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## Foreword

Developing the journal at international level in 2020, the Journal of Regional Economic and Social Development emerged owing to cooperation between the Research Institute for Business and Social Processes of Rezekne Academy of Technologies and City Unity College Nicosia and represents a peer-reviewed serial journal with a new single ISSN number. The journal is going to continue focusing on the topics covered by the previous journal Latgale National Economy Research (Print ISSN 1691-5828 Online ISSN 2256-0955).

The journal is being published at a time when the world fights against Covid-19, a disease caused by coronavirus, which also makes significant impacts on economic development. Naturally, an increasing number of authors have focused on analysing the psychological, social and economic impacts of the pandemic and its restrictions on people and the economy.

Human behaviours are changing in society, and technologies, including digital ones, and the life in the media, begin playing an increasingly important role. Accordingly, the authors have focused on analysing online marketing and doing particular research on corporate social media communication for children's audiences and social media use habits in certain regions. The research papers published in the journal have also focused on mobile service providers in Latvia, identifying the challenges of this industry, as well as analysed information and communication technologies used in master studies in Kazakhstan.

In the 21<sup>st</sup> century, education could be received throughout life; besides, students are no longer stopped by national borders. Getting an additional education or starting studies in another country is a great opportunity for students, yet it is also a challenge for national educational institutions. The journal's paper presents Sweden's experience in dealing with cultural differences in adult immigrant education in this country.

The journal has also covered topics pertaining to the agricultural industry, thereby giving practical advice on how to tackle economic problems in the industry. One of the problems that emerged in Latvia in the early 2000s and is still urgent is the formation of agricultural service cooperatives. The individuals working in the agricultural industry have realized that cooperation brings many benefits, including production costs lower by about a third due to membership of a cooperative; therefore, both the number of farmers who have joined cooperatives and the turnovers of the cooperatives increase from year to year.

The papers of the authors who have analysed the economic situation in Latvia should also be mentioned. The authors have examined trends in and the effects of change on Latvia's public debt, as well as the effects of labour

taxes on the living standard of the Latvian population. The conclusions made at the end of the research could be used for enhancing the financial and tax system of Latvia.

The papers included in the journal cover a wide range of urgent research, starting with individual solutions to problems in specific industries through to analyses of public policies and legislation, including reviews of theories; the research has been conducted in Latvia and Cyprus, as well as in Zimbabwe. The papers give opportunities for new research studies and findings to be made as well as contribute to the European academic and scientific research environment by enabling academics, scientists and researchers from other countries to compare and analyse the findings and conclusions made.

On behalf of the Editorial Board, we would like to thank the authors of the papers – academics, scientists, master and doctoral students, researchers, national and municipal institution employees and enterprise representatives – for their support and participation in developing the journal.

Chief editors:

*Anda Zvaigzne, Rezekne Academy of Technologies, Latvia*

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# ANALYSIS OF ICT COMPANIES' NEEDS FOR THE ENHANCEMENT OF ICT HIGHER EDUCATION AT MASTER LEVEL: THE CASE OF KAZAKHSTAN

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**Abstract.** *The correspondence between ICT master programmes and requirements of ICT companies is shaped via needs analysis. The research aim: The aim of the present paper is to analyse the empirical results of the study of needs of ICT companies, underpinning the elaboration of implications on ICT master programmes. The primary methods used: Exploratory research has been implemented within the present work. The representatives of four ICT companies, namely CISCO, KAIB, Kaspersky Lab and Soft Com, took part in the focus group interview organised at International Information Technology University, Almaty, Kazakhstan, in October 2019. A brief description of the main research results: The theoretical findings of the present research allow concluding that ICT companies and the universities belong to the local or regional community. The structuring content analysis allows identifying the areas of universities-companies cooperation, namely academic staff training, students' training, provision of universities with modern equipment, joint elaboration of the content of ICT master programmes, organisation of joint laboratories including virtual laboratories, ensuring practice and internships for students, etc. The summarising content analysis highlights the need in cooperation between universities and companies to strengthen the sustainable development of the digital economy in the region. The novelty of the present work is formulated in the implications on ICT master programmes. Directions of further research are formulated.*

**Keywords:** *community, digital economy, ICT companies, ICT higher education, master level, needs analysis, regional development.*

**JEL code:** I23, I25.

## Introduction

The **scientific problem** reflected in the paper is formulated as the research question: What are implications of ICT companies' requirements on ICT master programmes? The **aim of the present paper** is to analyse the

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empirical results of the study of needs of ICT companies, underpinning the elaboration of implications on ICT master programmes.

The **tasks/objectives** of the research are:

- To define needs analysis and the perspective of ICT companies in needs analysis.
- To carry out an empirical study on needs of ICT companies.
- To elaborate implications on ICT master programmes.
- To draw conclusions.

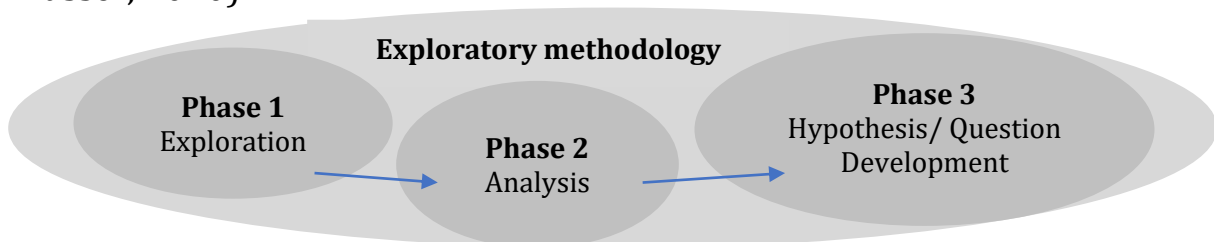
The novelty of the present work is expressed in the formulated implications on ICT master programmes.

**Research methods** applied include the use of theoretical as well as empirical methods. Theoretical methods imply analysis of theoretical sources and theoretical modelling (Ahrens, Zascierinska, Melnikova, 2019). The empirical study was based on the focus group interview conducted with the representatives of ICT companies in Kazakhstan. The focus group interview served as the basis for data collection.

The present research employs the qualitative methodology or, in other words, the course of the research and empirical study as content analysis is a qualitative process (Krippendorff, 2004). Qualitative process is a methodology mostly used within the interpretive approach (Thanh, Thanh, 2015).

The interpretive research paradigm has been used in the study. The core of this paradigm is human experience, people's mutual everyday interaction that tends to understand the subjectivity of human experience (Lūka, 2007). The interpretive paradigm is characterized by the researcher's practical interest in the research question (Cohen, Manion, & Morrison, 2003). The researcher is the interpreter (Ahrens, Purvinis, Zascierinska, Miceviciene, Tautkus, 2018).

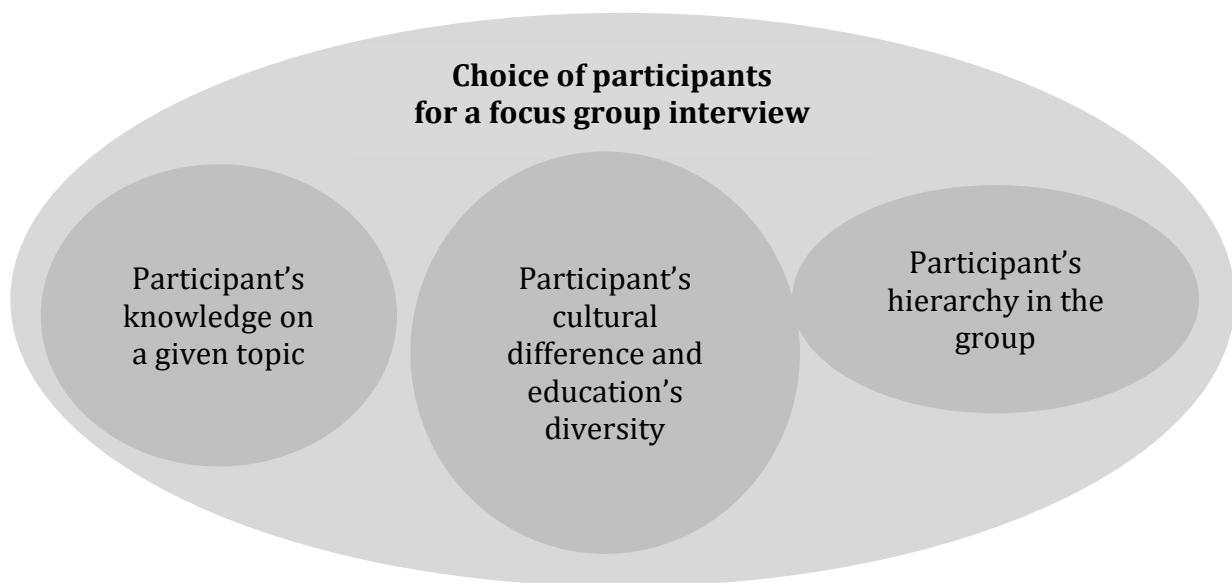
Exploratory research is aimed at generating new questions and hypothesis (Phillips, 2006). The exploratory methodology of the empirical study proceeds from exploration in Phase 1 through analysis in Phase 2 to hypothesis/research question development in Phase 3 (Ahrens, Bassus Zascierinska, 2013) as shown in Figure 1 (Ahrens, Foerster, Zaščerinska, Wasser, 2020).



**Fig. 1. Three phases of the exploratory methodology** (Ahrens, Foerster, Zaščerinska, Wasser, 2020)

A focus group interview within the present study is the method of data collection, as focus groups interviews examine how knowledge, and more importantly, ideas, develop and operate within a given cultural context as well as explore exactly how the opinions are constructed (Kitzinger, 1995). The choice of participants for a focus group interview is based on three criteria (Zaščerinska, Aleksejeva, Aleksejeva, Glošina, Zaščerinskis, Andreeva, 2015) as illustrated in Figure 2:

- participant's knowledge on a given topic,
- participant's cultural difference and education's diversity (occupation, training, etc.) and
- participant's hierarchy in the group.



**Fig. 2. The choice of participants for a focus group interview** (compiled by the authors)

The number of participants depends on the heterogeneity of the focus group: the greater the heterogeneity of the group, the fewer the number of participants (Okoli, Pawlovski, 2004). Smaller groups show greater potential (Krueger, Casey, 2000). Thus, four is a good number of participants for the study.

The present focus group was composed of ICT companies' representatives in October 2019. The representatives of such four companies as CISCO, KAIB, Kaspersky Lab and Soft Com took part in the interview at International Information Technology University in Almaty, Kazakhstan. What is interesting that CISCO and Kaspersky Lab were represented by female representatives, and KAIB and Soft Com – by male representatives. In order to save the information of the present research confidential, the respondent's names and surnames are not revealed.

A non-structured or, in other words, unstructured interview was implemented to search for the main categories of the research field (Kropļijs, Rascevska, 2004). A non-structured interview is conventionally built on a certain topic to be disclosed during the meeting. However, a non-structured interview does not imply any specific set of predetermined questions. A non-structured interview is organised in a non-formal manner and tends to be open-ended.

The non-structured interview was studied via a content analysis. Further on, a content analysis included such types as (Mayring, 2000)

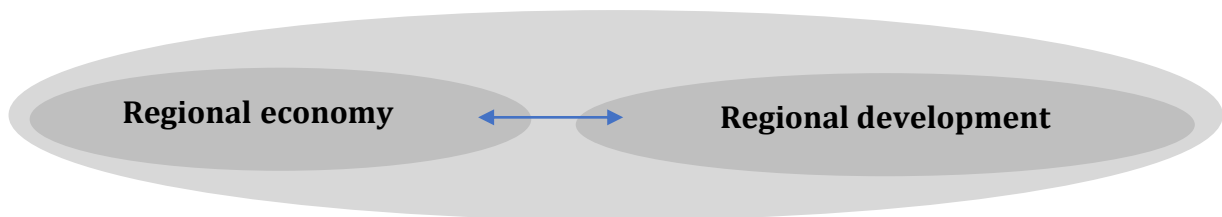
- structuring content analysis,
- summarizing content analysis.

Structuring content analysis assists in categorising the data in accordance to the previously determined criteria (Budde, 2005). In turn, summarizing content analysis seeks to reduce the material in such a way that the essential contents are preserved, but a manageable short text is produced (Mayring, 2004).

The **enabling study question (hypothesis)** is formulated as following: What do ICT companies expect from ICT master programmes?

### **Research results and discussion**

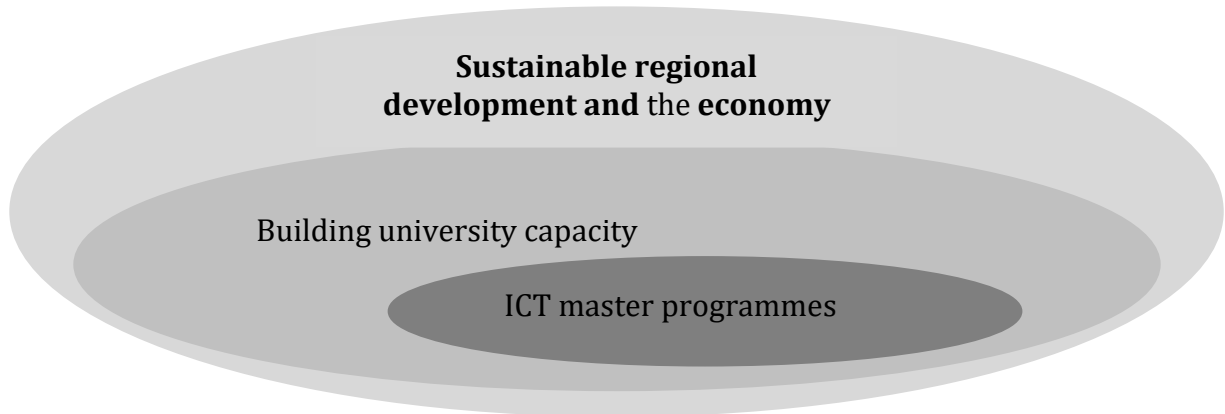
The contemporary development of the world economy, on the one hand, focuses on the concept of digital economy (Ahrens, Foerster, Zašcerinska, Wasser, 2020). On the other hand, the digital economics is increasingly becoming the economy itself (OECD, 2014). The regional economy and development, that are inter-related (Ahrens, Gruenwald, Zašcerinska, Amanzholova, Aleksejeva, 2019) as shown in Figure 3, have to be embedded into the national and global digital economic structures as well.



**Fig. 3. The relationship between the regional economy and regional development** (compiled by the authors)

Sustainable regional development as well as the economics are strengthened via building university capacity (Ahrens, Gruenwald, Zašcerinska, Amanzholova, Aleksejeva, 2019). One of the ways for building university capacity is to design and implement modern Information and Communication Technologies (ICT) master programmes (Ahrens,

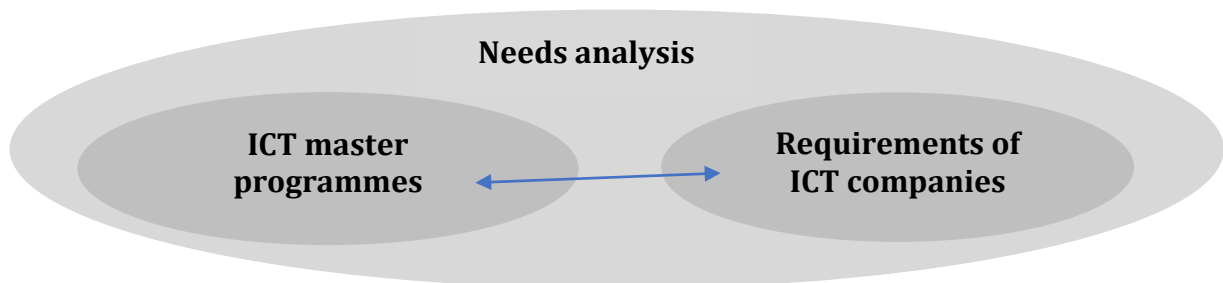
Gruenwald, Zaščerinska, Amanzholova, Aleksejeva, 2019) as demonstrated in Figure 4.



**Fig. 4. The relationship between sustainable regional development and the economy, building university capacity and ICT master programmes (compiled by the authors)**

These ICT master programmes have to satisfy the requirements of ICT companies in which the graduates will work.

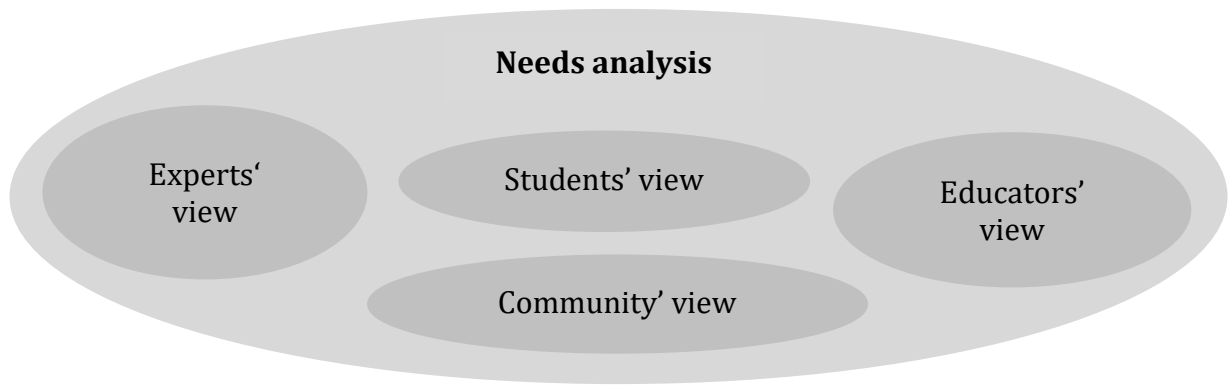
The correspondence between ICT master programmes and requirements of ICT companies is shaped via needs analysis as depicted in Figure 5.



**Fig. 5. The relationship between needs analysis, ICT master programmes and requirements of ICT companies (compiled by the authors)**

Needs have to be permanently monitored (Ahrens, Gruenwald, Zaščerinska, Amanzholova, Aleksejeva, 2019). Conventionally, needs analysis is proposed to be carried out from four perspectives (Zaščerinska, Melnikova, Ahrens, 2020) as depicted in Figure 6 (Ahrens, Foerster, Zaščerinska, Wasser, 2020), namely

- experts' view,
- students' view,
- teaching staff view, and
- community view.



**Fig. 6. Four perspectives of needs analysis**  
(Ahrens, Foerster, Zaščerinska, Wasser, 2020)

ICT companies belong to the community, as by community, state's government, local government, non-governmental organisations and all the other interested organisations as well as persons are meant (Ahrens, Foerster, Zaščerinska, Wasser, 2020). Further on, the ICT companies, invited for the focus interview, were characterized by an essential feature of a community, namely common identity (Piebalga, Zvaigzne, 2019). Common identity is characterised (Piebalga, Zvaigzne, 2019) by a common sense of belonging to the locality, human relationships, the environment, culture and values.

A perspective is represented by a view (Ahrens, Foerster, Zaščerinska, Wasser, 2020). A view is identified as an individual's opinion based on his/her knowledge, skills and attitudes to a phenomenon (Ahrens, Zaščerinska, Hariharan, Andreeva, 2016).

The CISCO representative stressed the importance of the learning portfolio for people willing to collaborate with CISCO in the area of Networking, Security, IoT & Analytics, OS & IT, Programming, Business and Digital Literacy. CISCO also offers community partnerships for institutions to deliver curricula that extend beyond educational training and include the problem-solving and entrepreneurial skills students need to get a job or create their own businesses. Another such point was highlighted by the CISCO representative as certification of students' abilities to design, implement and protect secure networks.

The representative from Kaspersky Lab emphasized the significance of training courses for the academic staff of ICT master programmes. The proposal of training courses included Basics of Information Security, Legal Responsibility for Cyber Incidents, and Automated Systems.

The representative from Kaspersky Lab also offered free access to all the facilities as well as official release for software required for the practical part of the training courses at universities in Kazakhstan in case if the equipment

is installed in one university that is specialized in ICT, namely International Information Technology University, Almaty, Kazakhstan.

The KAIB represents the association of about 20 ICT companies in Kazakhstan. According to the KAIB representative, many ICT companies lack the legislative basis in assuring the quality of ICT products and services. No common terminology was developed. For example, such terms as “password”, “code” and “login” are used synonymously. The KAIB representative pointed that ICT becomes outdated after four-five years. He expressed the idea of the establishment of scientific and practical centres or laboratories in order to prepare master students for the employment in the field of ICT. His idea was that the virtual laboratory should be jointly established with other universities in Kazakhstan that focus on teaching ICT master students. From the experience of the KAIB association, programming and the use of these developed programmes are done by different specialists. Different specialists have different approaches to the use of the programmes developed. That is why the programmes require permanent adjustment and updates. The joint laboratory will allow solving the problem of discrepancies between programming and use these programmes. He also suggested that academic staff should have a working experience in the ICT industry. Every year KAIB offers practical training for 30 ICT students. Together with this, he admitted that ICT master students might need an employer’s competencies.

The Soft Com representative was concerned about the lack of the legislative basis in Kazakhstan for information collection, storage and processing. He pointed that technical equipment is vulnerable that does not allow securing information. He opined out that Kazakhstan lacks information analysts.

The findings of the empirical study carried out demonstrate that the ICT companies as well as the universities belong to the local or regional community. The ICT companies need cooperation with the academic staff and students of universities involved in the implementation of ICT higher education at master level in order to help companies meet the challenges of digital transformation in the era of digital economy. Another finding of the empirical study is that female representatives of the ICT companies focused mostly on training opportunities, while male representatives – on a wider spectrum of challenges such as common terminology development, organisation of centres, laboratories, internships, and other issues ICT companies face in Kazakhstan.

The structuring content analysis allows identifying such areas of universities-companies cooperation as:

- academic staff training,
- students’ training,
- provision of universities with modern equipment,

- joint elaboration of the content of ICT master programmes,
- organisation of joint laboratories including virtual laboratories,
- ensuring practice and internships for students, etc.

The summarising content analysis highlights the need in cooperation between universities and companies to strengthen the sustainable development of the digital economy in the region.

### **Conclusions and suggestions**

The theoretical findings of the present research allow concluding that the ICT companies as well as the universities belong to the local or regional community.

The findings of the empirical study allow drawing the conclusion on willingness of ICT companies and universities in cooperation for fostering sustainable development of the digital economy in the region. The finding of the empirical study is the focus of female representatives of the ICT companies mostly on training opportunities, while male representatives – on technical and technological issues ICT companies face in Kazakhstan.

The areas of universities-companies cooperation have been identified. The areas of universities-companies cooperation serve as the implications on ICT master programmes in this work. Implications on ICT master programmes include regional universities-companies cooperation in:

- academic staff training,
- students' training,
- provision of universities with modern equipment,
- joint elaboration of the content of ICT master programmes,
- organisation of joint laboratories including virtual laboratories,
- ensuring practice and internship for students, etc.

The present research has limitations. The inter-connections between needs analysis, community and university-company cooperation have been set. Another limitation is the empirical study conducted in involving the respondents of a focus group interview only. Therefore, the results of the study cannot be representative for the whole area. Nevertheless, the results of the research – such as the areas of universities-companies cooperation - may be used as a basis of analysis of universities-companies cooperation in other countries. If the results of other countries had been available for analysis, different results could have been attained. There is a possibility to continue the study.

The further research will focus on the involvement of more respondents into the empirical study. A comparative study of needs analysis from four perspectives, namely experts' perspective, students' perspective, teaching staff perspective, and community perspective, will be carried out. A

comparative study of needs of ICT companies in different countries could be of a great research interest, too.

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# CULTURALLY RESPONSIVE TEACHING OF IMMIGRANTS IN ADULT EDUCATION: A CASE STUDY IN SWEDEN

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**Abstract.** *Adult education has been criticized for its lack of focus on sociocultural aspects of individual learners, largely ignoring the importance of cultural identity to the learning process. The paper's aim is to investigate culturally responsive teaching of immigrants in adult education, theoretically and empirically underpinning the implementation of a case study for the elaboration of implications on culturally responsive teaching of immigrants in adult education. Research methods include theoretical and empirical methods. Theoretical methods imply analysis of theoretical sources and theoretical modelling. The empirical study was based on a case study. The sample was composed of 20 adult learners and three teachers of Swedish in May 2019 and February 2020. The case study was implemented at Folkuniversitetet, Kristianstad, Sweden. The theoretical findings allow defining religion and human comfort conditions such as thermal comfort as the dimensions of cultural norms and values to be addressed by culturally responsive teaching of immigrants. The findings of the empirical study allow drawing the conclusion on the necessity of a personalised approach to an adult learner in culturally responsive teaching of immigrants. The novelty of the present work is revealed in the implications on culturally responsive teaching of immigrants. Further research is proposed.*

**Keywords:** *adult education, culturally responsive teaching, immigrants, case study, interpretive approach.*

**JEL code:** *I24, I25.*

## Introduction

Human migration will be only increasing in the coming years due to a number of factors. One of such factors is climate change (Pinto-Dobernig, 2008, p. 9). Millions of people will be displaced by shoreline erosion, coastal flooding and agricultural disruption (Pinto-Dobernig, 2008). On the other hand, some European countries (including Baltic Sea countries such as

Estonia, Germany, Latvia and Lithuania and other) face unbalance in their labour markets due to demographic decline and skills shortages (Melnikova, Zaščerinska, 2018). For a successful integration of immigrants into the socioeconomic situation of a host country, social and integration services have to take the immediate response and to provide sufficient support to integrate newcomers into the host society and get them on a path to economic self-sufficiency (Melnikova, Zaščerinska, 2018). Since the power of adult learning was discovered (Zaščerinska, Aļeksejeva, Aļeksejeva, Andreeva, Gloņina, Zaščerinskis, 2015), the demand for adult learning, including for immigrants, is permanently increasing (Melnikova, Ahrens, Zaščerinska, 2019). In adult education, the importance of the individual in the learning process is permanently highlighted, however adult education has been criticized for its lack of focus on sociocultural aspects of individual learners, largely ignoring the importance of cultural identity to the learning process (Melnikova, Kuprienė, Jurgaitytė, Zascerinska, Blažulionienė, 2020).

The scientific problem reflected in the paper is formulated as the research question: How to organise culturally responsive teaching of immigrants in adult education? The aim of the present paper is to investigate culturally responsive teaching of immigrants in adult education, theoretically and empirically underpinning the implementation of a case study for the elaboration of implications on culturally responsive teaching of immigrants in adult education. The tasks of the research are:

- To define culturally responsive teaching of immigrants in adult education.
- To carry out a case study.
- To elaborate implications on culturally responsive teaching of immigrants in adult education.
- To draw conclusions.

The novelty of the present work is revealed in the formulated implications on culturally responsive teaching of immigrants in adult education.

Research methods applied include the use of theoretical as well as empirical methods. Theoretical methods imply analysis of theoretical sources and theoretical modelling (Ahrens, Zascerinska, Melnikova, 2019). The empirical study was based on a case study. The exploratory type of the case study research has been applied (Zainal, 2007), as case studies have an important function in generating new research questions, hypotheses and building theory (Kohlbacher, 2005). Exploratory case studies set to explore any phenomenon in the data which serve as a point of interest to the researcher (Zainal, 2007). The present case study belongs to the qualitative methodology. The qualitative methodology implies the use of the interpretive approach to case studies. The interpretive approach/paradigm

is featured by the researcher's interest in a phenomenon. The interpretive paradigm is aimed at analysing the social construction of the meaningful reality. Meanings emerge from the interpretation. The researcher is the interpreter (Ahrens, Purvinis, Zascierinska, Miceviciene, Tautkus, 2018). The interpretive paradigm is underpinned by naturalistic methods such as observation and interpretation, thus to observe is to collect information about events, while to interpret is to make a meaning of that information by drawing inferences or by judging the match between the information and some abstract pattern (Aikenhead, 1997). Interviewing as a method of data collection within the interpretive paradigm allows ensuring a cultural dialogue between the researcher(s) and participant(s) of the case study for joint discovery of a shared meaning of the investigated phenomenon in the common environment. The methodology of the exploratory type of the case study research is divided into logical and sequential phases. The methodology of the present research proceeds from exploration in Phase 1 through analysis in Phase 2 to implication development in Phase 3.

Observation was employed as a basis of data collection. Observation is a highly effective method of qualitative data obtaining (Zaščerinska, 2013). Observation makes use of a number of techniques, namely, document analysis, respondent interviewing and students' self-analysis (McCall, & Simmons, 1969, p. 1). Moreover, observation contributes to a more adequate picture that emerges of the research setting as a social system described from a number of participants' perspectives (Geertz, 1973; Burgess, 1984), namely culturally responsive teaching of adult learners with the migrant background. Furthermore, Hargreaves (Hargreaves, 1967, 193) described advantages of participant observation as a research method for those carrying out studies in institutions in which they work: the method of participant observation leads the investigator to accept a role within the social situation s/he studies – s/he participates as a member of the group while observing it. In theory, this direct participation in the group life permits an easy entrance into the social situation by reducing the resistance of the group members; decreases the extent to which the investigator disturbs the 'natural' situation, and permits the investigator to experience and observe the group's norms, values, conflicts and pressures, which (over a long period) cannot be hidden from someone playing an in-group role (Hargreaves, 1967).

A non-structured or, in other words, unstructured interview was implemented to search for the main categories of the research field (Kroplijs, Rascevska, 2004). A non-structured interview is conventionally built on a certain topic to be disclosed during the meeting. However, a non-structured interview does not imply any specific set of predetermined questions. A non-

structured interview is organised in a non-formal manner and tends to be open-ended.

The data were studied via a content analysis. The content analysis included a structuring content analysis and a summarizing content analysis (Mayring, 2000). Structuring content analysis assists in categorising the data in accordance to the previously determined criteria (Budde, 2005). In turn, summarizing content analysis seeks to reduce the material in such a way that the essential contents are preserved, but a manageable short text is produced (Mayring, 2004).

Only a few respondents as a case for the study participated in the empirical study, as a qualitative research design has been employed (Kohlbacher, 2005). The qualitatively oriented empirical study allows the construction of only few cases (Mayring, 2004). Moreover, the cases themselves are not of interest, only the conclusions and transfers we can draw from these respondents (Flyvbjerg, 2006). Selecting the cases for the case study comprises use of information-oriented sampling, as opposed to random sampling (Flyvbjerg, 2006). This is because an average case is often not the richest in information. In addition, it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur (Flyvbjerg, 2006). Random samples emphasizing representativeness will seldom be able to produce this kind of insight; it is more appropriate to select some few cases chosen for their validity (Flyvbjerg, 2006).

The present sample was composed of nine adult learners and two teachers of Swedish in May 2019 and 11 adult learners and one teacher of Swedish in February 2020. Adult learners and one teacher of Swedish were with the migrant background, two other teachers of Swedish were of the Swedish origin. The case study was organised at Folkuniversitetet, Kristianstad, Sweden. Folkuniversitetet, Kristianstad, Sweden, was chosen for the implementation of the case study as Folkuniversitetet in Kristianstad obtained rich experience in teaching immigrants during many years. In order to save the information of the present research confidential, the respondents' names and surnames are not revealed.

The enabling research question (hypothesis) is formulated as following: What is culturally responsive teaching of immigrants?

## **Research results and discussion**

Culturally responsive education is the overall concept that includes culturally responsive teaching. Culturally responsive education is an approach to address the needs of today's diverse classroom (Melnikova, Kuprienė, Jurgaitytė, Zascerinska, Blažulionienė, 2020). Table 1 (Gruenwald,

Ahrens, Zaščerinska, Melnikova, Andreeva, 2018) demonstrates the dimensions of cultural norms and values in a classroom.

Culturally responsive teaching is an approach to address diversity (Melnikova, Kuprienė, Jurgaitytė, Zascerinska, Blažulionienė, 2020) in adult education. In contrast to traditional pedagogies, the culturally responsive framework places learners’ cultures at the core of the learning process and utilizes the “cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students” (Gay, 2000).

**Table 1. Cultural norms and values in a classroom** (Gruenwald, Ahrens, Zaščerinska, Melnikova, Andreeva, 2018)

<b>Dimensions of cultural norms and values</b>	<b>International students’ cultural norms and values</b>	<b>Host country’s educators’ cultural norms and values</b>
Person’s name	Surname and first name	First name and surname
Time	Stretchable time	Punctuality
People address	"Sir" or "Ma'am," "Mr." "Ms." "Mrs."	Person’s title and surname
Politeness	Smile and nod of the head	“Please” and “Thank you”

Culturally responsive education can be identified by the following common characteristics:

- It acknowledges the legitimacy of the cultural heritages of various ethnic groups, both as legacies that affect students’ dispositions, attitudes, and approaches to learning and as worthy content to be taught in the formal curriculum.
- It builds meaningfulness between home and school experience as well as between academic abstractions and lived sociocultural realities.
- It uses a wide variety of instructional strategies that are connected to different learning styles.
- It teaches students to know and praise their own and each other’s cultural heritages.
- It incorporates multicultural information, resources, and materials in all the subjects (Gay, 2000).

A model of culturally responsive education was designed. The framework entails the following four elements (Wlodkowski, Ginsberg, 1995): establishing inclusion, developing attitude, enhancing meaning, and engendering competence. The functions of each element are described as follows (Melnikova, Kuprienė, Jurgaitytė, Zascerinska, Blažulionienė, 2020):

- Teaching practices that create an environment of respect and connectedness and that use cooperation and equitable treatment of all learners reflect the element of establishing inclusion.

- The element of developing attitude includes norms and practices that help students develop a positive attitude toward the learning process by building on the students' personal experiences and knowledge and by allowing the learners to make choices throughout the learning process.
- The third element, enhancing meaning, includes norms and practices that encourage students to engage in deep reflection and critical inquiry, such as roleplays and simulations.
- The final element, engendering competence, is practices that show the learner evidence of his or her learning and proficiency and the use of assessments that are contextualized in the learners' experiences.

This four-element model serves as the theoretical foundation for culturally responsive teaching practices applicable to the adult education (Melnikova, Kuprienė, Jurgaitytė, Zascierinska, Blažulionienė, 2020).

Recommendations for all the participants of culturally responsive teaching were proposed (Melnikova, Kuprienė, Jurgaitytė, Zascierinska, Blažulionienė, 2020): to pay attention to your own prejudices and biases, to listen to others, to ask questions rather than make assumptions, and to cultivate knowledge about other cultures.

Culturally responsive educators, who are the key organisers of culturally responsive teaching of immigrants, are proficient at discerning subtle and overt differences and developing culturally-sensitive and appropriate learning environments (Guy, 1999). In adult education, teachers and educators are supposed to develop social interactions, maintain fluid student-teacher relationships, demonstrate connectedness with all the students, develop a community of learners, encourage students to learn collaboratively and be responsible for another (Melnikova, Kuprienė, Jurgaitytė, Zascierinska, Blažulionienė, 2020). This culturally responsive education or, in other words, equity pedagogy (Banks, 2006), encompasses a variety of approaches such as culturally relevant, culturally sensitive, culturally congruent, and culturally contextualized pedagogies (Gay, 2000). For adult educators, such recommendations were proposed (Melnikova, Kuprienė, Jurgaitytė, Zascierinska, Blažulionienė, 2020):

- Integrate multicultural knowledge into the curricula to lessen the cultural divide.
- Acknowledge cultural differences among immigrant groups.
- Foster inclusive learning communities through use of learning partners or teams.
- De-emphasize assimilation in curricula and teaching practices.
- Consider work socialization of immigrant groups.

A training session of Swedish as a foreign language was observed in May 2019. The topic of the training was devoted to the preparation of a CV and a

covering letter, as the adult learners aim at getting a job or starting a company in the host country. Local companies in a host country employ immigrant for establishing business connections between the immigrants' host country as well as the immigrants' origin country (Ahrens, Zaščerinska, 2020). Employment of immigrants who communicate in a language of the country local companies do business with is beneficial for all the stakeholders, namely the host country' companies, partners of the host country' companies, and the employed immigrant (Ahrens, Zaščerinska, 2020) in terms of improvement of opportunities in the economic, social and civic life of their new country (Pieroni, d'Agostino, Lanari, 2019). The training was implemented by two teachers of Swedish of the Swedish origin in the Swedish language only. One of the teachers was a male teacher, the other - female. Another training of Swedish as a foreign language was studied in February 2020. The topic of the training was preparation for the examination in Swedish for immigrants (SFI). The training detailed the structure of the examination organisation (listening, reading, speaking and writing). The teacher was a female with the immigrant background. The teacher's migrant background differed from the adult learners' migrant background. The observation revealed that this teacher of Swedish was more expressive in comparison to two teachers of Swedish of the Swedish origin. She used gestures for demonstrating the point she was explaining to the adult learners. For example, she was pretending that she was writing while speaking about the writing part of the examination. Also, the teacher drew simple symbols such as time, schedule, maps, plans, etc. on the blackboard for clarifying the examination procedural details.

In both observed classes, the adult learners originally came from Syria, Poland, Croatia, etc. The students belonged to different age groups: 20-30 years old as well as 35-50. The students were in coats and jackets despite the temperature in the classroom was adequate. Some of the students were late for the training.

In the interview, two teachers of Swedish of the Swedish origin highlighted the importance of learning Swedish for the future employment and careers of immigrants in the host country. The teacher of Swedish with the migrant background emphasized during the interview that there were no discussions about religion, war and the current situation in the countries adult learners arrived from in a class. This teacher experienced a couple of situations where a migrant husband attended the same training his wife was involved in. This wife brought her books as well as her husband's books to the class. Such a situation was not discussed with anyone. But after some time, the wife rejected to take care of the books of her husband. The teacher also pointed out that if a class is missed by an adult learner, it can be



discussed with the adult learner who did not attend the class only individually.

The findings of the empirical study carried out demonstrate that contemporary adult education experiences cultural diversity. In a host country, not only adult learners but also teachers might have a migrant background. The structuring content analysis allows extending the dimensions of cultural norms and values, namely the person's name, time, people's address, politeness (Gruenwald, Ahrens, Zašcerinska, Melnikova, Andreeva, 2018) by religion and human comfort conditions such as thermal comfort. The summarising content analysis highlights that the culturally responsive teaching of immigrants requires a personalised approach to an adult learner.

### **Conclusions and suggestions**

The theoretical findings of the present research allow defining religion and human comfort conditions such as thermal comfort as the dimensions of cultural norms and values to be addressed by culturally responsive teaching of immigrants. The findings of the empirical study allow drawing the conclusion on the necessity of a personalised approach to an adult learner in culturally responsive teaching of immigrants. The empirical study assisted in the finding that not only adult learners' but also teachers' migrant backgrounds make adult education classes diverse.

Implications for culturally responsive teaching of immigrants in adult education include the implementation of a personalised approach to an adult learner in culturally responsive teaching of immigrants in adult education. The personalised approach implies considering the dimensions of cultural norms and values, such as the person's name, time, people's address, politeness (Gruenwald, Ahrens, Zašcerinska, Melnikova, Andreeva, 2018), religion and human comfort conditions such as thermal comfort.

The present research has limitations. The inter-connections between culturally responsive teaching of immigrants and dimensions of cultural norms and values have been set. Another limitation is the empirical study conducted by involving the respondents of one institution only.

The further research will focus on the involvement of respondents from other institutions into the empirical study. A comparative study of different countries could be interesting for the research community as well.

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# TRENDS AND THE IMPLICATIONS OF CHANGE IN PUBLIC DEBT IN LATVIA

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**Abstract.** *An analysis of various research papers reveals that an increase in public debt has helped nations to restart economic growth; therefore, the research on public debt is still urgent and relevant.*

*The aim of the present research is to examine trends and the implications of change in the public debt of Latvia.*

*The research results revealed that over a ten-year period (2009-2018), the government budget of Latvia had a surplus only in one year (2016), which was due to the fact that the growth rate of budgetary revenues exceeded that of the national economy.*

*The research results also revealed that public debt explicitly had more negative than positive implications. The positive implications involve increases in income for the population (interest payments on debt securities) and revenue for the government budget (to cover expenditures). The negative implications of public debt for the national economy mostly involve a potential downgrade of the country's credit rating, which could lead to difficulties in raising funds during a crisis.*

*The research employed the following methods: monographic, induction and deduction, graphical, comparison, a sociological research method – expert surveying – and statistical analysis.*

**Keywords:** *economic growth, implications, national economy, public debt.*

**JEL code:** *H6, H63, H68.*

## Introduction

A number of research studies indicate that public debt can both stimulate and hinder economic development (Ludvigson, 1996). An analysis of various research papers reveals that an increase in public debt has helped nations to restart economic growth; therefore, the research on public debt is still urgent and relevant.

In her monograph *Government Debt: an Evaluation of Financial Security and Optimal Policy Selection*, researcher N. Semjonova points out that public debt always plays a key role in any country's macroeconomic system. This could be explained by the fact that the creation, servicing and repayment of public debt make a large impact on the state of public finances, cash flow, the investment environment and the consumption pattern as well as the development of international relations (Semjonova, 2017).

**The aim of the research** is to examine trends and the implications of change in the public debt of Latvia.

**Specific research tasks:**

1. To examine the theoretical aspects of the role of public debt in the national economy;
2. To examine trends in public debt and identify the implications of change therein.

Hypothesis: public debt causes both positive and negative implications for the national economy and economic growth.

The research employed the following methods: monographic, induction and deduction, graphical, comparison, a sociological research method – expert surveying – and statistical analysis.

The research employed the specialist literature, relevant research papers and monographs, statistical data from the database of the Central Statistical Bureau of Latvia, the relevant national legal framework, as well as the data obtained from expert questionnaires and other publicly available information in the library and Internet resources.

### **Literature review**

The government budget is a list of monetary revenues and expenditures, which is prepared for a certain period, usually one financial year (Šenfelde, 2014). In a situation where the government spends more than it can afford, public debt increases, which offsets the budget deficit. Conversely, according to researcher Levi M.D., if the government spends less than it can, there is a budget surplus that could be used to cover current debts (Levi, 2014). A government budget deficit leads to an increase in public debt, which is used to cover the government budget deficit with funds from short-term and long-term debt securities that are sold both domestically and abroad (Šenfelde, 2014).

In their research, G. Bua, J. Pradelli and A. Presbitero suggest four ways of covering the budget deficit, yet the ways are associated with the emergence of certain macroeconomic problems: 1. An issue of additional money can increase inflation; 2. The use of foreign exchange reserves could lead to a currency crisis; 3. Borrowing from abroad can contribute to an external debt crisis; 4. Borrowing from domestic sources can boost interest rates and also lead to a debt crisis (Bua, et al., 2014).

In their research, H.S. Rosen and T. Gayer (Rosen, Gayer, 2014) conclude that the government could choose one of several options for covering its budget deficit, and the most common are an increase in public debt and changes in tax policy. From the perspective of efficiency, a question could be raised: what more contributes to the financial burden – public debt or taxes?

The key to analysing this problem is an understanding that any increase in government spending has to be financed by higher taxes. The choice between public debt and taxation is only a matter of time – it is only a matter of choosing when higher taxes are applied. In case of tax revenue, one large payment is made when the expenditures are incurred. In case of borrowed funds, in contrast, a number of small payments are made to pay interest on the borrowed funds. In both cases, the present value of tax revenue must be the same (Rosen, Gayer, 2014). According to M. Šenfelde, public debt is basically an accrued budget deficit (Šenfelde, 2014).

Researchers J. Furman and L. Summers point out that a proper budgetary strategy should balance a number of competing considerations: it should move as much as possible towards economically viable policies, while remaining comprehensible and politically sustainable. From an economic perspective, an optimal policy could be a gradual reduction of expenditures or an increase in taxes to an extent that would prevent a continuous increase in public debt (Furman, Summers, 2019).

K. Vilerts explains that the amount of public debt in a country is affected by a number of factors, including the rate of economic growth, inflation, government bond yields and the government budget balance. However, the problem is that all the mentioned factors are interrelated, and that is why it is not possible to determine which of the factors affects a change in public debt (Vilerts, 2018). O. Tkačevs has concluded that public debt is particularly acute in the country following a financial crisis, as the government is forced to take measures to rescue the financial sector in a situation of declining gross domestic product (GDP) and tax revenues, or could use fiscal stimuli to revive the economy (Tkačevs, 2011).

The authors of the present research conclude that public debt, just like the debt of individuals or companies, arises in a situation of insufficient funds to implement a budgeted measure, i.e. a budget deficit arises. Consequently, the basic cause of public debt is government budget deficits, yet the size of it is determined by many other factors, e.g. inflation.

To be able to finance its expenditures, the government has two options – higher taxes or public debt. Of course, higher taxes are a better solution – fairer and more effective. The main problem with public debt, however, is that most often the debt has to be repaid, especially because it is in the interest of the lender (Piketī, 2015). Therefore, public debt is an alternative to raising tax rates or issuing additional money. In contrast to issuing additional money (creating higher purchasing power), an increase in public debt provides the exchange of purchasing power, i.e. the government borrows money from a lender (the lender lends its purchasing power) and pays interest on it. In contrast to the tax increase approach, an increase in public debt represents a deferral of payment of relevant expenditures (Fiscal

Discipline Council, 2016). In some economies, mostly in industrialized ones, there is a fiscal rule that debt must be investment-oriented. This means that only this kind of debt is favourable (Galinski, 2015). Researchers A. Kamiguchi and T. Tamai point out that the golden rule of public finances allows for the possibility of borrowing to finance productive public investments that have the potential to pay off in a long term (Kamiguchi, Tamai, 2019).

The authors of the paper conclude that there are several ways of obtaining additional funds to cover the additional costs incurred: higher taxes, government debt and the issue of additional money. Each of the ways of obtaining funds has its advantages and disadvantages. Therefore, before making a decision, the national government has to take into account the possible implications of making a wrong choice.

Not only a large amount of financial resources but also tangible assets, i.e. buildings, equipment, gold and minerals are available to the government. However, public speeches focus mostly on public finances. Some economists, e.g. H. S. Rosen and T. Gayer, argue that disregarding the value of tangible assets gives an inaccurate picture of public finances (Rosen, Gayer, 2014). B. Dumitrescu points out that the degree of debt intolerance of a country depends on the past credit events, the rate of inflation in the country, the development stage of public institutions, the level of current public debt and the maturity structure thereof (Dumitrescu, 2014). According to G. Libermanis, public debt is divided into internal and external, and this division is determined by the source of the debt (Libermanis, 2001).

Internal debt basically means that the individuals of a country are in debt to each other. The experience of many countries shows that living with internal debt could be long and relatively peaceful (Šenfelde, 2014). Internal debt does not make any burden on future generations. The members of the next generation are, in simple words, in debt to each other. When the debt is repaid, the income is transferred from one population group (those who do not hold bonds) to another population group (bondholders). There are no negative conditions in such a situation because, at the level of consumption, everything occurs as it should (Rosen, Gayer, 2014). Internal debt is comprised of debt securities, savings bonds, interest-free bonds and loans from commercial banks.

Debt securities are securities certifying that the issuer has a liability to the holder of the security and that it has undertaken to make one or more payments to the holder of the security on a pre-agreed date. Debt securities are subject to an interest rate or a discount on the amount to be repaid on the redemption date of the security (Bank of Latvia, 2014). Savings bonds are a new kind of government securities that allow a wide range of people to use a safe alternative to investing and saving. In Latvia, the value of a savings

bond is EUR 1; therefore, any resident of the country can afford to make investments in this kind of securities (Treasury, [s.a.]). Interest-free bonds are government securities that are intended for a special purpose, redeemed at their nominal value, not publicly available and not pledged as collateral as well as not disposed of. Such bonds (250 000 EUR in nominal value) are purchased by foreigners who wish to get a temporary residence permit for a period of up to five years (Treasury, 2017).

Accordingly, it could be concluded that internal debt basically represents fixed-interest rate and fixed-term securities issued by the government and voluntarily purchased by the residents of Latvia, as well as interest-free savings bonds voluntarily purchased by foreigners if they want to receive a residence permit in Latvia for a period of up to five years. In the case of such a source of funds to finance public debt, the amount of funds attracted cannot be influenced by the government.

External public debt consists of the amount of loans borrowed by residents from non-residents and repayable in a foreign currency or in goods or services. External public debt consists of long-term and short-term debt. Long-term debt consists of loans that have to be repaid over a period of more than one year, as well as loans that banks, individuals and businesses are granted without government guarantees. Short-term debt, in contrast, consists of public and private loans that have to be repaid in up to one year. Short-term debt also includes outstanding principal and interest payments on long-term borrowings (Birka, 2013). The securities representing external public debt are those purchased by foreigners.

With regard to external debt, it should be noted that it is mandatory to repay it, which is done by allocating a part of national income for this purpose. A failure to repay external debt, however, could also have serious political implications. For this reason, external debt is taken more seriously than internal debt (Šenfelde, 2014). In a situation where the government attracts foreign capital, liabilities to foreign countries increase. The ability to repay such a debt depends on the efficiency of use of national and foreign currency savings (Kasalis, Skribāne, 2007).

## **Methodology**

The present research employed the monographic and descriptive methods, which helped to find a detailed idea of the problem researched from a theoretical perspective, based on an extensive review of the scientific literature.

The present research also employed induction and deduction, the graphical method, comparison, a sociological research method – expert surveying – and statistical analysis.



An expert questionnaire was developed to identify the opinions of industry experts on issues pertaining to public debt. The expert questionnaire consisted of six questions – both open-ended and with options for giving a rating on a 5-point scale. The responses were received from five experts – employees of commercial banks (two experts) and academic personnel (two experts) and a public administration specialist with in-depth knowledge and experience in macroeconomics.

### **Research results**

Cabinet Regulation No. 842 of 8 November 2005 “Regulations regarding the Classification of General Government Debt” of the Republic of Latvia states that general government debt is the gross debt (received and outstanding) of government structures, local government structures and social insurance structures at nominal value in the following categories of financial instruments: deposits, debt securities (excluding financial derivatives) and loans (Regulations..., 2005).

In the period 2009-2018, according to the data from the Central Statistical Bureau (CSB) database, (General government debt by sub-sector and quarter at end of period (mln euro), 2019) the general government debt of Latvia as a percentage of GDP was in the range of 36-43%. In accordance with the Law on Fiscal Discipline of the Republic of Latvia passed on 31 January 2013, general government debt may not exceed 60% of GDP (Law on..., 2013). In the period 2009-2018, the highest ratio of general government debt to GDP was in 2011 (43.08%). From 2009 to 2011, the general government debt-to-GDP ratio increased by 6.91 percentage points or 19.1%. This could be explained by the fact that in the period 2008-2010, there was a global economic crisis that affected all countries. In this case, the general government debt increased because of government measures taken in response to the financial crisis and aimed at stabilizing the financial sector. After 2010, the government debt-to-GDP ratio continued to gradually decline, reaching 39.4% in 2013, while in 2014 it slightly increased to 40.87%; in the following year (2015), the ratio sharply decreased to 36.66% (by 4.21 percentage points or 10.3%). According to the CSB, the increase in general government consolidated debt was due to two issues of Eurobonds in 2014, which were implemented to refinance the current loans from the European Commission, which were received under the international bailout programme (The general government budget deficit in 2014 was 1.4% of GDP, 2015). The next increase in the general government debt-to-GDP ratio was reported in 2016, when it reached the level of 40.25%. This could be explained by the fact that in 2016 funds were accumulated to repay outstanding debts. In 2016, the government of Latvia continued to repay the

government debt borrowed from the World Bank in 2012 to deal with the consequences of the financial crisis. It is planned to completely pay back the loan in 2020, thereby repaying the loan gradually (Fridrihsone, 2017). Since 2016, the general government debt has continued to decline, reaching 36.36% of GDP in 2018. In 2018, Latvia repaid Eurobonds issued in 2008 (in the amount of EUR 400 million) and redeemed domestic bonds (EUR 220.9 million); the funds were obtained by issuing Eurobonds in international financial markets in 2017 (LETA, 2019).

In their research *Growth during Debt*, US economics professors K. Rogoff and C. Reinhart concluded that the critical level of public debt in developed countries, above which there is a threat to economic development, is 90% of GDP, whereas in developing countries this threshold is lower (Reinhart, Rogoff, 2010).

The public debt-to-GDP ratio increases mostly because of three factors:

1. The government implements a stimulating fiscal policy (spending exceeds tax revenues collected);
2. The borrowing rate is higher than the GDP growth rate;
3. A change in the government's financial investment policy or a change in the valuation of government debt (Tkačevs, 2011).

The authors of the paper conclude that the public debt-to-GDP ratio in Latvia in the period 2009-2018 did not exceed 43.8%, which was the highest ratio reported in 2011; it was due to receiving a new loan to deal with the consequences of the financial crisis in the national economy. Undoubtedly, the changes in the public debt-to-GDP ratio over the period analysed were affected by the receipt of new loans or the repayment of previous loans.

The research results based on CSB data revealed that over a ten-year period (2009-2018), the government budget of Latvia had a surplus (in the amount of EUR 16.097 million) only in one year (2016), which was due to the fact that the growth rate of budgetary revenues exceeded that of the national economy. Overall, the situation is that in the event that a sufficient amount of revenue is received, the government does not need to borrow, which in turn reduces the budget deficit and does not require new borrowings. Accordingly, the key priority of the government is to contribute to increases in budget revenues without creating a too high tax burden for citizens as well as businesses.

Covering government expenditures by means of an increase in public debt might be more effective on the demand side of labour (no increase in the tax burden on labour), yet it is less effective concerning capital allocation decisions. A priori, it is not clear which is more effective (increase in debt or taxes) (Rosen, Gayer, 2014).

The authors of the paper believe that the Ministry of Finance of the Republic of Latvia should vary the methods of covering the government

budget deficit and find a balance between an increase in public debt and changes in tax policies, thereby not reaching a public debt level that might cause financial difficulties not only for the government but also for the society as a whole.

Examining a breakdown of the general government debt of Latvia by subsector (Central Statistical Bureau database, 2019) allows us to conclude that overall, the amount of general government debt in the period 2014-2018 has been variable. In 2018 compared with 2014, the general government debt was EUR 3,259.465 million or 8.37% higher. By far the highest proportion in total general government debt in the period 2014-2018 was represented by debt securities, most of which were long-term debt securities (74.81% in 2018), followed by loans (23.14% in 2018), while deposits had the lowest proportion (2.05% in 2018).

N. Semjonova (Semjonova, 2017) points out that public debt is characterized not only by negative but also by positive features. The ability to use debt effectively is largely determined by the overall level of economic development, macroeconomic equilibrium, the government's economic priorities and the trust of individuals and legal entities in the government. Government borrowing plays an important role in ensuring economic development, which raises the objective of building an optimal system of public administration to a priority category. In this regard, the most important objective is to ensure a continuous governance process, and public debt policies must be able to respond quickly to changes in the economic situation in a short period. In order to achieve the objective, it is necessary to have a good knowledge of the structure of public debt when making any decision.

Within the present research, the authors assessed the impact of public debt on the national economy and summarized the positive and negative implications of an increase in public debt, see Table 1.

As shown in Table 1, public debt certainly has more negative than positive implications. The positive implications involve increases in income for the population (interest payments on debt securities) and revenue for the government budget (to cover expenditures). The negative implications of public debt are faced mostly by the population, both in a short and a long term. It should be emphasized that the repayment of public debt is financed from government budget revenues, which mostly consist of tax revenues paid by natural and legal persons. Accordingly, benefiting from the government support measures taken now means paying for them in the future.

**Table 1. Summary of the positive and negative implications of public debt (authors' compilation)**

Positive implications	Negative implications
<ol style="list-style-type: none"> <li>1. The amount of government expenditures that are used to perform functions important to the society is increased;</li> <li>2. Individuals who purchase government debt securities are provided with income from future capital gains.</li> </ol>	<ol style="list-style-type: none"> <li>1. The country's credit rating might be downgraded;</li> <li>2. Loans become more expensive – loan interest rates increase;</li> <li>3. The burden is placed on future generations;</li> <li>4. A part of national income is paid to creditors;</li> <li>5. The attractiveness of the country among investors decreases;</li> <li>6. A number of fiscal measures could be taken to repay public debt, which might reduce the disposable income of the population and in turn lower the living standard.</li> </ol>

The authors of the paper found a moderately strong correlation between general government debt and general government expenditure (correlation coefficient 0.65); therefore, it could be argued that an increase in public debt increases government expenditures (initially government revenue), which are intended, for example, to cover the costs of social protection for the population. In this case, the positive implications of public debt for the national economy and the society as a whole could be stressed.

The authors of the paper conclude that many researchers emphasize the clear implications of public debt for the future growth of the national economy. However, it should be noted that an effect is made not only on the national economy as a whole but also on the living standard of the population of each country individually.

The expert survey conducted within the present research identified the experts' opinions on the positive and negative implications of public debt for economic growth.

The experts' ratings revealed that the most important positive or negative implications of public debt were an increase in the government budget (positive implications), which was rated at an average score of 4.2 points, as well as a potential downgrade of the country's credit rating (negative implications), which was rated at an average score of 4.2 points. The importance of an increase in government budget size could be explained by the fact that as the government budget size increases, the government's expenditures, which could be used to fund measures important to the society, increase as well. However, a potential downgrade of the country's credit rating is important because of its impact on the refinancing rate for current borrowings. An important fact was that the government of Latvia started implementing various fiscal measures with the aim of reducing the public debt; the implications were rated at an average score of 4 points. One

of the experts interviewed believed that when rating the fiscal measures implemented, it was necessary to take into account when the fiscal measures were implemented. During a crisis, a government budget deficit and an increase in public debt is advisable, as the public expenditure multiplier affects GDP and aggregate demand increases, thereby helping the country to overcome the crisis. However, the situation where the public debt continues to grow even during an economic boom should be viewed negatively.

According to the experts, a decrease in the country's attractiveness to investors represented unimportant implications of public debt. One of the experts believed that the country's attractiveness to investors depended on a number of factors and was not affected by public debt. The experts were divided on the fiscal measures taken to reduce public debt.

Overall, it could be concluded that, according to the experts who rated the implications of public debt for economic growth, an opportunity to increase the government budget was considered positive and important, which allows implementing the measures being important for the society and requiring additional funding. The most important negative implications involved a potential downgrade of the country's credit rating, thereby reducing the possibility of obtaining a loan or attracting investors on favourable terms and conditions later.

## **Conclusions**

1. Public debt plays a key role in the macroeconomic system of any country. It can both stimulate and hinder the development of the country's economy.
2. Public debt, just like the debt of individuals or companies, arises in a situation of insufficient funds to implement a budgeted measure, i.e. a budget deficit arises. Consequently, the basic cause of public debt is government budget deficits, yet the size of it is determined by many other factors, e.g. inflation.
3. Over a ten-year period (2009-2018), the government budget of Latvia had a surplus only in one year (2016), which was due to the fact that the growth rate of budgetary revenues exceeded that of the national economy.
4. The hypothesis proved to be true, as public debt causes both positive and negative implications for the national economy and economic growth. However, it should be noted that public debt explicitly has more negative than positive implications.
5. According to the experts who rated the implications of public debt for economic growth, an opportunity to increase the government budget was considered positive and important, which allows implementing the

measures being important for the society and requiring additional funding.

6. The most important negative implications involved a potential downgrade of the country's credit rating, thereby reducing the possibility of obtaining a loan or attracting investors on favourable terms and conditions later.
7. The Ministry of Finance of the Republic of Latvia should vary the methods of covering the government budget deficit and find a balance between an increase in public debt and changes in tax policies, thereby not reaching a public debt level that might cause financial difficulties not only for the government but also for the society as a whole.

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# STAFF MOTIVATION PROBLEMS IN SMALL ENTERPRISES

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**Abstract.** *One of the challenges a company manager constantly faces is employee motivation. According to the authors' empirical experience, in small enterprises, an entrepreneur often has limited opportunities to hire a large number of employees, so the existing ones have to perform not only direct job responsibilities within their positions or professions, but also other additional duties. The aim of the research is to study the problems and opportunities of employee motivation in small enterprises. Two surveys were conducted to achieve the aim. The survey of entrepreneurs examined the motivation of employees from the point of view of entrepreneurs, while the second survey examined the opinion of employees on motivation in small enterprises. As a result, the motivators were ranked from both points of view and compared.*

**Keywords:** *small enterprises, motivation, personnel.*

**JEL code:** M12.

## Introduction

Personnel management is one of the most important functions of company management that considers a person as the only source of creativity and creative expression, thus being a cornerstone of organizational development and the most important and valuable resource of the company. This is especially important for small businesses. Employee motivation is one of current problems and also the biggest challenge for a company manager. According to the authors' empirical experience, in small companies, an entrepreneur often has limited opportunities to hire a large number of employees, so the existing ones have to perform not only job responsibilities within their positions or professions, but also other additional duties. Small businesses have limited resources and the entrepreneur cannot always afford to pay adequate salaries. These and other factors affect employee



motivation. The daily life of an entrepreneur is continuous work with employees.

The research problem: small business managers will face major challenges regarding the company's personnel in the future. Small businesses in particular have much more limited opportunities to attract technology, finance and excellent staff, while they are more flexible in responding to changes in the external and internal environment. Employees create the company's operating results, often with limited resources. In order to retain employees, a special challenge for a manager is to keep and maintain employees' motivation.

The research aim is to study the problems of and possibilities for employee motivation in small companies.

The research tasks:

- 1) to study the concept and nature of motivation, motivation theories and factors influencing motivation in small enterprises;
- 2) to analyse the peculiarities of employee motivation in small enterprises from the point of view of entrepreneurs;
- 3) to study the peculiarities of employee motivation in small enterprises from the point of view of employees.

Hypothesis: Salary is the determining motivator of employees in small companies.

In order to achieve the aim, the following research methods were used: the monographic analysis method, statistical research methods – grouping, comparison, analysis, ranking, the graphical method, the sociological research method – a survey. The area of empirical study – Latgale region.

The novelty of the research is formed by the surveys conducted within the research. The survey of entrepreneurs examined the motivation of employees from the point of view of entrepreneurs, while the second survey examined the opinion of employees on motivation in small companies. As a result, the motivators were ranked from both points of view and compared.

Period of research: 2015 – 2019.

### **Peculiarities of application of motivation as a management element in small enterprises**

In most countries of the world, small and medium-sized enterprises account for a significant share of total GDP in all sectors of the economy, both in the production of goods and in the provision of services. Small businesses solve employment problems and ensure development at the regional level. As Ordynskaya points out, small and medium-sized enterprises influence national growth rates. Analysing the economic indicators of the largest economies, the authors conclude that in developed countries small and

medium-sized enterprises account for about 60-70% of national GDP (Ordynskaya, 2016). According to European Commission Regulation No. 651/2014, micro, small and medium-sized enterprises (SMEs) are commercial entities that meet the specified indicators: number of employees, turnover, and balance sheet total. The company's staff consists of:

- employees,
- owner-managers,
- persons working for the enterprise being subordinated to it and deemed to be employees under national law,
- partners engaging in a regular activity in the enterprise and benefiting from financial advantages from the enterprise.

The peculiarities of small business management have always interested researchers. Looking at the basic principles of small business management, one of the most relevant stages of management is resource management.

The company's resource approach has been studied by J. B. Barney (Barney, 1991). According to Barney's approach, the company's resources must be valuable, rare, irreplaceable and difficult to imitate. The researcher argues that entrepreneurs often focus on attracting and managing external resources, neglecting the potential of internal resources, including both their own entrepreneurial skills and the potential of their employees. Most often, the owner of the company is also the manager of the company, who manages the company from the point of view of the value of his property and focuses on the management of material resources.

Barney and Arikan (Barney, Arikan, 2001) divide a company's resources into two parts: tangible and intangible. If we look at personnel management, then it is understandable that it is the personnel and the entrepreneur himself that are intangible resources that require a special approach. Researchers such as Eriksen and Mikkelsen (Eriksen, Mikkelsen, 2006), Ray, Barney, and Muhhana (Ray, Barney, Muhanna, 2004) also highly value entrepreneurial and staff abilities as intangible resources.

In her dissertation, Kantāne concludes that less research has been done on how to run a small company, what a small company manager should be in order for a company to operate successfully. Small business management and development has been addressed by Leon Meginson, Mary Byrd, William Megginson, Charles Kuehl, Peggy Lambing, Fuller-Love, and others (Kantāne, 2013).

Historically, both in Latvia and elsewhere in the world, it has developed that the manager of a small company is also the owner of the company. It is natural that a person with his knowledge and skills wants to build a business and earn money by providing for himself and his family. Consequently, a small business organization is characterized by an approach of private owner.

The authors believe that the organization of a small business is significantly influenced by the level and field of education of the owner/manager. This empirical experience is also confirmed by book authors and researchers. Megginson and other authors emphasize that it is important for every entrepreneur to learn the basics of running a business in order to avoid the risk of incompetent management (Megginson, Byrd, 2005).

The role of employees in the successful operation of companies is repeatedly emphasized in scientific research. Tobassi and others argue that staff capacity plays an important role in the organizational success of a small business. The authors of the research prove that the greatest contribution to success is made by training, motivation, and team spirit (Tabassi, Ramli, Bakar, 2012). Jorfi et al. emphasize motivation, effective communication and emotional intelligence as the most important basis for the success of an organization in small companies (Jorfi, Yaccob, Shah, 2011). As another important criterion for the successful development of an organization, the authors point out the strategic vision and its purposeful fulfillment. It acts as an important motivator for the manager and also for employees who clearly understand the direction of the company's activities. It gives employees the desire to develop to meet the company's goals.

Maccdonald et al. (Maccdonald, Assimakopoulos, Anderson, 2007) in their study prove that the competitiveness and innovative activities of small companies are promoted by the education and continuous development of the entrepreneur and his employees. Based on the former research, the authors conclude that the management of a small company differs from the management processes in large companies, where each of the organizational units is managed by knowledgeable employees, while the challenge of small company management is to accumulate and develop extensive knowledge in particular and specific areas of activity.

Employee motivation today is one of the most actual concepts discussed in relation to the company's personnel management. As technology opportunities, labour migration, people's education and employment opportunities increase, motivation becomes a key word in attracting and retaining a quality workforce.

According to Vorončuka, the staff consists of people with their work, hopes, goals, needs and problems in the organization (Vorončuka, 2009). It follows that an employee in a company is both an individual and a resource of the company.

In the motivation process, employees choose one of the action alternatives to achieve personal goals. The goals that people strive for can be tangible – money, promotion, as well as abstract – self-esteem, job satisfaction. The remuneration that a particular employee could receive is

divided into internal and external. Internal remuneration is derived from each person's personal experience (self-esteem); external remuneration is granted from the outside (benefits, promotion) (Beļčikovs, Praude, 2001). Business managers are interested in achieving harmony between employees and company goals, which affects motivation.

Reviewing the above mentioned concepts, the authors have created a table summarising main elements motivation theories.

**Table 1. Motivation theories, explanation of their essence**  
(compiled by the authors)

<b>Motivation theory and its representatives</b>	<b>Essence</b>
Pyramid of needs or theory of hierarchy of needs (1954) A. H. Maslow	Individual needs exist in a hierarchical order (physiological, security, social affiliation, social recognition (self-esteem) and self-expression). Every level of needs is a motivating factor for employees, if it is not met. The employee is motivated by the needs of the higher level, satisfying the lower ones first.
ERG theory C. Alderfer	Motivation coexists in the need for existence, commitment or kinship, and growth. They have no established order or transition from one level to another. Each of the needs can be relevant in parallel.
Three Needs Theory (1967) D. McClelland	People acquire and become aware of their needs during life through experience: belonging/ communication, power and success. They are not biologically inherited and depend on the environment, conditions, etc.
Two Factor Theory (1950ies) F. Herzberg	There are two groups of motivators – hygiene factors and motivation factors. Needs that are hygiene factors do not motivate, but create job satisfaction. When one of them is missing, there is dissatisfaction with the job. The motivation factor guarantee provides higher work motivation.
Equity theory (1963) J. S. Adams	People compare the efforts and rewards they receive with the efforts and rewards of other people. Perceived inequality has a negative effect on motivation (for example, by reducing work effort or demanding more compensation).
Expectancy Theory (1964) V. Vroom	A person is motivated to choose a particular pattern of behaviour if there is a possibility that the effort will improve the result of the work. In turn, it will provide a higher salary and satisfaction of received.
Goal Setting Theory (1990) E. Locke, G. Latham	Motivation is affected by how important, specific and complex are goals of each individual. The higher level they are, the higher is the motivation. Employees are demotivated by vaguely defined, simple and easily achievable goals.
Job characteristics model (1976.) R. Hackman, G. Oldham	Motivation is created by the environment in which the employee is located. The task of the manager is to find an opportunity to organize the work process so that it creates work motivation. It can be built through a variety of skills, work intensity, feedback, etc.

As we can see from the above mentioned, there are many theories of motivation, they are different and not perceived unambiguously, because at any given moment, the employee's motivation can change in a different way, when influenced by these or other factors. The authors believe that in current conditions, when Latvia is constantly experiencing a process of change both in the global aspect and at the national and company level, the use of theories can be assessed subjectively. It is important to take into account each individual's personality traits, level of development, professional and intellectual level, including occupation, environment, economic and social conditions.

### **Analysis of motivation implementation in small enterprises**

The authors have conducted a study with the aim of finding out the opinion of small business employees and managers on the motivational aspects of the company. Two surveys were conducted during the study. One of the questionnaires was handed out to entrepreneurs and the other – to employees.

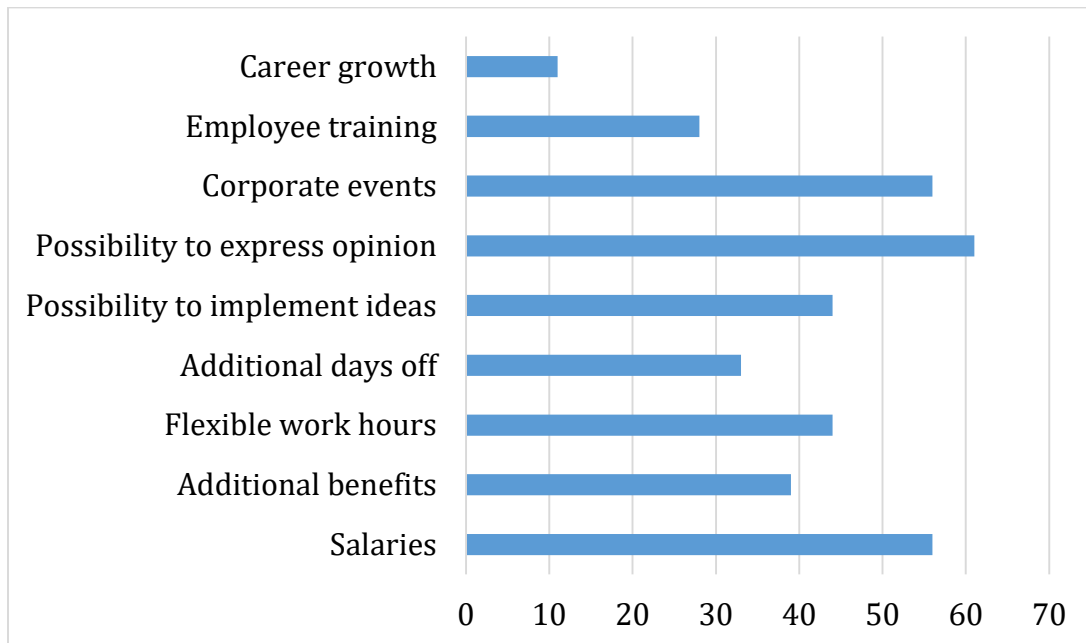
Both surveys focused on employees' motivation and the evaluation of motivators, but from different points of view. Namely, how this research object is seen and perceived by the company's management and how – by the employees themselves.

Entrepreneurs whose companies were located in Latgale region were surveyed. Forty questionnaires were distributed, of which 18 were returned. The questionnaires were distributed both electronically and in person by visiting entrepreneurs. As a result, the authors conclude that entrepreneurs do not participate in surveys reluctantly, on the pretext of busyness and unwillingness to get involved. Eighteen questionnaires were completed in person by visiting entrepreneurs, and most often they were acquaintances.

The survey of small business managers asked to evaluate motivators that are used in relation to employees. Several answers were allowed, which are summarized in Figure 1.

As we can see in Figure 1, the results of the survey show that in small companies the most often used motivators are: opportunity to express an opinion (61%); corporate events (56%), and salary supplements (56%). The first two motivators more relate to the higher levels of the Maslow pyramid, i.e. expression of self-esteem and social affiliation. Opportunity to realize their ideas (44%) is also a widely used motivator. Entrepreneurs also use the salary supplement relatively often (56%), while additional bonuses and benefits (39%) less. This is due to spending optimization measures in small

companies, as entrepreneurs are often unable to afford various additional benefits to their employees, such as insurance, a car, pool or gym subscriptions, etc.



**Fig. 1. Motivators used in small enterprises according to the results of the entrepreneur survey, % (compiled by the authors)**

The authors also welcome the fact that entrepreneurs use flexible working hours (44%). This motivator is becoming an important element of current motivation, as opportunities for remote work, work-life balance, etc. are increasingly developing. If the type of business does not require precise work hours, then flexible working hours are quite an important motivator. Unfortunately, as a result of the survey, it became clear that entrepreneurs rarely used such motivators as training and career development – 28% and 11% respectively. These results show the motivation trends of small business employees. As a result of the survey, the authors conclude that small business managers are quite passive in terms of motivation, with little interest in creating motivation. Managers focus more on monetary motivators and make little use of top-level needs of employees.

The second survey, the respondents of which were employees, was also conducted among the employees of small enterprises in Latgale region. One hundred questionnaires were distributed, 57 were returned. The questionnaires, similarly to the first survey, were distributed both electronically and in person by interviewing employees.

**Table 2. Assessment of motivational elements (employees' opinion), % (compiled by the authors)**

<b>Motivator</b>	<b>Motivates</b>	<b>Doesn't motivate</b>	<b>Hard to say</b>
Friendly, cohesive team	84	12	4
Positive atmosphere in the workplace	91	9	0
Adequate working hours and work schedule	75	16	9
Pleasant working environment	84	7	9
Career development opportunities	41	48	11
Opportunities to learn	28	21	51
Clear job responsibilities and outcome	58	37	5
Manager's attitude	89	2	9
There is sustainability and a sense of security at work	63	19	18
Performance affects pay	68	16	16
Opportunity to receive evaluation and recognition for a job well done	95	2	3
Fear of punishment or dismissal	42	49	9
Stable salary	89	0	11
Adequate salary	84	2	14
It is possible to receive additional allowances (bonuses, allowances for night work, etc.)	80	18	2
Possibility to receive other benefits (car, telephone, insurance)	72	26	2
An interesting job	67	18	16

In general, the authors conclude that workplace communication and the work environment, as well as salary and related benefits, are the most important motivators that company managers can use to motivate their employees.

**Table 3. Rankings of the motivators, a comparison of opinions by employees and entrepreneurs (compiled by the authors)**

<b>Motivator</b>	<b>Rank, employers' opinion</b>	<b>Rank, employees' opinion</b>
Remuneration	1	1
Social guarantees	4	5
Working hours and schedule	2	3
Job responsibilities and job content	3	6
Team and atmosphere at work	5	4
Manager and his attitude	6	2
Career development opportunities	9	9
Training opportunities	8	8
Stability and sustainability	7	7

Entrepreneurs believe that employees are, firstly, motivated by salary, secondly, by working hours and the work schedule. In 3rd place, entrepreneurs name job responsibilities and job content. Unfortunately, social guarantees are ranked 4th, which raises some concerns that the shadow economy could occur, i.e. the gross salary of employees may not be as significant.

The entrepreneurs have ranked issues related to communication 5th and 6th, i.e. the role of the team and the leader himself (5th and 6th place, respectively). As a result of the survey, it can be concluded that 7th, 8th and 9th places are allocated for stability, training, and career development. Small businesses often experience change, suspension or closure in changing economic and social circumstances, so the issue of stability is sensitive enough for a small business. Although it has been shown that it is small businesses that provide the largest number of jobs.

From the point of view of employees, it can be concluded that the 1st motivator, similarly to entrepreneurs, is a salary, though, 2nd place differs in their opinion – in the employees' opinion it is a manager and his/her attitude. It is not uncommon to hear that, if quitting, employees quit the manager not the workplace – this ranking confirms it in the most direct way. According to the employees, work hours and the work schedule are rank 3rd. However, 4th place is given to the team and the atmosphere in the workplace, followed by social guarantees. The authors regret that social guarantees are not in the focus of attention by the employees, as it is a question of sustainability. Although it is subjective, because the younger and middle generation often see pensions and other negative consequences as an unattainable future.

### **Conclusions and suggestions**

1. Summarizing and analysing various definitions of the concept of motivation, the authors conclude that the definitions are essentially similar. As a summary, the authors define motivation as an individual's conscious activity, which is focused on fulfilling personal results, goals, and needs, while ensuring the company's results and goals
2. There are differences in the perception of motivation between the employees of different generations. This means that it is important for an entrepreneur to be able to assess the difference between these generations and apply the relevant motivators.
3. Small business managers are not particularly interested in informing their employees, or it is an example of poor communication. The Labour Law stipulates that additional work must be paid for, but as the authors' empirical experience show, it is a common practice in small companies that employees perform additional duties, not only in the absence of



another employee, but also every day. On the one hand, it is a negative trend, on the other hand, it is important for the manager of a small company to maintain an optimal level of costs and each additional employee is an additional expense.

4. Managers of companies and structural units must be able to evaluate the application of motivation theories in modern conditions, because Latvia is constantly experiencing a process of change both in the global aspect and at the national and company levels, as well as continuous development of society. When applying motivation theories in practice, it is important to take into account the personal characteristics of each individual, the degree of development, professional and intellectual level, as well as the profession, environment, economic and social conditions. Methods for motivating employees must not be used clichés in all situations and for all employees. A creative approach is needed on a case-by-case basis.
5. Small business managers should follow changes in employee motivation in search of new approaches and methods for motivation focusing on higher level needs, i.e. self-esteem and self-expression.
6. Motivation problems mostly relate to different managerial and employee priorities. Business managers should have regular discussions in formal and informal settings to learn about each individual's needs, expectations and future development opportunities. This would help to retain good employees and keep them motivated to work for the company.

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# EMERGING INFLUENCERS PROMOTING TRAVEL: THE CASE OF LOCAL TOURISM IN LATVIA

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**Abstract.** *The presence of social networks has given a chance for social media influencers to emerge. Social media influencers creating and sharing content, endorsed or not, has become a growing marketing trend used by companies, as well as destinations. This paper focuses on travel influencers who, with the help of social networks, particularly Instagram, are promoting local travel in Latvia. In this study, four emerging travel influencers and their posts were retrieved and analysed. The study results show that emerging travel influencers are trying to attract their followers by mostly sharing posts with landscapes and nature, art objects/statues, and nature activities/facilities. However, traditional artwork/objects, religious buildings/objects, and traditional or historic buildings are the pictures achieving the highest engagement rates. Finally, the study also revealed that influencers with a lower number of followers have a higher level of engagement. It is concluded that authenticity and individuality of account, as well as its organic, rather than paid growth, are the key aspects in creating a travel account that followers would engage (like, share and comment on the content). The theoretical and practical implications are discussed.*

**Keywords:** *influencers, travel, tourism, local travel.*

**JEL code:** M31, L83.

## Introduction

With the growing popularity of social media amongst both individuals and businesses comes the rise of influencer marketers (Garcia-Morales, Martín-Rojas, & Lardón-López, 2018); (Childers, Lemon, & Hoy, 2019). Influencer marketers are commonly defined as “a new type of independent third party endorser who shapes audience attitudes through blogs, tweets, and the use of other social media” by (Freberg, Graham, McGaughey, & Freberg, 2011), the definition used also in the study of (Lou & Yuan, 2019). The world's most popular influencers gather millions of followers that see influencers as peers and trust their content (Liu et al., 2015) allowing the followers to identify with endorsers (Seunga Venus Jin & Ryu, 2019), creating engagement (Booth, 2011). These influencers then can form partnerships (Charlton & Cornwell, 2019) with businesses to endorse products and services and influence the customer decision-making process (Evans, Phua, Lim, & Jun, 2017); (Ferguson, 2008) (Leal, Hor-Meyll, & de Paula Pessôa,

2014) when using the right platforms and content to engage (Hughes, Swaminathan, & Brooks, 2019). Overall, due to more organic, authentic, and direct communication (Lou & Yuan, 2019) followers tend to trust influencers more than brand-generated content (Lou, Tan, & Chen, 2019), and even more than traditional celebrities (S. Venus Jin, 2019).

With the tourism industry being one of the world's largest and most dynamic industries (Aratuo & Etienne, 2019), influencer marketing has quickly become an important tool for promoting not just products and services but also destinations (Stoldt, Wellman, Ekdale, & Tully, 2019); (Xu (Rinka) & Pratt, 2018); (Bokunewicz & Shulman, 2017). From Youtube, Twitter, Facebook and other social site influencers (Lou & Yuan, 2019) to Instagram influencers creating travel hashtags (De Veirman, Cauberghe, & Hudders, 2017), millions of pictures, videos, reviews, and other eWOM information are created about destinations (Backaler, 2018). The use of influencer marketers has become an integral part of the overall destination marketing strategy (Ong & Ito, 2019); (Gretzel, 2017a).

Although influencers are personalities having a large number of followers on either multiple platforms (e.g. Facebook, Twitter, Youtube, etc.) or only one platform (Lou & Yuan, 2019), when it comes to destinations, the most active place of communication seems to be Instagram (Vrana, Khan, Karavasilis, Kehris, & Kydros, 2019), due to its visual nature that allows photo and video editing and sharing (Sheldon & Bryant, 2016). Apart from visuals, Instagram also promotes the use of hashtags (Gretzel, 2017b), which allows them to situate and archive posts and pictures within a specific genre (Cardell & Douglas, 2018). As per 2019, there were 452 million posts with #travel, 96.4 million posts with #travelphotography and 49.7 million posts with #travelblogger hashtags on Instagram.

With the conditions that affected the world at the beginning of 2020 due to rapid spread of COVID-19, the international tourism industry has seen a dramatic drop in travel activity (Aloi et al., 2020), but nevertheless local travel activities were allowed and encouraged in the majority of the EU countries, including Latvia, where local travel activity reached new heights. Multiple local travel influencers emerged to inspire followers to explore Latvia and as per June 2020, several hashtags like #latviatravel (32.2 thousand posts) and #visitlatvia (106 thousand posts) were being used to promote it. This research in particular focuses on emerging travel influencers in Latvia and aims to explore their role in promoting local travel amongst their followers.

This research aims to address several research gaps. Despite ongoing research in the field of social media marketing, academic research into exploring specifically Instagram as a commonly used site for travel and destination marketing is still limited (Djafarova & Rushworth, 2017).

Moreover, a limited number of studies that explore the particular social media site focus on the visual content (Geurin-Eagleman & Burch, 2016), and the majority of the research has a commercial perspective. Social media and Instagram in particular as a tool is used by businesses to promote their products and services (Abed, 2018), build brand relationships with customers (De Veirman et al., 2017), and promote products and services (Abidin, 2016). This research focuses on emerging individual influencers which rather than promoting commercial interests, promote advice (Casaló, Flavián, & Ibáñez-Sánchez, 2018), with special focus on local tourism promotion via organic content produced by individual influencers that are also locals (Paül i Agustí, 2018). Finally, the current study focuses on local tourism influencers on Instagram in Latvia, previously less explored countries in academic literature. Therefore, the aim of this research is to explore emerging travel influencers that promote local tourism in Latvia. The main research questions are: (1) what are the types and categories of pictures shared by travel influencers in Latvia that aim to promote local tourism, (2) what are the followers' engagement rates for pictures shared by travel influencers in Latvia, (3) what are the categories and types of pictures that have the highest engagement rates.

### **Literature review. Influencer marketing in Latvia**

Holders of social accounts with thousands of measurable loyal followers are called digital influencers because their accumulated audience and ability to mobilize their followers to perform actions when needed is given the value of a marketing channel (Abolins, 2018). Influencer marketing is a new approach to marketing, where sales forces both understand and support it. It directly addresses the most common sales barriers within prospective customers and focuses attention on those individuals who advise decision-makers. These people are called influencers, and they are as crucial to the sales process as the prospects themselves (Brown & Hayes, 2008).

There are some companies that are already extremely effective in identifying and working with their major influencers, yet the sector is still emerging. The traditional marketing is one-way communication, however, with technology, the emergence of influencers becomes possible. Influence requires interaction, and the host of emerging social media enables influence to be exerted across a global audience. Social media include the online technologies and techniques that people use to share opinions, insights, experiences and perspectives (Brown & Hayes, 2008).

Influencer marketing is a relatively new and emerging trend in Latvia. Only a rare digital influencer in Latvia has the content capacity and high-

quality follower base that would ensure the advertiser's expected return. To order to develop it and attract new, young influencers, many forums, summits and conferences on this topic have been organized in the last three years. Some companies actively use the services of local influencers, attracting them to participate in the development or promotion of a new product. The panel discussion "Influencer Marketing in Latvia: Reality" in the Riga Comm conference, which took place on October 12, 2018, was dedicated to the topic of Marketing of Digital Influencers in Latvia. The panel discussion was attended by Artūrs Mednis, head of New Black, Denis Šveļevs, a project manager for influencer communications in Golin Riga, and Maya Armaneva, a full-time influencer.

On September 19, 2019 at the Latvian National Library (LNL) the educational event "Influencer Literacy" was organized by LNL in collaboration with the University of Latvia, the Faculty of Social Sciences, the Latvian National Commission of UNESCO and the office of the Nordic Council of Ministers in Latvia. The expert's discussion and lecture was dedicated to the nature of the new profession, as well as the importance of media literacy, so that users of social networks can more critically evaluate the consumed content and its impact, for example, when buying the audiovisual content that they see (Zarāne, 2019).

The second biggest event that happened in November 2019 in Latvia was The Women in Travel Summit (WITS). During this event, women travel influencers, bloggers, and industry members come together for a weekend of sharing travel experiences, informative programming, and targeted networking. It was the sixth year that the summit brought together travel's top talent to discuss future innovations, build dynamic collaborations, and change the travel industry worldwide, all while supporting and empowering a diverse community. WITS was organized by Wanderful, a top network for women travellers with a reach of over 40k worldwide (Luper, 2019).

The last and the biggest event that attracted 29,000 people, including industry professionals, was Balttour - the largest Tourism Industry Trade fair that is taking place every year in Riga, Latvia. On January 29, People Work hosted the Business Forum of the region's leading travel trade fair Balttour 2020, where 169 tourism professionals and marketing specialists discussed the current affairs and trends in tourism, influencer marketing, youth travel habits and the industry's best practices ("Par tūrisma aktualitātēm diskutēs "Balttour" forumā", 2020). Artūrs Mednis, a founder of New Black Agency, a new media and digital marketing expert, offered an original presentation on trends in influencer marketing. Specialists discussed the practical influencer marketing in Latvia, promoting various tourism offers, best examples and experience.

## **Travel influencers as marketers for destinations**

Social media has presented another degree of individual impact where individuals can establish and add to worldwide networks that cannot be coordinated in the physical world (Rowett, 2019). Travel and tourism is one of the sectors in which influencers have become especially prominent. In the travel and tourism industry, influencers can be used to attract more or different kinds of tourists to a given geographical area and to shape the impression of the destination, among different purposes (Femenia-Serra & Gretzel, 2020). Although there is no consensus regarding the definition of travel influencers, the commonly used definition explains: “the travel influencer is a person that promotes destinations, services or products, associated with travel by leveraging their social media influence” (Stainton, 2020). Influencer marketing in travel and tourism is on the importance of word-of-mouth. Interpersonal communications were recognized long ago as influential in the tourism industry. (Litvin, Goldsmith & Pan, 2008) Most influencers in Latvia are nano and micro-influencers. It means that their number of subscribers is 1000 - 5000 and 5000 - 20 000. Such influencers have stronger connections with their audience. They usually attract an audience with specific interests (for example, tourism), and since they publish for a smaller audience, they can get more involvement for the post (The State of Influencer Marketing on Instagram in the Baltic States: Estonia, Latvia and Lithuania, 2019). The engagement rate (ER) of these influencers is higher. Travel influencers in Latvia are in 3rd place, after Lifestyle and Photography, with an ER of 4.51% According to the statistics, the ER of nano-influencers in Latvia is 7.80% and of Micro-influencers is 2.93%. The main influencers in Latvia are women aged 18 to 34 years.

On November 5, the Association of Bloggers and Influencers in Latvia was founded, which would unite industry professionals as well as novice bloggers whose activities meet high-quality standards and professional ethics ("В Латвии основана Ассоциация блогеров и инфлюенсеров", 2018). Digital marketing experts Artūrs Mednis and Deniss Šveļovs admitted that there could be about ten influencers in Latvia, for whom the creation of sponsored content, mostly on Instagram has become a full-time job and the main source of income, while the other several hundred individuals earn in their free time from normal work.

## **Follower engagement to influencers' content**

Nowadays, organizations as well as destinations, recognize the value of social networks and engagements towards their business success (Dolan, Conduit, Fahy, & Goodman, 2016) and influential people have become a

rather important part of society - some like to monitor their content. Not all the social interactions are considered engagement, as it is driven by information consumption, interest immersion, a sense of presence, and social interaction (B. G. Smith & Gallicano, 2015). Comments and shares can be seen as a more reliable source of measuring engagement with users (Chugh, Patel, Patel, & Ruhi, 2019). In business context, social media engagement is a tool that allows us to develop business relationships (Hollebeek, 2019) and relationships with customers (Liu et al., 2015).

## **Methodology**

The aim of the current study is to explore local travel influencers as promoters of local travel in Latvia via posts on Instagram. The primary data source for the research is content created by the identified travel influencers that primarily promote local travel in Latvia, and consists of pictures shared, their classification, location, likes and comments. For the purpose of the study, a database of local travel influencers was created. The authors selected influencers with more than 1000 active posts, with an average of 5 posts per week on Instagram as per June 2020, which allows to select the most active members. Four Instagram influencers were selected for the current study with 925, 1126, 1170 and 1637 posts, respectively. Then, the latest 100 posts with pictures from Latvia (excluding posts shared from other locations and videos) from each influencer were selected and included in the study sample. The main methods applied for the study were content (Tiggemann & Zaccardo, 2018) and visual content analysis (L. R. Smith & Sanderson, 2015). To categorize photos, the authors followed previous research (Kuhzady & Ghasemi, 2019) and grouped posts into 13 categories, namely 1) Modern Architecture, 2) Art Object/Statue, 3) Festival/Ritual, 4) Food/Restaurant, 5) Leisure Activity/Facility, 6) Nature/Nature Landscape, 7) Urban Landscape, 8) Religious Building/Object, 9) Traditional Art Work/Object, 10) Traditional or Historic Building, 11) Transport/Infrastructure, 12) Ordinary Scene, and 13) Other.

## **Results and findings**

For the purpose of analysis for this study, 400 pictures from emerging influencers were retrieved and coded to include in the analysis. The engagement rate varies and depends on the number of likes and comments under a particular post, it means, that it is not affected by the external factors. Only the pictures that were taken in Latvia were included for the study. Content and visual content analysis was applied and pictures were classified



into one of the twelve groups. For the purpose of answering the first research question, a frequency analysis is presented in Table 1.

**Table 1. Frequency of categories** (compiled by the authors)

Group	Classification	Frequency	Percentage	Group	Classification
1	Modern	20	5	1	Modern
2	Architecture			2	Architecture
	Art Object/ Statue	41	10	3	Art Object/ Statue
3	Festival/Ritual	5	1	4	Festival/Ritual
4	Food/Restaurant	18	5	5	Food/Restaurant
5	Leisure Activity/Facility	41	10	6	Leisure Activity/Facility
6	Nature/Nature Landscape	134	34		Nature/Nature Landscape

From the frequency analysis above, it is very clear that emerging travel influencers place a great emphasis on sharing pictures with nature and natural landscape scenes, which contributes to 134 out of 400 pictures included in the analysis. Other types of pictures (mostly selfies, self-reflections, one’s own family) were shared 46 times and contributed to a total of 12% of the pictures. Several leisure activities and facilities, including nature walks, water sports, sport facilities were shared 41 times, as well as art objects and statues. Traditional and historical buildings like palaces, village houses, historical city centres around all regions from Latvia contributed to 9% of total pictures. Pictures of modern architecture, mostly from capital Riga, with scenes of a national library, coast and other significant modern architectural buildings and scenes were shared 20 times as well as food and restaurant images (5%). The rest of the pictures from categories like transport, infrastructure, religious buildings and objects, festivals and rituals, and others contribute to 16% of total pictures shared on Instagram by emerging travel influencers that promote local travel in Latvia. It is important to note that the pictures shared are from all regions of Latvia.

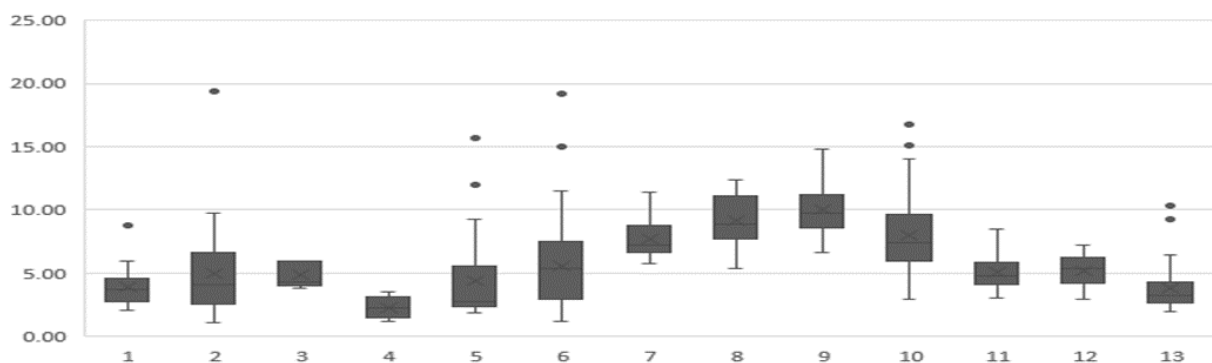
The second research question deals with engagement towards shared pictures from the followers’ in the form of likes and comments. The standard formula of social media engagement was used for this study, where an engagement rate is calculated as a sum of picture likes and comments, divided by the number of followers and multiplied by a hundred. (The State of Influencer Marketing on Instagram in the Baltic States: Estonia, Latvia and Lithuania, 2019). The summary of engagement indicators is presented in Table 2.

**Table 2. Picture engagement by influencer** (compiled by the authors)

Influencer	Number of followers	The average number of likes per picture	The average number of comments per picture	The average engagement rate	Influencer
1	1050	84	2.71	8.21	1
2	9989	446	64.85	5.12	2
3	1638	85	5.25	6.99	3
4	12258	283	9.86	2.39	4
Average Influencer	6234	225	20.67	5.68	Average Influencer
	Number of followers	The average number of likes per picture	The average number of comments per picture	The average engagement rate	

The four emerging travel influencers have on average 6 thousand followers, although there is a large variation in the number of followers from 1 to 12 thousand. In this research, the frequency of posts does not affect the engagement rate. The average number of likes and comments indicate that there are on average 10 times more likes than comments. Therefore, the average engagement rate is 5.68, showing that followers in Latvia have a medium activity and tendency to respond to the posts. Interestingly, the lower the number of followers an influencer has, the higher engagement rate it has, and influencers with 12 thousand followers, therefore, have the lowest engagement rate amongst all standing at 2.39. On the other hand, the influencer with the lowest number of followers has the highest engagement rates.

In regard to the third research question, which deals with engagement rates per picture categories, Figure 1 is prepared to analyse followers' engagement within previously defined categories of pictures.



**Fig. 1. Followers' engagement per category** (compiled by the authors)

Despite the fact that nature and nature landscapes category has the largest number of pictures shared by influencers, it does not have an as high number of engagement as the categories of traditional artwork/object, religious buildings/objects, and traditional or historic buildings, which are the three categories of shared pictures that followers have engaged the most. The lowest engagement is for food / restaurant and other pictures (selfies, one's own family, self-reflections) and modern architecture. The implications of these findings will be discussed further on.

### **Conclusions and discussions**

The purpose of the current research was to explore emerging travel influencers that promote local tourism in Latvia. For the purpose of this study, four emerging travel influencers were identified on Instagram and the last 100 posts shared from Latvia were retrieved and combined in the database (total of 400 posts). Moreover, posts were classified in 12 categories and analysis tools were applied.

The travel influencer sector is still emerging in Latvia, there are currently over 10 accounts on Instagram that local influencers have, and these accounts relate to the travel and tourism industry. However, the study has shown that even with a small amount of such influencers, people are still interested in travelling across Latvia and sharing their photos to influence followers. Compared with world well-known tourism influencers, Latvian tourism influencers have a smaller audience and recognition. Despite the small number of tourism influencers in Latvia, they do a great job and attract a considerable amount of followers to their Instagram accounts. The four travel influencers included in this study have totally 25 thousand followers on Instagram.

The first research question is: what are the types and categories of pictures shared by travel influencers in Latvia that aim to promote local tourism. In terms of travel and tourism, typical Latvians are not particularly interested in observing and following the influencers whose posts are made in places that everyone knows about. By posting this content, influencers tend to annoy their followers. Followers want to see something new, something less familiar, or less explored when it comes to tourism. They are more interested in learning and discovering new places to travel around Latvia than about all the long-known ones. It is interesting to note that in the posts published, there were landscapes and nature, which were less familiar to a typical Latvian. Influencers are focused on attracting the attention of followers, as a consequence of the publication of places less known in Latvia. The analysis of the 400 posts shared by emerging travel influencers shows

that the majority of posts shared were the pictures of nature and landscape, which is typical for travel influencers ((Yilmaz, Sezerel, & Uzuner, 2020). A smaller number of posts were pictures of other categories (selfies, family etc.), art objects/statues, and nature activities/facilities.

Secondly, the research question regarding what is the followers' engagement rates for pictures shared by travel influencers in Latvia was analysed. Engagement rates per picture were calculated from information retrieved from Instagram (picture likes, comments and total number of followers), and an analysis reveals that influencers have average rates of engagement, and moreover influencers with a lower number of followers have a higher number of engagement, which is in line with previous studies revealing that organic accounts and posts have higher effectiveness (Aydin, 2020). The average engagement rate for four influencers was 5.68, while the engagement rate for the account with the lowest number of followers was 8.21.

Finally, the third research question is what are the categories and types of pictures that have the highest engagement rates? An analysis reveals that traditional artwork/object, religious buildings/objects, and traditional or historic buildings are the categories achieving the highest engagement rate. Previous studies reveal that traditional ethnography allows us to create authentic travel accounts on social media (Miotti, 2019), which is one of the reasons to explain high activity towards traditional and religious posts.

Several implications can be drawn from the results of the current study. First, it is suggested that travel influencers achieve a variety in their posts to attract a wider local audience. Currently, the majority of the posts are nature/nature landscape, but these are not the posts having the highest engagement. Influencers should share their pictures from a variety of categories, including traditional places, buildings, art, objects and religious attractions that have higher follower engagement. Given this research, it is recommended that in order to achieve higher engagement, influencers should focus on organic and authentic content that would allow them to stand out from the majority of traditional influencer accounts that share similar information and travel destinations. Finally, travel influencers have a chance to become international promoters of Latvian travel destinations and have international recognition if they work towards content that attracts the attention of international travellers.

The current study has several limitations. It only focuses on emerging travel influencers in Latvia that actively work on Instagram and last 100 posts from four travel influencers were included in analysis, which limits the scope of the study results. A wider geographical area and a larger number of influencers and posts can be considered for future studies.

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# COVID-19 PANDEMIC IMPACT ON FREE ZONES

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**Abstract.** *The COVID-19 pandemic has an impact on global economic activity, but the negative effects vary from country to country. The key factors determining the depth of the impact are the economic situation at the beginning of 2020, the features of the economic structure and the fiscal capacity of governments to help citizens, businesses and the economy as a whole. Free zones and special economic zones are historically perceived as places that, to some extent, protect investors from unpredictability and act as places where the weak business environment is mitigated. The paper investigates the impact of the pandemic COVID-19 on the world's economic situation and free zones, as well as forecasts on the economic recovery for free zones. The objective of the paper – to analyse the impact of the pandemic COVID-19 on free zones' performance in the world and the global economic situation. The research study identified the impact of the pandemic COVID - 19 on the world's economic situation and the extent and nature of COVID- 19 pandemic impacts on performance in free zones, as well as the impact of the pandemic COVID 19 on the operation of free-zone enterprises in Latvia by analysing the example of Rezekne's special economic zone.*

*The descriptive methods, document analysis, comparative analysis was used in the study, as well as a survey.*

**Keywords:** free zones, special economic zones, COVID-19 pandemic, economic growth.

**JEL code:** R 5.

## Introduction

The COVID-19 pandemic (coronavirus pandemic) is defined as illness caused by severe serious respiratory syndrome coronavirus 2 (SARS-CoV-2). It was reported to the World Health Organization on January 30, 2020, and on March 11, 2020 it was declared COVID- 19 is a global pandemic. The coronavirus COVID-19 pandemic is the greatest challenge we have faced since World War Two. The COVID19 pandemic has, with alarming speed, delivered a global economic shock of massive scale, leading to steep recessions in many countries.

As a result of the COVID-19 pandemic, global economic activity is expected to have fallen by nearly 10% in the first half of 2020 (WFZO, 2020). How quickly the world economy will recover depends on epidemiological developments and epidemic policy measures. Assuming that the development of the pandemic will lead to simplification of the containment policy and, thanks to monetary and fiscal policies, the outcome is expected to improve in the second half of this year.

Free zones and special economic zones are instruments of regional development to promote economic development that, to some extent, protect investors from unpredictability and act as places where the weak business environment is mitigated. The COVID-19 pandemic and its impact on the global FDI landscape is testing the resilience of SEZs. (UNCTDAT, 2020)

The paper investigates the impact of pandemic COVID - 19 on the world's economic situation, especially the influence of the COVID - 19 pandemic on development prospects and recovery of world free zones.

The objective of the paper – to analyse the impact of the COVID-19 pandemic on the world's free zone performance and the global economic situation.

Several tasks have been set within the framework of the study:

- 1) to describe the impact of the COVID - 19 pandemic on the world's economic situation;
- 2) to identify the extent and nature of COVID- 19 pandemic impacts on performance in free zones;
- 3) to identify the impact of the COVID 19 pandemic on the operation of free-zone enterprises in Latvia by analysing the example of Rezekne's special economic zone.

Free zones go by many different names, including special economic zones (SEZs), free trade zones, export processing zones and industrial parks. For the purpose of data analysis, this paper focuses on zones with a distinct regulatory regime and uses two concepts - a “free zone” and a “special economic zone”. Special economic zones go by many names and come in many varieties and sizes. They have in common that, within a defined perimeter, they provide a regulatory regime for businesses and investors distinct from what normally applies in the broader national or subnational economy where they are established. As SEZs emerged from the concept of free zones – free from tariffs, taxes and red tape – the basic components of an incentive package are very similar across most types of zones and most geographies (UNCTDAT, 2019). Despite the differences in terminology, free zones as well as special economic zones are generally implemented to reach fiscal, social and regional policy goals of the country and the most important fiscal goal of an SEZ is to facilitate economic growth through the use of reduced tariffs and more efficient customs control (Ezmale, Rimsane, 2014).

The descriptive methods, document analysis, comparative analysis was used in the study, as well as a survey.

## **Global impacts of the COVID- 19 pandemic**

The COVID-19 pandemic has, with alarming speed, delivered a global economic shock of enormous magnitude, leading to steep recessions in many countries. The baseline forecast envisions a 5.2 percent contraction in global GDP in 2020—the deepest global recession in eight decades, despite unprecedented support policies (World Bank, 2020). Several measures such as travel restrictions, closure of schools and non-essential business have been introduced by most countries to limit the spread of COVID-19. The pandemic and related mitigation measures have rapidly restricted consumption and investment, as well as curbed production. Global trade, financial and commodity markets, supply chains, tourism and travel were disrupted. The global recession would be deeper if control of the pandemic takes a longer time than expected, or if financial pressure causes cascading defaults. As a result of the COVID-19 pandemic, global economic activity is expected to have fallen by almost 10 percent in the first half of 2020 (WFZO, 2020) How rapidly the global economy will recover depends on the epidemiological developments and on how policymakers change their epidemic policy measures in response.

All regions in the world are expected to experience negative growth in 2020 (see Table 1). There are considerable differences across various economies, reflecting the development of the pandemic and the efficiency of mitigation strategies; as well as difference in economic structure and pre-crisis growth trends.

**Table 1. Overview of World Economic Outlook Projections  
(Percent change)**

Region	2018	2019	Projections	
			2020	2021
World output	3,6	2,9	-4,9	5,4
Advanced Economies	3,6	2,9	-8,0	4,8
Emerging Market and Developing Economies	4,5	3,7	-3,0	5,9

Source: IMF, 2020

On the positive side, the recovery is benefitting from special support policy, mainly in advanced economies, as well as in less developed economies and emerging markets. Global fiscal support now stands at over 10 trillion USD dollars and monetary policy has eased dramatically through interest rate cuts, liquidity injections, and asset purchases. In many countries, these measures have succeeded in supporting livelihoods and prevented large-

scale bankruptcies, thus helping to reduce lasting scars and aiding a recovery (Gopinath, 2020).

It was concluded that one of the factors that will affect the severity of the crisis and the time needed for recovery is the health of the economy at the end of 2019 and its potential resilience to shocks. According the World Economic Outlook data (IMF, 2020) about COVID-19 pandemic impacts on various national economies, countries with weaker performance in the final quarter of 2019 are among the countries with the largest drop in the first quarter of 2020.

The countries in which economic growth was driven by sectors that stopped or only partially performed their activities as a result of COVID-19 restrictive measures (e.g. tourism, catering, etc.) are at greater risk. On the one hand, many companies were unable to continue their business, leading to a sharp decline in the supply of services and products in the economy. On the other hand, restrictive measures directly affected demand. As people stayed at home, their spending on trips, supermarkets, restaurants and entertainment declined. The rapid recovery in demand will be determined by factors such as population welfare (average household income and social security), the gap between lower and higher incomes. The ability to make savings will determine the depth of GDP decline and the time needed to return the economy to a “pre-virus” state.

### **Impacts of the COVID-19 pandemic on free zones in the world**

Over the last two decades, in particular, special economic zones have proliferated in emerging and transition economies. States promoting zones have sought to stimulate economic development both within and outside the zone. Within the zone, states aim to attract investment that will lead to new firms and jobs, and to facilitate skills and technology transfers. Outside the zone, states aim to generate synergies, networks, and knowledge spillovers to foster additional economic activity. (World Bank, 2017) Free zones are generally implemented to reach fiscal, social and regional policy goals of the country, and the most important fiscal goal of a free zone is to facilitate economic growth through the use of reduced tariffs and more efficient customs control. (Ezmaile, Rimsane, 2014) The creation of free zones can increase investment in supporting infrastructure, such as transport, electricity, water and sewerage, gas pipelines, not only within the zones but also in surrounding areas.

In the World Investment Report 2019 it is concluded that special economic zones are used by more than 140 economies around the world, almost three quarters of developing economies and almost all transition economies. Their number has grown rapidly in recent years, and at least 500

more are in the pipeline. Special economic zones are an important instrument of industrial policy because of the opportunity they can provide for technology and skills development. Linkages with local firms, spillovers, crowding in and demonstration effects are key to maximizing the industrial development impact of SEZs. One of the key rationales for SEZs development is to generate employment. Zones are generally considered an effective tool for job generation. Worldwide, an estimated 90–100 million people are directly employed in special economic zones and free zone programmes (UNCTDAT, 2019). A significant share of global trade is created by free zones around the world (Gern, Möhle, 2020). Special economic zones have become an increasingly widespread instrument to encourage economic development of countries.

The COVID-19 pandemic and its impact on the global FDI landscape is testing the resilience of SEZs. A recent survey among SEZs revealed that the majority have been significantly affected, as many operate in sectors and activities where working from home is not an option. In addition, they have been affected by global supply chains disruptions, decreased global demand and a deterioration of global financial conditions. (UNCTDAT, 2020) In a regional perspective, the share of free zones reporting a significant loss of business due to the drop in global demand is particularly high in Asia and Latin America. Production problems due to supply chain disruptions are relatively more prominent in Asia and Africa and the Middle East, whereas a deterioration in the financial environment seems to be relatively most important as a transmission channel in Latin America (Gern, Möhle, 2020).

The World Free Zones Organization, in collaboration with the Kiel Institute of the World Economy, started the Free Zones World Economic barometer (F-WEB) in 2018. The F-WEB is a quarterly, survey-based sentiment indicator designed to gauge current momentum and future trends of economic activity in free zones and special economic zones around the globe. (WFZO, 2020). The F-WEB second quarter (Q2) survey was conducted between May 18 and June 5, 2020 in order to find out to what extent and by which channels the COVID- 19 pandemic disturbs economic performance in free zones. Representatives of 86 free zones in 48 countries worldwide participated in the survey.

The F-WEB survey consists of a set of questions related to economic performance in free zones that are asked every quarter in order to establish a history of results that can be used to extract information about economic developments over time. In addition, a small number of special questions are included in every round that will be asked at a lower frequency or irregularly as a response to specific developments. In the F-Web Q2 survey, there was a special section with questions about the impact of the COVID-19 pandemic on the economic situation in free zones. The questions are qualitative in

nature and can be answered by choosing positive answers (increasing, improving, good), negative answers (decreasing, deteriorating, poor) or neutral answers (unchanged, more or less the same, normal) from dropdown menus (WFZO, 2020).

The share of free zones participated in the survey with 1- 99 employees was 29 percent, 100 to 999 employees was 46 percent, 1,000 to 9,999 employees was 13 percent and over 10,000 employees was 12 percent.

The main conclusions of the Report 2020 are following:

1. Amid the COVID-19 pandemic, the percentage of free zones evaluating their current economic situation as good plunged from 56 percent in the first quarter of 2020 to 15 percent in the second quarter. At the same time, the share of free zones reporting poor conditions jumped from 7 percent in the previous quarter to 36 percent now.
2. More than half of all free zones had a decrease in turnover, investment, and profitability compared with the previous three months. In addition, more than 45 percent of free zones saw a decrease in employment.
3. Almost two-thirds of free zones assess their overall economic situation as worse than in their host country in general, indicating that they are disproportionately affected by the COVID-19 pandemic.
4. While at the start of the year two out of three free zones had been positive about the next three months, now less than half of the respondents (43 percent) expect an improvement of economic conditions in the near future. One in three free zones expect the economic situation to remain stable and one in four free zones have a pessimistic outlook.
5. Over 90 percent of free zones state that economic activity is currently hampered by the spread of COVID-19. While 62 percent of free zones report some limitations, over one in three respondents report the impact of the pandemic to be substantial. Only 5 percent of the respondents indicate that their free zone is currently not really affected.
6. Less than half of the respondents (43 percent) expect an improved economic situation in the near future. One in three free zones expect the economic situation to remain stable and one in four free zones have a more pessimistic outlook (WFZO, 2020).

Free zones are affected by the pandemic through various channels. First, economic activity in many countries has come to a halt due to measures taken by governments to contain the spread of the virus. These measures also affect free zones, especially since they are often engaged in sectors and activities where working from home is not an option. Second, health measures and high levels of uncertainty regarding the future development of the pandemic drag on consumption and investment. Recent estimates of UNCTAD (2020) based on earnings revisions of the largest multinational

enterprises suggest that FDI could drop by as much as 30 to 40 percent on a global basis during 2020-2021. Third, production in free zones could be affected by supply chain disruption (Gern, Möhle, 2020).

In many countries, SEZs are supporting the role of Investment Promotion Agencies (IPAs) in not only keeping investors abreast of COVID-related policy measures targeted at businesses, but also in investment facilitation and aftercare services to help existing investors continue to operate during these challenging times. Together with IPAs, SEZs – particularly those that focus on health and bio-tech sectors – have had an important role in contributing to national efforts to source equipment and materials in support of combatting the pandemic. As SEZs are increasingly oriented towards fostering innovation and promoting high-value activities, including in digital sectors, they may be catalysers for innovative solutions to the new challenges of a post-pandemic economy UNCTAD (2020).

Almost all free zones worldwide are already affected by the pandemic at least to some extent, and the free zones expect limitations to activity to become worse in the coming months. While free zones in all world regions are affected, expectations are most pessimistic in Asia, followed by Latin America (Gern, Möhle, 2020).

It could be concluded that nearly all free zones in the world have been affected by the pandemic, and they expect that activity restrictions to get worse in the end of 2020. The pandemic affects free zones in different ways. First, economic activity has delayed in many countries, as governments have taken steps to control the spread of the virus. These measures also affect free zones, as there are businesses operating in sectors where work at home is not possible. Secondly, health measures and a high level of uncertainty regarding the future development of the pandemic have an impact on consumption and investment. Consequently, foreign direct investments could be reduced worldwide also in free zones. Thirdly, production in free zones could be affected by supply chain disruptions.

### **Impacts of the COVID-19 pandemic on the enterprises of the Rezekne Special Economic Zone in Latvia**

The current economic prognosis from the Ministry of Finance show that Latvia will experience a fall of gross domestic product in 2020 by approximately 7%. Additionally, it is seen that due the coronavirus crisis the unemployment rate will have increased by 4.9% in comparison with 2019, reaching 11.2% in 2020. The data from the Ministry of Finance shows that during the year 2020, the total import will have decreased by 10.0% in comparison with 2019, and the total export level will have fallen by 9.0%. A significant decrease in investment is forecasted for 2020. Although

investment flow will be strengthened by the increase in public investment set out by government decisions, high uncertainty will deter new private investment income (Linde, 2020).

The Rezekne Special Economic Zone (Rezekne SEZ) is a territorial regime type manufacture and trade-based free zone with a total area of 1155 ha and 20 resident companies at the beginning of 2020.

The survey of Rezekne Special Economic Zone enterprises was conducted between August 1 and September 18, 2020. Representatives of 19 enterprises or 95 percent of the total number of Rezeknes SEZ enterprises participated in the survey. The share of small sized enterprises with 1 to 49 employees was 68.4 percent, the share of medium sized enterprises with 40 to 249 employees was 21.1 percent, the share of large sized enterprises with more than 250 employees was 10.5 percent. This corresponds to the distribution of small, medium and large sized enterprises in Rēzekne SEZ. The survey consists of a set of questions related to the impact of the COVID-19 pandemic on the economic performance of Rezekne SEZ enterprises. The questions are qualitative in nature and can be answered by choosing positive, negative or neutral answers.

According to the results of the survey, 5.9 percent of Rezekne SEZ enterprises evaluated the overall economic situation as good, 47.1 percent as normal and 58.8 percent as poor. The vast majority of Rezekne SEZ enterprises was currently affected by the pandemic - 76.5 percent of the enterprises reported a decrease in turnover due to the COVID-19 pandemic, while 17.6 percent of enterprises stated that turnover increased, and only 5 percent of the respondents indicated that their turnover currently was not really affected. The situation was slightly different in terms of the number of employees- 23.5 respondents increased their numbers of employees, only 11.8 percent decreased, but the vast majority (70.6 percent) of the enterprises kept their numbers of employees unchanged. Only 23.5 percent of the respondents have used the instruments offered by the state to mitigate and prevent the effects of the COVID- 19 pandemic.

Less than half of the respondents (35.3 percent) expected an improvement of economic conditions in the near future. One in two enterprises (47.1 percent) expected the economic situation to remain stable, but 29.4 percent of the enterprises had a pessimistic outlook. The deterioration in expectations is reflected in expected turnover. One of three of the respondents (35.3 percent) expected a decrease of turnover and 35.3 percent of the respondents expected an increase over the next three months, but 41.2 percent of the respondents believed that it would not change. More optimistic Rezekne SEZ enterprises were on employment figures in the next 3 months. The vast majority of Rezekne SEZ enterprises (82.4) expected that



the numbers of employees would remain unchanged in the next 3 months, and only 5.9 percent planned to reduce the numbers of employees.

### **Conclusions and suggestions**

All regions in the world are expected to experience negative growth in 2020. Latvia will experience a fall of gross domestic product in 2020 by approximately 7%. Also, nearly all free zones in the world have been affected by the pandemic in different ways, and they expect that activity restrictions to get worse at the end of 2020. Furthermore, most of the free zones expected economic activity to remain affected for the next few months, despite the initiatives taken to stimulate business and support their tenants.

Amid the COVID-19 pandemic, it could be concluded that Rezekne SEZ enterprises are more negative about the current economic situation and about economic conditions in free zones globally in the near future. According the World Free Zones organisation survey (WFZO, 2020), 15 percent of free zones worldwide evaluated the economic situation as good and 49 percent as normal in the second quarter. While 43 percent of the free zones expect an improved economic situation in the near future. One in three free zones expected the economic situation to remain stable and one in four free zones had a more pessimistic outlook. For comparison, 5.9 percent of Rezekne SEZ enterprises evaluated the overall economic situation as good, 47.1 percent as normal and 58.8 percent as poor. Additionally, only 35.3 percent of the Rezekne SEZ enterprises expected an improvement of economic conditions in the near future, 47.1 percent expected the economic situation to remain stable, but 29.4 percent had a pessimistic outlook.

As a response to the global COVID-19 pandemic, free zones will need to reconsider their value proposition and strategic focus. Changes in the FDI environment, as well as a new industrial policy that will result from the pandemic, will require closer cooperation between free zones and investment promotion agencies. In this context, free zones should work closely with investment promotion agencies to set strategic targets in line with new national investment priorities.

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# PROMOTION OF COMPANY SERVICES IN THE INTERNET ENVIRONMENT (EXAMPLE OF CONFERMO SOLUTIONS LTD)

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**Abstract.** *Nowadays it is possible for entrepreneurs to use the Internet and IT in order to conduct marketing research, promote and advertise their products, assess the effectiveness of marketing activities etc. All this could be done at much lower costs and less time. Therefore, it is important to create a model for promoting competitive advantages that takes into account modern trends, and, based on this model, provide an appropriate set of marketing tools in the Internet environment. The aim of the research is to analyse the promotion of a company's services on the Internet based on the example of Confermo Solutions Ltd. Methods used in the research - monographic and a sociological research method – surveying. The research developed proposals for the promotion of a company's services in the Internet environment, the implementation of which could significantly increase the company's competitiveness in the market.*

**Keywords:** *IT company, promotion, service.*

**JEL code:** *M31, M37.*

## Introduction

The goal of any company is to develop as well as to increase its competitiveness; therefore, at the stage of company development, it is definitely important to secure the company's position in the market. Out of all the marketing tools available for increasing competitiveness, entrepreneurs should choose only those that are most adapted to their needs and specifics. The fast development of the Internet and IT in recent years has created a new operational marketing paradigm for entrepreneurs, namely companies are given opportunities that were previously unavailable to most of them. An increasing number of individuals also begin using social media.

The research aim is to analyse the promotion of a company's services on the Internet based on the example of Confermo Solutions Ltd.

To achieve the research aim, the authors have set the following specific research tasks: 1) to give insight into the theoretical aspects of marketing and the promotion of services by Confermo Solutions Ltd; 2) to examine and

analyse the results of a survey of users registered on the website of Confermo Solutions Ltd; 3) to draw conclusions and develop proposals for the promotion of a company's services in the Internet environment.

Research period: 2019-2020.

Hypothesis: given the large number of their users, social media have great potential for business, as each of the users could become part of an audience in one of the business industries which companies could focus on.

Research novelty: the proposals developed for the promotion of a company's services in the Internet environment.

The research employed findings on promotion of services in the Internet environment made by the following authors: J.Blythe (2004), E.Gaile-Sarkane (2005), S.D.Mērmans (2009), V.Praude, J.Šalkovska (2015) and L.Dareiko-Sinkeviča, A.Tainoļubova (2015).

## **Research results and discussion**

In order that a company can perform successfully and begin its operations, it, first of all, needs to examine the local market, identify the target audience, the priority area, disadvantages, benefits, competitors etc. After such an examination and analysis has been done, it is necessary to do strategic planning. Strategic planning is a management process for establishing whether the company's objectives, skills and resources comply with changing market opportunities. It aims to adapt the company's business, products, services and messages to achieve profits and growth (Kotlers, 2001). The authors believe that strategic planning is a compulsory activity for every business start-up to assess potential risks and increase the chance of creating a competitive company.

Market research, however, is the process of collecting, analysing and summarizing consumer information. Market research is most often associated with relatively high costs, both in terms of money and time, and it is sometimes more advantageous to begin a project without any prior research done (Blythe, 2004). Today it is often possible to conduct research quickly and at low cost, as much of the required information is either publicly available or could be found in the company's internal reports. By processing and analysing the data obtained, the facts are turned into useful information. Today market research is considerably facilitated by the Internet, yet it should be remembered that data and facts could only be used for planning after a careful analysis and interpretation.

Promoting a company's product is one of the most important steps in entrepreneurship, which means that the company has to make a lot of efforts to successfully bring the product to the market – to the relevant target market. Modern marketing requires more than creating a good product,

setting an attractive price and applying a proper approach (Mērmans, 2009). Companies need to communicate with their current and potential consumers as well as the general public. The main problem the companies face is not whether to communicate, but what to say, to whom to say and how often to say it. The mix of marketing communications includes advertising, sales promotion, public relations or publicity, personal sales, as well as direct marketing (Praude, Šalkovska, 2015a; Gaile-Sarkane, 2005). The Internet is a specific resource, and firms are integrating the technology into such marketing activities as sales force systems, channel management and support, sales force (Gabrielsson, Gabrielsoon, 2011), competitive intelligence, operational efficiency (e.g. online customer support). The style and price of the product too, the price and colour of its packaging, the behaviour and clothing of the seller, the appearance of the store – all this says a lot to the buyers. In fact, every contact with a brand gives an impression that could influence the consumer's perception of the company. Accordingly, the entire marketing mix needs to be integrated to regularly deliver messages and make strategic positioning (Praude, Šalkovska, 2015b).

The Internet is an evolving technology which has facilitated the development of new business relationships and opened up cross-border market opportunities for companies (Mathews et al., 2016). The development of communication and information technology is an important factor in influencing the development of the times (Badaruddin et al., 2017). Many businesses or business growing rapidly with the increasing media communication and information are more easily accessible by the public (Muda et al., 2017). Using the Internet as a strategic business tool, information age innovations become available also to small and medium enterprises (SMEs), giving them more opportunities to compete in today's fast-changing market. J.Wisner and W.Corney believe that the use of the Internet provide companies with additional opportunities to build an effective customer feedback system (Wisner, Corney, 2010). S.Atshaya and S.Rungta (2016) have said that digital marketing is often referred to as Internet marketing, online marketing or web marketing. With the increasing use of digital media, the term digital marketing and its impact has also grown. Digital marketing is one of the most convenient and effective ways of marketing these days, and with the development in technology, its technique and scope is also developing.

However, despite the widespread use of Internet resources in the business environment as a whole, the levels of Internet use still vary widely among SMEs.

Today not a single company can function normally without the World Wide Web and its tools. A well-designed website means, first of all, visibility because nothing is done today without computers and mobile devices. Via

the Internet, one can present not only the company but also sell the goods and services, and last but not least – always be in contact with the customers. Social media users can provide information about themselves (create an author's profile), distribute content on various topics, have a direct dialogue with other users, as well as follow the activities of friends and communities within the group (community) created. Accordingly, social media could be perceived not only as a communication platform but also as a kind of display of achievements. Since social media became popular, their users began using them for commercial purposes. The main purpose of banner advertising is to reach the target audience and attract consumers to the product offered by the company. The price of advertising depends on banner display frequency and placement time. The most popular type of advertising on the Internet is banner advertising, which represents advertising messages placed on a website, which are essentially similar to advertising in the media (Dareiko-Sinkeviča, Tainoļubova, 2015).

Confermo Solutions Ltd is a company founded by a student during a traineeship provided by the College of Business Administration; it produces a service comparison service, which includes a wide range of service comparison options for the consumer. Confermo Solutions Ltd is an intermediary that, on behalf of the consumer, finds the services needed, finds out the prices of the services and allows the consumer to choose and compare the services. The consumer him/herself does not have to spend several hours on social media, Internet browsers etc. to find a service provider and find out its prices based on individual needs. Today it could be observed that consumers themselves do not want to spend a lot of time and identify several service providers, explain their needs to each of them and find out the prices, so they choose what is most available – the first found on Google, the first recommended by acquaintances etc. Confermo Solutions Ltd finds and compares the services of its business partners and profits from the business partners (companies) if the consumer has chosen a service from the partner in particular. It has concluded a cooperation agreement with each partner, which stipulates a certain percentage of profit from the contract amount, which, in case of choice, is paid by the company, i.e. the cooperation partner.

The process of receiving a service from Confermo Solutions Ltd begins with the need of the consumer. Every day, consumers have a lot of needs and questions, for which solutions and the best offers are automatically sought. When entering the company's website, the consumer first registers by presenting his/her contact information (contact phone and e-mail for communication), and after the registration he/she can begin creating a request for his/her need, explicitly and specifically stating the need for the service. In case of insufficient information, the client is contacted and

clarifying questions are asked (details that significantly affect the price of the service). After acquiring complete information from the client, Confermo Solutions Ltd contacts its partners and sends information about the service requested in order to find out specific costs, depending on the individual requirements of the client. Since Confermo Solutions Ltd provides a wide spectrum of service comparison services, it is very likely that no cooperation agreements have been concluded with service providers in the field requested; in this case, Confermo Solutions Ltd sends the service providers specific consumer requests and a comment on concluding a cooperation agreement. Following this strategy, it has not been a problem to quickly conclude contracts with the providers of services requested. It has been observed that service providers are more likely to cooperate if sending them a specific customer request than if giving a vision that the services they offer will be requested.

Since today the promotion, visibility and positioning of a company's product are mostly based on the Internet platform and social media, Confermo Solutions Ltd has created the following profiles on:

- Facebook (Facebook webpage), with more than 500 users and regularly updated content, news, videos and other activities that help to promote the company;
- Instagram (Instagram webpage), which backs up all the articles and visual materials posted on Facebook;
- LinkedIn (LinkedIn webpage), which backs up all the articles and visual materials posted on Facebook.

In addition to the social media webpages, a webpage has also been created for the service comparison platform (Confermo Solutions Ltd website). Today it could be observed that many companies do not have websites and sell their products only via social media (such as Facebook). Judging by the experience, seeing the reactions of other consumers and listening to their opinions, one can find that it is more difficult for this kind of company to enter the market, as it is more difficult for the company to gain consumer trust. Today's consumer prefers companies having professional websites where information is updated, contacts are available, etc. In addition, the website also should have an automatic e-mail sending function, which ensures efficient service delivery and communication between the consumer and the service provider. This function sends e-mails with the customer's and the service provider's contacts to each other for faster communication and better service. A very important and useful feature is that as soon as Confermo Solutions Ltd adds a new offer for a consumer, the consumer receives a message to the registered e-mail address, which states that a new offer has been added for him/her and that it could be viewed after logging on to the personalized Confermo Solutions Ltd website.

Initially, a pilot project was carried out for several months to test how the service would work. In total, Confermo Solutions Ltd has signed more than 30 cooperation agreements in less than two months, mostly based on consumer requests. After getting practical experience, Confermo Solutions Ltd has realized that it is more convenient and effective to send a company a specific customer request, a presentation about Confermo Solutions Ltd and an offer to enter into a cooperation agreement.

To better understand the current situation at Confermo Solutions Ltd and the operation of its tools for promoting a company's product, a survey was done and the users registered on the company's official website were questioned. In two months, 74 users had registered on the company's website, to whom a questionnaire was sent via e-mail with a request to rate the company's service. Out of the 74 users, 52 respondents took part in the survey, and their answers were further examined and analysed. According to the survey data, most of the registered users were men. Of the respondents, 65.4% were men, while 34.6% were women. The distribution of the respondents allows us to conclude that mostly men were those who compared services and tried to understand the real market situation and prices. The age distribution of the respondents revealed that young individuals aged between 18 and 25 dominated; they represented exactly half or 50% of the respondents, while 28.8% were aged 25 to 40, 13.4% were consumers over 40 years of age and the remaining 7.7% were children and adolescents under 18 years of age. A question on age was included in the survey so that the company would be able to understand which age group to target for its service in the future. According to the answers, the modern generation that used the Internet and social media the most daily were also those that were the most active users of the company's services. The initial strategy aimed at and the target market for the promotion of the service was the capital of Latvia – Riga –, as more than half, i.e. 53.8% were the residents of Riga in particular. Besides, the fact that another 21.2% were residents of Pieriga region is definitely noteworthy. Examining the distribution of the respondents by region reveals that: 9.6% of the respondents were from Vidzeme, 7.7% from Zemgale, 5.8% from Latgale and only 1.9% from Kurzeme. For Confermo Solutions Ltd, the main product promotion tool was Facebook, as the majority, i.e. 59.6%, of the respondents found out about the company on the Facebook platform. All entries on the company's Facebook webpage were duplicated on Instagram, which was the next source, from which 13.5% respondents were obtained. However, 11.5% of the respondents have listened to the recommendations of friends, relatives or acquaintances and thus also learned about Confermo Solutions Ltd. This group of the respondents is difficult to analyse, yet their number, if providing friendly and effective experience for each consumer and client, should



definitely grow in line with the quality of the service provided. LinkedIn is a professional social medium where the company only backs up all the materials posted on Facebook (just like on Instagram). The survey data showed that 9.6% respondents were obtained from this social medium; in the opinion of the authors, it is a very good medium because it costs nothing, yet it is also able to promote the company's product and help to gain visibility. According to the respondents, advertising portals were the least effective. The authors believe that today advertisement portals are full of information, and it is very difficult for the consumer to navigate through them, but anyway the percentage of the respondents obtained from the advertisement portals was 5.8%. The question "Why did you register on [www.confermo.lv](http://www.confermo.lv)?" was asked in the questionnaire. According to the answers of the respondents, most respondents or 42.3% had registered for the purpose of receiving a comparison of services. This percentage of the respondents was very high, and it could be concluded that most understand the service and register for the purpose of using the service provided by the company. The second largest percentage was those who wanted to get acquainted with the service and find out about it (28.8%). However, a quarter or 25% of the respondents wanted to try the service, and the remaining 3.8% had registered by mistake, which means that they did not understand the idea of the service or registered without any need and purpose. The answers to the question "Is the Confermo Solutions Ltd comparison service clearly stated and understood?" allow us to conclude that the majority, which was 82.7%, had understood the idea, necessity and nature of the service, while 17.3% wished to learn more about the nature of the service provided by Confermo Solutions Ltd, which should definitely be taken into account in its future service promotion activities. The respondents were asked a question "Would you recommend the use of our service to relatives, friends, colleagues and acquaintances?" According to the answers, most of the respondents were unanimous and would like to recommend the service provided by Confermo Solutions Ltd to their friends, relatives, colleagues, acquaintances etc. Of the respondents, 88.5% said they would be happy to take advantage of this service, while the remaining 11.5% disagreed. In the opinion of the authors, one can never get a 100% affirmative answer to such a question; therefore, it is a very positive result because about 9 in 10 consumers are going to recommend the service to their acquaintances. This indicates that consumers are satisfied with the service.

The last question of the survey was: "How would you rate our service?" The answer options were given, and the respondent had to choose a rating from 1 (very bad) to 5 (very good). Most of them, 59.6%, rated the Confermo Solutions Ltd service as excellent. A quarter or 25% rated it as good, yet noticed some shortcoming. About 5.8% rated the service as average.

However, 3.8% believed that the service provided needed to be enhanced and, according to 1.9% of the respondents, the service was very poor.

### **Conclusions and proposals**

1. Confermo Solutions Ltd should use Facebook Pixels in its Facebook webpage, which allows determining whether the consumer has: filled in a questionnaire, viewed a particular article, made a purchase or spent a longer time on the website. Proper use of this tool allows the company to identify the target audience faster, as well as contributes to the profitability of the advertising budget by showing advertisements to those who might really be interested in the service. This marketing tool is available today for free, and the only resource a company needs to invest in it is the time spent while analysing the results and understanding the habits of the target customers.
2. Since the social medium Facebook in particular makes the largest contribution to Confermo Solutions Ltd, it is definitely necessary to use Facebook Ads or the advertising manager platform offered by Facebook. When selecting an advertising audience, the company only needs to create interesting content and visual materials that would attract the target customers and direct them to the website, so that they require a comparison of services. The more accurately an advertisement is targeted, the better results the company can achieve.
3. Google AdWords is a platform for advertising on the Google website. Today it is one of the most popular advertising tools and undoubtedly takes its place in the sales strategies of many companies. The Google search engine is used by over 90% of Internet users throughout Latvia, and AdWords offers to choose exact keywords, which, when typed, show a company's service. Each company should choose the words and phrases that are most relevant to the service provided, so that when the consumer searches, they appear as one of the first options. The service comparison service provided by Confermo Solutions Ltd has to be able to identify which services are more in demand and choose keywords accordingly.
4. SEO optimization is a set of operations performed inside and outside the website to improve the position of the website (ranking in the list of search results found) in the search results and get more visitors who search for a company's services by using the Google search engine. Despite many search engines available in the market, such as Bing, Yahoo or others, Google is the market leader in searching for information on the Internet. For many years, Google has made significant investments in improving its algorithms and informing website developers and stakeholders about SEO – the methodology and recommendations that

website owners should follow to help users to find this website more successfully. The Confermo Solutions Ltd website should list all the services being compared so that the tool can read them and offer the company's website if a consumer searches for that service on Google. This tool only requires investment in the website, as it requires regularly updating the content, texts and images, as well as positioning the company on related websites of other companies. There are no direct financial costs for this tool.

5. Since the Confermo Solutions Ltd website has introduced consumer registration and the company has access to customer contact information, the authors recommend that the company regularly interviews its registered customers. This would contribute to the company's understanding of its customers, their satisfaction and the company's service as such. No financial investment is required for such an operation, only regular time should be invested in interviewing customers and analysing the answers provided by them.
6. The authors recommend that the Confermo Solutions Ltd website is translated and made available in Russian, as well as on social media to create content in Russian as well by turning on Facebook, so that the text appears in the language of Facebook, which would help Russian speakers to get familiarized with the service as well as use it, understanding the details. In Latvia, companies should be positioned in both Russian and Latvian, as the percentage of Russian speakers in Latvia is very high.
7. Examining and analysing the articles posted so far on the social media webpages of Confermo Solutions Ltd, the authors conclude that the regularity and content of the articles are of high quality, and it is definitely necessary to continue this practice. However, analysing the statistics of these articles, it could be observed that the articles mentioning cooperation partners are exactly those that reach the most consumers and receive consumer responses; therefore, the authors urge Confermo Solutions Ltd to place more emphasis on this type of publicity materials.
8. The Chamber of Commerce and Industry of Latvia is the largest business association in Latvia, with more than 2500 members – micro, small, medium and large enterprises, associations, city entrepreneur clubs, and other business associations – representing all the regions and industries. The Chamber represents the interests of entrepreneurs as well as provides services aimed at having excellent companies in Latvia, in an excellent business environment. Its main areas of activity are the business environment, business competitiveness and exports. The authors recommend that Confermo Solutions Ltd joins the Chamber as a member, which would definitely help the company to promote its service, gain more visibility and, regularly attending training sessions and seminars,

become more competent.

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# SOME ASPECTS OF BEE POPULATION PRESERVATION

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**Abstract.** *Destructive influence of pesticides on bee population, as well as on people and the environment has been analysed in the research paper. The aim of the paper is to define topical issues, which have to be solved in order to protect bee population and offer the solutions for bee protection against using of chemicals. The issues of bee population protection have been examined in the context of people and environment protection by the assistance of the systematic method. The comparative method serves in order to view the hazard of bee population in different countries. The development of the normative acts, which regulate bee protection from the impact of pesticides has been discussed by the assistance of the historical method. The following hypothesis has been put forward: the protection of bee population is possible via improvement of the normative legal framework, which refers to the usage of pesticides. The novelty of the research is the offer of a normative act amendment, which would provide the checking of pesticide usage in municipalities.*

**Keywords:** bees, neonicotinoids, normative acts, pesticides.

**JEL code:** K32.

## Introduction

The legal framework of bee protection from pesticides, including the usage of neonicotinoids, has been viewed in the research; the problems of both the legal framework shortage and its application have been identified. Destructive influence of pesticides on bee population, as well as on people and the environment has been analysed in the research paper.

The aim of the paper is to define topical issues, which have to be solved in order to protect bee population and offer the solutions for bee protection against using of chemicals.

The issues of bee population protection have been examined in the context of people and environment protection by the assistance of the systematic method. The comparative method serves in order to view the hazard of bee population in different countries. The development of the normative acts, which regulate bee protection from the impact of pesticides has been discussed by the assistance of the historical method.

The following hypothesis has been put forward: the protection of bee population is possible via improvement of the normative legal framework, which refers to the usage of pesticides.

The novelty of the research is the offer of a normative act amendment, which would provide the checking of pesticide usage in municipalities.

### **Literature review**

The Food and Agriculture Organisation of the United Nations Organisation (hereinafter in the text – FAO) considers that out of 100 species of cultivated plants, which provide around 90% of food all over the world, 71 % are pollinated by bees. Most of the crops grown in the European Union (hereinafter in the text – EU) depend on the insects' pollination. Bees all over the world annually provide the pollination of cultivated plants at a value of 153 billion Euros, in Europe – at a value of approximately 22 billion Euros (European Red List of Bees, 2014). Professional bee –keepers justifiably emphasise the role of the colonies not only in the pollination of cultivated plants but also in the viability maintenance of the whole ecosystem (Latvijas biškopības programma..., 2019). Bees provide the preservation of biological diversity and the pollination of varied crops and wild plants. In addition, bees directly contribute to human welfare via production of honey, pollen, wax, propolis and other food products. It can be concluded that the upkeep of the number of bees at least at the present quantity and the increase of the quantity are essentially important for all the community.

Unfortunately, during the period of the last 10 to 15 years, the number of bees in the countries of Western Europe was decreasing, particularly in France, Belgium, Switzerland, Germany, the United Kingdom of Great Britain and Northern Ireland, the Netherlands, Italy, Spain (Bee health, 2019) and all over the world. A lot of pollinators' species have extinct or are on the brink of extinction (Eiropas Komisija, 2018). The increase of intensive agriculture, which at the moment relates to the usage of pesticides, is recognised as the main reason for the decrease of the number of bees.

The researches done have proved that one of the most broadly used insect destroyers – neonicotinoid – relates to the decrease of the number of bees. It is wide-spread because of its strong impact. Neonicotinoids are pesticides, the basis of which is nicotine. Neonicotinoids affect insects' nervous system and impede the excretion of acetylcholine during the impulses sent by the nerves among the ends of the nerves; as the result, the insect gets paralyzed and dies (Valsts augu aizsardzības dienests, 2012). The following active substances belong to the neonicotinoids: thiamethoxams, thiacloprid, clothianidin, imidacloprid, fipronil, acetamiprid, dinotefuran and nitepyram.

There are agents, which contain thiamethoxams: Cruiser 70 p.s. (has been registered but is not on the market), Actara 25 WG and Cruiser OSR in the Latvia register of plants protection agents (hereinafter in the text – PPA)

of the State Plant Protection Service (hereinafter in the text – SPPS). One PPA, which contains thiacloprid – Proteus OD (Valsts augu aizsardzības dienests, 2012) – out of other neonicotinoids, has been registered in Latvia. Consequently, the following neonicotinoids are used in Latvia: Actara 25 WG, Cruiser OSR and Proteus OD.

For example, the insecticides Actara 25 WG, which contain the active substance thiamethoxams, are used for the spray of plants' leaves and seeding in order to eliminate the pests, which have sucker-type and some have rodent-type mouth organs. The pests, which have to be eliminated, are affected through touch and through the digestive apparatus. The functioning mechanism of Actara 25 WG causes the functioning disturbance of the pests' nervous system receptors (Syngenta.lv, 2019). It is an insecticide of systemic impact for pest elimination in plantings of cucumbers and tomatoes in hothouses, sowings and plantings of decorative plants in hothouses and decorative plants (in pots) in permanent hothouses.

Regulation No. 1907/2006 has to be recognised as a radical turning point in the usage of chemicals, including the limitation basis of neonicotinoid usage in the EU and the Republic of Latvia (Regula Nr.1907/2006, 2006). A new period started with this normative act, as the working out, production, release into the market and usage of a chemical substance is regulated. The regulation substitutes approximately 40 legal acts, systematising the conditions, which existed before. The regulation particularly marks out the principle of precaution, namely, the producers, importers and users are responsible in order to secure the fact that they produce, release into market or use the substances, which do not make a harmful impact on the environment. The duty to evaluate the possible harm has been redirected from the state agencies to the producers.

In 2009, Regulation No. 1107/2009 was passed (Regula Nr.1107/2009, 2009). It is provided in it that pesticides may be attested at the EU level only in case if their usage do not have an inadmissible influence on bees' health or if it has an insignificant impact on honey bees. The maximum admissible amounts of pesticide remnants are determined in Regulation No. 396/2005 (Regula Nr.396/2005, 2005). According to the EC 2010 directive 2010/21/EU in relation to the particular regulations on neonicotinoids, the risk diminishing requirements for bees are included, labelling requirements have been enforced (Direktīva 2010/21/ES, 2010.), particular measures, which have to be taken into consideration, have been prescribed working with PPA which contain clothianidin, thiamethoxams and imidacloprid.

In 2012 the European Commission (hereinafter in the text – EC) rendered the mandate to the European Food Safety Authority (hereinafter in the text – EFSA) to do the evaluation of information on the active substances of the neonicotinoids group's impact on bees.

On January 16th, 2012 EFSA published the conclusions, where a high risk for bees was found in the result of PPA usage (European Food Safety Authority, 2020c). Based on the research results, the EC concluded that the usage prescriptions for the active substances clothianidin, thiamethoxams and imidacloprid do not correspond to the requirements of the Regulation 1107/2009/EC, article 4. (Regula Nr. 1107/2009, 2009) It was obvious in the conclusion of EFSA that while using the chemicals mentioned above, a high risk to influence bees' population in a negative way cannot be excluded. The EC justifiably decided that the list of the allowed powerful chemical substances has to be changed and that is why Regulation No. 540/2011/EC has to be amended.

Since 2013, the enforcement of the EFSA bee guidelines has been discussed (European Food Safety Authority, 2013a). This document is recognised as the scientific standard of pesticide prevention. The bee guidelines are recognised as a proof that chemical usage have to be forbidden or at least their usage has to be decreased in intensive agriculture in order to protect bees from extinction. The guidelines have been used in order to prove the harm of neonicotinoids for bees. The agreement that the European Chemicals Agency (hereinafter in the text – ECHA) and EFSA will collaborate in order to harmonize opinions on the evaluation of pesticide risks for bees, it has to be recognised as an essential step.

In general, the authoritative organisations have established that, unfortunately, pesticides, which have originally been used in agriculture, have also been found in food (Medina-Pastor, Triacchin, 2020), therefore every food user sequentially use them in "the food chain." But the producers and users of the chemicals immediately tried to object that the application of the EFSA guidelines would significantly decrease the range of the pesticides, which have been allowed in Europe (Neimane, 2019); it, in turn, would decrease the amount of agricultural products produced.

In 2016 EFSA warned that bees can contact neonicotinoids also outside the cultivated fields because these insecticides in nature spread rapidly and pollute wild flowers. The research in Germany proved a rapid decrease of the number of insects, for example, during the period of 27 years the biomass of insects has decreased by 75%. The decrease is explained by intensification of agriculture, including the usage of pesticides. Therefore, more than 80 non-governmental organizations all over the world have united in the coalition *Save the Bees* (Save The Bees Coalition, 2017) with the aim to achieve an EU decision to immediately and completely forbid the usage of neonicotinoids.

Article 191 of the Treaty on the Functioning of the European Union (Eiropas Savienības oficiālais vēstnesis, 2012), which stipulates that the policy of the Union in regard to the environment assists to achieve the aim to preserve, protect and improve the quality of the environment; protect



people's health. The principle of precaution and preventive activity determines that the damage done to the environment has to be repaired, firstly averting its cause and that the polluter pays.

The duty of every national country is envisaged in the Directive 2009/128/EC (Direktīva 2009/128/EK, 2009). It is determined in the Directive that every member state has to pass a national action plan setting quantitative targets, tasks, activities and a performance schedule in order to reduce the risk caused by pesticide usage and influence on human health and the environment. Spraying of pesticides from air on cultivated plants is banned.

In 2013 the EC decided to ban usage of neonicotinoids for the plants, which attract bees, after 19 year-long efforts of bee-keepers and environment activists. At the same time the EC summoned the producers of pesticides *Bayuer* and *Syngenta* to engage into preservation of wildlife and provide additional data in order to evaluate better the toxicity of the chemicals used. Later, in February of 2018, EFSA published a new estimate, which plainly testified that these pesticides endanger both wild and honey bees (Potts, 2018).

It has to be recognised that the EU has introduced a range of activities, which plays into pollinators' hands, particularly the activities in the framework of environmental and health policies (Direktīva 79/409/EEK, 1979), as well as in the framework of the Common Agriculture Policy, cohesion policy and innovation policy. Several national and regional strategies on the issue of pollinators have been introduced. The fact that a unified, consensual action of the EU level for extinction elimination of pollinators with a common vision, which would include different spheres and policy branches is recognised to be a problem. The strategic aims and a range of actions, which the EU and its member states have to do to prevent the extinction of the pollinators in the EU in order to stop the extinction of biological diversity and ecosystem services and to renew them, have been worked out. The EU pollinator initiative has powerful support of the people groups concerned, particularly of a broad community (Eiropas Komisija, 2018). The implementation of the good intentions mentioned at the moment to the great extent lies with every country.

A broad evaluation of honey, bee bread, pollen was done in Latvia in the period of 2014 – 2016. 382 bee products were analysed during these years, and some of pesticides were found in 47 samples of them (Grīnvalde, 2017). Therefore, it is proved that the chemical used in Latvia leaves consequences even in the final product. Unfortunately, there is no information on the amount of PPA used at the SPPS's disposal. But the positive fact is that PPA submitters have to hand in the research works on the impact of a particular PPA on bees and other arthropods before PPA registration.

In February 2018, EFSA published a new evaluation of neonicotinoids, which plainly approved that these pesticides endanger both wild and honey bees (Potts, 2018). The EU countries' agreement of April 27<sup>th</sup>, 2018, which fully banned three plant processing chemical agents of neonicotinoids' group: imidacloprid, clothianidin and thiamethoxams from being used outdoors, did not solve all the issues, but it is evaluated as an essential step. These agents are allowed to be used only in greenhouses.

However, it was revealed immediately struggle with the lobby of chemical users is very difficult. Authoritative researchers have recognised that the ban of neonicotinoids itself will not solve the problem (Buiķe, 2018). Really, after the ban of neonicotinoids the farmers choose other agents. The next generation of pesticides is already prepared. Besides, it has to be recognised that the new class of pesticides, which has come instead of neonicotinoids, could be equally dangerous to the bees, which pollinate cultivated plants, as the neonicotinoids mentioned. New insecticides are based on the ground of sulfoximine and leave a negative impact on both the reproductive abilities of bees and on the growing pace of bee colonies (Šveicars, 2018). It is clear that also other pesticides, which are equally harmful, will follow. Therefore, this vicious circle has to be torn. Otherwise, there are no hopes that a significant step will be made in environmental protection (Buiķe, 2018). Therefore, we must not put up only with the ban of neonicotinoids, the ban of all pesticides has to be achieved.

The ban of pesticides has a twofold resistance: 1) the lobby of chemical producers, 2) the lobby of conventional agriculture. For example, responding to the resolution passed in April 2018 in Brussels, the association Farmers Parliament has announced that the ban of these insecticides will leave a negative impact on the national economy, because the producers will have to compete with the farmers from the developing countries, where the agents containing these preparations are permitted and therefore the costs of their products are lower (Zariņš, 2018). The owners of large land areas have mentioned that the ban or limitation of pesticides can reduce the crop. However, the previous researches, which have been done in America, France and Italy, on the contrary, have proved that the reduction of pesticides has not considerably decreased the crops (Gulbinska, 2017).

There is a reason to consider that the producers of neonicotinoids *Bayer* and *Syngenta* avoid providing the new data in order to evaluate accurately the toxicity of these substances.

In general, the EU has introduced a range of activities, which play into pollinators' hands, particularly the activities in the framework of environmental and health policies, (Direktīva 79/409/EEK, 1979) as well as in the framework of the Common Agriculture Policy, cohesion policy and research and innovation policy. Several national and regional strategies on

the pollinators' issue have also been introduced. A unified, consensual action of the EU level has not been implemented until the present for the prevention of pollinator extinction with an integrated approach, which would focus on different fields and policy branches. It is clear that the EU and its member states have to solve this problem together. The strategic aims and a range of activities, which must be implemented by the member states, have been worked out.

It has to be agreed with EFSA and the French Agency for Food, Environment and Occupational Health Safety (ANSES) that the activities of the broadest scope have to be worked out and implemented, which really would reduce the risk for bees (European Food Safety Authority, 2013a, 2013b). In addition, it has been proved that bees can ingest the remains of various pesticides from nectar, pollen and water. Therefore, sufficient protection activities are necessary for the protection of bee product acquisition places from chemicals. Conferences take place all over the world where the provision of bees' health is discussed. For example, on December 9th, 2019 a conference took place in Paris (International ANSES-EFSA Scientific Conference Day Organised by: ANSES – EFSA, 2019), where the ways were looked for sustainable bee-keeping development. It has been found out that the member states cannot reach an agreement that the EU will check the damage of chemicals on bees during a sustainable period, including the harm done to bee larvae.

More than 240000 Europeans signed a petition, which demanded the standard protection of bee gold against noxious pesticides. One of the main causes is industrial agriculture, which results in "exhausted" landscapes, creates the conditions that the bees do not have sufficient sources of nutrition and subjects them to pesticides (SumOfUs, 2019).

At present, the requirement for a farmer to master knowledge has been consolidated in Latvia's normative acts if the farmer uses chemicals on his/her farm. Since 2013, also a tractor- driver who is directly exposed to dust has to acquire knowledge. It is essential, as wrong dust can cause the usage of excessive chemical dosages, the dust of the field located nearby, the dust in an inappropriate time, chemicals can get into water.

According to SPPS information, for example, in 2016 the service has received 29 justified complaints on illegitimate usage of fertilization agents, 64 ones – on the usage of plant protection agents; in 2017 – 52 ones, during seven months of 2018 – 46 (Pohodņeva, 2018). Consequently, the illegitimate usage of pesticides increases.

The Plant Protection Law (Augu aizsardzības likums, 1998) determines the basic competence of the usage regulation, the institutions in charge, but Cabinet regulation No. 950 "The usage regulation of plant protection agents", article 20, determines that if a person uses an agent of plant protection, the

labelling of which has an instruction: "Toxic for bees" or an effects characteristics R57 of the chemical agent; it means that three days before the processing of sowings or plantings, the legal possessors of bee colonies, whose apiaries (or hives) are located within the radius of two kilometres from the place processed and whose bee colonies have been registered in accordance with the normative acts on the registering of animals, herds and accommodations and animal labelling according to the procedure laid down (Augu aizsardzības līdzekļu, 2011).

Article 102.2 of the Latvian Administrative Violations Code (hereinafter in the text – LCAO) (Latvijas Administratīvo pārkāpumu kodekss, 1985) on the violation of the requirements for the import, distribution, storage and use of plant protection products provides an administrative punishment, moreover, the offender has to cover the losses caused. However, it is not always possible to prove that the usage of particular pesticides has caused the extinction of bees. Furthermore, in order to provide the proofs for legal proceedings, a bee- keeper has to gather the range of proofs, which is not easy and cheap at all.

There are also positive examples. It has been found out in the case of administrative offence that a person had treated the fields of rapeseed by chemicals. The court has justifiably acknowledged that the user of chemicals broke the regulations, which were in force at the time, which envisaged the duty of the pesticide user to warn the legal possessors of bee colonies whose apiaries (or hives) are located within the radius of two kilometres from the place processed and whose bee colonies have been registered in accordance with the normative acts on the registering of animals, herds and accommodations and animal labelling according to the procedure laid down. (Spriedums 2013.gada 17. jūnijs, lieta Nr.142273711, 2013)

If the normative acts being in force are interpreted only literally, the user of chemicals has rights to spray the fields even in front of someone's house. Of course, it can be hoped that the bees could be preserved on the account of neighbours' good relations, namely, the pesticide user guided by a good will warn the owners of the apiaries on the actions planned. It is unlikely and this gap in the normative regulation cannot be allowed. That is why the user of pesticides has to be applied a duty to inform the owners of apiaries on the planned usage of chemicals, but it also has to be envisaged that the municipalities have to control the accomplishment of this duty. This solution is based on the consideration that 1) all information on the land owner is at local municipalities' disposal, 2) in collaboration with the Rural Support Service and other national institutions, municipalities have information on the local farmers, bee apiaries and 3) municipalities have the resources of the rural municipalities' staff and also technical resources. Therefore, in article 15 of the law "On municipalities", it is necessary to

envisage the duty for municipalities to ensure the rule of law of all kinds at their administrative territories.

Practice proves the necessity of municipality involvement in the legal handling of pesticides. In Zemgale, "Lauku agro" Ltd ("Countryside Agro") belonging to the citizen of Denmark sprayed the fields of rapeseed during the day and 100 bee colonies died (Miglošanas dēļ masveidā iet bojā bites, 2010). Later, the manager of the Ltd explained that the bee-keepers had not been honest because they did not inform the administration of the rural municipality where the apiaries were located; he had only tried to survive. It is evident that protection of bee population from the users of pesticides have to be stipulated not only formally in the normative acts (The usage terms are already envisaged in law), but the mechanism how the usage of these regulations has to be implemented has to be envisaged. The local authorities having both information and other necessary resources can do it in the best way. If the specification of competencies with the SPPS is necessary for specification of the action, it has to be done via the Cabinet of Ministers' assistance, which would be based on law amendments.

In addition, everyone has an opportunity to involve into European citizens' initiative "Save the bees! The protection of biological diversity and improvement of insects' habitat in Europe". The initiative appeal is "to pass the legal acts in order to preserve and improve the insects' habitat as the indicators of an undamaged environment". If it becomes real to gather at least one million of supporters from seven various countries, the EC will have to respond during three months. The aims of this initiative is the development of biological diversity as the basic aim of agricultural activity; sharp reduction of pesticides usage, increase of research, supervision, improvement of education (Latvijas sabiedriskie mediji, 2019). It is necessary to implement a range of activities, which include the implementation of informative activities, involvement of as a broad community as possible in search of solutions (public organisations, discussions, other forms) for preservation of biological diversity and the implementation of multistep risk evaluation activities.

### **Research results and discussion**

It has been found out as the result of the research that the pesticides, particularly the ones containing neonicotinoids affect the nervous system of bees and, as the result, cause their extinction. The next generation chemicals have already been worked out and are being used, and it influences bees aggressively. The presence of pesticides has also been found in the final products, consequently, they influence bees, people and also the environment. The limitation of pesticide production and usage is linked with

the discussions and the passing of regulations and directives during a longer period of time in the European Union. It has to be recognised that during the passing process of these normative acts, a huge resistance of pesticide producers and farmers as the users has to be met, taking into consideration that considerable financial resources are also at their disposal. The proofs have to be looked for that the reduction of chemical usage will not leave any impact on the amounts of the final product. Bee-keepers' initiatives, which have resulted in research works, on which to base the struggle against the usage of pesticides, play a considerable role in the development of normative regulation. Simultaneously, the initiative of the national countries has a significant role. In Latvia, a judicial basis for the protection of bee population, which is based on the Treaty on the Functioning of the European Union, the regulations, the Plant Protection Law, and the regulations of the Cabinet of Ministers on pesticide usage, has already partly been developed. The supervision of pesticide usage has to be recognised as the weak stage. Therefore, it is necessary to improve the control of pesticide usage, using the capacity of municipalities, the importance of municipalities has to be increased.

### **Conclusions and suggestions**

1. The pesticides, which are used in intensive, industrial agriculture, directly influence bee population, causing their extinction and reduce the diversity of the biological environment, but subordinately influence people in a negative way via pesticide remains found in the final products.
2. The ban of pesticides has a twofold resistance: the producers of pesticides and those who practice intensive agriculture.
3. The activities of the broadest nature in order to achieve the reduction and the ban of pesticides have to be implemented both in the European Union and Latvia. The pesticides containing neonicotinoids, which, according to the scientific research, cause the extinction of the bees, are still in the Register of the State Plant Protection Service.
4. It is necessary to supplement the first part of article 15 of the Law "On municipalities" with paragraph 24 and envisage that municipalities have a duty to provide the rule of law within the borders of their administrative territory, but the duties, which relate to the handling of pesticides, have to be left in the competence of the Plant Protection Service.
5. In order to preserve the population of bees, it is necessary to implement a range of activities, which involve the implementation of informative activities, to involve as a broad community as possible in the search of solutions (public organizations, discussions, other forms); improvement

of normative acts in order to preserve biological diversity, implementation of multistage risk prevention activities.

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# THE IMPACT OF THE LABOUR TAX BURDEN ON THE LIVING STANDARD OF THE INHABITANTS OF LATVIA

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**Abstract:** *The standard of living of the inhabitants of Latvia, especially in the context of material well-being or disposable income, is a guarantee that the inhabitants will be able to meet their basic needs, which are important for ensuring an adequate standard of living. Inhabitants ensure their material well-being mainly by working and receiving a net salary, which is paid after the calculation and deduction of labour taxes. However, the state is essentially the same inhabitant, which has its own basic needs, the financing of which requires income, which is mainly obtained after the collection of certain taxes, which accordingly reduces material well-being or disposable income of the inhabitants which is an essential component of the standard of living.*

*The goal of the research: to investigate the impact of the labour taxes on the standard of living of the inhabitants of Latvia. The research uses general scientific research methods: the method of monographic or descriptive research, the comparative analysis method, an expert survey, data grouping, and the graphical method. Authors of the paper believe that employees employed in Latvia should be encouraged to use the possibilities of gross salary relief, thus promoting the growth of their net salary. In order to raise the living standards of the inhabitants in the short and long term, the government of Latvia and local governments must emphasize their attention to the growth of the national economy. The government of Latvia and local governments must implement measures aimed at raising the long-term living standards of the population and gaining material benefits in the future.*

**Keywords:** *Standard of living, material well-being, tax system, labour taxes.*

**JEL code:** *H24, I31.*

## Introduction

The standard of living of inhabitants of a particular country is defined as the degree of satisfaction of the material and cultural needs of the inhabitants (Bērziņa et al., 2008), one of the most important aspects in the life of an individual (Varvazovska, Prasilova, 2015), which depends on such factors as income of the group of individuals, purchasing power of money, number and age of the group members, management skills and standard of living (Grēviņa et al., 2000). A standard of living is the level of wealth, comfort, material goods, and necessities available to a certain socioeconomic class or a certain geographic area. The standard of living includes basic material factors such as income, gross domestic product (GDP), life expectancy, and

economic opportunity (Investopedia.com, n.d.). Most of the time in an individual's life is devoted to increasing the material well-being. Apart from the economic indicators that characterize the standard of living, the individual's ability to shape his / her daily life in such a way that the set desires are ultimately achieved is also important (Commission for Strategic Analysis, 2006). Material well-being is the basis for being able to take advantage of all the opportunities that provide an interesting and saturated life, so work and salaries, which are a source of material well-being, play an important role in life (Anča et al., 2006).

Taxes are a component of state revenue that provides not only state budget revenue but also the well-being of the inhabitants and the national economic development index. Accordingly, by generating revenue, the government can ensure the country's economic growth and increase the standard of living of the inhabitants (Puzule, 2019). Determining the limit of the optimal tax rate remains relevant in all countries with a transition economy, as tax payment traditions are not developed and there is a tendency that the government only wants to supplement the state budget without considering that the application of excessive tax rates contributes to increasing tax evasion, which in turn reduces the amount of state budget revenue (Ketners, Titova, 2009).

The authors believe that the tax reforms implemented to increase state budget revenues result in an additional tax burden on the inhabitants, thus reducing their disposable income, which in the long run has an impact on the standard of living of the inhabitants.

The goal of the research: to find out the impact of the labour taxes on the standard of living of the inhabitants of Latvia.

Tasks of the research:

1. To study labour taxes and the procedure of their application in Latvia.
2. To assess the impact of the labour taxes on the standard of living of the inhabitants.

Period of the research: 2015-2019.

The research uses general scientific research methods: the method of monographic or descriptive research and the comparative analysis method, an expert survey, data grouping, and the graphical method.

### **Standard of living of the inhabitants and labour taxes**

Quality of life may be understood in two different ways: 1) in a broad sense, 2) in a narrow sense. Quality of life analysed in a narrow sense is a subjective assessment of the standard of living. In a broad sense, however, it encompasses all living conditions, analysed using both an objective-type approach and a subjective-type approach (Winiarczyk-Razniak, Razniak,

2011). Nadirova and Aliyevb (2016), researching motivation to work, labour income taxes and life satisfaction in Hungary, Estonia, Continental Europe and the United States, concluded that 'Numerous theoretical and empirical studies have identified a negative relation between tax rates (marginal and average) and work activity. [...] Differences in the motivation to work and tax induced income changes are probably linked not only to the size of the labour income tax or to the characteristics of the labour market but also to other factors that have not yet been efficiently explored. Perhaps that people who are more balanced in their approach to life are both happier and take more leisure. But a more persuasive story is that motivation to work has started to decline in Western Europe, due to high levels of life satisfaction, while in Eastern Europe motivation to work has started to increase because of low levels of life satisfaction.'

Within the research, there was conducted a survey of experts, in which the experts evaluated the indicators characterizing the standard of living of the inhabitants according to their importance on a scale from 1 (the most important indicator or priority No. 1) to 5 (the least important indicator or priority No. 5). The experts were asked to evaluate in order of importance the following indicators characterizing the standard of living of the inhabitants: household disposable income, income inequality, poverty rate, GDP per capita and regional development index. The selection of industry experts was based on their level of education (experts A, B, C and D with a doctorate in economics, expert E with a master's degree in economics and experts F and G with a master's degree and professional secondary education in another field) and academic and/or professional work experience in the field of economics, which for all the experts exceeds 25 years. By occupation, the experts can be divided into several groups, i.e. the government of Latvia (experts A, B and E), the local government (experts F and G) and the academic staff (experts C and D).

The answers provided by the experts were evaluated according to the degree of agreement. In the case of direct parameter evaluation, the degree of expert agreement is evaluated by the concordance coefficient  $W$ , (Kendall, 1955) according to formula 1:

$$W = \frac{12 \sum_{i=1}^n \left\{ \sum_{j=1}^m r_{ij} - \frac{1}{2} m(n+1) \right\}^2}{m^2 (n^3 - n)} \quad (1.)$$

- where,  $W$  – Concordance coefficient  
 $n$  – Number of the assessed factors  
 $m$  – Number of experts  
 $r_{ij}$  –  $i$  object rank by the  $j$  expert opinion

The value of the concordance coefficient varies in the interval  $0 \leq W \leq 1$ , moreover,  $W = 0$ , if there is no correlation between the ranks, and  $W = 1$ , if all the experts have ranked the objects equally. A sufficient value of the concordance coefficient is assumed to be  $W \geq 0.50$  when the consensus of experts is high enough (Kendall, 1955).

The calculated concordance coefficient  $W = 0.23$ , which indicates that the experts do not agree on their opinions, however, the disposable income level of households stands out as the most important indicator when assessing the standard of living of the inhabitants. Paid work, for most of the inhabitants, is the main source of income or a guarantor of material well-being, but income earned within the employment is subject to labour taxes. However, the experts noted GDP per capita as the second most important indicator.

Taxes not only provide state budget revenue but also contribute to the well-being of the inhabitants and increase the national economic development index. Thus, by increasing revenues, the government can ensure the country's economic growth and increase the standard of living of the inhabitants (Puzule, 2019). An American scientist (Busler, 2013), studying tax policy, concluded that while the literature shows varying studies concerning the impact of tax policy, there is a gap when searching for an optimum policy.... Most countries have tried combinations of monetary and fiscal policies to encourage growth, but none seem to be working effectively. The solution may be to change income tax policy.

Labour taxes affect both labour demand and supply, as they change the employer's costs and the employee's net salaries. ... Labour taxes also affect the impact of other labour market and social regulations, such as minimum salaries, unemployment and social security, benefits, employment relationships, etc. [...] Labour taxes influence the decision to participate in the labour market.... Income taxes have a greater impact on labour than consumption and property taxes, savings and investment decisions, so by shifting the tax burden from income to consumption and property can be expected to have a positive effect on employment and economic growth (Ministry of Finance, 2017).

Mandatory state social insurance contributions are contributions to the special state budget account, which are intended for financing social insurance services in a case of social insurance event (Ketners, Titova, 2009). Mandatory state social insurance contributions ensure the maintenance and / or increase of the standard of living of the inhabitants, however, this goal is achieved only in the long run, in case one of the social insurance cases occurs.

In 2015-2019 the mandatory state social insurance contributions applicable to both employees and employers increased (iFinanses, 2019), thus promoting the growth of state budget income in the short term, but in

the long run promoting greater support for the inhabitants of Latvia by payments from the state budget in a situation when a social insurance event occurs.

The Solidarity Tax was introduced with the aim of “reducing the tax regression for employees, domestic employees with a foreign employer, foreign employees with a foreign employer and the self-employed with a higher income level, while ensuring state basic and municipal budget revenues for increasing social protection and for financing the needs to reduce inequality, including the financing of health care services, as well as ensuring the revenues of the state pension special budget and appropriate savings in the funded pension capital or private pension fund of socially insured persons”(Solidarity Tax Law, 2015).

Jarockis (2015) considers that ‘when assessing the introduction of a solidarity tax from the point of view of constitutional law, it should first be noted that although the tax is considered as a restriction of fundamental rights, its payment is in the interest of the society. It is aimed at promoting the general well-being of society. It also means being able to safeguard the general welfare interests of society, such as national defence, education, and health care.... This tax, like any other tax, will provide revenue to the state budget that can then be used to protect public welfare. Thus, the legitimate aim of the restriction of fundamental rights is to protect the welfare of the society’.

The personal income tax does not ensure an increase in the standard of living of the inhabitants in the future but ensures the state budget revenue.

Personal income tax has its own peculiarities, as it has a fixed tax rate, but at the same time, employees can benefit from the applicable benefits - the monthly non-taxable minimum, the benefit for dependents, the benefit for the disabled and the benefit for politically repressed persons (iFinances, 2019).

Consequently, labour taxes - mandatory state social insurance contributions, solidarity tax and personal income tax - are calculated and deducted from the disposable income of the inhabitants of Latvia (within the framework of this research - from paid work). Mandatory state social insurance contributions and personal income tax are applied to all employees employed in Latvia. On the other hand, the solidarity tax is calculated only in case the object of mandatory state social insurance contributions has been exceeded.

### **Assessment of the labour tax burden**

Researchers (Blundell et al., 2018) believe that “the tax and transfer system can be a very important bridge between family labour income and

living standards, through taxes, work-contingent credits and social assistance transfers. Tax and transfer systems are typically quite nonlinear, especially at low-incomes, and this can lead to very different inferences about levels of household income inequality; and major reforms to these systems can and do have large effects on the income distribution”.

The experts evaluated the measures implemented by the government of Latvia and local governments, the goal of which is to increase the standard of living of the inhabitants according to their significance and efficiency on a scale from 1 (most significant and effective measure or priority No.1) to 7 (least significant and effective measure or priority No.7). The results of the expert discussion are summarized in Table 1.

**Table 1. Assessment of the measures implemented by the government of Latvia and local governments with the aim to increase the standard of the living of the inhabitants by the experts (calculations of the authors)**

Measures implemented by the government of Latvia and local governments	Experts							Rank R
	A	B	C	D	E	F	G	
	Ratings							
Reducing / increasing of the labour tax burden	6	3	1	6	5	2	4	3
Granting / increasing of social benefits	5	4	4	5	7	7	7	7
Setting / raising of the minimum monthly salary	7	6	7	4	2	5	6	6
Determination / increase of tax reliefs	4	5	6	7	6	4	1	4.5
Access of education	1	1	3	1	1	3	3	1
Services, facilities and funding provided by local governments	3	7	5	3	4	6	5	4.5
Business support measures	2	2	2	2	3	1	2	2

The calculated concordance coefficient  $W = 0.49$  indicates that the experts were generally united in their views and unanimously acknowledged the availability of education as the most important measure implemented by the government of Latvia and local governments with the aim to increase the standard of living of the inhabitants. The experts believe that regional schools should not be abolished, as this encourages residents to move to cities and promotes even greater depopulation of Latvia's countryside. Access to education gives people the opportunity to find a well-paid job in the future, and access to education is geared to long-term benefits. The experts assessed the reduction and increase of the labour tax burden as the third most important measure implemented by the government of Latvia and local governments with the aim to increase the standard of living of the

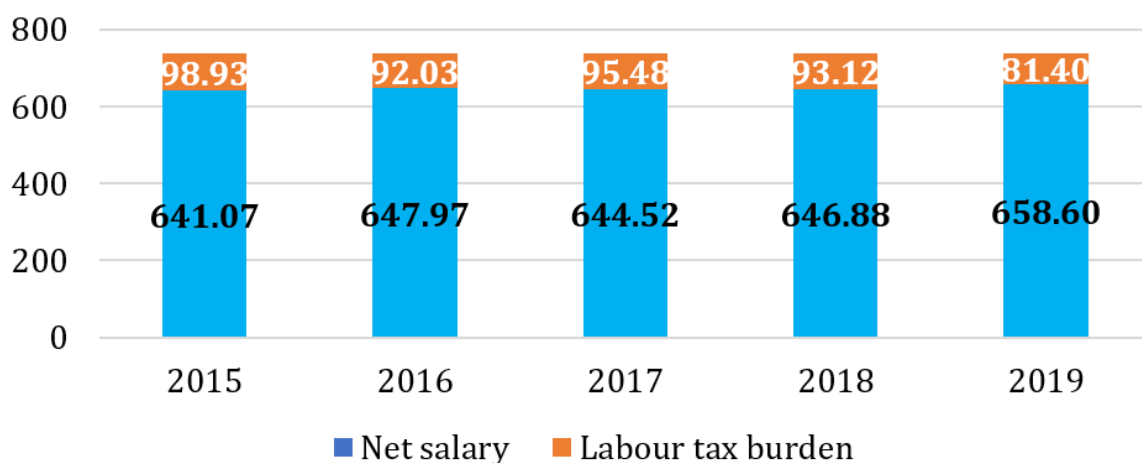
inhabitants. Several experts acknowledge that tax reform (including increases in the minimum salary, changes in tax rates and incentives) can contribute to raising the standard of living of the inhabitants, especially household disposable income, but all these measures need to be considered within different groups of the inhabitants.

The average gross and net salaries and salaries of employees increased in 2015-2019. In 2019, compared with 2015, gross salaries and salaries increased by 251 EUR or 32.60%, net salaries and salaries increased by 188 EUR or 32.75% and the labour tax burden increased by 63 EUR or 30.88%. (Table 2)

**Table 2. Average gross, net salary, and labour tax burden of employees in Latvia in 2015-2019, EUR (CSB database, 2020; calculations of the authors)**

	<b>Gross salary</b>	<b>Net salary</b>	<b>Labour tax burden</b>
<b>2015</b>	778.00	574.00	-204.00
<b>2016</b>	814.00	600.00	-214.00
<b>2017</b>	877.00	642.00	-235.00
<b>2018</b>	960.00	712.00	-248.00
<b>2019</b>	1 029.00	762.00	-267.00

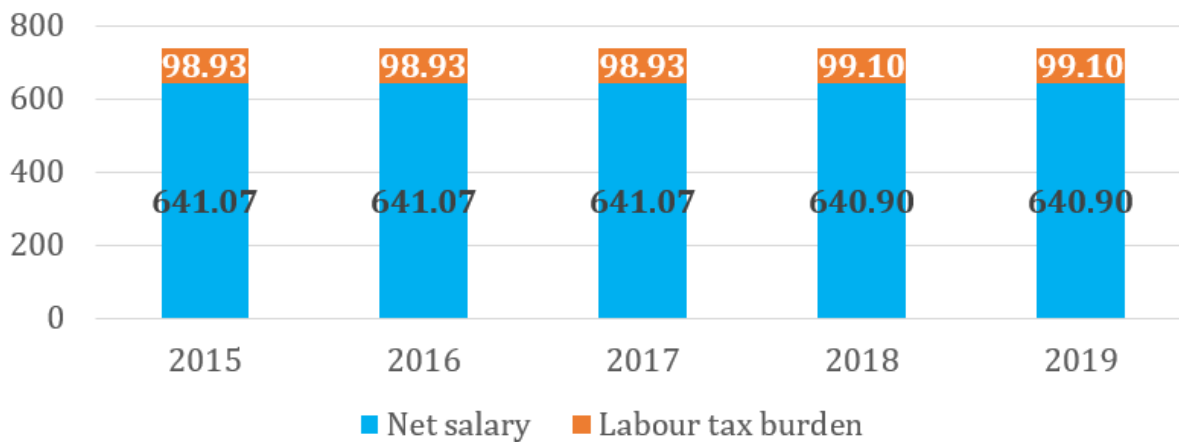
In order to find out to what extent the labour tax burden affects the material well-being of the inhabitants (the amount of disposable income) or their standard of living, the calculation of employee X's net salary was performed, taking into account the following conditions: gross monthly salary 740 EUR; three dependent minors and since the 2017 the monthly non-permanent minimum has not been applied. (Fig.1)



**Fig. 1. Calculation of employee X's net salary and labour tax burden in 2015-2019, EUR (calculations of the authors)**

According to the calculations, it was concluded that during the five-year period, changing both labour tax rates and applicable benefits, the net salary of employee X increased by 17.53 EUR or 2.73% and the labour tax burden decreased by 17.53 EUR or 17.72 %.

Over a five-year period, the net salary of employee X and the calculated labour tax burden were mainly affected by the changes in the relief applicable to gross salary. To verify this statement, was performed the calculation of employee X's net salary, taking into account the following additional conditions, in addition to the above: the benefits applicable to gross salary remain unchanged at the 2015 level, but the labour tax burden changes in accordance with the legislation of the Republic of Latvia. (Fig.2)



**Fig. 2. Changes of the net salary and labour tax burden of employee X's if income tax relief applicable to gross salary remain unchanged, 2015-2019, EUR (calculations of the authors)**

The data of Fig 2 shows that if income tax relief applicable to gross salary remain unchanged at the level of 2015, then the net salary of employee X decrease by 0.27 EUR or 0.04% and the labour tax burden increase by 0.19 EUR or 0.18% in 2015-2019. Trends in these changes confirm that the labour tax burden does not affect the standard of living of the inhabitants (disposable income or material well-being).

Thus, the hypothesis that the implemented changes in the labour tax burden in Latvia have been successful and there was an increase in the standard of living of the inhabitants in Latvia can be partially confirmed. This can be explained by the fact that the labour tax burden does not affect net salary growth in the short run, however it is driven by the application and increase of income tax relief. It should be noted that increase of the mandatory state social insurance contributions increases the social insurance budget of the employee, providing more support in the case of a



social insurance event, which ensures an increase of standard of living in the long run.

### **Conclusions and suggestions**

1. The standard of living is one of the most important aspects in the life of an individual, and the disposable income of the inhabitants and its changes is one of the characteristic indicators of the standard of living. The experts, assessing the indicators of the standard of living of the inhabitants, recognized the level of disposable income of households as the most important indicator.
2. The labour tax burden in Latvia consists of such tax payments as mandatory state social insurance contributions, solidarity tax and personal income tax.
3. The experts, evaluating the measures implemented by the government of Latvia and local governments to increase the standard of living of the inhabitants, recognized the availability of education as the most important measure. The experts assessed the reduction and increase of the labour tax burden as the third most important measure implemented by the government of Latvia and local governments to increase the standard of living of the inhabitants.
4. Employees employed in Latvia must use the possibilities of gross salary income tax relief, thus promoting the increase of their net salary, considering the role of applicable gross salary income tax relief in reducing the labour tax burden.
5. To increase the standard of living of the inhabitants of Latvia in the short and long term, the government of Latvia must emphasize its attention to the general growth of the national economy – from raising the territorial development index in the statistical regions of Latvia to supporting business in all sectors.
6. The government of Latvia and local governments should implement measures aimed at raising the long-term standard of living of the inhabitants and gaining material benefits for the majority of the inhabitants in the future, such as ensuring access of education by providing more budget study places that would lead to a higher share of qualified specialists in the labour market in Latvia.

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# **THE FUTURE ROLE OF DESTINATION MANAGEMENT ORGANIZATIONS: THEORIES AND METHODOLOGICAL TOOLS**

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**Abstract.** *The aim of this paper is to review the existing literature regarding Destination Management Organizations (DMO) and the various stakeholders that the destination consists of. The paper covers the preliminary stage of the whole research which will cover existing theories such as business ecosystem and stakeholder theories and it will also suggest for future research a systemic approach towards destinations in order to improve their effectiveness and efficiency. Finally, it will examine the various methodological tools such as benchmarking and EFQM that exist and can be used in order to research the topic. The aim is to identify the need for future research to develop an optimal model of effective DMO.*

**Keywords:** *Benchmarking, Destination Management Organizations (DMOs), EFQM, stakeholder, tourism.*

**JEL code:** *O52, L83, M40.*

## **Introduction**

Tourism is a worldwide industry, which especially after the recent economic crisis is considered very important in creating employment and boosting the economy at a local and national level. The World Tourism Organization (WTO) reported 1.235 billion arrivals and 1.4 trillion dollars' receipts for 2016. Regions and countries make extra efforts in order to make their destinations stand out from the competition and improve their competitiveness.

Furthermore, another major change is the fact that the industry has become even more complex and interrelated over the last years. While in the past the industry was dominated by tour operators, travel agencies and printed material, nowadays the emergence of Online Travel Agents (OTA's) and the concept of shared economy (Airbnb) has increased the competition among the industry players. It has also created more complex and interrelated relationships among the major stakeholders of the tourism system. Knowledge is in the centre of the above changes. McLeod and Vaughan (2015, p. 1) state that knowledge is "a key ingredient by which the tourism sector can adjust and adapt to its dynamic environment".

Destinations need to respond to all these changes and create a framework where all the stakeholders can work together to increase the

effectiveness and efficiency of the destination and where all can benefit not to the detriment of the others. The power has also shifted from the supply side (businesses) to the demand side (tourists), and this is something that destinations need to bear in mind.

### **Literature review**

#### **Destination Management Organizations (DMOs)**

Any DMO is oriented to organize “the various components of the territory, guiding them towards a strategy and a common value through a planned, governed and collective process” (Varra et al., 2012). Several authors (Ritchie and Crouch, 2003; Dredge, 2006; Bornhorst et al., 2010; Volgger and Pechlaner, 2014; Pike and Page, 2014) suggest that the sustainable and competitive development of tourist destinations is highly related to the ability of the DMOs to manage destinations. The DMO does also play the role of enhancing uniqueness and authenticity of a destination increasing livelihood of it (Richard & Palmer, 2010).

The success of any destination relies on its coordinated approach towards planning, development, controlling, management and marketing.

Prof. Richard W. Butler's work in 1980 started a discussion about tourism carrying capacity and sustainability. He saw the risk that tourism attractions are fragile and need to be carefully managed so that they are not allowed to exceed their capacity limits. After all, who wants to stay at a resort that feels overcrowded and over-commercialized? As Butler points out, tourism destinations carry with them the seeds of their own destruction. Thus, the concept of carrying capacity is rooted in a notion of “limits to growth”. The notion of carrying capacity or sustainability yield has become a basic criterion of sustainability. Ecosystems and populations have a limited capacity to cope with environmental stress; above a certain amount of stress there may be detrimental effects for the ecosystems. Carrying capacity is defined as “the growth limits an area can accommodate without violating environmental capacity goals”. Policies to regulate human activities and for anticipating environmental impacts can assist in attaining carrying capacity limits.

On this issue, a Destination Management Organization can contribute greatly in order to achieve all the above by using the latest technology of the Destination Management System (DMS) which provide a complete set of tourism management, promotion and fulfilment tools with product, business and visitor databases as its foundation. This enables DMOs to be able to promote their destination through any number of different platforms, including web and digital ones, call-centres, kiosks and smart devices by providing your visitor with detailed, real-time information at multiple

locations. Tourists request a wide variety of information on places, facilities, attractions and activities at destinations before their departure. Thus, emphasis is placed on the speed and the ability of destination management to satisfy the needs and the wants of the clients by providing all the relevant, appropriate and accurate information by handling their reservations and requests promptly and efficiently. (Buhalis, 1997).

Destinations are also comprised of various stakeholders such as hotels, restaurants, travel agents, tour operators, government agencies and everyone who is operating in the destination and influence the supply or demand to a smaller or greater extent. Many of the above stakeholders though in many cases have conflicting interests, and therefore they can potentially affect the destination negatively.

Destination research has primarily focused on identifying and classifying relevant stakeholders, while less emphasis has been placed on stakeholders' behavioural patterns and actual influence (e.g Selin & Chavez, 1995). Recent research has broadened the perspectives by focusing on salience (Sheehan & Ritchie, 2005; Cooper, Scott & Baggio, 2009) and interpretations of the influence and power of key stakeholders (Beritelli & Laesser, 2011) by differentiating stakeholders based on their potential to threaten and to cooperate. Hotels and hotel associations were considered the most salient, followed by local and regional government. Cooper et al. (2009) found that destination management is controlled by a limited number of stakeholders, based on perceived salience, as key stakeholders form an elite at the core of its network.

DMOs need also to become the tools that can coordinate them and offer a vision and a holistic approach on how the destination can market, promote, protect the environment, minimize the negative impacts of tourism activities, respond to a crisis etc. The above are only a few of the contributions that a DMO can offer to a destination. This is the reason why DMOs play a leading role in most destinations. It takes a strategic approach to link-up very different entities for the better management of the destination, and this is something that only DMOs can offer.

DMOs are here to articulate a complex range of strategic objectives as well. Furthermore, in contrast to most private enterprises, DMOs focus not only on tourists but on the quality of life and residents of the host country/region. The latter is what makes it interesting and challenging and worth investigating further.

## **Stakeholders**

To define the term fairly and to capture the idea that any business, large or small, is about creating value for “those groups without whose support, the business would cease to be viable” (Freeman et al., 2010).

There is also a somewhat broader definition that captures the idea that if a group or individual can affect a business, then the executives must take that group into consideration in thinking about how to create value” (Freeman et al., 2010).

Stakeholders can affect or be affected by the organization’s actions objectives and policies. Some examples of key stakeholders are creditors, directors, employees, governments, co-owners, suppliers or even the community from which the business draws its resources. However, not all stakeholders are equal. Freeman and Reed (1984) also define stakeholders as “those groups without whose support the organization would cease to exist. Table 1 contains some examples.

For somebody to understand the role and identify the involved stakeholders may be even more difficult, as the tourism industry comprises a complex network of stakeholders and groups that have an interest in the development, management and marketing of tourism for a destination. The support, commitment and cooperation of these stakeholders to tourism in a destination are essential for the long-term sustainability of the industry (Sustainable Tourism Online, 2009). Tourism stakeholder groups include industry operators, government departments and associations, visitors, the community, investors / developers, landowners, industry associations, tourism-related organizations, community and environmental groups.

All stakeholders need to participate in determining the direction of the organization in which they have a stake (Byrd, 2007). Stakeholders can be geographically dispersed, belong to the private or public sector and have little or significant participation in the destination’s economy. Moreover, some stakeholders are more important than others in determining the success of activities (Dabphet, 2012). Effective stakeholder engagement must reduce potential conflicts between the tourists and the host community by involving the latter in shaping the way in which tourism develops (Macbeth, Burns, Chandler, Revitt, & Veitch, 2002). Each group of stakeholders is a critical component of the tourism destination since the initiatives and thoughts of stakeholders are external to the strategic planning and management processes (Dill, 1975).

**Table 1. Various stakeholders** (compiled by the authors)

<b>Stakeholders:</b>	<b>Stakeholder's concerns</b>
<b>Government</b>	Taxation, VAT, legislation, employment, truthful reporting, diversity, legalities, externalities.
<b>Employees</b>	Rates of pay, job security, compensation, respect, truthful communication.
<b>Customers</b>	Value, quality, customer care, ethical products.
<b>Suppliers</b>	Providers of products and services used in the end product for the customer, equitable business opportunities.
<b>Creditors</b>	Credit score, new contracts, liquidity.
<b>Community</b>	Jobs, involvement, environmental protection, shares, truthful communication.
<b>Trade Unions</b>	Quality, worker protection, jobs.
<b>Owner(s)</b>	Profitability, longevity, market share, market standing, succession planning, raising capital, growth, social goals.
<b>Investors</b>	Return on investment, income.

Inskeep (1991) explains that regarding implementation, the public sector is concerned with several functions such as arranging developments, carrying out rules and regulations on tourism, developing main infrastructure, advancing the appeal of public tourism and conducting marketing to promote tourism areas. In the meantime, Gunn (1994) elaborates that the public sector function within the tourism industry is to increase tourist satisfaction, enhance economic and business success, protect existing assets and preserve community integration. The public sector is also more involved in planning, enforcing laws related to tourism destinations and managing the construction of infrastructure as well as public tourism appeal.

The private sector on the other hand is more concerned about running profitable operations, developing new products, earning market share, improving the quality of services/products, and the longevity of their firm. Private firms are geared towards competing at all costs and regularly they have short term goals. Tribe (1997) makes a distinction between external and internal stakeholders, depending on the power and influence they have on the organization. He suggests that a hierarchy of stakeholders should be identified. This is the reason why stakeholder theory has become an important theoretical tool in the arsenal of the strategic management. It is a theory that can be applied to a wide range of issues and environments, and it will prove very useful in current research.

## **Expected contribution and the purpose of the study**

DMOs may be useful but they have been accused of being ineffective and too slow to adapt to new developments. It has also been proven too difficult to measure their efficiency and effectiveness. Even though a lot has been written about DMOs, what has not been analysed is a systemic approach that will include all stakeholders and measure the effectiveness and efficiency of these organizations. This approach will not include only specific sectors of the economy where tools like benchmarking and EFQM can be very useful, but it will take a systemic approach. In this case the stakeholder theory and the business ecosystem theory will prove very useful.

In this context, a methodological tool will be developed and applied in order to create new knowledge that will improve the efficiency and effectiveness of DMOs.

By improving the effectiveness and efficiency of DMOs, we help the destination as well to improve the good use of the resources that the stakeholders possess and as a result improve their performance (e.g. return on investment)

The successful function of DMOs can improve the competitiveness of the destination and place the destination in a leading/ strong position among competing destinations. That will strengthen the competitiveness of the businesses that are an integral part of the destination with subsequent positive impacts on the local community.

By also developing the tools and methodology, authorities will be able to monitor and control the issue of the carrying capacity as well as the efficiency of the destination on a regular basis and do the necessary adjustments when needed.

Furthermore, DMOs can do a lot more for the local community. That was also the main reason of choosing this topic of the research and that would be the ultimate result and contribution which this research could provide.

By mitigating among the stakeholders, DMOs can minimize the negative effects of tourism activities. They can protect the community from the degradation of the environment, minimize sociocultural side effects, help to alleviate the problem of seasonality and establish a sustainable way of how businesses operate.

By improving the function of DMOs, the local communities will be able to reap the maximum possible benefits of tourism development and minimize the negative side effects.

Finally, and very importantly, various stakeholders including local communities will be included more actively in the decision-making process on issues regarding the development of their region.



## **Research methodology Research Process and questions**

There are several researches associated with DMOs in relation to the various stakeholders like airlines, hotels etc. There is a lack of research though taking a systemic approach towards the destination, which is very important, since every stakeholder affects the destination to a smaller or greater extent. There are several DMOs operating privately or state funded, but there is no systemic approach towards measuring their effectiveness. There are performance indicators measuring the effectiveness of marketing or advertising campaigns but not a method to measure their overall performance. In this way, public money might not be properly allocated and private investments might not offer the return on investment (ROI) that they could.

Future research could shed light onto the complex inner workings of a destination and how interrelated organizations (e.g. hotels, government agencies,) affect each other. The research could also provide practical tips on how various and very often conflicting firms can work together and align their strategies. The result of this research could be a tool/framework that will be used in various environments and occasions in order to measure the effectiveness and efficiency of DMOs.

### **Methods**

There are various methodologies, tools and approaches that can be used. A descriptive study can be undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation (Sekaran, 2000). The focus is not on the explanation (Veal, 2011). In this type of research, relevant aspects of the research topic can be described.

With the explanatory research, the researcher is trying to establish how one phenomenon is influenced by another (Veal, 2011). This is where a researcher has an idea or has observed something and seeks to understand more about it (Kowalczyk, 2014). Exploratory research helps to determine the best research design and data collection method (Shields, Patricia and Rangarjan, N., 2013). Moreover, it often relies on secondary research such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with employees, management or competitors, and more formal approaches through in-depth interviews, focus groups, projective methods, case studies or pilot studies.

The descriptive research can describe the terms of effectiveness and DMO, but the explanatory can establish how DMOs and efficiency are related.

Another type of research that can be used is evaluative. By using evaluative research, we assess the success of a policy or management action. In this case the effectiveness and efficiency of various DMOs and how well they perform could be evaluated.

All the above-mentioned types have qualitative and quantitative characteristics. Van Maaten (1983) defines qualitative methods as "an array of interpretive techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency of certain more or less naturally occurring phenomena in the social world". The qualitative methods that will be used are in-depth interviewing and analysis of texts.

Veal (2011) states that quantitative research is a kind of research in which, numbers are the main medium. We use statistical, mathematical, numerical data or computational techniques. The objective of quantitative research is to develop and employ mathematical models, theories and/or hypotheses pertaining to the phenomena.

The proposed research could also have more of an applied scope than a theoretical one. It can seek to address a policy/management issue in contrast to research that will only result in general propositions. It will seek to address the issue of how to improve the efficiency of DMOs. The research can also work on an empirical and non-empirical level. Any future research can involve data (empirical) using quantitative and qualitative data, but it can use also theory and the literature (non-empirical).

The research can be more inductive in nature since new tools and theories might be created from the examination of data collected from the field. Therefore, primary data will be used, which will be gathered by the researcher (Veal, 2011), but also when appropriate secondary data will be gathered.

During the research, private and state-owned destination management companies can be contacted. Moreover, major stakeholders of the region such as airlines, hotel and hotel associations which, play a major role in forming strategies and influence decisions in tourism destinations, will be contacted.

The detailed steps of the methodology are proposed to be as the following:

Detailed comprehension and analysis of the bibliography concerning destination management, destination management organizations (DMOs), stakeholder theory, benchmarking, the EFQM excellence model, business ecosystems. Analysis of case studies that have been written concerning the tourism sector, previous PhDs written on relevant topics and research on the Internet, magazines and newspapers. Also, at this point destination management organizations will be examined to identify the key characteristics that they have in common.

Identification of tools that have been used to measure effectiveness and identify all the necessary theory regarding economic models, statistical models that will be used in the research process. More specifically in the context of business ecosystems theory and stakeholder theory, we will use two benchmarking techniques: The Data Envelopment Analysis (DEA) and the Stochastic Frontier Analysis (SFA).

The DEA technique is appropriate for our research since it determines the efficiency of the object (e.g. businesses) participating in the benchmarking process. It is a non-parametric technique to measure productivity with multiple inputs and outputs. The destination is exactly a place where multiple stakeholders with various inputs are involved and produce numerous outputs. Furthermore, the DEA technique uses variable weights, and this is in line with the fact that each stakeholder has a different level of influence. Finally, the DEA technique gives the researcher the opportunity to analyse and quantify the sources of inefficiency for every evaluated unit (Cook, Tone, and Zhu, 2014). On the other hand, we must also be aware of the shortcomings of this technique.

The SFA is a parametric technique that uses standard production function methodology. It may be used in modelling functional relationships where you have theoretical bounds. The SFA is used to model producer behaviour, where a producer in our case can be any of the stakeholders participating in the destination business ecosystem.

The advantage of the SFA technique is that it produces efficiency estimates or efficiency scores of individual producers. Therefore, this technique will be used in order to identify inefficiency issues for each stakeholder that need corrective measures. Moreover, since efficiency scores vary across producers, they can be related to producers' characteristics such as ownership and size. This advantage gives us also the chance to relay this technique to each stakeholder's specific features. Finally, the SFA technique provides us with a powerful tool to examine effects of intervention. By using the above technique, the future researcher will be able to examine any changes that are made by any of the important stakeholders within the destination.

## **Conclusions**

DMOs work as the link between supply and demand. They promote marketing and build the image of the destination. They also gather data and use the information from customers and disseminate it to the various interested stakeholders. Nowadays though, they need to move from just marketing and management organizations to intelligent agents and knowledge gatekeepers. They also need to be able to respond swiftly to a

crisis and above all to act as intermediaries and coordinators among the stakeholders.

From the above we clearly understand the complexity of the role that DMOs need to play. Therefore, their effectiveness and efficiency in executing the above roles is of great importance to all stakeholders.

From the above it is clear that any future research on the topic should focus more on how to improve the efficiency and effectiveness of those organizations. That is even more important if we take into consideration the fact the governments are limiting the resources that are allocating to DMOs.

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# EXAMINATION OF MOBILE COMMUNICATION SERVICE PROVIDERS IN LATVIA

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**Abstract.** *The development of telecommunications plays an essential role in the economy, as it affects the opportunities for communication between economic actors at both the national and global levels. Today mobile communication companies, which provide quality communication and information retrieval opportunities through the variety of their services, technological features and tariff plans, are important telecommunication providers.*

*The aim of the present research is to examine the leading mobile communication service providers in Latvia by employing the theoretical findings of communication technology and telecommunications.*

*The research used the following methods: monographic, induction and deduction, graphic, comparison, as well as competitiveness assessment based on the competitiveness index.*

*The research described the theoretical aspects of telecommunications, examined the leading mobile communication service providers in Latvia, their most important financial performance indicators, services and tariff plans offered as well as assessed their competitiveness.*

*Examining the mobile tariff plans and the services included therein, it was found that they were quite similar. However, an examination of each offer in more detail revealed that there were many nuances that were important to the client and that should be paid attention to.*

*After assessing the competitiveness of the leading mobile communication providers, it was concluded that Latvijas Mobilais Telefons scored the highest number of points, Bite Latvija was in second place and Tele 2 took third place. An assessment of the key factors of competitiveness for the providers revealed that the company Latvijas Mobilais Telefons needed to improve the positions where its competitors had higher ratings: its discount system, the prices of services and the supply of services.*

**Keywords:** *communication technologies, information technologies, mobile communications, telecommunications, communication services offered, competitiveness.*

**JEL code:** L96, L86.

## Introduction

Over the last decade, the development of telecommunications has provided economic actors in Latvia (households, companies and the government) with opportunities that were not available to them before. By taking advantage of mobile telecommunications, businesses and other economic actors can ensure fast and efficient communication.

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Domestic companies can provide quality communication with their target audiences as well as offer their products in the global market.

The growth of telecommunications companies occurs rapidly in Latvia; consequently, communication opportunities for economic actors develop and improve constantly. Today mobile communication companies, which provide quality communication and information retrieval opportunities through the variety of their services, technological features and tariff plans, are important telecommunication providers.

The aim of the present research is to examine the leading mobile communication service providers in Latvia by employing the theoretical findings of communication technology and telecommunications.

Specific research tasks:

1. to examine the theoretical findings of communication technology and telecommunications;
2. to examine the leading mobile communication service providers in Latvia, their services offered and their competitiveness.

The following hypothesis was put forward: there are no significant differences between the tariff plans offered by the leading mobile communication service providers in Latvia.

The research used the following methods: monographic, induction and deduction, graphic, comparison, as well as competitiveness assessment based on the competitiveness index.

The research used specialist literature, relevant research papers, other publicly available information and Internet resources.

## **1. Theoretical aspects of communication technologies and telecommunications**

In this research we look on telecommunications as a tool for economic and social development around the world, stressing the role of information and communication technologies for development and telecommunications as a part of it.

It is undeniable that information and communication technology (ICT) offers immense opportunities for social change. ICTs such as the Internet, mobile phones and social media are becoming ubiquitous. However, their use for positive social change remains complex and contested, in that it involves a myriad of actors and perspectives, societies and cultures, strategies and policies and ultimately winners and losers (Ala-Uddin, 2019).

Information technology is a relatively new area which offers many potential uses. Due to its novelty, what is often forgotten to ask is what the ultimate purposes its application could actually serve are. That is, what can actually be done with it? The spread of ICT is for no good if people have no

uses for it which would benefit them substantially. The most important question then becomes, from the capabilities perspective, the following: What can information technology do for our capabilities? It is often stated in social scientific writing that the economy is currently moving in a new direction of becoming an informational economy. Furthermore, this economy is seen as being increasingly global in its scope. It is also envisaged that those economic actors not connected to the information networks of the global economy cannot survive in the long run, due to the increased competition in markets reaching everywhere (Lanki, 2006).

As the first decade of the new millennium drew to a close, it became clear that a major subfield of scholarship, policy and practice, that is, information and communication technologies for development or 'ICT4D', had emerged within and beyond the already broad field of communication, development and social changes. Though the roles of new ICTs in development were discussed in the 1980s and 1990s, the accelerated diffusion of digital technologies around the turn of the century greatly increased the possibilities for global information sharing and accelerated development. The looming millennium coincided with technological innovations and initiatives that inspired reflection and dialogue. Many scholars and activists have critiqued ICT4D for repeating the same modernist mistakes of earlier decades, noting further that ICT4D tends to focus on 'have' and 'have not' countries and global regions, neglecting variance within countries and regions (Steeves, Kwami, 2019).

The technological possibilities offered by new and improved underlying infrastructure support almost unlimited transmission capacity on optical fibre networks. These developments will result in a deeper convergence of mobile and fixed networks (Gijrath, 2017).

ICT4D seeks to examine social changes in developing countries as a result of ICTs. Within the mainstream of ICT4D policy and discourse, development is a re-articulation of modernization achieved through economic growth under globalization. Castells describes it as the availability and use of information and communication technologies are a pre-requisite for economic and social development in our world. They are the functional equivalent of electricity in the industrial era. The United Nations, through its various institutions, actively promotes ICT4D as a tool for economic and social development around the world, particularly in developing countries. It is ideally as a complex process that leads to a better, more socially just world via the engendering of citizen participation and empowerment (Steeves, Kwami, 2019).

Authors view communication for development, therefore ICT4D, not predominantly as a process of marketing and networking in the global economy, but ideally as a complex process that leads to a better, more



socially just world via the engendering of citizen participation and empowerment. Their stance recognizes the importance of considering multiple factors that may affect outcomes, including the ownership and control of the means of communication and networking; the narratives that dominate media and ICT discourse; social movements and local knowledge production; spirituality and religion as communication; and the embodied experience of communication, requiring attention and physical engagement (Steeves, Kwami, 2019).

Mobile groups are present all over the world, in both developed and emerging countries. The European Union (EU) countries are examples of countries with strong institutions that support economic exchanges under a common industry regulation. Under the legal directives of the EU institutions, the mobile telecommunications industry has achieved a high penetration rate in these countries because of a common technological standard, GSM, in the first stages of mobile communications. This favoured the creation of strong European mobile multinationals, such as Telefonica and Vodafone, that started operating in the EU markets and that are present in emerging countries as well (Domínguez, Garrido, Orco, 2016).

Since computing and communication technologies converged, the potential in both business and social networking applications has increased at an exponential rate, the social applications increasing at a rate unimagined in the early days of networking. The development of social computer networks now affects whole communities, the practice outpacing the development of the theoretical concepts on which they may be based. The adoption of electronic networking by whole communities is often a survival strategy in an environment of economic rationalism and declining population. The form of these networks varies from computer networks or virtual communities in that a network of electronic services is superimposed upon an existing geographic community. The intention is not only to survive but to actually strengthen the community. This is achieved by adopting electronic services and communication methods not only to retain the current population but to increase it by structuring an attractive lifestyle of integrated real and virtual services (Domínguez, Garrido, Orco, 2016).

Researchers have looked at success and failure factors of the regulation sector of electronic communications.

The electronic communications sector is atypical as it is subject to specific technological characteristics that pose recurring significant investment issues. The European Union's (EU) Telecoms Single Market (TSM) regulation is aimed at coordinating spectrum licensing and bringing seamless service provision to end-users, wherever they are and no matter what terminal equipment they use. At the same time, the on-going transition from traditional telecommunications systems to all-IP packet switched data

grids will challenge the electronic communications networks (ECNs) operators' business models further. The operators must upgrade or replace their existing networks to cater for the implementation of 5G frequencies (Gijrath, 2017).

Where the EU Commission expressed its keenness on steering towards more convergence between fixed and mobile infrastructure, it must be observed that impact of regulation on fixed ECN operators is rather different from the impact on mobile ECN operators. Fixed ECN operators continue to be subject to stronger regulatory scrutiny than mobile operators. Unlike the case for regulating fixed networks, *ex ante* market regulation of mobile ECN operators is less likely to occur. This is due to the circumstance that (most) mobile players are not considered to have significant market power (a past exception being the market for mobile terminating tariffs) (Gijrath, 2017).

With the growing ubiquity of mobile communications and rapid innovation in the mobile market, our media landscape is a highly volatile one where consumers have to constantly adapt to mutable platforms and ever-evolving affordances. At the same time, the increasingly widespread use of smartphones and other locative media is further enriching and complicating mobile media (Lim, 2013).

Next, the research described and examined the leading mobile communication service providers in Latvia, their services and tariff plans offered, and assessed their competitiveness. The leading mobile communication service providers were identified based on the data provided by the Annual Report on Business in Latvia that has ranked the leading companies in the industry (Annual Report on Business in Latvia, 2019)

## **2. Leading mobile communication service providers in Latvia: the services, tariff plans and competitiveness**

Latvijas Mobilais Telefons (LMT) is the largest mobile operator in Latvia in terms of number of clients, turnover and network coverage that also has the widest customer service network. As a market leader in innovation, LMT offers its clients a full range of high-quality telecommunication services: voice communication, an unlimited high-speed mobile Internet, as well as mobile television, smart television and other services. LMT is the leading provider of mobile communications services in Latvia and an essential component of the social and economic infrastructures of Latvia. At the same time, LMT is a direct competitor for Bite Latvija and Tele 2 that significantly affect the company's operations and goals and make it communicate more actively with clients and create innovative ideas for enhancing its competitiveness. The turnovers of the largest mobile communications companies LMT, Tele 2 and Bite Latvija are shown in Table 1.

**Table 1. Turnovers of the leading mobile communication service providers in 2018 and 2019 (mln. EUR)** (authors' compilation based on Crediweb financial reports (LMT, Tele 2, Bite Latvija)

Company	Turnover in 2018 (mln. EUR)	Turnover in 2019 (mln. EUR)	Change in turnover from previous year (mln. EUR)
Latvija Mobilais Telefons	216	230	+14
Tele 2	125.8	130.5	+4.7
Bite Latvija	92.9	106.3	+13.4

As shown in Table 1, the leader in the mobile communications market in terms of turnover and profit was LMT, yet in the period 2018-2019, Bite Latvija made a significant profit of EUR 13 mln. (Crediweb annual report, 2019). This indicator allows us to conclude that Bite Latvija increasingly invested in its network and development, which contributed to the client choice and growth of the company.

The mobile communication service providers provide a variety of services, starting with the purchase of smartphones, computers, smart assistants and small household appliances through to voice communication and Internet connection. Table 2 summarizes the tariff plans of the providers for voice communication.

**Table 2. Comparison of the tariff plans of the leading mobile communication service providers** (authors' compilation based on publicly available data from the websites of Bite Latvija, Tele 2 and LMT)

Tariff plan	Price (EUR/month)	Min/SMS included	MB included	Calls to Europe	Internet in Europe
<b>Bite LATVIJA</b>					
Bite Starts	<b>2.00</b>	30 min 30 SMS	-	30 min	0.10 EUR/MB
Bite 500Mb	<b>8.50</b>	∞ calls ∞ SMS	500	50 min	500 MB
Bite 2GB	<b>11.50</b>	∞ calls ∞ SMS	2 GB	100 min	2 GB
Bite 5GB	<b>14.50</b>	∞ calls ∞ SMS	5 GB	100 min	5 GB
Bite 10GB	<b>18.50</b>	∞ calls ∞ SMS	10 GB	200 min	9 GB
Bite <b>Unlimited</b>	<b>22.50</b>	∞ calls ∞ SMS	∞	500 min	11 GB
Bite <b>Youth</b> (aged 6-20 years)	<b>9.90</b>	∞ calls ∞ SMS	∞	∞	5GB
Bite <b>Schoolchildren</b> (aged 6-17 years)	<b>5.50</b>	120 min 120 SMS	1 GB	120 min	1 GB
<b>Tele 2</b>					
1.5 GB	<b>10.99</b>		1.5 GB	∞	1.5 GB

Tariff plan	Price (EUR/month)	Min/SMS included	MB included	Calls to Europe	Internet in Europe
5 GB	14.99	∞ calls ∞ SMS	5 GB	∞	5 GB
15 GB	19.99		15 GB		8 GB
Unlimited	22.99		∞		9 GB
Unlimited for Youth	15.90		∞		6 GB
10 GB for Family	14.99		10 GB		5 GB
Unlimited for Schoolchildren (aged 6-17 years)	9.90		∞		4 GB
2 GB for Seniors	8.90		2 GB		2 GB
Charge per unit	9.49	0.11 EUR/min 0.06 EUR/SMS	0.41 EUR/Mb	0.11 EUR/min	0.41 EUR/MB
<b>Latvijas Mobilais Telefons</b>					
Freedom	12.90	∞ calls ∞ SMS	-	∞	-
Schoolchildren (aged 6-17 years)	9.96		∞		5.5 GB
Youth	15.97		∞		5.5 GB
Seniors +	9.50		2 GB		2 GB
Freedom in Europe VIP	60.00		∞		27.67 GB
MINI	2.00	0.12 EUR/min 0.07 EUR/SMS	-	0.12 EUR/min (EEZ)	-
<b>Internet on the phone</b>					
Independence	11.99	-	∞	-	5.5 GB
1 GB	3.99	-	1 GB	-	1 GB
3 GB	7.99	-	3GB	-	3GB

Examining the mobile tariff plans and the services included therein, it was found that they were quite similar. However, an examination of each offer in more detail revealed that there were many nuances that were important to the client and that should be paid attention to when making a choice of an operator.

Summarising the tariff plans of the operator Bite Latvija and analysing the available information, the following service nuances were identified (BITE Latvija website, 2020):

- unlimited communication only to four networks in Latvia: Bite Latvija, LMT, Tele 2 and TET;
- the tariff plan Bite Starts, after 30 min being used up and 30 SMS sent (both in Latvia and 30 European countries), applies a fee of 0.10 EUR/min for calls within Latvia and to the European Economic Area (EEA) and a fee of EUR 0.07 for SMS;
- all the tariff plans apply a fee of EUR 0.07 on SMS sent to the EEA;

- the client receives information about paid calls to other operators' numbers in the form of a text message during the call;
- there is a limited number of free minutes for international calls from Latvia to EEA countries; beyond the free minutes, the fee is 0.23 EUR/min (e.g. 10 minutes cost EUR 2.30);
- under the tariff plan Bite Starts, Internet usage costs 0.10 EUR/MB both in Latvia and the EEA;
- in Latvia and the EEA, the tariff plans apply certain surcharges on data usage beyond the free limit (with an increment of 1 Kb):
  - Bite 500 Mb – 200 MB/2.50 EUR;
  - Bite 2 GB – 500 MB/2.50 EUR;
  - Bite 5 GB – 1 GB/2.50 EUR;
  - Bite 10 GB – each next GB in Latvia – EUR 2.50, each next MB in Europe – 0.0052 EUR;
  - Bite Unlimited – each next MB in Europe – 0.0052 EUR (Bite Latvija website, 2020)
- For new clients, the fees and data are calculated as a proportion of the number of days;
- TOP applications (Facebook, Twitter, Waze, WhatsApp, draugiem.lv, Delfi) are available for free only for three months or unlimitedly (Bite Unlimited and Bite Schoolchildren);
- unlimited use of the TOP applications beyond three months is charged at 2 EUR/month.
- free data are available only in Latvia; free use of the TOP applications abroad is limited to the amount of data included in the tariff plans.
- For Tele 2, the following service nuances were identified:
- unlimited free communication within Latvia is not available to all phone numbers, for example, a call to Alviksa Taxi costs 0.25 EUR/min, while a call to the Family Doctor Advice Phone is charged 0.14 EUR/min;
- the tariff plans 1.5 GB and 5 GB provide paid international calls, including those to EEA countries;
- the tariff plans 1.5 GB and 5 GB provide SMS messaging from Latvia to the EEA at a fee of 0.07 EUR/SMS.
- beyond the limits set by the tariff plans for Latvia and the EEA, the following surcharges apply (Bite Latvija website, 2020).
  - 1.5 GB – 500 MB/2.99 EUR;
  - 5 GB – 500 MB/2.99 EUR;
  - 15 GB – 1 GB/3.99 EUR;
  - Unlimited – 0.0053 EUR/Mb (EEA).

After summarizing the information obtained, it could be concluded that in relation to the tariff plans offered by BITE Latvija and TELE 2, the client

must pay more attention to and obtain as much information as possible about what really is included in the service provided in order not to receive bills with an unexpected expense. In addition to their tariff plans, the companies Bite Latvija and Tele 2 provide various bonuses. For example, Bite Latvija provides phone screen insurance for one month, a free antivirus application for three months and unlimited Internet usage for applications for three months. For its clients, Tele 2, however, additionally offers 30 day-free TV and tablet SIM cards with free 1-4 GB data, depending on the tariff plan. On the one hand, the bonuses offered by BITE Latvija and Tele 2 are a good way to attract new clients because any client is given an impression that s/he, using the same services, receives much more from the mentioned operators than from another mobile operator. However, on the other hand, it is rarely explained to the customer that the bonuses to be provided are for a limited period and must later be switched off permanently if they do not wish to use them in order not to pay an additional subscription fee. This small service nuance could also lead to conflict with the customer and a loss of his/her trust.

After summarizing the tariff plans offered, it could also be concluded that the range of services is broad, and each client is able to find the most suitable option. Clients often choose a service provider according to their needs - the environment, coverage and price. At the same time, client choices are affected by many other factors such as advertising campaigns, discounts, friend/acquaintance recommendations or company prestige, which encourage the customer to make an emotional choice in favour of a service provider without fully considering all the advantages and disadvantages. The research performed an assessment of the companies LMT, Bite Latvija and Tele 2, calculating a competitiveness index for the companies, and the results are presented in Table 3.

**Table 3. Ratings of the performance of mobile communication service providers and the competitiveness index for the providers**  
(authors' calculations)

Key factors of competitiveness	Weight	Latvijas Mobilais Telefons		Bite Latvija		Tele 2	
		Rating	4=2*3	Rating	6=2*5	Rating	8=2*7
Quality	0.1	8	0.8	6	0.6	6	0.6
Price	0.1	6	0.6	7	0.7	6	0.6
Supply of products/assortment	0.05	7	0.35	7	0.35	7	0.35
Working hours	0.1	8	0.8	8	0.8	8	0.8
Service	0.1	9	0.9	7	0.7	6	0.6
Company image	0.1	9	0.9	7	0.7	6	0.6
Discount system	0.05	6	0.3	7	0.35	7	0.35

Advertisement campaign	0.07	7	0.49	7	0.49	7	0.49
Company development	0.03	9	0.27	8	0.24	8	0.24
Professional personnel	0.1	8	0.8	8	0.8	7	0.7
Experience	0.03	8	0.24	6	0.18	7	0.21
Application of modern technologies	0.07	8	0.56	8	0.56	8	0.56
Wide range of services	0.04	7	0.28	8	0.32	8	0.32
Financial stability	0.06	8	0.48	7	0.42	7	0.24
<b>Total:</b>	<b>1.0</b>	<b>108</b>	<b>7.77</b>	<b>101</b>	<b>7.21</b>	<b>98</b>	<b>6.66</b>

As shown in Table 3, LMT scored the highest number of points (7.7), Bite Latvija was in second place (7.21) and Tele 2 took third place (6.66). An assessment of the key factors of competitiveness for the providers revealed that LMT needed to improve the positions where its competitors had higher ratings: its discount system, the prices of services and the supply of services. In addition, as shown in Table 3, a comparison of the tariff plans revealed that LMT offered relatively fewer options than Tele 2 and Bite Latvija did, as well as LMT's offers (tariff plans) were inflexible, which might make it difficult for the customer to make a choice. At the same time, high and inflexible service prices were an opportunity for the competitors to offer lower service costs and attract new clients.

Additional factors affecting competition are as follows:

1. progress in broadband wireless technology (higher-speed and quality data transmission services);
2. development of communication devices (new higher value-added services are supplied);
3. users tend to use multiple devices having a mobile connection.

The content of information available on the Internet has changed significantly in recent years owing to technological progress. In case the user needs some information, the fastest, cheapest and most convenient way to search for information is the Internet; it is available both on a computer and a smartphone, where it could be conveniently surfed at no extra fee and, if necessary, repeatedly. The Internet is also used to receive TV services.

Broadband wireless technology has developed rapidly. Mobile broadband technology, also called wireless wide area network (WWAN) technology, provides high-speed wireless Internet access via portable devices. This type of Internet provides higher data transfer speeds than a normal Internet connection does and allows combining the transmission of different data simultaneously (Competition Council, 2015).

According to the data from the Public Utilities Commission (Public Utilities Commission, 2019), it could be concluded that all the national mobile operators provide high-quality and stable Internet coverage to their clients, and their performance tend to increase. In terms of average download data, the best Internet was provided by Tele 2, LMT was in second place and Bite Latvia was in third place.

The assessment of the companies allows us to conclude that LMT was the leader in the mobile communications market of Latvia, while Bite Latvija and Tele 2 strongly competed for new clients and the position of the leading mobile operator. This means that LMT should constantly make new offers to clients, which provide added value to the company and its clients as well as contribute to their client loyalty.

The supply of services and reliable technological solutions are the basis for the stability and growth of LMT's client base; in 2017 compared with 2016, the number of connections increased by 3 %. The number of connections used to provide various smart solutions grew particularly fast, at a rate of 18 % a year. New opportunities to use unlimited Internet were created for the users of prepaid services; this kind of progress facilitated the availability of the Internet also to prepaid users (Sustainability Report, 2017).

LMT has developed the household segment by offering innovative solutions to the households. For example, since 2017, the Internet service for home has been offered with no speed limits. For several years, LMT has developed the category of smart assistants to make everyday life easier, and since 2017 LMT also offers smart television for home, which is a conceptually new service – the television becomes a leisure centre where the clients can not only watch the usual TV channels but also use the content library, download applications etc. By providing smart television for home on the mobile network, LMT makes the television available in less accessible regions.

LMT has established an e-shop, which is easily accessible and browsable from mobile devices. Since 2017, LMT e-shop offers little-used equipment, which facilitates the integration of used equipment into the market. In 2017 too, the demand for data services on the LMT network continued increasing, and the number of users of the service "Internet on the phone" increased by 19 % during the year. This result was achieved by providing the most suitable solution for clients. This allows various groups of the population to take advantage of the digital ecosystem more effectively and ensures their involvement in social processes as well as reduces social exclusion. According to research studies, LMT was the second largest Internet provider in Latvia. LMT offers its clients not only the Internet on the phone but also a high-quality Internet service for home/office. Both unlimited calls and



Internet access in Europe increased the mobility of citizens in Europe in 2017 – no more worrying about communication during business or leisure trips. The technological capabilities of LMT are not limited to a successful voice connection or a high Internet speed – LMT has successfully developed to provide new services to business clients (Sustainability Report, 2016).

### **Conclusions and suggestions**

1. Today mobile communication companies, which provide quality communication and information retrieval opportunities through the variety of their services, technological features and tariff plans, are important telecommunication providers.
2. LMT was the leader in the mobile communications market of Latvia, while Bite Latvija and Tele 2 strongly competed for new clients and the position of the leading mobile operator. LMT should constantly make new offers to clients, which provide added value to the company and its clients as well as contribute to their client loyalty.
3. Examining the mobile tariff plans and the services included therein, it was found that they were quite similar. Accordingly, the hypothesis proved to be true. However, an examination of each offer in more detail revealed that there were many nuances that were important to the client and that should be paid attention to when making a choice of an operator.
4. LMT, Bite Latvija and TELE 2 should continue developing and introducing innovations and modernizing their infrastructures by enhancing the IT solutions implemented, such as 5 G technologies, and modernizing their current technologies.
5. The Marketing Department of Latvijas Mobilais Telefons is recommended to consider a possibility of introducing flexible discount systems for its tariff plans, facilitate the creation of new services that are attractive to clients and promote communication through advertising campaigns.
6. LMT, Bite Latvija and Tele 2 should envisage adequate investments in the enhancement of their network infrastructures and the quality of services in the event of a considerable increase in the number of clients or network congestion in order to ensure their stable operation.

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# FACTORS AFFECTING THE PERFORMANCE OF GRAIN COOPERATIVE SOCIETIES IN LATVIA

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**Abstract.** *The present research continues and complements previous research by the authors on the performance of grain cooperative societies in Latvia.*

*The research aim is to identify and assess the factors affecting the performance of grain cooperative societies in Latvia.*

*The research results revealed that the main endogenous factor hindering the performance of grain cooperatives was technological – underdeveloped grain processing –, as the cooperatives did not own processing enterprises, which was mainly due to an unclear situation in the sales market. The industry experts referred to the socio-economic factor as the key opportunity for improving the performance of cooperative societies – cooperation between small cooperative societies and large ones within the industry –, as well as the promotion of cooperation with scientists, technological progress and the positive effects on industry development in the country and the region. The research results revealed that the main threat to the development of cooperative societies was the political factor – possible sudden and significant changes in the national agricultural policy, which might be affected by the turnover of policy makers and the priorities set for the industry, as well as the economic situation in the country.*

*The research employed the following methods: monographic, induction and deduction, graphical, comparison, a sociological research method – structured expert surveying –, SWOT analysis, pairwise analysis and statistical analysis.*

**Keywords:** *cooperative societies, expert rating, factors.*

**JEL code:** *O1, R0.*

## Introduction

The research topic is relevant and important, as cooperation promotes the development of agriculture in the country. The National Development Plan of Latvia 2014-2020 states that the promotion of cooperation in agriculture is one of the national priorities, which means that agricultural policies in Latvia focus on the development of cooperation (Latvijas Republikas Saeima, 2012).

In the world, the turnover of agricultural and food cooperatives accounted for 33 % of the total turnover of cooperatives. There were 3 million cooperatives, which employed 280 million individuals, making up

10 % of the total workforce (ICA & EURICSE, 2018). In terms of turnover, agricultural cooperatives ranked first in the European Union and accounted for 39 % of the total turnover of cooperatives (Cooperatives: Characteristics, activities..., 2019)

Grain cooperative societies are affected by various factors that need to be identified and assessed in order for the cooperative societies to be able to draw up action plans in future and reduce the impacts of the factors or adapt their activities.

**The research aim** is to identify and assess the factors affecting the performance of grain cooperative societies in Latvia.

Specific research tasks:

1. To examine the theoretical aspects of cooperative performance;
2. To identify the most important factors affecting the performance of cooperative societies.

The research put forward the following hypothesis: the performance of grain cooperative societies is affected by various social, economic, technological and political factors.

The research employed the following methods: monographic, induction and deduction, graphical, comparison, a sociological research method – structured expert surveying –, SWOT analysis, pairwise analysis and statistical analysis (averages, coefficients of variation).

The research employed scientific research papers from various databases, reports on agriculture, as well as the results obtained from expert questionnaires, other publicly available information in the library and Internet resources.

## **Literature review**

Theoretical research shows that the origins of cooperation relate to improving the financial situation of the poorest people. In a situation where a very large part of the society was at risk of poverty, mutual cooperation provided an opportunity to save financial resources as well as united the society.

The term cooperation comes from the Latin word cooperation meaning working together, participation, collaboration (Vedļa, 2000). The concept of cooperation has been widely researched, and various explanations for it could be found. J. Kučinskis (2004) has compiled definitions of the concept of cooperation given by authors (E. Balodis, R. Oven, Š. Žida, P. Kaufman, C. Fux, D. Bansel, V. Pekarsky, M. Tuhan-Baranovskyi, V. Pose, V. Totomianc) from various European countries (Kučinskis, 2004). All the definitions emphasize the idea of mutual benefit for the members and adherence to the principles of volunteering and increasing the level of material wellbeing (Kučinskis,

2004).

In their research paper *Development of Agricultural Cooperation in Zemgale Region*, V. Buģina and K. Pabērza (2007) pointed out that A. Miglavs has given a comprehensive and complete explanation of the term cooperation. A. Miglavs stressed that cooperation is an activity where several persons with common interests come together to achieve a common goal (Buģina, Pabērza, 2007).

L. Gyulgyulyan and I. Bobojonov (2019) have examined the explanations of the concept of cooperation given by a number of international organizations. According to a definition by the International Cooperative Alliance, an agricultural cooperative is an autonomous association of persons who voluntarily unite to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. The authors emphasize that any international organization have similar basic principles of cooperation (Gyulgyulyan, Bobojonov, 2019).

According to the Cooperative Societies Law, a cooperative society a voluntary association of persons aiming to contribute to the effective implementation of the common economic interests of the members (Cooperatives: Characteristics, activities..., 2019). The term cooperative is widespread in daily use. In accordance with the national regulatory framework, agricultural cooperatives could be classified by agricultural industry, for example, grain, dairy, vegetable etc. (Latvijas Republikas Saeima, 2019).

The historical evolution of national cooperation has been affected by the development of cooperation in other European countries. Cooperatives were strongly developed in the pre-war Latvia, which was later devastated by the Soviet occupation (Buģina, Pabērza, 2007). Pre-war national cooperation was strongly influenced by the strong Danish cooperative movement in the pig and dairy industries (Balodis, 1934).

The very first agricultural cooperatives or associations established in Latvia carried out an educational mission, disseminating knowledge and delivering various courses and lectures, organizing agricultural schools, specialized libraries, selection and testing fields, the exchange of best practices, exhibitions and various competitions – the winners were rewarded, and leisure and entertainment activities that fostered a spirit of togetherness and community facilitated the establishment of valuable contacts in informal settings. Historically, the main goal of agricultural cooperatives was to provide their members with all the means of production necessary for the successful operation of the cooperatives. Central to the supply chain was the ability to supply machinery, fertilizers, seeds, feed for livestock and other commodities needed for basic production at reasonable

market prices. Initially, this function was performed by consumer associations, which emerged earlier than agricultural cooperatives did, and their basic principle was very simple: by uniting a certain number of farmers, it is possible to purchase a large quantity of goods, thereby setting the price (Kučinskis, 2004; Balodis, 1934).

### **Methodology**

The research employed the monographic and descriptive methods that allowed the authors to get a detailed notion of the problem researched from a theoretical perspective based on an extensive review of the relevant scientific literature. The research also employed the following other methods: induction and deduction, the graphical method, comparison, statistical analysis and a sociological research method – structured expert surveying and interviewing.

The structured expert survey was conducted to identify the most significant factors affecting the performance of grain cooperatives. The survey involved seven experts who were competent in the grain production industry and were engaged in operating cooperatives. The experts represented the Latvian Agricultural Cooperatives Association, the Agricultural Services Cooperative Society (ASCS) Latraps and the ASCS VAKS. For confidentiality purposes and at the request of the experts, the identities of the experts are not disclosed in the research.

### **Research results**

The research performed an analysis of strengths, weaknesses, opportunities and threats, in which the strengths and weaknesses of as well as opportunities and threats for grain cooperatives were summarized (see Table 1).

The SWOT analysis revealed the impacts of various endogenous and exogenous, social, economic, technological and political factors on the performance of grain cooperatives, which interacted and were strongly related to each other.

To identify the most important social, economic, political and technological factors affecting the performance of grain cooperatives, seven experts who were competent in the grain production industry and were engaged in operating cooperatives were involved in the survey. The experts represented the Latvian Agricultural Cooperatives Association, the Agricultural Services Cooperative Society (ASCS) Latraps and the ASCS VAKS. For confidentiality purposes and at the request of the experts, the identities of the experts are not disclosed in the research.

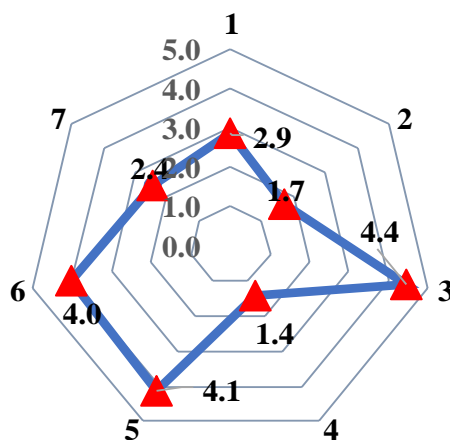
**Table 1. Analysis of the endogenous and exogenous factors affecting the performance of grain cooperatives in Latvia (authors' construction based on the structured expert survey (n=7) and a pairwise analysis)**

<b>Endogenous factors</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Cooperative members get a higher price on their products produced.</li> <li>• Cooperative provides protection of the members from large companies, monopolies, ensuring social support and assistance.</li> <li>• Cooperation provides support related to production, supply, transport and storage, processing and marketing of products.</li> <li>• Cooperative promotes farm modernization.</li> <li>• Cooperative provides the members with educational seminars and other training or experience exchange.</li> <li>• Cooperative provides support to the members by means of competent specialists (agronomists, accountants etc.).</li> <li>• Cooperative unites the farmers who are members of one cooperative, thereby promoting mutual cooperation among the members.</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural processing by cooperatives is underdeveloped.</li> <li>• Low involvement of large farmers in cooperatives.</li> <li>• Weak cooperative member loyalty.</li> <li>• Lack of qualified managers.</li> <li>• Poor fulfilment of the member's obligations towards the cooperative.</li> <li>• Uneven availability of cooperative services in the country.</li> <li>• Low involvement of small and medium farmers in the cooperative.</li> <li>• Insufficient range of cooperative services (equipment rental).</li> <li>• Choice of a sales strategy for grain trading on stock exchanges.</li> <li>• Membership of a cooperative does not guarantee the availability of all cooperative services, e.g. purchase of grain supply quotas.</li> <li>• Members' lack of understanding of the need for a highly qualified cooperative management.</li> </ul>
<b>Exogenous factors</b>	
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Merger of small cooperatives or cooperation with large cooperatives within the industry.</li> <li>• Promotion of the cooperative name.</li> <li>• Promotion of the idea of cooperation.</li> <li>• Promotion of second level cooperation.</li> <li>• Promotion of cooperatives at the level of the Baltic States.</li> <li>• Cooperatives promote cooperation with scientists, technological progress and the positive effects on industry development in the country/region.</li> <li>• Cooperatives contribute to making the regulatory framework of the industry more complete in the country.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax policy.</li> <li>• Sudden and significant changes in the national agricultural policy.</li> <li>• Insufficient national support to protect the internal market from foreign competitors.</li> <li>• Policy implemented by financial development institutions.</li> <li>• Common EU policy on GHG emissions.</li> <li>• Bank support policies.</li> <li>• Global crises (financial crises, pandemics, military conflicts etc.).</li> <li>• Well-developed large grain processing companies.</li> <li>• Farmers' rejection of cooperation.</li> </ul>

A questionnaire, in which the questions were arranged using the pairwise analysis method, was developed based on the SWOT analysis. A structured survey of the experts was then conducted. In each pair of questions, each expert selected and ticked the factor that was more important than the other.

Summarizing the answers provided by the experts, an average value was calculated for each factor, which showed the importance of the factor, as well as the coefficient of variation, which was one of the indicators of variance. The lower the coefficient of variation was, the lower the dispersion of the variable around the arithmetic mean was observed (Arhipova, Bălița, 2006).

The results of the expert survey showed that the main strength of cooperatives was the economic and technological support provided by the cooperatives related to production, supply, transport and storage, processing and marketing of products (see Figure 1). The coefficient of variation calculated for this factor was 16 %, which showed that the opinions of the experts on this group of criteria were unanimous, and it was the second-lowest value of the coefficient of variation for the strengths.



1. Cooperative members get a higher price on their products produced.
2. Cooperative provides protection of the members from large companies, monopolies, ensuring social support and assistance.
3. Cooperation provides support related to production, supply, transport and storage, processing and marketing of products.
4. Cooperative promotes farm modernization.
5. Cooperative provides the members with educational seminars and other training or experience exchange.
6. Cooperative provides support to the members by means of competent specialists (agronomists, accountants etc.).
7. Cooperative unites the farmers who are members of one cooperative, thereby promoting mutual cooperation among the members.

**Fig. 1. Average numerical values for the strengths of endogenous factors affecting the performance of grain cooperatives calculated by the pairwise analysis method (authors' construction based on the structured expert survey (n=7) and a pairwise analysis)**



Ten farmers engaged in grain production were surveyed within the thematic assessment *Development of Cooperation in Agriculture*; the farmers emphasised the opportunity to market their products as the main reason for becoming a member of the cooperative (*Kooperācijas attīstība .....*, 2012). The research results showed that farmers' views on the benefits of being a member of a cooperative have not changed.

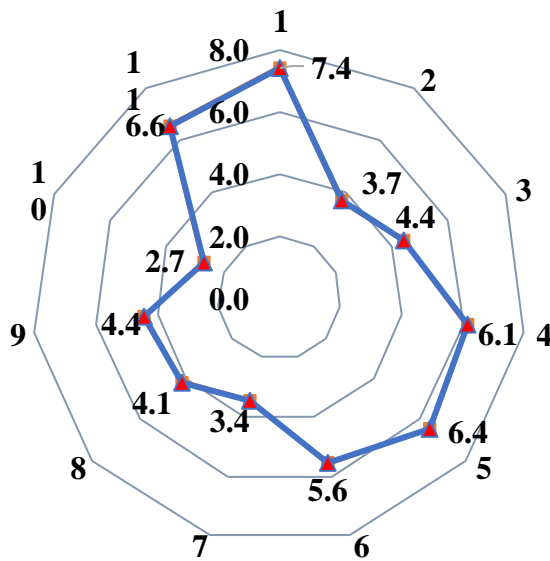
The experts gave high ratings to the opportunity to use seminars and other kinds of training held by a cooperative. The coefficient of variation for this factor was 35 %, which showed that the opinions of the experts differed. More of these factors, compared with the other factors, were chosen by the experts engaged in the management of a cooperative and representing the Latvian Agricultural Cooperatives Association. The experts representing farmers chose this factor less often. The opportunity to use the services of highly qualified specialists was also highly rated, and the ratings of this factor had the highest coefficient of variation of 13 %.

The opinions of the experts in the rating of individual factors were very different, which was revealed by the coefficients of variation. The choices of the experts varied for the following factors: cooperative members get a higher price on their products produced and a cooperative provides protection of the members from large companies, monopolies, ensuring social support and assistance. The coefficients of variation for the mentioned factors were 85 % and 87 %, respectively. The experts who represented cooperative managements did not consider that membership of a cooperative ensured a higher price on the products produced.

The experts emphasized the endogenous technological factor of the specific field – underdeveloped grain processing – as the main negative factor (see Figure 2). Some experts had different opinions concerning this factor. The coefficient of variation for this factor was the lowest – 29 % – in the rating of weaknesses. The development strategy for agricultural and forestry service cooperative societies for 2021-2027 designed by the Latvian Agricultural Cooperatives Association states that one of the priorities is the promotion of agricultural processing by cooperatives (LLKA, 2019).

In relation to the weaknesses of cooperatives, the experts also indicated the following socio-economic factors: a lack of qualified managers, cooperative members' lack of understanding of the need for a highly qualified cooperative management and poor fulfilment of the member's obligations towards the cooperative. The coefficient of variation for the factor concerning member loyalty was 73 %, indicating the different opinions of the experts on this matter. The cooperative managers stressed that the cooperative member loyalty was weak; for this reason, the authors of the present research recommend cooperatives to design and introduce

educational measures for increasing the loyalty of their members in the future.



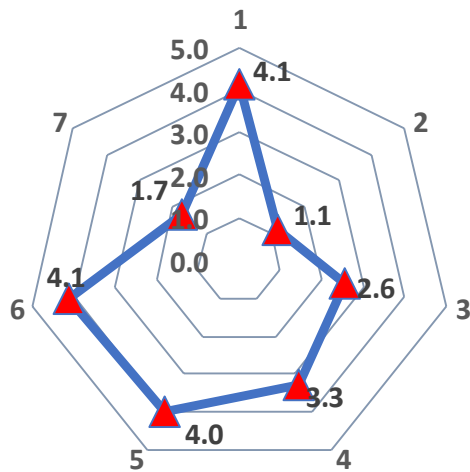
1. Agricultural processing by cooperatives is underdeveloped.
2. Low involvement of large farmers in cooperatives.
3. Weak cooperative member loyalty.
4. Lack of qualified managers.
5. Poor fulfilment of the member's obligations towards the cooperative.
6. Uneven availability of cooperative services in the country.
7. Low involvement of small and medium farmers in the cooperative.
8. Insufficient range of cooperative services (equipment rental).
9. Choice of a sales strategy for grain trading on stock exchanges.

10. Membership of a cooperative does not guarantee the availability of all cooperative services, e.g. purchase of grain supply quotas.

11. Members' lack of understanding of the need for a highly qualified cooperative management.

**Fig. 2. Average numerical values for the weaknesses of endogenous factors affecting the performance of grain cooperatives calculated by the pairwise analysis method** (authors' construction based on the structured expert survey (n=7) and a pairwise analysis)

The most important opportunities, in the experts' opinion, were cooperation between small and large cooperatives, cooperation with scientists, technological progress and the positive effects on industry development, as well as the opportunity to promote cooperation at the level of the Baltic States (see Figure 3).

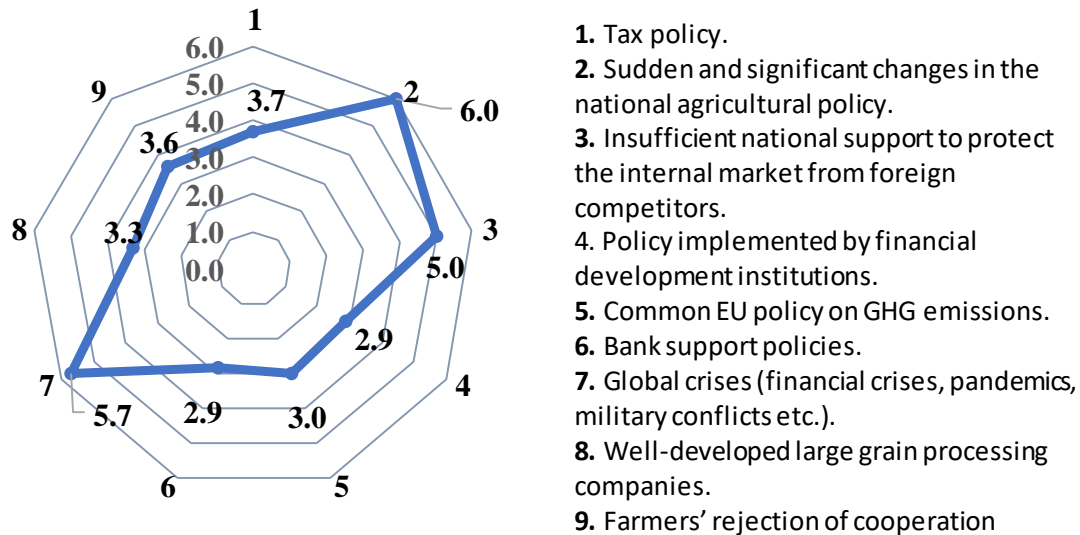


1. Merger of small cooperatives or cooperation with large cooperatives within the industry.
2. Promotion of the cooperative name.
3. Promotion of the idea of cooperation.
4. Promotion of second level cooperation.
5. Promotion of cooperatives at the level of the Baltic States.
6. Cooperatives promote cooperation with scientists, technological progress and the positive effects on industry development in the country/region.
7. Cooperatives contribute to making the regulatory framework of the industry more complete in the country

**Fig. 3. Average numerical values for the opportunities of exogenous factors affecting the performance of grain cooperatives calculated by the pairwise analysis method (authors' construction based on the structured expert survey (n=7) and a pairwise analysis)**

The coefficients of variation ranged from 23 % to 30 % for all the three factors, which were the highest values. The experts' opinions on all the remaining factors differed. Average ratings were given to the social factor related to the promotion of the idea of cooperation. The authors believe that the ratings should be higher because more attention should be paid to the promotion of the idea of cooperation.

In the rating of external treats, the experts considered the political factor to be the most important one, i.e. sudden and significant changes in the national agricultural policy (see Figure 4). In the rating of this factor, the experts had very similar opinions, as evidenced by the coefficient of variation of 13 %.



**Fig. 4. Average numerical values for the threats of exogenous factors affecting the performance of grain cooperatives calculated by the pairwise analysis method (authors' construction based on the structured expert survey (n=7) and a pairwise analysis)**

High ratings were given to the following socio-economic factors: global crises and insufficient national support to protect the internal market from foreign competitors, with the coefficients of variation being 38 % and 24 %, respectively. It indicates that the experts were more divided on the issue of global crises. The authors believe that this is due to the current global situation with the Covid-19 pandemic. The experts differed in their ratings of all the remaining threats.

### Conclusions

1. Theoretical research shows that the origins of cooperation relate to improving the financial situation of the poorest people. The nature, development and significance of cooperation have been extensively studied in the scientific literature.
2. The SWOT analysis done in the research revealed that the dominant strengths in the performance of cooperatives were the facts that a cooperative provides support related to production, supply, transport and storage, processing and marketing of products as well as competent specialists could be hired and the availability of educational seminars.
3. According to the industry experts, the main endogenous factor hindering the performance of grain cooperatives was technological – underdeveloped grain processing –, as the cooperatives did not own processing enterprises, which was mainly due to an unclear situation in the sales market.

4. The industry experts referred to the socio-economic factor as the key opportunity for improving the performance of cooperative societies – cooperation between small cooperative societies and large ones within the industry –, as well as the promotion of cooperation with scientists, technological progress and the positive effects on industry development in the country and the region.
5. The industry experts believed the political factor was the main threat to the development of cooperative societies – possible sudden and significant changes in the national agricultural policy, which might be affected by the turnover of policy makers and the priorities set for the industry, as well as the economic situation in the country.
6. The hypothesis put forward proved to be true, as the analysis revealed that the performance of grain cooperatives was affected by various social, economic, technological and political factors.
7. The managements of grain cooperatives need to increase the loyalty of their cooperative members by holding various educational activities, thereby contributing to cooperative development in the grain industry.

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# EFFECTS OF AUTHORITARIAN AND ETHICAL LEADERSHIP ON EMPLOYEE PERFORMANCE: THE MEDIATING ROLE OF EMPLOYEE COMPETENCIES AND PERFORMANCE MANAGEMENT PRACTICES IN ZIMBABWEAN BANKS

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**Abstract.** *The purpose and objective of this paper is to identify the effects from key selected independent variables namely Authoritarian Leadership (AL), Ethical Leadership (EL), towards a chosen dependent variable Employee Performance (EP). It also studies the mediating roles of two independents that are Employee Competencies (EC), and Performance Management Practices (PMP) when introduced into the model. A survey questionnaire for data gathering was used and issued to respondents that were bank employees on selected commercial banks located in Harare, the capital City of Zimbabwe, and a total of 390 valid responses were gathered. SPSS version 24 was used to analyse the collected data on each variable through demographic, reliability tests, regression analysis, correlation and factor analysis during the validation process of the gathered data. The data analysis outcome showed that all the identified variables were predictors and influential to employee performance, when analysed as individual variables. The management of companies are required to focus on mixing both the leadership element and the competency as a prerequisite for practices and action towards achieving higher performance.*

**Keywords:** *authoritarian leadership, ethical leadership, employee competencies, performance management practices, employee performance.*

**JEL code:** M10, M54.

## Introduction

Leadership styles in management are a backbone, which drives the organization to perform well. The Zimbabwean economy has been hard hit with recession for half a decade long, and this study will help in revamping the production side of the service industry specifically in the banking sector. The various leadership styles underpin an organization with direction, plans that need to be implemented and critical to mention is motivation to the employees (Alonso et al., 2018). For years in memorial leadership styles illustrated in many ways, however there is always an endless debate on democratic leadership versus autocratic leadership. The two mentioned styles have merits towards the organization's objectives unfortunately; they also have their fair share of demerits (Al Khajen, 2018).

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The study has an objective to identify the effects from key selected variables that is to ascertain if independent variables Authoritarian Leadership (AL), Ethical Leadership (EL) have an impact towards Employee Performance (EP). The research paper also studies the mediating roles of Employee Competencies (EC), and Performance Management Practices (PMP) when introduced into the model. Normally, mediating roles change the effect result of the independent variables, the outcome will be crucial in relation to the performance of employees in the banking sector in Zimbabwe (Al Khajen, 20018). The main aim of the study is also to explore the impact of each employee performance in the service industry of Zimbabwe, and the banking sector was chosen as the relevant service to undertake this study. The task of the research was carried out through a questionnaire survey to ascertain if the selected variables have an effect towards employee performance, with a big aim of implementing the research outcome. The study was aimed at augmenting performance of employees in the service industry.

There has been a notable research gap, as most researchers concentrated on more discoveries of the democratic leadership styles towards employee performance in the Zimbabwean service sector. This study has been an attribution of less concentration on what effect authoritarian and ethical leadership styles bring to the performance of the employees. This has been an answer and a rejuvenation to the scholarly field since most research work concentrates on variables of democratic styles of leadership (Al Khajen, 2018). Mediating roles of employee performance in the Zimbabwean banking sector were considered in this study, namely Employee Competencies and Performance Management Practices.

The study targeted the banking sector in Zimbabwe with the primary reason of them being the frontline points of link for economic development through linking the local citizenry, first internally and then externally on dealings with the world, for economic development. The "Zimbabwe is open for Business" mantra echoed by the government in the new dispensation from November 2017, places especially banks at the frontline for capital injection and trade in the economy. Ndlovu and Sigola (2013) highlighted that banks in Zimbabwe have headquarters in the capital city, Harare, a strategic positioning considering the high clientele levels as well as the location of the headquarters for most parastatals and government ministries. The increase in banks in Zimbabwe from nine at independence in 1980 increased competition, as customers have a vast range to choose from with the liberalization of the banking sector however being tainted by a high bank failure rate which leaves consumers stranded and unable to recover their savings and investments.



## **Literature Review and Conceptual Framework**

Employees are the human capital and most valued asset in almost all business organizations. They can uphold the organization's reputation, which in return boost the profitability of the firm and or break it in disrepute. Organizations have a huge avenue of tailor making the performance of the employees to a direction, which makes the goals and objectives of business to be achieved (Audenaert et al., 2019). The study has a theoretical framework basing on similar research articles by previous scholars and elaborations of every variable of the study towards the outcome of validity if the variables selected worth on positively affecting the banking sector employee performance of Zimbabwe (Ndlovu & Sigola, 2013). The demographic aspect contributed immensely to the findings of the study, as employees who have been at the same bank for some years proved to have higher performance and skills than newly promoted (Alsabbah, & Ibrahim, 2014).

### **Authoritarian Leadership**

Authoritarian leadership also referred to as autocratic leadership, is considered "a very directive leadership approach in which leaders strive to control subordinate behaviour". Though this approach is criticized by practitioners and academics, some cultures mainly used this leadership style especially in the Asian region by concentrating power and authority on just the leader who has a domineering character which has negative implications (Shena et al. ,2018).

As cited in Igbaekemen and Odivwi (2015), define an authoritative leader as "one who is very conscious of his position and has little trust or faith in the subordinates, feeling that pay is just a reward for work and that it's the only reward that can motivate and the leader gives orders and insists the followers follow". To clarify the scenario, Kiazed et al. (2010) alert that autocratic leadership does not imply the mistreatment of followers and is not necessarily synonymous with authoritarian personalities but people who just assume they have to assume dominating traits when they get into leadership positions. That being the case some may employ destructive leadership with negative outcomes associated with abuse and the negative leadership behaviour, thus making it disastrous (Harms et al., 2018).

The shortcomings cited by the same and others e.g. Ludeke and Kruger (2013), Jugert et al. (2009) also in the listing were: The followers fail to take pride in accomplishing goals, Deprivation of self-development and self-actualization among the followers, it annoys followers who then turn into not

being loyal and cooperative, there is lack of continuity management as no successors are nurtured, Lack of innovation results from the trait of rigidity.

### **Ethical Leadership**

Ethical leadership, considered more participative is defined as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and promotion of such conduct to followers through communication, reinforcement and decision making", according to Brown et al. (2005). Brown et al. (2005) suggest that normatively appropriate behaviour includes honesty, care, fairness, and trustworthiness which emphasize it is legit and credible, exposing any rot. Asika (2004), Brown et al. (2005) elaborate that reinforcement involves rewarding ethical behaviour and instilling discipline to discourage unethical behaviour.

Trevino and Harrison (2005) cited in Walumbwa et al. (2011) proposed the suggestion that ethical leadership results in positive behaviours/attitudes in employees and effective organizational functioning, while in dispute other researchers associate it to "pro-social" and "negatively deviant behaviours". This attractiveness of ethical leaders as credible role models is indicated to enhance effectiveness beyond their authority and status (Walumbwa et al. 2014; Brown & Trevino, 2006; Brown, 2005).

### **Employee Performance**

Otoo (2013) citing Mathias and Jackson's (2009) definition of employee performance "the performance associated with output quality, output timeliness, participation and attendance on the job, efficiency and effectiveness of completed work". Organizational performance hinges on individual employee performance on issues of work efficiency, efficient planning, creativity, innovation and commitment (Mastrangelo et al., 2014; Otoo, 2013; Harvey, 2008).

The first definition "the process of assessing the proficiency with which a reporting entity succeeds, by the economic acquisition of resources and their efficient and effective deployment, in achieving its objectives. Performance measures may be based on non-financial and financial information". From a second perspective, it is "the process of developing measurable indicators that can be systematically tracked to assess progress made in achieving predetermined goals and using such indicators to assess progress in achieving these goals." Kwaako et al. (2012) and Harvey (2008) also support that corporate goals can be achieved by management applying a proper performance management system to direct employee performance; financial and non-financial measures of service quality, resource utilization,

competitiveness, automation, customer satisfaction, and organizational agility.

### **Employee Competencies**

Diamantidis and Chatzoglou (2019) stress the value of employees with diverse skills as assets to organizations, as they can handle many current and future job requirements. Emmerling and Boyatzis (2012) define employee competence as the capability or ability that leads to effective performance. In the plural, competencies have to be developed in employees to enable them to meet their job demands, as the employees that have a variety of competencies meet their job demands with ease (Mukonoweshuro & Sanagura, 2016).

VanEsch et al. (2016) posit that in this light human capital is a critical resource for firm performance and is valuable for its unique, firm-specific, and unique expertise. They also encourage firms to take a big role in equipping employees with the requisite competencies over and above selective staffing which recruits and selects employees bearing the requisite skills and competencies in support of the firm strategy. The employee competence begins with the Human Resources section's competence in selecting, staffing and training, development, rewards, performance appraisal that helps an organization to maintain adequate competencies instrumental to the firm's strategy. The skill sets that can entail employee competence include technical, behavioural, business, and specialty trade knowledge. Yang and Lin (2009) state that extensive hiring competencies that involve thorough searching, careful screening, thorough interviews that aid the selection of the most competent employee should also be complemented by appropriate and extensive training and development to widen their knowledge and competencies and enhance the achievement of goals.

### **Performance Management Practices**

Performance management practices according to Van Esch et al. (2016) relate to the imparting and improvement of competencies: training and development, selective staffing, rewards, performance management, and self-managing teams. Internal development of knowledge and skills of employees placing them in a position to develop firm-specific competencies and influence employee behaviour and attitudes and (Pulakos, 2004) states that effective training aids in the accomplishment of goals and can be through classroom training, workshops, web-based training or on the job training by other seasoned practitioners.

## **Theoretical Framework Leader-Member Exchange (LMX)**

This is a theory developed by Bandura (1977, 1986). According to Brown and Travino (2006), which states that the effectiveness of workers is influenced by the quality of leader-member exchange (LMX) that is how an employee and the immediate supervisor relate. LMX is therefore the quality of these relationships. Interactions and experiences among the two determine the quality of relationships developed but the leader being the stronger value in the exchange, while the member is the weaker influencer of the relationships are formed. This is to say that more interaction between the members with the managers strengthens the relationship and its quality. When a manager treats employees fairly, they feel the obligation to reciprocate or return the treatment by putting more effort on the leader's behalf which results in high quality from the boosted motivation and consequently high performance (Walumbwa et al. 2011). The leader should therefore consider the nature of relationships they have with their followers, as the degree of emotional support and resource sharing is important for optimum employee performance.

## **Social Learning Theory (SLT)**

The Social Learning Theory (Bandura, 1977) clarifies how leaders influence follower behaviour hence their performance which relates to the vital importance of leadership qualities and traits. The basis of SLT is that "people learn by paying attention to and emulating the attitude, values, and behaviours of attractive and credible models ... most leaders possess authority because of the positions of status they occupy but attractiveness involves much more than authority and status." Therefore, leaders that fairly treat others and demonstrate concern and care become attractive to followers who pay more attention to them and want to emulate the positive traits (Bandura, 1986) as cited in (Brown & Travino, 2006).

Igbaekemen and Odivwri (2015) opine that an opposite leadership style should therefore reward employee effort hence placing more value on them. The leader should encourage integrity, honesty, commitment, participation, and ownership. Authoritative leadership would not work according to this philosophy, as decision making would need to be decentralized, employee initiatives encouraged, and cross-functional management implemented.

## **McGregor's Theory X and Y**

Theory posits that the leadership style adopted by managers takes influence from their perception of their subordinates who may either be in category X or category Y (Igbaekemen & Odiviwri, 2015). Theory X assumptions are that humans generally dislike work and need to be directed, coerced, or threatened with punishment for them to perform towards the achievement of goals. Despite wanting security, humans still prefer being directed and would avoid responsibility at all costs and have little ambition for results. This view is synonymous with management who would adopt an authoritarian leadership style. In contrast, Theory Y assumptions are that the employees are motivated to work, they make application of physical and mental effort comfortably just rest and therefore do not need external control and threats to get them to put effort towards organizational goals, as the employees will apply a commitment to their performance. The employees would, therefore, commit to the objectives through rewards for their effort and under proper conditions would seek more responsibility; therefore, responsibility can be decentralized.

This theory reflects that leadership approach choice would be inclined to the leaders' perception of the people under their leadership; additionally, the leadership style adopted also has an impact on employee performance and commitment both positively or negatively. McGregor then suggested to management that to achieve effectiveness, they had to recognize the dignity and capabilities/ limitations of the team members and apply appropriate behaviours as demanded per case (Igbaekemen & Odiviwri, 2015).

## **Contingency Approach**

The contingency approach stresses that no leadership style can be best and applicable in all situations or environments, as solutions to different challenges depend on specific situational and environmental factors. Therefore, the leadership style to adopt was contingent upon the leader-member relationship, power, position as well as the structure of the task (Miles, 2007). While suggesting that to be effective, a leader could not afford to stick to one management style for all situations. Ejomabo (2015) highlighted that even the maturity of a leader determined the leadership approach they employed because of issues of experience, confidence, authority among others.

Ejambo (2015) and Miles (2007) concurred that the effectiveness of any leadership style was not about its structure, which meant to say that no leadership style said to be better than the other styles. However, different situations, particular leadership styles would be more effective, for example,

an arrogant team would need an autocrat depending on the work involved, otherwise a charismatic leader to woe their attitudes and motivate commitment and higher performance. Leadership success relied on the proper assessment of the situation which would lead to the application of an appropriate leadership approach for desired outcomes to be achieved.

The other perspective of the contingency approach according to Miles (2007) is that in terms of traits, suitability, maturity or approach, the type of leader appropriate for a situation was contingent upon situational factors. The situation per particular scenario determined the best incumbent leader.

*H1: Authoritarian leadership has a positive effect on employee performance.*

The view of the Zimbabwe economy coming from a decade long inflation scenario, made this equation to be one of the best suit to the study, specifically in the banking sector of Zimbabwe. Otoo et al. (2019) view authoritarian leadership as constituting an individual's perception or positive emotional status arising from job experiences and personal appraisal/evaluation of their job or environment, with the performance measures being planning of work, innovation and creativity, the efficiency of work, and application of effort. Harms et al. (2018) indicate it is however apt to have negative effects in the form of low team functioning and performance as a result of the negative opinions or perceptions of leaders on followers, leading to poor communication and distance hence low leader-member exchange. On the contrary, its outcomes on employee performance can sometimes be against common perceptions (Ludeke, 2016). The first hypothesis is drawn from this background.

*H2: Ethical leadership has a positive effect on employee performance.*

Ethical issues in leadership of the service sector has been hindering the success of performance of employees, not only performance of employees in the Zimbabwean banking sector but the whole spectrum of the Zimbabwean industry and Africa at large. Also cited in Otoo et al. (2019), Mathias and Jackson (2009) and Rich et al. (2010) opine that employee performance is related to output quality, quantity, and timeliness, work attendance as well as efficiency and effectiveness in completing work, as the engaging trait of ethical leaders guarantees enhanced organizational performance through employees' dedication. Brown et al. (2006) indicated this expectation of positive follower attitudes towards ethical leadership was derived from the perceived leader honesty, fairness, trustworthiness, care, and concern for employees as well as principled decision making. Walumbwa et al. (2011), in the reservation, suggested examining the claimed benefits about

performance to appropriately structure ethics initiatives or programmes. The second hypothesis follows up on these perspectives.

*H3: Employee competencies have a positive effect on employee performance.*

Recruitment of relevant employee staff in the service industry in Zimbabwe has been integral since the country attained its independence in 1980. Buil et al. (2019) opines that although leadership styles adopted by managers affected employee performance, the personality traits of frontline employees shaped their attitudes within their job descriptions and fore extended effort performance. Such being the case, it is stressed that not just the competencies of followers are critical for organizational performance, but also the competencies of frontline employees in the form of middle and operational managers who are key for employee performance. In a service industry, such confident employees will positively respond to customer requests and concerns, thus displaying better performance. Higher employee skills flexibility provides a competitive edge and a high level of employee competencies and guarantees high employee performance (Buil et al., 2019). This is hypothesized as:

*H4: Performance management practices have a positive effect on employee performance.*

The Zimbabwean banking sector, like any other business sector, was a point of interest to this study in checking the practices performed by the management of banks if it has an impact of the performance of employees. In the late 1990s, the Zimbabwean banking sector was hard hit with weaker management practices resulting in a number of commercial banks being liquidated and closed. Wong et al. (2019) opine that employee performance can be improved by the application by the management of various performance management practices. Performance management practices such as training, inspections, monitoring, performance appraisal are indicated to have an impact not only on employee performance but on the organization's environmental, economic and social performance, as the value chain monitoring is enhanced (Paulraj et al., 2015).

*H5: Authoritarian leadership has a positive effect on employee competencies.*

Employee competencies are critical to the Zimbabwean economy's resuscitation, as the view of the Zimbabwean economy coming from a decade long inflation scenario made this equation to be one of the best suit to the study, specifically in the banking sector of Zimbabwe. There are facets of

employee competency which are responsive to authoritarian leadership, according to (Wang & Wang, 2018). Employee competencies entail individual employee innovation and being multi-skilled, which may be suppressed through an authoritarian approach which is more restrictive, as the leadership style emphasizes control. They indicated that good leadership was largely measured by giving followers room to innovate in various capabilities which authoritarian leadership has a rather negative influence. Authoritarian leadership stifles employee motivation, and innovation is suppressed because of fear of punishment and hence the status quo is maintained by not offering ideas or advice. A negative relationship between employee creativity and authoritarian leadership and performance can be improved through the selection of already skilled and competent employees, and increasing communication and team-building processes that build team spirit and enhance employee creativity (Wang et al., 2007).

*H6: Ethical leadership has a positive effect on performance management practices.*

Brown et al. (2006) states that the dependability of ethical leaders and their motivation, care, and concern for followers and society nurtures effective performance management practices, as they attract and keep the follower's attention towards the organizational goals. Ethical leaders are therefore in this case prone to applying performance management practices which are fair and considerate in the form of clear, consistent principles and standards that they apply to themselves just the same way they apply them to followers. Brown et al. (2005) propose a positive relationship of ethical leadership against performance management practices, indicating that legitimacy is observed for performance management practices applied by ethical leaders as mentors from whom followers learn and emulate practices, attitudes and behaviours, as counterproductive, and antisocial behaviours that are harmful to the organization are avoided because of influenced commitment by reciprocating the leader. From these perspectives, the sixth research proposal is derived.

*H7: Employee competencies have a positive mediating effect on authoritarian leadership to employee performance.*

*H8: Performance management practices have a positive mediating effect on ethical leadership to employee performance.*

Ethical issues in leadership of the service sector has been hindering the success of performance of employees, not only performance of employees in the Zimbabwean banking sector but the whole spectrum of the Zimbabwean



industry and Africa at large. Recruitment of relevant employee staff in the service industry in Zimbabwe has been integral since the country attained its independence in 1980. The Zimbabwean banking sector, like any other business sector, was a point of interest to this study in checking the practices performed by the management of banks if it has an impact of the performance of employees. In the late 1990s, the Zimbabwean banking sector was hard hit with weaker management practices resulting in a number of commercial banks being liquidated and closed.

## **Methodology Research Design and Approach**

A positivist approach was taken in the deductive research. O'Leary (2005) and Crosssman (2013) state that it is possible to objectively study and explain reality by generating hypotheses through quantitative data that can be statistically analysed such that the observations can be repeatable. A deductive research approach was taken which entails deriving a hypothesis from theory, observing, confirming, or rejecting the hypothesis. As such a quantitative research choice was made, as it focuses on verifying the hypothesis using the data gathered by collecting ratings and verifying user acceptance and deducing results thereon. The focus of quantitative research is to verify a hypothesis of large amounts of data in a deductive manner (O'Leary, 2005). According to White (2000), quantitative research is used to deduce laws, generalizations and relationships between variables as such its selection for this research which seeks to study the impact of authoritarian leadership and ethical leadership as well as the mediating variables – employee competencies and performance management practices – on employee performance. All measurement instruments for this study were obtained from relevant previous studies.

### **Study sample and sampling methodology**

The study was on various commercial banks in Zimbabwe's capital city Harare. This case study design, according to Saunders et al. (2007) and Crosssman (2013) involves an extensive study of a real-life case or case context by restricting the number of cases or settings to study. The scientific sampling method was used by employing probability sampling methods. A stratified random sample was selected through which the population was divided into relatively homogeneous groups called strata, in Harare, Zimbabwe, involving a target sample was 400 participants from 20 bank branches in Zimbabwe. Given a large number of banks in the country as well as their various branches, it would be a mammoth task to have a fully

representative sample and Colin Fisher (2004) buttresses this assertion by stating that the problem is that no sample can be guaranteed to be fully representative. Dane (1990) states that ordered criteria are used in systematic sampling to select elements from a randomly arranged sample frame by choosing the *n*th element in the sample frame. For the validity of the sample, the list was arranged hierarchically giving equal chances to all levels to participate. Questionnaires administered in English were distributed within 20 bank branches in Harare and an overall response rate of 86.67% was achieved. Questionnaires ensured the anonymity of respondents and the participant's responses are not influenced by the researcher (Mitchell & Jolley, 2010).

### **Data analysis**

#### **Demographic Statistics**

The current study sample consisted of bank employees. The greatest number of participants came from the age group between 26 – 35 years old (42.1%; N=164). While the age group which had the lowest respondents was between the range of 56 and above years old (4.1%; N=16).

Females had the highest response rate of 52.8%, whilst males had a response rate of 47.2%. The researcher distributed the questionnaires to both gender males and females. There was no bias in the distribution of the questionnaire towards gender.

The majority of bank employees who responded the questionnaire were those in the group classified as other (38.5%; N=150) which had respondents with under combined qualifications both at undergrads and post-graduation qualifications, this reflected that the majority of the participants were knowledgeable on the study topic and able to provide informed and objective responses.

The majority of respondents were having an employment period between 0 – 5 years with the same bank (51.3%; N=200). This experience is valuable for the gathering of authentic representative research data, as employees had a reasonable period at their current employment.

### **Factor Analysis**

Kaiser-Meyer-Olkin's measure on sampling value adequacy showed 0.771; it is considered acceptable, as it is above 0.5 as suggested and recommended by Kaiser Kaiser (1974), with also Bartlett's Test of Sphericity which illustrates the relationship amongst variables. It indicates the significance value of 0.000 which is acceptable, as it is below 0.05. It is acceptable as significant according to Snedecor and Cochran (1983). This

translates that the sampling measurement and the variable were having a significant relationship.

### **Reliability Test**

All variables (AL, EL, EC, and PMP) were tested with Cronbach's Alpha and were accepted as suggested by (Pallent, 2007), that anything above 60% is acceptable. AL was 66.7%, EL 72.3%, EC 75.1% and PMP was 76.5%. This also proved that the data gathered was reliable, as it passed the reliability test through Cronbach's Alpha.

### **Correlation Analysis**

Correlation in SPSS in data analysis illustrated the direction and strength of the linear relationship amongst variables. The study variables were paired by SPSS, making it possible to identify which had the best linear relationship amongst two different variables.

Cohn (1988) provided a guideline, which makes it easier to interpret the correlation analysis results as follows; 0.10 to 0.29 indicates a small correlation, 0.30 to 0.49 indicates a medium correlation, 0.50 to 1.0 indicates a large correlation. The results showed that two strong variables with the highest correlation were PMP and EL which had a Pearson correlation of 0.718 (71.8%), and EP and EC which showed a strong Pearson correlation of 0.691 (69.1%), EC and EL had a medium correlation of 0.398 (39.8%), whilst the other remaining correlations were low.

### **Regression Analysis**

The most interesting area of the regression analysis was on the mediating roles when they were added to the SPSS data analysis when EC explained the EP as a mediating variable, (c) value of the R –square is 0.493 which demonstrate that 49.3% of the EC explained the EP. This was the highest correlation relation of all the variables, EC was significantly accepted for positively influencing employee performance in the Zimbabwean banking sector.

The linear regression determined that all variables on an individual basis had P-values which were 0.000 that is less 0.05, which was considered as statistically significant as suggested by Pallent (2007). The linear regression was significantly accepted, as it met the below 0.05 measurement. This meant that of the chosen independent variables, all of them were

relevant in positively affecting employee performance in the banking sector of Zimbabwe.

The standard beta of EC became high at 0.871, showing the increased influence EC has as a mediating variable. Also signifying that EC qualified to be a mediating variable.

Lastly, when the two mediating variables EC and PMP were added on the third scenario, EL has become (not significant) with a negative standard coefficient beta of -0.031 from -0.028 and (not significant) with a 28.9% way above 0.05. PMP as a mediating variable proved (not significant) and rejected as a mediating variable with 9.10% which is outside the limit of 0.05. EC has a standard beta coefficient of 0.869, the highest beta and significant 0.000, which means EC qualified as a mediating variable and it changed the direction of EL changing from -0.028 to -0.031, which made EC the only outstanding mediating variable to be considered as statistically significant as suggested by Pallent (2007).

### **Discussion and conclusions**

In the service industry, there is direct contact of employees with the clients, as the product presents a need for highly motivated, hospitable rather than hostile reception for repeat business, and impressive. Concerning corporate image, customer satisfaction, and service quality in banks, Makanyeza and Chikazhe (2017) enlightened that these had positive direct effects on customer loyalty and they were all interlinked, which made the need for this study to be carried out on the basis of performance of employees in the banking sector of Zimbabwe.

The main goal of each organization is to maximize returns, and this is achieved mainly through employee performance which therefore needs to be enhanced (Khovera & Wechtler, 2018). This study sought to establish the relationship of various factors Authoritarian Leadership (AL), Ethical Leadership (EL), Employee Competencies (EC), and Performance Management Practices (PMP) on Employee Performance (EP).

H1 proposed a positive relationship between AL and EP, which was confirmed by empirical evidence by other researchers as well as research findings from this study. Wang and Guan (2018) confirmed the positive relationship between AL and EP, through the learning goal orientation. Ludeke (2016) highlighted that AL outcomes on EP are positive with trust, supportive, and unselfish attitude being prevalent in most workplaces the banking sector included. The study proved that at times, performance can be brought through aggressiveness and hostility, which by common perceptions of authoritarian leadership is viewed, are dominant. (Chua et al., 2018) also established that AL positively impacted EP, as the leader strongly took

charge of the group, assigning tasks and establishing strict timelines for completing tasks.

H2 proposed a positive effect of EL and EP which the research findings also affirmed in the Zimbabwean banking sector. A positive relationship between EL and EP was established. Brown et al. (2006) indicated that positive follower attitudes overly had a positive impact on performance. Rich et al. (2010) also concluded that EL guaranteed enhanced EP hence a positive relationship between the two, emanating from the dedication of employees emotionally and physically when they are engaged in decision making and planning. Employees got enthused to apply extra effort to their duties. Walumbwa et al. (2011) concluded a significant positive singular relationship between EL and EP and also based on employee perception and organizational identification in line with the issue of fairness.

H3 proposal was a positive relationship between EC and EP. In the study of Zimbabwean banks, a positive relationship between EC and EP was derived. It was revealed that the competence of employees positively affected their performance. A study by Sendawula et al. (2019) and Alsabbah and Ibrahim (2014) concluded a significant positive relationship between EC and EP hence emphasizing the need for managers to have thorough selection processes for employee engagement as well as policies for staff development to improve EC. Buil et al. (2019), in concluding a positive relationship between EC and EP, stated that higher employee skills flexibility provided a competitive edge and high level of employee competencies guaranteed high employee performance.

H4 proposed a positive effect of PMP on EP, which was however discarded as null through research findings despite studies indicating that PMP were tools that had the potential to influence employee performance. Alsabbah et al. (2014) concluded the absence of a positive link between PMP and EP, as PMP were not able to influence EP, except for a partial positive mediating effect of particular training on EP; otherwise, there was no correlation between PMP and EP. Sendawula et al. (2019) however clarified that certain PMP could indeed result in positive outcomes in EP for the organization if applied. Gurbuz (2009) highlights that PMP does not apply to all contexts and is also not appropriate for all employees hence the lack of relationship between PMP and EP. The positive correlation between PMP and EP was established to be underpinned by the social exchange model, ability, motivation and an opportunity framework from a study by Li et al. (2017).

H5 proposed a positive relationship between AL and EC and the findings show some positive correlation between the two. The relationship is not strong according to the scale but significant. Iqbal et al. (2015) sight that with an authoritative leader, inferiority is felt by employees in doing their jobs and

in making decisions hence the leaders alone possessing the authority to take those decisions where the employee feels inferior. Far et al. (2007) highlighted that certain factors strengthen the effects of AL on EC such as power distance, cultural values, and level of employee and hence resulting in a positive relationship between AL and EC. Kalu and Okpokwasili (2018) stated that though an authoritative leadership style tends to limit the responsibilities and creativity of subordinates, their competencies were improved from learning from the leader. A conclusion by Chua et al. (2018) highlighted that AL positively impacted EC in that as employees concentrated on performing certain specific tasks and not decision making, they became highly skilled in the specific task that is, in firm-specific competencies.

The sixth hypothesis, H6, proposed a positive link between EL and PMP. Brown et al. (2005) concluded a positive relationship between EL and PMP, citing that the legitimacy was observed for performance management practices ethical leaders applied as role models.

The seventh hypothesis, H7, proposed a positive mediating effect of PMP for EL on EP. Brown et al. (2005) propose a positive relationship between EL and PMP, which these study findings have rejected in the Zimbabwean banking sector as well as some studies highlighted above. A positive mediating role of PMP for EL on EP was not validated by this research, and Sendawula et al. (2019) highlight the situational effect of the various PMP tools for which an umbrella effect/ correlation cannot be claimed.

H8 proposed a positive mediating effect of EC for AL on EP. Far et al. (2007) highlight however that certain factors influence AL effects on EC such as power distance, cultural values, and level of employee. The study results reflected AL as not a factor of significance for EP when EC was introduced as a mediating variable. EC independently held a very high positive correlation with EP. The role of EC as a mediating factor for a positive relationship between AL and EP is denounced by Sendawula et al. (2019), as they discard its mediation effect and uphold its effect as an independent factor that positively enhances EP for any leadership approach applied.

The main objective of the study was to identify the positive and/or negative effect of various selected independent variables towards the employee performance in the Zimbabwean banking sector (Alonso et al., 2018). Employee competencies, one of the two mediating variables, had the highest significance acceptability at 86% when it was added as a mediating role to the model (Al Khajen, 20018). It was confirmation of the higher literacy rate which Zimbabwe has in the African continent. It also proved that the skills of an employee have a huge effect on the performance of the output, as was the case in the banking sector of Zimbabwe.

The recruitment process of employing staff personnel in the banking sector of Zimbabwe is commendable, as this study attested to the data

findings (Audenaert et al., 2019). The unique aspect of the findings of this study on Zimbabwean banks' leadership styles is the element of the role employee competencies, which was regarded as the chief prerequisite requirement compared with other parts of the world such as the United States of America where they prefer experience-superseding qualifications of the recruitment of staff (Albino, 2018). The Zimbabwean banking sector has been proved by the study to be one of the few African with outstanding employee standard performance as supported by the researched data (Wang & Guan, 18).

The study qualified Employee Competencies as playing a positive mediating role for Employee Performance, while it proved insignificant hence disqualifying Performance Management Practices as a mediating factor for Employee Performance (Asika, 2004).

### **Limitation and Future Research**

The study did not consider the comparative effect of EC and PMP on both AL and EL, which is an extension that could be considered for further study, as it could provide the greatest correlation between the management approach and employee performance and overall organizational performance. Another recommended area for further study is the corroboration of literature on the roles of leadership styles, EC and PMP on EP as well as the mediating roles of EC and PMP to establish the major reasons for the divergence in the findings concerning the correlation of the factors.

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# ANALYSIS OF COMMUNICATION OF LATGALE'S LARGEST MUNICIPALITIES ON THE INSTAGRAM NETWORK – A COMPARISON OF DAUGAVPILS CITY AND REZEKNE MUNICIPALITY

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**Abstract.** *The topic of the paper is “Analysis of Communication of Latgale's Largest Municipalities on the Instagram Network – a Comparison of Daugavpils City and Rezekne Municipality”. The paper researches the communication of the largest city and municipality of Latgale region - Daugavpils and Rezekne - on the Instagram network in the period from registration.*

*The aim of the paper is to find out how and for what purposes the municipalities of Daugavpils city and Rezekne use the social medium “Instagram” and what results the communication via this channel have been achieved.*

*The paper consists of two parts - theoretical and empirical. The theoretical part summarizes and analyses theory on the history and development of the social network Instagram, as well as its impact on corporate communication of companies and institutions.*

*The empirical part contains a comparative analysis of communication of Daugavpils city and Rezekne municipality on the Instagram network, analysing the posted information and feedback from network users. Content analysis is used as a research method to achieve the aim.*

**Keywords:** *Social networks, Instagram, corporate communication, municipal communication.*

**JEL code:** *M31.*

## Introduction

The rapid development of technology has affected not only our lifestyle but also changed the way organizations develop their communication. More and more people are using the opportunities provided by the Internet to find the information they need. In 2020, the number of social network users in the world exceeded 3.6 billion (statista.com) and they have become one of the most important communication tools for organizations, so institutions must follow the information gathering habits of citizens and adapt by creating profiles on social networks.

Instagram is becoming more and more popular among social networks. It is currently the sixth most popular social network in the world in terms of the number of users. The uniqueness of the social network is that it is

primarily intended for use on smartphones, not computers, therefore it has a highly visual content, and organizations need to find ways to present their information in photo or video format. Municipalities of Latgale region are also no exception, which create profiles on the Instagram network in order to address local residents and compete with other municipalities for attracting tourists and investors, as well as to improve the public image. Among these municipalities, there is also the largest city of Latgale, Daugavpils, and the largest municipality - Rezekne municipality.

Although almost every municipality has a profile on Instagram, little research has been done so far on how municipalities organize communication on this network and what results it provides. Therefore, the aim of the paper is to find out how and for what purposes municipalities of Daugavpils city and Rezekne municipality use the social medium "*Instagram*" and what results the communication via this channel have been achieved.

In order to achieve the aim, several tasks are set:

- to study the academic literature on corporate communication on social media and the social medium "*Instagram*" as a corporate communication channel;
- to study and analyse the communication of Daugavpils city and Rezekne municipality via the "*Instagram*" channel;
- to summarize and analyse the obtained research results;
- to draw conclusions about the results obtained during the research process.

To achieve the aim, a quantitative and qualitative content analysis was performed and categories to analyse Instagram content were developed.

Instagram is the sixth largest social network in the world in terms of the number of users, also playing an important role in the communication of companies and institutions.

### **Role of the Instagram Network in Communication**

Instagram is one of the most popular social networks in the world, where photos or videos are being published. The social network was launched in 2010 and was initially popular among users as a tool for reflecting on everyday life, but it is an important aspect of corporate communication and branding in 2020.

Instagram is fully designed for publishing and sharing videos and photos. Instagram allows users to tag their posted photos with keywords or hashtags, which makes it more efficient and easier to search for images and videos by their subject (Tiggemann, Zaccardo, 2016).

While most social networks were originally created for use on a computer, Instagram is designed exclusively for users of smart devices

(Neher, 2013). The growth of the number of the social network's users was faster than the previously developed social networks - the number of users reached 1 million after a month of operation, while 150 million users had registered in it after 3 years of operation (Turri, Smith, Kemp, 2013).

The possibilities of placing content on the Instagram network are limited by its tools, so companies and institutions need to find a way to turn the message into a visual way. Institutions can use the Instagram network for several purposes:

- Communication with inhabitants
- Promotion of citizen participation
- Promotion of transparency of the institution's work
- Analysis of public opinion and activities
- Image building and strengthening (Khan, 2017).

As mentioned above, Instagram is a social network where the content is mostly visual, so companies and institutions need to find a way to attract the attention of the target audience, thus four ways to attract the attention of network users are identified:

A. Goodman, a scientist, defined four principles of attracting attention. In his opinion, the first is a personal approach. When planning a campaign, the power of personal influence must not be forgotten. The second is unexpectedness. People like learning new things and sharing them with friends. It is important to involve the audience by creating curiosity and try to offer a new perspective on already known things. The third is visibility. It is good not to tell, but to show. "Photos and videos speak louder than a million words." It is important to supplement the ideas with symbolic images/graphics. The fourth and, in his opinion, the most important thing is to address the feelings of the audience. The campaign should be designed in such a way that it touches all possible feelings (sight, hearing, taste, touch). Music should be used to evoke deep emotions (Goodman, 2003).

The content of Instagram consists of tools such as hashtags mentions, likes, descriptions, geotags, which are similar to other social networks, but their function may differ. For example, on Twitter, they are mostly used to gather conversations, while on Instagram they distribute content as well as bring communities together (Caliandro, Graham, 2020).

Many institutions and companies use Instagram not only for communication but also for brand promotion.

Moreover, social media also provide the marketers with an easier way to understand their customers. In the case of Instagram, leaving comments and receiving comments on the photo posts can gain more feedback from the customers on the product. Followers are often interested to see the interaction between the organization and the users, so being attentive to the comments would help in improving the relationship with customers.

Furthermore, Instagram has included a function known as direct messaging. This function could give the VIP customers another way to communicate and interact with the organization (Lim, Yazdanifard, 2014).

## **Methodology**

In order to obtain the most accurate data for the research, the content analysis of Daugavpils city and Rezekne municipality Instagram pages was carried out according to the quantitative and qualitative categories. The categories of analysis were developed based on Instagram's publishing tools.

The communication analysis of both municipalities was examined in the following quantitative categories, which allowed us to compare the statistical results of both profiles:

- Number of posts – allows us to measure the quantity of posts;
- Date of first publication – allows us to calculate the regularity of posts;
- Number of followers – allows us to measure the effectiveness of the communication;

The methodology also included several qualitative categories, which allowed us to compare the content of both profiles:

- Type of publications – the posts were examined by their type, for example, video, photo, poster etc.;
- Use of languages – allows us to analyze the target audience;
- Hashtags – allows us to analyze the target audience and theme of the post;
- Quality of pictures – the quality of pictures was analyzed in three categories: low, medium and high.
- Additional tools – the use of additional tools such as Instagram stories, geolocation etc.

### **Analysis of Communication of Daugavpils City and Rezekne Municipality**

Within the framework of the research, the Instagram profiles of the largest Latgale city, Daugavpils, and the largest municipality, Rezekne, were analysed since the first publication in order to measure the regularity of publications.

The profile of Daugavpils city was registered on October 11, 2015, and 796 photos have been published in almost 3 years, thus it can be concluded that the content is being updated regularly, while Rezekne municipality registered on Instagram on October 2, 2018, and 109 photographs have been posted without systematic regularity.

The city of Daugavpils has chosen tourists as the main target audience, which already appears in the profile name (daugavpils.travel), as well as in the most frequently used hashtags #visitdaugavpils #daugavpils #traveldaugavpils. The profile description contains the name of Daugavpils city in Latvian, Russian and English, as well as a reference to the official website of the municipality.

High quality pictures with reference to the authors of the pictures are used in the Instagram account of the Daugavpils City Council. Most of the pictures are supplemented with a descriptive text in several languages - Latvian and English; Latvian and Russian; Latvian, English and Russian; Latvian, Russian, English, Polish and German. Usage of the accompanying texts and the language of the hashtags show that the Daugavpils City Council tries to address local residents, domestic and foreign tourists via Instagram by informing them about the events and most attractive objects in the city. The city of Daugavpils uses the opportunity to place several pictures in one publication.

The Daugavpils City Council also uses the opportunity to publish story-type publications, which are visible to users 24 hours after their publication or later can be found in the archive next to the profile information, where they can be grouped into categories. Eleven categories with titles in English have been created for the city of Daugavpils. The content of story publications consists of publications of events and nature views, including content published by other network users, thus it can be concluded that the administrators of the Daugavpils Instagram profile also monitor Instagram users' content, which helps to understand and address the target audience.

The Daugavpils City Council not only uses the photo placement option in its profile but also actively publishes short video materials from various events and tourist attractions.

The official profile of Daugavpils city is followed by 1923 users, while publications collect on average 60 to 200 likes.

The profile of Rezekne municipality does not have clearly defined a target audience, as well as hashtags are not being used. The profile description refers to the municipality's official website, while the publications are mostly low or medium quality pictures of events or landscapes, as well as event posters that are not specially designed for Instagram in terms of size and quality, so they are not always easy to read.

The publications are accompanied by a text in Latvian, which informs about the event or the tourist attraction shown in the publication. A story's opportunity is not being used and the regularity of publications is not fixed. The last publication on the network was posted on January 15, 2020.

The number of followers of the profile is 869, but the average number of likes is from 10 to 50.



## Conclusions and Recommendations

By summarizing the data, it can be concluded that the regularity of the publications, more complete use of the tools, the official profile's tags in publications and stories provide both a larger number of followers and more feedback in the form of users' comments and likes.

The city of Daugavpils uses hashtags in its Instagram profile, publishes stories, post publications in several languages, as well as uses the geolocation option, thus increasing the possibilities to reach as many users as possible, while Rezekne municipality rarely places publications and do not use additional tools, as a result of which the feedback in the form of comments, likes and the number of followers is smaller than that for Daugavpils city.

Instagram is one of the world's most popular social networks, used by a large number of people around the world, so usage of the right tools is an effective mean for both communication and promoting and strengthening brand values. Municipalities are interested in attracting as many tourists and entrepreneurs as possible, as well as in providing effective feedback to inhabitants, and Instagram is an effective way to do this in an informal way by improving the municipality's public image.

When summarizing the results of the research and drawing conclusions, several recommendations can be put forward that municipalities can use in work with Instagram and social networks:

1. The importance of social networks in corporate communication is growing, so there is a need to hire an individual employee who would work only with social networks.
2. The widest possible range of tools should be used, such as stories, hashtags, geolocation, to address the audience in multiple languages, etc.
3. Define the audiences you work with and customize the tools depending on the message.
4. The content should be updated regularly in order to ensure users' interest.
5. Feedback and interactivity must be provided.

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# ANALYSIS OF HIKING FOOD PROCESSING TECHNOLOGIES ON THE MARKET

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**Abstract.** *The food sector is one of the fastest growing sectors, therefore it requires that producers follow food market trends and quickly respond to consumer demand. Besides, the producers have to comply with the increasingly strict conditions and regulations imposed on food producers in recent years. Food producers need to be able to develop products that are safe and have a long shelf life and at the same time, the manufacturers have to continuously diversify their products, create new flavour and aroma combinations, increase the nutritional value of the products while increasing the production volumes and considering energy efficiency, as well as environmental impact. The aim of the research is to study and analyse hiking food processing technologies on the market. Methods used in the research – monographic, synthesis, the comparative method. The research developed proposals for manufacturers of hiking food for the design and manufacturing of new products.*

**Keywords:** *drying, hiking food, lyophilisation equipment, processing technologies.*  
**JEL code:** *O14, L66.*

## Introduction

Food producers need to be able to develop products that are safe and have a long shelf life and at the same time, the manufacturers have to continuously diversify their products, create new flavour and aroma combinations, increase the nutritional value of the products while increasing the production volumes and considering energy efficiency, as well as environmental impact. Therefore, the range of research on the development of new technologies in the food industry is constantly expanding (Galoburda et al., 2008).

The aim of the research is to study and analyse hiking food processing technologies on the market.

To achieve the research aim, the authors have set the following specific research tasks: 1) study food processing technologies; 2) make a comparison

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of different drying technologies; 3) research the lyophilization equipment market; 4) make conclusions and recommendations.

Research period: 2019-2020.

Hypothesis: The use of lyophilization technology in the production of hiking food allows achieving longer preservation of the products, easier transportation, high dehydration capacity.

Research novelty: The study of food processing technologies and comparison of different drying technologies, research on the lyophilization equipment market.

Research methods: *monographic, synthesis, the comparative method.*

### **Research results and discussion**

In Latvia, the main challenge for farmers in the food sector is to be able to efficiently process primary agricultural products (fruits, berries, meat) with a short shelf life, while maintaining their biological and economic value and doing it with small investments. One of the possible solutions is the processing of products with drying methods that have historically been used over a long period of time both in Latvia and abroad. However, until now most of the widely used methods dry fruits, berries, and meat with a residual moisture content that is well above 5%. At this level of moisture, the products cannot be stored for a long time with the retention of their biological properties and must be stored in closed containers under prescribed conditions. Such products are not mold-resistant. A possible solution is lyophilization or freeze drying.

A mindful food acquisition and its efficient preparation is crucial in ensuring that the planet's resources are not wasted and the purchased products do not end up in waste. Modern society has become careless in its attitude towards food and buys too many products without considering their effective use. According to the "Estimates of European food waste levels" report, 53% of all food waste is generated by households (Stenmarck et al., 2016).

In accordance with the objectives of the report "Latvian Bioeconomy Strategy 2030" (Ministry of Agriculture..., 2016) developed at the national level, main development opportunities of the Latvian food industry are as follows:

- 1) production of quality products;
- 2) extraction and production of functional food;
- 3) development and manufacturing of innovative products;
- 4) creating innovative food development and processing technologies.

It is also important to make more rational use of raw materials and the produced food, reducing and using wiser the generated waste from raw materials and food.

One of the current challenges is to provide the public with quality food that is both economically accessible and attractive to the consumer in terms of its appearance and taste. In addition, local products, local identity products, and organic products are becoming increasingly important. The second target among the United Nations Sustainable Development Goals is food waste reduction and local farmers support, as one-third of the world's food is wasted, while 821 million or almost 11% of the world's population is starving, and 40% of the world's population suffers from water scarcity (United Nations).

Various food preservation technologies, such as pasteurization, sterilization, freezing, drying, and others, can be used to preserve fresh food and its valuable properties for a longer time and to reduce food waste. One of the food drying methods is lyophilization. Lyophilization is the sublimation treatment of food products or drying of products in a molecular dryer (Malik et al., 2018).

Other sources define lyophilization as a method of food preservation that requires first freezing the food, which is then dehumidified in a vacuum. During the lyophilization process, fruits, berries, vegetables, and foods are dried in a vacuum while freezing at low temperatures (Boss et al., 2004). During this process, the frozen water in the food directly transforms into gas, bypassing the liquid phase (sublimation) (Ceballos et al., 2012). This allows the foods retaining their shape, size, colour, aromatic and taste properties while gaining a specific loose and crunchy texture (Cieurzyńska et al., 2011). The taste of the product slightly intensifies compared to products dried by traditional methods (Babić et al., 2009).

Lyophilization is suitable for preserving perishable food or making food more convenient for transportation. This is possible because of refrigeration processes during which the food is frozen and then the pressure is reduced, allowing the frozen water in the material transform directly from the solid to the gas state. During the lyophilization, the product is first frozen and then loaded into a vacuum drying tank, where it is exposed to a vacuum that causes the sublimation of ice, whereas a condenser inside the tank condenses the gas on the spool surface, and the product is dehydrated.

The main advantages of lyophilization:

- 1) **Long shelf life of the product.** If the lyophilised product is sealed in special suitable packaging preventing the re-absorption of moisture, the product can be stored at room temperature without refrigeration and preserved for many years. The preservation is possible because the water content of the product is significantly reduced, inhibiting the activity of

microorganisms and enzymes that would usually damage or destroy the product.

- 2) Ease of transportation. The lyophilized products are low in weight and properly packaged lyophilized products can be easily transported in standard containers or any other transportation methods commonly used in the industry. Accordingly, a specialized equipment fitted with refrigeration systems or freezers is not required.
- 3) Improved quality. Lyophilization causes less damage to the substance than other dehydration methods that use higher temperatures. Lyophilization usually does not cause shrinking or hardening of the dried material. In addition, the quality of the product, including its appearance, taste, aroma and nutrient content, is usually preserved, thus, making this procedure popular.
- 4) High rehydration capacity. Lyophilized products can be rehydrated (restoration of the lost water content) much faster and easier, because the lyophilization process causes the formation of microscopic pores in the product.

Although lyophilization of food products has many advantages over other preservation technologies, its one main disadvantage is related to the costs of the process. For example, in 2020, the price of freeze-dried (lyophilized) fruit on the international market is 4-6 times the price of traditionally dried product (drying and dehydration in hot air, which changes the appearance, chemical structure, taste, and nutritional value of the food). Compared to other food drying methods, lyophilization as a food drying method offers many advantages and is expected to make a major contribution to food preservation in the long term and, with the advancement of technology, to food waste reduction.

Comparing different preservation technologies, it can be seen that lyophilization as the food drying method has significant advantages over other technologies. Table 1 shows an informative comparison in general categories from the end consumer perspective between lyophilization, dehydration, sterilization or pasteurization (canning), and freezing methods: the taste of the processed product comparing to a raw or natural product, the amount of nutrients in the processed product compared to the natural product, colour characteristics comparing to the natural product, the texture of the product after processing compared to the natural product, availability of the product at different times of the year, the shelf life of the product, the use of sugar/sodium in a given food preservation technology, the absolute weight of the product, a need to prepare the product before it can be consumed. The table uses colour coding: green (positive), yellow (neutral), red (negative) and it can be seen that lyophilization has only positive and

some neutral features and that supports the projected future potential of this technology.

**Table 1. Comparison of different preservation technologies**  
(Mercer Foods.com)

	NATURAL	LYOPHILIZATION	DEHYDRATION	Canning (pasteurization/ sterilization)	FREEZING
TASTE (comparing to the natural)	As provided by nature	Close to the natural	Similar to the natural	Intensified	Close to the natural
NUTRIENTS	As provided by nature	Most nutrients are retained	Blanching reduces some nutrients	High temperature reduces a large part of nutrients	At a stable temperature, many of the nutrients are retained
COLOUR	As provided by nature	Retained	Slightly pale	Slightly pale	Retained
TEXTURE	As provided by nature	Crunchy	Chewy	Soft	First hard, then soft
SEASONALITY	Depends on the season	Year round	Year round	Year round	Year round, if stored correctly
SHELF LIFE	Very short	Very extensive	Very extensive	Extensive	Short
ADDED SUGAR/ SODIUM	No	No	Often	Often	Rarely
WEIGHT	Heavy	Light	Medium	Heavy	Heavy
PREPARATION	Various	No	Rehydrate	Drain	Defrost

One of the food segments that most frequently uses lyophilization technologies is the hiking food segment. According to various experts in the hiking industry, such as CleverHiker (a specialized site for hiking tourism) (Cleverhiker, 2020), the use of drying methods is very common in this segment, as it provides two main features required in the segment: a long shelf life and a light weight of the product while ensuring the amount of energy required during the hike. The companies that produce dried food for tourism pay special attention to the energy value of products. As the stress of professional life increases, the number of consumers who opt for hiking and tourism has increased in recent years, leading to an increased demand for dehydrated hiking foods such as pasta, noodles, and meat products. The global dehydrated food market is expected to continue to be driven by such factors as increasing per capita incomes and the growth of the local tourism industry. Given the restrictions on international travel in 2020 due to COVID-19, domestic hiking tourism and the sales of related products are expected to

increase, including the use of contactless points-of-sale such as vending machines on hiking trails.

Hiking foods are classified based on the meal type (breakfast, principal meal, and snacks) and product category (meat, fish, poultry, pasta, bakery products, fruit and nuts, soups, purees, gluten-free and lactose-free, etc.). Pasta and bakery products currently hold the largest market share, but gluten-free and lactose-free dehydrated foods are expected to experience the fastest grow in the coming years (Dried..., 2018). Table 2 shows the main dehydration or drying technologies used in the hiking food segment. It can be concluded that among the various available technologies, lyophilization offers considerable advantages, but it also requires high costs, long processing time, advanced equipment, and special packaging.

**Table 2. Comparison of different drying technologies**  
(Rodrigues et al., 2016)

Drying method	Advantages	Drawbacks
Sun-drying (open-air): crops are spread on the ground and absorb solar energy	<ul style="list-style-type: none"> <li>- No investment required, low-cost technology</li> <li>- Well-suited for low value-added products</li> <li>- Used close to the source of raw materials</li> </ul>	<ul style="list-style-type: none"> <li>- Contamination is possible</li> <li>- Weather dependent</li> <li>- Slow drying</li> <li>- Requires a significant workforce</li> <li>- It may not be possible to achieve a sufficiently low level of moisture to avoid the development of micro-organisms</li> </ul>
Solar drying (direct): solar energy is collected on a glass surface and directed to a drying chamber	<ul style="list-style-type: none"> <li>- Simple and cheap equipment</li> <li>- Protected against the weather effects (rain, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>- Overheating risks resulting in damage to crops</li> <li>- Loss of taste</li> <li>- Not scalable</li> <li>- Discoloration</li> </ul>
Solar drying (indirect): the crops are placed in a drying chamber and a dedicated device uses solar energy to heat the air discharged into the drying chamber	<ul style="list-style-type: none"> <li>- Greater control over the drying process</li> <li>- Raw materials are not directly exposed to the sun</li> <li>- Suitable for photosensitive raw materials</li> <li>- Can be used at high temperatures</li> </ul>	<ul style="list-style-type: none"> <li>- The expensive equipment requires a large capital investment</li> </ul>
Microwave drying	<ul style="list-style-type: none"> <li>- Fast drying at low temperatures</li> <li>- High thermal efficiency</li> <li>- Homogeneous drying</li> <li>- Energy efficient equipment</li> <li>- Good level of bacteria elimination</li> </ul>	<ul style="list-style-type: none"> <li>- Small batches of processed raw materials</li> <li>- Harmful microwaves require special precautions when used</li> </ul>



Spray drying	<ul style="list-style-type: none"> <li>- Quick drying</li> <li>- Large-scale production</li> <li>- Low labour costs</li> <li>- Easy maintenance and operation</li> </ul>	<ul style="list-style-type: none"> <li>- The expensive equipment requires a large capital investment</li> <li>- High energy consumption</li> <li>- Can only be used for raw materials that can be sprayed, e.g. liquids, low-viscosity slurries, purees</li> </ul>
Vacuum drying	<ul style="list-style-type: none"> <li>- Low-temperature drying</li> <li>- Low risk of oxidation of raw materials</li> <li>- Suitable for thermo-sensitive raw materials</li> <li>- Mild drying process</li> <li>- Preserves nutrients</li> </ul>	<ul style="list-style-type: none"> <li>- Expensive drying method</li> <li>- Hygroscopic final product, requires special packaging</li> </ul>
Lyophilisation	<ul style="list-style-type: none"> <li>- Low-temperature drying, reduced oxidation and hydrolysis of raw materials</li> <li>- The final product is light and porous, well suited for rehydration</li> <li>- Suitable for dry and solid final products - good taste, texture, and visual properties of the final product.</li> </ul>	<ul style="list-style-type: none"> <li>- Extremely hygroscopic final product - requires special packaging</li> <li>- Very slow process</li> <li>- Sophisticated equipment</li> <li>- Very expensive process</li> </ul>

It should be emphasized that dehydration is an energy-intensive process. Drying requires a significant amount of energy, which is about 20 to 25% of the total energy used in food processing, or 10 to 25% of the total energy used in all sectors (in the developed countries). Accordingly, energy and time efficiency and related parameters in food processing are important (Guiné, 2018). This factor is especially important when using lyophilization, and therefore one of the advantages of the “SUPPIT” (an acronym for "The Technology for the Development of Balanced-Diet Hiking Food" in Latvian) methodology is the optimized cost of the lyophilization process; because, as Table 2 shows, the main disadvantages of lyophilization are drying time and energy expenditure.

The global market offers a variety of lyophilization equipment from various manufacturers, such as Millrock Technology, Inc. (USA), Telstar (USA), GEA Group (Germany), SP Industries, Inc. (USA), Optima Pharma (Germany), Labconco (USA), Buchi (Germany), HOF Sonderanlagenbau GmbH (Germany), and Scala Scientific (the Netherlands). The two main markets in which companies invest in new lyophilization technologies are the United States and Germany. (Global Market ..., 2019) Although the primary market for lyophilisation equipment is the pharmaceutical sector,

there is a shift on the part of the producers from the pharmaceutical market to the food processing market. The growing market share of lyophilisation equipment in the food industry also directly correlates with the demand from the food industry for an efficient methodology for food industry processes using lyophilization equipment.

However, manufacturers of lyophilisation equipment do not offer to businesses food ingredients and/or preparation methods prior to the lyophilization process that can be used with this equipment. Therefore, the companies that want to start the production of lyophilized food and/or meals need the methodology and know-how for efficient fabrication of a final product for the market and customers. As the lyophilization process must be as efficient as possible to reduce the production costs, the lyophilization equipment also needs to be adapted to the specific methodology used. This is an additional product offered by the merchant that adapts the methodology to the specific lyophilization equipment and vice versa.

One of the uses of lyophilized food is hiking food, which can be further developed for military and aerospace applications. Besides, lyophilization can be used for processing of foods (e.g., fruits, vegetables) prior to the expiration date, which allows the product to be further developed for specific needs. This is in line with the Zero Food Waste movement, which popularizes a change in public attitudes towards food waste promoting waste reduction.

Hiking food must be sized in small, easy-to-use packaging, light, intended for long-term storage, balanced, i.e., containing sufficient amounts of proteins, fat, carbohydrates, vitamins, minerals, etc., and must provide the amount of nutrients according to the complexity of the walk or hike. The advantages of lyophilized hiking food-meal is in the following properties - lyophilized food can preserve the colour, aroma, taste, and shape of the food to the maximum; it can preserve the levels of all nutrients in food, especially the thermo-sensitive ingredients. Choosing the appropriate packaging technology for lyophilized foods that provides protection against air and moisture allows achieving long shelf life and high resistance to external biological processes and mechanical effects on the product. Hiking food can be delivered to the consumer through contactless sales channels (parcel terminals, food vending machines, etc.)

The global lyophilization equipment market can be described as a highly consolidated and competitive market dominated by major players. The main market players focus on cooperation with other players. In addition, they invest heavily in research and development to create innovative solutions and gain a competitive advantage.

Lyophilization equipment companies adopt various business strategies to strengthen their position in the market and to increase the company's product revenue, they significantly invest in R&D of advanced, frozen dried

products. Launching new products and strategic alliances are key strategies adopted by these players in the industry. The main equipment production market players are concentrated in Germany and the United States. These are also the main markets where companies invest heavily in the development of lyophilization technologies.

Based on equipment technology, the market is segmented into pallet-type lyophilizers, collector lyophilizers, and rotary lyophilizers. From the perspective of the scale of operations, the market is segmented into industrial, experimental, and laboratory uses, while from the perspective of possible lyophilization applications, the market is divided into food processing and packaging applications, pharmaceuticals and biotechnology production, medical applications, and others. Based on accessories, the market is divided between the producers of loading and unloading systems, control and monitoring systems, vacuum systems, Clean-in-Place (CIP) systems, drying chambers, lyophilization trays/shelves, collectors, and other elements. (Global Market ..., 2019)

The lyophilization industry is most highly developed in North America, Europe, and the Asia-Pacific region. The main players in Europe are in the following countries: Germany, the United Kingdom, France, Italy, Spain, and the Netherlands. This indicates that compared to Eastern Europe, Western Europe is ahead of the industry in this area.

It is true that the market for lyophilization technologies is developing mainly due to the increasing activity of competitors, including in other European countries with low research, development, and production costs.

One such example is a project launched in Bulgaria in 2017 with a total cost of around EUR 16.5 million, which develops innovative cryogenic technologies and other innovations in cooperation with the Research Institute of the Bulgarian Academy of Sciences, that will result in the creation of a new lyophilized food plant in Levski region for the production of various food categories (mainly from organically certified products) (European Commission, 2018).

## **Conclusions and proposals**

Lyophilization is suitable for preserving perishable food or making food more convenient for transportation. This is possible because of refrigeration processes during which the food is frozen and then the pressure is reduced, allowing the frozen water in the material transform directly from the solid to the gas state.

The advantages of lyophilized hiking food-meal is in the following properties - lyophilized food can preserve the colour, aroma, taste, and shape of the food to the maximum; it can preserve the levels of all nutrients in food,

especially the thermo-sensitive ingredients. Choosing the appropriate packaging technology for lyophilized foods that provides protection against air and moisture allows achieving long shelf life and high resistance to external biological processes and mechanical effects on the product. Hiking food can be delivered to the consumer through contactless sales channels (parcel terminals, food vending machines, etc.)

Each industry has its own growth drivers and challenges. In the lyophilization sector, the growth drivers are the following: an increasing demand for lyophilized products, technological advances, rapid expansion of the pharmaceutical and food industries, growing demand for higher-quality products with longer shelf life and stability. The main problems are high installation and maintenance costs of drying equipment, lack of skilled labour, and strict regulatory guidelines.

Food lyophilization equipment manufacturers can consider the opportunity to offer the device to consumers – new clients who are planning or just starting the operation of their companies, i.e. companies that are starting manufacturing lyophilized products, to offer a service which involves the methodology of the food processing technology.

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# LYOPHILIZED HIKING FOOD DEVELOPMENT TRENDS

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**Abstract.** *The consumption of functional food is increasing in almost all industrialized countries, not only because of an aging population, but also because of a more enthusiastic lifestyle, which makes meeting the nutritional requirements more difficult. In part, the transition to processed, easily packaged and pre-cooked foods is considered to be a response to long working hours. It resulted in an increased demand for ready-to-eat foods in recent years and it is expected to continue growing. The aim of the research is to study and analyse lyophilized hiking food development trends. Methods used in the research – monographic, synthesis, statistical analysis methods. The research developed proposals for food processing companies for further development of lyophilized food.*

**Keywords:** *lyophilized hiking food, market development trends.*

**JEL code:** *O14, L66.*

## Introduction

When it comes to food choice, it is influenced by many factors. Biological factors such as hunger, appetite, and taste. Economic factors such as cost, income, and availability. Physical factors such as access to the product and skills (whether the product has to be prepared in a certain way and how difficult it is to do). Social factors: culture, family, peers, and eating habits. Psychological factors such as mood, stress, guilt, other emotions. In addition, attitudes, beliefs, and knowledge of food complement the desires of customers (The European Food Information Council, 2005). There are indeed many factors that influence a customer's choice. For example, people living in more health-oriented countries, such as the Scandinavian countries, could be more successful potential customers of frozen dried backpacking meals than those with a more sedentary lifestyle and heavier food traditions the global consumer trend survey "Kantar Worldpanel" (which includes 8 countries: the United Kingdom, the United States, Spain, Mexico, Portugal, China, France, and Brazil) developed by the market research group "Kantar"

found that in 2019, about a fifth or 19% of all meals were purchased in ready-to-eat format, and in the UK this indicator was as high as 25%. On average, over the last 5 years, since 2014, the share of such meals has increased by 2% (Kantar, 2019).

The aim of the research is to study and analyse lyophilized hiking food development trends. To achieve the research aim, the authors have set the following specific research tasks: 1) study the factors influencing the choice of food products; 2) study and analyse the demand for hiking food in different countries; 3) analyse lyophilized food manufacturing trends; 4) make conclusions and recommendations.

Research period: 2014-2020.

Hypothesis: Demand for lyophilized hiking food grows each year.

Research novelty: The study and analysis of the demand for hiking food in different countries; lyophilized food manufacturing trends determined.

Research methods: *monographic, synthesis, logical construction.*

## **Research results and discussion**

The price continues as the most important factor in determining food choices (Steenhuis et al., 2011). However, for consumers with higher incomes, the consumption patterns may be influenced by factors other than price. The higher the income level, the more consumer behaviour is influenced by factors such as food safety, quality, long shelf life, non-GMOs, and the expected health benefits (Hockmann et al., 2013). There is a growing trend in richer countries, where consumers are more attracted to niche, innovative, and sustainable high-quality products. These consumers are willing to pay extra for such products. Knowing that freeze-drying technology is expensive to operate and maintain, but ultimately delivers high-quality products, focusing on wealthy countries is likely to attract more customers as they are willing to pay more for such products.

In addition to price, consumer preferences are influenced by health-related factors (allergies and intolerances, healthy lifestyles, food safety), social responsibility (local products, animal welfare), and convenience (ECSIP consortium, 2016).

Consumer awareness of the link between food and health continues to grow as more information becomes available to the public. Increasing attention to maintaining a healthy lifestyle and active disease prevention is consciously associated with the adoption of a healthy diet (FoodDrinkEurope, 2014; Kasriel-Alexander, 2013). Other indicators that increase consumers' attention to food properties are life-threatening food allergies, food intolerances, and trends such as gluten-free, sugar-free, lactose-free, etc. foods. The latter attracts customers who do not have any

health problems and follow the main trends instead. It enables healthy and innovative foods to reveal their brands to a larger population. Food safety threats such as e-coli, bovine spongiform encephalopathy (BSE), listeria, and avian influenza have made consumers more concerned about food safety (Newell et al., 2010). At the same time, there is a growing interest in agricultural (use of organic substances, antibiotics, and growth hormones in livestock or pesticides on crops) and processing practices (e.g., the use of certain food additives such as aspartame) (Turi et al., 2014). This growing interest in health and food safety provides a platform for lyophilization to prove itself even more as a safe, efficient, and high-quality food processing method. Many novel foods remain niche products, and consumers tend to reject certain types of novel foods that evoke disgust or lack naturalness. Developers of novel food products must identify consumer expectations and factors leading to consumer rejection at an early stage of product development. (Tuorila et al., 2020) Altering diets is increasingly acknowledged as an important solution to feed the world's growing population within the planetary boundaries. (Parodi et al., 2018)

Consumers are increasingly focusing on purchasing choices and the impact of their chosen products on the climate, public health, social and economic inequalities, animal welfare, etc. Several indicators mentioned by Kristallis et al. (Kristallis et al., 2011) confirm it: (1) increasing sales of organic food in many western countries; (2) efforts to develop alternative distribution channels for locally and regionally produced foods; and (3) major retailers taking steps to become more socially responsible (European Parliament, 2016). This in turn forces manufacturers to work on corporate social responsibility (CSR) strategies. These changes in social responsibility have continued in the creation and operation of the European Food Sustainable Consumption and Production (SCP) Round Table. This initiative is co-chaired by the European Commission and partners in the food supply chain and supported by the United Nations Environment Programme (UNEP) and the European Environment Agency. In this Round Table, various stakeholders are involved in developing and promoting science-based approaches to SCP through interactions all over the food chain. It only confirms that social responsibility is now an integral part of every business and is here to stay.

Convenience is one of the characteristics of a food product that has a growing demand (RECAPT, 2011). Given the current fast-paced lifestyle, there is a greater need for convenient, ready-to-eat meals for hiking food. In addition to the health trends mentioned above, there is a particular demand for healthy food. (Veselības ministrija, 2020) Cooking at home is also affected (Sattethwaite et al., 2010). In urban areas, especially in developed and even developing countries, less and less time is spent cooking and consuming at



home. As a result, there has been an increasing demand for ready products in recent years, such as frozen or fresh foods, ready-to-eat sauces, sliced vegetables, or fast-food products. This is an opportunity to be seized.

There is a growing demand for high-quality, healthy, socially responsible, safe, and convenient functional foods. Therefore, innovations in lyophilization methodology are welcomed and promising. Despite the already available significant choice of food options, there are customers who are looking for high-quality, innovative, compact, and healthy products and are willing to pay a higher price for them.

Therefore, one of the development options is cooperation with hiking food producers and food processing companies in the following regions:

1. First, in wealthy countries whose populations are active and health conscious. The most common are the Nordic countries (Denmark, Norway, Sweden, Finland, Iceland), as well as Switzerland, Austria, and Germany;
2. Second, countries with a developed active tourism industry that attract active tourists. This is usually the case in mountainous areas, where hiking and active sports (such as skiing) are popular. The US Adventure Travel Trade Association's 2018 industry index (Adventure Travel Trade Association, 2018), created in collaboration with travel agencies, travel agents, adventure tour developers, and other industry players, identifies the most popular hiking destinations by developed and developing countries:

<i>Developed countries</i>	<i>Developing countries</i>
1. Iceland	1. Czech Republic
2. Switzerland	2. Israel
3. Germany	3. Estonia
4. New Zealand	4. Slovakia
5. Norway	5. Poland
6. Sweden	6. Chile
7. Canada	7. Romania
8. Finland	8. Bulgaria
9. Great Britain	9. Slovenia
10. Australia	10. Jordan

Determining the size of the lyophilized food market is largely limited by the lack of official statistics. In particular, it is related to the existing industry and product classification systems in European countries, such as the *Nomenclature of Economic Activities* (NACE) and the Combined Nomenclature (CN), as they are mainly based on the traditional characteristics of companies and their products. Since the production of lyophilized food is a relatively new field of activity performed by a small

number of companies, it is not possible to identify within these systems the involved companies and their sales volumes. Instead, the sales data on lyophilized foods are combined, for example, with data on dehydrated, *evaporated*, and other similarly processed foods, which together form a group of dried foods.

At the same time, statistics on the dried food group also provide an insight into the general market development trends for lyophilized food, as its demand is made up by the same target groups and their needs. Nevertheless, when evaluating the data, it should be taken into account that lyophilized foods represent a small part of the dried food group, and the distribution of their product categories is slightly different. This is mainly due to the fact that lyophilized foods are more expensive because of higher production costs and, consequently, the producers of these products specialize in categories with higher added value.

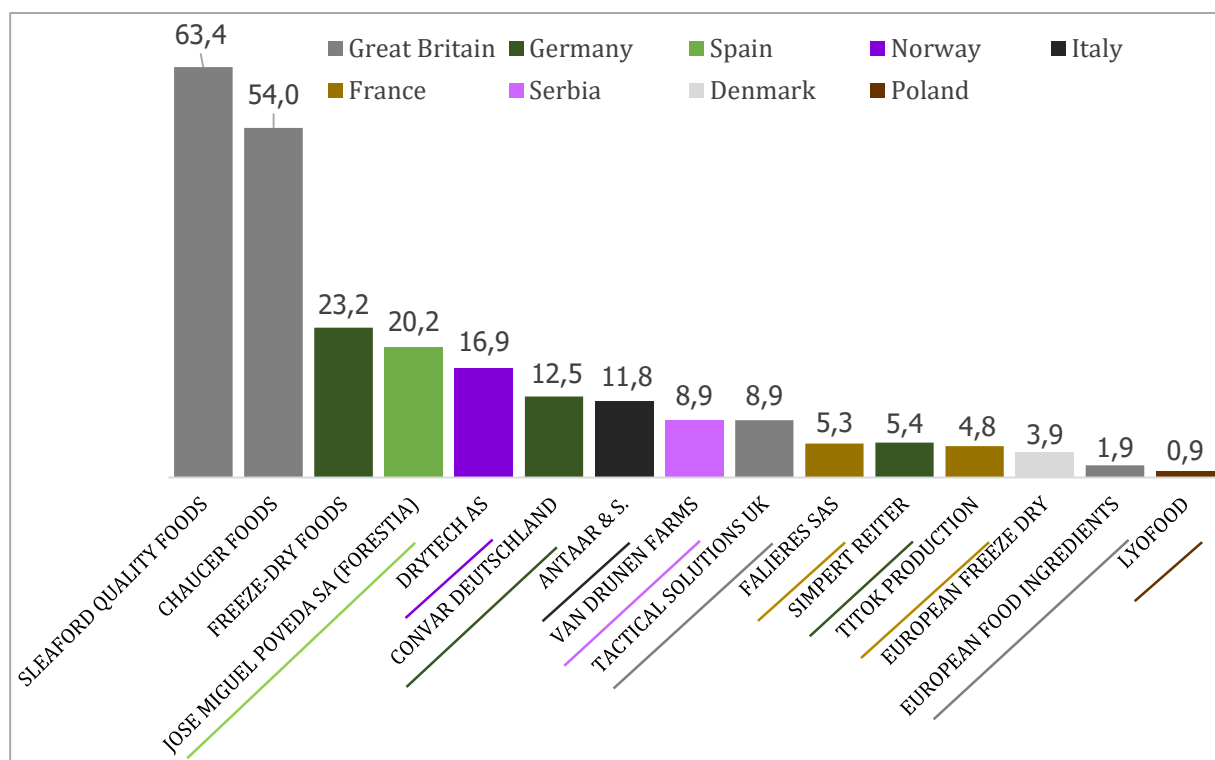
Overall, in the period from 2014 to 2019, the import of dried food products to the EU countries has grown steadily both in terms of volume and value, reaching a volume of 16.1 million tons with a value of 33.3 billion euros in 2019. The export in the EU countries have also grown, albeit to a lesser extent, amounting to 11.4 million tons in 2019 with a value of 23.3 million euros (Figure 2). It can also be concluded that in the category of dried foods the EU countries are net importers, as the import to export ratio is about 60 to 40 (expressed in percent) (Eurostat, 2020) .

On the other hand, examining trade data by countries, it can be seen that among the EU countries, Spain, the Netherlands and Germany are the largest exporters of dried food and ready-to-eat meals in terms of volume, accounting for 28%, 19%, and 8% of total EU exports in 2019, respectively. Hence, it can be concluded that the net balance of production in these countries after domestic consumption is the highest, and these countries are the most active in drying of food products and the use of related equipment. Meanwhile, the volume of imports of such products is also the highest in the Netherlands, Germany, and the UK, importing in 2019 16%, 14%, and 11% of the total EU import. This indicates that in these countries either the further use of dried food in the production of combined products and meals or packaging, marketing, and sales activities for already imported dried products, as well as the consumption of these products (e.g., in the hiking tourism sector) are the most common.

In general, in the food group, the lyophilization process is mainly used for processing fruits, as there is a wide market for fruits processed in this way; these dried fruits can be used as a snack themselves and as an ingredient in such products as breakfast cereals, snack bars, desserts, confectionery, etc. Lyophilized fruits and their ingredients are also used in the HoReCa industry. The fruit category is estimated to account for about a

third of the total lyophilized food market (Market Research, 2017). Lyophilization is used less frequently in the processing of vegetables, mushrooms, meat and fish, as well as dairy products, and mainly to only to use these foods as ingredients in the production of various products and ready-to-eat meals, including hiking and emergency meals. In the production of dried vegetables as a snack, the most common process is *vacuum frying*. However, new, albeit very small, producers of lyophilized vegetable snacks are emerging, such as the UK-based Bruce Farms Limited lyophilized pea snacks line Podberry (Podberry, 2020). In the category of beverages, the lyophilization process is quite often used in the production of instant tea, coffee, smoothies, fruit and milk drinks.

After selecting the largest lyophilized food producers, reviewing their number and turnover, as well as taking into account the estimations of the information analysis company Mordor Intelligence (Mordor Intelligence, 2019) it can be concluded that the total turnover of 15 well-known specialized producers exceeds 240 million euros (Figure 1), and the dominating countries in this area are Germany, Spain, Great Britain, Norway, Italy, France.



Note: The companies that also produce hiking food are underlined

**Fig 1. Largest as well as other specialized lyophilized food producers in European countries and their turnover in the last known year (2013-2019), mln. Euro (Mordor Intelligence, 2019)**

There are also other large players in the industry for which the turnover is not publicly known, such as the German-based Paradise Fruits Solutions GmbH & Co. Kg ([www.paradise-fruits.de](http://www.paradise-fruits.de)), Poland-based Greenfield Sp. zoo ([www.greenfield.eu.com](http://www.greenfield.eu.com)), and other companies.

It should also be borne in mind that lyophilized foods and their ingredients are offered not only by specializing companies but also by international food market giants. For example, lyophilized food ingredients also make part of an offer of the German-based food ingredient manufacturer Doehler Group SE (Doehler Group, 2018), whose turnover in 2018 reached 1,768.4 million euros, which is about 7 times the total turnover of 15 specialized food producers considered together. Although it is not possible to determine exactly how much of the total turnover of Doehler Group SE can be attributed to the lyophilized food niche, it is known that a large part of Doehler Group SE's activities in this niche is based on the lyophilized food ingredients manufacturer Molda acquired in 2015, whose annual turnover before the acquisition was around 84 million euros (Doehler Group, 2018).

Overall, of the listed specialized lyophilized food producers, most also produce hiking food lines as part of their offer but these are the smallest companies in terms of turnover. The companies specializing exclusively in the production of hiking food are even smaller. This shows that hiking food is a narrow niche with a lower level of market concentration than in the lyophilized food market as a whole, since the production in this niche is relatively small, leading to lower investment and a higher number of market participants. In this niche, similarly to the general lyophilized food market, the main represented countries are the already mentioned UK, Germany, Norway, Spain, Italy, France with the mentioned companies, but there are also some medium-sized players in Poland - Lyo Food Sp. z o.o ([www.lyofood.com](http://www.lyofood.com)), in the Netherlands - Adventure Food B.V. ([www.adventurefood.com](http://www.adventurefood.com)), Sweden - Bla Band Kemtatt ([www.blaband.se](http://www.blaband.se)), Czech Republic - Adventure Menu ([www.adventure-menu.com](http://www.adventure-menu.com)), Estonia - Tactical Solution OU ([www.tacticalfoodpack.com](http://www.tacticalfoodpack.com)) and other countries.

Although data on the turnover and other performance indicators of these relatively small companies are limited, the latest information on market developments shows a positive overall trend. For example, in the second half of 2020, Danish-based lyophilized food ingredients manufacturer European Freeze Dry ApS (European Freeze Dry, 2020) announced investments of almost 2 million euros in factories in Denmark and the UK to expand production capacity in response to the rapidly growing demand for their products. The company's representative told the media that the development has accelerated as a result of the pandemic, since there is an increase in demand for products and ingredients with a long shelf life (Food Manufacture, 2020). However, even in the pre-pandemic period, the

company saw a sharp increase in turnover, which in turn was due to the growing demand for high-protein legumes in particular, which was largely driven by the development of a vegan and vegetarian product niche (New Food Magazine, 2020).

### **Conclusions and proposals**

That the development of the lyophilized food market is still relatively slow and characterized by high market concentration. The relatively high level of costs and know-how required to start lyophilized food production acts as a significant barrier for new entrants. This is particularly the case in European countries, where there is a small number of companies using lyophilisation technologies and they have a significant market share.

Consumer awareness of the link between food and health continues to grow because more information becomes available to the public. Demand for high quality, healthy, socially responsible, safe, practical and functional food products is growing. This is why novelties in lyophilization methodology are appreciated and promising. Despite the considerable selection of food that already exists, there are still clients looking for high quality, innovative, compact and healthy products who are willing to pay a higher price for them. Based on the market analysis data, the priority countries for hiking destinations among the developed countries are: 1. Iceland, 2. Switzerland, 3. Germany, 4. New Zealand, 5. Norway, 6. Sweden, 7. Canada, 8. Finland, 9. UK, 10. Australia. Potential partners identified in the FS represent countries such as the Netherlands, Norway, the United Kingdom, France, Germany, Poland, Estonia and the Czech Republic. As these lists feature 4 (Switzerland, Germany, UK, France) out of 5 European patent countries (Switzerland, Germany, UK, France, and Ireland), after the PCT patent application, it is envisaged to advance the protection of the technology with the European patent, which will provide protection in Switzerland, Germany, the UK, France, and Ireland. Potential customer/cooperation partner segments were identified:

- 5) food lyophilization equipment manufacturers;
- 6) food manufacturers specializing in the production of various types of processed hiking snacks or instant meals that do not offer lyophilized food product lines;
- 7) food manufacturers specializing in the production of various dried (dehydrated, air-flow, vacuum, etc. dried) or vacuum-dried food products that do not offer lyophilized food product lines;
- 8) food manufacturers specializing in the production of lyophilized food products and meals that do not offer hiking product lines;

- 9) manufacturers of hiking clothing, equipment, and accessories who would be interested in expanding their brand offer with a food line;
- 10) organic farming and raw materials manufacturers.

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# ANALYSIS OF LEGO BRAND COMMUNICATION FOR THE AUDIENCE OF CHILDREN IN SOCIAL MEDIA

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**Abstract.** *Social media have become not only a platform for contacts among individuals but also a channel through which companies can maintain constant two-way feedback with consumers. Companies around the world become increasingly aware of the potential of children in the market and increase their communication with the children's audience. The ability to influence a child's choices through communication via social media could give companies an opportunity to increase their sales. The aim of the research is to assess the elements of social media communication for the LEGO brand and their influence on children's audience in Latvia. The research concluded that nowadays it is important for a company to identify the right target audience, and only then, based on the company's strategy, consider the need to use specific tools available in social media. By focusing their communication on children, companies also need to build a parallel relationship with their parents to make sure that the brand is relevant, safe and committed to the values that are relevant to the audience. Nowadays it is fruitful to focus on video content that creates a sense of presence and reality. LEGO is a good source of inspiration for companies in Latvia that want to create a strong brand story, thereby increasing their visibility through communication via social media. The research aim was achieved by identifying the theoretical basis, analysing the communication marketing activities of the LEGO brand focused on children, as well as conducting structured expert interviews and performing a content analysis.*

**Keywords:** *brand, children's audience, communication, social media.*

**JEL code:** *M31.*

## Introduction

Today social media are a fast-growing platform for communication, information transfer and the formation of worldviews and societal values. Every day, large platforms such as Instagram and Facebook add millions of new user profiles, and the audience of social media users around the world approaches a billion mark.

Companies around the world become increasingly aware of the potential of children in the market and increase their communication with the children's audience. At the same time, children play a number of roles in the

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market as consumers, initiators, influencers and purchase decision-makers, thereby becoming the main consumers of products for many companies. The ability to influence children's choices through communication via social media could give companies an opportunity to increase their sales because the children are able to change their parents' views on the choice of any product. This means that the topic related to the development of marketing communications via social media, specifically for children's audience, will become increasingly important.

The aim of the research is to assess the elements of social media communication for the LEGO brand and their influence on children's audience in Latvia. The research object: social media communication. The research subject: analysis of LEGO brand communication for children's audience in social media.

To achieve the research aim, the following specific research tasks were set:

1. To analyse the interaction of marketing communications and social media.
2. To examine the behaviour of the target audience – children – and the factors affecting it.
3. To perform an analysis of LEGO brand communication in social media.
4. To develop recommendations for the use of marketing elements to reach the audience of children via social media in Latvia.

The research employed the monographic method, which involved a detailed examination of the research object – marketing communication – based on the theoretical literature. The interaction of marketing communications and social media was analysed and the elements constituting social media were described by using the monographic method. The monographic method was also used to examine the behaviour of the target audience – children – and the factors affecting it.

In addition, the research employed secondary data analysis to describe the evolution of the LEGO brand and the relevant social media communications as well as content analysis to examine the trends in the number of social media users in Latvia and conducted a structured interview with five marketing industry experts to develop recommendations for the use of marketing elements with the aim of reaching the audience of children via social media in Latvia.

The research used the following information sources: theoretical literature and statistical data, research papers, press releases and other Internet sources pertaining to the marketing and communication industry.

The following hypothesis was put forward: today it is important for a company to identify the right target audience, and only then, based on the

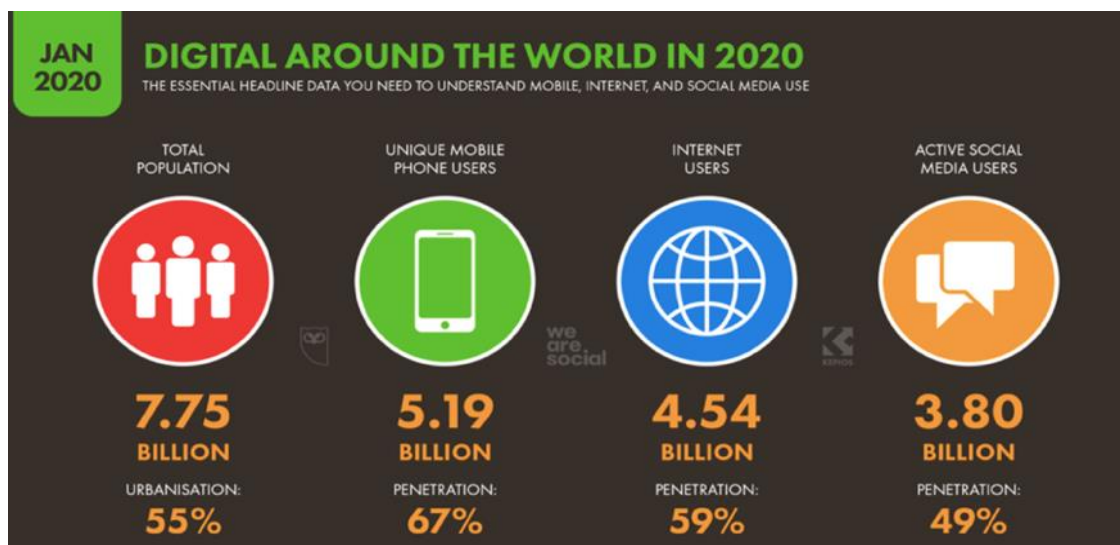
company's strategy, consider the need to use specific tools available in social media.

### **Research results and discussion**

At present, marketing communication via social media is considered to be one of the most demanded areas of modern marketing, which allows companies to maintain constant two-way feedback with consumers.

The objectives of marketing communication in the commercial field are as follows: to achieve brand awareness, gain consumer sympathy for the brand, inform the target audience about the goods and services offered and make consumers want to buy the products (Ang, 2014).

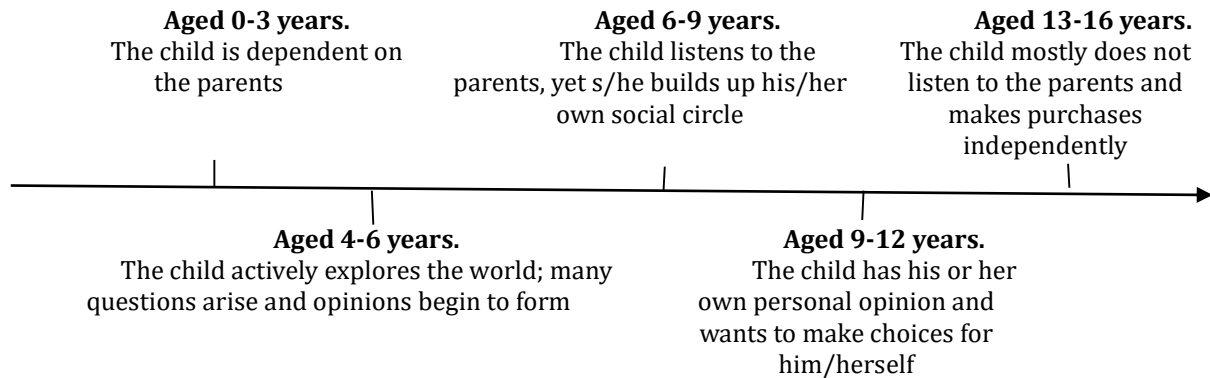
Global statistics show that at the beginning of 2020, more than 4.5 billion people used the Internet, while the audience for social media already exceeded 3.8 billion. Almost 60% of the world's population already used social media, which means that the audience of all social media increased by 9% in 2020 compared with 2019 (Kemp, 2020).



**Fig. 1. Number of users of the Internet, digital technologies and social media in the world in 2020 (Kemp, 2020)**

The popularity of social media increased across all age groups, reaching the maximum level also among children's audience. Entrepreneurs need to understand more than ever that communication via the Internet needs to focus not only on parents but also on children (Dimitriadis, Tsimonis, 2013). Children is a special group of consumers who look with interest at advertising in social media, like to try innovations and experiment. In addition, children are interested not only in various toys but also in their pocket money, as well as make small purchases independently.

Particularly popular among foreign researchers P.Thaichon (Thaichon, 2016), A.K.Eranil, T.Dilci (Eranil, Dilci, 2019), M.M.Luo (Luo, 2020) is Uses and gratification theory, which is used to explain the use of social media by children. In fact, this concept is based on an assumption that the use of certain media arises from a desire to meet certain needs. When working with a target audience such as children, the marketer should understand not only the needs and wishes of each child of any age but also how and when they form their own personal opinions (see Figure 2).



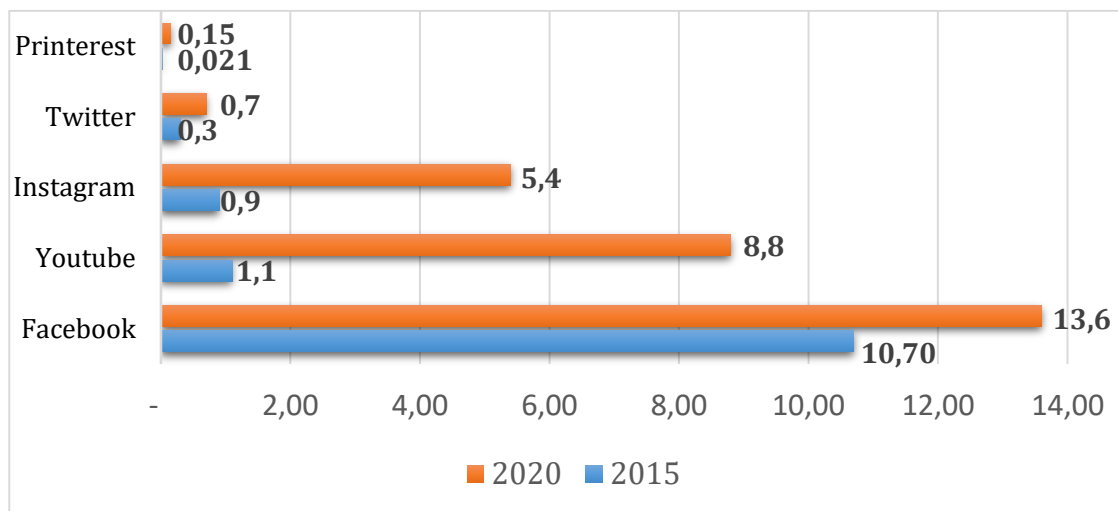
**Fig. 2. Differences in specifics of children of various ages**  
(Marshall, 2010)

As children's age changes, so does their perceptions. For example, children under the age of 3 are completely dependent on their parents. Pre-schoolers between the ages of 4 and 6 have and ask a lot of questions. They actively learn the world and ask a lot of questions, as well as begin to shape own personal opinions. Primary school children between the ages of 6 and 9 still listen to their parents, yet they already form their own social circles; this means that the children at this age have an opportunity to receive information from various sources and they take it into account when making a purchase decision. From the age of 9, children have their own opinions, they want to choose a product themselves, and there might be disagreements with their parents. From the age of 13, children very rarely listen to their parents, they begin saving their pocket money and make a purchase decision quite independently. It is also very important to mention that today, owing to the "digital world" available to almost every family, this classic scheme might not work. This means that modern children form their own opinions from childhood, listening not only to their parents but also to people from various social media such as YouTube or Facebook. It has been established that children's loyalty to the brand develops from the age of 5, which is why one can often hear such an expression as "to grow the target audience". Irrespective of a person's wishes, marketing communications, especially advertising, shape the modern human by influencing parents and especially

children's vulnerable psyche and triggering the subtle mechanisms of human emotions and motivations (Cohen, 2003). The interests of children of each age should be considered when communicating with the children.

LEGO is one of the world's most valuable brands and toy manufacturers, and the company has also succeeded in social media.

The LEGO brand uses various marketing channels in its communication strategy, including traditional and modern. Traditional marketing channels are associated with tools such as media articles, magazines, in-store advertisements and marketing campaigns. However, much has changed over time in terms of its marketing strategy, and LEGO uses a lot of digital tools to market its brand and products by creating official LEGO platforms in social media.



**Fig. 3. Number of LEGO brand followers in 2015 and 2020, mln.**  
(authors' construction)

At present, LEGO uses social networking platforms such as Facebook, Twitter, Instagram, YouTube and Pinterest to communicate with consumers. Promoting new products, LEGO regularly publishes videos on its Instagram and Facebook channels, yet sometimes the videos can include two or more things about its current products. It is also important to note that LEGO reaches an audience of more than 50 million via social media every month, of which about 30 million are reached only through its YouTube channel (The LEGO Group Sustainability Progress, 2019).

The LEGO group not only uses all known platforms for its communication, such as Instagram, Facebook and YouTube, but has also created some platforms in the digital environment where the group provides a link among consumers, for example:

- LEGO encourages consumers to share new building ideas and share their work on a site called LEGO Ideas, where anyone can submit their toy design ideas.

- In 2017, LEGO decided that children did not have enough opportunities to communicate with their peers and share photos of buildings from a construction game via social media. Therefore, together with the charity organization UNICEF LEGO, a social network LEGO Life for children under 13 years of age was created. By means of the application, which is available on iOS and Android systems, children can communicate with the help of only their emoticons. To date, the project has been implemented in four countries: the United States, the United Kingdom, Germany and France.

To further promote the new series, LEGO uses its YouTube channel, where opinion influencers show the new product in an interesting way, tell about it, as well as highlight its advantages. Over the past five years, LEGO has developed a social networking strategy that has significantly enhanced its brand awareness and, consequently, sales (Thita, 2020). This strategy is based on content that connects the company with consumers, as evidenced by the fact that consumer feedback is highly visible on LEGO social networking platforms. LEGO’s followers actively comment on its articles and share their experiences through feedback.

The most popular and oldest LEGO platform in social media in terms of number of followers is Facebook, which almost 3 million followers have joined in a period of five years. LEGO has been virtually communicating with consumers on the YouTube platform since 2014, yet since 2015 the brand has managed to increase the number of followers by 7.7 million. In 2020, the Instagram LEGO profile involved 5.4 million followers, which was 4.5 million more than in 2015. The number of followers has also increased on platforms such as Twitter and Pinterest. It is important to add that each platform has its specifics, which are also adapted to the age and interests of the followers. As it was established earlier in the present research, the LEGO brand carefully adapts its communication via social media to the specifics of children’s age (Table 1).




**Table 1. LEGO brand communication solutions via social media according to the specifics of children** (authors’ own compilation)



<b>Specifics of children</b>	<b>LEGO solution</b>
Specifics of children’s world view	Creates an opportunity to explore and discover the world based on brand communication
Spontaneous change of interests	Uses various platforms where the content is adapted to each construction game theme individually
Influence on parents	Parents are a parallel audience, for which content on Facebook and Twitter is customized

Desire to get everything ready	Communication shows that it is much more fruitful to develop creative abilities and create your own individual construction game
Reluctance to wait	Daily articles. New series are released on the YouTube platform every week
Pursuit of wealth and power	Uses your imagination not only during the game but also in the YouTube series
Desire for a fun time	Entire brand communication is based on having fun, combined with creativity and a positive attitude towards life
Several individual psychological traits	Tries to discover each child's potential abilities and talents by creating content in which the child wants to get involved and share his/her experiences
Desire to be part of a reference group	Uses opinion leaders in its communication
Fears	Promotes the desire to create a favourable mutual communication, to express one's fears through communication

By adapting its content posted in social media to the specifics of children, LEGO tries to meet one or some of the children's emotional needs that they cannot meet in their real lives. The target audience of the LEGO brand is mainly children aged from 1 to 15 years, while the brand has a lot of customers and followers also among adults. LEGO offers not only special products for customers segmented according to age but also segments its consumers in social networks and offers customized content.

**Table 2. Analysis of social media content for the LEGO brand**  
(authors' own compilation)

Platform	Content	Publication frequency	Specifics
	New product presentations, short films, reviews; Live broadcasts.	Once a week	The content is adapted to each construction game theme. The new construction game is presented by opinion leaders.
	Contests, games, news, short films, questionnaires.	1-2 articles a day	The content is designed to involve more followers in various competitions and games. Followers can share their experiences on the Facebook platform.
	Contests, short films, games, direct advertising.	1-2 articles a day	The content includes direct advertising of the latest series of construction games and their descriptions.

	Contests, short films, discussions.	4-7 articles a day	Contests based on feedback from consumers with photos. Quick response to followers' questions/feedback/comments. The content includes short films about the products.
	Entertainment articles, ideas (life hacks).	1-2 articles a day	The content is adapted to each construction game theme individually. Followers share construction game ideas with each other.

An individual approach is applied to each platform (Table 2).

**1. YouTube.** Short films represent an important part of LEGO's marketing strategy. The brand uses YouTube to publish all kinds of videos, including educational ones, which are aimed at increasing its brand awareness, increasing sales and increasing the number of followers. On the YouTube platform, LEGO presents new construction game series through opinion leaders. LEGO follows all the trends of events, for example, uses cartoon characters in their products. The company has licensing agreements with The Simpsons, Harry Potter, Star Wars and other cartoons. This allows the company to place short films on its YouTube platform, which demonstrate both the brand's products and the characters from the world's most popular cartoons.

**2. Facebook.** LEGO has over 13 million followers on Facebook. It has reached a great level of user engagement on Facebook. The brand publishes 1-2 articles every day, and most of them receive thousands of "likes". On the Facebook platform, LEGO offers its followers to participate in contests, games, as well as surveys. Questionnaires help the brand to find out consumers' opinions about a new product, as well as its followers have an opportunity to offer improvements or suggestions for the development of a new LEGO series.

**3. Instagram** is also one of the leading marketing channels used by LEGO. Its content is similar to that on Facebook. The LEGO Instagram platform has more than 5 million followers. The LEGO brand publishes images and videos on Instagram, as well as advertises the latest design series and their descriptions.

**4. On the Twitter** platform, LEGO offers its followers to participate in contests based on feedback from consumers with photos. Quick answers to followers' questions, feedback and comments are available on the Twitter platform on the LEGO part. There are often discussions on various topical issues, which also pertain to LEGO construction games.

**5. Pinterest** is the smallest platform used by LEGO. On the Pinterest platform, followers have an opportunity to share photos with each other. The



content is adapted to each theme of the construction game individually, and the followers can choose the most interesting things and post an article.

The increase in the number of followers shows that the brand carefully adapts the content posted in social media to its target audience, which is designed for young children, young people and adults. Based on the authors' previous analyses, the experts were asked to answer questions pertaining to corporate communication via social media and communication aimed at children's audience, as well as to assess LEGO brand communication.

Today children have very close familiarity with all current trends and developments; therefore, companies need to be able to deal with content for children and their vocabulary and interests. Children know all technological news, and entertainment is important to them; therefore, the companies that want to address their communication to children should understand all the current issues relevant to the children. An important factor that needs to be adapted to communication with children's audience is an appropriate design of the content – bright and noticeable. The research concluded that currently any company can successfully address the children's audience via YouTube, Instagram and TikTok while communicating with parents via Facebook and Instagram.

The research found out that communicating with children's audience via social media, companies should also know the specifics of children and their main wishes. Promoting a product could lead to a loss of consumer confidence, which is why LEGO builds relationships with consumers by engaging them in social networking. The research also found that LEGO is a good source of inspiration for companies in Latvia that want to create a strong brand story, thereby increasing their visibility through communication via social media.

## **Conclusions and suggestions**

Analysing the LEGO brand communication with children's audience via social media as well as performing an in-depth examination of the marketing industry expert opinions, the authors have developed recommendations to Latvian companies that provide a better idea of communication aimed at the target audience of children. To reach the target audience of children, Latvian's companies need to:

- 1. Give consumers what they wish.** Today it is important for a company in the market not only to supply a quality product but also promote loyalty by communicating with consumers via social media, especially if the company focuses on marketing children's products. The company should focus on what gives the most satisfaction to the target audience



chosen. It is necessary to follow up on what consumers actually feel and want to expect.

2. **Encourage active followers.** Addressing a company's communication with children's audience via social media, it is important to ensure the children are involved in it. This means that the company should take care not only to arouse interest in the children but also a desire to get involved in the company's communication and share positive feedback. For example, the company should offer its followers to participate in contests based on feedback from consumers with photos. By encouraging its active followers, the company promotes loyalty to its brand and products.
3. **Use popular films, books and TV shows in a company's communication.** Successful marketing campaigns often use popular TV cartoon characters to help address the audience and engage it the company's communication. They attract more children's attention and arouse interest in the children. However, it is important for each company to find its own individual approach to communication with consumers, researching in advance the right target audience, its interests and everyday problems, and then address it accordingly.
4. **Following the trends, create a cult of the company's product.** The authors mentioned above that the company should carefully follow all relevant trends, be able to deal with content for children and their vocabulary and interests in order to arouse interest in the children.
5. **An appropriate communication channel via social media.** It is important to note that for a company to communicate effectively, it should be definitely done via the right channel. Different generations do not want to be in the same social media space, i.e. together with their parents or children. It also means that companies have to adapt to individuals' habits in their communication and carefully follow the data on how their customers use the media. The authors concluded that currently the children's audience could be successfully addressed via YouTube, Instagram and TikTok while communicating with parents via Facebook and Instagram.
6. **The right audience and customized content.** The authors concluded that a company should primarily identify the right target audience and only then adapt its communication delivered via social media. The content aimed at children should be understandable, while messages should be short, diverse and entertaining. This means the company needs to communicate in child-friendly and easy-to-use language, not in adult language. Game elements should be involved in the communication as much as possible so that the child is interested in acting and there are some quick and easy assignments to complete.

7. **The graphic design of communication should be visible.** Visual design in communication with children via social media is an important factor. Children are aware of all current events and trends; therefore, it is necessary to follow the trends in graphic design in order to remain competitive. A well-thought out design allows the company to stand out and be noticeable.
8. **The company has to be able to think beyond traditional boundaries.** Addressing its communication with children's audience via social media, the company should constantly consider various non-traditional, new approaches and opportunities to reach the children and involve them in its communication. In case the company is not experienced in communicating with children, it is recommended to test its communication content or ideas on a small group of children before posting them in social media.

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# CORPORATE SOCIAL RESPONSIBILITY PRACTICES: THE EXAMPLES OF LATVIA AND UKRAINE

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**Abstract.** *Corporate social responsibility (CSR) as a good business practice and an organized movement develops and gains increasing support not only among entrepreneurs and businesspersons but also among consumers choosing goods and services from reputable enterprises that implement generally accepted business ethics in their daily operation. The problem of CSR has become urgent in the context of ensuring economic and sustainable business development. Increasing attention is paid to raising the competitiveness and efficiency of business through the principles of CSR. The latest research on reputation and CSR in Latvia shows that there are few entrepreneurs, national institutions and members of the public in Latvia who understand the basics of CSR and support the manifestations thereof. In Ukraine, CSR practices of companies are also at the initial stage of their development, they are carried out epidemically, and only large companies have sustainable development strategies and publish non-financial reports. The aim of the research is to assess CSR practices in Ukraine and Latvia. General scientific research methods were used in the given research, namely: the monographic and descriptive methods and comparative analysis. The results of the research revealed that socially responsible entrepreneurship related to the principles of sustainable development, i.e. meeting current needs without compromising the needs of future generations. Sustainable development is characterized by three interrelated dimensions: environmental, economic and social, through which socially responsible entrepreneurship could be assessed.*

**Keywords:** *corporate social responsibility, sustainable development, index, rating.*

**JEL code:** M14, Q01.

## Introduction

CSR as a good business practice and an organized movement has been developing and gaining increasing support since the 1990s not only among entrepreneurs and businesspersons but also among consumers choosing goods and services from reputable enterprises that implement generally accepted business ethics in their daily operation. Achieving high competitiveness and productivity is not possible without the involvement of the enterprises in international and global processes; therefore, CSR has become a part of corporate strategies in the last decade (Labklājības

ministrija, 2019).

The authors believe that the problem of CSR has become urgent in the context of ensuring economic and sustainable business development. Increasing attention is paid to raising the competitiveness and efficiency of business through the principles of CSR.

However, there are few entrepreneurs, national institutions and members of the public in Latvia who understand the basics of CSR and support the manifestations thereof (Labklājība ministrija, 2019). In Ukraine, CSR practices of companies are also at the initial stage of their development, they are carried out epidemically, and only large companies have sustainable development strategies and publish non-financial reports.

The aim of the research is to assess CSR practices in Ukraine and Latvia.

Specific research tasks:

1. To examine the theoretical aspects of corporate social responsibility;
2. To assess the implementation of CSR in enterprises in Ukraine and Latvia.

The research used general scientific research methods: theoretical generalization and comparison - in the study of theoretical aspects of CSR; comparative analysis - in the research of the best CSR practices, the sustainable development ratings principles and indices methodologies; analogies and extrapolations - in assessing the possibilities of using the world CSR experience in the realities of Ukraine and Latvia; logical generalization - in the formulation of conclusions.

### **Theoretical aspects of corporate social responsibility**

The concept of corporate social responsibility (CSR) dates back to the 1950s. Howard R. Bowen – considered the pioneer of CSR – defined CSR as “the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of objectives and values of our society” (Bowen, 1953). Dahlsrud (2008), after analysing 37 different definitions of CSR given in a time span from 1980 until 2003, concluded that the majority of scholars focused on five key organizational obligations when defining CSR: stakeholder, social, economic, voluntariness, and environmental. The researcher claimed that social obligations were among the most usable terms in the CSR definitions after stakeholder obligations (Dahlsrud, 2008). The stakeholders, being more cognizant, have been progressively demanding information on non-financial performance of companies. Sustainability reporting (SR) is, thus, a pertinent issue for companies today. It is defined by the Global Reporting Initiative (GRI) as “the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance toward the goal of sustainable development” (GRI, 2011).

In its resolutions of 6 February 2013 on, respectively, 'CSR: accountable, transparent and responsible business behaviour and sustainable growth' and 'CSR: promoting society's interests and a route to sustainable and inclusive recovery', the European Parliament acknowledged the importance of businesses divulging information on sustainability such as social and environmental factors, with a view to identifying sustainability risks and increasing investor and consumer trust. Indeed, disclosure of non-financial information (NFI) is vital for managing change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection (European Union, 2014). Non-financial reporting is a growing topic, and the adoption of the EU Directive 2014/95/EU on NFI is increasing the use of this reporting. One of the most distinctive elements of guidelines and standards that are widely used to draw-up reports on NFI is sustainability performance indicators (SPIs) (Raucci, Tarquinio, 2020).

Researchers revealed that CSR positively affects corporate financial performance (CFP) (Devie et al., 2018); customers' CSR awareness levels have a positive impact on company image and reputation, but the customers' perception of a company's CSR motives has a negative impact on the company's image and reputation (non-financial performance) (Nyarku, Ayekple, 2019); they created the sustainability reporting index framework, which is built on the basis of the stakeholder relationship theory and is focused on three main dimensions (social, economic and environmental) (Firmialy, Nainggolan, 2019). Arrigo (2012) concluded that the main output of corporate responsibility management is solid stakeholder relationships resulting in: employee attraction and motivation, a powerful brand, enhanced consumer perceptions, profitability. Through the corporate responsibility management process, fast fashion companies can achieve sustainable development". Gunawan and Tin (2019) analysed accounting research developments in the area of CSR) in Indonesia for the period 2012-2016 and discovered that ... (2) The most widely used variable associated with CSR was financial performance; (3) More than 80 per cent of the CSR research used annual reports as the source of data with only 19.23 per cent using sustainability reports; (4) 65.38 per cent of the CSR disclosure measurements referred to used other CSR disclosure lists, other than the Global Reporting Initiative (GRI). The sustainability and responsibility of corporate strategic management has become an important issue in recent years (Stiglbauer, 2011). The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The 17 Goals are all interconnected, and in order to leave no one behind, it is important that we achieve them all by 2030 (United Nations).

Businesses have a vital role to play in the sustainability transition. Over the last decades, both on a voluntary basis and spurred on by public authorities, an ever-growing number of companies have made environmental and social responsibility a core part of their corporate missions. More and more companies see the Sustainable Development Goals (SDGs) as an integral part of their competitiveness and growth strategy. They have understood that responsible business can lead to more sustainable profits and growth, new market opportunities, and long-term value for shareholders. In 2017, 78% of the world's top companies included CSR in their annual reporting (European Commission, 2019).

Corporate social responsibility is becoming an integral part of business for more and more companies. The concept of corporate social responsibility includes seven main aspects: corporate governance, human rights, labour relations, the environment, honest operating practices, consumer relations, community development. Summing up, it should be admitted that corporate social responsibility is not just the company's responsibility to stakeholders, to society as a whole, not just a set of principles according to which the company builds its business processes, but the real worldview of beneficiaries introduced by social projects that are really useful for local communities. This is the philosophy of organizing business and social activities, which is followed by companies which care about their development, about ensuring a decent standard of living for people, about the development of society as a whole and the preservation of the environment for future generations.

## **Main research findings**

### **Latvia**

According to the Employers Confederation of Latvia (LDDK), CSR is a philosophy of voluntary action and a way of affirming entrepreneurial values to society through building relationships among entrepreneurs, enterprises and influential audiences, which involves sustainable development and resource maintenance for future generations (LDDK, 2010). In 2010, a memorandum on the principles of CSR in Latvia was signed by 22 organizations representing the public, private and non-governmental sectors. The partners agreed to cooperate in the implementation, improvement and assessment of the principles of CSR.

In 2011, the LDDK established a CSR platform. The CSR platform is the main forum for CSR experts. The main purpose of the platform is to facilitate the exchange of expert experience and promote the development of a consolidated position of employers on CSR, referring to the CSR memorandum, as well as to give recommendations to public sector

organizations after assessing best CSR practices of enterprises. The platform ensures the implementation of CSR policies at the local, regional, national and international levels (LDDK, 2014).

Based on the need to assess progress in the field of CSR as stated by the Memorandum, the LDDK created a sustainability index for the implementation of it in cooperation with the Free Trade Union Confederation of Latvia (LBAS), which involved experts from various fields of sustainability. This was the only initiative of this kind in the world where business and employee representatives joined their efforts (Pārvaldība, n.d.).

The sustainability index is a strategic management tool based on an internationally recognized methodology that helps Latvian enterprises to diagnose the sustainability of their operation and the levels of their corporate responsibility. At the same time, the index provides the public as well as governmental and non-governmental organizations with objective criteria to praise and support the enterprises that help strengthen the economy of Latvia in a long term. The methodology for the sustainability index of Latvian enterprises is based on the most influential global indexes – the Dow Jones Sustainability Index and the Business in the Community CR Index – and takes into account the corporate responsibility standard ISO 26000 and the Global Reporting Initiative (GRI) G3 guidelines. The localized index assesses the performance of enterprises based on economic, social and environmental problems relevant to Latvia while also representing an internationally recognized understanding of the criteria of corporate responsibility and sustainability (Par iniciatīvu, n.d.).

In order for an enterprise to get its sustainability index score, it must register on the website [ilgtspejasindekss.lv](http://ilgtspejasindekss.lv), sign a document certifying that the enterprise has no insolvency status and tax debts and employs no unregistered employees as well as perform a self-assessment. The Expert Council has the right to verify the information provided by the enterprise with the State Revenue Service and the State Labour Inspectorate. A sustainability index questionnaire contains more than 100 criteria grouped in five sections, and each section has its own index weight determined by experts according to its role in the overall sustainability of the enterprise: the strategy (15%), the working environment (25%), market relations (20%), the public (15%) and the environment (25%). To exclude any subjectivity in the assessment, each criterion establishes the fact – whether or not the enterprise implements a particular practice. ... Just like in the world, the enterprise's website is increasingly used as an information channel to inform its stakeholders about the progress made in the field of corporate sustainability and responsibility (LBAS, n.d.).

Based on index scores, enterprises are divided into four categories: platinum (index score above 90%), gold (index score from 80 to 89.9%),

silver (index score from 60% to 79.9%) and bronze (index score from 40 up to 59.9%). For example, the enterprises that reach the platinum level in the sustainability index have fully integrated corporate responsibility into their operation and have appointed those responsible at both the supervisory board and the executive board levels. Such enterprises systematically collect data and perform assessments of their impacts, which indicates a 3-4-year steady improvement in their performance in all the areas where the enterprise makes some impact. Such enterprises operate and report on their activities with a high level of transparency and influential audience involvement (LBAS, n.d.).

The results of the 2020 sustainability index assessment done by the Institute of Corporate Sustainability and Responsibility (InCSR) show that the understanding of Latvian enterprises and organizations about the principles of responsibility and sustainability increased. This year, the performance of the institute's members reached 75.4%, which was almost 30% higher than that reported by the first sustainability index assessment, which was done in 2010. The minimum sustainability index threshold was reached by 62 participants. Of them, 19 organizations qualified for the high platinum category (e.g. the JSC Latvian Railways, the JSC SEB bank etc.) (InCSR, 2020).

As mentioned above, the sustainability index is based on self-assessments of enterprises; as a result, the enterprises that are liquidated a few months after being rated for sustainability sometimes receive high ratings in the index. Sustainability index coordinator D.Helmane explains that "The index is based on a self-assessment, in which the enterprise confirms each answer by a document or publicly available information about its performance. Prior to this, all the participants sign a statement that the information provided is true. If the enterprise does not provide true information or the documents are drawn up but do not work in life, it is the enterprise's responsibility. Throughout these years, we have repeatedly emphasized that the stakeholders (employees, customers, the public etc.) should respond if they notice that an enterprise's real performance differs from that reported by the sustainability index or other assessments" (Pietiek, 2020).

Feedback from the participants (enterprises) shows that the sustainability index:

- helps enterprises to develop, implement and assess responsible business practices;
- helps to integrate the principles of corporate responsibility into the business strategy;
- provides a valuable analysis, pointing to both the most successful performance and development opportunities;



- offers an opportunity to track changes in the performance, as well as compare it with the performance of other companies;
- provides an opportunity to use the results of the index in the enterprise's communication (Ieguvumi, n.d.)

To encourage Latvian entrepreneurs to implement CSR principles in their businesses as well as to perform a sustainability index assessment, it would be necessary to create a legal framework for identifying CSR activities and the benefits achieved.

### **CSR practices in Ukraine**

In Ukraine, CSR has not yet become a mass phenomenon - mainly this is the inheritance of international companies, their divisions and large domestic public companies. And only since 2015 after the adoption of the Sustainable Development Goals at the global level (SDG-2030), and subsequently after the adoption of a set of measures regarding the development of the "Strategy for the Sustainable Development of Ukraine until 2030," the Decree of the President of Ukraine "On the Goals for the Sustainable Development of Ukraine for the Period until 2030," more and more companies, including medium-sized ones, began to actively implement the principles of CSR in their activities. According to the survey conducted in June 2020, 83% of Ukrainian companies implemented CSR policies, and 52% of companies had approved CSR strategies (Центр «Розвиток КСВ», 2020; Зінченко, А., Саприкіна, 2018). Some Ukrainian companies had sustainable development strategies agreed with SDG-2030; others continued to implement previously adopted tasks within the framework of the CSR policy.

Companies review their CSR activities and put into strategy the achievement of certain SDG corresponding to the profile of their activities. Most often, their activities are focused on social aspects (staff development), individual environmental issues and solving the problems of local communities in business locations. At the same time, surveys show that the owners of a significant number of small companies do not yet realize the need to introduce CSR into their strategic and operational activities; they either do not understand how to do this, or have no motivation.

The elaboration of sustainable development strategies and CSR of Ukrainian companies is based on the Principles of Sustainable Development of the UN Global Compact, ISO 26000 and the GRI. The results of CSR activities are published either in the form of non-financial statements, or most often in the form of information on corporate websites.

There are different approaches to the choice of topics for assessing the sustainable development of companies and their implementation of CSR practices. In Ukrainian practice, methods for rating the sustainable

development of companies and the state of their CSR based on the index method have become widespread. Researchers' proposals for assessing CSR have more different methodological approaches. Generally, the following evaluation areas are identified: (1) social investment (and within its framework social policy), (2) efficiency/effectiveness of CSR, (3) CSR practices. Thus, Tovma (Товма, 2009) proposes to determine the rating of CSR using an indicator of the integrated efficiency of the social programme, taking into account quantitative coefficients (wage growth, staff turnover, admission of young specialists, etc.) and the overall qualitative indicator of CSR, which consists of partial quality indicators (collective agreement, social report, etc.). Berezina (2012) proposes a method for determining the rating of social responsibility of a corporation in the field of labour relations based on a quantitative assessment of CSR. Vasylchuk (2016) proposed to develop an integral indicator that is the index for assessing the performance of CSA (corporate social activity) of domestic companies. The author proposed the following key topics for the evaluation methodology: (1) general information about the organization of CSA management and sustainable development management; 2) social aspects (oriented to the internal perspective); 3) environmental aspects (oriented to the internal and external perspective); 4) corporate citizenship and charity (oriented towards the external perspective); 6) stakeholder management; 7) business ethics and compliance control. All the authors try to reflect more fully various aspects of the activities of corporations, which better corresponded to the peculiarities of Ukrainian realities, taking into account world experience.

Professional non-governmental organizations have also joined the assessment of CSR and sustainable corporate development. So, since 2011 the Development of Corporate Social Responsibility Centre has begun to calculate the Index of transparency of the companies of Ukraine (Зінченко, Резнік, Саприкіна, 2018) on introduction of the practices of CSR and informing the public, including the main stakeholders of the company, about the policy and practices in the sphere of CSR. The main feature of this index is that the object of the assessment is the company's website, and any user of the Internet can verify the validity of its results. Until 2018, the Index was the only tool for monitoring the development of corporate social responsibility in Ukraine on the example of the 100 largest companies in Ukraine.

Today, the most famous rating is the Sustainable Ukraine Rating, offered by Premier Business Consulting & Communications, the initiator of the Sustainable Ukraine project. According to its founders, this is the first professional rating of corporate sustainability of Ukrainian companies, based on leading world practices with a focus on the investment attractiveness of enterprises. The mission of the rating is to create prerequisites for the sustainable development of Ukraine, the growth of competitiveness and the

attractiveness of socially responsible business behaviour and, subsequently, the construction of the society according to a qualitatively new model. The Sustainable Ukraine Rating (Sustainable Ukraine, 2019) provides the unified ESG coordinate system for assessing and comparing the quality of corporate governance in companies, as well as their ability to influence society, manage non-financial risks and opportunities, and ensure their sustainable development. In addition, the analysis of the rating results will make it possible to predict the sustainable development vector of the entire Ukrainian business environment and the country as a whole. The main topics and areas included 4 main ones: financial and economic sphere, social sphere, environmental sphere, corporate governance sphere.

Therefore, it is advisable to get acquainted in more detail with the experience of CSR "best practices" of advanced Ukrainian companies that meet the criteria for sustainability. For such a study, we selected leading companies from the Sustainable Ukraine Rating, namely SE NNEGC (State enterprise National Nuclear Energy Generating Company of Ukraine) Energoatom, CJSC (Closed Joint Stock Company) Ukrhydroenerho, LLC (Ltd company) Kernel and FE (Foreign Enterprise) Coca-Cola Ukraine. For our analysis, we have chosen the main important aspects of the organization of the implementation of the strategy for the sustainable development of companies, namely:

- 1) the company's goal in the sphere of sustainable development (or CSR);
- 2) CSR main fields of activity or specific Sustainable Development Goals;
- 3) peculiarities of the implementation of the sustainable development strategy or CSR policy;
- 4) transparency, openness and ease of access to company information and reports;
- 5) features of relationships with stakeholders.

The information on the peculiarities of sustainable development practices of NNEGC Energoatom and CJSC Ukrhydroenergo is given in Appendix 1. Both companies belong to state-owned companies and work in the energy sector. The results of the comparative analysis show that both companies demonstrate a model for the implementation of sustainable development goals, the site has a separate section (or page) devoted to CSR and sustainable development, they submit non-financial reports, aim to achieve a sustainable future by introducing innovation into their areas of activity and have an action plan in three areas - environmental, economic and social ones. It should be noted that the companies work on their image and take part in various competitions and ratings.

Next, we compare the features of the CSR policy for the other two leaders of the Sustainable Ukraine Rating, which belong to the food industry - Kernel LLC and Coca-Cola Ukraine, which are a part of the international group

(Appendix 2). Thus, the comparative analysis shows that both companies pay considerable attention to social policy and the interaction with local communities, which allows them to ensure the loyalty of territorial communities and consumers. Both companies have a special marketing policy as a responsible producer, offer only high-quality and safe products; besides, Kernel is also distinguished by its environmental friendliness.

Summarizing the above, the given data on activities allow us to say that the above-mentioned companies demonstrate "best practices", which can serve as the basis for the development of sustainable development strategies for other domestic companies. There are the following most significant advantages of CSR for business development: the integration of CSR into the operating activities of companies and the introduction of CSR practices improves the company's reputation and brand, helps to develop and open new markets and business lines. Companies gain access to socially responsible investments, in the distribution of which investors take into account the indicators that characterize the company's activities in the field of CSR and sustainable development.

Recently, there has been a certain shift in consumer priorities: neither the price, nor the quality, nor the functionality of the product allows the manufacturer to stand out from the competition. The emotional involvement of consumers and common values are something that is quite difficult to develop and imitate, and if they are ingrained, it is difficult to give them up. In socially responsible companies, there is an increase in sales and in customer loyalty. Consumers want to know that products are made with an understanding of environmental responsibility as well as other social aspects. Some consumers are even willing to pay more for "responsible" products.

Thanks to the introduction of CSR practices in the field of ecology, companies have the opportunity to reduce operating costs as well as to improve the productivity and quality of their products and services. For example, by reducing the production waste or their recycling, increasing the energy efficiency or selling the recycled materials.

All of the listed above ultimately affects the increase in profits and the speed of its growth, as well as has positive impact on the growth of the company's competitiveness.

In the context of staff hunger, which is observed in almost all sectors of the economy, the implementation of sustainable development strategies of companies affects the expansion of opportunities to attract and retain employees: people prefer to work in companies whose values coincide with their own.

## **Conclusions and suggestions**

The concept of corporate social responsibility includes seven main aspects: corporate governance, human rights, labour relations, the environment, honest operating practices, consumer relations, community development.

In 2010, a memorandum on the principles of CSR in Latvia was signed by 22 organizations representing the public, private and non-governmental sectors. Based on the need to assess progress in the field of CSR as stated by the Memorandum, the LDDK created a sustainability index for the implementation of it in cooperation with the LBAS, which involved experts from various fields of sustainability. This was the only initiative of this kind in the world where business and employee representatives joined their efforts. The results of the 2020 sustainability index assessment done by the Institute of Corporate Sustainability and Responsibility (InCSR) show that the understanding of Latvian enterprises and organizations about the principles of responsibility and sustainability increased.

To encourage Latvian entrepreneurs to implement CSR principles in their businesses as well as to perform a sustainability index assessment, it would be necessary to create a legal framework for identifying CSR activities and the benefits achieved.

To assess the sustainable development of companies and the state of their CSR in Ukraine, the method of rating assessment based on the index method has become widespread. The most famous is the "Sustainable Ukraine" Rating, offered by Premier Business Consulting & Communications, the initiator of the Sustainable Ukraine project. The research conducted showed that, unlike foreign corporations, for Ukrainian companies, social responsibility is mainly one-time action, aimed at improving their reputation, and is provided without the desire (time and opportunity) to consider this process as long and continuous. It was revealed that the introduction of "best practices" and principles of CSR in the activities of Ukrainian companies has a number of advantages.

The more systematic introduction of CSR into the practice of Ukrainian companies will not only significantly improve the environmental and socio-economic situation in places where companies are present but also increase their profitability and investment attractiveness due to the opportunities provided by CSR.

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**Best CSR practices of NAEK Energoatom and CJSC Ukrhydroenergo**  
(compiled by the authors based on Energoatom, 2018; Укргідроенерго , n.d.)

Company	Company's goal in implementing sustainable development strategy	CSR main fields of activity or specific Sustainable Development Goals	Peculiarities of strategy implementation	Transparency and openness
SE NNEGC Energoatom	The Company aims to maximize its contribution to the sustainable development of society, taking into account all economic, social and environmental aspects. Among the key fields of the Company's activity are responsible attitude to production, society and the environment, as well as creating decent working conditions for the Company's workers and caring for future generations.	The three Sustainable Development Goals Goal No. 7: Ensuring access to affordable, reliable, sustainable and modern energy sources for everybody; Goal No. 9: Putting in place sustainable infrastructure, promoting comprehensive and sustainable industrialization and innovation; Goal No. 13: Taking urgent action to combat climate change and its effects.	One of the main areas of CSR activity is work with staff, as well as the implementation of educational projects, the development of the social sphere in satellite cities, concern for the environment and ecology and corporate volunteering.	The Company was awarded in the competition Deloitte Sustainability Report Award, The Green Frog Award (GFA) 2018 for demonstrating the best indicators of sustainability and strategic commitments published in non-financial reports.
CJSC Ukrhydroenerho	The company's CSR strategy is aimed at voluntary integration of social and environmental aspects in the production and economic activities of the enterprise and their implementation in cooperation with stakeholders. The company's CSR is aimed at improving the social ecosystem in places where the company is present.	The Company's activities are guided by CSR 2030, which were approved at the UN Summit on Sustainable Development in 2015 and the 10th principles of the UN Global Compact.	1. Increasing public confidence in the company's activities. 2. Introducing the principle of environmental responsibility and innovations into production processes and projects. 3. Creating a favourable environment for realizing the potential of the company's employees.	They regularly inform the representatives of stakeholders in a manner that they understand the results of their CSR activities.



Appendix 2

**Best Practices for Sustainable Company Development of LLC Kernel and Coca-Cola Beverages Ukraine**

(compiled by the authors based on Kernel, n.d.; Coca Cola Hellenic Bottling Company Ukraine, n.d.)

Company	Company's goal in implementing sustainable development strategy	CSR main fields of activity or specific Sustainable Development Goals	Peculiarities of strategy implementation	Transparency and openness
LLC Kernel	The global goal is to develop the society by means of the voluntary contribution of business to the social, economic and environmental spheres related to the Company's activities and achievement of strategic goals.	1. The social goal is developing the potential of people, ensuring labour and health protection, creating conditions for the self-realization and professional development of employees, contributing to solving socially significant problems and developing communities in the regions of presence. 2. The economic goal is to achieve maximum profitability through the efficient use of resources, the introduction of the latest technologies, continuous improvement of processes, transparent and open operation. 3. The environmental goal is maximizing energy efficiency, minimizing the negative impact on the environment, reducing greenhouse gas emissions, processing and minimizing waste, preserving land properties for restoration.	1. Kernel is a responsible employer 2. Kernel is a social investor and public leader 3. Kernel is a reliable partner 4. Kernel is a responsible producer	Kernel regularly provides information on sustainable development and CSR in the annual report in accordance with the requirements of the current legislation and international standards, GRI principles, and also posts information about the principles on the Company's corporate website and other resources.
Company Coca-Cola Beverages Ukraine	CSR and sustainable development are inseparable from the approach to doing business, which is embodied into its mission and values.	Three strategic objectives are at the heart of the company's sustainable development approach, namely: <ul style="list-style-type: none"> <li>• Health and well-being</li> <li>• Environmental protection</li> <li>• Development of local communities</li> </ul>	The company seeks to work in a responsible way by means of engaging stakeholders and communities in support of their sustainable development.	The company aims at achieving strong corporate governance and leadership, as well as transparent reporting.