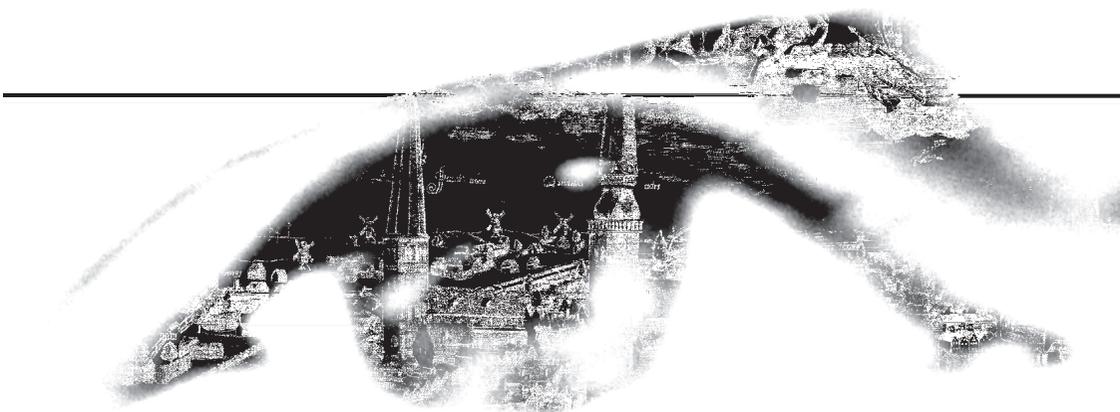


HUMANITIES AND SOCIAL SCIENCES

LATVIA



Volume 28, Issue 1
(Spring-Summer 2020)



**UNIVERSITY
OF LATVIA**

HUMANITIES AND SOCIAL SCIENCES LATVIA

Volume 28, Issue 1
(Spring-Summer 2020)

University of Latvia Press

Journal **Humanities and Social Sciences: Latvia**
Volume 28, Issue 1 (Spring-Summer 2020)

Founded by the University of Latvia

Published in collaboration with:

Latvian Academy of Culture
Latvian Academy of Sciences
Latvian Association of Scientists
Latvian Writers Union
World Federation of Free Latvians

Editorial Board

Ausma Cimdiņa (University of Latvia)
Ainārs Dimants (Turība Business University)
Vasudha Garde (University of Pune, India)
Hans Jörgensen (Umeå University, Sweden)
Raita Karnīte (EPC Ltd.)
Janīna Kursīte (University of Latvia)
Boris Mattoš (University of Economics in Bratislava, Slovakia)
Dali Sekhniashvili (Georgian Technical University)
Roberts Škapars (University of Latvia)
Ērika Šumilo (University of Latvia)
Aivars Tabuns (University of Latvia)
Jaak Valge (University of Tartu, Estonia)
Andrejs Veisbergs (University of Latvia)
Pēteris Zvidriņš (University of Latvia)

General Editor

Viesturs Pauls Karnups (University of Latvia)

Layout Andra Liepiņa

Cover design Ieva Krieviņa

Correspondence and Contributions:

Manuscripts are accepted only in English

Publisher: University of Latvia Press

Aspazijas 5–132, Rīga, LV-1050, Latvia

www.apgads.lu.lv

Printed by SIA “Drukātava”

© University of Latvia, 2020

ISSN 1022-4483

<https://doi.org/10.22364/hssl.28.1>

CONTENTS

From the Editor	4
<i>Karina Viskuba, Veronika Silinevicha</i> Wind Farm Project Results and Innovative Business Models	5
<i>Biruta Sloka, Kate Čipāne, Sabīne Anete Vasina, Emīls Volgasts</i> Digitalisation in Regions of Latvia – Problems and Challenges	30
<i>Kaspars Mucenieks</i> Company Merger and Acquisitions Financial Result Evaluation	46
<i>Matthias Kretschmar</i> Leadership Goes Beyond Management	59
<i>Viesturs Pauls Karnups</i> Latvian–Finnish Economic Relations 1918–1940	71
<i>Olena Babinova</i> Backsliding of Democracy in Central and Eastern Europe: the Reasons and Possibilities for Suspension Examples of Hungary and Some Other Countries	81
<i>Markus Huemer</i> Leadership and Change Management – in Context to Circular Economy and Recycling Initiatives in the European Plastic Industry	107
The Authors	123

FROM THE EDITOR

Dear Reader,

This is the first issue for 2020 and we expect to be able to publish the next issue in autumn-winter 2020.

The authors are both PhD students and established academics. The articles are a heterogeneous set and cover a number of fields in the humanities and social sciences such as management, economics, economic history, politics and environmental studies. In this issue, we have articles by authors not only from Latvia, but also from Germany and Ukraine.

A reminder for past and future authors that the journal can be found in the EBSCO Sociology Source Ultimate database. It would be useful for you if you ensure that your university library subscribes to this particular EBSCO database.

We hope you enjoy this issue and are looking forward to the next issue.

Best wishes

Viesturs Pauls Karnups
General Editor

WIND FARM PROJECT RESULTS AND INNOVATIVE BUSINESS MODELS

Karina Viskuba

Mg. oec.

Veronika Silinevicha

Mg. oec.

Abstract

Currently, the subject of renewable energy resources (RES), including wind energy, is very important in the context of environment, energy, investment and business issues, therefore the technical and political development of RES is rapid and the operating environment – ever-changing.

Keywords: Latvia, renewable energy, wind power, financial plan

Introduction

The energy industry all around the world is currently undergoing changes due to the development of new technologies, user requirements and restrictions on the availability of natural resources, which are stimulating companies to expand and revise their business, offer new services and open up new markets. Increasing global demand for energy, limited supplies of fossil fuels, as well as environmental pollution and the threat of global climate change have led to increased interest in renewable energy sources. The use of renewable energy sources is considered a key element of energy policy, reducing dependence on fuel imported from third countries, reducing emissions from fossil fuels and decoupling energy costs from oil prices.

In the modern world everything is connected – as one industry changes, so do others and the chain continues to infinity. The energy field also does not stand still. Not only technology, but also business models in the energy sector are developing. The importance of one of these models will be discussed in this article.

More effective use of Europe's energy potential requires the involvement of all energy market players. The core of any business model is a consumer. A consumer is the point of reference that defines the vector of business development. Today, the energy industry is undergoing a transformation where the consumer is no longer just a point; it turns into a vector itself.

Decentralization of the power system through the involvement of active consumers, citizens and local authorities in the operation of the system is currently widely used in Europe. Active consumers are defined as electricity consumers that use, store or sell their own electricity or participate in demand change and energy efficiency schemes.

Methodology: This study is based on literature and statistical data bases review, comparative analysis. The result of literature review, statistical data bases and comparative analysis were presented into tables and diagram.

Period of research: from 2001 to 2019 year.

General Sector Overview

The use of energy is the key to humanity. It helps to develop and adapt to the changing environment. Today's society consumes enormous amounts of energy, so the energy sector is very important worldwide. Energy supports all aspects of modern life, contributing to economic growth and prosperity, thus has a direct link to people's living standards.

Based on the statistical classification of economic activities in the European Community, NACE Rev. 2, the industry is classified as:

- D section "Electricity, gas, steam and air conditioning supply"
- 35 "Electricity, gas, steam and air conditioning supply"
- 35. 1 "Electric power generation, transmission and distribution"
- 35. 1.1 "Production of electricity". This class includes: – the production of electricity from cogeneration units, nuclear power plants, hydroelectric power stations, gas turbines or diesel generators and from renewable energy sources. [4]

According to the Central Statistical Bureau last data, there were 347 economically active commercial companies (market sector) in Latvia at NACE D 35.11 in 2017. The Latvian enterprise database *Lursoft*, shows that in March 2019, 489 companies with this NACE code were registered in Latvia.

Before getting an idea of the future development prospects of the industry, the authors will explore the trends of the industry in recent years, gather available information, experts' opinions and formulate conclusions.

Recent Developments

The authors begin with the industry contribution to one of the most important indicators of the country's economic development – gross domestic product. Although GDP is commonly used at constant prices, which takes into account inflation, to compare the volume of goods and services, the authors examined the contribution of industry to GDP in real (average) prices, which includes changes in output and price.

There are three main sources of electricity generation in Latvia – hydro-electric power stations, large cogeneration units and other cogeneration units. To a much lesser extent, electricity is generated from small hydro, wind and biogas plants. This fact confirms the promising growth and development of this industry sector.

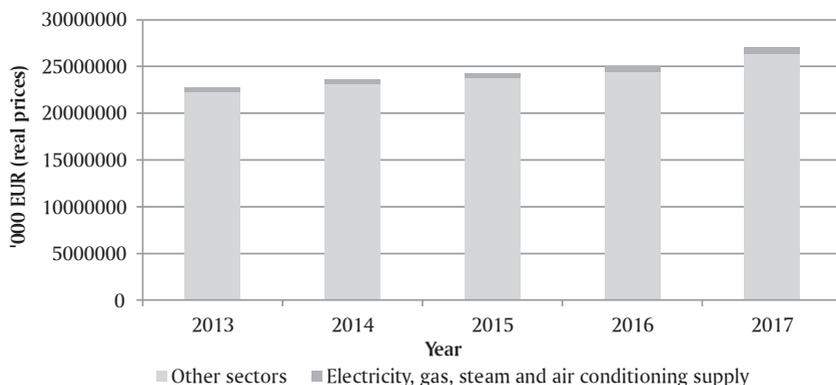


Figure 1. Electricity, Gas, Steam and Air Conditioning Supply Share in Latvia's GDP 2013–2017 years, real prices, '000 EUR [7]

Source: Created by the authors

Figure 1 shows the share of electricity, gas, heating and air conditioning in the GDP of Latvia in the period 2013–2017. The graph is in absolute terms, but the authors have given a percentage to make it easier to understand the sector's share of GDP. Summarising the results, it can be stated that the average contribution of the industry to the national GDP is 2.23% during the five years given. The largest increase was in 2016, from 2.09% share in 2015 to 2.55% in 2016. The industry made the smallest contribution to GDP in 2014, calculated 1.78% in total volume that year. The sector's contribution to Latvia's GDP has been stable over the years, with positive growth prospects. (See Figure 1)

The production and consumption of energy resources is a major factor in the global economy. The energy sector is stimulated by global energy supply and demand. Latvia belongs to those countries that are heavily dependent on imported energy resources because they are unable to fully meet the required electricity consumption. The volumes of electricity import, export and consumption in Latvia for the period 2014–2018 were defined.

According to the Latvia's Central Statistical Bureau, there have been no significant fluctuations in final energy consumption over the last

decade. The major consumers of energy resources are the transport sector, agriculture, forestry, households. According to Figure 2 the consumption has a minimal tendency to grow. Over the last 25 years, there has been a gradual development of production, transmission and distribution through new projects, renovations and repairs. Along with the increase in production, the export of electricity has also increased. During the five years shown on the graph, there is no uniform trend in electricity import, it is fluctuating. In 2017, Latvia's export exceeded import. Latvian domestic generation covered 101% of electricity consumption. Compared to 2016, export increased by 9% in 2017, import fell by 15.6% and consumption grew by 1.7%. JSC "Augstsprieguma tīkls" (AST) mention in electricity market report that hydroelectric power plants (HPP) production increased by 74% in 2017, thermal power plants (TPP) production decreased by 34%, wind farms connected to transmission production increased by 0.03% and the electricity volumes generated by renewable and supported electricity producers (biomass, biogas, wind power plants, hydroelectric power stations, solar power plants) with installed capacity up to 10 MW increased by 6%. [11] The amount of electricity generated by hydroelectric power plants influenced the reduction of fossil fuel power station generation volumes and was a major contributor to the positive energy balance. In 2017, Latvia's total electricity production was 7 346 336 MWh; compared to 2016 the increase was equal 18%. (See Figure 2)

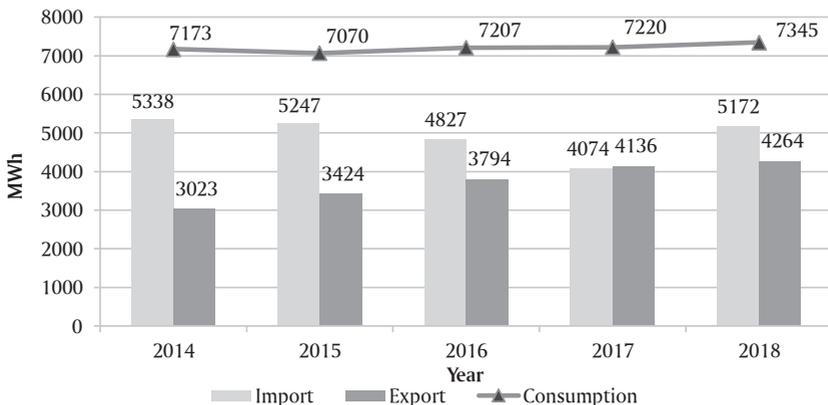


Figure 2. Latvia's Electricity Import, Export and Consumption 2014–2018 years, MWh [7]

Source: Created by the authors

Turning to the Latvia's development trends of renewable energy sources (RES), the authors wish to mention the topical issues of RES

defined by Latvian Wind Energy Association, which mentions two factors: “Latvia’s great dependence on energy resources from Russia and the desire of the country to increase self-sufficiency and independence in this area; There is a tendency in the world, and especially in Europe, to increase the use of green or renewable energy in our daily lives.” [20]

The use of wind resources is the second largest form of electricity generation in Europe. On average, wind farms in the EU operate at 35% onshore and 50% offshore, with total installed wind turbines of approximately 178.8 GWh in 2018.

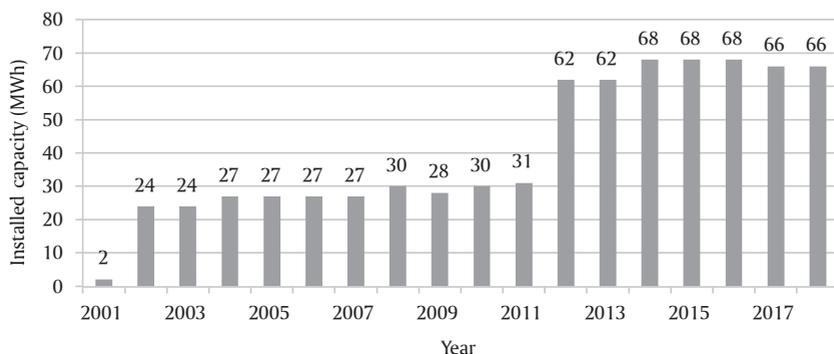


Figure 3. Total Installed Capacity of Latvia’s Wind Turbines in 2001–2018, MWh [19]

Source: Created by the authors

The first wind generators in Latvia were installed in 1995, but their total installed capacity was insignificant. The total installed capacity in 2001 was only 2 MWh, but next year it increased significantly (to 24 MWh). The next leap was observed in 2012, when installed capacity increased rapidly to 62 MWh. This rapid increase can be explained by the start of exploitation period of several plants, including the producer Ltd. “Winergy”, with installed capacity of 20.07 MW. (See Figure 3)

The total installed capacity of wind turbines in Latvia is now about 66 MWh, which allows to produce about 1.8% of the electricity consumed. In contrast, in Estonia, the installed capacity is more than 300 MWh (about 8.5% of electricity consumed) and in Lithuania more than 500 MWh (10.5% of electricity consumed). Denmark was the leader in wind power generation in the European Union in 2018, where wind power contributes significantly to the electricity balance, it makes 41% of total electricity consumption in Denmark. In the second place was Ireland with 28%, followed by Portugal

with 24%. In 2018, wind energy made 14% of total electricity demand in the European Union and increased for 2% compared to 2017.

Prospects for sector development

In November, 2018 The European Commission published a strategic long-term vision for a prosperous, modern, competitive and neutral economy for 2050. The strategy reflects on how Europe can move forward towards climate neutrality by developing new technological solutions and coordinating important areas such as industry, finance and research. It will be based on the new energy policy system created in accordance with the “Clean Energy for All Europeans” package, which gives the European consumers rights to become active participants in the energy transition stage and sets two new goals for the EU for 2030: at least a 32% renewable energy target and at least a 32.5% energy efficiency target – with a possible upwards re-calculation. For the electricity market it sets a 15% interconnection target by 2030. Miguel Arias Cañete, the EU Commissioner for Climate Action and Energy, states that the EU is on the right track to achieve the RES target, indicating that Europe is the world’s first major economy that is planning on becoming climate-neutral by 2050 and reaching an 80% RES target. These statements will promote the competitiveness, overall growth and employment of the European industry, decrease electricity costs, help prevent energy loss and improve quality. [3]

EU 2030 Energy Strategy targets:

- decrease the greenhouse effect gas emission level by 40% in comparison to 1990;
- at least 27% of renewable energy consumption;
- improve energy efficiency at the EU level by at least 27% (in comparison to the prognosis) which must be reviewed until 2020 (namely, the EU level is 30%);
- support the improvement of the internal energy market by reaching the electricity interconnection target – 10% by 2020, in order to reach 15% by 2030. [5]

In the Republic of Latvia, the Parliament has issued a development planning document of the highest importance – “Sustainable Development Strategy of Latvia until 2030” – that defines the renewable and safe energy target for the development of the country’s energy independence by increasing the energy resource self-sufficiency and integrating in the EU energy network. The strategy is comprised of certain energy development measures, projects and national targets for determining the energy and energy resource self-sufficiency. The main criteria for achieving energy sufficiency and availability is a balanced, effective, economically, socially and ecologically-based further development of the industry. To meet

the set objectives, an industry-specific target and action document that covers the essential dimensions of the energy industry – “2030 Energy Strategy” – was created. In order to determine the national priorities for 2030, 7 tightly interrelated directions are put forward:

- decrease electricity and natural gas import from existing third world country suppliers by 50%;
- achieve the reduction of building heating consumption to 100 kWh/m²;
- achieve a 50% renewable energy resource proportion in the final energy consumption as well as increase the renewable energy consumption in transportation;
- guarantee alternative solutions for the supply of natural gas and legal circumstances for opening the natural gas market in Latvia in 2015;
- create electricity and natural gas markets;
- increase the cross-border electricity interconnection capacities in order to reduce the price differences in different energy exchange auction areas;
- offer support for creating an attractive environment for investments and developing the national economy by promoting the transition to energy efficient technologies and reducing energy costs for its users. [17]

Some of these objectives have already been obtained, some of them partially, but only a common and effective implementation of these performance indicators can guarantee a sustainable development of the energy industry.

Renewable energy resources will mostly dominate when prognosing Europe's offer. It is expected that by 2050 wind energy will amount to approximately 30% of the total production capacity. Regarding fossil power, it is planned to build mostly natural gas power plants in Europe. By 2050, nuclear energy and coal power station capacity will decrease to 10% of the total installed capacity. Overall the fossil production capacity will be reduced from 50% to 30%.

Market value is the weighted average price of the electricity that wind power stations can immediately market. In this regard, only the hours with positive prices are taken into account. The realizable value of wind energy will increase until 2040 and then will remain at a high level regardless of the increase of the installed capacity and simultaneous cannibalisation effect. (The cannibalisation effect is understood as the loss on sales that come from introducing a new product that substitutes an older product from the same group instead of increasing the combined market shares of the company.) Sales volumes will slightly decrease. Some hours of

emergency electricity prices are used by wind power stations that generate positive income during these hours. [2]

Dansk Energi, which is a non-commercial lobby organisation for Danish energy companies, assumes that through support schemes and auctions, politicians will ensure that the “green” transition of the electricity system continues until 2030, making wind and solar energy about half of the electricity production. [9]

Financial Plan and Risk Analysis of the Project

One of the most important parts of any project is financial planning. Financial planning is implemented to find out how much money is needed for a project to be viable and how to use it in order to optimize costs, identify revenue, determine the payback period, profitability, liquidity etc.

Assumptions for the financial forecast

20 complex assumptions were made for the financial forecast, the main ones being:

Land. In February 2020 it is planned to purchase 171.5 ha of land for the implementation of the project with a total price of EUR 220 457. The transaction is expected to be settled in an instant payment in February 2020.

Fixed Assets. Seven wind turbines will be purchased in March 2020, installed in July 2020 and commissioned in August. The payment will be settled as follows: 50% with immediate payment, 25% in April and another 25% in May.

Connection of the Station to the Power Transmission System. As an electricity transmission system operator JSC “Augstsprieguma tīkls” has a standing commitment to ensure the participants of the system the necessary connections to the transmission system. The author of the research assumes that the costs for installing all of the necessary connections stated in the project will amount to 23 million EUR. It is expected that the work will begin in April 2020. The bill for the services provided by the TSO can be settled accordingly: 40% with immediate payment, 20% in May, 20% in June and 20% in July.

Production. It is assumed that the production volume of one wind turbine will amount to 400 MW (taking into account the instability of the wind, possible technical difficulties and losses). It is planned to install 7 wind turbines that will generate 2800 MW per month accordingly. All of the generated electricity volume is being sold. The production process will begin in September 2020. Compensation for the generated and sold

electricity will be settled as follows: 50% in the month concerned, 45% the following month and 5% in the month after that.

Electricity Price Prognosis. Taking into account the 2018 summary, the authors prognose that the price of electricity in Latvia in 2020 will be approximately 50.5 EUR/MW, in 2021 53.4 EUR/MW, in 2022 56.0 EUR/MW, in 2023 58.4 EUR/MW, in 2024. 60.7 EUR/MW. To find out the approximate monthly price for each year, the authors compiled historical Latvian electricity prices on the “Nord Pool” power exchange (2014–2018), determined the monthly price share in the average price, calculated the five-year average monthly coefficients and determined their ratio to annual forecasted prices and thus created a price profile. (See Table 1)

Table 1. The Forecasted Electricity Price Division Per Month from 2020 to 2024, EUR/MW

Month\ Year					
January	50.12	52.99	55.57	57.96	60.24
February	45.81	48.44	50.79	52.97	55.06
March	42.80	45.26	47.46	49.49	51.44
April	43.15	45.63	47.85	49.90	51.87
May	46.86	49.55	51.96	54.19	56.32
June	54.24	57.35	60.15	62.73	65.20
July	54.59	57.73	60.54	63.14	65.62
August	54.65	57.79	60.60	63.20	65.69
September	54.75	57.89	60.71	63.31	65.80
October	56.20	59.43	62.32	64.99	67.55
November	53.90	56.99	59.77	62.33	64.78
December	48.94	51.75	54.27	56.60	58.83
Average price, EUR:	50.50	53.40	56.00	58.40	60.70

Source: Created by the authors

Insurance expenses. The project will be covered by an all-risk insurance for the equipment which can be estimated at EUR 110 000 per year. This amount will be divided into 12 equal parts (9166.67 EUR/month) and will be paid the following month after calculation. The beginning of the insurance period coincides with the exploitation period of the power plant (August 2020).

Table 2. Planned Profit and Loss Statement from 01.01.2020. until 31.12.2024., EUR

	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul.	Aug.	
Net turnover	0	0	0	0	0	0	0	0	
JSC formation expenses	380								
Station connection to the system				23000000					
Maintenance Expenses									
Insurance expenses								9167	
Power transmission system's service costs	0	0	0	0	0	0	0	0	
Fixed and intangible asset amortization		51	51	51	51	51	51	51	
Work salaries	4400	4400	4400	4400	4400	4400	4400	4400	
State mandatory insurance contributions	1060	1060	1060	1060	1060	1060	1060	1060	
Risk fee	1	1	1	1	1	1	1	1	
Costs of the parent undertaking for transactions in the Nord Pool exchange	183	183	183	183	183	183	183	183	
Utilities	120	120	120	120	80	80	80	80	
Wind forecast expenses	33	33	33	33	33	33	33	33	
Stationery and office maintenance expenses	400						200		
Accounting expenses	400	400	400	400	400	400	400	400	
Legal service expenses	60	60	60	60	60	60	30	30	
Loan processing expenses	945								
Other economic activity-related expenses	3	3	5003	5003	5003	3	3	3	
Interest payments		233	230	226	223	219	215	212	
Property tax									
Profit before corporate income tax	-7985	-6544	-11540	-23011537	-11493	-6490	-6656	-15619	
Corporate income tax									
Net profit	-7985	-6544	-11540	-23011537	-11493	-6490	-6656	-15619	

Source: Created by the authors

	Sept.	Oct.	Nov.	Dec.	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	21900	22480	21560	19576	85516	256320	268796	280324	291360
					380	0	0	0	0
					23000000	0	0	0	0
					0	6000	6000	6000	6000
	9167	9167	9167	9167	45833	110000	110000	110000	110000
	417	417	417	417	1667	5000	5000	5000	5000
	79385	79385	79385	79385	317897	952478	952465	952465	952465
	6200	6200	6200	6200	60000	74400	74400	81600	81600
	1494	1494	1494	1494	14454	17923	17923	19657	19657
	1	2	2	2	19	26	26	26	26
	183	183	183	183	2190	2190	2190	2190	2190
	80	80	120	120	1200	1200	1200	1200	1200
	33	33	33	33	390	390	390	390	390
					600	400	400	400	400
	400	400	400	400	4800	3600	3600	3600	3600
	30	30	30	30	540	360	120	120	120
					945	0	0	0	0
	3	3	3	3	15036	36	36	36	36
	208	205	201	197	2369	2077	1530	963	376
		1057			1057	1057	1057	1057	1057
	-75699	-76173	-76073	-78053	-23383862	-920817	-907541	-904381	-892758
					0	0	0	0	0
	-75699	-76173	-76073	-78053	-23383862	-920817	-907541	-904381	-892758

Profit and Loss

The profit and loss statement shows the operating income, expenses and differences, or profit or loss over a given period. In order to create Profit and Loss, the authors made additional calculations regarding turnover, salary, depreciation and loan repayment.

The biggest expenses of 2020 are comprised of the position “Station connection to the system”, but, seeing as it is a one-off event, expenses do not appear in this position in the following periods. The expenses for the formation of the JSC and for the loan processing can also be added to the one-off expenses.

The biggest expenses of the following periods reside in insurance, amortization of the fixed assets, salaries and the expenses associated with them. The biggest amortization expenses of fixed assets come from the wind turbines ERCON E-115 which are the most expensive of all the fixed assets purchased by the company. (See Table 2) By reviewing the work salaries, the authors of the research would like to refer to the above-mentioned assumptions about the increase of the work salary from 2023 when the overall costs will increase from 74400 EUR a year to 81600 EUR a year thus also increasing the employer’s state mandatory insurance contributions.

By reviewing the profit and loss statement, attention must be drawn to the fact that the company will be working with losses during all of the prognosed years. The funds that the company has received in the certain year are smaller than the funds that have been spent in the same timeframe. The biggest losses form in the first operational year which can be explained by the uptake of economic activity and the acquisition of fixed assets. In the following years large funds must be allocated to amortization as well as the expenses needed to cover insurance and wage costs. However, the negative PLS outcome decreases with every year, supported by the increasing income of principal activity which will be influenced by the increase of electricity prices. (See Table 2)

Project cash-flow statement

Cash-flow is the cash or other cash equivalent turnover in a company. Funds are needed for the realisation of any kind of economic activity but they are limited, therefore the company must evaluate how to divide these funds effectively so that they last a certain period of time. Cash-flow statement allows determining how to rationally spend existing funds. An accurately comprised cash-flow allows predicting the approximate situation of funds in the company, evaluate different risk factors and predict the potential influence of these risks on the company’s future activity, predict various scenarios, predict payments and their deadlines

etc., as well as react timely to shortages and problems in case of necessity. Cash-flow statement is valuable both for the management of the company and the potential investors to understand if the invested funds will bring sufficient return. The project cash-flow is constructed using the direct method taking into account assumptions previously put forward.

The net cash flow of the company is negative in its first year of operation due to the investment of large funds into to the operational launch of the company, however, in the following years it stays positive and is characterised by an increasing trend. Positive cash flow means that the company has a tendency for growth and is capable of meeting obligations, investing in development, guaranteeing back-up for future financial problems and raising outside capital.

Project balance sheet

After reviewing the profit and loss and cash-flow statements all the expenses must be combined in a balance sheet. The balance sheet establishes a balance between operating funds and their sources. The assets of the balance represent how the company has used the existing funds whilst the liabilities show where the funds have come from and what the sources (equity funds, loan) are. [14]

At the founding moment of the project on January 1st, 2020, funds – 59 000 000 EUR – are represented in assets of the balance whilst liabilities are represented in the fixed assets. After purchasing the production facilities in 2020 the company is not planning on purchasing any large fixed assets of monetary value therefore their value decreases. The number of debtors also gradually decreases but the money assets increase. Upon successfully repaying the loan, long-term commitments decrease. A decrease in short-term commitments is also observed but they exist in relation to the expenses that will be settled in the following periods.

Project evaluation

The goal of project evaluation is to ascertain the quantitative and qualitative results by taking into account the specificity of the project. Several parties are interested in the evaluation of the project – developer, creditor, investors, suppliers etc. Several tasks can be defined in the evaluation process, for example, assessment of the financial situation, the clarification of changes and their reasons, the evaluation of development opportunities in the company and claiming new markets, evaluation of achievement of the project objectives and error assessment etc. Evaluation is intended for the analysis and improvement of the adopted decisions, the determination of the effectiveness of the use of available resources and feedback. Within the framework of the project, methods of evaluation

such as repayment period, the net present value, internal rate of return, earnings before profit, taxes, depreciation and amortization, the return on equity and return on invested capital were used. Some of the obtained results will be reflected.

Project payback period (PP). In the case of the project, taking into account the large funds invested in the realization of the project, electricity production and price, other expenses and the life expectancy of wind turbine activity (which is 20–25 years), it could be argued that the project payback period will be longer than the life-span of the wind turbines which makes the PP calculation inexpedient in real life. For the project to be profitable within the life expectancy of the wind turbines, it is necessary to acquire substantial financial support.

Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA). As it can be ascertained from the name, EBITDA stands for earnings before interest, taxes, depreciation and amortization. It is a method used to evaluate the operational results of the company. Many investors use EBITDA to compare companies with different capital structures or fiscal jurisdictions. Assuming that two companies are profitable, the EBITDA comparison could be helpful to investors in determining which company is faster-growing from a product selling standpoint. EBITDA can be used as an interstage to evaluate the cash flow available for paying the debt for long-term assets, for example, equipment and other items (with a life expectancy longer than 10 years). EBITDA is calculated using the formula [3.1]:

$$EBITDA = \text{Profit/ (loss before taxes and fees + interest payments + depreciation of fixed assets and intangible assets)} \quad [3.1] \quad [8]$$

Table 3. Profit Before Interest, Taxes and Depreciation from 2020 to 2024, EUR

Period, Year					
EBITDA, EUR	-23 048 065	52 744	65 460	69 788	80 824

Source: Created by the authors

EBITDA is negative in the first year which, as in previous calculations, can be explained by the beginning of economic activity, but an increasing trend can be observed in the coming years which is supported by an increase in profits from principal activity and a decrease of the burden of interest payments. (See Table 3)

Return on Equity (ROE). Return on equity of the project reflects the total equity profit and shows the company's ability to turn assets into profits.

With the help of ROE, investors can see whether or not they are receiving good profits from the invested capital but the company can evaluate how effectively the company's own capital is being used. The calculation of ROE is most advantageous when it is compared with company's historic ROE indicators or the average ROE indicator in the industry. ROE of some industries is higher than others and therefore it is most valuable in comparing companies within the same industry. A riskier company will demand higher expenses of the capital and own funds. In order to satisfy the demands of investors, the company should be capable of producing a higher return on equity than profits from a lower risk investment.

A disadvantage of return on equity is that some ROE indicators can exclude intangible assets such as trademarks, copyrights and patents from the shareholders' funds. That can make calculations misleading and hard to compare with other companies that have decided to include intangible assets. In the case of this project such a problem should not occur because the company only has one intangible asset the value of which cannot significantly influence the calculations. Inaccuracies can also occur in the own funds position because some analysts use the value at the beginning of the year but some at the end of the year or the average of the two, but the net income can be substituted with EBITDA and EBIT which can be adjusted with one-off items. The author of the research uses net profit and the yearly value of the equity review. Formula for calculating ROE [3.2]:

$$\text{Return on Equity} = \text{Net Income} / \text{Equity} * 100\% \quad [3.2] \quad [8]$$

Table 4. Return on Equity from 2020 to 2024, EUR

Period, Year					
Net Profit, EUR	-2 338 3862	-920 817	-907 541	-904 381	-892 758
Equity, EUR	35 616 138	35 155 730	34 241 551	33 335 590	32 437 021
ROE, %	-65.66%	-2.65%	-2.69%	-2.75%	-2.79%

Source: Created by the authors

The significantly negative ROE indicator in 2020 can be explained by the strongly negative amount of undistributed profits. In the following years the indicator is not as negative as in its first operational year but the ROE retains an increasing negative trend. With time, negative return on equity can mean that the company is not capable of showing good shareholder value and increasing productivity and profits by making bad decisions about investing capital in unproductive assets. (See table 4)

Return on Invested Capital (ROIC). ROIC is the return on invested capital and it is the correlation of profitability the goal of which is to evaluate the profit percentage that the company's investors gain from the invested capital. The correlation reflects how effectively the company is using the investors' funds to generate income.

$$\text{Return on Invested Capital} = \frac{\text{Net operating profit after taxes}}{\text{Invested Capital}} \quad [3.3] \quad [8]$$

Net operating profit after taxes is the same as EBIT*(1-T) where EBIT is the earnings before interest and taxes but T – the corporate tax rate. As in the project is not planning on distributing the profits in dividends, undertaking expenditures unrelated to economic activity, paying increased interest and will be providing loans to related persons etc., in accordance with Corporate Tax Law (in force from 01.01.2018.) and the Cabinet of Ministers regulation Nr. 677 "Uzņēmumu ienākuma nodokļa likuma normu piemērošanas noteikumi" (in force from November 14th, 2017) the company will be exempted from paying the CIT during the prognosed five years. [16] In which case the net operating profit after taxes will be equal to the EBIT.

Table 5. Return on Invested Capital from 2020 to 2024, EUR

Period, Year					
EBIT, EUR	-23 365 982	-941 874	-928 051	-926 058	-913 849
Invested Capital, EUR	35 629 778	34 710 708	33 803 715	32 899 901	32 007 730
ROIC, %	-65.58%	-2.71%	-2.75%	-2.81%	-2.86%

Source: Created by the authors

ROIC has a similar trend to that of the ROE. In the beginning it is significantly negative, in the second year of operation it is -2.71% and in the following years retains a negative trend. Such a similarity in the results of the indicators is explained by the author by the financing of the project from equity. (See Table 5)

By evaluating all the previous calculations, the authors of the research conclude that the company suffers the biggest losses in the first year of operation because of investments in fixed assets and the high costs of connecting the stations. The situation is better in the upcoming years by comparison to 2020, but the profit and profitability indicators of the company remain negative even with increasing profits. The amortization of fixed assets and intangible investments significantly influences the profits in the upcoming years.

Risk Analysis

This project, as well as any other company will operate in a changing environment and will be subject to a variety of uncertainties that create gaps and inaccuracies in the development of future business scenarios and contribute to their unpredictable outcomes. If the uncertainty is a quantitative parameter which cannot be supported by calculations, then the risk is something that can be quantified, predicted, and avoided. The risk is the likelihood of loss due to unforeseen and unfavourable circumstances for the company. [12] The risk management process requires continuous risk identification, evaluation and management. It is not possible to completely avoid the risk, the probability of its occurrence is always present, but by applying risk management, which involves forecasting the causes and consequences of the risks and implementing various measures to reduce the impact of the risks, it is possible to reduce the potential losses brought on by the risks.

The authors have identified 9 major risks that could jeopardize the success of the project and cause both financial and moral damage. The risk profile of the project was established, its management defined, the criteria for event consequences were reviewed, the criteria of probability of events was established, the level of risk, the division of risk factors, and all of these were summarized in the risk matrix. (See Table 6)

Table 6. The Risk Matrix of the Project

Likelihood	Almost certain	5			1	5	
	Likely	4					
	Possible	3			6; 7; 8	9	
	Unlikely	2			3; 4; 2		
	Rare	1					
			1	2	3	4	5
			Negligible	Low	Medium	High	Extreme
			Impact				

Source: Created by the authors

Summarizing the distribution of the risk matrix, the authors conclude that attention should be paid to the legislative risk, which is a part of the high-risk area, as well as to the price and innovation risks, which are positioned on the medium-risk level.

Legislative risk, which was part of the high-risk area in the risk matrix, manifests itself in the often-changing legal environment, as well as in the violations of company laws, acts and regulations. The consequences of these events can have a critical impact on the business up until insolvency occurs. [13] [18] In order to reduce the risk of legislation, the authors recommend continually reviewing current developments in legislations and sector-specific regulations and utilizing legal advice.

The medium-risk group included price and innovation risks. The fluctuating electricity market prices in the “Nord Pool” stocks of the Baltic countries’ trading areas, fluctuations in the market price of electricity depending on the weather conditions in the Nordic countries, the increase in resource prices on the world markets, and the negative impact of the local weather conditions on electricity generation capacity have a significant impact on electricity prices in the market. There is possible to use different financial contracts, for instance, in *NASDAQ Energy Products Forward Market*, but in the context of this project it was not used due to the low production volumes. The project implementers will try to make future forecasts as accurate as possible. The biggest challenge when addressing the risk of innovation is the lack of experience in work with innovative production machinery and projects, and the worst consequence of this is the loss of invested funds. Timely and detailed market analysis, a project financial outlook of at least 5 years, and consultations with experienced professionals, agencies and associations can help mitigate this risk.

The low risk group included: manufacturing, operational, accident, liquidity, interest rate and credit risk. It is difficult to influence the occurrence of interest rate risk, but it is possible to try to avoid it by carrying out additional analysis and signing less risky contracts. The operational, production, liquidity and credit risks can be directly addressed as these risks are dependent on the internal factors within the company. The key measures to mitigate these risks include the development of various internal regulations, the use of insurance, the hiring of highly qualified and competent personnel, regular monitoring and the organization of inspections.

Risk management must be implemented throughout the performance of the business activities, with periodic monitoring and review of the situation to ensure that the measures taken against the risks are up to date. It should reflect the product, market, labour, and legislation changes and the current events to promote a safe and forward-looking business.

The authors of the research envision several scenarios for improving the situation. One of such scenarios is a quicker and more significant increase of the electricity prices. It would positively impact the profits

of this type of project but could, however, encourage a price increase in other industry products and services which could lead to a global problem. Another, is to attract EU foundation programs and other investors. The authors will now explore how other EU countries solve such problems.

Case Study

With the development of renewable energy, many consumers have also become producers, installing, for example, solar panels or small wind generators to cover their own consumption. RES has a direct link to the weather, resulting in situations when the produced electricity exceeds the subject's consumption and vice versa, the electricity is in deficit. In Germany, power companies such as "E.ON" and "Enerix" offer households, which provide their own electricity consumption, in periods of overcapacity and fully charged batteries to drain excess electricity to the grid. According to the German legislation, households do not receive any income from the deal, but the system works that way, when households are in deficit and use grid electricity, they receive the necessary amount of electricity for free. At the end of the year, the power company recalculates the balance. In case the household produces more electricity than it consumes, it receives a payment of balance difference according to the law on electricity produced from renewable sources (Renewable Energy Act – EEG). Otherwise, the household pays the excess electricity according to a market price. If one turns to the, as they are named, "active consumers", then one needs to know that they can be households, individuals, groups of individuals, small businesses, social organizations or municipal authorities, acting individually or organized, such as associations, foundations or cooperatives. [6]

Energy cooperatives in the EU are becoming more popular and common, especially in Denmark, Germany, Belgium, Spain and France. They are working on the different activities and obtain a different service in the energy sector, for example: self-generation and consumption; generation of renewable energy for export to the grid; ownership or operation of storage facilities, micro-grids and other distribution infrastructure for electricity and district heating networks; provision of energy efficiency and other services.

The Renewable Energy Directive (RED) 2018, has defined a 'renewable energy community' term: "A legal entity: i) which, according to applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects owned and developed by that community; ii) whose shareholders or members are natural persons,

local authorities, including municipalities, or SMEs; iii) whose primary purpose is to provide environmental, economic or social community benefits for its members or the local areas where it operates rather than financial profits.” [1]

Table 7. Characteristics and Main Challenges of Energy Community Business Models [6] [10] [15]

Business Model		Characteristics	Main Challenges
Legal Forms	Cooperative	<ul style="list-style-type: none"> • Democratic culture: open to everyone; one member = one vote. • Straight benefit from generated energy. • More oriented to social benefits for society. 	<ul style="list-style-type: none"> • Necessary capital advance. • Not enough knowledge and skill. • Save of cooperative values.
	Partnership	<ul style="list-style-type: none"> • Vote weight = stake in a company capital. • More oriented to private benefits and income, but also good for society. • Democratic decision making. 	<ul style="list-style-type: none"> • Personal habits, different management styles, split of the liabilities, communicational barriers. • Necessary capital advance. • Not enough knowledge and skill.
	Community Trusts and Foundations	<ul style="list-style-type: none"> • Oriented to benefits for society. • Possibility to receive grants. • Trust may have no owners or shareholders. • Income usually is reinvested into the community or the organization. 	<ul style="list-style-type: none"> • Necessary capital advance. • Hard to receive loans from banks. • To make a clear working mechanism of the organization. • Difficulties with contract signing.
	Non- Profit Customer-Owned Enterprises	<ul style="list-style-type: none"> • Especially good for community power projects on a small or independent grid network. • Governed by a general assembly. • Is possible to get subsidies- municipal guarantees, governmental grants, loans with low interest rates. 	<ul style="list-style-type: none"> • Difficulties with connection to the grid. • Not enough knowledge and skill.
	Other socially-oriented enterprises	<ul style="list-style-type: none"> • Charities which support community or social aims. 	<ul style="list-style-type: none"> • In some countries, charities are not recognized as individual legal organization.
	Individuals	<ul style="list-style-type: none"> • Individuals who not only consume, but also produce energy and surplus energy drain to the grid. 	<ul style="list-style-type: none"> • Existence of the system at the legislative and technical levels.

Business Model		Characteristics	Main Challenges
Municipal Ownership	Public Utility Company	<ul style="list-style-type: none"> • Provides an infrastructure for a public service. • Often are natural monopolies. 	<ul style="list-style-type: none"> • Legislation and strict regulation. • Aging infrastructure. • New and emerging technologies. • Changing demand. • Lack of qualified human capital.
	Cooperation between municipalities: public-public partnerships	<ul style="list-style-type: none"> • Some municipalities can join to create co-operatives. • More new opportunities in regional level. • Aims can be: independence of fossil fuels, renewable energy accessibility for individuals and popularity of such projects. • Members can be only municipalities and corporate organizations under public law (excluding private companies and associations). 	<ul style="list-style-type: none"> • Necessary capital advance. • To reach a compromise in different questions. • Support of the citizens in the certain municipality.
Public- Private Partnership		<ul style="list-style-type: none"> • Run by municipalities. • Authorities can help to decrease initial investments, provide grants, taxation relief. • Risk-sharing between public and private sectors. • Public service and ultimate regulatory responsibility is on public sector. 	<ul style="list-style-type: none"> • Conflicting aims. • Regulatory frameworks- legislation mostly is oriented to public sector responsibility in infrastructure and insignificantly manages private participation. • Public governance uncertainty about tariffs, prices, rules, objectives etc. • Lack of qualified human capital. • Corruption.

There is a variety of models for renewable energy communities. To choose the most appropriate form, entrepreneurs need to take in consideration many factors such as: community demand, availability of resources, stakeholders involved, mission, aims and strategy, financing etc. On the basis on these factors, community can be not-for-profit or profit-making. The main goal of a non-profit community is offering cheap or discounted energy for its target market (for example, rural community) and a profit-making – make additional income. The main legal forms for renewable energy communities are co-operative, partnership, trust and foundations, public utility company, public-private partnership.

Each of these forms has certain strengths and weaknesses, but some of them are common. One of the important cornerstones of a renewable energy topic is an access to capital investments. Renewable energy technologies have become more competitive (in terms of cost), but the cost of projects is still very high to realise without financial support. Other topic to think about is a society support. Many researches and surveys were made on this topic, but there still does not exist certain opinion – part of a society support and other does not, but each has its own arguments. One more thing what can be referred to all of the mentioned above models is lack of qualified human capital, who can work with new technologies, models and keep up with market changes.

If one turns to the Latvian case, there is only few such business model examples. For now Latvia is on the way of cooperation with banks, EU funds, but not communities, municipalities, individual customers. In the energy legislation of Latvia is a definition of ‘autonomous producer’ which has only tax incentives for RE installations, but doesn’t have support mechanisms, priority access to the grid, simplified permitting procedures for RE installation. If one looks at the other Baltic States, then Estonia is offering support mechanisms and simplified permitting procedures for RE installations, but Lithuania, in addition to the Estonian list, is offering also tax incentives and priority access to the grid.

The project of a cooperative between an energy company and, for instance, municipality in Latvia, can be a topic for the next research.

Conclusions and Recommendations

As it was already mentioned, the energy system decentralization is on its active stage, what positively effects renewable energy developing, becoming more accessible even for individuals and motivating even more consumers become active. There is a sufficient potential and wind resource to develop wind energy production and renewable energy in general and increase the total installed capacity of renewable energy generators. There is also room for information and experience – wind energy and other RES are very topical and well developed in the European Union to serve as a model. Even many countries do not have specific regulation for raising energy communities, various energy ownership forms are developing across the EU. These communities have certain benefits for society, for example:

- cleaner environment (reducing greenhouse gas emission),
- energy market decentralization and democracy (self-sufficiency, community cohesion),
- economic development (new jobs, cheaper energy),
- energy security,

but they also face different challenges. The main challenges are:

- unstable legal and regulatory framework and lack of common approaches for supporting community energy;
- market scheme rules and limitations that can be discriminative for smaller market participants;
- many administrative and regulatory challenges for new energy market participants;
- lack of information, instructions and access to finance for local energy communities.

Analysing all the finding above, the authors came out with some recommendation that can positively affect renewable energy development all over the world and make it more common and accessible for everyone who is interested in. So, to improve the situation:

- national policy-makers and governance need to make a stable legal and regulatory framework for renewable energy and to assume more concrete actions to promote the development of local energy communities;
- financial support – it can be grants, low-interest loans, investments and tax relief at a municipal level;
- smart guidance with educational and regulatory help;
- popularisation of renewable energy and society informing.

This development will face enough of challenges, but the positive thing is a good background and experience of EU countries, which can be used as an example how to develop new business models in energy sector and solve different kind of complexities on the way to novelty.

Summarising the above, authors conclude that renewable energy sources are becoming more developed, topical and its demand is growing every year. These facts should be taken into consideration not only by the energy industry and policy makers, but by every producer and consumer. Renewable energy sources help meet demand for clean and affordable energy. Thanks to technological advances and efficiency gains, renewables are becoming more stable and more integrated into the energy system, and vice verses, energy system is becoming more decentralized and open to changes.

REFERENCES

1. Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.328.01.0082.01.ENG [Accessed on 28 January 2020]
2. Energy BrainBlog. Trends in the development of electricity prices – EU Energy Outlook 2050. 15 June, 2017. Available at: <https://blog.energybrainpool.com/>

- en/trends-in-the-development-of-electricity-prices-eu-energy-outlook-2050/ [Accessed on 30 November 2019]
3. European Commission. Europe leads the global clean energy transition; latest Eurostat data confirms. Published 12 February 2019. Available at: https://ec.europa.eu/info/news/europe-leads-global-clean-energy-transition-latest-eurostat-data-confirms-2019-feb-12_en [Accessed on 30 October 2019]
 4. European Commission. List of NACE codes. Available at: https://ec.europa.eu/competition/mergers/cases/index/nace_all.html [Accessed on 27 September 2019]
 5. European Commission. 2030 Energy Strategy. Available at: <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/2030-energy-strategy> [Accessed on 24 October 2019]
 6. European Committee of the Regions, Commission for the Environment, Climate Changes and Energy. Models of Local Energy Ownership and the Role of Local Energy Communities in Energy Transition in Europe, 2018. Available at: <https://op.europa.eu/en/publication-detail/-/publication/667d5014-c2ce-11e8-9424-01aa75ed71a1/language-en/format-PDF/source-77208198> [Accessed on 16 February 2020]
 7. Central Statistical Bureau of Latvia. Available at: www.csb.gov.lv/en [Accessed on 7 October 2019]
 8. Corporate Finance Institute, Available at: www.corporatefinanceinstitute.com [Accessed on 11 November 2019]
 9. Dansk Energi. Electricity Price Outlook 2018. Green transition of the electricity system in North western Europe. Available at: https://www.danskenergi.dk/sites/danskenergi.dk/files/media/dokumenter/2018-06/Electricity_Price_Outlook_2018.pdf [Accessed on 26 December 2019]
 10. Interreg Europe. Renewable Energy Communities. A Policy Brief from the Policy Learning Platform on Low-carbon Economy. August 2018. Available at: https://www.interregeurope.eu/fileadmin/user_upload/plp_uploads/policy_briefs/2018-08-30_Policy_brief_Renewable_Energy_Communities_PB_TO4_final.pdf [Accessed on 27 February 2020]
 11. JSC "Augstsprieguma tīkls". Latvian electricity market overview. Available at: <http://www.ast.lv/en/electricity-market-review?year=2017&month=10> [Accessed on 19 October 2019]
 12. Latvian Academy of Sciences. Terminology commission. Risk. Available at: <http://termini.lza.lv/term.php?term=risks&list=risks&lang=LV> [Accessed on 15 November 2019]
 13. Legal acts of the Republic of Latvia. Electricity Market Law. Available at: <https://likumi.lv/ta/en/en/id/108834-electricity-market-law> [Accessed on 19 January 2020]
 14. Monger, R. (2010). *Financial Accounting: a Global Approach*. WILEY.
 15. Roberts, J., Bodman, F. and Rybski, R. (2014). *Community Power: Model Legal Frameworks for Citizen-owned Renewable Energy*. (ClientEarth: London). Available at: https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/model_legal_frameworks_2014.pdf [Accessed on 5 March 2020]
 16. State Revenue Service of Republic of Latvia. Available at: <https://www.vid.gov.lv/en> [Accessed on 11 November 2019]

17. The Latvian Energy Efficiency Association (LATEA). Energy Strategy for 2030. Available at: http://www.latea.lv/userfiles/news/14122011_Energetikas_strategija_2030.pdf [Accessed on 14 October 2019]
18. The Public Utilities Commission. REMIT. Available at: <https://www.sprk.gov.lv/index.php/content/remit-0> [Accessed on 19 January 2020]
19. The Wind Power database. Production Capacities. Available at: https://www.thewindpower.net/country_en_42_latvia.php [Accessed on 10 October 2019]
20. Wind Energy Association of Republic of Latvia. About The Renewable Energy. Available at: <http://www.vejaenergija.lv/about-energy> [Accessed on 10 October 2019]

DIGITALISATION IN REGIONS OF LATVIA – PROBLEMS AND CHALLENGES¹

Biruta Sloka

Dr. oec.

Kate Čipāne

M.Sc.

Sabīne Anete Vasina

M.Sc.

Emīls Volgasts

Abstract

Digital skills are defined as a basic competence, the same level as reading or writing and it is important for country to provide successful digitalisation in regions as regional development is the basis for national development.

Purpose of the study is to analyse digitalisation in the regions of Latvia.

The tasks of the study:

- 1) to analyse theoretical background of digitalisation in context of regional development;
- 2) to analyse existing research of digitalisation in the regions in EU;
- 3) to analyse problems of digitalisation in the regions of Latvia.

Research methods used in preparation of this article: scientific publication and previous conducted research results analysis, analysis of Digital Economy and Society Index (DESI), EU-SILC results (in 2014–2017) and results of the survey realised in Latvia at the end of 2017 and beginning of 2018 on internet shopping in co-operation with company iMarketing.lv, University of Latvia and Chamber of Trade and Commerce of Latvia ($n = 2513$). Data are compared with the results of other Eurozone and OECD countries. For data analysis there were used indicators of descriptive statistics (indicators of central tendency or location – arithmetic mean, mode, median), indicators of variability (indicators of dispersion – range, standard deviation and standard error of mean), cross-tabulations for regions in Latvia, for household members, for urban – rural living and analysis of variance – ANOVA are

¹ The research 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 International Context (INTERFRAME-LV)”.

used. The results of analysis have indicated different challenges for decision makers on different levels.

Keywords: Latvia, digitalisation, internet, regional development, digital skills gap, digital divide

Introduction

On June 10, 2016, the European Commission published a new Skills Agenda for Europe where digital skills are defined as a basic competence, the same level as reading or writing. According to the statistics only 58% of Europeans had basic or above basic digital skills, while in Latvia this level was 48% in 2017. Nowadays almost every workplace requires employees to be digitally skilled at least in some level, as most of the operations are carried out using various software and platforms. The technological revolution and further advancements indicate that specialists with digital skills will continue to be highly in demand by the companies worldwide, and this situation creates a large challenge for the labour market in general, as statistics show that there is still room for growth. The situation itself creates a great debate as to whether people can keep up with the pace of how the technologies are being evolved; as currently there is a big rivalry between companies and institutions to employ various information and communication technology (ICT) specialists. According to Eurostat², the number of these specialists in the EU grew by over 39 per cent between the years 2011 and 2018. In 2018, the average rating of the ICT specialists employed in the EU was 3.9%; the relative share of Finland was 7.2%, but only 1.7% in Latvia, having the lowest rating among the EU Member states. In March 12, 2019, the World Economic Forum³ published an article about the widening digital skills gap as the European Commission stated there could be more than 756 thousand unfilled jobs in the ICT sector by year 2020, and at least 133 million new ICT roles generated globally by 2022.

Purpose of the current study is to analyse digitalisation in the regions of Latvia.

The tasks of the study:

- 1) to analyse theoretical background of digitalisation in context of regional development;

² Eurostat, ICT Specialists by Employment. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/ICT_specialists_in_employment#Number_of_ICT_specialists [20.11.2019.]

³ World Economic Forum, The digital skills gap is widening fast. Here's how to bridge it. Available at: <https://www.weforum.org/agenda/2019/03/the-digital-skills-gap-is-widening-fast-heres-how-to-bridge-it/> [20.11.2019]

- 2) to analyse existing research of digitalisation in the regions in EU;
- 3) to analyse problems of digitalisation in the regions of Latvia.

Research methods used in preparation of the paper: scientific publication and previous conducted research results analysis, analysis of Digital Economy and Society Index (DESI), EU-SILC results (in 2014–2017) and results of the survey realised in Latvia at the end of 2017 and beginning of 2018 on internet shopping in co-operation with company iMarketing.lv, University of Latvia and Chamber of Trade and Commerce of Latvia ($n = 2513$). Data are compared with the results of other Eurozone and OECD countries. For data analysis there were used indicators of descriptive statistics (indicators of central tendency or location – arithmetic mean, mode, median), indicators of variability (indicators of dispersion – range, standard deviation and standard error of mean), cross-tabulations for regions in Latvia, for household members, for urban – rural living and analysis of variance – ANOVA are used.

Digitalisation in regions: theoretical framework

The presence, absence, and application of digital skills are under research agenda world-wide for different purposes: regarding requirements for students⁴, employment requirements⁵, and for public relations education and practice⁶. The general skills gap has been on research agendas between rural and urban regions. *Zarifa et al.*⁷ stated that in Canada rural residents acquire lower levels of education than urban residents, due to human capital deficits, as rural regions usually have less opportunities to learning access, as well as urban regions have greater rates of internet access, therefore means easier access to other assets such as information or institutions.

*Young*⁸ in his case study in Canada revealed that rural residents in spite of their experience of digital divides are leveraging, reappropriating, and

⁴ Ukwoma, S., Iwundu, N., Iwundu, I. (2016). Digital literacy skills possessed by students of UNN, implications for effective learning and performance, *New Library World*, 117(11/12), 702–720.

⁵ Bokek-Cohen, Y. (2018). Conceptualizing employees' digital skills as signals delivered to employers, *International Journal of Organization Theory & Behaviour*, 21(1), 17–27.

⁶ Cismaru, D., Gazzola, P., Ciochina, R., Leovaridis, C. (2018). The rise of digital intelligence: challenges for public relations education and practices, *Kybernetes*, 47(10), 1924–1940.

⁷ Zarifa, D., Seward, B., Milian, R. P. (2019). Location, location, location: Examining the rural-urban skills gap in Canada, *Journal of Rural Studies*, 72, p. 254.

⁸ Young, J. C. (2019). Rural digital geographies and new landscapes of social resilience. *Journal of Rural Studies*, 70, 66–74.

even creating digital tools to support varied economic landscapes and they also create new sharing economies and provide support of indigenous livelihoods.

Digital skills have been on research agenda for the past years due to technological changes, as well as such terms as “digital skills gap” have become recognised. The term digital skills gap is related to the difference between existing digital skills people possess and needed digital competencies of the workforce to manage technologies. In research, the digital skills gap has been mostly related to certain skills required in the workplace⁹, as there is no surprise that these technologies have a big impact on the way people live and manage their daily routines. As these skills become even more relevant, there has to be a sustainable way to acquire them, e.g., *Siddiq et al.*¹⁰ conducted a research in Norway on the impact teachers have on developing students’ digital skills and concluded that teachers’ classroom practice makes a big impact on how students’ digital skills can evolve.

21st century digital skills are classified as information digital skills, communication digital skills, collaboration digital skills, critical-thinking digital skills, creative digital skills, and problem-solving digital skills¹¹. Information digital skills are related to searching, evaluating and managing digital information in various search engines, as well as the ability to digitally manage various forms of digital information (e-mails, files etc.). Information digital skills are considered to be essentially relevant as they are also related to assessment of information credibility regarding information source. Communication digital skills are related to online interactions, as well as sharing content, such as photos, videos, blogs etc. Collaboration digital skills are related to sharing responsibility while performing tasks, but critical-thinking digital skills require the person to be able to make informed judgements about incoming information, as well as assess various sources.

Lastly, creative and problem-solving digital skills are related to online tools that can be used to perform tasks, most often to express one’s talent and new ideas, but problem-solving skills are related to conduct researches

⁹ Oberlander, M., Beinicke, A., Bipp, T. (2020). Digital competencies: A review of the literature and applications in the workplace, *Computers & Education*, 146, 103752, <https://doi.org/10.1016/j.compedu.2019.103752>

¹⁰ Siddiq, F., Scherer, R., Tondeur, J. (2016). Teachers’ emphasis on developing student’s digital information and communication skills (TEDDICS): A new construct in 21st century education, *Computers & Educations*, 92–93, p. 12.

¹¹ Laar, E., Deursen, A., Dijk, J., Haan, J. (2019). Determinants of 21st-century digital skills: A large-scale survey among working professionals. *Computers in Human Behaviour*, 100, p. 94.

and gather information on certain subjects to make informed decisions. Use of digital education resources in schools of rural areas has been researched in China¹², as well as access to the Internet has shown a big impact on acquisition of digital skills, e.g., in a remote and rural geography¹³ the Internet is slower, more unreliable and expensive, therefore people use it less and are separated from the digital space, forming a digital divide. The terms digital divide, digital exclusion and digital inequality have been addressed before in research, and are strongly related to high proficiency of these skills or lack thereof. The digital divide is formed when there are inequalities in access to and use of Information and Communication Technologies (ICT's). Philip¹⁴ et al. have considered that relatively little amount of research has been done to analyse rural perspectives on digital challenges. From their analysis on the urban-rural digital divide in Great Britain, researchers found out that there are territorial inequalities in digital infrastructure which negatively impacts life in rural areas of Britain.

In research papers one of the most important determinants of digital divide is access to the Internet and Internet use, although Scheerder et al.¹⁵ have stated that there is not enough research conducted on the Internet skills, as well as the third-level digital divide, a situation in which digital skills and use of the Internet do not lead to beneficial outcomes.

There have been various approaches to assess the digital divide, e.g. it has been researched in education across and within the EU-28 countries according to the educational attainment, particularly analysing internal gaps which in other cases would have been overlooked,¹⁶ as well as gender digital divide has been researched to address the digital literacy skills between women and men.¹⁷ When exploring the individual ability to use

¹² Wang, J., Tigelaar, D., Admiraal, W. (2019). Connecting rural schools to quality education: Rural teachers' use of digital educational resources, *Computers in Human Behaviour*, 101, p. 71.

¹³ Young, J. C. (2019). Rural digital geographies and new landscapes of social resilience, *Journal of Rural Studies*, 70, p. 72.

¹⁴ Philip, L., Cottrill, C., Farrington, J., Williams, F., Ashmore, F. (2017). The digital divide: Patterns, policy and scenarios for connecting the final few in rural communities across Great Britain, *Journal of Rural Studies*, 54, p. 387.

¹⁵ Scheerder, A., Deursen, A., Dijk, J. (2017). Determinants of Internet skills, uses and outcomes. A systematic review of the second-and third-level digital divide, *Telematics and Informatics*, 34, p. 1614.

¹⁶ Jesus, F., Vicente, M., Bacao, F., Oliveira, T. (2016). The education-related digital divide: An analysis for the EU-28, *Computers in Human Behaviour*, 56, 72–82.

¹⁷ Mumporeze, N., Prieler, M. (2017). Gender digital divide in Rwanda: A qualitative analysis of socioeconomic factors, *Telematics and Informatics*, 34, 1285–1293.

the benefits the Internet provides, researchers *Blank* and his colleagues¹⁸ have suggested that there has been a shift of focus from digital divides to digital inequalities – such an aspect is of great importance in many countries including Latvia. The determinants showing this focus are as follows: digital skills and literacy, the autonomy of users when accessing the Internet, the social support available to those wanting to use the Internet, and the extent to which the individuals are integrated into so-called “techno-culture”.

Empirical research results

In order to get a broader view of the challenges and problems of digitalization, different data sourced were used in this research – Digital Society and Economy index (DESI), The European Union Statistics on Income and Living Conditions (EU-SILC) and survey “Shopping Habits in the Internet in 2017 in Latvia”.

Digital Society and Economy index (DESI) is a composite index that summarises some 30 relevant indicators on Europe’s digital performance and tracks the evolution of EU Member States, across five main dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology, Digital Public Services (Eurostat, 2019).

EU-SILC is the most complete harmonised survey on household income in Europe. EU-SILC survey is conducted annually in line with *Eurostat* methodology in all European Union countries. In order to acquire information four questionnaires were developed: Household Register, Household Questionnaire Form and Individual Questionnaire Form.

One of the main study objects of the EU-SILC is annual income of a household – their composition and level, in the 2017 sample size of the EU-SILC in the Republic of Latvia – 8 087 randomly selected respondents; Completed questionnaire sets were of 6014 households; individual interviews (persons) – 11 304; non-response rate of EU-SILC in Latvia was 25.6% (CSB of Republic of Latvia, 2019).

It is important that anonymised data sets are available in SPSS files for more detailed statistical data analysis – by statistical regions, by territories (cities or rural areas), by household size and by other indicators.

The survey “Shopping Habits in the Internet in 2017” was realised at the end of 2017 and beginning of 2018 in Latvia in co-operation with company *iMarketing*, University of Latvia and Chamber of Trade and Commerce of Latvia. The survey was located on one of the most popular internet

platforms in Latvia *inbox.lv*¹⁹ and randomly selected possible respondents were invited to fill the survey. It was ensured that each respondent can fill the survey only once. All data of the survey were obtained in SPSS to provide deep data analysis using indicators of descriptive statistics (arithmetic mean, mode, median, variance etc.), cross-tabulations, testing of statistical hypotheses and correlation analysis.

The sample of the survey consisted of 2513 responses. In Table 1 is included detailed information the demographic characteristics of the sample.

Table 1. Demographic characteristics of the respondents in survey on internet shopping in Latvia

		N	Percent
Gender	Female	878	62,9
	Male	518	37.1
Age	Under 18	26	1.8
	18–24	135	9.6
	25–34	357	25.3
	35–44	369	26.2
	45–54	324	23.0
	55–64	157	11.1
	65+	41	2.9
Region	Riga and the region of Riga	676	48.0
	Kurzeme district	222	15.8
	Latgale district	148	10.5
	Vidzeme district	214	15.2
	Zemgale district	147	10.4
The last time of purchase or order of a product or service online	Over the last 30 days	1343	63.4
	Two months ago	281	13.3
	Three months ago	108	5.1
	Six months ago	113	5.3
	I do not remember	273	12.9

Source: Authors calculations based on the survey in 2018, $n = 2513$

The sample of the survey consisted more of female respondents than male. The most represented age group was from 35 to 44 years (26.2%),

¹⁹ TOP 20 websites in February 2019 (in Latvia), Gemius. Available at: <https://www.gemius.lv/all-reader-news/gemius-publice-interneta-lapu-top-20-februari-2019.html> [viewed 30.03.2019.]

however also respondents from 25 to 34 years (25.3%) and from 45 to 54 years (23%) were represented properly. The least represented groups were under 18 years old (1.8%) and over 65 years old (2.9). Almost half of the respondents were from Riga or Riga region (48%), but the remaining respondents were evenly distributed in the other regions of Latvia. Most of the respondents had been shopping online in the last six months and only 12.9% did not remember the last time shopping online, but what is important – all respondents have been shopping online.

Digitalisation in the regions in EU

Since 2010, Digital Agenda for Europe aims to stimulate the European economy by ensuring that the digital single market delivers sustainable economic and social benefits as this digital economy is growing faster than any other industry²⁰. Digital Economy and Society index is a composite index that summarises relevant indicators on Europe's digital performance and tracks the evolution of EU member states in digital competitiveness since 2014.²¹ This index consists of five dimensions – connectivity, human capital, use of internet, integration of digital technology and digital public services. In 2019, in the connectivity dimension, Denmark has the highest score, followed by Luxembourg, the Netherlands, Sweden and Finland, but Greece, Croatia and Lithuania had the weakest performance in this dimension. In the Human capital dimension, Finland, Sweden, Luxembourg and Estonia obtained the highest scores. Bulgaria, Romania, Italy and Greece had the lowest ones. There are still large disparities across EU regarding the third dimension – use of internet. Denmark, the Netherlands, Sweden and Finland have the most active internet users, followed by the UK, Luxembourg, Estonia and Malta. Romania, Bulgaria and Greece are, by comparison, the least active. On Integration of digital technology, Ireland scored highest, followed by the Netherlands, Belgium and Denmark. In digital public services, Finland has the highest score, followed by Estonia, the Netherlands and Spain. More detailed results of Digital Economy and Society Index in European Union countries in 2019 are included in Figure 1.

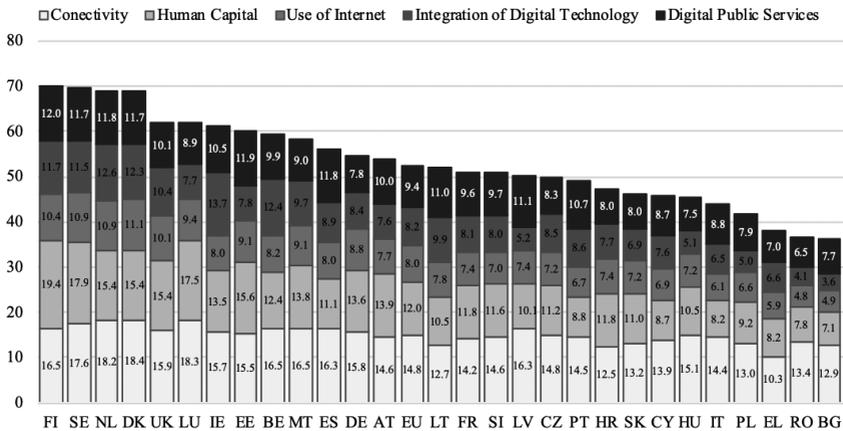


Figure 1. Digital Economy and Society Index in EU in 2018

Source: Authors construction based on data bases of Eurostat

The statistics shows that Finland, Sweden, the Netherlands and Denmark have the most advanced digital economies in the EU followed by the UK, Luxembourg, Ireland and Estonia. Bulgaria, Romania, Greece and Poland have the lowest scores on the index. Latvia is below average level of European Union, while Lithuania is above Latvia and still below EU average, but Estonia is far above the average level of EU. The connectivity dimension measures the deployment of broadband infrastructure (fixed broadband, mobile broadband) and its quality, access to fast and ultrafast broadband and prices. The situation in Latvia is at the same level as in Finland, Montenegro and Spain, and Latvia is in better position in connectivity than Lithuania and Estonia. The second dimension – human capital – measures the skills needed to take advantage of the possibilities offered by digital and Latvia is in relatively bad position comparing to Finland, Sweden, Luxembourg and even Estonia while Lithuania is in the same level; this data shows that internet user skills should be improved in Latvia. The third dimension is Use of Internet which accounts for a variety of online activities, such as the consumption of the online content (videos, music, games, etc.) video calls, as well as online shopping and banking. Also, in this dimension Latvia is below the EU average level and in the same level as France, Czech Republic and Croatia. The fourth is Integration of digital technology dimension, which measures the digitalisation of businesses and e-commerce. By adopting digital technologies, businesses can enhance efficiency, reduce costs and better engage customers and business partners. Furthermore, Internet as a sales outlet offers access to wider markets and potential for growth.

In this dimension Latvia is in one of the lowest levels in European Union followed only by Poland, Romania and Bulgaria while the situation in Lithuania is better than in Estonia. The last and fifth dimension Digital public services measure the digitalisation of public services, focusing on e-Government and e-Health where Latvia is above EU average level and is almost in the same level as Finland, Sweden, Netherlands, Denmark and Estonia. From these five dimensions Connectivity and Digital public services dimension are above EU average level, while such dimensions as Human Capital, Use of Internet and Integration of Digital Technology especially should be improved in following years.

Problems and challenges of digitalisation: the Case of Latvia

As Digital Economy and Society Index reflects that situation in Latvia is critical in such dimensions as Human Capital, Use of Internet and Integration of Digital Technology, the following research is devoted to indicate challenges and problems of these dimensions in detail in regions of Latvia.

The Central Statistical Bureau of Latvia has compiled a variety of e-skills in regions of Latvia, which are revealed in Table 2.

Table 2. E-skills in Regions in Latvia in 2017, %

	Transferring files between computers or other devices	Installing software or applications (apps)	Changing the settings of any software, including operational system or security programs	Copying or moving files or folders	Using word processing software	Creating presentations or documents integrating text, pictures, tables or charts	Using spread sheet software	Using advanced functions of spread sheet software to organise and analyse data	Using software to edit photos, video or audio files	Writing code in a programming language
Rīga	71.50	40.30	20.70	70.40	52.60	27.40	39.90	28.60	18.60	3.10
Pierīga	66.40	34.10	16.70	66.30	42.80	24.80	32.30	21.40	14.40	1.80
Vidzeme	61.40	29.30	11.10	61.00	39.70	25.30	24.80	17.00	13.30	1.50
Kurzeme	66.50	27.90	15.90	68.10	41.00	20.40	30.70	20.80	16.70	1.60
Zemgale	65.70	26.80	12.40	65.80	28.70	19.20	18.80	12.40	12.50	1.20
Latgale	56.10	24.10	14.80	55.40	36.20	22.00	22.80	11.80	11.50	0.90

Source: Authors construction based on data bases of CSB, Republic of Latvia

The statistics show that the best e-skills in all categories are in the Rīga region, followed by the Pierīga region. The lowest level of such e-skills as transferring files between computers or other devices, installing software or applications, copying or moving files or folders, using advanced functions of spread sheet software to organise and analyse data, using software to edit photos, video or audio files and writing code in a programming language is in Latgale region, while very bad skills of changing the settings of any software, including operational system or security programs are in Vidzeme region, but such e-skills as using word processing software, creating presentations or documents integrating text, pictures, tables or charts and using spread sheet software should be improved in Zemgale region.

According to the administrative breakdown, there are 6 regions in Latvia: Rīga, Pierīga, Vidzeme, Kurzeme, Zemgale and Latgale. Regional development is on great importance, because regions are developing unevenly in Latvia. Rīga and Pierīga region are developed better than the others, for example, Latgale region, which is facing serious economic development problems. Internet use by individuals in the regions of Latvia is revealed in Figure 2.

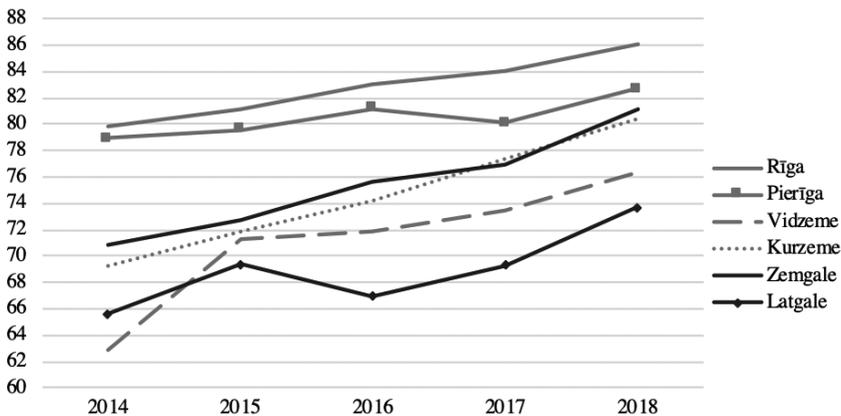


Figure 2. Internet use by individuals in regions of Latvia (%) in 2014–2017

Source: Authors construction based on data bases of CSB

Data included in Figure 2 show that internet use by individuals has been growing since 2014 in all regions in Latvia. The best situation is in the capital of Latvia – Rīga region – where internet use by individuals has been growing constantly since 2014. The second region more active region's inhabitants by internet use by individuals is Pierīga region

(the region around the capital of Latvia) where a decrease was observed only in 2017, but after that – an increase in 2018. Zemgale and Vidzeme region have experienced the fastest growth on Internet use since 2014, followed by Vidzeme region, but of special concern is about the Latgale region where the share of inhabitants on internet use by individuals is increasing, however, it is the lowest in the country.

The survey “Shopping habits on the Internet in 2017” has been researching reasons on internet use in Latvia and the main statistical indicators on respondent’s evaluations on use of the Internet are included in Table 3.

Table 3. Main statistical indicators on respondent’s evaluations on use of Internet in Latvia at the end of 2018

Statistical indicators	Work	Shopping	Use of Social Networks	Communication with friends, relatives	Read News	Search Information	Check e-mail	Watch Video	Manage payments
N	Valid	2166	2166	2166	2166	2166	2166	2166	2166
	Missing	0	0	0	0	0	0	0	0
Mean	7.16	6.86	8.47	7.91	7.76	8.83	8.76	7.70	8.62
Std. Error of Mean	0.069	0.059	0.053	0.056	0.055	0.043	0.049	0.056	0.056
Median	8	7	10	9	9	10	10	9	10
Mode	10	10	10	10	10	10	10	10	10
Std. Deviation	3.210	2.739	2.449	2.597	2.547	1.996	2.285	2.590	2.619
Variance	10.302	7.503	5.997	6.746	6.485	3.984	5.220	6.707	6.857
Range	9	9	9	9	9	9	9	9	9
Minimum	1	1	1	1	1	1	1	1	1
Maximum	10	10	10	10	10	10	10	10	10

Evaluation scale 1 – 10, where 1 – do not use; 10 – use very often

Source: Authors calculations based on survey in 2018, $n = 2166$

The results of the survey analysis indicate that most of respondents use internet, firstly, for searching information with rather large average evaluations (arithmetic mean, mode and median) by respondents and the smallest variability indicated by standard deviation and other indicators of variability, secondly, for checking e-mail with rather large average

evaluations (arithmetic mean, mode and median) by respondents and the rather small variability indicated by standard deviation and other indicators of variability and, thirdly, for managing payments. Respondents had different views as all evaluation scales 1–10 was used by respondents of the survey.

The lowest evaluations were on internet use in Latvia was used for shopping, which is different from many other developed countries. As this aspect is important in Digital Economy and Society Index and should be a seriously studied aspect as to why inhabitants in Latvia are so inactive on the use of internet for shopping – what are the main reasons of their concerns and what conditions have to be improved to be on the same wave as the developed world.

Distribution of responses on respondent's evaluations on the use of the Internet for shopping in Latvia is included in Table 4 where it is seen that rather big share of inhabitants in Latvia do not use Internet for shopping of use it very seldom.

Table 4. Distribution of responses on respondent's evaluations on use of Internet for Shopping in Latvia in 2017

Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
1	108	5.0	5.0	5.0
2	80	3.7	3.7	8.7
3	115	5.3	5.3	14.0
4	111	5.1	5.1	19.1
5	319	14.7	14.7	33.8
6	168	7.8	7.8	41.6
7	236	10.9	10.9	52.5
8	285	13.2	13.2	65.7
9	173	8.0	8.0	73.6
10	571	26.4	26.4	100.0
Total	2166	100.0	100.0	

Evaluation scale 1 – 10, where 1 – do not use; 10 – use very often

Source: Authors calculations based on survey in 2018, $n = 2166$

As the data included in Table 4 indicate that 5% of respondents do not use internet for shopping, but half of respondents gave an evaluation of 7 or less affirming that online shopping is not the primary activity consumers do online.

To better understand the situation households of Latvia are in the authors highlight not only reasons why people choose to use the internet, but also why people choose not to have access to the internet. The Central Statistical Bureau of Latvia has held a survey that allows identifying the main reasons why households choose not to have access to the Internet at home (Table 5).

Table 5. Reasons for not having access to the Internet at home at the beginning of 2019, % of households in Latvia

	Have access to Internet elsewhere	Don't need Internet	Equipment costs too high	Access costs too high	Lack of skills	Privacy or security concerns	Broadband internet is not available in our area	Other
Rīga region	1.3	6.7	1.9	1.4	2.6	0.3	0.0	2.6
Pierīga region	2.6	9.3	1.7	1.7	4.8	0.1	0.0	4.8
Vidzeme region	3.4	9.6	6.7	4.9	7.2	0.0	0.1	7.2
Kurzeme region	1.4	10.2	2.9	2.1	6.5	1.1	0.5	6.5
Zemgale region	1.9	6.7	6.0	5.2	8.4	1.3	0.7	8.4
Latgale region	2.0	14.4	6.5	4.5	6.9	0.2	0.6	6.9

Source: Central Statistical Bureau of Latvia

Data included in table 5 clearly state that the main reason for not having internet access at households is the inability to recognise its use and the value it could bring to the household. On average 9.5 percent of households have chosen that they don't need internet access. As the second greatest reason averaging 6.1 percent of households is lack of skills. And only the third greatest reason averaging 4.3 percent of households is high equipment costs.

The authors highlight that data of table 5 is another proof that the situations in different regions are not the same. Therefore, to solve the issues related to digitalization and sustain steady and equal digitalization it would be best to use a personalised approach to each region – in such a way addressing the greatest obstacles and opportunities of digitization in each region.

Conclusions

1. Digitalisation and development of digitalisation skills is becoming more and more important to be competitive and to survive in digitalised world. It makes for numerous topics for academic research world-wide.
2. Application of digitalisation skills is very different in many countries, also in Latvia there are differences in Internet use in regions in Latvia.
3. Among all five dimensions in Digital Economy and Society Index Latvia scores best in e-government as well as in connectivity – Latvia is well equipped with very high-speed fixed network infrastructure, has near-complete 4G coverage of households, and is prepared for 5G deployment. Digital skills in Latvia needs to be seriously improved as they are below EU average and without relevant progress. Higher level of digital skills is needed to make the national labour market more inclusive and to improve business productivity, because on Integration of digital technology dimension Latvia ranks 24th among EU countries. It is important to raise awareness of importance of digitalization in small and medium enterprises as there is a big potential for e-commerce in Latvia.
4. E-skills in regions of Latvia are very different – the best e-skills are in Riga and Pierīga region, while low level of e-skills is in Latgale and Zemgale region. Public administrators could suggest different e-skills improvement possibilities and manage joint work of education providers on offering life-long education programs for e-skills improvement.
5. In 2019, three main reasons for not having internet access at households in Latvia are no need for internet, lack of skills and high equipment costs. Each of which would require different solutions to be improved.
6. Different regions are not the same in their level of digitalization, and most important aspects of digitalization vary in each region. To address the greatest obstacles and opportunities of digitalization in each region it would best to use a personalised approach in targeting each region.

REFERENCES

- Blank, G., Grosej, D. (2015). Examining Internet use through a Weberian lens, *International Journal of Communication*, 9, 2763–2783.
- Bokek-Cohen, Y. (2018). Conceptualizing employees' digital skills as signals delivered to employers, *International Journal of Organization Theory & Behaviour*, 21(1), 17–27.
- Cismaru, D., Gazzola, P., Ciochina, R., Leovaridis, C. (2018). The rise of digital intelligence: challenges for public relations education and practices, *Kybernetes*, 47(10), 1924–1940.

- Eurostat, (2019). ICT Specialists by Employment. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/ICT_specialists_in_employment#Number_of_ICT_specialists [Accessed 20.11.2019.]
- Jesus, F., Vicente, M., Bacao, F., Oliviera, T. (2016). The education-related digital divide: An analysis for the EU-28, *Computers in Human Behaviour*, 56, 72–82.
- Laar, E., Deursen, A., Dijk, J., Haan, J. (2019). Determinants of 21st-century digital skills: A large-scale survey among working professionals. *Computers in Human Behaviour*, 100, 93–104.
- Mumporeze, N., Prieler, M. (2017). Gender digital divide in Rwanda: A qualitative analysis of socioeconomic factors, *Telematics and Informatics*, 34, 1285–1293.
- Oberlander, M., Beinicke, A., Bipp, T. (2020). Digital competencies: A review of the literature and applications in the workplace, *Computers & Education*, 146, 103752, <https://doi.org/10.1016/j.compedu.2019.103752>
- Philip, L., Cottrill, C., Farrington, J., Williams, F., Ashmore, F. (2017). The digital divide: Patterns, policy and scenarios for connecting the final few in rural communities across Great Britain, *Journal of Rural Studies*, 54, 386–398.
- Scheerder, A., Deursen, A., Dijk, J. (2017). Determinants of Internet skills, uses and outcomes. A systematic review of the second-and third-level digital divide, *Telematics and Informatics*, 34, 1607–1624.
- Siddiq, F., Scherer, R., Tondeur, J. (2016). Teachers' emphasis on developing student's digital information and communication skills (TEDDICS): A new construct in 21st century education, *Computers & Educations*, 92–93, 1–14.
- TOP 20 websites in August 2019, Gemius. Available at: <https://www.gemius.lv/reklamdeveji-zinas/gemius-publice-interneta-lapu-top-20-augusta-topampievienojas-santalv.html> [Accessed 20.11.2019.]
- Ukwoma, S., Iwundu, N., Iwundu, I. (2016). Digital literacy skills possessed by students of UNN, implications for effective learning and performance, *New Library World*, 117(11/12), 702–720.
- Wang, J., Tigelaar, D., Admiraal, W. (2019). Connecting rural schools to quality education: Rural teachers' use of digital educational resources, *Computers in Human Behaviour*, 101, 68–76.
- World Economic Forum, (2019). The digital skills gap is widening fast. Here's how to bridge it. Available at: <https://www.weforum.org/agenda/2019/03/the-digital-skills-gap-is-widening-fast-heres-how-to-bridge-it/> [Accessed 20.11.2019.]
- Young, J. C. (2019). Rural digital geographies and new landscapes of social resilience. *Journal of Rural Studies*, 70, 66–74.
- Zarifa, D., Seward, B., Milian, R. P. (2019). Location, location, location: Examining the rural-urban skills gap in Canada, *Journal of Rural Studies*, 72, 252–263.

COMPANY MERGER AND ACQUISITIONS FINANCIAL RESULT EVALUATION

Kaspars Muceniaks

Mg. oec.

Abstract

The success of company merger and acquisition process can be seen in many ways, as it is highly dependent on how its performance is defined. Some authors say that executives and experts in the companies are most appropriate in explaining the success of the merger and merger, while comparing the initial goals with the post merger results. Others prefer accounting methods, while relying on pre- and post-merger ratio analysis. Finally, some authors prefer to measure merger and merger success by analysing statements and the resulting abnormal returns in stock markets. The aim of this article is to analyse what financial ratios affect mergers and acquisitions in Latvia. The scientific problem of the article is that impact of knowledge creation and company financial data after merger and acquisition deals has been not measured, lack of information about financial results. To reach the aims of the article scientific methods have been used such as literature review, comparable analyse, studies of statistics on merger un acquisition deal in Latvia. For data analysis there were used indicators of descriptive statistics, correlation analysis.

Keywords: Latvia, merger, acquisition, integration, financial ratio, EBITDA / Turnover, MA index

Introduction

The mergers and acquisitions (M&A) process is relevant for companies looking to expand their business and strengthen their market position. M&A are planned and implemented as a long-term strategy of the company rather than a short-term financial gain (Archibigi, 2002). When business leaders can no longer achieve their goals through internal growth, they often start mergers or takeovers (Recardo, Toterhi, 2015, Fiocco, 2016). Companies use the M&A process to increase financial stability and remain competitive in global markets (Sobolev, 2015).

There are various definitions of mergers and acquisitions in the literature, and a breakdown of these processes. Many authors (Capron, Haleblan, Devers, McNamara, Carpenter, Davison) define the terms “merger” and “acquisition” in the context of strategic business. The difference between the two terms is manifested in integration and time. With the purchase, the buyer takes the lead in deciding the fate and structure of the business.

Changes resulting from the purchase (depending on the circumstances) are usually implemented quickly and autocratically. A business combination is the combination of two or more independent market participants, to become a single market participant or to gain decisive influence over other market participants. Mergers can be considered when two separate companies decide to continue operating in one organization. Business combinations can take the following forms:

- equal merger, when two similar companies decide to continue working together as a new, single company; and
- unequal merger, when two or more companies are merged, offering the owners of one company securities (shares) in the combined company as a reward for relinquishing control of their company (Damodaran, 2001).

A business acquisition is a type of transaction in which one company takes over the complete management of another company through a purchase transaction, with the aim of making the other a subsidiary or incorporating it into its current business. In the course of an acquisition, the shares or assets of one company are transferred to another by way of sale. An effective takeover strategy ensures significant company growth (Ashon, Cook, Schmitz, 2003). The author shares the view of J. E. Ashon and F. Cook that most companies use a takeover strategy to improve their business and reduce costs. Therefore, the author emphasises that a company that wants to succeed in its operations needs an easy-to-use method to help it manage the merger and acquisition process.

Taking over the content of its execution can be both “friendly” and “unfriendly”:

- friendly takeover – management of the takeover object agrees to the takeover transaction and the company shares are transferred to the acquiring company; and/or
- unfriendly takeover – the company tries to buy another company, despite the fact that the (target) company (including the company management) does not agree to such a transaction (Damodaran, 2001).

Company merger and acquisition strategy types

The environment in which a company operates is dynamic, influenced by the strategies of the companies and their design. The strategy formulation and management process are an endlessly integrated process that requires continuous evaluation and necessary adjustments. The following can be used to merge and take over a business: horizontal integration, vertical integration, tied or unrelated diversification.

The horizontal integration transaction brings together companies in the industry that are direct competitors in the product and market segment. Horizontal company integrations can lead to productivity gains, especially when companies are similar, but some of their different resources are complementary (Kapoor, Lim, 2007). Horizontal integration reduces company costs, industry competition, buyer and supplier strength.

In a vertical integration transaction, the customer and the manufacturer or the supplier and the manufacturer are united. This can happen through the merger of two or more companies, as well as new business start-ups. Vertical integration is the acquisition of a supplier or distributor of one or more goods and services of an undertaking (Gabrielsen, 2003). Vertical integration is used to grow and gain a larger market. Companies often use vertical and horizontal integration to gain additional market power (Haleblian, Devers, McNamara, Carpenter, Davison, 2009, Lui, 2016).

Vertical integration is divided into flow integration and backflow integration (Fiocco, 2016). The company that makes the decision to implement vertical integration is usually interested in increasing its competitiveness in its core business. One of the benefits of using this strategy is the ability to create entry barriers to overcome for newcomers to the industry. If the company integrates in the upstream direction, it acquires control over the most important raw materials, but in the case of downstream integration, the company acquires control over the distribution channels. This in turn reduces competition in the industry and allows the company to maintain higher sales prices and higher profits.

In Latvia, the horizontal mode of integration is used more and more by combining companies operating in the same sector and competing with similar products and similar market strategy. The main goal of the merger is to keep costs as low as possible, eliminating a number of duplicate functions and saving on redundancies. Significant savings are achieved by reducing marketing and advertising costs. Examples of horizontal mergers include Amber Beverage Group and Interbaltija AG (the largest Latvian companies in the Top 500 for 2016, 2017). Horizontal mergers by merging competitors may lead to monopoly or excessive business concentration. This possibility is reduced by the condition that merger transactions in Latvia require the permission of the Competition Council.

In the case of vertical integration, the company chooses to add companies that offer goods or services closer to inputs or consumers. This combination helps the company to better control the entire so-called value chain – from the raw material to the moment the product reaches the consumer. Such a merger model was chosen by SIA Latvijas mobilais telefons and SIA Zetcom (the largest Latvian companies in the Top 500 for 2007, 2008). From Zetcom SIA this deal was profitable – new services,

wider technical solutions, possibility to offer lower tariffs to customers. A potentially similar service, as developed by Zetcom, could also have been created by Latvijas Mobilais Telefons, but in this case, preference was given to the acquisition of a ready-made company, thereby significantly reducing the time needed to develop a new line of business. distribution market. Vertical integration has also taken place in the production and marketing of alcoholic beverages, with manufacturers seeking to increase their influence in the distribution of beverages. The other trend is the regional consolidation of these distribution chains. There are several examples of such processes: In 2007, S.P.I. Group obtained permission from the Latvian Competition Council to merge AV&D and Interlat, which had been acquired by S.P.I. Group subsidiary S.P.I. Worldwide Trade Limited (the largest Latvian companies in the Top 500 for 2007, 2008), the Estonian company Liviko in 2007 acquired the Latvian wholesaler L.I.O.N. & Co (Latvia's largest companies in the Top 500 for 2007, 2008). Vertical bundling in the form of a merger of suppliers and customers can close the market to potential competitors.

Expanding bundling occurs when firms that offer the same product, but in different markets (for example, geographically), and product bundling when firms that offer different, but related products in the same market.

There is also the possibility of merging with a company operating in another industry and not related to the current business – diversification. Such deals do not give companies the opportunity to win new clients or control a larger market share – they can be done to reduce the volatility of riskier line of business with a more stable line of business (real estate leasing).

Changes in the business environment make it necessary to look for new ways and means to enhance the competitiveness of businesses and to gain the advantages of being more competitive. Several authors, for example, K. H. Heimerik, M. Schijven, S. Gates (Heimerik, Schijven, Gates, 2012), M. Hitt (Hitt, 2001), A. M. McGahan (2004) believes that competitiveness benefits from a number of factors:

- making the best use of the resources available to the company;
- ability to react promptly to changes in market demand;
- ability to react promptly to changes in technology; and
- Adequate set of capabilities and resources of the company that set it apart from its competitors.

According to M. Porters, the competitive advantage of a company is mainly due to the position stability of a company that offers interchangeable goods and services (Mav\utova, 2010). Prahalada and Hamel emphasised the importance of the company's different skills in creating a competitive advantage and the role of management in the process. K. Prahalad and G. Hamel put forward three main theses. First, a competitive advan-

tage depends on the ability of a company to develop the key competences that will underpin the development of innovative products at a faster and lower cost than its competitors. Second, it is necessary to establish a link between one or more company skills and the end product. Third, business management must pay close attention to strategy development and implementation. The aim of the strategy is to determine what key competences a company should develop (Volvenkins, 2012). Optimal use and development of the company's internal resources contributes to the development of core competencies, providing competitive advantages and, together with them, long-term profitability of the company (Mavļutova, 2010). Barney (2006) looks at two perspectives on analysis – internal and external. An internal perspective analyses the resources (both tangible and intangible) and skills available to a company to develop its core competencies to provide a competitive advantage over competing market players. The external perspective can be divided into three types of strategic analysis: general analysis, industry (market) analysis and competitor analysis. In contrast, Caune said that “a competitive advantage is the value-creating activities and resources of a company that provide asset returns above the industry average and can sustain them for many years” (Volvenkins, 2012).

Some companies use takeovers to increase their growth rate compared to their competitors. If such a company successfully executes the transaction, it gives the company an advantage over its competitors in terms of market power and position (McNamara, Haleblan, Dykes, 2008). Takeovers provide much faster growth and thus easier entry into new markets. Sometimes organic growth can provide greater long-term value (Lee, Lieberman, 2010).

Acquiring the knowledge of the acquiring company and developing its capacity are additional reasons for the willingness to take over other organisations. These companies often have employees with unique skills, organisational technology or knowledge that the other company can only gain as a result of the first takeover. Acquisition of knowledge by takeovers is often reflected in cross-border takeovers (Lin, Peng, Yang, Sun, 2009). Although acquiring companies may acquire knowledge in various fields, they are usually related to the relevant market (for example, customers, distributors, suppliers and national binding legislation) (Chen, 2008).

In a competitive environment, some takeovers are used to diversify their business, thus reducing their dependence on a highly competitive market. Companies carry out takeovers to gain tax relief or to reduce the risk associated with doing business (Miller, Le Breton-Miller, Lester, 2010).

The author emphasises that companies use takeovers for various reasons. The takeover allows the acquiring company to reduce competition

in the industry by reducing duplication through integration. The merger is important for companies looking to expand their business and strengthen their market position. Unlike in the case of a takeover, one company buys another, there is no exchange of shares or merger into a new company. A vertical merger transaction (i.e., supplier-customer merger) can resolve a number of coordination and pricing policy issues. Conversely, the benefits of a horizontal merger between two competitors may be reduced competition in the relevant market, as well as cost savings from merging companies' R & D divisions, merging their sales divisions and making more efficient use of previously underutilised equipment.

The presence of M&A as a strategic tool to – among other things – gain competitive advantage, penetrate new markets, create synergies. Theoretically one of the main reasons for the seemingly low success rate can be attributed to inadequate measurement of M&A performance. The first reason being executives might pursue their own personal agenda instead of the shareholders' resulting in value destruction. The second suggestion offered is that practitioners might be unaware of theoretical findings and insights provided by research. However, this is not as promising as they conclude that there is both an abundance of risk associated with M&As in the financial press, as well as high availability of literature oriented towards practitioners.

The changing environment poses a challenge to every business, whether it is public or private, with the greatest likelihood of success being the one who will use new methods. Businesses have alternative development options, but one option must be chosen from all options.

Financial gains in merger and acquisition process

Mergers and acquisitions over the past 40 years have generated considerable interest and generated demand for strategic literature, focusing on the strategic and organisational compatibility of companies, as well as the management of mergers and acquisitions themselves. Despite the popularity and visibility of this type of transaction, one of the most interesting findings of merger and acquisition studies is that the merger has not delivered the expected result. The outcome of a merger or acquisition can be evaluated from various perspectives, such as whether the transaction has resulted in a profit for the company's shareholders. One of the calculation criteria is profitability, which can be measured and measured in the short or long term.

The measurement of the business of a merged or acquired entity is carried out by comparing the accounting data before and after the transaction (for a period of at least 3 years) and by comparing the accounting data on

turnover and profits. Process of mergers and acquisitions has identified an important aspect to consider in order to establish a successful merger and acquisition.

Today's business strategy is based on plans and actions designed to help companies compete successfully in their industry. Its mission is to help companies achieve and exploit their competitive advantage. Strategic planning, on the other hand, must ensure the long-term development of the company and high economic growth rates. Company strategy is an important element that helps to focus the efforts to achieve goals and has a long-term character. In turn, in the process of strategy planning, the company develops possible actions and receives an answer on how to move forward.

Scientific papers analysed by the author show that financial statements data can be used to determine the activities of a company by calculating, comparing, combining and interpreting various absolute and relative indicators. One of the simplest methods of financial analysis for assessing financial stability is the horizontal method of analysis – studying changes in the absolute ratios of a company's financial statements (balance sheet, profit and loss statement, cash flow statement). Significant changes in the key financial statement items have a significant impact on the financial stability of the company. In order to carry out due diligence of the financial ratios of Latvian companies, as well as to reasonably select the variables of the model to be used, the author considers it necessary to calculate and investigate the correlation of indicators showing the closeness of correlation between two related variables. In order to determine the correlation between the company's financial performance, the author calculated the correlation coefficients, and in order to obtain a statistically significant rating interval for the correlation coefficient, both variables must correspond to the normal distribution. However, as mentioned in the previous section, this is not the case. Therefore, these ranges were not calculated and the correlation coefficients only give insight into the possible relationships and trends of the cash flow.

Regression analysis was used to show the regularities of these parameters. The obtained data were processed with Microsoft Office Excel and SPSS programs. Multivariate regressions were performed on data processing using the standard least squares (Ordinary Least Squares) method. This method minimises the sum of the squares of distance in the observed measurements. In total, 21 regressions were performed: one for each firm over several years of operation. Note that there are only 21 measurements in total, which is the minimum number of observations to ensure a normal distribution. Accordingly, due to the limited amount of data, regressions may not produce statistically significant results. In addition, it is also

noted that the models that will be used in the regression analysis are not specifically designed to explain all fluctuations in the psychological factor, but to find correlations and to provide an overview of the performance of physical tasks.

Due to the large number of variables, a list of financial variables with potentially 22 variable ratios was used for the study. Based on the results of the study, it was concluded that several financial ratios indicate the performance of the company. The result of the detection model depends on the choice of indicators, so the correct choice of indicators provides the possibility to form a precisely working model. Various financial ratios were selected for analysis. All analysed financial ratios were divided into four groups according to their importance:

1. Liquidity;
2. Profitability;
3. Solvency; and
4. Activity.

The M&A model is modelled on the principle that at least one factor is selected from each set of ratios that exhibits the most significant difference between related and unrelated companies in the merger process. The following procedures were performed to arrive at the variables in the equation:

1. Observation of statistical significance for various alternative functions, including each independent variable;
2. Evaluation of the correlation between the relevant variables; and
3. Accuracy of observation forecasts between different profiles.

The author believes that it is important to find out what factors affect company merger and acquisition results, how high the company's EBITDA is, and how companies with high and low levels can be classified according to a regression function.

The following indicators are used in the following study:

- y – EBITDA / turnover;
- x_1 – gross profit margin ratio;
- x_2 – profitability before interest payments;
- x_3 – profitability ratio of taxable profit;
- x_4 – commercial profitability indicator;
- x_5 – return on assets ratio;
- x_6 – return on equity;
- x_7 – return on equity;
- x_8 – turnover of assets;
- x_9 – turnover of fixed assets;
- x_{10} – current assets turnover ratio;
- x_{11} – total liquidity ratio;

- x12 – current liquidity ratio;
- x13 – absolute liquidity ratio;
- x14- EBITDA / assets;
- x15 – equity / liabilities; and
- x16 – Turnover / Assets.

By performing a correlation analysis of the raw data, the dependent variable y – EBITDA / turnover with the independent variables analysed is statistically significant with significance levels of 0.05 and 0.01, resulting in a correlation coefficient matrix in which the correlation coefficients for the dependent variable with the relevant independent variables excluded are statistically significant.

The measurement of the financial results of a business combination is closely linked to the assessment of the significance of financial ratios. If the variable is EBITDA / turnover, there is a strong positive statistically significant relationship between the pre-interest profit margin, the after-tax profit margin and the commercial profitability ratio, the return on assets ratio and the EBITDA / assets valuation.

Higher EBITDA / Turnover Ratio is associated with higher average financial ratios for profit before interest, taxable profit and commercial profitability, Return on Assets, and EBITDA / Assets as evidenced by Pearson correlation coefficient values, which are statistically significant probability.

Multivariate regression analysis was used to assess the dependency of the financial results of M&A. There is a correlation between the selected factors, which may influence the accuracy of the solution, but estimation of the correlation coefficients using inequalities: $r_{oi} > r_{ij}$; $r_{oj} > r_{ij}$; $r_{ok} > r_{ik}$; $r_{ok} > r_{jk}$; where o – performance indicator (EBITDA / turnover ratio estimate), i, j, k – factorial indicators (significance of profit before interest, taxable profit and commercial profitability, return on assets and significance of EBITDA / assets), Since the correlation of the factorial features with the performance trait is closer than the correlation between the factors, therefore, it is useful to include the selected factors in the regression model, there is no multicollinearity between the factorial features.

Selecting only those variables for which the EBITDA / Turnover correlation coefficient is statistically significant with significance level 0.05 and 0.01, the following result is obtained: In the Model Summary block of Model Summary, the author found that the coefficient of determination (R Square) equals 0.862, indicating that 86.2% of the variance in the performance attribute is explained by the factors included in the regression equation (profit before interest profit margin (x2), taxable profit margin (x3) and commercial profitability (x4) , Return on Assets (x5) and EBITDA / Assets (x14),

Thus, the linear regression model by which to forecast EBITDA / Turnover values looks like this:

$$y_t = 0.956x_{2,t} + 0.108x_{14,t} + 0.011 \quad (1.)$$

where y_t – EBITDA / turnover at time t ;

x_2, t – profitability ratio before interest payments at time t ;

$x_{14, t}$ – EBITDA / assets at time t .

The linear regression analysis included all 17 variables, of which the dependent y was EBITDA / turnover. In the linear regression analysis, the following results were obtained in the SPSS program: In the first statistical block of Model Summary we find that the resulting linear regression model – 89.5% of the variance of the result variable is explained by the factors included in the regression equation (gross profit margin (x_1) profitability ratio (x_2), taxable profit margin (x_3) and commercial profitability (x_4), return on assets (x_5), return on equity (x_6), return on equity (x_7), return on assets (x_9), working capital ratio (x_{10}), total liquidity ratio (x_{11}), current liquidity ratio (x_{12}), absolute liquidity ratio (x_{13}), EBITDA / assets (x_{14}), equity / liabilities (x_{15}) and turnover / assets (x_{16}) (R Square = 0.895).

Analysing the parametric statistics of the optimized models, the author concludes that the best model with as many variables as possible and without the problem of multicollinearity (VIF <5) is as follows:

$$y_t = 0.932x_{2,t} + 0.001x_{7,t} - 0.012x_{12,t} + 0.074x_{14,t} + 0.007 \quad (2.)$$

EBITDA / Turnover (y) is impacted by profitability before interest payments (x_2), return on equity (x_7), current liquidity ratio (x_{12}) and EBITDA / assets (x_{14}). The gross margin ratio (x_1) does not participate in any optimized model.

As a result of the merger, the EBITDA to turnover ratio is increasing. Based on the above analysis, it is possible to formulate a number of factors affecting a company's EBITDA:

1. Net Turnover Growth: Turnover growth rate, usually expressed as a percentage of the prior period, is one of the first things that creditors, executives and professional financial analysts pay attention to when evaluating a company's business. The reason is simple – sales revenue affects virtually all other metrics. If the other variables remain constant, significant changes in net turnover will have an impact on both the company's balance sheet and profit and loss account.

2. Profitability before interest payments: Profit before interest payments is the sum of the profitability of an activity, excluding interest payments and taxes.
3. Return on Equity: Shows the return on each euro invested by the owners in the equity of the company. This way one can compare returns with other potential types of investment.
4. Current Liquidity Ratio: Reflects the ratio of the company's current assets (excluding inventories) to current liabilities. A higher ratio indicates a higher level of liquidity (greater ability to meet a company's current liabilities). A ratio of 1.0 indicates that the carrying amount of current assets is exactly the carrying amount of the present liability.
5. EBITDA / Assets: Return on total assets is the ratio that measures EBITDA on a company's total net assets. The ratio is considered as an indicator of how effectively a company uses its assets to generate income.

Conclusions

With the business performance measurement model, investors can evaluate the companies they intend to invest in. Those companies whose MA (Merger & Acquisition) index was much higher than the critical value have higher financial performance while those whose MA index is below critical have financial problems and need shareholder financial support. The M&A model is a likelihood model that uses aggregated data and averages, so in some cases, the calculated MA index may not be consistent with firms in another industry. The author suggests calculating the recommended financial ratios and comparing them with industry averages, as the firm's operating efficiency and the factors affecting that efficiency are associated with certain regularities.

A high MA index demonstrates that well-organised management processes allow a company to be more efficient, productive and thus more competitive, which is essential in today's circumstances. The company manager needs to identify tasks that can increase the long-term performance of the company.

The concepts of "merger" and "takeover" differ in the integration process and over time. Horizontal integration is characteristic of mergers and acquisitions in Latvia. Risk factors in the management of the process of mergers and acquisitions are the significant difference between the planned activities and the activities actually performed, the lack of a unified methodology for the integration of the merged and the acquired company, decisions of the manager (owner), lack of cooperation between

employees. Companies have different goals and objectives, however, the strategy of the merged and the acquired companies must be related to the mission, goals and operations of the combined company, thus becoming part of the strategic planning process of the company. Businesses planning to expand through acquisitions and acquisitions, use the author's merger and acquisition management process, define their corporate strategies for 3, 5 and 10 years, base their calculations on an analysis of prior period accounting, create a team, which will help the company achieve its goals.

REFERENCES

- Archibigi, D., Lundvall, B. A. (eds.). (2002). The globalizing learning economy. Oxford: Oxford University Press, pp. 307.
- Ashon, J. E., Cook, F. X. Jr. & Schmitz, P. (2003). Uncovering hidden value in a midsize manufacturing company. *Harvard Business Review*, 81 (6), pp. 4–12.
- Barney, J. B. (2006). Gaining and Sustaining Competitive Advantage. 3rd Revised edition. Upper Saddle River, NJ: Prentice-Hall, pp. 555.
- Capron, L., Guillen, M. (2009). National corporate governance institutions and post-acquisition target reorganization. *Strategic Management Journal*, 30, pp. 803–833.
- Chen, S. F. (2008). The motives for international acquisitions: Capability procurements, strategic considerations, and the role of ownership structures. *Journal of International Business Studies*, pp. 454–471.
- Damodaran, A. (2001). Corporate finance: theory and practice. Second edition. New York: John Wiley & Sons, pp. 982.
- Fiocco, R. (2016). The strategic value of partial vertical integration. *Proceedings: Ioannina Meeting on Applied Economics & Finance*, pp. 150–151.
- Gabrielsen, T. S. (2003). Conglomerate mergers: Vertical mergers in disguise? *International Journal of the Economics of Business*, pp. 1–16.
- Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions. A Review and Research Agenda, *Journal of Management*, pp. 469–502.
- Heimeriks, K. H., Schijven, M., Gates, S. (2012). Manifestations of Higher-Order Routines: The Underlying Mechanisms of Deliberate Learning in the Context of Post-acquisition Integration. *Academy of Management*, pp. 703–726.
- Hitt, M., Ireland, R. D., Hoskisson, R. E. (2001). Strategic Management edition 4. United States: South-Western College Publishing, pp. 668.
- Kapoor, R., Lim, K. (2007). The impact of acquisitions on the productivity of inventors at semiconductor firms. A synthesis of knowledge-based and incentive-based perspectives. *Academy of Management Journal*, pp. 1133–1155.
- Laikraksts *Dienas Bizness*. (2008). Latvijas lielākie uzņēmumi, Top 500 par 2007. gadu, pp. 216.
- Laikraksts *Dienas Bizness*. (2017). Latvijas lielākie uzņēmumi, Top 500 par 2016. gadu, pp. 215.

- Lee, G. K., Lieberman. (2010). Acquisitions vs. internal development as modes of market entry. *Strategic Management Journal*, pp. 140–158.
- Lin, Z., Peng, M. W., Yang, H., Sun, S. L. (2009). How do networks and learning drive M&As? An institutional comparison between China and the United States. *Strategic Management Journal*, pp. 1113–1132.
- Liu, X. (2016). Vertical integration and innovation. *International Journal of Industrial Organization*, pp. 88–120.
- Mavļutova, I. (2010). Uzņēmuma tirgus vērtības paaugstināšanas iespējas restrukturizācijas rezultātā. Promocijas darbs. Rīga. Latvijas Universitāte, pp. 154.
- McGahan, A. M. (2004). How industries evolve. Boston: Harvard Business School Publishing Corporation, pp. 243.
- McNamara, G. M., Halebian, J., Dykes, B. J. (2008). The performance implications of participating in an acquisition wave: Early mover advantages, bandwagon effects, and the moderating influence of industry characteristics and acquirer tactics. *Academy of Management Journal*, pp. 113–130.
- Miller, D., Le Breton-Miller, I., Lester, R. H. (2010). Family ownership and acquisition behaviour in publicly-traded companies. *Strategic Management Journal*, pp. 201–223.
- Recardo, R. J., Toterhi, T. (2015). Strategic Integration: How to Realize the Value of an Acquisition. *Global Business & Organizational Excellence*, pp. 6–22.
- Sobolev, L. (2015). Horizontal integration or conglomeration? *Economic Analysis*, pp. 2–11.
- Volvenkins, S. (2012). Mazo un vidējo uzņēmumu konkurētspējīgu priekšrocību radīšana un virzīšana tirgū, izmantojot mārketinga instrumentus interneta vidē. Promocijas darbs. Rīga, pp. 192.

LEADERSHIP GOES BEYOND MANAGEMENT

Matthias Kretschmar

Dipl. Kfm.

Abstract

The perception that *leadership goes beyond management* is discussed in this article based upon the different perspectives on the difference between leadership and management in the literature. This article will develop a *bidimensional perspective on leadership and management with an intersection between the two constructs*. Key to the distinction between leadership and management are the different perspectives on change in an organisation. Leadership focuses on fundamental change whereas management is more centred upon incremental change of an organisation. In that sense, leadership goes beyond management and management is a complement to leadership in an organisation. However, it must be borne in mind that there are many overlaps between management and leadership and a boundary between change management of a leader and a manager cannot be strictly drawn. This is beneficial for managers who can add leadership skills to their managerial know-how before they will assume a leadership position in an organisation.

Keywords: Leadership, Management, Organisational Change

Introduction

There is an ongoing controversy in the literature about the difference between leadership and management and the overlap of these two terms. Some perceptions of leadership and management postulated in the literature allow the conclusion that *management goes beyond leadership*, others deny that there is a difference between leadership and management. This gives rise to the question if there is a permeability between management and leadership or if they are just opposing concepts.

Managers and leaders influence and give directions to people working for an organisation in order to achieve the organisation's objectives. Both initiate changes, but their approach on change management is different as their focuses vary between a predominantly transactional management and a rather transformational leadership. To some extent leadership and management are complementary as transformation cannot be initiated without transactional know-how and the controlling of transactions requires a certain knowledge about transformation. As will be seen in this article, leadership and management can therefore be regarded as bidimensional and intersecting constructs. This also implies that for the long-term

success and even the survival of a company the transformational qualities of leadership, which go beyond management, are indispensable.

Leadership

The definition of leadership has undergone an evolutionary process over a very long time. Plato differentiated between “leading” and “execution”, meaning that knowing what to do and doing it are two different things. In modern times leadership concepts were extended to exerting influence and exercising domination.¹ Ever since the beginning, leadership has been regarded as the crucial factor for success (and failure). Vroom points out that “there are few problems of interest to behavioural scientists with as much apparent relevance to the problems of society as the study of leadership. The effective functioning of social systems is assumed to be dependent on the quality of their leadership. This assumption is reflected in our tendency to blame a football coach for a losing season or to credit a general for a military victory.”²

Leadership is defined by the respective researchers focusing on the phenomena, which are of most interest to them. It is therefore not astonishing that there are countless different definitions of leadership in literature. The perspectives of the definitions range from character traits, behaviours, influence, interaction patterns, role relationships to occupation of an administrative position.³

In Table 1 some of the most common definitions of leadership which evolved over the last decades are summarised. As can be seen, the definitions change their focus from directing, goal-oriented guidance functions towards definitions which encompass aspects of the creation of a company’s culture which is meaningful for the employees and which motivates and empowers the subordinates to participate in a change process.

In analogy to Dillerup & Stoi⁴ a recent definition of leadership, focusing on motivating and empowering aspects, can be summarised as the development of visions and strategies that give the company new directions. Leaders in that sense empower their subordinates to deliver outstanding performance in implementing change.

¹ Nienaber (2010), p. 662.

² Vroom (1976), p. 1527.

³ Yukl (2010), p. 20.

⁴ Dillerup & Stoi (2016), p. 681.

Table 1. Focus of Definitions of Leadership in Literature

Representative Definitions of Leadership in literature by publication date	Key Focus
Leadership is “the behaviour of an individual ... directing the activities of a group toward a shared goal” (Hemphill & Coons (1957), p. 7)	Give direction
Leadership is “the influential increment over and above mechanical compliance with the routine directives of the organisation” (Katz & Kahn, 1978), p. 528)	Influence an organisation
“Leadership is exercised when persons ... mobilize ... institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers” (Burns (1978), p. 18)	Motivate people
“Leadership is realized in the process whereby one or more individuals succeed in attempting to frame and define the reality of others” (Smircich & Morgan (1982), p. 258)	Frame peoples' reality
Leadership is “the process of influencing the activities of an organized group toward goal achievement” (Rauch & Behling (1984), p. 46)	Influence people
“Leadership is about articulating visions, embodying values, and creating the environment within which things can be accomplished” (Richards & Engle, (1986), p. 206)	Articulate visions and values, empower people
“Leadership is a process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose” (Jacobs & Jaques (1990), p. 281)	Give purpose and cause willing efforts of people
Leadership “is the ability to step outside the culture ... to start evolutionary change processes that are more adaptive.” (Schein (1992), p. 2)	Step outside the culture and initiate change processes
“Leadership is the process of making sense of what people are doing together so that people will understand and be committed” (Drath & Palus (1994), p. 4)	Give sense to create commitment
Leadership is “the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organisation” (House & Javidan (2004), p. 15)	Influence, motivate and enable people.

Source: table created by the author based upon the collection of representative definitions of leadership by Yukl (2010), p. 21

Management

The primary functions of management as first described by Fayol in 1916, are planning, organising, staffing, and controlling. These functions, which help to avoid chaos in organisations, still apply to modern management objectives. Management in that sense is a quite modern concept because it only evolved with the division of work in the industrialised world.⁵

⁵ Northouse (2016), p. 13.

“Management consists of the rational assessment of a situation and the systematic selection of goals and purposes ...; the systematic development of strategies to achieve those goals; the marshalling of the required resources; the rational design, organisation, direction, and control of the activities required to attain the selected purposes; and, finally, the motivating and rewarding of people to do the work.”⁶ The manager can be regarded as a “problem solver”⁷ in complex, industrialised organisations.

Kotter points out that management is about coping with complexity in modern organisations ensuring order and consistency by planning, organising, budgeting, coordinating and monitoring.⁸ In other words, “management is the ability to achieve objectives with the resources available, by maintaining the organisation in operation.”⁹

Different Views on Management and Leadership

Five Perspectives on Management and Leadership

As already outlined, there is a wide range of views on the distinguishing features and the similarities between management and leadership. Simonet & Tett worked out five different perspectives on leadership and management which have been developed in the literature:¹⁰

- The *bipolar* perspective is basically characterising managers and leaders as opposite sorts of people. Managers are problem solvers reacting to the past whereas leaders are inspiring, future driven and striving to initiate change.
- The *unidimensional* perspective does not make any difference between managers and leaders, in fact they are interchangeable. Both are accountable for motivating people, making decisions and giving direction.
- The *bidimensional* perspective regards leadership and management as distinct, but complementary. Both are indispensable for the organisation’s success and are part of a larger whole. They are potentially intersecting to a certain degree, but they still uniquely identifiable.
- The *hierarchical* perspectives either see *management as part (subset) of leadership* or *leadership as part (subset) of management*.

⁶ Levitt (1976), p. 73.

⁷ Zaleznik (1981), p. 25.

⁸ Kotter (2001), p. 86.

⁹ Young & Dulewicz (2008), p. 18.

¹⁰ cf. in the following: Simonet & Tett (2012), pp. 200–202.

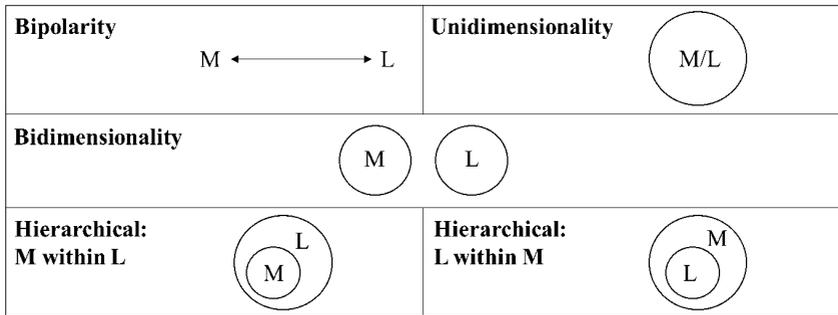


Figure 1. Five Perspectives on Management (M) and Leadership (L)

Source: Simonet & Tett (2012), p. 201

Examples of Applications of the Five Perspectives in Literature

Nienaber examined in a literature survey how the tasks or activities of management and leadership are presented in literature. For that purpose, she compiled tasks and activities which were mentioned in leadership and management literature and checked which were referred to in articles written by “management authors” and “leadership authors”. The findings of her literature review show that most of the management tasks overlap with leadership tasks. Management has a few additional tasks that are not shared by leadership.¹¹ In the sense of Simonet & Tett¹² this would be classified as a *hierarchical* view with leadership being a subset of management.

Toor & Ofori¹³ came to a different conclusion. They analysed the views of various authors on the difference between management and leadership. They found out in their study that on the one hand there are parallels between leadership and management, and leaders and managers. But on the other hand, modern organisations should leverage on the different leadership and management qualities and skills. Toor & Ofori state that conceptualisations of leadership and management can also be attributed to one person, like a leader with managerial capabilities or a manager with leadership qualities.¹⁴ This perspective is also reflected by Northouse saying that “when managers are involved in influencing a group to meet its goals, they are involved in leadership. When leaders are involved in planning,

¹¹ Nienaber (2010), pp. 661–675.

¹² Simonet & Tett, R. P. (2012), pp. 199–213.

¹³ Toor & Ofori (2008), pp. 61–71.

¹⁴ Ibid., p. 69.

organising, staffing, and controlling, they are involved in management.”¹⁵ This position can be described as *bidimensional* according to Simonet & Tett¹⁶ with a strong focus on the intersecting aspects between management and leadership.

Other authors make a rather *bipolar* distinction between the concepts of management and leadership qualifying them as quite dissimilar. “Leadership and management are two distinctive and complementary systems of action. Each has its own function and characteristic activities. Both are necessary for success in an increasingly complex and volatile business environment.”¹⁷

Kotter has worked out the key aspects that characterise the difference between leadership and management. Based on his finding that management is coping with the complexity of large organisations whereas leadership is coping with change¹⁸ the key functions of leaders and managers according to his concept can be derived as summarized in Table 2.

Table 2. Key Differences between Management and Leadership

Management: Coping with complexity	Leadership: Coping with change
<i>Planning and budgeting</i> Target setting, establishment of detailed plans and allocation of resources for the achievement of the targets	<i>Setting a direction</i> Development of a long-term vision and strategies for the achievement of the vision
<i>Organising and staffing</i> Creation and staffing of an organisational structure to achieve the plans, and monitoring of its implementation	<i>Aligning people</i> Communication of goals, seeking of commitment, creation of coalitions of people who share the vision
<i>Controlling and problem solving</i> Monitoring of the results in detail versus the plan, organizing to solve problems	<i>Motivating and inspiring</i> Inspiring despite obstacles of change appealing to values and emotions

Source: table created by the author based upon Kotter (2001), p. 86

This school of thought is often characterised by saying that “leaders are people who do the right thing; managers are people who do things

¹⁵ Northouse (2007), p. 15.

¹⁶ Simonet & Tett, R. P. (2012), pp. 199–213.

¹⁷ Kotter (2001), p. 85.

¹⁸ *Ibid.*, p. 86.

right.”¹⁹ Balancing the role of management and leadership in such an approach is critical to an organisation’s success.²⁰

Synoptic perspective on management and leadership

Adopting the bidimensional view, leadership has a strong foundation in management. The two approaches are complementary, e.g. when a leader is giving direction and inspiration with his or her visions and a manager implements and controls in his or her daily work the strategies postulated by the leader. However, there is a significant intersection between leadership and management which is not sufficiently emphasised by this concept. Managers and leaders have both also functions and qualities which are typically attributed to the other domain. One example is a manager who oversees a certain domain of a company whose CEO is a (visionary) leader. The manager is responsible for the correct realisation of the necessary steps to implement the CEO’s strategy. However, in his or her domain he or she might also initiate change and postulate sub-strategies. The CEO on the other hand also has managerial tasks, controlling the overall current business of the company. So, from the point of view of the author leadership and management are complementary and at the same time intersecting. The author therefore describes the relationship between management and leadership as *bidimensionality with intersection perspective on management and leadership*. This is to a certain extent in compliance with the view which has been outlined by Toor & Ofori.²¹

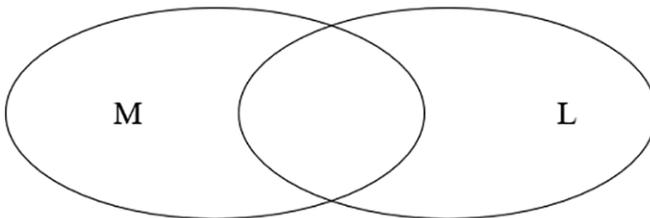


Figure 2. Bidimensionality with Intersection between Management (M) and Leadership (L)

Source: figure created by the author, based upon the five perspectives by Simonet & Tett (2012), p. 201

¹⁹ Bennis (2009), p. 198.

²⁰ Algahtani (2014), p. 78.

²¹ Toor & Ofori (2008), pp. 61–71.

The key indicator for the differentiation between a manager and a leader in this context is their role in organisational change which is discussed in the following.

The impact of leadership and management on organisational change

The key differentiation between people executing orders in a company and people who manage or lead is the difference in their impact on change in an organisation. Leaders and managers initiate change. Change is a precondition for the survival of nature, of societies as well as of organisations. Therefore, change can be regarded as an integral part of the DNA of every organisation. Accordingly, companies' behaviour, encompassing competitive moves, covers not only price, innovation and differentiation actions, but also first-mover advantages or the ability to compete with a repertoire of different competitive moves.²² Managers and leaders differ in the way they approach change.

Typologies of Change

There are two forms of change which can be observed in organisations. *Incremental change* is a continuous process of small step changes. The underlying values, attitudes and behaviours in the organisation remain unchanged. Ideally, the organisation manages this change process being a learning organisation.²³ *Fundamental change* on the other hand leads to a strategic realignment of the company. Such a change process can only be employed successfully if it is driven by high-quality leadership and not just excellent management.²⁴

A second dimension of change consists of reactive and anticipatory changes. *Reactive changes* are forced responses of the organisation to external events. *Anticipatory change* on the other hand is not the reaction on a contemporaneous event, but is initiated by the management in anticipation of events still to come in order to create competitive advantage.²⁵

Combining these two dimensions in a matrix, a *basic typology of change* can be developed which consists of rather transactional approaches (tuning and adaptation) and rather transformational approaches (re-orientation and re-creation) (see Figure 3).

²² May & Stahl (2017), p. 4451.

²³ Dillerup & Stoi (2016), p. 707.

²⁴ Kotter (1996), p. 20.

²⁵ Nadler & Tushman (1990), p. 79.

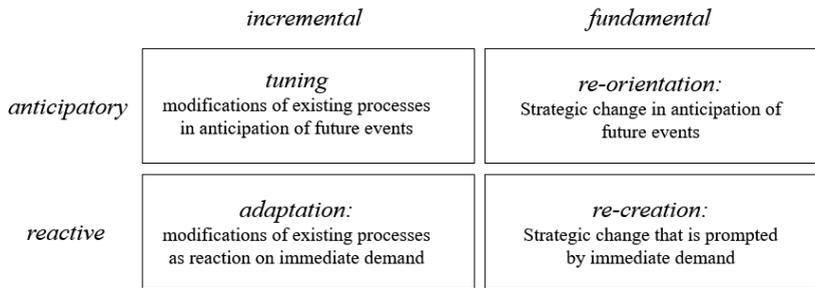


Figure 3. Basic Typology of Change

Source: modified after: Nadler, D.A., Tushman, M. L (1990), p. 80

Leadership and management in the context of change management

Although incremental change alters an organisation permanently and is important for the success of an organisation, it is the way fundamental change is treated in an organisation which determines its survival in the long run. A manager is more focused on incremental change. He or she modifies existing processes by anticipating future events, as well as reacting to immediate demand. The leader behaves complementarily by anticipating future developments and reacting to current challenges on strategic topics. Although the boundaries between management and leadership are fluid and overlapping, the core task of the leader is fundamental change which transforms the company for the long-term survival at the marketplace. Using the *typology of change*, the key tasks of management and leadership can be assigned in a way as shown in figure 4.

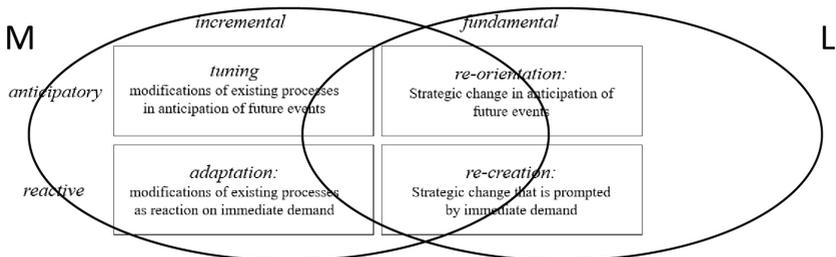


Figure 4. Management (M) and Leadership (L) Tasks with regard to of Change

Source: based upon Figure 3

Conclusion

Using the definition set out in this article, it is valid to say that leadership goes beyond management, but has a certain foundation in common, i.e. overlapping tasks and qualities which can be attributed to management and leadership. Leadership is focused on the fundamental, transformational changes in a company which is only partially the emphasis in a manager's job description. But as has been shown, the boundary between change management of a leader and a manager cannot be strictly drawn. A manager might adopt more and more leadership skills while he or she is working on a management position. He or she initiates change in the larger framework of change initiated by the leaders in the organisation. A manager who becomes a leader can rely on his or her management skills which will help him or her to be a much more efficient leader.

Outlook

This article has contributed to the discussion how management and leadership can be defined. *Change management* has been identified as the key differentiator between leadership and management. Leadership goes beyond management as leaders are initiating fundamental change. Further research could be conducted on the change criteria which are basically covered by leaders and the limitations of managers in these aspects.

But, as has been worked out in this article as well, there is a significant intersection between management and leadership, which is described by the *bidimensionality with intersection perspective on management and leadership*. The intersection which allows a certain permeability between the two concepts could be the starting point for further studies. A question might be how and if managers can be trained and developed to become leaders and if the handling of change situations by managers helps to identify those who qualify for becoming leaders.

A systematic view on the different other supporting aspects, like e.g. the question of complexity in decisions or their motivation, which might differentiate leaders and managers, could be conducted in further research based upon a *bidimensional perspective with intersection between management and leadership*.

REFERENCES

- Alghathani, A. (2014). Are Leadership and Management Different? A Review, *Journal of Management Policies and Practices*, 2(3), pp. 71–82.
- Bennis, W. (2009). *The essential Bennis*, San Francisco, Jossey-Bass.

- Burns, J. M. (1978). *Leadership*, New York, Harper & Row.
- Dillerup, R. & Stoi, R. (2016). *Unternehmensführung*, 5th ed., München, Vahlen.
- Drath, W. R. & Palus, C. J. (1994). *Making common sense: Leadership as meaning-making in a community of practice*, Greensboro, Center for Creative Leadership.
- Fayol, H. (1916). *General and industrial management*, London, Pitman.
- Hemphill, J. K. & Coons, A. E. (1957). Development of the leader behavior description questionnaire. In: Stogdill, R. M. & Coons, E. A. (Eds.), *Leader behaviour: Its description and measurement*, Columbus, Bureau of Business Research, Ohio State University, pp. 6–38.
- House, R. J. & Javidan, M. (2004). Overview of GLOBE. In: House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., Gupta, V. (Eds.), *Culture, Leadership, and Organisations*, Thousand Oaks, Sage, pp. 9–28.
- Jacobs, T. O. & Jaques, E. (1990). Military executive leadership. In: Clark, K. E. & Clark, M. B. (Eds.), *Measures of leadership*, West Orange, Leadership Library of America, pp. 281–295.
- Katz, D. & Kahn, R. L. (1978). *The social psychology of organisations*, 2nd ed., New York, John Wiley.
- Kotter, J. P. (1996). *Leading Change*, Boston, Harvard Business Press.
- Kotter, J. P. (2001). What Leaders Really Do, *Harvard Business Review*, 81(6), pp. 85–97.
- Levitt, T. (1976). Management and the 'post-industrial' society, *The Public Interest* 44, pp. 69–103.
- May, G., Stahl, B. (2017). The significance of organisational change management for sustainable competitiveness in manufacturing: exploring the firm archetypes, *International Journal of Production Research*, 55(15), pp. 4.450–4.465.
- Nadler, D. A., Tushman, M. L. (1990). Beyond the Charismatic Leader: Leadership and Organisational Change, *California Management Review*, 32(4), pp. 77–97.
- Nienaber, H. (2010). Conceptualisation of management and leadership, *Management Decision*, 48(5), pp. 661–675.
- Northouse, P. G. (2016). *Leadership*, 7th ed., Thousand Oaks, Sage.
- Rauch, C. F. & Behling, O. (1984). Functionalism: Basis for an Alternative Approach to the Study of Leadership. In: Hunt, J. G., Hosking, D. A., Schriesheim, C. A. & Stewart, R. (Eds.), *Leaders and Managers. International Perspectives on Managerial Behaviour and Leadership*, Elmsford, Pergamon Press, pp. 45–62.
- Richards, D. & Engle, S. (1986). After the vision; Suggestions to corporate visionaries and vision champions. In: Adams, D. (Ed.), *Transforming leadership*, Alexandria, Miles River Press, pp. 199–214.
- Schein, E. H. (1992). *Organisational culture and leadership*, 2nd ed., San Francisco, Jossey-Bass.
- Simonet, D. V. & Tett, R. P. (2012). Five Perspectives on the Leadership–Management Relationship: A Competency-Based Evaluation and Integration, *Journal of Leadership & Organisational Studies*, 20(2), pp. 199–213.
- Smircich, L. & Morgan, G. (1982). Leadership: The Management of Meaning, *The Journal of Applied Behavioral Science*, 18(3), pp. 257–273.

- Toor, S., Ofori, G. (2008). Leadership versus Management: How they are Different and Why, *Leadership and Management in Engineering*, 8(2), pp. 61–71.
- Vroom, V. H. (1976). Leadership. In: Dunnette, M. D. (Ed.), *Handbook of industrial and organisational psychology*, Chicago, Rand McNally, pp. 1527–1551.
- Young, M. & Dulewicz, V. (2008). Similarities and Differences between Leadership and Management: High-Performance Competencies in the British Royal Navy, *British Journal of Management*, 19(1), pp. 17–32.
- Yukl, G. (2010). *Leadership in Organisations*, 7th ed., Upper Saddle River, Pearson.
- Zaleznik, A. (1981). Managers and Leaders: Are they different?, *The Journal of Nursing Administration*, 11(7), pp. 25–31.

LATVIAN–FINNISH ECONOMIC RELATIONS 1918–1940¹

Viesturs Pauls Karnups

Dr. oec.

Abstract

This article provides an overview of Latvian-Finnish economic relations in the interwar period. In the interwar period, economic relations between Latvia and Finland were mainly confined to foreign trade, although there were some investments in Latvia from Finland as well. Latvia declared its independence in 1918, however normal trade with Finland did not commence until 1920 after the end of the Latvian War of Independence. It ended with the outbreak of the Winter War in 1939. Latvia's foreign trade in relation to Finland was more or less regulated by the 1924 Commercial and Navigation treaty, as well as the 1936 Commercial Agreement. Latvia's main imports from Finland in the interwar period were textiles and textile products, metals and metal products, cellulose, paper and paper products, agricultural machinery, and knives and knife products, whilst Latvia's main exports to Finland were rubber products, gypsum, bone meal, paint and paint products, seeds, radios and linoleum. In general, trade and thus economic relations were of marginal significance to both countries in the interwar period due mainly to the similarities of their economic structures. On the other hand, Latvia had fairly intensive relations with Finland in the political, social and cultural spheres. This was mainly due to the fact of geographic propinquity, and Finland's special relationship to Estonia, which was Latvia's neighbour and closest ally.

Keywords: Latvia, Finland, economic relations, interwar period

Introduction

Although Latvians had had sporadic contact with the Finns in previous centuries, especially after Finland was annexed to the Tsarist Empire, it was in the aftermath of the 1905 revolution and during WWI that a large number of Latvian intelligentsia (writers, public figures, etc.) found refuge in Finland.² After WWI and into the 1920s, Finland was regarded as a Baltic State along with Estonia, Latvia, Lithuania and to a lesser extent Poland.

¹ A version of this article was presented at the International conference: 13th Swedish Economic History Meeting in collaboration with the 1st Annual Conference of the Scandinavian Society for Economic and Social History, Uppsala, Sweden, 10–12 October 2019.

² In 1916, there were some 200 Latvians living in Helsinki (Krasnais (1980), p. 79).

Later Finland was included with the Scandinavian countries. In the early 1920s, the Latvian Foreign Minister, Z. Meierovics, tried to involve Finland in the creation of political and economic blocs with the other Baltic States, but to no avail.³ Finland distrusted Poland and did not want to be involved in the Lithuanian-Polish conflict over Vilnius. While Estonia and Latvia in particular were quite unfriendly to Germany, Finland, on the other hand, not only felt gratitude to the Germans for their assistance in their War of Independence, but cultivated German influences in their cultural life. By 1926 Finland had practically terminated its close co-operation with the other Baltic States and turned to the Scandinavian countries for acceptance into the Nordic Bloc.⁴ From then on co-operation between Finland and Latvia was mainly in the cultural sphere, vaguely in the military sphere (on a purely informative basis), and economic relations.

Finland recognised Latvia *de facto* on 24 September 1919. A Latvian representative, Kārlis Zariņš, was appointed to Helsinki already on 03 April 1919, but he did not actually arrive in Helsinki until 26 November 1919. The first Finnish representative to Latvia, A. Herman, arrived in Rīga also on 26 November 1919. When Finland recognised Estonia *de iure* on 07 June 1920, it came as a great shock to the Latvian government as they had assumed that Latvia's and Estonia's relations with Finland were equal. Despite the efforts of Zariņš and an agreement in principle to recognise Latvia *de iure* by the Finnish President in October 1920 (albeit together with Poland), recognition was delayed until the Great Powers recognised Latvia *de iure* on 26 January 1921. Lack of *de iure* recognition was no obstacle to the various conferences involving Finland and the Baltic States during 1919–1921 – Rīga September 1919, Tallinn September 1919, Helsinki January 1920, and Rīga–Bulduri August 1920 – to discuss issues of mutual interest.⁵

As can be seen from Table 1, despite a larger population, Finland was less urbanised than Latvia in the interwar period. Nevertheless, their economic structures were similar with Latvia having a slightly larger % share in GDP of agriculture and forestry while Finland had a slightly larger % share in GDP of industry. Interestingly, Latvia's average annual growth rates both pre- and post the Great Depression were slightly higher⁶ as was GDP per capita.

³ See Varšlavans, A. (1988) for a more detailed examination of this period.

⁴ Nevertheless, Latvia's first President, Jānis Čakste, visited Finland in May 1926. The Finnish President, Lauri Kristian Relander, visited Latvia in June 1926.

⁵ See Kaslas (1976), pp. 126–142 for a detailed examination of these conferences.

⁶ Of course, Latvia started from a much lower base.

Table 1. Selected economic indicators for Latvia and Finland in the interwar period

	Latvia	Finland
Population (millions)	2 (1939)	3.7 (1939)
Share of urban population (%)	34.6 (1935)	26.8 (1940)
GDP* per capita	4048 (1938)	3589 (1938)
Average annual growth rate (GDP per capita) 1920–1929	5.31	4.94
Average annual growth rates (GDP per capita) 1929–1938	4.1	3.09
% share in GDP of agriculture and forestry	39.2 (1938)	33.4 (1938)
% share in GDP of industry	20.5 (1938)	23.2 (1938)

* GDP measured in 1990 International Geary-Khamis dollars

Sources: Darbiņš, A. & Vītiņš, V. (1947); Broadberry, S. & O'Rourke, K. H. (2016); Hjerpe, R. (1989)

Latvian-Finnish Economic Relations 1919-1940

Some Finnish and Latvian trade was already been in existence prior to the Finnish recognition of Latvia *de facto*. For example, in second half of 1919 (from 01 July), Latvian exports to Finland totalled 7743 lats⁷ and imports from Finland totalled 16178 lats.⁸

In the interwar years, Latvian and Finnish economic relations was mainly confined to foreign trade and investment although other forms of economic relations such as tourism were also important.

Latvia's foreign trade in the interwar was based in large measure on a system of commercial and trade treaties. By 1929, Latvia had concluded commercial treaties with all important European states (except Spain) including a Commercial and Navigation Treaty between Latvia and Finland in 1924. They provided the regulatory framework within which were stated the obligations undertaken by Latvia in its foreign trade relations with its trading partners up to 1931. All these treaties contained the Most Favoured Nation (MFN) principle, as well as in practically all, the Baltic and Russian clause. The Baltic and Russian Clause stipulates that the priority rights and privileges, allowed to Estonia, Finland, Lithuania and Russia, may not be made applicable to other contracting states by virtue of the most-favoured-nation principle.

⁷ Latvian roubles in 1919-1922 have been converted to Latvian lats in accordance with the rate set by the State Statistical administration – 1 lat = 50 roubles.

⁸ *Ekonomists*, 1920, No. 11, p. 327–328.

The Commercial and Navigation Treaty between Latvia and Finland was signed on 23 August 1924 and came into force on 09 July 1925. The case of Finland, however, was different in that Finland in her commercial treaties (except the Treaty with Great Britain), had not included a “Latvian” clause, which similarly to the “Finnish” clause in Latvian treaties would allow her to give preferential treatment to Latvia. Therefore, it was possible to only conclude a trade treaty with Finland based on the MFN principle alone, although Latvia expressed at the same time the desire that Finland should include a Latvian clause (similar to the Estonian clause in Finnish treaties⁹) in her treaty system. This was never done. A Commercial Agreement between Finland and Latvia, supplementing the Commercial and Navigation Treaty between Latvia and Finland of 1924, and containing trade balancing provisions was signed 28 March 1936 and came into force on 15 April 1936.

Latvian-Finnish Trade 1920–1940

As noted previously, some Latvian-Finnish trade had occurred in 1919. The value of Latvian imports from and exports to Finland can be seen in the Figure 1.

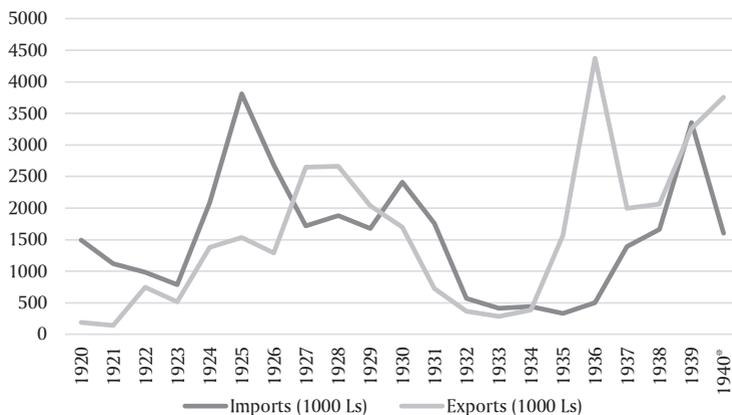


Figure 1 Latvia-Finland Imports and Exports 1920-1940

* First 8 months of 1940

Sources: Latvijas Statistika Gada Grāmata 1920–23 [Latvian Statistical Year Book 1920–23] Rīga: Valsts Statistiskā Pārvalde; Latvijas ārējā tirdzniecība un transits – 1924–1939. [Latvian Foreign Trade and Transit. 1924–1939.] Rīga: Valsts Statistiskā Pārvalde; January–December 1939 – LVVA 6824f, 1 apr., 80l, p. 7; January–August 1940 – LVVA 1308f, apr. 9, 1906l, p. 57

⁹ Article 20 of the 1924 Treaty contained an Estonian clause for Finland and an Estonian and Lithuanian clause for Latvia.

Bone meal was a steady if fluctuating export product to Finland reaching its peak in 1927. The largest export in terms of volume if not value was Gypsum and gypsum products reaching a peak of 394 thousand lats in 1938. Rubber products (including rubber galoshes) were a steady, but very small part of exports as were Paints, inks and paint compounds, and Seeds (flax and clover).

Linoleum was an important export to Finland in the 1920s. Linoleum in Latvia was produced by the Liepāja branch of the Swedish entrepreneurial family firm of Wicander (Linoleum Aktiebolaget Forshaga), the “Liepāja Cork and Linoleum Factory”, which before the First World War had produced linoleum for the Russian market. After the war the factory renewed production, but already in 1922 was subject to the control of an international linoleum cartel based in Britain. However, in 1927, the Wicander firm sold its Liepāja branch to another cartel, which was based in Germany. The factory completely ceased production in 1930 and linoleum disappeared from the foreign trade of Latvia and from exports to Finland. Its place was to a certain extent taken up by the export of radios in the 1930s, the value of which exceeded that of gypsum exports reaching a peak of 550 thousand lats in 1938. Latvian-made radios were popular throughout the Nordic region.

Latvia also exported various quantities of animal products (such as animal intestines), plant products (such as peas and vetch); flax and flax products, machinery, hides and furs and haberdashery, as well as small quantities of other goods.

Latvian Imports from Finland

Latvia's main imports from Finland were Cellulose, Agricultural machinery, Knives and knife products, Metals and metal products, Textiles and, surprisingly, Paper and paper products. The amounts and value of Latvia's main imports imported from Finland in the interwar period are shown in Table 3.

Cellulose was a small, but important import in the 1920s. However, it tapered off in the 1930s as Latvia established its own cellulose factories. Similarly, agricultural machinery imports from Finland were important in the 1920s, but became less so as Latvia's own industries started to produce similar goods. An interesting import was knives and knife products, which was always listed as an important import despite the small quantities. Textile imports were important in 1920s, but again tapered off as Latvia produced its own textiles in the 1930s. Metals and metal products were a small, but steady import throughout the interwar period. Curiously, a steady and important import was paper and paper products given that Latvia itself was a major exporter of such products.

Table 3. Latvia's Main Imports from Finland

Year	Cellulose		Agricultural machinery		Knives and knife products		Paper and paper products		Textiles		Metals and metal products	
	tonnes	Value (1000 Ls)	tonnes	Value (1000Ls)	tonnes	Value (1000 Ls)	tonnes	Value (1000Ls)	tonnes	Value (1000Ls)	tonnes	Value (1000 Ls)
1920												
1921	82	13	84	185			664	539	8	79	23	2
1922	231	71	30	44			221	180	20	192	1	1
1923	201	64	18	44			50	64	16	184	45	1
1924	796	299	39	81			43	97	80	876	0	0
1925	1252	486	58	157			43	68	273	2156	451	1
1926	1091	453	17	31			148	105	160	1273	0	0
1927	220	83	39	66			256	137	112	865	0	0
1928	0	0	64	76			64	93	121	915	0	0
1929	377	140	72	117	8	70	79	109	108	687	less than 1 tonne	1
1930	23	4	52	121			322	209	196	1254		
1931	740	193	28	57	2	23	788	302	142	738		
1932	1187	190	less than 1 tonne	2	1	13	79	75	17	60		
1933	1222	160	2	8	1	11	6	5	11	40		
1934	1981	310	4	12	less than 1 tonne	4	26	15	5	14		
1935	259	44	7	22	1	9	49	33	0	0		
1936	327	58	6	22	1	14	42	35	0	0	11	4
1937	836	180	11	55	1	20	69	79	14	94	225	201
1938	387	73	27	120	1	22	2178	569	13	100	104	34
1939 ^a	708	178	31	122	0	0	4525	1052	0	0	0	0
1940 ^{ab}	718	288	7	46	less than 1 tonne	2	1803	781	0	0	32	18
^a January–August 1939												
^{ab} January–August 1940												

Sources: Latvijas Statistika Gada Grāmata 1920–23 [Latvian Statistical Year Book 1920–23] Rīga: Valsts Statistiskā Pārvalde; Latvijas ārējā tirdzniecība un transits – 1924–1939. [Latvian Foreign Trade and Transit. 1924–1939.] Rīga: Valsts Statistiskā Pārvalde; Mēneša Bijetens Nr. 10, oktobris 1939 [Monthly Bulletin, No. 10, October 1939], p. 1057; January–August 1940 – LVVA 1308f, apr. 9, 1906l, p. 57

During the interwar period Latvia imported a whole range of Finnish goods in various quantities including minerals and mineral products, plywood, chemicals and chemical products, hides and furs, paving stones, and instruments, as well as small quantities of other goods.

Finnish investments in Latvia 1925–1939

Foreign capital in Latvia was mainly invested in banking, industry, transport and trade. By 1927, over 60% of the equity capital of all Latvian joint-stock banks¹⁰ was foreign owned, while foreign capital comprised 27.8% of aggregate capital in insurance, 33.9% in trade (commerce), 63.1%

¹⁰ For a brief overview of banking in Latvia in the interwar period see Hiden (2000), pp. 133–149.

in transport and about 50% in industry.¹¹ Many investors hoped that from Latvia they would be able to expand in the huge Russian market. Figure 2 provides an overview of Finnish investments in the interwar period.



Figure 2. Finnish investments in the Company Capital of Latvian Undertakings (as at 1 January). 1925–1939 (1000 lats)

Sources: Latvijas Statistiskā gada grāmata. 1929, 1939 [Latvian Statistical Yearbooks 1929, 1939] – Rīga: Valsts Statistiskā Pārvalde; Statistikas tabulas [Statistical Tables] – Rīga: Latvijas PSR Tautsaimniecības Statistikas pārvalde, 1940

The peak year for Finnish investments was 1932, when investments totalled 943000 lats. Finnish investments were mainly in the metal-working industry sector (64.8% of total Finnish investments in 1931), followed by trade (29.8%), and some other minor investments.

The onset of the Great Depression steadily reduced the value of Finnish investments in Latvia. From the peak in 1932 Finnish investments were reduced to 680000 lats in 1934. The decrease accelerated after 1934, when the nationalistic Ulmanis regime began to systematically reduce the amount of the foreign investment stock. Foreign investment stock in the company capital of Latvian undertakings overall was reduced from 50.4% in 1934 to 25.4% in 1939 of which the reduction in industry was from 52.4% in 1934 to 31.9% in 1939, in commerce from 35.9% to 28.2% and in finance and banking from 62.4% to 9.7%.¹² As can be seen in Figure 2, Finnish investments had been reduced from the peak in 1932 to a mere 222000 lats by 1937. The slight upturn in 1938 can probably be attributed to a general economic upturn trend (various other countries (for example, Poland) also increased their investments in Latvia in 1938).

¹¹ *The Latvian Economist* (1928), p. 24.

¹² *Finanču un kredīta statistika* (1939), p. 172.

Latvia and the Winter War

After the Soviet Union invaded Finland on 30 November 1939, the majority of Latvians sympathised with the Finns. Despite the fact that by this time Latvia (together with the other Baltic States) had become a “protectorate” of the Soviet Union with Red Army units stationed in military bases throughout the country, Latvia was still nominally independent. This was reflected in the newspaper coverage of the conflict, with the newspapers printing press releases from both Finland and the USSR side-by-side.¹³

The official position of the government was strict neutrality in the conflict. The Latvian government however continued to recognise the government in Helsinki and did not expel Finnish representatives from Latvia. On 14 December 1939, the Soviet Union was declared an aggressor and was expelled from the League of Nations. Latvia and the other Baltic States abstained from voting.

Nevertheless, as was noted previously, economic relations, especially trade continued throughout the conflict period. In the four months from 01 September to 31 December 1939, Latvia imported 1314000 lats worth of goods from and exported 330000 lats worth of goods to Finland.¹⁴ Similarly, in the four months from 01 January 1940 to 30 April 1940, Latvia imported 26000 lats worth of goods from and exported 131000 lats worth of goods to Finland.¹⁵ Essentially, the goods exported and imported were similar to previous years, with food stuffs taking up a larger proportion.¹⁶

Conclusion

In the interwar years, Latvian and Finnish economic relations was mainly confined to foreign trade and investment although other forms of economic relations such as tourism were also important. Nevertheless, despite geographical proximity and the advantage of shorter sea routes than to Britain or Germany, the fact of similar export products made significant inter-regional trade between Latvia and Finland unprofitable.

In 1929, when Latvian foreign trade reached its pre-Depression peak, Latvian exports to Finland made up 0.74% of total Latvian exports, and Finnish imports made up 0.46% of total Latvian imports. However, in 1937, when Latvian foreign trade reached its post-Depression peak, exports to

¹³ For a detailed examination of Latvian press coverage at this time see Žīgure, A. V. (2018), pp. 213–227.

¹⁴ LVVA, 6824f, 1apr, 80l, p. 7.

¹⁵ LVVA, 6824f, 1apr, 80l, p. 2; 1308f, 9apr, 1899l, p. 49; 1905l, p. 49; 1904l, p. 49.

¹⁶ For example, on 01 February 1940, a shipment of 5000 tonnes of rye was organised for Finland through Sweden, LVVA, 2575f, 17apr, 76l, p. 21.

Finland were only 0.8% of total Latvian exports, and imports from Finland were only 0.6% of total Latvian imports. One suspects that the figures from the point of view of Finland would be significantly less. In other words, trade and thus economic relations were of marginal significance to both countries in the interwar period.

It is interesting to note that in 2019, Latvian exports to Finland totalled 470.8 million EUR or 2.6% of total Latvian exports (mainly metals and metal products, machinery, food industry products, timber and timber products). Whilst imports from Finland totalled 754.4 million EUR or 4.0% of total Latvian imports (mainly mineral products, chemical industry products, electrical goods, and vehicles). At the end of 2019, total Finnish FDI in Latvia was 539 million EUR, whilst total Latvian FDI in Finland was 19 million EUR. There were some 340 Finnish companies registered in Latvia in 2019 (mainly involved in construction (both building and roads), and food and drink manufacturing).¹⁷

REFERENCES

- Broadberry, S. & O'Rourke, K. H. (2016). *The Cambridge Economic History of Modern Europe*, Vol. 2: 1870 to the Present. Cambridge: Cambridge University Press.
- Darbiņš, A. & Vītiņš, V. (1947). *Latvija: Statistisks pārskats [Latvia: A Statistical Overview]*. Germany: P. Mantinieka & E. Ķiploka Apgadi.
- Economists*, No. 22, 30.11.1934.
- Finanču un kredīta statistika 1939. g [Finance and Credit Statistics] (1939). Rīga: Valsts statistiskā pārvalde.
- Hiden, J. (2000). On Banks and Economic Trends in Latvia 1918–1940. In: *Transformation and Integration in the Baltic Sea Area*. Ed. by P. Falk and O. Krantz. Umeå: Umeå University, pp. 133–149.
- Hjerppe, R. (1989). *The Finnish Economy 1860–1985*. Helsinki: Bank of Finland.
- Kaslas, B. J. (1976). *The Baltic Nations – the Quest for Regional Integration and Political Liberty*. Pittston, USA: Euramerica Press.
- Krasnais, V. (1980). *Latviešu kolonijas [Latvian Colonies]*. Melbourne: Kārļa Zariņa Fonds
- The Latvian Economist* (1928). Rīga: Ministry of Finance.
- Varšlavans, A. (1988). Baltic Alliance and International Politics in the First Part of the 1920s, in Hides, J. & Loit, A. (eds), *The Baltic in International Relations between the Two World Wars*. Stockholm: Acta Universitatis Stockholmiensis, University of Stockholm, pp. 43–58.
- LVVA, Latvijas Valsts Vēstures arhīvs [Latvian State Historical Archives].
- Žīgure, A. V. (2018). *Ziemeļzemes cēlā tauta [The Noble People of a Nordic Country]*. Rīga: Zinātne.

¹⁷ Data from the Central Statistical Bureau of Latvia.

BACKSLIDING OF DEMOCRACY IN CENTRAL AND EASTERN EUROPE: THE REASONS AND POSSIBILITIES FOR SUSPENSION EXAMPLES OF HUNGARY AND SOME OTHER COUNTRIES¹

Olena Babinova

PhD

Abstract

This article is about the problem of democratic backsliding in some of post-communist central and eastern European (CEE) countries, which have shown very positive achievements in democratic development at the beginning of the transformation processes in the 1990s. The purpose of this article is not only to analyse the transformational processes from democracy to autocracy in former democratic countries, but also to explore the main steps of the authoritarian leaders of these countries towards concentration of power “in one hand” and even “coup d’état”. This is done in this article to determine countermeasures that in the future will not allow to turn any democratic country into a country with a hybrid or authoritarian regime. These countermeasures are identified in this article.

Keywords: democracy, democratic backsliding, public control, post-communist countries

Introduction

In the early 1990s of the 20th century, democracy experienced its heyday. The collapse of the Soviet Union led to the emergence of new states that have chosen the democratic path of their development. Not only the post-Soviet countries, but also all other countries of the communist camp showed excellent results on the path to democracy, human rights and other democratic freedoms and values. The emergence of new democracies gave hope for the development and strengthening of democratic norms and principles not only in post-Soviet and post-communist space, but throughout the world. It was a complex transformational process of changes that affected many areas of life of the reformed countries.

¹ This article was prepared within the framework of the Central European University CEU/ HESP Research Excellence Fellowship and funded by the Soros Foundation. The author thanks to the Central European University and the George Soros Foundation for possibility to carry out this research.

The events of the late 1980s – the fall of Berlin Wall, the end of Cold War, and the dissolution of Soviet Union in 1991 – were the basis for democratic transformation in many countries in the world. As a famous fighter for democracy George Soros (1994) noted: “There was a moment of euphoria, in 1989, when people felt liberated from an oppressive regime and that moment could have been used to set into motion the transition to an open society”.

It was obvious that countries following the path of democratic development would thereby ensure their effective functioning – they would provide wide participation of citizens in government decision-making processes, develop appropriate measures and overcome corruption, thanks to close cooperation of power and citizens, they will provide the development of these countries in many areas, fields and directions. But something went wrong. Some countries of new democracy have failed to create an effective system of public participation and as a result – public control, to overcome corruption and to demonstrate effective and productive results of the development of the country on the whole. To this were added other problems – the gradual (and in some cases sharp) withdrawal of some countries from democracy, its norms and principles. As a result, there was a transition from democratic forms of governance to mixed or even authoritarian. If before, it was transition from authoritarian approaches to democratic, now there is a transition from democracy to autocracy in some countries. In the post-communist space they are Russia, Hungary and some others. As it was noted by András Bozoki and Hegedűs Dániel (2018), “even though the number of liberal democracies has increased, more noteworthy is the significant widening of the grey zone between democracies and dictatorships and the rise of new forms of non-democracies. In other words, the number of mixed regimes or, as they are better known, hybrid regimes, has considerably increased”.

The main questions in this context are the following:

Why some of post-communist countries, which were showing the great success in formation and development of democracy have changed their priorities in further development? How it was possible to transform the democratic country to authoritarian or country with hybrid regime? Is it possible on the basis of an analysis of the steps and stages of this transformation to define the possible measure to avoid it in the future and in general to block these processes from the side of democratic international society?

This article intends to analyse the process of breakdown of democracy into autocracy in some countries in post-communist space and define the possible measures to make this transformation impossible in the future.

Thus, *the goal of the article* is to define the all possible measures, methods, and mechanisms for preventing the transition of democratic countries to the path of authoritarianism.

There are many researches on the topic of transition from autocracy to democracy, but there is some lack of current research on transition from democracy to autocracy, and particularly on how to avoid it, how to help citizens (by concrete mechanisms and instruments) who want to live in democratic society to prevent transformation of their countries from democratic to totalitarian. One of the questions in this context is: Which measures and legal instruments will prevent a democratic country from appearance of totalitarian leader and, as a result, transformation of a country from democratic to hybrid or even authoritarian? Some of these countermeasures, some directions of it will be defined in this article. Many scholars analyse the problem of democratic backsliding in post-communist space (Attila Ágh, 2016; András Bozóki, 2011, 2012, 2017, 2018; Bogaards, Matthijs, 2018; Aron Buzogány, 2017; Licia Cianetti, James Dawson, Seán Hanley, 2018; György Csepeli, 2018; Zoltán Fleck, 2017; David Jancsics, 2017; Bálint Magyar, 2018, 2019 et al.). They have made a significant impact on analysis of the process of democratic backsliding. And now, in research it is important to go further, from description of these processes to proposals on how to stop democratic backsliding by concrete mechanisms and measures, how to change situation, how to have an impact on it both inside (citizens of a country) and outside (international democratic society, as well as relevant organisations). This article is an attempt to achieve it.

Some scholars argue that it is not possible to have any significant impact on these processes in post-communist countries. However, on the basis of an analysis of the main common steps of authoritarian leaders in their coup d'état in former democratic countries, it is totally possible to develop these countermeasures.

Decline of Democracy in Post-Communist Space. Example of Hungary

Considering the problems of democratic backsliding in some countries in post-communist space many scholars note that the most problematic countries with democracy in post-communist space are Hungary, Russia, and some Asian countries.

Licia Cianetti, James Dawson and Seán Hanley (2018) in their paper “Rethinking “democratic backsliding” in Central and Eastern Europe – looking beyond Hungary and Poland” analyse the democratic processes in Central and Eastern Europe on the example of Hungary and Poland. They argue that over the past decade, a scholarly consensus has emerged

that that democracy in Central and Eastern Europe (CEE) is deteriorating, a trend often subsumed under the label “backsliding”. The label “backsliding”, which originates as a religious term meaning a failure to maintain piety and Christian faith, has been criticized because of its moralistic and normative overtones. However, this emergent paradigm has focused disproportionately on the two most dramatic cases: Hungary and Poland and on the symptoms – executive aggrandisement and illiberal nationalism – that are most characteristic of the trajectories of those states. The scholars note that not only Hungary and Poland have some problems with democracy, but some other countries of Central and Eastern Europe. However, they define that the most problematic country is Hungary.

Many other scholars argue that the most authoritarian power in Central Europe now is in Hungary. Some scholars even called it “mafia state” (Bálint Magyar, György Csepeli, Zoltán Fleck, David Jancsics, Kim Lane Scheppele et al.). According to A. Bozóki (2018), Victor Orbán, Prime-Minister of Hungary “replaced the constitution with what was called Fundamental Law, which essentially states that the citizens are ready to adjust to a new order, as he named the “System of National Cooperation”. In 2011 a coup directed from above took place in Hungary”.

The situation in Hungary with democratic backsliding was described by A. Bozóki even in 2011, at the beginning of the full-scale transformation of Hungary from a democratic country into a country with an autocratic, as some researchers call it, or, as other scientists call it, a hybrid regime: “the some problems notwithstanding, Hungary remained until relatively recently (until the eve of 2006), a success story of democratic consolidation. By 2011, however, Hungarian society was forced to realise that the system that had become increasingly freer over the decades had come to a standstill, and it was turning in an autocratic direction”. In his article “Occupy the State: The Orbán Regime in Hungary” (2011) he raises the following questions: Is it possible to roll back history? Is it possible to return to an autocratic system as a fully-fledged member of the European Union? What is necessary to do for defence of democracy? What is the role of European institutions if this process?

In another publication “An externally constrained hybrid regime: Hungary in the European Union” András Bozóki and Dániel Hegedűsb define the regime in Hungary as hybrid regime. And they raise a very important problem of the EU role in the process of transformation of Hungary and other countries-members EU from democracy to hybrid regimes and even autocracy:

Due to its hitherto overlooked characteristics, the Orbán regime belongs to a specific class of hybrid regimes. Although currently being made up only by a single item, Hungary, bearing in mind the ongoing

democratic backsliding in East-Central Europe in general, and Poland in particular, the separation of hybrid regimes evolving within the European Union (EU) as a distinct subtype of hybrid regimes is justifiable both from a theoretical and practical perspective. Consequently, the unique properties of the Hungarian hybrid regime follow from the fact that it is part of the EU, which is made up of democratic member states. Since member states transfer parts of their sovereignty to the EU, the EU is both the loci of “domestic” and “foreign” policy-making; that is, as regime theory suggests, it is both the context in which the Hungarian government operates and an integral part of the Hungarian regime itself. Consequently, the EU functions as a “regime sustaining”, a “regime constraining”, and, last but not least, as a “regime legitimising” factor for Hungary, which compels one to describe the current political system of Hungary as an “externally constrained hybrid regime” (p. 1174).

It is clear that in accordance with EU values and priorities any country-member of EU must be a democratic country, and, in the case of some backslidings from democracy, the EU should apply concrete tools and measures in relation to the problematic country. However, now it is not possible to say that these measures exist and are applying. At the same time many scholars note that any hybrid regime is flexible – it can go both in the direction of democracy and in the direction of dictatorship. So, rapid reaction of EU in these cases is necessary condition for stabilisation of the situation and support democracy.

Leonardo Morlino (2012) argues that a key element that runs against the effective existence of hybrid regime, that is, institutional set-ups that are not democracy, nor authoritarianism, nor traditionalism, is the expected low probability of duration. In fact, once some degree of freedom and competition exists and is implemented in various ways, it seems inevitable that the process will continue, even though the direction it will actually take is unknown. It might lead to the establishment of a democracy, but it could also move backwards, with the restoration of the previous authoritarian or other type of regime, or the establishment of a different authoritarian or nondemocratic regime.

As it was noted by Attila Ágh (2014, p. 15), in Hungary the crisis of the democracy has taken place markedly in both aspects of democracy, i.e. in the formal democratic institutions (violating the procedural democracy with rule of law, and the checks and balances system) and in their public performance. Therefore, Hungary may offer itself as a worst-case scenario, even when looking back until 2010, but it is much more so, if the period the Orbán governments has also been taken into account.

According to Bálint Magyar (2016), Hungary is a post-communist mafia state. He defines that the term “post-communist” is descriptive of the mafia

state, pointing to the circumstances of its formation, the conditions of its germination, that is, to the fact that this is a system that came about – though with some delay – in the wake of the one-party dictatorship that went hand-in-hand with a monopoly on state owned property. The author notes that the notion “mafia state” is definitive of the way in which this state functions. He points out that all that had begun in Hungary between 1998 and 2002 – the first time Fidesz had come to power – and has been fully realised since 2010 is best compared with what has happened in most of the countries of the former Soviet Union: Russia under Putin, Azerbaijan, or other Central Asian former member republics of the Soviet Union.

In his other publication B. Magyar (2017) continues to analyse the situation in Hungary and gives a clear definition of a mafia state. He notes the following: “The emerging post-communist criminal states, where the governance bears the features of a criminal organization, can be described as post-communist mafia states. It is nothing less than the privatized form of a parasite state. In this case, the central bodies of the state itself operate in concert as a criminal organization, as the organized upper world”. He clearly defined the basic features of a mafia-state and key players of this kind of state. The key players of the mafia state the author defines as: the poligarch – someone who uses legitimate political power to secure illegitimate economic wealth; the oligarch – someone who from legitimate economic wealth, builds political power for himself; the stooge – someone who has no real power, neither in politics, nor in the economic sphere, but is a bridge over the gap between the real nature of power and its required legitimacy; and the corruption broker – someone who brings the partners of the corrupt transaction together in the role of mediator or expert lawyer.

In the article “The Decline of Democracy in East-Central Europe. Hungary as the Worst-Case Scenario”, its author Attila Ágh (2016, p. 279), has given his vision on the reasons for transformation from democracy to autocracy in Hungary. He noted that actually, the young democracy in Hungary before 2010 was a “chaotic democracy,” with weakening formal institutions and strengthening informal political-business networks. The weak state was unable to cope with the parallel, complex, and multidimensional processes of systemic change, in which the economic, political, and social changes not only had very different time perspectives, but also confronted each other. In a word, the deep and quick economic transformations of the transition from planned to market economy produced huge social contradictions, with high unemployment and large social exclusions, and the weak democratic state was unable to control this social exclusion in a “responsible” way. People felt that all these changes took place above them and that they had to pay a high price for

marketization and democratization. Without a participative democracy, the formal institutions were continually weakening, with the result that, by 2010, democracy was to a great extent emptied.

As it was noted before, when there are some threats to democracy in the modern world, the democratic institutions that were created to support democracy, its values, must intervene and, through special mechanisms, counteract the processes of moving away from democracy, especially in the once democratic countries. Such international institutions as the United Nations, the Council of Europe and others were created in order to promote stability in the world, to develop and strengthen democratic values and human rights. Understandably, they should have the special measures and instrument for this activity. What was the reaction of EU institutions and special preventive measures? Many scholars have noted that the reaction of special organisations was weak and insufficient.

This opinion is shared by B. Magyar (2016, p. 283), who also emphasises the inactivity and even the lack of appropriate measures in European community. He notes that there is a reason to fear that the Hungarian mafia state will not be a unique phenomenon among the ex-communist member states of the European Union. Although a constellation of unfortunate circumstances is needed for its emergence, the temptation is also present elsewhere. In his opinion, the European Community lacks not only the effective tools for expulsion, but even for the disciplining of countries conducting themselves this way.

András Bozóki and Hegedűs Dániel (2018) considering the role of Hungary in the European Union emphasise the lack of effective mechanisms for protecting democracy by the EU. The authors claimed that many scholars who analyse the post-2010 relationship of Hungary and the EU, agree that the EU was not capable of standing up effectively to the constitutional engineering process, which has led Hungary in an authoritarian direction. Regarding its function as a systemic constraint, the EU played a Janus-faced role. On the one hand, as expressed in its own discourse of legitimisation, the European Commission lacked the political and legal tools to confront effectively the Hungarian government over the dismantling of liberal democracy and liberal constitutionalism except for initiating infringement proceedings against the country. A. Bozóki and H. Dániel discuss the problem of sliding from democracy to dictatorship in Hungary, its solutions, and the relevant EU policy and steps. They argue that despite the EU's weak opposition to Hungary's transformation from a democratic state to an authoritarian state, the absence of appropriate effective mechanisms, the country's membership in the EU still requires it to be democratic. They noted that even though the EU could not stop the deconstruction of liberal democracy, it did help to slow down and

prevent the undermining of liberal constitutionalism and the concomitant curbing of human rights and liberties in Hungary. Consequently, it is fair to say that membership in the EU matters: the EU has structurally constrained the hybrid regime. Ultimately, the human rights and liberties of Hungarian citizens are not guaranteed by such constitutional institutions as the Constitutional Court or the Ombudsperson, because these were neutralised during the illiberal constitutional engineering, but by the EU and the European Court of Human Rights of the Council of Europe.

In order to prevent a totalitarian leader from coming to power in a democratic state and, as a result, transforming of a country from a democratic one into a country with a hybrid or authoritarian regime, both internal and external tools must be applied. And now one can say that these instruments, as well as a coherent policy of the entire democratic world community are almost absent. In this case when concrete and effective measures are absent the whole world democratic society can be only as an outside observer. Understandably, it is not the right approach. In the shortest possible time, mechanisms should be developed for both internal and external opposition to the transition of any country from democracy to dictatorship. It will be possible to make on the basis of analysis of the process of the mentioned transformation step by step, to define the common features, common approaches and actions of all authoritarian leader who were trying to change their democratic countries and to seize power and concentrate it in one hand.

Transition from democracy to autocracy in Hungary. How it was

Just after collapse of the Soviet Union, Hungary was an example of rapid and effective democratization. The priorities of the public policy and governmental activity, the system of public administration was transformed quickly and effectively. As it was described by Kim Lane Scheppele (2016, pp. 15–16), many international observers have been puzzled about Hungary. Hungary was once the star of the post-1989 transition. It was the first in the region to rewrite its constitution to embrace democratic values. It had a steady string of free and fair elections from 1990 through 2010 with regular alternation of governments between left and right. Hungary experienced the largest inward flow of foreign direct investment in post-communist Europe and one of the least chaotic economic transitions. International NGOs put their East-Central European headquarters in Budapest, which was widely regarded as the most stable and sympathetic home for civil society groups in the region. However, less than a decade after Hungary entered the EU, it has become the model “illiberal state,” with constitutional checks and balances in near-total collapse, foreign investment in flight, the independence of the judiciary and independent

media no longer guaranteed, civil society groups under attack, political prosecutions and rigged elections the subject of credible allegations, levels of intolerance against minority groups rising, and a single governing party controlling all public institutions in a non-transparent manner and digging itself in for the long haul.

According to David Jancsics (2017, p. 136), the network structure of grand corruption changed in Hungary after the current Fidesz-KDNP government coalition came in power in 2010. The coalition won two-thirds of the parliamentary seats, which provided them enough power to change the constitution. A small, close-knit group within the governing elite used this unprecedented power to build an organised syndicate. Due to a new, biased Election Law and the official propaganda in 2014, the coalition was re-elected and won local and European elections.

György Csepeli (2017, p. 27) describes the coming to power of Viktor Orbán and his party Fidesz in this way: The legal infrastructure forming the bedrock of the mafia state could not have emerged in Hungary without the sweeping success of the single political force at the parliamentary elections of 11 April and 25 April 2010. The first round of the elections drew a turnout of 64%, the second a turnout of 47%, with the Fidesz-KDNP coalition securing 263 seats in parliament. This 68% turnout corresponds to a majority in legislation of over two-thirds. The opposition was divided and weak in the legislature. The complicated electoral system makes it difficult to gauge the proportion of the voting-age population that the 68% winning share represents. It is clear that this 68% of the voting-age population, or over of the citizens that cast a vote, is far more the ratio of those who actually voted for the victorious party, whether one looks at individual constituencies or territorial or national lists. The parliamentary majority was only a majority in the Leninist sense; in reality. It was the expression of a minority's will.

Changes of the Constitution as one but important direction of the coup d'état

Viktor Orbán and his party Fidesz started their activity from the changes to the Fundamental Law of the country. However, the current Constitution in that time was really democratic. That Constitution was adopted in 1949, and just after collapse of Soviet Union it was significantly amended and improved in the direction of democratic principles and values. But the main task of new Hungarian power was to create legal instruments for their activity.

As it was noted by Zoltán Fleck (2017), the most striking peculiarity of Fidesz's legislative activity is its hyperactivity. On one hand, this means extension of regulatory areas, and on the other, a great volume of quickly

changing legal norms. Not only do new law have to be brought to govern everything, and any of these be entered into the constitution, but anything can be amended, rewritten, or changed in part or as a whole at any given time. Of course, this takes place with no attention to constitutional or dogmatic principles (p. 74).

As a result of the mentioned above, Hungarian Constitution and other legal acts were changed significantly, and the main logic of it was to create the widest and uncontrolled possibilities for new leader and his party. New Hungarian Constitution which was adopted in 2011 is unique in the context of the responsibilities of the Prime-Minister: they are absent. In Art.15 of the Constitution it is defined that: the Government shall be the general body of executive power, and its *responsibilities and competences shall include all matters not expressly delegated by the Fundamental Law or other legislation to the responsibilities and competences of another body*. It means that on the basis of this norm, it is possible to expand unlimitedly the power of Prime-Minister.

The new leaders of the country did not stop on these changes. Many amendments were made further to the Constitution. The main results of these legal changes were defined by Imre Vörös (2017) as the following:

- The independence of local governments and accordingly, their right to own property were removed from the fundamental rights, thus local governance, effectively, was abolished.
- The right to social welfare was eliminated.
- Every Hungarian citizen's right to turn to the Constitutional Court (action popularis) was eliminated.
- The three-member Budget Council (with a quorum of two) gained the right to veto the central budget. Taken together with the powers of the President of the Republic, this implies the latter's right to dissolve the parliament in the absence of an approved central budget, even shortly after an election.
- The Constitutional Court's oversight of budgetary and tax laws was abolished only to be "revived" if the government debt was below 50% of the gross national product. Even in case the above-mentioned "debt brake" is observed, such a development would likely to occur in no sooner than approximately sixty years.
- The Supreme Court was eliminated, which served as an excuse to remove its president from office, even though the Curia was declared to be the Supreme Court's legal successor (p. 43).

Imre Vörös (2017, p. 45) claims that the mentioned legal changes were a constitutional coup and he defines it as a coup d'état carried out with the instruments of constitutional law under the cover of constitutionality, in the form of a series of redrafting and amendments. Ultimately, all of this amounts to a coup against the constitution itself.

Thus, the first and very significant changes in the direction of concentration of power in one hand in Hungary were changes in the Basic Law, which opened the way to a further backsliding from democracy in the country.

As a result of it, the Commission for Democracy through Law of the Council of Europe, the “Venice Commission,” blasted the Hungarian government for treating the constitution as a political tool to keep itself in power. Freedom House, which had labelled Hungary a “consolidated democracy,” lowered Hungary in 2015 to the status of a “semi-consolidated democracy,” the first time that Freedom House had ever moved a state out of the “consolidated” category. The European Union, Council of Europe, OSCE, United States and others have routinely criticized the Hungarian government (Kim Lane Scheppele, 2016, p. 16).

As can be seen, now international organisations can only ascertain the country’s backsliding from democracy and express concern, although, given that this is not happening in one country, but is becoming a certain trend, concrete measures from international institutions in the field of protecting democracy are required in the view of relevant strategies and legislative norms. The main directions of this will be proposed in this article below.

Some scholars, researchers and experts talk about the inconsistency of the policies of international organisations in the field of protecting democracy with modern transformational processes. For instance, B. Magyar (2017, 2019) claims that external constraints are, by nature, passive: they are not active policy-shapers, and are at most the signposts of policies violating democratic values or voluntarist economic actions. The EU, assuming a fundamental community of values, builds on the mechanism of warnings, and thus persuasion. In places where the community of values is lacking, it is unable to prevent the emergence of an autocratic regime. International organisations are easily ensnared in the usual trap of action against the dictatorships, with sanctions dealing a heavy blow to citizens while leaving the political regime unscathed. Moreover, external warnings and sanctions also risk prompting those holding the power to turn even more to unlawful, coercive measures to maintain equilibrium, and are able to mobilize their followers in the name of national self-defence.

According to all above-mentioned one can make a conclusion on the necessity of transformation of the main approaches of all powerful organisations in the field of democracy, to make a shift from simple statement of concern or personal sanctions, which is completely ineffective, to specific measures and concrete actions to prevent the transformation of democratic countries into authoritarian.

As it was noted before, the constitutional coup was only one direction on the way to transition from democracy to autocracy in Hungary. All other directions were transformed as well. It was clearly described by K. L. Scheppele (2016, p. 21):

“The Orbán government orchestrated a coordinated attack on all of the independent institutions in the country soon after it came into office in 2010. Local governments were neutralized as independent sites of power. Established cultural and educational institutions were battered by accusations of unpatriotic conduct and then defunded, even as new “national” institutes of culture and education were formed. The NGO sector was strangled financially and finally attacked by the public prosecutor and tax office. Churches were used instrumentally to provide ideological cover, but the “official” churches themselves seemed all too willing to go along by trading their support for the regime for material subsidies. Vicious campaigns against the holdouts in each of these categories were conducted by law and law enforcement, by public funding and defunding, and by a public campaign highlighting the disloyalty of those who refused to bend to Orbán’s will. Within a few years, there were no major independent bodies of state left standing and the independent civil society organizations outside the state were hanging by a thread.”

Further in this article, an analysis of common steps of authoritarian leaders in the direction of concentration of power in their hand on the basis of the concrete experience of Hungary, Russia and Ukraine (in the period of totalitarian leader V.Yanukovych) will be conducted.

Comparative analysis of the main common steps of authoritarian leaders in different former democratic post-communist countries in direction of concentration power in one hand (coup d’état). Possible preventive measures.

- *One of the first steps of all authoritarian leaders who came to power in countries with a democratic system of government were changes in the country’s Constitution and other important legal acts. By this way they created the legal basis for coup d’état.*

Russia

V. Putin did not come to power through elections – he was temporarily handed over the post by the then President of Russia V. Yeltsin. But from the first days of his reign, Putin strengthened the legislative basis of his stay as president of the country. The main constitutional changes that were made: the term of the presidency was extended. However, V. Putin has made many changes to other national legal acts, for instance the election of governors was cancelled, which allowed him to appoint only “his people” in all regions of Russia. At the same time, it is need to note that the main approaches of election of governors and their appointment must be reflected in the constitution of any country. By the author’s opinion, any president of any democratic country cannot have possibility to change the system of local government only by personal decision.

This situation was clearly described by Michael McFaul (2018):

“The single, most consequential choice in Russia’s return to autocracy was Yeltsin’s decision to select Putin as his successor. Putin had strong, clear preferences for reducing autonomous political activity in Russia; Yeltsin enabled him to do so. At the time of Yeltsin’s selection of Putin as his successor in 1999, the Russian political system exhibited some characteristics of an electoral democracy. Early in his tenure as president, Putin utilised the super-presidential constitution adopted in 1993 to make consequential decisions limiting pluralism, political competition, and autonomous sources of power.”

In 2024, the second consecutive term of Putin’s presidency ends, and under the current constitution of Russia, he cannot run again. Currently, the Russian constitution allows for the presidency of two six-year terms.

In March 2020, the State Duma of Russia approved amendments to the constitution, one of which provides for the “nullification” of Vladimir Putin’s presidential term, which he has been ruling in Russia for 20 years. The draft amendments include more than 40 proposals, including strengthening the role of the State Council, reducing Constitutional Court judges and the president’s right to dismiss them, and strengthening the requirements for candidates for elected office.

In the event, the cosmonaut and State Duma deputy Valentina Tereshkova voiced the idea to nullify Vladimir Putin’s presidential terms after the constitution was approved. Putin then came to the Duma and declared that the idea could be implemented. 20 minutes after Putin ended his speech, the Duma voted in favour and approved it. Thus, it will be incorporated into the Constitution along with other “Putin” amendments: about God, children, the state-building role of the Russian language and the priority of Russian laws over the decisions of international courts.

The Constitutional Court of the Russian Federation on Monday March 16, 2020 passed a law amending the country’s basic law that allows President Vladimir Putin to remain in power for another 16 years. The court ruled two days after Putin signed the law.

Hungary

Viktor Orbán and his party Fidesz started their activity from the changes to the Fundamental Law of the country. However, the current Constitution in that time was really democratic. That Constitution was adopted in 1949, and in 1989, just after collapse of Soviet Union, it was significantly amended and improved in the direction of democratic principles and values. But the main task of new Hungarian power was to create legal instruments for their activity.

As it was noted by Zoltán Fleck (2017, p. 74), the most striking peculiarity of Fidesz’s legislative activity is its hyperactivity. On one hand, this means

extension of regulatory areas, and on the other, a great volume of quickly changing legal norms. Not only do new laws have to be brought to govern everything, and any of these be entered into the constitution, but anything can be amended, rewritten, or changed in part or as a whole at any given time. Of course, this takes place with no attention to constitutional or dogmatic principles.

As a result of the mentioned above, Hungarian Constitution and other legal act were changed significantly, and the main logic of it was to create the widest and uncontrolled possibilities for new leader and his party. New Hungarian Constitution which was adopted in 2011 is unique in the context of the responsibilities of the Prime-Minister: they are absent. In the art. 15 of the Constitution it is defined that: “the Government shall be the general body of executive power, and its responsibilities and competences shall include all matters not expressly delegated by the Fundamental Law or other legislation to the responsibilities and competences of another body”. It means that in the basis of this norm it is possible to expand unlimitedly the power of the Government and the Prime-Minister. As a result, step by step Hungary has made significant backsliding from democracy. This situation was described by András Bozóki even in 2011, at the beginning of the full-scale transformation of Hungary from democratic country into the country with an autocratic, as some researchers call it, or, as other scientists call it, a hybrid regime: “the some problems notwithstanding, Hungary remained until relatively recently (until the eve of 2006), a success story of democratic consolidation. By 2011, however, Hungarian society was forced to realize that the system that had become increasingly freer over the decades had come to a standstill, and it was turning in an autocratic direction”.

Ukraine in the period of the presidency of V. Yanukovich

At the time when Viktor Yanukovich came to power, Ukraine, in accordance with the Constitution, was a parliamentary-presidential republic; the parliament played a decisive role in the country. One of the first steps of Yanukovich as president of the country was the return of the old constitution of 1996, according to which Ukraine was a presidential-parliamentary. This made it possible for him and his criminal group to gain virtually uncontrolled power. By information of Radio Svoboda (2019), in 2017, the Prosecutor General of Ukraine announced a suspicion of the seizure of state power by ex-President Viktor Yanukovich and ex-Minister of Justice from his then team, Alexander Lavrynovych. Office spokesman Yuriy Lutsenko reported on Facebook that there was a “constitutional upheaval” in 2010 when Yanukovich, Lavrynovych and “their accomplices” returned the 1996 Constitution without the necessary Supreme Council (Verkhovna Rada) decision. As a result, the powers of

the parliament and the government were significantly reduced in favour of the president. Evidence gathered by the Office of Special Investigations into the prosecution was sufficient to declare former President Viktor Yanukovich and former Justice Minister Alexander Lavrynovych suspected of Article 109 (1) of the Criminal Code – the seizure of state power by conspiracy. This is punishable by imprisonment for five to ten years.

POSSIBLE SOLUTION OF THIS PROBLEM

Taking into account all above-mentioned, the constitution of any democratic country should indicate that *any changes to the Constitution can be made not only after a public referendum, but after wide public discussion*. In the post-communist space it can be achieved through relevant recommendations and normative documents of a binding nature, for example, by the Council of Europe. It is possible to achieve when country is a democratic country, and after a totalitarian leader comes to power in this country, he or she will not be able to significantly change the basic approaches of the public administration system.

- ***Another important step of all authoritarian leaders was the attempt to make total control over the media.***

In many countries, particularly countries of new democracy, this problem is very topical. Any media has its owner(s), and it is clear that these owners will require execution of their views and ideas. In any case, they will implement a kind of censorship. In many countries there are special services, committees which are responsible for providing licenses to the media. They have the right to dictate some terms to the media from the state, since in most cases they are appointed by the state. It is clear that nondemocratic forces, if they came to power, will have all opportunities to subordinate the media to themselves, to dictate their conditions, otherwise the license will not be obtained.

Russia

From the first days of his presidency, V. Putin was trying to take all media under personal control, and those efforts were successful. Richard Sakwa (2011) claims that Russia's dominant power system has some distinctive characteristics and one of them is the attacks on media freedom.

Now, the media of Russian Federation is an example of Soviet propaganda, where there is no place for journalists' personal point of view or their personal vision. On different channels, different journalists speak the same words, as if one person were writing the text to them all.

As it was noted by Michael McFaul (2018), Putin moved against independent national television, seizing de facto control of two of Russia's largest television companies, NTV and ORT, within months of coming to

power. As a result, Russian media are totally dependent. And even more – they do not give true information in most cases for their audience and, unfortunately, this audience is not only in Russia, but many people abroad who can speak Russian watch Russian TV channels and, by this mean, it is a strong mechanism of propaganda and relevant impact on very wide audience.

Hungary

The same activity was made by new political forces in Hungary which received power in 2010. Kim Lane Scheppele (2016) described how it was: “The media were a particular target of the Orbán regime. While Orbán had a substantial media retinue under his sway before returning to power in 2010, he quickly gained control over the public broadcasting media through a putsch of its most respected journalists. He then brought the private print, digital and broadcast media to heel with a non-independent media council able to issue bankrupting fines against any media outlet that violated vague content standards. Libel actions brought by members of the Orbán inner circle against those who challenged their performance, or raised questions about their private economic dealings, or simply bothered them, helped to chill criticism”.

Another famous researcher of the democratization processes in Hungary Bálint Magyar (2016) continues to describe the impact of the party of V. Orbán Fidesz and noted that Fidesz brought the state-owned public media under its control through the immediate means of authority (commissars, direct orders, censorship). It depoliticized (through threats in the form of arbitrarily imposed sanctions and the advertisement tax) the major private televisions (RTL Klub, TV2). It ghettoized any media with a critical voice (official persecutions, scaring away advertisers). Meanwhile, with state assistance (financial support and illegitimate coercion) the political family built its own private media empire.

POSSIBLE SOLUTION OF THIS PROBLEM

The last point displays all common for authoritarian leaders' directions of taking media under their personal control. Thus, now it is clear that the special countermeasures should be created and implemented to avoid situation when the mentioned processes can take place in democratic country. It is not possible to implement the special measures in authoritarian country, but in democratic – it is fully possible, by special legislation, first of all. And as in previous point, significant role in these processes in post-communist space belongs to special international institutions in the field of democracy and human rights. How it is possible? First of all, it should the special new strategy on functioning of media with new approaches, new forms of cooperation median and authorities on the basis

of above-mentioned challenges. It can be in the view of a Charter, and it must be the part of national legislation. New unified standards must be developed that will not allow the media to be influenced by the measures listed above – censorship, intimidation, etc. For example, in Ukrainian law on non-governmental organisations defined that all NGOs can create their media, but this point does not work because it is need to have significant financial resources and for one NGO it is not possible. The author sees a solution of this problem in creation of media resources by an association of NGOs. It will help to create more or less independent media, because it will have several holders – representatives of these organisations, and to solve another problem: any media has its holder and in any case the journalists are dependent from this holder. In the case when media is ruled by several holders (NGOs) it will be more independent in any case.

To prevent mass lies in the media space, special preventive mechanisms and appropriate punishment should be developed. It is clear that it is very difficult to control the veracity or falsehood of information in the media. Today, there are not only the necessary mechanisms, but also the corresponding structures. But to create such structures and prescribe mechanisms is a necessity of current situation. And these structures should focus primarily on lies, which are widespread and implemented on a large scale, as an example with Russia.

- *In some still democratic countries, where the processes of backsliding from democracy are just beginning, laws are passed that supposedly are aimed at developing democracy, but in fact contain hidden tools that make its development and even their application impossible. In many cases it is directed on reducing of public control. So, another common step of authoritarian leaders is a creation of measures to reduce public control.*

A bright example of it is the Ukraine in the period of V. Yanukovich. In 2010 the Resolution of the Cabinet of Ministers of Ukraine “On Ensuring Public Participation in the Formation and Implementation of State Policy” was adopted. The 2nd part of it is the “Typical Regulation on a Public Council under the Ministry, the other central executive body, the Council of Ministers of the Autonomous Republic of Crimea, the regional, Kyiv and Sevastopol city, district, district administrations in the city of Kyiv and Sevastopol”. This Regulation defined the main approaches to formation and functioning of public councils in Ukraine. The goals, tasks, and powers of public councils comply with all democratic norms and requirements for the activities of such councils. At first glance, it seems that all democratic norms are respected, which will allow public councils to effectively fulfil their functions. However, it has not happened in Ukraine. Public councils have become a “pocket” for executive bodies where they were functioning, and their possibilities to control governmental activity remained only “on

paper". The members of the public councils were only persons loyal to all activities of this body and its leadership. Here is an example how they achieved it:

Point 10 of the Regulation dedicated to the membership in the public council and defines that membership in the public council is terminated on the basis of a decision of the public council in the case of:

- a systematic absence of a member of a public council at its meetings without valid reasons (more than twice);
- notification of the head of the of civil society body, unless otherwise provided by its constituent documents, the withdrawal of its representative and the termination of his/her membership in the public council;
- the cancellation of the state registration of civil society body whose representative is elected to the public council;
- the impossibility of a member of a public council to participate in the work of a public council for the state of health, the recognition by a court of law of a member of a public council of incapacitated or limited capacity;
- submission by a member of the public council of the relevant statement.

So, the second and third points are very controversial. Based on the second point, the head of the public institution, non-governmental organization may withdraw its representative from the composition of the public council without explaining the reasons. However, any leader of institution of civil society is strongly depended from the executive power, because the bodies of executive power register all institutions of civil society, and they cannot function without this registration. Thus, the next point gives to executive body possibility to have unlimited impact and mechanism of influence on all members of the public councils – if they will not loyal to activity of this body, the organisation in which he or she works loses registration and, accordingly, will be closed! If the head of a civil society organisation does not want to lose registration, he/she will demand from representatives of their NGO within the structure of public council full loyalty to this body and its leadership. And, if the leader of civil society organisation is a responsible person and does not want to implement all desires of the leaders of executive body, he/she will simply lose registration. Therefore, only those organisations whose leaders are ready in advance to fulfil all requirements of the executive body in which this public council functions, will propose their candidates for work in the public council. They are ready in advance to support any activity of the executive body and its leader, even non-legal activity. If they do not do it, their registration will be cancelled, according to above-mentioned norms in the Regulation. That is why the public councils in Ukraine are existing formally and do not

have any impact on power authorities. The situation was not changed even in the period of the presidency of the next President P. Poroshenko, and only now new President of Ukraine V. Zelensky has presented new democratic reforms legal package, but the above-mentioned legal norm was not changed till now.

POSSIBLE SOLUTION OF THE PROBLEM

In the EU, and especially in the Council of Europe, as organisation with a large number of members, including post-communist non-EU countries, the requirements for the basic democratic norms that are reflected in the legislation, such as the mechanism for the functioning of public councils and their interaction with authorities, and other forms of wide public control should be clear unified.

- *The above-mentioned problem has close links with another – absence in many democratic countries of clear mechanisms to recall of elected officials and to remove the president from office.*

Clear and precise possibilities for citizens to change the power between elections – to recall the elected officials, to remove the president from office must be reflected in any democratic constitution. No one can be defended from people in politics who want to receive power for personal purpose and use it for solution of personal tasks and personal enrichment. And a very important task of legislation in this context is to make this activity impossible.

Hungary

In the Hungarian Constitution, the Parliament of Hungary has significant power. At the same time, after election, citizens do not have any impact on these elected persons. Only the President of the country can dissolve Parliament when the Government's mandate ends, Parliament fails to elect the person proposed by the President of the Republic to serve as Prime Minister within forty days of presentation of the first nomination, or Parliament fails to adopt the State Budget for the current year by 31 March (Art. 3, p. 3 of the Constitution). The President of the country, in turn, is elected by parliament (Art. 10). The impeachment procedure shall require a two-thirds majority of the votes of the Members of Parliament. Voting shall be held by secret ballot". So, Hungarian citizens do not have any power to have an impact on these processes. If they are not satisfied with the activities of the President or Parliament, they will have to wait only for new elections.

In Russian Constitution situation is the same – citizens do not have any power and possibilities to recall the elected officials, as well as the president of the country.

Ukraine

At the same time, now in Ukraine one can see the example of transformation of the country from hybrid regime to real democracy. In a very short period of time some important laws were adopted – on impeachment of the president, on abolishment of the deputies' immunity, the draft of law “on power of people” is discussing in the Parliament.

In general, Ukraine is an example of several transformations of the regimes: from totalitarian to democratic, from democratic to authoritarian or country with hybrid regime (in the period of V. Yanukovych), and again to democratic (with new president V. Zelensky). It is an example of significant impact of a leader of the country on the situation in it. However, the impact of the citizens on the decision-making process in any case should be much stronger than it is.

POSSIBLE SOLUTION OF THE PROBLEM

Any democratic country should have much more democratic instruments, but not only the election. The mechanisms of recalling of elected officials should be defined in the constitutions of any democratic country. For instance, in the constitutions of considering countries – Hungary and Russia, these possibilities for citizens to have an impact on elected officials are absent, there are no possibilities for citizens to recall the elected officials and remove the president from office. The same situation was in Ukraine before new president of the country. Now, in a very short period, the relevant changes were made – the appropriate laws were adopted. However, it should be the requirements for all democratic countries, (for example from the side of the Council of Europe), but not only the desire of political leaders to make it or not.

- ***The influence of international organisations in the field of democracy on the processes of deviation from democracy and the transition from democracy to dictatorship does not correspond to current situation. This influence is very weak and ineffective.***

It is clear that in accordance with EU values and priorities any country-member of EU must be democratic country, and, in the case of some backslidings from democracy, the EU should apply concrete tools and measures in relation to the problematic country. However, now it is not possible to say that these measures exist and are applying. At the same time many scholars note that any hybrid regime is flexible – it can go both in the direction of democracy and in the direction of dictatorship. So, rapid reaction of EU in these cases is necessary condition for stabilisation of the situation and support of democracy.

As it was noted before, when there are some threats to democracy in the modern world, the democratic institutions that were created to support democracy, its values, must intervene and, through special mechanisms, counteract the processes of moving away from democracy, especially in before democratic countries. Such international institutions as the United Nations, the Council of Europe and others were created in order to promote stability in the world, to develop and strengthen democratic values and human rights. Understandably, they should have the special measures and instrument for this activity. What was the reaction of EU institutions and special preventive measures? Many scholars have noted that the reaction of special organisations was weak and insufficient.

As it was defined by János Kornai (2019), unfortunately, the first sign of danger had little effect. Years went by before the full danger to democracy became clear to Hungarian and foreign observers. The reactions of the EU and other international bodies were slow and feeble. Democracy is a fragile and vulnerable politico-governmental system, since its very liberalism makes it grant freedom of expression and assembly also to enemies of democracy. The EU, built on democratic principles, had, and it seems still has, no effective means of halting anti-democratic actions.

Indeed, the transition from democracy to authoritarianism has been observed in some post-communist countries for more than 10 years, and so far, there has been no corresponding reaction from the institutions that were created to defend democracy. Actually, until now, these organisations are not ready to take certain measures to prevent such negative processes, to control them and to correct them. This is because so far, these necessary measures have not been developed. For example, there are a huge number of documents in the field of democracy developed by the Council of Europe and other organisations that operate in the field of democracy, but over the 10 years of the threat to democracy that was observed, the corresponding reaction, as well as the relevant regulatory documents, has not appeared.

POSSIBLE SOLUTION OF THIS PROBLEM

The activity of all influential international organisations in the field of democracy and human rights should be revised significantly on the basis of current new challenges and troubles in the democratic world. It is clear that all approaches of all international organisations the main activity of which is to support and defend the peace in the world, strong democracy and human rights should be adjusted and updated to meet modern challenges and problems.

The above-mentioned preventive measures can be implemented through relevant recommendations and normative documents of a binding nature, for example, by the Council of Europe. It is possible achieve when

country is a democratic country, and after a totalitarian leader comes to power in this country, he or she will not be able to significantly change the basic approaches of the public administration system.

Table 1. The main steps of totalitarian leaders and possible preventive measures

Steps of authoritarian leaders to concentrate power in their hands and some relevant problems	Preventive measures
Any totalitarian leader started from the changes of the Constitution and other important legal acts	Any changes to the Constitution can be made not only after a public referendum, but after wide public hearings. It should be defined in the Constitutions of all countries-members of the Council of Europe.
Attempts to make total control over the media, which became the tools of propaganda and lies	The mechanisms of media independence must be improved. Significant role in these processes belongs to special international institutions in the field of democracy and human rights. The special international body to fight against disinformation should be created.
Attempts to reduce public control	In the EU, and especially in the Council of Europe, as organization with a large number of members, including post-communist non-EU countries, the requirements for the basic democratic norms that are reflected in the legislation, such as the mechanism for the functioning of public councils and their interaction with authorities, and other forms of wide public control should be clear unified. My proposals: to create Charter on Public Control.
Absence in the legislation of many democratic countries possibilities for citizens to remove the president from office and to recall the elected officials	The mechanisms of recalling of elected officials should be defined in the constitutions of any democratic country. It should be the requirement for any democratic country.
The influence of international organizations in the field of democracy on the processes of deviation from democracy and the transition from democracy to dictatorship does not correspond to current situation. This influence is very weak and ineffective.	The activity of all influential international organisations in the field of democracy and human rights should be revised significantly on the basis of current new challenges and troubles in the democratic world to meet modern challenges and problems, to have much stronger impact on democratic process.

To implement the above-mentioned preventive measures, to suspend the democratic backsliding in general will be possible only by the relevant activity of international organisations in the field of democracy, like Council

of Europe as it was noted above. Now international organisations can only ascertain the country's backsliding from democracy and express concern, although, given that this is not happening in one country, but is becoming a certain trend, concrete measures from international institutions in the field of protecting democracy are required in the view of relevant strategies and legal norms.

Conclusions

On the basis of all above-mentioned, today, there is an urgent need to develop an appropriate strategy that would clearly define the problem, its main components, and mechanisms for overcoming it. This article is an attempt to define all problematic directions and all necessary mechanisms and instruments to block the backsliding from democracy to autocracy or dictatorship in post-communist countries.

Many scholars analyse the problem of democratic backsliding, they clearly describe the problem itself. However, today there is a strong necessity to go from describing the problem to concrete countermeasures, which will not allow the authoritarian leaders to transform democratic country in authoritarian or country with hybrid regime in the future. It should be special measures for two kinds of impact – inside (from the side of citizens and their associations) and outside (from the side of international democratic society). And it is possible to make on the basis of analysis of the main common steps of authoritarian leaders in their coup d'état in before democratic countries. It was made in this article. Thus, the main these steps and relevant preventive measures are the following:

- All authoritarian leaders started from the changes to the Constitution.
Solution: Constitution can be changed only by national referendum with wide public discussions. It should be defined in the constitution of any democratic country.
- The main instrument for fight against corruption is wide public control, but in many countries, it is not functioning in full measure or even as a whole. All authoritarian leaders were making attempts to reduce the public control.
Solution: Common European norms such as the European Charter on Public Control.
- In many even democratic countries there are no any clear measures to recall the elected officials and remove the president from office.
Solution: These mechanisms should be defined in all constitutions and be supported by special national legislation.
- Another important step of all authoritarian leaders was the attempt to make total control over the media.

Solution: it should be the special new strategy on functioning of media with new approaches, new forms of cooperation between media and authorities on the basis of above-mentioned challenges. The dependence of media and journalists from the authorities and even media holders should be reduced by special clearly defined mechanisms.

- All authoritarian leaders who came to power in democratic countries can change the country from democratic to authoritarian thanks to 1) weak position of special international organisations in the field of democracy, which are obliged to control such processes and to block them; 2) absence of special concrete strategy to prevent democratic backsliding.

Solution: The activity of all influential international organisations in the field of democracy and human rights should be revised significantly on the basis of current new challenges and troubles in the democratic world. It is clear that all approaches of all international organisations the main activity of which is to support and defend the peace in the world, strong democracy and human rights should be adjusted and updated to meet modern challenges and problems.

REFERENCES

- Ágh, A. (2014). Decline of Democracy in East-Central Europe: The Last Decade as the Lost Decade in Democratization. *Journal of Comparative Politics*, 7(2), pp. 4–33.
- Ágh, A. (2016). The Decline of Democracy in East-Central Europe. Hungary as the Worst-Case Scenario. *Problems of Post-Communism*, 63(5–6), pp. 277–287.
- Bogaards, M. (2018). De-democratization in Hungary: diffusely defective democracy. *Democratization*, 25(8), pp. 1481–1499.
- Bozóki, A., Hegedűs, D. (2018). An externally constrained hybrid regime: Hungary in the European Union. *Democratization*, 25(7), pp. 1173–1189.
- Bozóki, A. (2011). Occupy the State: The Orbán Regime in Hungary, *Journal of Contemporary Central and Eastern Europe*, 19(3), December, pp. 649–663.
- Bozóki, A. (2012). The Crisis of Democracy in Hungary. Available at: <https://www.boell.de/en/navigation/europe-north-america-andras-bozoki-the-crisis-of-democracy-in-hungary-14645.html> [Accessed 15.04.2020].
- Bozóki, A. (2017). Nationalism and Hegemony: Symbolic Politics and Colonization of Culture in Hungary. In *Twenty-five sides of a post-communist mafia state*. Ed. B. Magyar, J. Vásárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Buzogány, A. (2017). Illiberal democracy in Hungary: authoritarian diffusion or domestic causation? *Democratization*, 24(7), pp. 1307–1325.
- Christiano, T. (2008). *The Constitution of Equality: Democratic Authority and Its Limits*. Oxford University Press.

- Cianetti, L., Dawson, J., Hanley, S. (2018). Rethinking “democratic backsliding” in Central and Eastern Europe – looking beyond Hungary and Poland. *East European Politics*, July, pp. 243–256.
- Constitution of Hungary. 1949. Available at: <https://lapa.princeton.edu/hosteddocs/hungary/1949%20Hungarian%20constitution.pdf> [Accessed 15.04.2020].
- Constitution of Hungary. 2011. Available at: https://www.constituteproject.org/constitution/Hungary_2013.pdf?lang=en [Accessed 15.04.2020].
- Constitution of Ukraine. Available at: https://www.justice.gov/sites/default/files/eoir/legacy/2013/11/08/constitution_14.pdf [Accessed 15.04.2020].
- Constitutional Democracy in Crisis? (2018). Eds.: M. A. Graber, S. Levinson, M. Tushnet. Oxford University Press, New-York.
- Csepeli, G. (2017). The ideological patchwork of the Mafia State. In *Twenty-five sides of a post-communist mafia state*. Ed. Bálint Magyar, Júlia Vászárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Developing Organizations and Changing Attitudes: Public Administration in Central and Eastern Europ. (1996). Proceedings from the Fourth Annual Conference held in Tirana, Albania, March 28–30. Ed. Jak Jabes, NISPAcee, p. 54.
- Fleck, Z. (2017). Law under the Mafia State. In *Twenty-five sides of a post-communist mafia state*. Ed. B. Magyar, J. Vászárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Jancsics, D. (2017). From Local Cliques to Mafia State: The Evolution of Network Corruption. In *Twenty-five sides of a post-communist mafia state*. Ed. B. Magyar, J. Vászárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Kornai, J. (2019). The System Paradigm Revisited: Clarification and Additions in the Light of Experiences in the Post-Communist Region. In *Stubborn Structures. Reconceptualizing Post-Communist Regimes*. Ed. B. Magyar. Central European University Press, Budapest, Hungary.
- Magyar, B. (2016). Post-Communist Mafia State. The Case of Hungary. Central European University Press in association with Noran Libro Kiadó, Budapest, Hungary.
- Magyar, B. (2017). The Post-communist Mafia State as a Form of Criminal State. In *Twenty-five sides of a post-communist mafia state*. Ed. B. Magyar, J. Vászárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Magyar, B. (2019). Towards a Terminology for Post-Communist Regimes. In *Stubborn Structures. Reconceptualizing Post-Communist Regimes*. Ed. B. Magyar. Central European University Press, Budapest, Hungary.
- McFaul, M. (2018), Choosing Autocracy: Actors, Institutions, and Revolution in the Erosion of Russian Democracy. *Comparative Politics*, 50(3), April, pp. 305–325(21).
- Morlino, L. (2012). Changes for Democracy: Actors, Structures, Processes. Oxford University Press.
- Rewati, R. T., Surya, P. P. (2009). Constitution: Evolving Concepts and Prerequisite of a Democratic Constitution, 3 *NJA Law Journal*, 7, pp. 7–38.
- Sakwa, R. (2011). Russia' Identity: Between the “Domestic” and the “International”. *Europe-Asia Studies*, 63(6), August, pp. 957–975.

- Scheppele, K. L. (2016). Foreword. In *Post-Communist Mafia State. The Case of Hungary*. Central European University Press in association with Noran Libro Kiadó, Budapest, Hungary.
- Soros, G. (1994). *Dangers of Post-Communism*. Soros Foundation, New York, USA.
- Stubborn Structures. Reconceptualizing Post-Communist Regimes. (2019). Ed. B. Magyar. Central European University Press, Budapest, Hungary.
- Twenty-five sides of a post-communist mafia state. (2017). Ed. B. Magyar, J. Vászárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Vörös, I. (2017). A “Constitutional” Coup in Hungary between 2010–2014. On Some Aspects of the Exclusive Systemic Exercise Of State Power With Regard To Constitutional Law, International Law, and European Law. In *Twenty-five sides of a post-communist mafia state*. Ed. B. Magyar, J. Vászárhelyi. Central European University Press in association with Noran Libro. New York, Budapest.
- Yanukovich’s “constitutional coup”: a new case of the Prosecutor General’s Office. (2017). Available at: <https://www.radiosvoboda.org/a/28720493.html> [Accessed 15.04.2020].

LEADERSHIP AND CHANGE MANAGEMENT – IN CONTEXT TO CIRCULAR ECONOMY AND RECYCLING INITIATIVES IN THE EUROPEAN PLASTIC INDUSTRY

Markus Huemer

Mg. rer. soc. oec.

Abstract

Circular Economy is a term which is omnipresent in nowadays discussions about sustainability and climate change. Basically, it shall represent an attitude of resource efficiency, targeting whole non-resource efficient societies and focusing on a sustainable use and reuse of the goods that are produced and used in everyday private and business life. However, Circular Economy is not just a “thing” implementable by promoting the right words, it is an attitude, respectively a way of doing things different than it was done until now, that must be pushed and guided from somehow above, making people and companies follow that approach. Consequently, implementing a sustainable and working Circular Economy requires a trustworthy management of that change, and leaders whom societies, companies or individuals or willing to follow.

Keywords: Circular Economy, Change Management, Leadership

Introduction

Leadership and Change Management as an integral part in companies and industries, consists since the beginning of all business activities. Specific circumstances make changes inevitable; leaders are requested to initiate and direct the change. When the whole planet and environment is asking for a change, the challenge in leadership is at the top level and it requires sustainable and unified actions to realise the change.

Plastic pollution is a very present topic and fills nowadays media. Many people are blaming Plastics itself as the root of all evil, but is this the really the simple truth? Or is it the people, the communities, the states that are to blame because of missing initiatives, missing awareness and missing actions how to prevent from plastic pollution?

A very popular expression in the daily media is the so called “Circular Economy”, which shall contain and minimise the negative effects of plastic pollution. Well lead and proper realised, the change from a linear economy to a circular economy is possible, which would not only have ecological benefits, but also economic ones. The goal of this article is to

investigate appropriate leadership and change management theories, have a look on the European Plastic Industry and then analyse and comment on the leadership and change management actions that have been taken in order to realise the Circular Economy.

Research Object

- Relation of Global Leadership and Change to realising the Circular Economy

Purpose of the research

- Is to link the theories of Global Leadership and Change to the initiatives in Circular Economy.

Problem Position

- Circular Economy is a global topic that requires global actions. All actions that alter the future, in this case to the obviously better one, require partly huge investments companies are often not willing to undertake. As a Circular Economy is key for a sustainable living on our planet, those investments are just inevitable and necessary. Strong leadership decisions will be necessary in order to move from a linear to the Circular Economy

Leadership and Change Management

When looking at the development in the Recycling Industry, especially the Circular Economy Movement, a deeper insight into the theoretical framework is necessary in order to understand the decisions taken in the past. Naturally, the Circular Economy Movement received highest attention due to the economical and recycling awareness in the last years. However, the subjects that most probably had the biggest influence in going towards a Circular Economy are Leadership and Change Management, as it requires strong leadership, right decisions and people to follow in order to realise the change. Both topics are rather wide and can be applied on many practical business cases. However, it makes sense to analyse Leadership and Change Management from a very theoretical perspective, as the actions and decisions taken have been decided by leaders, in order to survive difficult times and to manage the change that is inevitable in a business environment over decades.

Leadership Theories

In the literature, many different leadership theories exist. Here in this article the focus will lie on “Great Man Theory”, “Contingency Theory” and “Transformational Theory”, as those theories are most profound in the article context. Plentiful explanations and classifications exist in

the modern literature, which mainly emerged in the 20th century. Even through this relatively short period of time, in relation to how long leadership as a science already exists, the various theories have been modified, modernised and re-evaluated quite often. Consequently, one can say, that a theory alone is relatively unconnected and always must be seen in a specific context. This context might be time period or century, modernisation and industrialisation and other environments that influence the necessary style of leadership in the certain area.

The theories chosen and mentioned above are chosen on purpose. For many companies founded years back and still existing, the different leadership theories might reflect the past leadership styles. At the beginning of the foundation, a great man had the vision to create, or in this case it was somebody to start the movement. Over the years, as the company or the industry grew, it was unavoidable that the organisation opened to be flexible for environmental influences. The transformational theory says that the motivational skills of leaders shall enable their staff to grow, which might cause in the wish of self-fulfilling, freedom and flexibility. In this field of research, it will be the motivational skills of people, companies or organisations to enable societies to grow.

Great Man Theory

Born and founded in the 19th Century, the “Great Man Theory” explains leaders as Great Men, as charismatic heroes, as people that can change history. “Heroes certainly have their uses. They capture imaginations, unveil possibilities, and rally sympathies. They inspire.” (Wynn, 1984, p. 145). Following this statement, the presence of a great man alone is enough to motivate other people. Applying on a modern business environment, a great man can be a charismatic founder of a company, who is able to catch people, or an active and sound sales director who is the one to attract his or her sales staff.

James (1881, p. 89) says that “the plain truth is that the ‘philosophy’ of evolution is a metaphysic creed, and nothing else”, meaning that the “great man” influences by things that are not tangible in common sense and he continues further that with “It is a mood of contemplation, an emotional attitude, rather than a system of thought”. Great Man or Heroes are “larger-than-life” (Wynn, 1984, p. 145), which again expresses their ability to influence metaphysic belief.

Contingency Theory

As per the word “contingency”, this theory sees environmental influencing factors as main drivers for decision making and leadership. There is no best-practice in general, but there might be best-practices for cases or circumstances.

Morgan (2006, p. 38) sees an organisation as an open organism, which must interact and achieve an appropriate relation with that environment, meaning that the organisation must be flexible to adopt to any potential changes in the environment. This approach can be somehow seen as controversial to the Great Man Theory, as this theory sees the leader as the reason for success or failure, and not the influencing factors from outside.

Fiedler (1986, p. 533) goes even further with his cognitive resource theory saying that even within an organisation, leadership adaptations daily are unavoidable. Staff behaviour in terms of stress level, group and leader support may vary from one situation to the other, resulting in the need for leadership style adjustments. Fiedler's Contingency Model of Leadership Effectiveness (1964) "attempts to spell out the specific conditions under which certain leadership attitudes result in effective Performance", showing that already more than 50 years back this situational approach to leadership was of high importance.

The Contingency Theory therefore cannot be a universal valid approach to general leadership management, as it implies the necessity of knowing other theories to be used in specific depending circumstances. The essence of this leadership theory might be – setting the right steps in the right moment.

Transformational Theory

Transformational leadership can be applied when trying to increase participation and motivation in teams and to identify a potential need for change. In contrast to the transactional leadership, where rewards are the main incentives for effort, the transformational leader tries to motivate typically by charisma, inspiration, intellectual stimulation and individualised consideration (Bass 1990, p. 22), resulting in an increased performance of the staff. This model could be very modern, as in a common business environment in the recent years motivation and enabling the staff to grow is key to success. However, this theory also can be linked to the great man theory, where an individual came up with an idea and other followed. Means that the difference between the two theories *per se* might be small, in a real business environment the difference is quite big as the transformational approach can be applied throughout all hierarchical steps of an organisation, while the great man approach is limited to the idea that that people just become leaders and not taken influencing factors into consideration.

The four I's often refer to a kind of best practice for transformational leadership, named Individualised consideration, Intellectual stimulation, Inspirational motivation, and Idealised influence (Avolio, 1991, p. 13). Summed up the transformational leader is not leading by promising

incentives or threatening, but on a very emotional and individual level where it becomes harder for the people to neglect the positive emotions and actions the leader is offering.

Contextual Transition to Change Management

“The globalization of markets and the rapid diffusion of information and communications technologies have transformed the economies of the developed countries of the world. (Dess, 2000, p. 1)”, which was written already in the beginning of the recent century. Nowadays, the speed of information flow, worldwide transparency and unlimited access to all written sources is even higher and the effects of modernisation might be even more severe, considering leadership and style of leadership. Speeches are present and available in the media and it is easy to get information, but also to seed information.

The above have shown that Leadership Theories can excellently explain the theoretical background which are underlying the leader’s decision. It is also obvious, that decisions taken are worth nothing without the correct execution. Especially in critical times, where companies or whole industries might struggle or even fail, this becomes an even higher priority and it is up to the leaders to guide the way throughout the potential crisis. Another quite common expression for overcoming such situations is “Change Management”.

Change Management Theory

When Leadership is the way how to direct a company respectively the people, Change Management is the process how to detect and implement necessary changes. Such changes might not be obvious, which makes it even more difficult to identify the unavoidable steps in order to move forward or to survive. Companies often face challenges from outside, which they are not able to handle with the current structure or setup. This can be financial reasons, new competitors, new technologies, bankruptcy from sub-suppliers and so further. Continuing doing business as usual might not have negative short-term effect, but it will cause in problems on the longer run. The main question for companies in this context at the beginning is, how to recognise the need for change?

There can be many reasons for change – environmental impacts, a new competitor is arising on the market, the technology produced is not state of the art any longer, the founder of the company is retiring, and a new generation is taking over. This means it can be external indicators for change, or also internal indicators like additional benefits for the company or individuals. “Another major factor that motivates change

is the perception that benefits (as opposed to losses) can be accessed through implementation” (Rousseau, 1990, p. 517). which describes the logic behind the need for change for individuals quite well. As change management shall support and help people or organisations for initiating the change, all different aspects why change shall be implemented must be taken under consideration.

According to John Kotter’s 8-Step Process for Leading Change, adapted and modernised by the author in 2012, the following steps are necessary in order to make the change (Kotter 2012, p. 23)

- Establishing a Sense of Urgency – people must realise that something must be done
- Creating the Guiding Coalition – a powerful team is necessary lead the change
- Developing a vision and strategy – vision and strategy support the purpose of making people understand
- Communicating the change vision – before people can understand the purpose, they must know what it is all about
- Empowering broad-based action – a change results in something new – also the process how to get there can be somehow new and untraditional
- Generate Short-Term Wins – a win increases the motivation which will further motivate others
- Consolidating gains and producing more change –motivate and develop the change culture
- Anchoring new approaches in the culture – encourage people to lead changes, to approach others

Kotter’s 8-Step process is a quite universal and still up to date method how to start and execute the change in a company or other organisations. Basically, it can be applied to all cases where human interactions happen. Leading the change according to Kotter is one step in how to finally succeed with the intended change. However, there is also the need check the steps and decisions done. W. Edwards Deming (2000, p. 23) not only describes his model of change in his “Principles for Transformation”, which is a 14 steps model comparable to the 8-Step process from Kotter, he also invented the so called Plan-Do-Check-Act Cycle, also called Deming Cycle, which represents a management tool to continuously improve the change decisions. Depending on environmental influencing factors, some changes may be preferable over others.

Contextual Transition to Circular Economy

Leadership and Change Management are the focus areas that can influence people in companies, groups in regions or populations in societies. Depending on how the leader is trying to execute the change,

people might follow with passion or they don't. In some cases, the leader must make the people follow, it is unavoidable because of a bigger goal that is not only influencing our every day's business life, but also the whole planet and future generations. Consequently, it should be a good and charismatic leader that is enabling the change – it should be a strong organisation that makes the people follow, and the key message must be understood.

Sector and Company Analysis

Environmental Economy already has its beginning in the 1960's with the work of Kenneth Boulding (1966) in which he tried to show the importance of a sustainable attitude towards our planet and its resources. First officially mentioned in the 1990's by David Pearce (Pearce, 1989, p. 1), the expression "Circular Economy" is one the biggest and most up-to date words in the whole plastic industry. Every company that is somehow engaged in the Plastic industry is nowadays putting a high focus on sustainability, recyclable products and corporate social responsibility. People and companies are aware that something must be done in order to prevent from even higher plastic waste pollution, same importance has the cleaning of the already existing pollution. This awareness is great and necessary for our planet; however, this awareness is something new and depending on industry, it came up only since a few years. From industrial ecological point of view, the implication exists that a circular economy, consequently, shall be valuable to society and to the economy in general.

Circular economy will reduce the pollution of the planet by keeping the waste and side products in the product life cycle, by recycling, reusing and redesigning. This means that the loss of ones produced material will be minimised, in best case eliminated and products will be put back in the loop even after their initial life cycle. In this context one can also name the first law of thermodynamics, where it says, "that total energy and matter remains constant in a closed system" (Andersen, 2006, p. 2). In the modern circular economy this means avoiding producing new virgin materials and using end of life cycle products as the raw material.

Associations Teams / Cooperation

Many associations on company level, on regional levels, but also on the European level exist in the nowadays plastic industry. Companies are getting together to boost their ecological approach, to show their social responsibility and to initiate real change. One of the biggest organisations on the European Level is "Plastics Europe", where most European

companies in the Plastic industry are involved. Companies in the Plastic Industry thereby means Virgin Plastic producers, plastic converters, plastic recyclers and machine manufacturers for the plastic industry.

Recycling today is a necessity and companies realise that. However, for them it is not only a necessity, it is also a huge business. Today, 95% of plastic packaging material value or an equivalent of USD 80–120 billion annually is lost to the economy after a short first use (Ellen MacArthur Foundation, 2016, p. 26). With efficient waste collecting and recycling initiatives, this lost money can be collected and put back into the material loop, increasing Product Life Cycles, sustainability and avoiding littering.

The European Commission aims at transforming Europe into a more circular and resource efficient economy. Although Europe, compared to the rest the world population is rather small, it is worldwide considered as technology leader in the Plastic Machine Manufacturing Industry – and it is technology that will make the change, and which will, if ever, clean the planet from the plastic waste pollution. Of course, education and teaching people not to throw plastic waste somewhere, but collect it recycling friendly, would be the optimum case, but unfortunately it is a romantic and utopian idea to rely on people only on such an important topic.

The “Plastic 2030” voluntary commitment focuses on preventing leakage of plastics into the environment, on improving resource efficiency and the circularity of plastic packaging applications, aiming to make circularity and resource efficiency a reality (Figure 1).

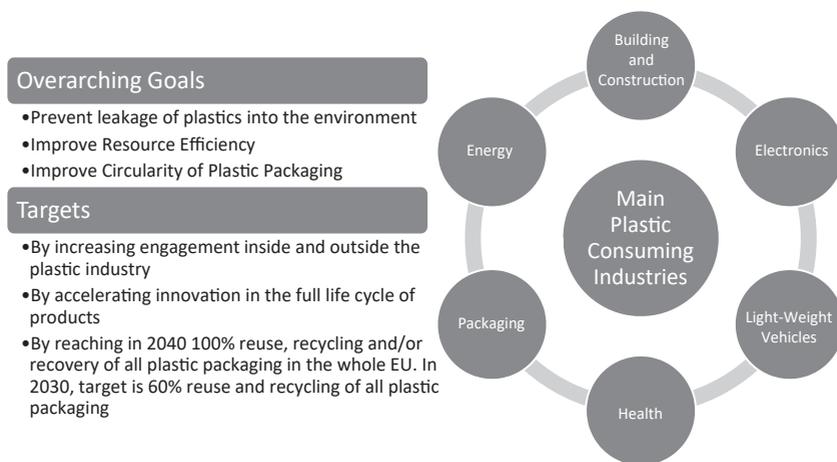


Figure 1. Goals and Targets of the “Plastic 2030” Voluntary Commitment

Source: “Plastic 2030” Voluntary Commitment

Preventing leakage for producing companies and for the recycling machine industry means increasing the ratio of materials put back into the loop respectively not leaving the loop. Once having left the loop, an efficient collecting of the waste materials is required in order to achieve the recycling rates required. One can separate two different streams when it comes to Plastic waste:

Post-Industrial waste – plastic waste that occurs during the production of plastic products. In every production process, there are some side products or waste that is cut off. This post-industrial waste typically does not really leave the loop as recycling companies are eager to get this waste material as a valuable material source.

Post-Consumer Recycling – as per the keyword itself, a consumer already used the waste that shall be recycled. Due to cross contamination with other polymers, different contamination and other influencing factors, post-consumer recycling will be the bigger challenge for making Circular Economy happen. Many different technologies are available on the market, in any case efficient Post-Consumer Recycling requires quite high investments and running costs in order to create a product that can be used again in the material loop.



Figure 2. Key Figures of the European Plastic Industry

Source: Plastics Europe Association – Plastics the Fact, pp. 12–13

Research and Development on alternative products and or alternative environmentally friendly polymers are ongoing in the industry, as well as sector specific commitments to develop guidelines, innovations and standardisation. Product Life Cycle extensions by improved properties, Restrictions for recycling unfriendly plastic products combinations and Quality Standards for Collecting are just some of the initiatives pushed forward by the European plastics associations.

Figure 2 shows the strength and the size of the plastic industry in Europe. It includes plastics raw materials producers, plastics converters, plastics recyclers and plastics machinery manufacturers in the EU28 Member States.

Plastic products are inevitable in our daily life. Plastic is used as packaging materials, plastic fibres are used for clothes, in automotive and building industry Plastic is an inherent material. Figure 3 shows the distribution of Plastic products are converted by industries and applications.

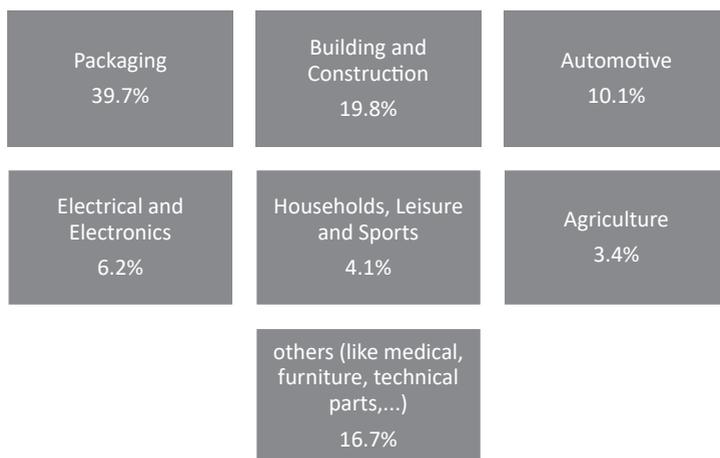


Figure 3. Plastic converter demand main market sectors

Source: Plastics Europe Association – Plastics the Fact, p. 24

Many different industries require the use of plastic and an alternative will be difficult to find. The huge variety of different polymer types enables the converter to use the excellent properties of plastic in many different applications. Another advantage is that plastic is still a quite cheap raw material and it is recycling friendly when in the right combination. The European Union is setting steps in order to increase the ratio of recycling friendly polymer combinations, which mainly means using mono-materials only. For example, a mono-material plastic packaging is

packaging film that consists of a single polymer only. This structure makes it quite recycling friendly and reusable for a next product life cycle, while a multilayer structure, respectively multipolymer structure results in difficulties when recycling and a limited amount of final applications after recycling for such products.

Current Status of Recycling Initiatives

Plastic Recycling nowadays is a huge topic worldwide, but especially in the European Union. Subsidies are paid for companies starting recycling plants, initiatives to boost the Circular Economy are coming up and many companies already formed associations to use their individual competencies together with others in order to create synergy effects for their recycling purposes. All those initiatives, in addition with the increased people's awareness of waste separating and collecting is resulting in an 80% higher recycling rate compared to 2006, visualised in Figure 4. Landfill collection thereby results in a minus of 43%, Energy Recovery in a plus of 61% and the Recycling rates in a plus of 79% from 2006 to 2016.

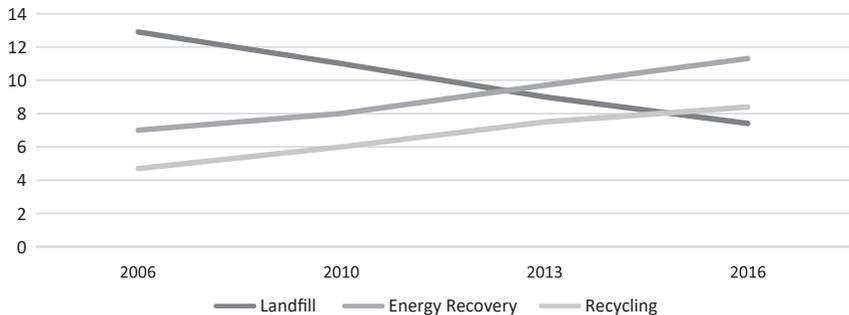


Figure 4. Evolution of plastic waste treatment 2006–2016 in million tonnes

Source: Plastics Europe Association – Plastics the Fact, p. 32

This efforts from all EU members results in high national recycling rates all over the states and leads to the fact that the EU plastic packaging recycling rate is 18% higher than what was asked by the EU Packaging Waste Directive (Figure 5). The new plastic packaging recycling target for 2025 is set to 50%, where some countries are already very close now respectively some of them already reach this target or settle above. As a limitation of this numbers it is obvious that only the plastic packaging is concerned, not the other applications where plastic is used. However, plastic packaging

is one of the main drivers for post-consumer waste, where main focus in Circular Economy is set on anyhow.

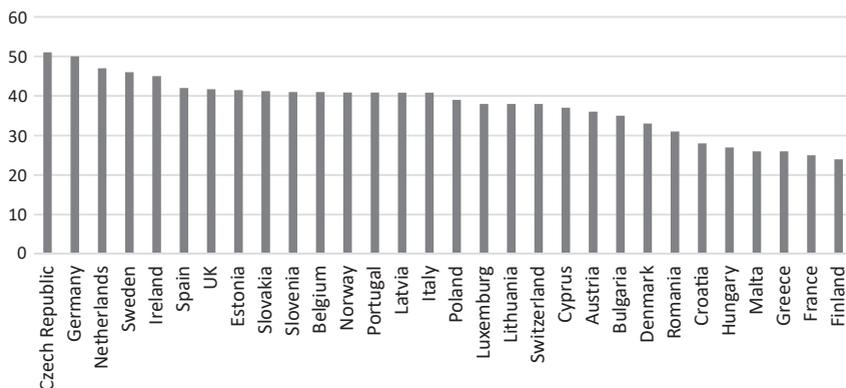


Figure 5. Plastic Packaging Recycling rate per country in 2016 in %

Source: Plastics Europe Association – Plastics the Fact, p. 39

Outlook and Strategies to Transform the Plastic Packaging Market into Circular Economy from Ellen MacArthur Foundation in 2016 (The new Plastics Economy, 2016, p. 31):

- Create an Effective After Use Plastics Economy
- Drastically Reduce the Leakage of Plastic
- Decouple Plastics from Fossil Feedstocks

In 2017, the Ellen Mac Arthur Foundation (The new Plastics Economy 2017, pp. 52–55) adds further targets for the near future of plastic recycling:

Fundamental Redesign and Innovation – Necessity of avoiding multilayer structures is clear. Without this redesign and innovation, approximately 30% of plastic packaging will never be reused or recycled. Here the virgin manufacturers, but mainly the producers of the plastic packaging are taken into responsibility, as they are the only ones that can initiate the change in this field.

Reuse – for at least 20% of plastic packaging, reuse provides an economically attractive opportunity. Reusing of course won't be possible for packaging materials that are subject to applications where hygiene and food safety is of importance. However, there are many other packaging types than can easily be used again in their existing shape.

System Approach – with concerned efforts to redesign packaging and the systems for managing after the use of it, recycling would be economically attractive for the remaining 50% of plastic packaging.

Analysis and Interpretation

It is obvious from the data given, that there are many initiatives already existing in the European Plastic Industry. Recycling rates grew dramatically which is decreasing the problem of landfilling. All countries in Europe are following the European directives. It may be because of international pressure or the own awareness of the necessity. Basically, it does not really matter why the rates are high and fulfilled, if the rates are high and continuously growing.

International pressure definitely will be a reason why countries are following the recycling goals to enable the Circular Economy. Nobody wants to step behind others on such an important topic, and the topic still is – saving the planet, or at least contributing to saving the planet, as plastic pollution is not the only source of worldwide pollution. Pressure from outside means receiving directives, receiving orders, receiving targets. The giver of such orders should be a great man, but flexible to influences from outside with the ability to motivate people to follow and grow. This would be somebody who is able to embody the combination of the great man theory, the contingency theory and the transformational theory and transfers the ideas behind into real actions.

Kotter's 8-Step Process for Leading Change can be perfectly set in context with the growing Circular Economy (Figure 6).

Establishing a Sense of Urgency – people, organisations and countries must realize that something must be done, otherwise the Plastic Pollution worldwide will grow significantly. Production of Plastic products will grow, but sources of Plastic must change as well and the adaption to a Circular Economy is just the first Step to change the wheel.

Creating the Guiding Coalition – a powerful team is necessary lead the change. In this context, where basically the world and all its inhabitants are the “company”, a team could be an association of big international companies or even countries that join to a common goal, which is bigger than just economic success.

Developing a vision and strategy – vision and strategy support the purpose of making people understand. Many “green” initiatives try to clean the planet from Plastic pollution. It may be the, in social media well known, cleaning of India's beaches, the recycling ships or fabric manufacturers using 100% recycled sea plastic. The ideas are wide and big, and luckily, due to nowadays technology, most of the ideas are realisable. However, the vision and strategy just must be strong enough to catch the people, as this is the only unstable variable.

Communicating the change vision – before people can understand the purpose, they must know what it is all about. The initiatives

communicate quite clear as well as the trend where all the initiatives are heading towards – usage of recycled plastic instead of virgin plastic:

Empowering broad-based action – a change results in something new – also the process how to get there can be somehow new and untraditional. In Far Eastern countries, people get “points” for being a good citizen who throws the plastic waste into the correct box, in Pakistan people get paid for each PET bottle that they collect, international celebrities force the Circular Economy and create awareness on the problem of plastic pollution. This might be new to the people, as usually companies or local communities solely took care of waste collection.

Generate Short-Term Wins – a win increases the motivation which will further motivate others. In nowadays media, especially in dedicated Plastic magazines, one can read an innovation in this sector every day. Many of those innovations are really promising and can make a change, most of them are related to new technologies. All those steps and innovations can be seen as a Short-Term win, but also social projects like the already mentioned cleaning of some Indian beaches.

Consolidating gains and producing more change – motivate and develop the change culture. Once a change is done and first wins are succeeded, the goal must be to initiate more change, more motivation to others and an increasing awareness. The example of the Indian beach cleaning initiative can be a great example for other areas on the planet.

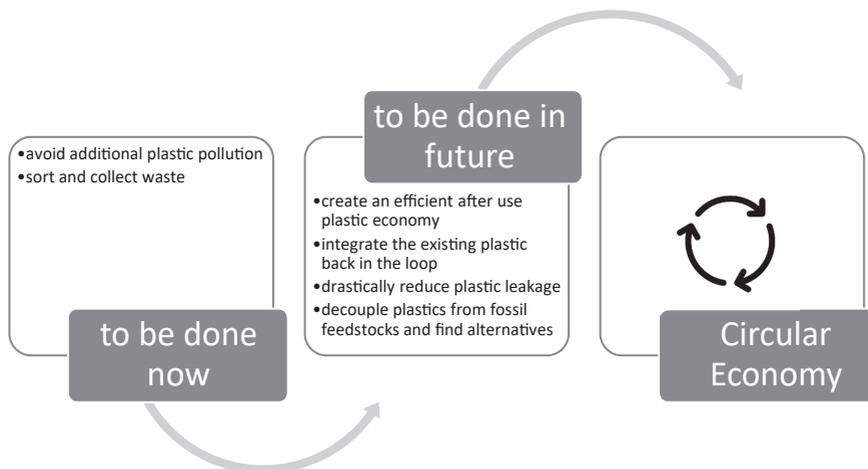


Figure 6. The Circular Economy for Plastics

Source: Authors own work

Anchoring new approaches in the culture – encourage people to lead changes, to approach others. Celebrities, children demonstrating on Fridays against the Climate Change, and many other examples demonstrate that this is already happening when looking at avoiding plastic waste and pushing Circular Economy.

It was the pure production of plastic products only in the past – the industry nowadays tries to integrate sustainability and circular economy in the daily business life? Strong leadership actions and an efficient change management will be now necessary in order to make the useful initiatives come true, increase the awareness of the people that they are the ones to start, and finally, realise a Circular Economy to minimise the planet's exploitation.

REFERENCES

- Andersen, M. S. (2006). An introductory note on the environmental economics of the circular economy. *Integrated Research System for Sustainability Science*.
- Avolio, B. J., Waldman, D. A., Yammarino, F. J. (1991). Leading in the 1990s: The Four I's of Transformational Leadership. *Journal of European Industrial Training*, 15(4).
- Bass, B. M. (1990). From Transactional to Transformational Leadership: Learning to share the Vision. *Organizational Dynamics*, 18(3), pp. 19–31.
- Boulding, K. E. (1966). The Economics of the Coming Spaceship Earth. Environmental Quality in a Growing Economy, Resources for the Future, Johns Hopkins University Press, pp. 3–14.
- Deming, W. E. (2000). *Out of the Crisis*. The MIT Press.
- Dess, G. G., Picken, J. C. (2000). Changing roles: Leadership in the 21st century. *Organizational Dynamics*, 29(4), 18–33.
- Ellen MacArthur Foundation – The New Plastics Economy: rethinking the future of plastics and catalyzing action (2016).
- Ellen MacArthur Foundation – The New Plastics Economy: rethinking the future of plastics and catalyzing action (2017).
- Fiedler, F. E. (1986). The contribution of cognitive resources to leadership performance. *Journal of Applied Social Psychology*, 16(6), pp. 532–548.
- Fiedler, F. E. (1964). A theory of leadership effectiveness. *Advances in experimental social psychology*. New York: Academic Press.
- James, W. (1881). On great men and great thoughts versus environment. *Journal of Speculative Philosophy*, 15(1), pp. 88–91.
- Kotter, J. P. (2012). *Leading Change*. Boston: Harvard Business School Press.
- Morgan, G. (2006). *Images of Organizations*. Schulich School of Business, Sage Publications.
- Pearce, D. W., Turner, R. K. (1989). *Economics of Natural Resources and the Environment*. Johns Hopkins University.

- Plastics Europe Association (2018). Plastics the Fact. An analysis of European plastics production, demand and waste data.
- Rousseau, D. M., Tijoriwala, S. A. (1999). What's a Good Reason to Change? Motivated Reasoning and Social Accounts in Promoting Organizational Change. Carnegie Mellon University. *Journal of Applied Psychology*, 84(4), pp. 514–528.
- Wynn, G. (1984). On Heroes, Hero-Worship, and the Heroic in Environmental History. Department of Geography University of British Columbia, V6T 1Z2.

THE AUTHORS

Biruta Sloka is a professor of University of Latvia, and senior researcher at the Centre of Economics and Management Research, University of Latvia, She is participating in several researchers' groups, has several scientific publications indexed in scientific data bases, is participating in several academic councils and is involved in several professional organisations. Fields of interest – public administration, social inclusion, data analysis.

Kate Čipāne is master level student at University of Latvia and research assistant at Centre of Economics and Management Research, University of Latvia. Fields of interest – Public administration, social marketing, citizens' involvement, regional and local development.

Sabīne Anete Vasina is a postgraduate student in Management Science at University of Latvia, Faculty of Business, Management and Economics in the field of Management Information Systems and research assistant at Centre of Economics and Management Research. Her areas of research interest are gender segregation and wage gaps, income indifferences and skills inequality. Fields of interest – Organizational management, gender income indifference, gender segregation, female managers.

Emīls Volgasts is student in Management Science at University of Latvia, Faculty of Business, Management and Economics in the field of Strategic Management and Leadership and research assistant at Centre of Economics and Management Research. Fields of interest – Sustainable development, process management, societal engagement, social marketing.

Matthias Kretschmar, Diplom-Kaufmann (Master's Degree in Business Administration), is a lecturer in Business Administration at Fulda University of Applied Sciences, Germany. His main topics are general management, corporate finance and cost accounting. He obtained his Master's Degree at Saarland University, Germany. He is currently Doctoral Student at the University of Latvia. He has 20 years of work experience in the banking industry in Germany and France focusing on commercial banking and corporate finance for multinational and Mittelstand (Midcap) companies.

Viesturs Pauls Karnups is a Dr. oec., Professor in international economic relations and economic history at the University of Latvia (LU), Business, Management and Economics Faculty, Department of Global Economics Interdisciplinary Studies, and Director of the LU North American Studies

Centre. Senior Researcher at the LU Scientific Institute of Economics and Management. Was a Fulbright research scholar in 2008 at Georgetown University, Washington D.C., USA. Has published a large number of articles on Latvian economic history and international economics. Currently working on Latvian historical national accounts.

Karina Viskuba is financial economist and analyst, who works in Energy Company and every day follows up energy market changes. As the subject of renewable energy is becoming more topical, she is curious about making prognosis on how the developing of RES will affect energy market.

Veronika Silinevicha is experienced lecturer and master program head, who specializes in economics, business administration and human recourse management. Not less than in previous topics, she is interested in energy economics and technical developing.

Both of the authors realize the importance and benefits of renewable energy sources and aim to make the topic of renewable energy clear and understandable for every reader.

Kaspars Muceniaks, Mg. oec., a Doctoral Student at the University of Latvia, Faculty of Business, Management and Economics, Riga, Latvia. Before joining the Doctoral Program at the University of Latvia, he has studied management and finance in BA School of Business and Finance. Director of Development in various active companies based in Latvia.

Markus Huemer, Mg. rer. soc. oec. in business administration, currently working on his doctor thesis at the University of Latvia. His main research interest is the topic sustainability as well as principal agent relations. He has gained vast experience in the topic of sustainability as he is working in the plastic recycling industry for eight years, with a specialization on PET bottle recycling, primarily due to the importance of the topic, his profession as well as his interest in this sub-subject of sustainability. In the past years he was living abroad in Middle East countries to promote the concepts of plastic recycling, recently he moved to an Austrian machine manufacturer specialized in the machine manufacturing for plastic waste. As PET recycling has a big impact on the recent plastic recycling culture, his intention is to go deeper into this topic and to use his network in the industry to encourage companies and institutions to go the sustainable way, which is not only environmental friendly, but also economically beneficial once done right.

Olena Babinova received her Ph.D. degrees from the National Academy of Public Administration under the President of Ukraine. The main fields of her research interests are democracy and good governance, local and

regional development, European integration and neighbourhood policy. About the topics she has wrote 4 books and more that 60 papers in national and international peer-review journals. She was a participant of international conferences in Greece, Canada, Belgium, Bulgaria, Italy, Hungary, Czech Republic, Latvia, etc. She had professional internship at the Ryerson University in Canada (Toronto) and Council of Europe, Congress of Local and Regional Authorities of Europe (Strasbourg). She has been a research fellow at the Pantheon-Sorbonne University Paris 1, GRALE (Paris, France), National School of Administration (ENA) (Strasbourg, France), Charles University, Department of Political Science (Prague, Czech Republic), etc. From October 2018 until March 2019, she was a post-doctoral researcher at the University of Latvia, Department of Political Science.

Humanities and Social Sciences: Latvia
Volume 28, Issue 1 (Spring-Summer 2020)

University of Latvia Press