportion of preliminary cost savings. However, the main challenges regarding remote work practices were the difficulty of controlling employees and ensuring effective communication and teamwork.
- An analysis of the remote work scenarios has revealed that full-time work in offices is the most suitable for the companies providing no possibility to perform most work duties remotely. Scenario 2 involves partial remote work and is more suitable for the companies providing the possibility to perform many work duties remotely, yet there are some specific duties that could only be performed from the employer's offices. Scenario 3, however, is appropriate only to the companies that have the automation of tasks at a high level, thereby enabling the employees to perform their work duties remotely without any problems, as well as this scenario is more suitable to the companies in which their employees have to perform their duties individually, as group cooperation is difficult to implement in this case.

Table 2
Financial savings by the companies selected for the case study if practicing working remotely, EUR

Kind of savings	Company A		Company B		Company C	
	Per employee per month, EUR	Per 55 employees per year, EUR	Per employee per month, EUR	Per 200 employees per year, EUR	Per employee per month, EUR	Per 120 employees per year, EUR
Rental cost	72	47520	72	172800	72	103680
Internet cost	9.75	546	9.75	1950	9.75	1170
Equipment	20	13200	20	48000	20	28800
incl. equipment for call centre personnel	-	-	-5	-12000	-	-
Electricity	50	33000	50	120000	50	72000
Coffee and drinking water	-	-	23.21	55704	23.21	33422.40
Fruit in the office	-	-	-	-	5.15	7416
Parking lot	-	-	40	96000	-	-
Work environment risk assessment	-7.14	-392.70	-7.14	-1428	-7.14	-856.80
Total	144.61	93873.30	202.82	481026	175.97	245631.60

Source: authors' calculations

After summarizing the results of the case study analysis, three remote work scenarios, assessing their benefits and risks, were proposed for companies.

Table 3
Characteristics of the remote work scenarios

Scenario	Benefits	Risks	Savings by the companies per year per employee, EUR
1: All employees work in their offices 8 hours a day	No additional expenses on assessments of work environment risks in the employee's home. Easier to communicate with employees, more effective employee control.	Open-plan offices have more external nuisances that could reduce employee productivity. It is not possible to save on rent and various bills.	Company A – EUR 392.70 Company B – EUR 1428 Company C – EUR 856.80
2: Employees work both in their offices and remotely	Some electricity savings. Work productivity, employee job satisfaction increase and on-site communication.	Additional expenses on assessments of work environment risks in the employee's home and provision of employees with equipment to work from home.	Company A – EUR 9507 Company B – EUR 34 572 Company C – EUR 20 743
3: All employees work 100% remotely	Largest financial savings are from lower rent, electricity and other costs	Employees must be provided with equipment to work from home. Not so easy to control employees, so employers need to set clear goals for their employees	Company A – EUR 87 273 Company B – EUR 457 026 Company C – EUR 231 231

Source: authors' own compilation based on the results of the case study analysis

Scenario 1 is the most suitable for companies providing no possibility to perform many or all work tasks remotely; scenario 2 – for companies providing the possibility to perform many work duties remotely, yet there are some specific duties that could only be performed from the employer's offices. It is also suitable for the companies whose owners take care of their employee satisfaction and are ready to adapt to their needs. Scenario 3 is appropriate only to the companies that have the automation of tasks at a high level, thereby enabling the employees to perform their work duties remotely without any problems.

OPENING OF NEW ELECTION POLLING STATIONS: THE EFFECT ON TURNOUT AND DIASPORA VOTING PATTERNS

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Abstract

The argument that the increase in the sheer number of polling stations and the expansion of its territorial coverage in foreign countries is an election parameter with the potential to raise the election turnout, was tested. Voter behaviour in foreign countries (Germany, Ireland, Norway, United Kingdom) in four separate parliamentary elections (2010-2018) was analysed to determine the deviation of the election results in the new polling stations from the vote share in particular foreign countries.

Aim

To analyse the voter behaviour in the new polling stations and proportionality of the distribution of votes cast in the new polling stations to overall election results.

Task

To calculate the deviation of votes cast for election lists from overall results in the new opened polling stations.

Materials and methods

Methods: statistical and election data analysis, data comparison, synthesis for selecting and grouping the data, case studies, literature review. To determine the deviation of the elections outcome in foreign countries from the general national results and to calculate the data deviation in particular polling station against the overall voter support in particular country, the Voting Outcome Coefficient and the Polling Station Coefficient were introduced in the research.

Results

Growth in the number of polling stations and the extension of territorial coverage of the polling stations in foreign countries, which might improve the accessibility to the elections, lower the individual costs of political participation and therefore lead to higher voter turnout, has not resulted in increasing participation in elections. In sharp contrast to expectations, it decreased.

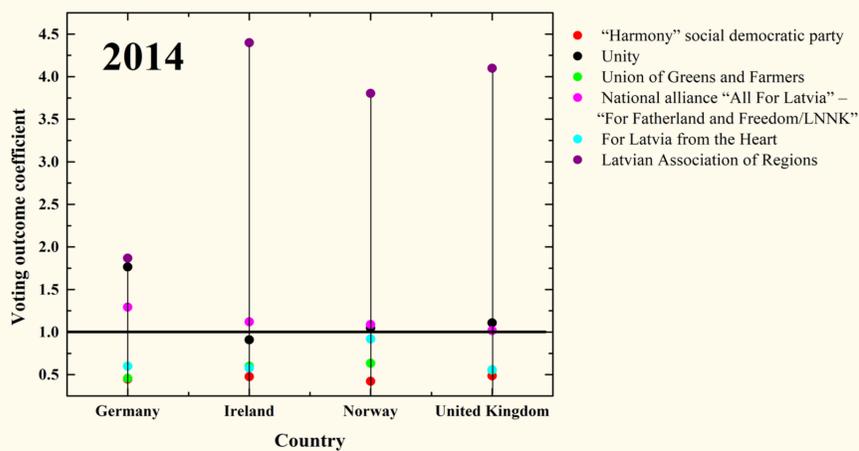


Fig. 1. Voting Outcome Coefficient in foreign countries (2014)

Voting Outcome Coefficient shows the proportion by which election outcomes differ from the national outcome for all elected lists of candidates. The point of reference '1' indicates the national election result for a particular list of candidates, while deviation below or above this point is the proportion of the difference in the voting outcome in a particular country for a particular list of candidates.

1. The data of the 12th Saeima election presents a new tendency: the newcomer – the list “Latvian Association of Regions” - achieved an exceptionally high Voting Outcome Coefficient (Fig. 1)
2. The data from the 13th Saeima election shows extreme stratification in the results between KPV LV and the rest of the political parties in diaspora countries (Fig. 2).
3. With the third and fourth emigration wave, the New Unity and the National Alliance lost their profile of “diaspora parties”, while KPV consolidated the profile reached by the Latvian Association of Regions in the previous election.

Table 1
Polling Station Coefficient for KPV LV, United Kingdom (2018)

Polling station status	Polling station	Polling Station Coefficient
New	Burton	1.3
	Liverpool	1.3
	London (2)	0.5
	Margate	1.3
Semi-new	Manchester	0.9
	Guernsey	0.9
	Birmingham	1.1
	Boston	1.3
	Bristol	1.0
	Derby	1.0
Old	Edinburgh	0.8
	Mansfield	1.2
	Newry	1.2
	Peterborough	1.3
	London	0.4
	Bredford	1.2
	Straumeni	1.2

4. In the diaspora, voters voted disproportionately more for the Latvian Association of Regions (in 2014) and KPV LV (in 2018), which can be regarded as the same political force with the same electorate.
5. If in the old and semi-new (established in the previous elections) polling stations the Polling Station Coefficients are mixed, then in all the new polling stations the coefficients for KPV LV are higher than 1 (with only one exception – the second polling station in London) (example – the case of UK, Table 1).

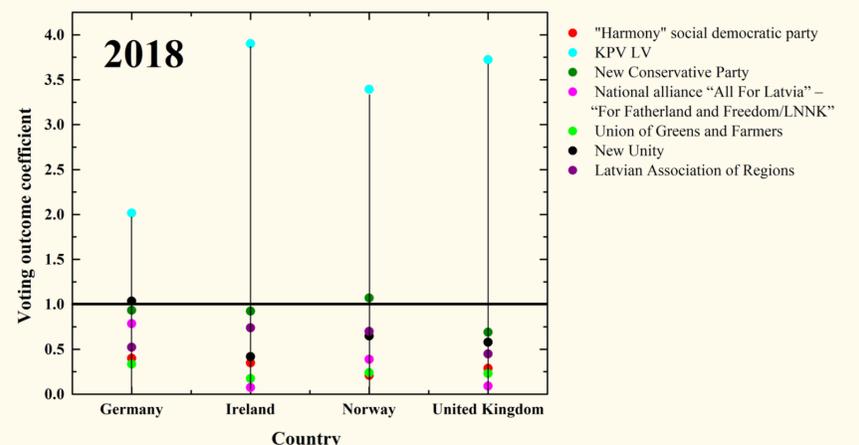


Fig. 2. Voting Outcome Coefficient in foreign countries (2018)

Polling Station Coefficient shows the data deviation in a polling station against the overall voter support in particular country. The point of reference “1” indicates the election result for KPV LV in a particular foreign country, while deviation below or above this point – represents the proportion of difference in the voting outcome in a particular polling station.

Conclusions

- 1) Opening of new polling stations in foreign countries in Latvian parliamentary elections cannot be regarded as an effective method for raising the turnout.
- 2) In 2018, the stratification of the election results between KPV LV and the rest of lists became extreme. Proportionally, there are visibly higher results for KPV LV, and predominantly lower results in the whole group of other electoral lists.
- 3) The newly opened polling stations were beneficial for the Latvian Association of Regions (in 2014) and KPV LV (in 2018). In 2018, the new polling stations gave KPV LV proportionally better election results than in the foreign countries examined.
- 4) To raise the voter turnout in foreign countries, the author recommends allowing voters in foreign countries to choose among all five constituencies instead of the present regulation which establishes that the Riga constituency also includes the electorate residing outside of Latvia. Strengthening of voters’ regional identity can also have a positive impact on strengthening the diaspora’s ties with Latvia, and on promoting democracy and voter turnout.

FEATURES OF INVESTMENT RISK ANALYSIS AND ASSESSMENT

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Abstract

Improving the risk management methodology and evaluating investment projects based on modern and best practices has become one of the urgent tasks. In this article, the author explains the essence of risk management and presents the main stages of risk management developed by foreign and domestic economists, and also expresses her own opinion about the stages of risk management of investment projects in the form of a scheme. The article also presents the content of the methods of risk analysis that are frequently used in practice.

Aim

1. Study the stages of investment risk management, developed by foreign and domestic scientists, and, on their basis, to propose the stages of risk management, developed by the author;
2. Study various methods of risk assessment, which are a key part of investment risk management, and develop proposals for their application in Uzbekistan.

Tasks

- explain the content of the economic categories “risk” and “investment risk”, investment risk management;
- study of the process (stages) of investment risk management, developed by foreign and domestic economists;
- development by the author of the stages of the investment risk management process;
- development of recommendations on the application of risk assessment methods in Uzbekistan.

Materials and methods

Subject of research: methods for assessing the risks of investment projects.

Information sources for writing the research was books and articles by foreign and domestic economists.

Research results and discussion.

To date, for the successful implementation of investment projects, measures are being developed to effectively manage and reduce investment risks. In our opinion, risk management is a structural process that is constantly carried out in a company in order to identify, assess, calculate, control (monitor) and reduce risks affecting the profitability of an investment project and their consequences. The purpose of risk management and assessment is to provide the investor with the information necessary to make decisions on the advisability of participating in the implementation of an investment project and to develop measures to protect against possible financial losses.

The risk management process described by foreign and domestic scientists has both common features and differences. In both of these processes, risk management begins with risk identification, next stages are analysis and assessment of risks, and the last stage is the choice of risk management methods which is based on the result of the assessment. The existence of differences is mainly associated with the development of not only primary, but also secondary stock markets abroad, which was further considered by foreign scientists when using financial instruments in risk management. In our opinion, the main stages of risk management can be summarized as follows (Figure 1).

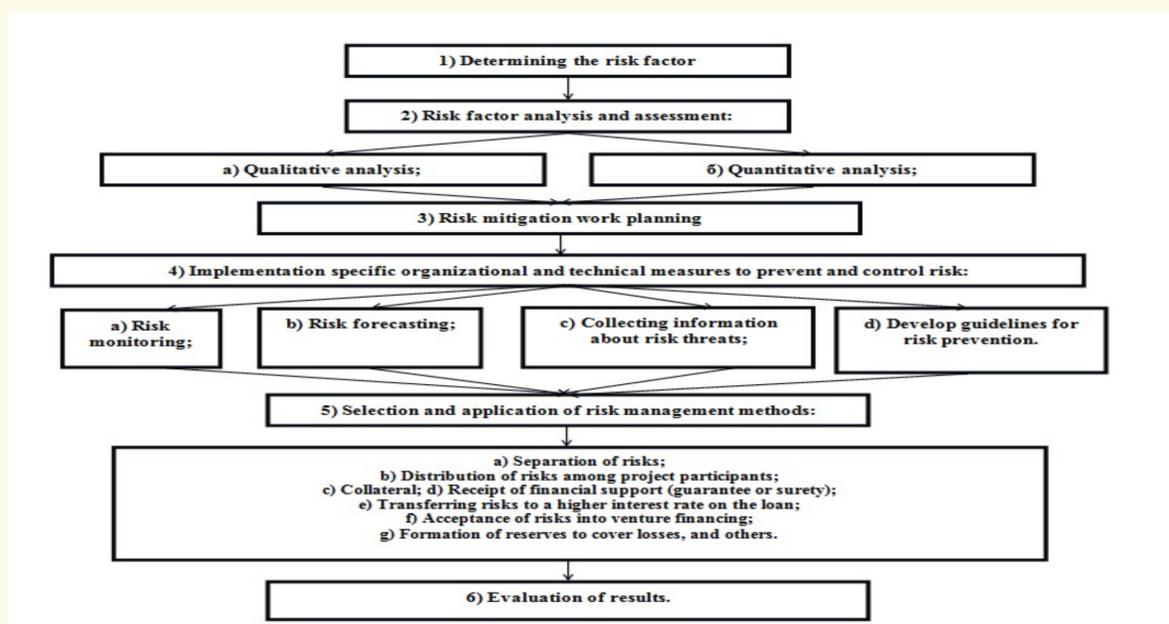


Fig. 1. Stages of investment risk management

Conclusion

Effective implementation of investment projects in the national economy requires improved methods of project risk assessment and management. To this end, the following conclusions and recommendations have been developed:

1. In investment risk management, methods are selected based on the results of risk analysis and assessment. On the other hand, effective project management leads to the desired result. Therefore, the risk assessment of the project must be thorough and reasonable;

2. The specificity of the risks affecting the project should be taken into account when choosing methods for assessing risks and managing investment projects. In this case, for example, risks are divided into insured and uninsured. Of the uninsured risks, it is preferable to use the method of allocating financial reserves and determine the amount of funds required to cover costs, rather than manage force majeure risks or political risks using the method of insurance and calculating insurance costs;

3. When assessing the risks of investment projects, it is necessary to carry out a comprehensive assessment. Risk assessment requires a comprehensive assessment based not only on a unified assessment method, but also on the integration of objective methods (based on statistical and reporting data) and subjective methods (based on expert opinion), as well as other methods of qualitative and quantitative assessment. In this case, the disadvantage of one method is compensated by the advantage of the second and an impeccable risk assessment is achieved;

4. Methods for assessing risks in the national economy should be based on foreign experience and, in particular, on assessment methods which are used with information and communication technologies. The application of risk management methods based on financial instruments proposed by foreign economists leads to the use of innovative financing mechanisms, advanced and modern management methods.