



ABSRC 2020

CONFERENCE PROCEEDINGS

*Advances in Business-Related
Scientific Research
Conference - Abstracts*

*Advances in Business-Related
Scientific Research
Conference - Papers*

ABSRC 2020
November 12, 2020

Editor: Ajda Fošner

www.absrc.org

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Kataložni zapis o publikaciji (CIP) pripravili v Narodni in univerzitetni knjižnici v Ljubljani COBISS.SI-ID=37924099 ISBN 978-961-6347-75-4 (epub) ISBN 978-961-6347-76-1 (pdf)	Copyrights: Name, form, design, reproduction - GEA College - Faculty of Entrepreneurship; Contents of individual papers - paper authors Editor: Ajda Fošner Issued and published by: GEA College - Faculty of Entrepreneurship, Dunajska 156, SI-1000 Ljubljana, Slovenia Year: 2020 (November 2020) Publication URL: https://www.absrc.org/publications/past-conference-proceedings/proceedings-ljubljana-2020/
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ABSRC is an important international gathering of business and business-related sciences scholars and educators.

ABSRC 2020 - organized by GEA COLLEGE - Faculty of Entrepreneurship.

Online Conference

Publisher: GEA COLLEGE - Faculty of Entrepreneurship, Dunajska 156, SI-1000 Ljubljana, Slovenia.

All submissions were reviewed. Selection for inclusion in the conference program was based upon quality, originality, and relevance, in the judgment of the review process.

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KEYNOTE SPEAKER



Alexander Christian Bauer

Senior Lecturer (Wittenborg University of Applied Sciences)

The background of Alexander Bauer is more than a decade of international sales and management experience. Before he joined academia in 2014, he worked as an International Sales Manager - leading international sales teams, negotiations with customers and suppliers on a global level with customers and suppliers in North and South America, Europe and Asia. He studied Business Management with a major in Marketing and Sales in Germany and Estonia and holds a PhD degree in International Business Management and - since Alexander believes strongly in the concept of lifelong learning - he studies European Law besides his full-time job.

Originally from Germany, Alexander settled down in Vienna / Austria, but spent many years abroad - US, Belgium, Estonia, UK, Malaysia, Sweden, Mexico, The Netherlands. After a career as an International Sales Manager, Alexander joined academia and brought his practical sales and management experience into the classroom - first in The Netherlands and later back in Austria. Besides being a lecturer and researcher in Austria, he is also a Visiting Lecturer in The Netherlands and a Trainer for Presentation Skills, Rhetoric and Sales Trainings. His current research focuses on the utilization of sales competitions in sales trainings / sales education and the use of sales labs in sales trainings.

Abstract

Impact of Sales Competitions on Students' Sales Competences

Sales is a key element in every company - and its importance has increased globally. An intense worldwide competitive business environment makes it necessary to have not only managers who "just sell": The challenge for companies - and their sales managers - is to understand their customers

more than ever before and to offer them tailor made solutions and added value - faster and better than other companies in the market. Therefore, all companies worldwide look for well-trained students from the sales field with excellent sales skills.

Among students, sales itself still has a relatively negative touch - since sales is often not seen as an academic discipline or a particular management skill. Other “buzz words” such as business development have a much better image among graduates. To get students in touch with sales, sales competition role plays are an instrument to train students for a future career in sales.

As an additional side effect, participation in sales competitions changes a possible negative perspective into a positive attitude towards sales. Sales competitions are a didactical training method which can be incorporated into a business management curriculum. Through sales competitions, competences such as communication skills, cultural sensitivity and the strategic understanding of sales are further developed and form a solid foundation for a successful career in sales.

In the key note it is addressed what impact sales competitions have on the student’s skill set and how sales competitions can be incorporated into a business management curriculum.

Key Words

Sales, Sales Competition, Sales Education, Sales Competences

KEYNOTE SPEAKER



Sotiris Karagiannis

Graduate Business Programs Director (University of New York in Prague)

Sotiris Karagiannis holds a Master's degree in Adult Education, with emphasis on the development of human potential (Lesley University, Boston). He also holds a MBA degree (University of Strathclyde, Glasgow). Currently, he is doing his Doctorate research in Educational Leadership with the University of Bolton, UK. He has more than twenty-five years of experience as a corporate trainer and coach, applying the principles of positive psychology and strengths based leadership in his work. He is now living permanently in Prague, where he manages the Graduate Business Programs and the Corporate Training division of the University of New York in Prague.

Sotiris Karagiannis managed the Greek franchise of Dale Carnegie Training and trains people in Leadership, Sales, Customer Service and Presentation Skills. His client portfolio includes companies like Bayer, Boehringer-Ingelheim, 3M, TUI, Danone, Johnson&Johnson, Janssen, Ericsson, Mondelez, Quest Group, Oracle, Apple, New Frontier Group and many more, with which he designs and develops training programs aiming at inspiring people to acquire a positive attitude towards change for personal and organizational development.

Sotiris Karagiannis has also worked in the shipping (4 years) and packaging (5 years) industries, combining market knowledge with coaching and training practices to help people set a hands-on personal development plan, through the use of tools and techniques they can apply instantly.

His area of interest is employee engagement and has been working with Daniel Pink 's Drive program to increase the levels of engagement of people, by fostering a culture at work that builds upon the principles of "autonomy-mastery-purpose".

Abstract

Investigating the impact of basic psychological needs satisfaction on engagement and performance among MBA students

The satisfaction of basic psychological needs of autonomy, competence and relatedness positively affects student engagement and performance. The current research was carried out to investigate the mediating effect of perceived teacher autonomy support on students' basic psychological needs satisfaction.

A case study was conducted on 25 MBA students attending a single class in an English-speaking university in the Czech Republic. Data were collected by a valid questionnaire and semi-structured interview of the lecturer and were compared with student feedback on their learning experiences from the course.

In total, more than 70% percent of the students perceive the lecturer as being highly supportive of autonomy, which results in positive learning experiences that satisfy their basic psychological needs of autonomy, competence and relatedness. It was also found that the lecturer's positive experience of satisfaction of the need for autonomy strongly associates with the provision of an engaging learning environment for students that supports their performance and sense of competence.

The findings confirm earlier studies showing that when lecturers satisfy their need for autonomy, they positively affect engagement and performance of students. The implication for educational leaders is to design and implement appropriate coaching interventions to help lecturers offer autonomy supportive experiences to their students.

Key Words

Autonomy, competence, relatedness, student engagement, student performance

BUSINESS PROCESS RE-ENGINEERING AND THE CLIMATE PERCENT: A MATRIX GUIDE FOR EMPIRICAL STUDIES OF GREEN BPR

Henryk Julian Seeger
Germany
h.seeger@gniwi.de

Abstract

As stated by the Intergovernmental Panel on Climate Change (IPCC), the average increase in the earth's temperature has dramatically increased since the past decade. House gas emissions, deforestation, fossil fuel burning, and other human drivers are acknowledged as the main factors that cause climate change. Given the drastic changes in the earth's temperature, organizations have recognized their environmental impacts, and have started taking actions to reduce gas emissions. In order to develop environmentally responsible strategies, many organizations and businesses have been searching for methods and technologies to optimize the usage e of their resources. However, the literature review indicates that there is a lack of empirical literature analyzing companies' green BPR applications. The absence of such analysis in the discipline, as well as the importance of the topic, indicates a need for a systematic study. In this context, this study is designed as a preliminary study to develop a matrix guide to inquire about the Green Business Process Re-engineering (BPR) practices of companies Business Process Re-engineering (BPR) and their success to reduce their carbon footprints.

Key Words

green Business Process Re-engineering (BPR), climate change, empirical studies

Introduction

Climate change is a complex global phenomena. It involves science, economics, society, politics, and ethics. Climate change has been felt on both global and local scales. Human activities are causing 1.0°C of global warming above pre-industrial levels. Since the 19th century, the earth's surface temperature has risen about 0.98 C. The temperature change has driven by increased carbon dioxide and other human-made emissions. 2016 was the warmest year on record. In 2018, during his address to the UN General Assembly, Secretary-General António Guterres stated that the past two decades had included eighteen of the twenty warmest years since 1850 (Masson-Delmotte et al. 2019). The IPCC Special Report entitled "Global Warming of 1.5 C" confirms that climate change is already affecting people, ecosystems, and livelihoods. Climate-related risks, such as risks to health, livelihoods, food and water security, economic growth etc., are expected to increase with global warming of 1.5 C.

Limiting warming to 1.5 C requires unprecedented transitions in all aspects of life, including society and economics. Limiting warming is also seen as crucial to achieving other global goals, such as the Sustainable Development Goals (Masson-Delmotte et al. 2019). Warming from the pre-industrial period to the present will cause further long-term changes such as sea-level rise. Climate-related risks that may affect natural and human systems "depend on the magnitude and rate of warming, geographic location, levels of development and vulnerability, and on the choices and implementation of adaptation and mitigation options" (Masson-Delmotte et al. 2019, 5).

The worldwide commitment to deal with climate change involves two strategies, namely mitigation and adaptation. Mitigation involves reducing greenhouse emissions by reducing sources of these gases or enhancing places that greenhouse gasses are accumulated. Mitigation activities aim to minimize human interference with the climate system. Furthermore, by introducing mitigation strategies, greenhouse gas levels are expected to be stabilized. Eventually, it is expected that stabilizing greenhouse gas emissions will enable sustainable economic development (NASA, 2020). As the second strategy, adaptation involves adjusting to the expected future climate by reducing the vulnerability of human beings' to the harmful effects of climate change. Adaptation to changes in climate has been a constant for people's lives. Human beings have been coping with changes in the climate, while societies which failed to adjust changes in the climate have gone through extinction. Droughts are always being a significant reason behind the fall of civilizations and societies. Today, human beings need to learn how to adapt climate change. On the local scale, by building flood defenses, planing for heatwaves, and by installing water-permeable pavements etc. we see cities and municipalities at the frontline of adaptation (NASA 2020). At the national scale, as stated in UN's IPCC report (2014) "Climate Change Impacts, Adaptation, and Vulnerability," national development plans are now being drafted to respond to the risks of climate

change. Today, the majority of governments have plans to manage extreme disasters and their associated risks (Field and Barros 2014).

Besides local and national level governments, to curb their greenhouse gas emissions, businesses need to reconsider their business processes. In this context, the aim of this article is to analyze Business Process Re-engineering (BPR) as a way to achieve sustainable value for businesses. In this study, A Matrix Guide will be developed to evaluate the Green BPR practices of companies, and their success to reduce their carbon footprints. Answers to the following research questions will be sought: *What defines Green Business Business Process Re-Engineering? Which environmental problems are addressed by Green BPR? What are the most common analytical frameworks of the green business process reengineering life cycle?*

In this study, literature in the field of green business, green BPR, and climate change will be reviewed. Combining the literature review with the analysis of the relationship between the BPR and green businesses, the first section reviews concepts of green business and BPR. Strategies of green businesses and the need for green BPR implementations will be presented in this section. Then, in a separate section the framework of the Green Business Re-engineering Life Cycle of Li Chen Lan (2011) will be presented. Following the literature review, based on Lan's framework of the Green Business Re-engineering Life Cycle, an empirical inquiry model namely A Matrix Guide for Empirical Studies of Green BPR will be proposed. This matrix aims to explore and analyze businesses' green BPR practices.

Conceptual Framework: Green Business, Business Process Re-Engineering (BPR), Critical Success Factors for BPR, and Green BPR

Besides its challenges for local and national level governments, climate change poses challenges for businesses. Businesses are expected to provide services or products with less harmful effects on the climate. Furthermore, businesses consider their core functions of strategy, finance, operations, marketing, etc. within the context of the risks and opportunities of climate change (National Research Council, 2014). Experts list specific steps for businesses to curb their greenhouse gas emissions. For example, the following steps are suggested by Fournier (2017):

1. Measure and analyze greenhouse gas emissions,
2. Reducing energy consumption,
3. Prioritize renewable energies,
4. Reduce waste,
5. Optimize employees' transportation,
6. Choose greener infrastructures and equipment,
7. Choose sustainable suppliers,
8. Raise awareness among employees, clients and other stakeholders,
9. Promote environmentally friendly ways of working,
10. Mobilize for the climate change challenge.

Ecological concerns increasingly become one of the main topics of the agendas of business firms (Gadenne et al., 2009). This trend brings us the first concept of the study: Green Business. Many firms are taking these ecological, environmental concerns as influential in their operations. Thus, a growing number of business firms have been adopting green elements in their business activities. In this context, the green business concept has been developed in the literature. The concept of green business refers to businesses that are “focused on sustainability, in environmental and resource terms” (Kanchan, Kumar and Gupta 2015, 94). Companies which adopt green practices “have made efforts to introduce low-carbon, resource-efficient, and/or remanufactured products, processes, services, and business models, which allow them to operate and deliver in a significantly more sustainable way than their closest competitors” (Kanchan, Kumar and Gupta 2015, 94). Green operations practices, energy management, waste management, water management, introduction of green culture, green supply chain management, green purchasing, environmental design, green products, green pricing are among the green business initiatives that can be adopted by businesses (Kanchan, Kumar and Gupta 2015, 99).

The second concept, which is vital for the analysis, is Business Process Reengineering (BPR). To reduce their greenhouse gas emissions and to develop environmentally responsible strategies, businesses need to reconsider their business processes. In this regard, a green business process reengineering approach has emerged. In its most basic sense, Business Process Reengineering (BPR) is a management tool, which was introduced by Hammer in 1990s (Hammer and Champy 1993). BPR is designed for businesses to deal with rapid changes in people’s behavior and culture, technology, and business. BPR integrates all processes to fulfill a specific business goal (Cheng et al., 2006). BPR is not for changing existing processes, but thanks to BPR, businesses started to question the necessity of each process. The BPR helps them to find better ways to follow these processes (Salimifard et al. 2010). The literature on BPR also defines Critical Success Factors (CSFs). Generally, researchers list the use of IT, top management commitment, employee cooperation, collaborative working environment, and egalitarian leadership as CSFs (Herzog, Polajnar, and Tonchia 2007). The factors mentioned above are considered as vital for the success of BPR implementations. Besides these basic CSFs, customer involvement (Ahadi 2004), change management (Ahadi 2004), customer involvement (Ahadi 2004), flat bureaucratic structure, (Ahmad et al., 2007), adequate financial resources (Ahmad et al., 2007) are also listed as CSFs for BPR.

Lastly, the concept of green business process reengineering will be explained. As process-centered techniques can address environmentally sustainable process-related objectives, researchers have increasingly advocated extending the scope of BPR with environmental sustainability. This approach is known as Green BPR. As stated by Nowak et al. (2013, 169), Green BPM considers the environment together with the “optimization of

costs, quality, time and the flexibility of the business processes.” Green BPR involves the understanding, documenting, modeling, analyzing, simulating, executing, and continuously changing of business process with dedicated consideration paid to the environmental consequences of these business processes” (Seidel, Recker, and vom Brocke, 2012, 5). The environmental sustainability dimension often depends on the type of business process. Thus, green BPR takes different forms of process management, i.e., to reduce electricity consumption or carbon emissions. In this context, companies’ efforts to reduce their carbon footprints, and their rates of environmental degradation are measured. Many governments have produced a list of environmental Key Performance Indicators (KPIs) or Key Environmental Indicators (KEIs) that are relevant to businesses. The four main environmental KPI areas are identified as the following: emissions to air, emissions to water, emissions to land, and resource use (See DEFRA 2006). In the next section, green BPR, its implementations by businesses, and their effects on climate change will be discussed (See Figure 1 Honeycomb of Green BPR Characteristics and Practical Implications).

Starting in the first decade of the 2000s, particularly in the IT/IS sector, green sustainable business methods have increasingly being adopted. Thus, in the past 20 years, questions concerning the value addition of IT for the green business have become a particular issue. The research to evaluate the IT/IS sector’s green business strategies become hugely popular (See Butler and McGovern 2008; Boudreau, Watson and Chen 2008; Eliot 2007, Elliot and Binney 2008). Besides the sectoral implementations, the role of IS and IT in contributing business world’s efforts for sustainability (See Boudreau, Chen and Huber 2007; Boudreau, Watson and Chen 2008; Chen, Watson, Boudreau and Karahanna 2009). This line of research is called Green IT, Green IS, and IT greening, etc. Green IT is “a generic term and multifaceted construct for measures and activities that aim to increase the energy efficiency of IT operations and enhance the sustainable use of material resources” of a business (Opitz, Krup and Kolbe 2014, 3809). While Green IS is a broader term that includes Green IT. Opitz, Krup, and Kolbe defined Green IS as a term that encompasses “all IS-based initiatives that support sustainable business practices. Besides, the concept of IT greening exists, which encompasses the design, manufacture, use, and disposal of computers, servers, and associated subsystems efficiently and effectively with minimal or no impact on the environment (2014, 3809). Green IT and Green IS support process change to enable green business design (Opitz, Krup and Kolbe 2014). In this context, the role of information technology is seen as one of the significant success factors of the BPR, together with the human factor and organizational aspects (Hlupic, Choudrie, and Patel 2000).

Figure 1. Honeycomb of Green BPR Characteristics and Practical Implications

Green BPR and Climate Percent: Lan’s Green BPR Model

In this section, Strategies of green businesses and the need for green BPR implementations will be reviewed. Li Chen Lan’s framework of the Green

Business Re-engineering Life Cycle will also be presented in this section. By focusing on the transformation of input into an output, processes are central elements of analysis in the planning, management, and control of tasks in all sorts of businesses. To understand the management of business processes, several process models have developed. For example, Rosemann and De Bruin (2005), developed a maturity model. Their model evaluates an organization's ability to perform its process management based on the following evaluation criteria: strategic alignment, governance, methods, technology, people, and culture. Another most common model which is widely known is the BPR. Being a particular category of Business Process Management (BPM), BPR combines processes with resources, performance, and integration into the organizational structure—to generate a feasible process performance (Hammer 2010). In general, the Green BPR framework includes three dimensions: Management activities (Plan, Do, Check, Act), goals (reduce environmental impact, cultural change), and process stages (design, monitoring, improvement, implementation, operation) (Opitz, Krup and Kolbe 2014).

As mentioned previously, businesses have developed and implemented several strategies to minimize their carbon emissions. The Majority of these strategies often concentrated on reducing energy consumption and identifying alternate energy sources. Greening initiatives of business are mostly about re-designing and reengineering the business activities, tasks, ordering of procedures, etc. To be able to assess the organizational level carbon footprint, the energy consumption of each one of the business process should be measured. Such a process involves the review of processes, identifying carbon emissions, and re-designing these processes to minimize energy usage and carbon emissions (Chan 2011). Such green business initiatives are formulated as business process management, which incorporates modeling, reengineering, monitoring, and measuring processes. The success of both Green BPM and Green BPR depends on the organization's capacity to modify the processes. Furthermore, the success of green BPR also requires supportive management information systems (MIS) and knowledge management systems (KMS).

As far as the processes from green perspective are concerned, following Unhelkar's research (2011b), Lan proposes five characteristics of an environmentally conscious business process: necessary, efficient, effective, agile, and measurable. Necessary characteristic is about the need for the process. Necessity is identified through a review of a business' resources, operational, and strategic goals from a sustainability point of view. To work for the efficiency and effectiveness of a process, first we need to assess the necessity of a process in terms of its contribution in value creation and carbon emission nexus (Lan 2011). Secondly, efficient characteristic helps businesses to identify the most efficient activities/tasks involved in each process, or offer the appropriate way to achieve effectiveness of a process that to reduce the carbon generation within the process.

In many cases, technology is often embedded in the process. The third one, effective characteristic is about the validation of the process in ensuring that the process is actually achieving the carbon emission goals. Effectiveness is one of the primary characteristics. That is to say, a process can be efficient and agile, but if it does not achieve the targeted goals, it is not considered as effective. For example, if a process produces a substantial amount of wasteful carbon this process is not considered as effective at all. The most effective processes are the ones which limit carbon gas emissions as targeted (Lan 2011). Agile characteristic is the ability of the process to react in response to external and internal changes that are affecting the business. It deals with the adaptability of the process. If the process is agile, it changes quickly in response to changing external conditions with minimum carbon generation. The last one, measurable characteristic, "enables monitoring, control and ascertaining the success of its optimization" (Lan 2001, 4). In this sense, the "carbon content" of a process must be measured together with other process measures, such as cost, time, and quality. Lan (2011) uses the five process characteristics of Unhelkar and uses them as the basis for establishing a model to review and reengineer business process. Lan's e proposed "Green Business Process Reengineering Life Cycle" provides a roadmap for green business transition. Lan developed a detailed framework of five phases in reengineering businesses (Figure 2).

Figure 2. The green business process reengineering life cycle (Yang 2011, 5)

Phase 1: Examining business processes with green process characteristics: In this phase, business processes are examined based on the underlying green characteristics. Processes are examined and validated with the above-mentioned green business characteristics, namely necessary, efficient, effective, agile, and measurable. At the end of the first phase, only the ones that meet the criteria of green process characteristics will be reached to the next phase (Lan 2011).

Phase 2: Integrating business processes with environmental standards: The second phase covers the activities that integrate the business processes and environmental standards. As it requires a comprehensive and insightful understanding of the business processes and engaging in environmental standards, this phase appears as a complex phase. In this phase, appropriate methodologies are developed to understand how much CO₂ is being generated through the business activities with the help of detailed measurements for carbon reporting. For the standard alignment process, several challenges are identified such as global standardization, interaction with the existing systems, adoption of the appropriate Carbon Emissions Management Software, and establishment of the metrics (Lan 2011, 6)

Phase 3: "Green" business process re-design: The third phase involves a comprehensive process analysis of each business process. The analysis helps us to decomposed the processes into smaller elements to identify the energy intensity of each element. This phase is particularly essential for understanding the feasibility of processes and elements with a low carbon

focus. The phase will end up by proposing alternative "green" business processes, with reduced CO2 emissions (Lan 2011).

Phase 4: Training programs development and change management: In this phase, training programs are developed and implemented. This phase is about change management. After the re-design of business processes with lower carbon emissions, the change management phase starts with a particular emphasis on training programs. It is believed that training programs provide skills and knowledge relevant to the green business process re-design initiative. In this phase, staff gains essential skills and knowledge in the green business process. Furthermore, continue carrying out the training program to enterprises. Through the phase, the aim is to implement an effective communication system that includes all stakeholders and employees (Lan 2011).

Phase 5: Performance monitoring and process improvement: This last phase is the phase where the performance of green re-designing is monitored. Furthermore, continuous improvement of business processes, updating relevant services and facilities are conducted. This phase involves two steps: 1) Regular recording of "CO2-e measurement for each green business process" is conducted "to ensure the CO2-e-reading is similar to the initial measure after the green process re-design phase" (Lan 2011, 10). 2) "New equipment and hardware are evaluated and introduced to fulfill business process objectives while minimizing CO2-e" (Lan 2011, 10).

An Analytical Framework Model for Empirical Studies of Green BPR

The literature review shows that despite its popularity among BPM and IT/IS researchers; green BPR literature lacks empirical studies that are conducted on the individual cases of businesses. There exists comprehensive conceptual literature and literature on models identifying operational steps of green BPR, except for a few studies (See Hussain and Subramoniam 2012; Novak et al. 2013), there is a lack of empirical studies. As a result, this study aims to develop a matrix to be used as a guide for future empirical studies on Green BPR. The proposed practical guide is designed as a general guide for all sectors, but it may need adjustments regarding the specialties of the sectors. The guide is designed as a matrix that combines all levels and actors of the reengineering process, Key Environmental Indicators (KEIs), five characteristics of an environmentally conscious business process, and Lan's 5 phases of the green business process reengineering life cycle. It is believed that this matrix will also perform a blueprint for companies' green BPR practices.

Matrix Guide for Empirical Studies of Green BPR

Sector	Reengineering Process	Actor(s)	Phases	Action Level 1	Action Level 2
	Strategy	Top Management	1: Examining business processes with green process characteristics:	For Each Business Process Decide: Necessary (Y/N) Efficient (Y/N) Effective (Y/N) Agile (Y/N) Measurable (Y/N)	If the answer is No - discard, change or redesign the process
			2: Integrating business processes with environmental standards	1: Identify KEIs at global, national, local, sector and business levels 2: Integrate KEIs into each business process	See the standards and lists of KEIs at each level, and integrate them into business processes
	Design	R&D Staff, IT Developers, Business Analysts	3: "Green" business process re-design	Change or redesign each business process until they carry five characteristics of an environmentally conscious business process	1: See the standards and lists of KEIs at each level, if necessary redesign the processes to be able to reach the KEIs and make each process to carry 5 characteristics of environmentally conscious business process 2: Monitoring and Evaluation
	Realisation	H&R and R&D staff, Business Analysts, in-house/external trainers,	4: Training programs development and change management :	Develop and deliver training programs to make all the operational staff familiar with the re-engineered processes	Monitoring and Evaluation of the effectiveness of training programs
	Operational	Operational Staff	5: Performance monitoring and process improvement	Monitor & Evaluate each business process within the context of both KEIs and company's own performance and competitiveness indicators	In case of the presence of underperformed processes, start the reengineering process again. for this process.

Conclusions

The dramatic and continuous increase in the earth's temperature, which is known as climate change or global warming, has reflected the fact that house gas emissions, deforestation, fossil fuel burning, and other human drivers are the main drivers of climate change. As a result of the drastic changes in the earth's temperature, both governmental and non-governmental organizations have recognized their environmental impacts. In this regard, businesses are taking actions to reduce their gas emissions. In order to develop environmentally responsible strategies, businesses are implementing methods and technologies to curb gas emissions. In this context, this study evaluated Business Process Re-Engineering as a tool to achieve sustainable value of the businesses.

In this study, green Business Process Re-Engineering was introduced as a newly developed concept, and discussed with its practical implementations. The discussion show that particularly IT and IS practices as well as the business processes help businesses to transform their processes into sustainable practices. As far as the most common fields of Green BPR applications are concerned, three dimensions were defined: management activities, process stages, and Green BPM goals.

Increasing popularity of Green BPM and Green BPR applications of business has caused the development of frameworks/models for green business practices. As one of the most comprehensive framework, Lan's five phase model of the green business process reengineering life cycle was introduced. However, the literature review shows us that, despite the existence of green BPR frameworks and related studies, the literature lacks empirical studies that are inquiring the green BPR practices of firms.

As a summary, the relevant literature shows that, with certain limitations, Green BPM in general, Green BPR in particular is an extremely relevant among businesses. In this regard, based on the existing literature on the subject, an empirical model was developed to explore and analyze businesses' green BPR practices. It is believed that this empirical analysis model provides a guide for researchers who will conduct empirical analyses of the green BPR practices of businesses from different sectors.

List References

- Ahadi, H. R. 2004, "An examination of the role of organizational enablers in business process reengineering and the impact of information technology", *Information Resource Management Journal*, Vol. 17, No. 4, pp. 65-72.
- Ahmad, H. Francis, A. and Zairi, M. 2007, "Business process reengineering: critical success factors in higher education", *Business Process Management Journal*, Vol. 13 No. 3, pp. 451 - 469.

- Boudreau, M.-C. , Chen, A. J. and Huber, M. (2007) “Green IS: Building Sustainable Business Practices, in Watson, R. T. (eds.) Information Systems, Global Text Project, Athens, Georgia, pp. 1 - 15.
- Boudreau, M.C., Watson, R.T., Chen, A., (2008) From green IT to green IS. In: Biros, B. et al. (Eds.), The Organisational Benefits of Green IT. Cutter Information LLC, Arlington, MA, pp. 79-91.
- Butler, T., and McGovern, D. (2008) “The greening of the IT sector: problems and solutions in managing environmental compliance”, Cutter IT Journal, 21(2), pp. 19 - 25.
- Chen, A. J., Watson, R. T., Boudreau, M., Karahanna, E. (2009). Organizational Adoption of Green IS and IT: An Institutional Perspective. ICIS 2009.
- Department For Environment Food and Rural Affairs (DEFRA) UK (2006) “Environmental Key Performance Indicators: Reporting Guidelines for UK Business”
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69281/pb11321-envkpi-guidelines-060121.pdf accessed in March 13, 2020.
- Elliot, S., (2007) Environmentally Sustainable ICT: A Critical Topic for IS Research?, PACIS 2007.
- Elliot, S., Binney, D. (2008) Environmentally sustainable ICT: Developing corporate capabilities and an industry-relevant IS research agenda. Paper presented at the Pacific Asia Conference on Information Systems (PACIS), Suzhou, China.
- Field, C.B. and Barros V.R. (eds.) (2014) Climate Change 2014: Impacts, Adaptation, and Vulnerabilities, Cambridge: Cambridge University Press.
- Fournier, C. (2017) “10 Actions Companies Can Adopt To Fight Climate Change”, *Youmatter* Climate Strategy, Environmental Strategy News, <https://youmatter.world/en/actions-companies-climate-change-environment-sustainability/>, accessed in March 13, 2020.
- Hammer, M. and Champy, J., (1993). Reengineering the Corporation: A Manifesto for Business Revolution, Harper Collins, New York.
- Hammer, M. (2010) What is Business Process Management? in: vom Brocke J. and Rosemann (eds.) Handbook on Business Process Management 1: Introduction, Methods and Information Systems, Springer, Berlin, Germany, pp. 3 - 16.

Hlupic, V., Choudrie, J. and Patel, N. (2000) Business Process Re-engineering (BPR): The REBUS Approach. CTW, 2, pp. 89 - 96.

Hussain, M. N. and Subramoniam, S. (2012) "Greener healthcare using ICT based BPR", Paper Presented at Green Technologies (ICGT), 2012 International Conference, DOI: 10.1109/ICGT.2012.6477975

Kanchan, U., Kumar, N. and Gupta, A. (2015) Journal of Progressive Research in Social Sciences . 2(2), pp.92 - 100

Lan, Yi-Chen (2011) "Reengineering a Green Business" International Journal of Green Computing, 2(1), pp.1-11

Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.) (2018) Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, Geneva: Intergovernmental Panel on Climate Change (IPCC) https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_Low_Res.pdf, accessed in March 13, 2020.

NASA, "Responding to Climate Change" <https://climate.nasa.gov/solutions/adaptation-mitigation/>, accessed in March 13, 2020.

National Research Council. 2014. Climate Change Education: Preparing Future and Current Business Leaders: A Workshop Summary. Washington, DC: The National Academies Press. <https://doi.org/10.17226/18813>, accessed in March 13, 2020.

Nowak, A. and Leymann, F. (2013) Green Business Process Patterns—Part II. In Proceedings of the International Conference on Service-Oriented Computing and Applications, Kauai, HI, USA, 16-18 December; Institute of Electrical and Electronics Engineers (IEEE): Koloa, HI, USA; pp. 168 - 173.

Nowak, A., Leymann, F., Schumm, D. and Wetzstein, B. (2011) 'An Architecture and Methodology for a Four-Phased Approach to Green Business Process Reengineering', Information and Communication on Technology for the Fight against Global Warming. Springer Berlin Heidelberg, pp. 150 - 164. DOI: 10.1007/978-3-642-23447-7_14.

Opitz, N., Krup, H. and Kolbe, L.M. (2014) "Green Business Process Management - A Definition and Research Framework", In Proceedings of

the 47th Hawaii International Conference on System Science, pp. 3808 - 3818.

Salimifard, K., Abbaszadeh, M. A., and Ghorbanpur, A. (2010) "Interpretive Structural Modeling of Critical Success Factors in Banking Process Re-engineering" *International Review of Business Research Papers*, 6(2), pp. 95-103.

Seikel, S., Recker, J., vom Brocke, J. (2012) *Green Business Process Management*. In *Green Business Process Management: Towards the Sustainable Enterprise*; vom Brocke, J., Seidel, S., Recker, J., Eds.; Springer: Berlin/Heidelberg, Germany, pp. 3 - 13.

Unhelkar, B. (2011). *Green ICT Strategies & Applications*. Boca Raton, FL: Auerbach Publications.

FAMILY BUSINESS SUCCESSION IN EUROPE: THE CONTEXT OF PUBLIC POLICIES

Jaka Vadnjal
GEA College, Faculty of Entrepreneurship
Slovenia
jaka.vadnjal@gea-college.si

Predrag Ljubotina
School of Advance Social Studies
Slovenia
predrag.ljubotina@fuds.si

Abstract

Another viewpoint of influencing factors on family business succession as one of the critical milestones on the long-term family firm sustainability is explored in the study with a particular emphasis on entrepreneurship public policy support measures which are catalysed through creating entrepreneurship supportive environment at the university.

A survey was conducted among senior students in several countries within a broader research project. The study aims to explore various career ambitions within the context of the family business succession as one of the options in the lens of the individual's past family business experience. Multinomial logistic regression was the applied statistics tool performed on a sample of 23.485 respondents. Results confirm several findings from previous research but do not allow to confirm hypotheses on the positive impact of supportive university surrounding to a succession of the respondents as a preferable career option.

Thus, support measures at the university level tend to be more oriented to the start-up philosophy which seems to be a prevailing trend in the policy creation setting. On the other hand, again confirmed in this study, the higher is the level of the university support, the more intense is a general wish of students to start working on their own instead of entering labour market to seek a hired job.

Key Words

economic development, business succession, family business, career choice intentions, youth unemployment

1. Introduction

The contribution to study the family business succession issue is the main ambition of this paper. The complexity of the process is described by different inputs, both internal and external, which make this process and procedures demanding and challenging. However, until the launch of the GUESSS research in 2003, possible successors and their vision of the future have been drastically neglected, leaving them only little opportunity to raise their voice in this, for them, crucial matter. Most of the research pieces in the couple of decades of the studies in this field which is usually discussed within the entrepreneurship scholar framework was done in the United States. Only recently, research in the field expanded to other countries and cultures, confirming the assumption that family and family values are the very genuine fundament for running a mutual interest in the business.

Economic growth or stagnation is a traditionally popular debate in politics and public change and development. Analyses of the economic situation lead to developing several measures of public and economic policy with the ambition to give a push to economic growth and well-being of the population. Even more, entrepreneurial activity is traditionally recognized to be one of the most important pillars of economic growth as a value creator, job creator, innovation launcher and social changer around the world. As such, it has been introduced in probably all public policy reforms and programs.

Several motives are recognised when the self-employment option is weighted to employment (Kolvereid, 1996). It is suggested that the lack of a successor's motivation was one of the most significant reasons for an unsuccessful transition (De Massis et al., 2008). However, there is a gap for some more comprehensive understanding of career choice intentions of family business successors (Agarwal et al., 2016) which are traditionally believed to be in most cases expected to join their parents' business and to eventually take it over.

Business performance is a traditionally accepted indicator for the effectiveness of business succession. Several studies cover the issue of post-succession firm performance while there is a lack of research, which would connect previous firm performance and succession intentions (Bocatto et al., 2010). Family members' positive perception of business performance positively affects the long-term survival of family business (Olson et al., 2003) but may negatively influence manager's willingness to further development (Zahra, 2005).

There is a call for researchers to analyse entrepreneurial processes in the social practice theory context (Gratner et al., 2016), studying relationships between individuals and their greater environment which shape individuals' perceptions, interpretations and actions (Hargreaves, 2011). We are targeting this gap by analysing university surrounding and their curriculum reforms for supporting entrepreneurial thinking within the paradigm that the higher education system is one of the most important catalysts of a development-oriented policy of a country. In this context, we distinguish two groups: transition economies and market economies.

This study has a clear ambition to utilize the research methodology for a comparison of findings taking into account the different time horizon of the market economy experienced by the study participants. Namely, some of the participating countries share a common history of almost fifty years of communist regime experience, which, among others, broke the entrepreneurial tradition and prolonged the process of the development of the market economy for several decades together with the lack of conceptual integration of the relationship among typologies of executives, and technological and socioeconomic performance (Coccia, 2017). Studies have already confirmed that family firms in formerly planned economies may differ from the traditional western type of market economy and additional research is needed particularly in the developing countries (Agarwal et al., 2016). Additional attention should be given to the topic since new findings would contribute some knowledge into succession research (Baù et al., 2013). The analysis of the research results aims to provide benchmarking of the results to show the differences between market economies and transition economies, which may influence different attitudes of the students regarding their career versus entrepreneurial ambitions.

Assuming that there are several historically driven differences between market and transitional economies and consequently different public policy approaches, one may speculate, that this fact could influence the young generation's perception of a family business and a general understanding of entrepreneurial processes. Transition economies face substantial differences in the three dimensions (regulatory, cognitive, and normative), reflecting their idiosyncratic cultural norms and values, traditions and institutional tradition in supporting entrepreneurship (Manolova et al., 2008) in which regulatory dimension and transformation of the legal system are addressed very often in the public policy plans in the common framework of diminishing of administrative burdens for new and small businesses which call for several legal transformations. The impact of entrepreneurial parents and grandparents on the offspring is not alike in all regions and the influences are particularly strong in high in-group collectivism cultures (Laspita et al., 2012) which was the source of the motivation to study separately the transitional economies and economies with longer capitalistic tradition in a market economy.

Our research is designed as a multilevel study testing a model, which includes three levels of analysis: individual (motivation for self-employment), firm (family business performance) and environment (university support and curriculum development as a part of public policy of introducing entrepreneurship) focusing on senior university students (Agarwal et al., 2016). The model is tested on two geographically and politically different target groups originating from the same data source to provide mutual benchmarking since the country context affects behaviour (Agarwal et al., 2016; Zellweger et al., 2011).

We start this paper with an overview of the relevant research literature to develop a theoretical background and setting for further research. The chapter derives hypotheses for testing in the empirical research. Methods and data collection are explained in the following chapter with the

presentation and explanation of the ground worldwide research from which the primary data is derived. Results after utilized multinomial regression of the data are presented to lead to confirmation or rejection of hypotheses. In the concluding part, we provide discussions on findings and suggestions for future research.

2. Theoretical background and hypotheses development

A significant challenge to the long-term sustainability of family businesses is the process of passing the management and ownership to next-generation (Blumentritt et al., 2012). Family enterprises face specific barriers in an attempt to recognize, attract, and retain a motivated next-generation leader (Neubauer and Lank, 2016). Researchers have noted several factors that influence the transition process (De Massis et al., 2008; Brockhaus, 2004; Lam, 2011; Neubauer and Lank, 2016; Schröder et al., 2011), yet this field offering several research gaps.

Youngsters who were born in family businesses would instead of a dilemma between the career of an entrepreneur or an employee, have a choice to accept the role of a family business successor. However, this third option may appear to be whether an opportunity or a burden. On the other hand, a new start-up allows an individual to choose the area of interest but also requires more entrepreneurial abilities (Schröder et al., 2011). Next-generation family members struggle hard to make the right career choice as they are torn between helping the family and pursuing the career of their own choice (Murphy and Lambrechts, 2015).

Generally, it is more accurate to consider various factors when explaining a phenomenon in social sciences rather than focusing on a single item (Turker and Selcuk, 2009). Thus, this study aims to explain the next-generation potential career intention with a research construct which includes individual self-employment motivation, attended university entrepreneurial curriculum and other support environment and perceived business opportunity based on the family firm performance before the succession. Considering that there is a lack of consideration about how economic, demographic and institutional variations shape the succession process (Baù et al., 2013), we are exploring two different public policy environments and approach to their transformations.

Entrepreneurial start-up motives have extensively attracted researchers' interest (Ajzen and Fishbein, 1980; Kolvereid, 1996; Carter et al., 2003; Schröder, Schmitt-Rodermund and Arnaud, 2011) for many decades. Lack of motivation of the potential future leader to manage the family business is an important individual's factor which prevents family business succession (Lockamy III et al., 2016; Neubauer and Lank, 2016).

We are focused on the potential next-generation leader's career choice, which can actualize self-employment intention as an entrepreneur or a business successor. In this part of our study, we are targeting the next generation's intention on the individual level since an individual is at the centre of the succession process (Agarwal et al., 2016).

H1: The higher level of subjective norms including power distance leads founding own business to the succession of a family business is a preferable option and so it is succession to the employment seeking.

The impacts of a business environment have a major impact on the entrepreneurial process (Brockhaus and Horwitz, 1986). Individuals would not decide to start a business, which is not embedded in the business environment. They consult their environment and they are influenced by others (Aldrich and Zimmer, 1986). Other researchers also recognized that individuals do not exist in a social vacuum and that in some cases cognitive factors (as motivational factors) are surpassed by business surrounding context (Hargreaves, 2011).

Family business experience as well as formal education level may be important factors in explaining entrepreneurial interest (Wang and Wong, 2004). There are two more significant predictors of entrepreneurial intention, one of which is a supportive university environment. If a university provides knowledge and inspiration for entrepreneurship, the possibility for choosing an entrepreneurial career will increase (Turker and Selcuk, 2009). University studies can have a positive effect on entrepreneurship in the sense of economic growth which is instantly required in the modern world. Courses offered by the university with transformed curricula devoted to entrepreneurship influences a student's career choice, so universities may be a potential source of entrepreneurs (Turker and Selcuk, 2009). There is also a lack of understanding of how universities can effectively raise future entrepreneurs (Lüthje and Franke, 2003).

H2: The more intense student's perception of the university support for entrepreneurial intentions lead to the higher individual's preference for an own business venture comparing to succession and higher preference of succession comparing to employment.

The influence of succession on family business' post-succession performance has been often investigated (Eddleston et al., 2008; Habbershon et al., 2003; Olson et al., 2003; Wang and Wong, 2004; Williams Jr., 2015). On the other hand, there are not many research trials to investigate the relationship between past performance and succession (Bocatto et al., 2010).

In entrepreneurial families, long-term vision of generating family wealth drives entrepreneurial activities of family members towards sustainable growth of that wealth (Habbershon et al., 2003). Family business performance may be understood as a measure of long-term stability for an individual. Family member's positive perception of the family business (as a successful performer) affects the long-term survival of family business (Olson et al., 2003). Parents, successful entrepreneurs as role models may encourage heir for entrepreneurial career choice (Chlosta et al., 2012).

Good firm's performance will not necessarily lead to the appointment of a family member to a top management position (Smith and Amoako-Adu, 1999). Similarly, prior corporate performance is not significantly related to the likelihood of nominating a family successor (Bocatto et al., 2010).

Successful past performance may even negatively influence the manager's willingness to pursue entrepreneurial activities (Zahra, 2005).

Business performance is a valid indicator for the effectiveness of business succession (Morris et al., 1997). Subjective perception of business success can affect family's resources, trigger transitions or change family member's norms, attitudes and values (Aldrich and Cliff, 2003). Olson (2003) finds that family members are more likely to be engaged in more successful family businesses. Business problems, such as cash flow management, can significantly and negatively affect the functional integrity of the family (Olson et al., 2003). On the other hand, some recent researches haven't confirmed any significant correlation between the perceived family firm performance and the potential leader's attitude towards succession (De Massis et al., 2016).

H3: The more positive successor's perception of past business performance, the higher is the individual's preference for an own business career comparing to succession and succession comparing to employment.

Attracting and triggering personal interest in the next generation for family business succession is an important yet demanding incentive for family business long-term survival. Keeping the potential future leaders motivated for family business continuation is even more challenging. That is why family business transition process is such a large defy for both, the family and the business (Blumentritt et al., 2012).

The younger population seems to be more attracted to an entrepreneurial career. This makes the student population an important research target group since attitudes towards entrepreneurship are greatly formed at this stage of life-cycle (Shirokova et al., 2016). This attitude influences career decision, which students will confront very shortly when they enter the labour market after finalizing their education. Students with a family business background are in different position comparing to their mates. They are exposed to environmental influences, which are closely related to the family firm, their self-employed parents and business environment. Entrepreneurial parents can influence their children's career choice by providing opportunities for gaining knowledge, business experience, social capital and initial business conditions as a stable starting point for potential new start-up (Laspita et al., 2012).

Family firms account for two-thirds of all businesses all over the world and generate 50-80% of jobs in the majority of countries (Astrachan and Carey Shanker, 2003; EFB, 2018). Given the worldwide importance of family firms in a social and economic context, it is important to investigate motives for potential future leader's career choice intention (Astrachan and Carey Shanker, 2003). No studies are investigating the impact of macroeconomic factors on family business successor's career choice intention. The reason can lay in the fact that the vast majority of studies covering family business succession process are conducted for a single region (Agarwal et al., 2016). On the other hand, researchers already identified that different group of economies such as transition vs. market economies can have an impact on

the succession intention. Therefore, the issue is worth studying, since this could help better understanding the succession process (Baù et al., 2013). Entrepreneurial quality is based on personal characteristics, entrepreneurial orientation, and productive dependence and there is a correlation between the entrepreneurial quality of SME and the regional level of development. Low-income regions have lower entrepreneurial quality levels due to lower educational background, lack of previous experience and lower proactiveness and entrepreneurial orientation in other dimensions (Santos, et al., 2012).

3. Methods

3.1. Participants and procedures

The dataset from the global survey consists of more than 109.000 student participants from 34 countries around the globe. The anonymous online-based survey was conducted in late 2013 and early 2014. Potential multiple responses bias is prevented by applying the identification-based survey, using the participant's IP address.

We extracted 23.485 European students with family business background from the compiled data set. They are divided into two groups, analysed separately for the intra-group comparison. The first group counts 5.964 students from five European countries influenced by economic and political system transition processes, which started in 1990. The second group includes 17.521 students with family business background from 13 European countries with a long tradition in the market-based economy and thus, presumably with substantially different public policies.

A single generally accepted definition of a family business is still non-existent. For this paper, we adopted the definition according to which a family business is defined as a business in which the majority or controlling share is owned by one or more family members (Barnes and Hershon, 1976). This is the reason for including exclusively students with one parent or both parents self-employed who are majority owners and decision-makers. Knowing that retrospective studies can suffer from so-called survivor bias and to have a perspective view, we excluded students who already own their businesses (Gartner, 1989; Davidsson, 2004).

After performing a data reduction, we created two data sets: "Transition" group with 3.979 participants and "Market" group, including 6.617 student participants. The descriptives of both samples are displayed in table 1.

TABLE 1: Sample descriptives

Units: percentage (%)	Market	Transition
GENDER		
Male	39,6	37,2
Female	60,4	62,8
EMPLOYED in FB		

Yes	46,3	50,5
No	53,7	46,7
<i>CAREER CHOICE - fine</i>		
Employee in a small firm (1-49 employees)	21,9	27,0
Employee in a medium-sized firm (50-249 employees)	24,2	23,3
Employee in a large firm (250 or more employees)	25,8	20,9
Employee in a non-profit organization	4,1	1,7
Employee in Academia (academic career path)	8,4	2,1
Employee in public service	8,8	4,7
Founder (entrepreneur) working in my own firm	2,8	13,1
Successor in my parents' / family's firm	3,6	6,3
a successor in a firm currently not controlled by my family	,4	,9
<i>CAREER CHOICE</i>		
Employee	93,2	79,6
Founder	2,8	13,1
Successor	4,0	7,2
<i>Total N (number of participants)</i>	6617	3979

Our two samples are comparable. Gender frequencies of both groups are very close. Female participants prevail in both groups. Approximately half of the participants were already involved in the family business production process in both peer groups. We detected some differences in career choice. A larger proportion of students from market economy group prefer employment (93,2%) compared to their peers from transition countries (79,6%). Consequently, transition group has much more future potential and family business successors. In the market economy group, a higher percentage of students expect to start their career path in a large company. This is expected since students from transition countries have fewer opportunities for this kind of employment. A similar trend is observed in academia and public services, which are both much more preferred in the market economy group.

Our dependant variable is categorical with three possible dimensions (an employee, a founder, a successor). This is the reason for choosing a multinomial logistic regression as the most suitable method for data analysis. The multivariate approach allows us to build a complex model which covers several environmental factors influencing a student's career choice intention in both observed groups. Succession intention is a central category in both groups and as such is selected for a reference category in a logistic regression model. To limit our investigation to intergenerational family firm ownership transfers, we included only respondents who

answered the question, “Are your parents currently self-employed or do they have a majority ownership in a company?” with either “Yes, father,” “Yes, mother,” or “Yes”.

3.2. Measures

Dependent variable

As previously mentioned above, our dependent variable is categorical with three possible dimensions. Students were asked about their career choice intention immediately after their studies and five years after that. With the second question, five years period was used to enforce better focusing on career choice intention immediately after studies (Brockhaus and Horwitz, 1986). The method was used in similar studies (Zellweger et al., 2011). Students could also choose the answer “I don’t know yet”. This option allowed the exclusion of undecided students from the research. We avoided forced decisions at the same time, which could also result in biased results.

Independent variables

With our independent variables, we included several environmental factors in our regression model. Our goal is to cover a wide variety of environmental factors influencing a young individual career choice intention. These factors are mostly concentrated in their university environment, close family and in their family business. All variables are metered by using a 7-point Likert scale.

We are measuring the influence of the higher education institution environment by measuring how supportive the university is for entrepreneurial initiatives and mindsets of students and staff. Three items were used for measuring the university climate following the examples from previous studies (Franke and Christian, 2004).

Previous studies confirmed the influence of business skills and entrepreneurial knowledge on career choice intention (Souitaris et al., 2007). We are using the same five items for covering entrepreneurial learning. We are gathering self-assessed information about new entrepreneurial oriented knowledge offered by the university.

To measure the influence of people, close to students we used three items for measuring subjective norms. Students were asked about the opinion of “close others” concerning their career choice intention. We focused on family, close friends and fellow students (Liñán and Yi-Wen, 2009).

We used items from The GLOBE research project for measuring the influence of uncertainty avoidance (4 items), In-Group Collectivism (4 items) and Power Distance (3 items). All three dimensions are measures through self-assessed parameters. With uncertainty avoidance, we are measuring the extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate unpredictability of future events. In-Group collectivism is illustrating the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families. Finally,

power distance is covering the extent to which the community accepts and endorses authority, power differences, and status privileges.

The relationship between a potential family business leader and the family firm is measured using five Likert items related to an individual's feelings towards the family firm.

Control variables

We included two control variables in the model: gender and previous active involvement in the family business production process. Participants were asked if they were previously employed in a family business. Previous research detected differences between genders. Women are believed to be disadvantaged as successors (Schröder et al., 2011). They also have a higher likelihood to choose employment compared to family business succession (Zellweger et al., 2011). The respondents were also asked if they had already been working for a family firm.

Validity

Variance inflation factor for all independent variables was calculated and determined to be under 1,9 in both groups. Since it doesn't exceed the marginal value of 10,0 multicollinearity doesn't appear to be a problem (Hair et al., 2010). We conducted Hartman's single-factor test, which confirmed the empirical distinction between our independent variables. One factor solution accounted for 21,91% of the total variance in the transition group and 18,10% in market group. Both values are well below the 50% margin (Hair et al., 2010). Pearson correlation coefficients are calculated and presented in table 2.

TABLE 2: Pearson correlations in both groups

Correlations											
Pearson correlations		Univ ersit y	Progr amm e	Sub j. nor m	Soci ety igc	Soci ety ua	Soci ety pd	Fell ings for FB	Gen der	Wor ked in FB	Car eer cho ice
Unive rsity	Tran sitio n	1	.672**	.19 2**	.12 5**	.03 8*	.12 2**	.15 8**	- ,00 1	- ,04 6**	.05 5**
	Mark et	1	.582**	.14 6**	.10 3**	.02 0	.06 9**	.09 0**	- ,02 3	- ,00 7	.00 6
Progr amm e	Tran sitio n	.672*	1	.20 1**	.15 7**	.08 2**	.08 5**	.18 9**	- ,00 5	- ,05 8**	.03 4*
	Mark et	.582*	1	.15 6**	.15 3**	.05 8**	.06 5**	.14 0**	- ,06 0**	- ,03 0*	.03 2**

Subj. norms	Transition	.192*	.201**	1	.201**	.038*	.026	.201**	.046**	-.044**	.049**
	Market	.146*	.156**	1	.155**	.038**	.012	.113**	.049**	.027*	-.049**
Society igc	Transition	.125*	.157**	.201**	1	.250**	.068**	.223**	.058**	-.039*	.041**
	Market	.103*	.153**	.155**	1	.222**	-.119**	.253**	.001	.023	.091**
Society ua	Transition	.038*	.082**	.038*	.250**	1	-.144**	.058**	.002	.015	-.017
	Market	.020	.058**	.038**	.222**	1	-.411**	.068**	-.041**	.039**	.019
Society pd	Transition	.122*	.085**	.026	.068**	-.144**	1	.087**	-.018	-.043**	.085**
	Market	.069*	.065**	.012	-.119**	-.411**	1	.021	.025*	-.071**	-.040**
Fallings for FB	Transition	.158*	.189**	.201**	.223**	.058**	.087**	1	.030	-.319**	.162**
	Market	.090*	.140**	.113**	.253**	.068**	.021	1	-.035**	-.268**	.128**
Gender	Transition	-.001	-.005	.046**	.058**	.002	-.018	.030	1	.169**	-.074**
	Market	-.023	-.060**	.049**	.001	-.041**	.025*	-.035**	1	.098**	-.058**
Worked in FB	Transition	-.046*	.058**	-.044**	-.039*	.015	-.043**	-.319**	.169**	1	-.161**
	Market	-.007	.030*	.027*	.023	.039**	-.071**	-.268**	.098**	1	-.048**
Career choice	Transition	.055*	.034*	.049**	.041**	-.017	.085**	.162**	-.074**	-.161**	1
	Market	.006	.032**	-.049**	.091**	.019	-.040**	.128**	-.058**	-.048**	1
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											

4. Results

Results of the multinomial logistic regression model are shown in table 3. We are comparing the results from both groups. The reference value for our dependant variable is succession intention. When interpreting the results of multinomial logistic regression, we compare each alternative career choice intention with the reference.

TABLE 3: Regression models

		Transition			Market		
Regression model		B	Sig.	Exp(B)	B	Sig.	Exp(B)
Employee	Intercept	6,402	,000		5,799	,000	
	Supportive university environment	-,078	,187	,925	,042	,429	1,043
	Strong entrepreneurial programme	,095	,135	1,100	-,081	,153	,922
	Subjective norms	<u>-,180</u>	,016	,836	<u>,102</u>	,010	1,107
	In-Group Collectivism	,007	,918	1,007	<u>-,261</u>	,000	,771
	Uncertainty avoidance	,058	,409	1,060	,032	,660	1,032
	Power distance	<u>-,121</u>	,025	,886	<u>,194</u>	,002	1,214
	Feelings towards family business	<u>-,447</u>	,000	,640	<u>-,504</u>	,000	,604
	Gender (Male; Female=ref.)	<u>-,269</u>	,046	,764	<u>-,313</u>	,020	,731
	Worked for family business (Yes; No=ref.)	<u>-,1,108</u>	,000	,330	-,227	,109	,797
Founder	Intercept	4,079	,000		3,368	,000	
	Supportive university environment	,031	,654	1,032	,028	,735	1,028
	Strong entrepreneurial programme	-,007	,922	,993	-,081	,344	,922
	Subjective norms	<u>-,183</u>	,031	,833	<u>-,164</u>	,002	,849
	In-Group Collectivism	,020	,800	1,021	-,115	,285	,892
	Uncertainty avoidance	-,008	,920	,992	-,120	,274	,887
	Power distance	-,017	,790	,983	,112	,237	1,119
	Feelings towards family business	<u>-,412</u>	,000	,662	<u>-,427</u>	,000	,652
	Gender (Male; Female=ref.)	,160	,314	1,173	,377	,068	1,459
	Worked for family business (Yes; No=ref.)	<u>-,950</u>	,000	,387	-,368	,089	,692

a. The reference category is: 3.
b. This parameter is set to zero because it is redundant.

We didn't find statistically significant results related to the environment at the university. Similarly, we didn't detect any relations between career choice intentions and entrepreneurial programme. These differences should be analysed in future. However, we should keep in mind that our dependant variable has three possible solutions, while comparable previous studies operated with only two (an employee or an entrepreneur). This fact could hide the reason by itself. Thus, we shall reject the hypothesis H2.

The importance of subjective norms is highly significant. It is very important how the opinion of important others is perceived by the participant. If "important others" support the entrepreneurial orientation of the participant, one would prefer succession compared to employment in the transition group while results are opposite in the market group. We could only speculate that in the developed market economies employment is considered to be entrepreneurial activity at least from the student's perspective. When choosing between a new start-up and family business succession, the potential leader would significantly prefer succession in both studied groups.

In-group collectivism is found to be a significant influencing factor in the market group when choosing between employment and succession. A higher degree of individuals loyalty and pride leads to succession intention in the market group. The result is expected. It is more unclear and in our opinion worth of further investigation to answer the question, why no other significant relations were detected in the model. Uncertainty avoidance doesn't appear to be a significant influencing factor in neither group. Higher levels of power distance in society lead to succession preference compared to employment career in transition group while we noted an opposite result in the market group. The higher extent of endorsed authority and status privileges in society leads to succession in transition countries and employment in countries with a market economy. We could speculate here that in transition countries a high level of power distance as described here, is understood as a threat while in a market economy it is maybe perceived as an opportunity which is reachable through an employment career. In a transition environment, on the other hand, family business succession can offer shelter from a detected threat.

Intense positive feelings towards family business lead toward succession compared to both alternatives in both groups. This result is expected and it is detected as highly significant. When comparing genders, we can see that man, compared to woman, are significantly more likely to choose succession before employment in both observed groups. We didn't detect a significant difference between succession and founder career path in neither group. Previous employment in a family firm emerged as a highly significant factor in the transition group. It strongly leads to succession compared to both alternative career choices. This result can be the consequence of the fact that there is no market tradition in transition economy environments.

Involvement in a family business is probably first encountered with any kind of business environment. Consequently, a potential leader gains high confidence while the wider ex-socialist environment is frequently perceived as unstable and corrupted. Thus, we can confirm hypothesis H3.

5. Discussion and implications

In the study the statistically significant results related to the environment at the university which were in a way the title hypothesis. Similarly, we didn't detect any relations between career choice intention and entrepreneurial programme. These findings differ from some previous studies the reminder that the dependant variable has three possible options, thus the results are not directly comparable with other studies which mostly explore the dichotomous difference of entrepreneur vs. non-entrepreneur choice.

The study reveals that it is very important how the opinion-makers are perceived by the respondents. If the support the entrepreneurial orientation is identified by the participant, he would prefer succession compared to employment in the transition group while results are opposite in the market group. It can be guessed that in economies with longer capitalistic tradition employment is not considered preferable to the entrepreneurial activity at least from the student's perspective. When choosing between a new start-up and family business succession, a potential leader would significantly prefer succession in both compared groups which may be explained with traditional fear to success barrier to start-up own business compering to succeeding a well-established business which is less vulnerable for typical beginners' problems.

Positive feelings towards family business correlate with a higher level of succession ambition comparing to the other two alternatives in both studied groups. This result is expected and it is detected as highly significant. Previous employment in a family firm tends to be an important factor in the transition group. It directs to succession compared to both other career choices. This can be the consequence of lack of market tradition in transition economies. Involvement in a family business is probably first encountered with any kind of business environment. Consequently, a potential leader gains high confidence while the wider ex-communist environment is usually perceived as unstable and corrupted.

Data used from the GUESS 2013/2014 survey are cross-sectional. As such, it is an observational study at a single point of time which is a certain limitation of the study. On the other side, support measures change quite often and are due to the changes in policy resulting in political changes. is changing every year, which might influence respondents of our survey. A longitudinal study would better address the issue but would also raise the complexity and the cost of the study. We have addressed possible selection causality bias by eliminating students who already have their own company. Studies on family business heir's career choice intention are still scarce so there is a lot of room for future research. Our results suggest the relevance and importance of assessing the correlation between support policy and

family business potential future leader's career decision on a longitudinal basis. In addition to repeating the research, it would be also useful to include additional policy indicating independent variables as predictors and an expanded sample of countries. Future longitudinal studies should also try to concentrate on actual career choice for comparison with career choice intention studies similar to our study.

6. Conclusions

The study tries to link policy factors of entrepreneurship support with intentions for family business succession. Through some new causalities, it brings up a good opportunity for effectively upgrading research models of family business potential next leader's intention of a career choice. Some statistically significant regression coefficients for control variables in the view of some previous pieces of research suggest that more complex models may be used for a better explanation of the correlation between different factors and career decision intention of a senior student with an experience in a family business. Thus, the study contributes to the research on family business succession.

Each young individual is confronted by a career decision and students are most likely very close to starting their career after finishing the studies. Students from families, which own and run businesses, are a very specific, but growingly important group of young people, who holds a heavy burden of family business future success. Their career choice is very complex, both on a personal and family level, and very important on a national level, since small and medium-sized family-owned businesses constitute the majority of all companies on each country's market. The significance of understanding of their career choice intention is consequently very high for today's societies where economic stability and economic growth largely rest on the survival of family businesses.

7. References

- Agarwal, R., Kumar, A. and D'ouza, K. (2016) 'Issues in career choicces of successors in family businesses: Perspective from literature review', *Juornal of Applied Management and Investments*, Vol. 5, No. 1, pp. 1-19.
- Ajzen, I. and Fishbein, M. (1980) *Understanding attitudes and predicting social behaviour*, Engelwood Cliffs: Prentice-Hall.
- Aldrich, H.E. and Cliff, J.E. (2003) 'The pervasive effects of family on entrepreneurship: toward a family embeddedness perspective', *Journal of Business Venturing*, Vol. 18, pp. 573-596.
- Aldrich, H. and Zimmer, C. (1986) 'Entrepreneurship through social networks', in Sexton, D.L. and Smilor, R.W. (ed.) *The art and science of entrepreneurship*, Cambridge: Ballinger publishing company.
- Astrachan, J.H. and Carey Shanker, M. (2003) 'Family Businesses' Contribution to the U.S: Economy: A Closer Look', *Family Business Review*, Vol. 16, No. 3, pp. 211-219.

- Barnes, L.B. and Hershon, S.A. (1976) 'Transferring Power in The Family Business', *Harvard Business Review*, Vol. 54, No. 4, pp. 105-114.
- Baù, M., Hellerstedt, K., Nordqvist, M. and Wennberg, K.J. (2013) 'Succession in Family Firms', in Sorenson, R.L., Yu, A., Brigham, K.H. and Lumpkin, T.G. (ed.) *The Landscape Of Family Business*, Cheltenham, UK: Edward Elgar.
- Blumentritt, T., Mathews, T. and Marchio, G. (2012) 'Game Theory and Family Business Succession: An Introduction', *Family Business Review*, Vol. 26, No. 1, pp. 51-67.
- Bocatto, E., Gispert, C. and Rialp, J. (2010) 'Family-Owned Business Succession: The Influence of Pre-performance in the Nomination of Family and Nonfamily Members: Evidence from Spanish Firms', *Journal of Small Business Management*, Vol. 48, No. 4, pp. 497-523.
- Brockhaus, R.H. (2004) 'Family Business Succession: Suggestions for Future Research', *Family Business Review*, Vol. 17, No. 2, pp. 165-177.
- Brockhaus, R.H. and Horwitz, P.S. (1986) 'The psychology of the entrepreneur', in Sexton, D.L. and Smilor, R.W. (ed.) *The Art and Science of the Entrepreneurship*, Cambridge: Ballinger publishing company.
- Carter, N., Gartner, W.B., Shaver, K.G. and Gatewood, E.J. (2003) 'The career reasons of nascent entrepreneurs', *Journal of Business Venturing*, Vol. 18, No. 1, pp. 13-39.
- Chlosta, S., Patzelt, H., Klein, S.B. and Dormann, C. (2012) 'Parental role models and the decision to become self-employed: The moderating effect of personality', *Small Business Economics*, Vol. 38, pp. 121-138.
- Coccia, M. (2017) 'Varieties of capitalism's theory of innovation and a conceptual integration with leadership-oriented executives: the relation between typologies of executive, technological and socioeconomic performances', *International Journal of Public Sector Performance Management*, Vol. 3, No. 2, pp. 148-168.
- Davidsson, P. (2004) *Researching entrepreneurship*, New York: Springer Publication.
- De Massis, A., Chua, J.H. and Chrisman, J.J. (2008) 'Factors Preventing Intra-Family Succession', *Family Business Review*, Vol. 21, No. 2, pp. 183-199.
- De Massis, A., Sieger, P., Chua, J.H. and Vismara, S. (2016) 'Incumbents' Attitude Toward Intrafamily Succession: An Investigation of Its Antecedents', *Family Business Review*, Vol. 29, No. 3, pp. 278-300.
- Eddleston, K.A., Kellermanns, F.W. and Sarathy, R. (2008) 'Resource Configuration in Family Firms: Linking Resources, Strategic Planning and Technological Opportunities to Performance', *Journal of Management Studies*, Vol. 45, No. 1, pp. 26-50.
- EFB (2018) *European Family Business*, [Online], Available: HYPERLINK "http://www.europeanfamilybusinesses.eu/family-businesses/facts-figures" <http://www.europeanfamilybusinesses.eu/family-businesses/facts-figures> [21 Januar 2019].
- Franke, N. and Christian, L. (2004) 'Entrepreneurial intentions of business students - a benchmarking study', *International Journal of Innovation and Technology Management*, Vol. 1, No. 3, pp. 269-288.

- Gartner, W.B. (1989) 'Some Suggestions for Research on Entrepreneurial Traits and Characteristics', *Entrepreneurship: Theory & Practice*, Vol. 14, No. 1, pp. 27-37.
- Gratner, W.B., Stam, E., Thompson, N. and Verduyn, K. (2016) 'Entrepreneurship as Practice: grounding contemporary practice theory into entrepreneurship studies', *Entrepreneurship & Regional Development*, Vol. 28, No. 9-10, pp. 813-816.
- Habbershon, T.G., Williams, M. and MacMillan, I.C. (2003) 'A unified systems perspective of family firm performance', *Journal of Business Venturing*, Vol. 18, No. 4, pp. 451-465.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010) *Multivariate data analysis*, 7th edition, Upper Saddle River: Pearson Education, Inc.
- Hargreaves, T. (2011) 'Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change', *Journal of Consumer Culture*, Vol. 11, No. 1, pp. 79-99.
- Kolvereid, L. (1996) 'Organizational employment versus self-employment: Reasons for career choice intentions', *Entrepreneurship Theory and Practice*, Vol. 20, No. 3, pp. 23-31.
- Lam, W. (2011) 'Dancing to two tunes: Multi-entity roles in the family business succession process', *International Small Business Journal*, Vol. 29, No. 5, pp. 508-533.
- Laspiata, S., Breugst, N., Heblich, S. and Patzelt, H. (2012) 'Intergenerational transmission of entrepreneurial intentions', *Journal of Business Venturing*, Vol. 27, No. 4, pp. 414-435.
- Liñán, F. and Yi-Wen, C. (2009) 'Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions', *Entrepreneurship Theory and Practice*, Vol. 33, No. 3, pp. 593-617.
- Lockamy III, A., Carson, C.M. and Lohrke, F.T. (2016) 'An evaluation of key determinants preventing intra-family business succession', *Journal of Family Business Management*, Vol. 6, No. 1, pp. 64-80.
- Lucky, O.-I.E., Minai, M.S. and Isaiah, A.O. (2011) 'A Conceptual Framework of Family Business Succession: Bane of Family Business Continuity', *International Journal of Business and Social Science*, Vol. 2, No. 18, pp. 106-113.
- Lüthje, C. and Franke, N. (2003) 'The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT', *R&D Management*, Vol. 33, No. 2, pp. 135-147.
- Manolova, T.S., Eunn, R.V. and Gyoshev, B.S. (2008) 'Institutional Environments for Entrepreneurship: Evidence from Emerging Economies in Eastern Europe', *Entrepreneurship Theory and Practice*, Vol. 32, No. 1, pp. 203-218.
- Morris, M.H., Williams, R.O., Allen, J.A. and Avila, R.A. (1997) 'Correlates of success in family business transitions', *Journal of Business Venturing*, Vol. 12, No. 5, pp. 385-401.
- Murphy, L. and Lambrechts, F. (2015) 'Investigating the actual career decisions of the next generation: The impact of family business involvement', *Journal of Family Business Strategy*, Vol. 6, No. 1, pp. 33-44.

- Neubauer, F. and Lank, A.G. (2016) *The Family Business: Its Governance for Sustainability*, Springer.
- Olson, P.D., Zuiker, V.S., Danes, S.M., Stafford, K., Heck, R.K.Z. and Duncan, K.A. (2003) 'The impact of the family and the business on family business sustainability', *Journal of Business Venturing*, Vol. 18, No. 5, pp. 639-666.
- Santos, F.J., Romero, I. and Fernández-Serrano, J. (2012) 'SMEs and entrepreneurial quality from a macroeconomic perspective', *Management Decision*, Vol. 50, No. 8, pp. 1382-1395.
- Schröder, E., Schmitt-Rodermund, E. and Arnaud, N. (2011) 'Career Choice Intentions of Adolescents With a Family Business Background', *Family Business Review*, Vol. 24, No. 4, pp. 305-321.
- Shirokova, G., Oleksiy, O. and Karina, B. (2016) 'Exploring the intention-behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics', *European Management Journal*, Vol. 34, No. 4, pp. 386-399.
- Smith, B.F. and Amoako-Adu, B. (1999) 'Management succession and financial performance of family controlled firms', *Journal of Corporate Finance*, Vol. 5, No. 4, pp. 341-368.
- Souitaris, V., Zerbini, S. and Al-Laham, A. (2007) 'Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources', *Journal of Business Venturing*, Vol. 22, No. 4, pp. 566-591.
- Turker, D., Onvural, B., Kursunluoglu, E. and Pinar, C. (2005) 'Entrepreneurial propensity: A field study on the Turkish university students', *International Conference on Business, Management, and Economics*, Vol. 1, No. 3, pp. 15-27.
- Turker, D. and Selcuk, S.S. (2009) 'Which factors affect entrepreneurial intention of university students?', *Journal of European Industrial Training*, Vol. 33, No. 2, pp. 142-159.
- Wang, C.K. and Wong, P.-K. (2004) 'Entrepreneurial interest of university students in Singapore', *Technovation*, Vol. 24, No. 2, pp. 163-172.
- Williams Jr., R.I. (2015) *Measuring Family Business Performance: A Holistic, Idiosyncratic Approach*, Kennesaw State University.
- Zahra, S.A. (2005) 'Entrepreneurial Risk Taking in Family Firms', *Family Business Review*, Vol. 18, No. 1, pp. 23-40.
- Zellweger, T., Sieger, P. and Halter, F. (2011) 'Should I stay or should I go? Career choice intentions of students with family business background', *Journal of Business Venturing*, Vol. 26, No. 5, pp. 521-536.

HAPPINESS, ENTREPRENEURIAL CURIOSITY AND INTUITION AS DETERMINANTS OF INFLUENCE IN AN ENTREPRENEUR'S PERFORMANCE

Maja Blažeka
Miti svet d.o.o.
Slovenia

maja.blazeka@gmail.com

Mitja Jeraj
GEA College, Faculty of Entrepreneurship
Slovenia

mitja.jeraj@gea-college.si

Abstract

The examination of the phenomenon of entrepreneurship is moving increasingly to the level of the individual. The way individuals who, after entering the entrepreneurial paradigm, spiral upwards to success, operate is still shrouded in mystery. In addition to external factors, there are many psychological variables that can affect an entrepreneur, the main protagonist in the entrepreneurial process. Within this context, this article analyses happiness, entrepreneurial curiosity and intuition, establishing on the basis of the scientific literature that these determinants can be classified without doubt as factors that affect an entrepreneur's performance. Underpinning the conclusion, the article describes the inception of a promising empirical study that will measure the effect of the studied constructs on a sample of Slovenian entrepreneurs. By synthesising theoretical and empirical findings, this study will increase the quantity of scientific literature relating to entrepreneurship and contribute guidelines aimed at aiding the understanding of the hero of modern times, the name used by Janssen and Bacq (2017) to describe an entrepreneur.

Key Words

Entrepreneur, psychology of entrepreneurship, happiness, entrepreneurial curiosity, intuition

INTRODUCTION

Despite the significant contribution to the economy, the entrepreneur has long remained in the shadow of economic theory (Hébert and Link, 2006). Entrepreneurs were mostly overlooked by classical and neo-classical economists (Janssen and Bacq, 2017), while some authors labelled them as the source of economic imbalance, as speculators, parasites of the productive process and thieving barons (Cuervo, 2005). The entrepreneur has now been elevated from a peripheral position to that of a defining role in the modern economy (Frith and McElwee, 2006) in which it has assumed a central position (Janssen and Bacq, 2017). Entrepreneurs have replaced the monolithic organisations of the past to be regarded as the drivers of the new economy and the catalysts of change (Frith and McElwee, 2006). This is a process of changes, changes which are bringing something new and different to the market (Smilor, 2001). However, entrepreneurial performance helps develop new economic, social, institutional and cultural environments which subsequently lead to significant benefits for society (Hitt, Ireland, Sirmon and Trahms, 2012)

Recognising the value of entrepreneurial activity (Uhlaner and Lukes, 2010) has led to the development of the discipline of entrepreneurship, which has been experiencing a boom in recent years (Hitt et al., 2012). Researches aim to identify the economic, social and political factors that create a favourable climate for entrepreneurial initiatives. Although these factors do have a significant impact of the development of entrepreneurship, the decision to found a business is ultimately left to the individual (Uhlaner and Lukes, 2010). Despite the early economic mentality being sensitive to the fact that economic activity was a human activity (Hébert and Link, 2006), entrepreneurship depends on an individual's actions, which require actions in themselves and these actions ultimately require individuals (Kuckertz, Berger and Allmendinger, 2015).

If entrepreneurship is approached as the brainchild of individuals (Kuckertz et al., 2015), then the entrepreneur can be elevated to the position of the most crucial aspect in the entrepreneurial process (Jeraj and Marič, 2013a) and, as such, can be defined as a key factor in the success of a company (Jeraj and Marič, 2013b). The majority of entrepreneurs enter the entrepreneurial paradigm with a dream (Hisrich, Langan-Fox and Grant, 2007) a dream that for some becomes a reality while for others remains out of reach (Kalkan and Kaygusuz, 2012). The question of why successful entrepreneurs are like a general, who Sun Tzu in *The Art of War* describes as a person who creates changes and manipulates them to their advantage (Smilor, 2001), still remains unanswered. The essential components of success can be the personal traits of an entrepreneur (Kao, 1989), as it is human nature itself that greatly benefits the success of a company (Markman and Baron, 2003).

THEORETICAL BACKGROUND

Psychology in entrepreneurship

Technological changes in the first quarter of the twentieth century led to a zeitgeist of exceptional economic growth. In the search of the causes behind the emergences of this phenomenon, economists had the idea that the agents of these changes were in fact entrepreneurs. They came to the conclusion that the impact of individuals was greater than they first acknowledged, as they had implemented their inventions into their businesses which generated great wealth for many (Baum, Frese, Baron and Katz, 2012). Centre stage in entrepreneurship therefore belonged to man (Antončič, Bratkovič Kregar, Singh and DeNoble, 2015) and, with this, the studying of the entrepreneurial phenomenon shifted to the level of the individual (Costa, Santos and Caetano, 2013). There had been an increase in studying the entrepreneur from a psychological aspect (Antončič et al., 2015), which is why it is not surprising that researching psychology in entrepreneurship is now viewed as one the most promising research trends (Jeraj, 2014). The main theme centres on the effect of psychological variables on the behaviour and success of an entrepreneur (Chatterjee and Das, 2015). Many such variables contribute to the realisation of an entrepreneur's dreams (Hisrich et al., 2007), which is why they simply cannot be overlooked when addressing entrepreneurship (Kalkan and Kaygusuz, 2012). The majority of studies addresses only one determinant of influence on entrepreneurial activity, which does not provide a more complex insight into the determinants and their interaction in the process of entrepreneurial activities (Kuckertz et al., 2015). This is because understanding the psychology of an individual is possible through a combination of various constructs that are connected to one another (Jeraj, 2014).

In his speech at Stanford University in 2005, Steve Jobs highlighted how priceless intuition and curiosity are. This notion, taken from one of the most influential commencement speeches of all time (Yipei and Lingling, 2013), serves as the guiding principle of this article. The topic of the study will focus on the performance of an entrepreneur through the prism of intuition and curiosity, more specifically entrepreneurial curiosity, which is an independent branch of curiosity specialised in the field of entrepreneurship (Jeraj and Marič, 2013a). In addition to intuition and entrepreneurial curiosity, happiness will also be included in the study in order to reveal even deeper aspects of how an entrepreneur operates and which, in relation to economics, is a factor that is increasingly garnering the interest of researchers (De Neve, Christakis, Fowler and Frey, 2012).

Is happiness the holy grail of success?

The hypothesis that success leads to happiness has been confirmed by many researchers (Boehm and Lyubomirsky, 2008). But what if this hypothesis is

turned around, leading from happiness to success? Nobel Laureate Albert Schweitzer toyed with this connection, explaining that happiness is the key to success and not the other way around (Walsh, Boehm and Lyubomirsky, 2018). Happiness supposedly leads to better intellectual abilities (Diener, Kesebir and Tov, 2009), while many studies claim that happy people are more successful (Audretsch and Belitski, 2015) and that their work is at a higher level of quality (Roessler and Gloor, 2020). Here, we cannot ignore the fact that unhappy people can also be successful in their own fields, such as the notable figure of Winston Churchill who suffered from clinical depression (Boehm and Lyubomirsky, 2008). Some even romanticise unhappiness and praise its role in sharpening a person's mental capacities (Diener et al., 2009); however, the present article focuses on happiness as the central subject of the study is entrepreneur who is associated with risk-taking propensity and is the innovator who develops something special (Ruzier, Antončič, Bratkovič and Hisrich, 2008). Furthermore, it is proven that people who have a higher perceived level of happiness are able to adapt more easily in stressful situations (Sitohang, Sasmita, Andriyana, and Pawitan, 2017) and react better in high-risk situations (Audretsch and Belitski, 2015). In the context of entrepreneurship, happiness plays the role of a determinant that significantly affects the entrepreneur and is one of the factors that determines the sustainability of a business' operations (Sitohang et al., 2017). The number of studies examining the psychological well-being of entrepreneurs is growing rapidly (Ryff, 2019), as some previous studies have shown that the aspect of happiness is integral for entrepreneurs, even more so than the financial aspect (Chen, Chang and Lin, 2018) and in some places it is even mentioned as the leading criterion of entrepreneurial success (Murphy and Callaway, 2004).

Entrepreneurial curiosity as an attribute of successful entrepreneurs

Curiosity is a marvel of the human mind, which is why we should "Find wonder in all things. Even the most commonplace". This famous quote by Carl von Linné, rendered in Latin as "Omnia mirari etiam tritissim" is inscribed on a Swedish banknote and illustrates the link between curiosity, science, societal prosperity and well-being (Lindholm, 2018). Curiosity is a value that should be encouraged in education, in work and in daily life (Philips, 2014) and often occurs as one of the many attributes of the entrepreneurial mindset (Zappe, Yoder and Hylton, 2018) as evidenced by statements made by some of the most notable entrepreneurs (www.google.com):

- Walt Disney: "Ideas come from curiosity."
- Bernard Baruch: "Millions saw the apple fall, but Newton was the one who asked why."
- Michael Dell: "There is no better catalyst to success than curiosity."
- Jack Ma: "If you're a real entrepreneur, there is always curiosity. If you don't have curiosity, you're a retired entrepreneur."

- “We both certainly share a curiosity about the world” said Warren Buffet about what he had in common with Bill Gates, adding: “This is a phenomenal time to be a curious person”.

Entrepreneurs work in many different fields (Hisrich et al., 2007) but they all share a common challenge: how to recognise a new product with growth potential, how to identify when a product reaches maturity and how to know when it is time to replace or discontinue it (Uhlener and Lukes, 2010). Knowledge is the basis for successful business and entrepreneurial curiosity is a factor that has a positive effect on the thoughts and activities of an entrepreneur, as well as on their strategic planning (Jeraj and Marič, 2013b). Jeraj (2014) illustrates the meaning of entrepreneurial curiosity by describing it as:

- a powerful generator of business ideas,
- an aid to help direct an entrepreneur’s operations,
- the ability to differentiate between promising and unpromising business ideas,
- a tool to solve problems that an entrepreneur faces in the business process,
- a competitive advantage.

Entrepreneurs with a higher level of entrepreneurial curiosity (Peljko , Jeraj, Săvoiu, and Marič, 2016) spend time performing market research and competitor analyses (Jeraj, 2014), develop new ideas, utilise new marketing techniques, look for and identify niche markets (Jeraj and Marič, 2013a), observe society and want to understand how the economy operates. Due to this, they are able to transform economic parameters into knowledge and then implement it in their business operations. In this way they improve their operations (Jeraj, 2012) and create a competitive advantage in relation to their competition.

Intuition as a secret weapon

In a business environment which is focused on machine-generated data, should we turn off our computers and let ourselves be guided by the Force, just as Luke Skywalker did in Star Wars (Myers, 2002)? Intuition is an exciting topic for researchers (Sadler-Smith and Shefy , 2004) as intuitive thinking is the *modus operandi* used in uncertain circumstances (Cioffi, 1997) and in situations where little or nothing is known about the matter (Blume and Covin, 2009). In an era of rapid changes, increasingly shorter product lifespans and in a period of hypercompetition (Andersen, 2000), intuition plays an important role in responding to decisions, as well as complex problems that include a great deal of data that require processing (Sadler-Smith and Shefy , 2004). By subconsciously processing data, the individual can quickly recognise patterns in their environment. Furthermore, they can assess whether the pattern represents a threat or maybe a new opportunity (Hayes, Allinson and Armstrong, 2004). Agor (1985: cited in Williams, 2012)

claims that individuals who use their intuition are more insightful and more successful when looking for new ways of operating.

The effectiveness of intuitive approaches is evident in situations where it is difficult to predict the final outcome simply by using a rational basis. In such cases, entrepreneurs are pragmatic, as they assess and make decisions intuitively (Williams, 2012). La Pira (2010) states that entrepreneurs often make decisions based on intuition and entrepreneurs themselves admit to this fact (Saiz-Álvarez, Cuervo-Arango and Coduras, 2013). Many successful entrepreneurs even attribute their success to intuition (La Pira, 2010). In spite of the many advantages that intuitive thinking brings about, the study of intuition in relation to an entrepreneur's performance is still greatly lacking (Saiz-Álvarez et al., 2013).

METHODOLOGY

The systematic overview of scientific literature, primarily from the fields of entrepreneurship, management and psychology, forms the basis of the present article. The secondary data used are taken from the expert and scientific literature, as well as websites found through Google Scholar, Emerald Insight and Springerlink, which curate scientific articles. Using a descriptive method, the research concepts relating to entrepreneurs are first roughly explained. By studying quantitative and qualitative empirical studies, an analysis of the effects of the psychological constructs of happiness, entrepreneurial curiosity and intuition are analysed. The analysis is oriented towards determining the rationality of performing a new empirical study that would simultaneously include all three constructs and, in doing so, would measure their interaction and effect on the entrepreneur.

FINDINGS

To draw a conclusion from the theoretical premises, it could be said that they represent a starting point from which to form assumptions which state that happiness, entrepreneurial curiosity and intuition are determinants that significantly affect entrepreneurs and are therefore worth studying in connection with entrepreneurial performance. The theoretical findings thus represent the fundamental basis of an empirical study that opens the door to a yet unstudied area. Namely, a review of the existing studies showed that all three constructs have not yet been studied in the context of an entrepreneur's performance. In this context, the effect of their interaction was also not measured.

INCEPTION OF AN EMPIRICAL STUDY

Research approach, methods and study sample

The aim of the study, which is in the process of being designed, will be to determine whether happiness, entrepreneurial curiosity and intuition can be considered determinants of influence when discussing the performance of Slovenian entrepreneurs. The objective of the study is to establish which of the aforementioned determinants have the most intense effect on an entrepreneur and whether the determinants in the entrepreneurial process affect one another. The answers to these questions will be found with the help of a quantitative and qualitative research approach. Through the use of a survey questionnaire, the quantitative research will be aimed at obtaining as many randomly-selected respondents as possible. All properly completed survey questionnaires will be used to test the hypotheses. These findings will then be used to assess the theses addressing to what extent do the studied constructs impact an entrepreneur. It is difficult to determine the most suitable method at this stage of the study, therefore several methods are currently being considered, i.e. an exploratory or confirmatory factor analysis, and a correlation or regression analysis. On the other hand, the qualitative approach will be more specifically focused on an entrepreneur's performance. With the use of a semi-structured interview, the second research objective will be examined, with which we want to gain a deeper understanding of how the determinants in question affect an entrepreneur. The established findings can be used in the event that there is a lack of outcomes in the quantitative study to help assess the research thesis. The building block of the research sample will be Slovenian entrepreneurs who operate in the environment of a micro or small or medium-sized enterprise and employ at least one person.

Limitations

In the preliminary phase, we anticipate facing certain limitations in the described research process. The most pressing among them is the potential poor response rate of businesspeople both with regard to the qualitative and quantitative approach, which can hinder the achievement of the study's set objectives. Another is the geographic limitation, since the study will be carried out only in Slovenia; therefore, making it not possible to generalise the findings. Limitations regarding the performance of the study exist also due to any reservations respondents may have when providing answers or the modification of their answers to make them more acceptable. It should be noted that, following the example of Blume and Covin (2009), we posit the question whether entrepreneurs actually act on their intuition or only claim to. Finally, building on the statement by Roessler and Gloor (2020) that people are notoriously bad at understanding their own emotions, we cannot assess whether the respondents will be able to recognise if they are happy or not.

Contribution of the study, further research opportunities

The obtained findings will enrich scientific theory relating to entrepreneurship with new information about entrepreneurs. The originality of the study is evident from its combination of constructs, which have as yet not been examined in studies. The finding that studies usually analyse one determinant that affects the activity of an entrepreneur (Kuckertz et al., 2015) led us to form the proposal that studies should, in the future, combine a variety of interwoven constructs instead of only one, since, as Jeraj (2014) claims, this method results in the better understanding of an individual's psychology. Our second proposal was also formed due to a limitation, namely the geographical limitation, which is why we propose that a similar study be conducted outside the borders of Slovenia. It would be interesting to compare the obtained results of studies from other countries that have the same or different entrepreneurial environment development level. Our final research opportunity proposal is to conduct the study on a sample of people who are not entrepreneurs or people who are still in the process of obtaining their education. This would make it easier to identify individuals who have greater entrepreneurial potential and guide them into the field of entrepreneurship.

CONCLUSION AND IMPLICATIONS

The personal traits of an entrepreneur as defined by Baum et al. (2012) lists the most important success factors in the entrepreneurial process, as the individual, through their vision and work, thought process and ability to connect human and financial resources, conceives an idea and transforms it into successful products that create value for buyers and employees. Furthermore, Baum et al. (2012) find that the psychological factors that contribute to the success of an entrepreneur have still not been identified. The psychological dimension in the theory of entrepreneurship occupies an important position and the psychological traits of entrepreneurs are becoming the central theme in the study of entrepreneurial behaviour and success. The most frequently mentioned are risk propensity and innovativeness. There are many others in addition to these and which have been the subject of various studies (Chatterjee and Das, 2015).

The secondary study analysed the effect of happiness, entrepreneurial curiosity and intuition on the entrepreneurs. Following a review and analysis of theoretical starting points, it is clear that there is a significant need for an empirical study to be carried out that would encompass all the aforementioned constructs with the purpose of determining whether they can be treated as determinants of influence in the performance of an entrepreneur in Slovenia. The knowledge obtained through the study can be implemented by entrepreneurs to increase their effectiveness and success, as well in selecting the best people to team up with (Jeraj, 2014), whereby

it is advisable to encourage the determinants that have a proven effect on an individual. To illustrate, happier people tend to exhibit more perseverance (Diener et al., 2009), have better analytical skills and perform tasks better (Audretsch and Belitski, 2015). Happiness positively affects intuitive thinking, as a happy person trusts their instinct more (De Vries, Holland and Witteman, 2008). Intuitive individuals are quicker to make decisions in uncertain circumstances (Baum, et al., 2012) and are better at envisioning their goal and how to achieve it (Langan-Fox and Shirley, 2003). Moreover, employees with a higher level of entrepreneurial curiosity achieve better results for the company they work for which, subsequently, has a far-reaching effect on the whole economy (Jeraj, 2014).

REFERENCES

- Andersen, J. A. (1. 2 2000). Intuition in managers: Are intuitive managers more effective? *Journal of Managerial Psychology*, 46-63. doi:10.1108/02683940010305298
- Antončič, B., Bratkovič Kregar, T., Singh, G., & DeNoble, A. F. (2015). The Big Five Personality-Entrepreneurship Relationship: Evidence from Slovenia. *Journal of Small Business Management*, 53(3), 819-841. doi:10.1111/jsbm.12089
- Audretsch, D. B., & Belitski, M. (2015). Is Happiness Conducive to Entrepreneurship? Exploring Subjective Well-Being - Entrepreneurship Relationship across Major European Cities. doi:10.1.1.724.1035
- Baum, R. J., Frese, M., Baron, R. A., & Katz, J. A. (2012). *The Psychology of Entrepreneurship*. New York: Psychology Press.
- Blume, B. D., & Covin, J. G. (2009). Attributions to intuition in the venture founding process: Do entrepreneurs actually use intuition or just say that they do? *Journal of Business Venturing*, 26, 137-151. doi:10.1016/j.jbusvent.2009.04.002
- Boehm, J. K., & Lyubomirsky, S. (2008). Does Happiness Promote Career Success? *Journal of Career Assessment*, Vol. 16 No. 1, 101-116. doi:10.1177/1069072707308140
- Chatterjee, N., & Das, D. N. (2015). Key Psychological factors as predictors of entrepreneurial success: A Conceptual framework. *Academy of Entrepreneurship Journal*, Volume 21, Number 1, 102-114. Retrived from https://www.researchgate.net/profile/Namrata_Chatterjee/publication/299404013_Key_psychological_factors_as_predictors_of_entrepreneurial_success_A_conceptual_framework/links/5715db2108ae8ab56695ba24/Key-psychological-factors-as-predictors-of-entrepreneuri
- Chen, M.-H., Chang, Y.-Y., & Lin, Y. (2. 1 2018). International Entrepreneurship and Management Journal. *Exploring creative entrepreneurs' happiness: cognitive style, guanxi and creativity*, str. 1089-1110. doi:10.1007/s11365-017-0490-3

- Cioffi, J. (1997). Heuristics, servants to intuition, in clinical decision-making. *Journal of Advanced Nursing*, str. 203-208. doi/abs/10.1046/j.1365-2648.1997.1997026203.x
- Costa, S. F., Santos, S. C., & Caetano, A. (2013). Prototypical dimensions of business opportunity in early stages of the entrepreneurial process. *Rohrer College of Business Faculty Scholarship* Retrived from https://rdw.rowan.edu/cgi/viewcontent.cgi?article=1005&context=business_facpub
- Cuervo, A. (2005). Individual and Environmental Determinants of Entrepreneurship. *International Entrepreneurship and Management Journal*, 293-311. Retrived from https://d1wqtxts1xzle7.cloudfront.net/62306208/literature_finding1620200308-18389-1uz498q.pdf?1583657180=&response-content-disposition=inline%3B+filename%3DLiterature_finding.pdf&Expires=1598300381&Signature=enaNfSZ577l1HzN8MqzbM7DWrmDZqSB-HL8GbMpGp2vshhZ
- De Neve, J.-E., Christakis, N. A., Fowler, J. H., & Frey, B. S. (11 2012). Genes, Economics, and Happiness. 5(4). doi:dx.doi.org/10.1037%2Fa0030292
- De Vries, M., Holland, R. W., & Witteman, C. L. (24. 6 2008). Cognition and Emotion. *Fitting decisions: Mood and intuitive versus deliberative decision strategies, Cognition and Emotion*, str. 931-943. doi:10.1080/02699930701552580
- Diener, E., Kesebir, P., & Tov, W. (2009). Happiness. *Individual Differences in Happiness*. Retrived from https://www.researchgate.net/profile/Pelin_Kesebir/publication/241823736_Happiness_Its_Antecedents_and_Consequences/links/57052b8808aef745f7173411/Happiness-Its-Antecedents-and-Consequences.pdf
- Frith, K., & McElwee, G. (2006). An emergent entrepreneur? A story of a drug-dealer in a restricted entrepreneurial environment. *Society and Business Review*, 270-286. doi:10.1108/17465680710825460
- Hayes, J., Allinson, C. W., & Armstrong, S. J. (2004). Intuition, women managers and gendered stereotypes. *Personnel Review*, Vol. 33 No.4, 403-417. doi:doi/10.1108/00483480410539489
- Hébert, R. F., & Link, A. N. (2006). Historical Perspectives on the Entrepreneur. *Foundations and TrendsR©inEntrepreneurship, Volume 2 Issue 4*.
- Hisrich, R., Langan-Fox, J., & Grant, S. (September 2007). Entrepreneurship Research and Practice, A Call To Action for Psychology. *American Psychologist*, Vol.62, 575-599. Retrived from https://www.researchgate.net/profile/Sharon_Grant/publication/5967914_Entrepreneurship_Research_and_Practice_A_Call_to_Action_for_Psychology/links/0deec51ffacb532f0a000000.pdf
- Hitt, M. A., Ireland, D. R., Sirmon, D. G., & Trahms, C. A. (1 2012). Strategic Entrepreneurship: Creating Value for Individuals, Organizations, and Society. *SSRN Electronic Journal*. doi:10.2139/ssrn.1994491
- Janssen, F., & Bacq, S. (2017). The entrepreneur, wealth creator and growth seeker: Myth or reality? (D. B. Supérieur, Ured.) *Approach differently the*

- entrepreneurship*, 3 (n°18), 51-68. Retrived 1. 3 2020 iz <https://www.cairn.info/revue-projectique-2017-3-page-51.htm#>
- Jeraj , M. (2012). Toward the new construct; entrepreneurial curiosity. *Interdisciplinary management research VIII*, 1043-1056. Retrived from https://bib.irb.hr/datoteka/581672.Interdisciplinary_management_research_VIII_2012.pdf#page=1043
- Jeraj, M. (2014). Podjetniška radovednost: razvoj konstrukta, determinante in izidi. *Doktorska disertacija*. Univerza v Ljubljani. Retrived from <http://www.cek.ef.uni-lj.si/doktor/jeraj.pdf>
- Jeraj, M., & Marič, M. (2013a). Entrepreneurial Curiosity - The New Construct. In *High potentials. lean organization, internet of things:proceedings of the 32nd International Conference on Organizational Science Development, March 2014* (str. 289-298). Kranj: Moderna organizacija. Retrived from https://www.researchgate.net/profile/Miha_Maric/publication/273137840_Entrepreneurial_Curiosity_-_The_New_Construct/links/54f989430cf2ccffe9e17410/Entrepreneurial-Curiosity-The-New-Construct.pdf
- Jeraj, M., & Marič, M. (2013b). Relation between Entrepreneurial Curiosity and Entrepreneurial Self-efficacy: a Multi-Country Emprical Validation. *Organizacija*, 264-273. Retrived from <http://organizacija.fov.uni-mb.si/index.php/organizacija/article/viewFile/540/972>
- Jeraj, M., Marič, M., Todorović, I., Čudanov, M., & Komazec, S. (2015). The Role of Openness and Entrepreneurial Curiosity in Company`s Growth. *Amfiteatru Economic Journal*, 17 (38), 371-389. doi:10419/168922
- Kalkan, M., & Kaygusuz, C. (2012). The Psychology of Entrepreneurship. V *Entrepreneurship - Born, Made and Educated*. Rijeka: InTech
- Kao, J. (1989). *Entrepreneurship, Creativity, & Organiation, Text, Cases, & Readings*. New Jersey:Library of Congress Cataloging-in-Publication Data.
- Kuckertz, A., Berger, E. S., & Allmendinger, M. P. (2015). What drives entrepreneurship? A configurational analysis of the determinants of entrepreneurship in innovation-driven economies. *Die Betriebswirtschaft - Business Administration Review*. Retrived from https://www.researchgate.net/profile/Andreas_Kuckertz/publication/280059055_What_drives_entrepreneurship_A_configurational_analysis_of_the_determinants_of_entrepreneurship_in_innovation-driven_economies/links/5aa6ba9b0f7e9bbbff8c9de3/What-drives-entrepren
- La Pira, F. (2010). Entrepreneurial intuition , an empirical approach. *Journal of Management and Marketnig Research*. Retrived from <https://www.semanticscholar.org/paper/Entrepreneurial-intuition-%2C-an-empirical-approach-Pira/ff3a21da5c7c1ec72aa899b3cf3ab3d1ca8b7f99?p2df>
- Langan-Fox, J., & Shirley, D. A. (2003). Creativity Research Journal. *The Nature and Measurement of Intuition: Cognitive and Behavioral Interests, Perosnality, and Experiences*, 2 & 3, str. 207-222. doi:10.1080/10400419.2003.9651413

- Lindholm, M. (18. 12 2018). Promoting Curiosity? Possibilities and Pitfalls in Science Education. *Science & Education*. doi:10.1007/s11191-018-0015-7
- Markman, G. D., & Baron, R. A. (2003). Person-entrepreneurship fit: why some people are more successful as entrepreneurs than others. *Human Resource Management Review*, 13, 281-301. Retrived from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.454.5057&rep=rep1&type=pdf>
- Murphy, G. B., & Callaway, S. K. (2004). Doing Well and Happy About It? Explaining Variance in Entrepreneurs' Stated Satisfaction with Performance. *New England Journal of Entrepreneurship*, Volume 7, Number 2. Retrived from <https://digitalcommons.sacredheart.edu/cgi/viewcontent.cgi?article=1167&context=neje>
- Myers, D. G. (2002). *Intuition Its Powers and Perils*. New Haven and London: Yale University press.
- Peljko, Ž., Jeraj, M., Săvoiu, G., and Marič, M. (8 2016). Organizacija. An Empirical Study of the Relationship between Entrepreneurial Curiosity and Innovativeness, Volume 49, str. 172-182. doi:10.1515/orga-2016-0016
- Philips, R. (2014). Space for curiosity. White Rose Research. Retrived from <http://eprints.whiterose.ac.uk/109121/3/Revised%20RSP%20for%20PIHG%20Space%20for%20Curiosity%20July%202013.pdf>
- Roessler, J., & Gloor, P. A. (8. 4 2020). Measuring happiness increases happiness. *Journal of Computational Social Science*. doi:10.1007/s42001-020-00069-6
- Ruzier, M., Antončič, B., Bratkovič, T., & Hisrich, R. D. (2008). *Podjetništvo*. Koper: Društvo za akademske in aplikativne raziskave.
- Ryff, C. D. (4. 7 2019). Entrepreneurship and eudaimonic well-being: Five venues for new science. *Journal of Business Venturing*, 34, 4, 646-663. doi:10.1016/j.jbusvent.2018.09.003
- Sadler-Smith, E., & Shefy, E. (2004). The intuitive executive: Understanding and applying "gut feel" in decision-making, Executive Overview. doi:abs/10.5465/ame.2004.15268692
- Saiz-Álvarez, J. M., Cuervo-Arango, C., & Coduras, A. (2013). Entrepreneurial strategy, innovation, and cognitive capabilities: what role for intuitive smes? *journal of small business strategy*, Volume 23, Number 2, 29-40. Retrived from <https://libjournals.mtsu.edu/index.php/jsbs/article/view/179>
- Sitohang, Y. O., Sasmita, Y., Andriyana, Y., & Pawitan, G. (2017). The Analysis of Nascent Entrepreneurs' Happiness Level in Indonesia. *Jurnal Dinamika Manajemen*, 259-268. doi: 10.15294/jdm.v8i2.12765
- Smilor, R. W. (2001). *Daring Visionaries: how entrepreneurs build companies, inspire allegiance, and create wealth*. Kanada: Adams Media Corporation.
- Uhlener, L., & Lukes, M. (2010). *Entrepreneurship A Psychological Approach*.
- Walsh, L. C., Boehm, J. K., & Lyubomirsky, S. (15. 1 2018). Does Happiness Promote Career Success? Revisiting the Evidence. *Journal of Career Assessment*, 26(2), 199-219. doi:10.1177/1069072717751441

- Willimas, K. C. (2012). Business Intuition: The Mortar among the Bricks of Analysis. *Journal of Management Policy and Practice*,. Retrived from http://www.na-businesspress.com/JMPP/WilliamsKC_Web13_5_.pdf
- Yipei, N., & Lingling, L. (30. 10 2013). Investigating the interpersonal and textual meaning of Steve Jobs' Stanford speech in terms of Hyland's metadiscourse theory. *International Journal of Language and Linguistics*, 90-96. doi:10.11648/j.ijll.20130104.12
- Zappe, S. E., Yoder, J.-D., & Hylton , B. J. (2018). Assessing Curiosity in the Engineering Entrepreneurship Context: Challenges and Future Research Areas. Retrived from <https://files.eric.ed.gov/fulltext/EJ1199587.pdf>

CRITICAL SUCCESS AND RISK FACTORS FOR INTERNATIONALIZATION OF SMEs: CASE STUDY RESEARCH AS MOST ADEQUATE METHODOLOGICAL APPROACH

Tanja Evrosimovska
SMBS, University of
Salzburg
Austria

t.evrosimovska@gmail.com

Wayne Graham
USC Business School, University of
the Sunshine Coast, Maroochydore
DC, Australia

Josef Neuert
SMBS, University
of Salzburg
Austria

Abstract

The reasons for writing this paper is to present the findings of the literature review of some of the most critical success and risk factors for internationalization of SMEs, such as networking, open innovation, limited entrepreneurial expertise, etc. and to demonstrate case study research as the most appropriate methodology in the current case in order to develop a novel approach upon the current theory. This paper is part of an ongoing dissertation thesis where the author is researching the critical success factors and risks for internationalization of SMEs and at the moment the authors are developing the methodology part. The already existing research for critical success factors and risks of internationalization of SMEs and the findings from the case study research over a dozen of companies from 2 developing and 2 developed countries will lead the author in development of a Roadmap for successful internationalization of SMEs.

Key Words

Keywords: internationalization of SMEs, success factors, risk factors, case study research

INTRODUCTION:

SMEs, their significance and their specificities

The traditional internationalization theories have been mainly created upon research over big leading multinational companies. However, do they apply for SMEs? Several decades still many issues were vague, as for sure traditional internationalization concepts do not quite apply for small and medium sized companies.

In order to start with a thorough analysis, one needs to understand the essence of SMEs and their importance in the overall economy. SMEs play important role in the market sector of economics, as they greatly contribute to the employment, GDP, social stability, innovations and competition in general (Kubickova & Prochazkova, 2014). As SMEs have been representing significant portion of the competitive market force, they have started playing an important role in the international business arena as well (Chiao et al, 2006; Gankema et al., 2000). For this reason, many scholars have recently researched the internationalization of small and medium enterprises (Zhou et al., 2007; Knight and Cavusgil, 1996) and have recognized the rising importance of the SMEs in the international market (Hodgetts, 2006).

When one is researching the internationalization of SMEs, several key features have to be taken in consideration that often apply for SMEs. Decrease of interest rates and easiness of getting finances has greatly influenced the increase of exports; numerous trade agreements that abolished tariffs have complimented to the increase of exporting as first step in the internationalization process; opening up of closed markets such as China, export promotions, governmental support have been all important factors for the increase of internationalization of SMEs (Allen, 1999). In addition to these factors, telecommunication advances and internet technologies, greater efficiencies with much lower shipping costs enabled many companies that could reach only the national market to spread to the international market (Hodgetts, 2006).

In continuation to the above, especially interesting for attention and study have become the international entrepreneurial companies. International entrepreneurship has been defined as a blend of innovative, initiative and risk-seeking behaviour that goes internationally and creates value in the companies (Hodgetts, 2006). Companies that are new ventures, early go internationally and are highly successful in their businesses. Such companies are nowadays called “born-global” firms.

Last but not least to the list of characteristics of SMEs is the family ownership feature of SMEs. A significant part of the SMEs are family owned businesses and as such they have their own peculiarities. Specialized research on family firms' internationalization first revealed that those companies are reluctant to go international, because they would lose their control and possibly wealth or because of lack of expertise and willingness to employ skilled managerial personnel. Taking into account all the above and researching several successful international SMEs with case study approach will broaden

the perspective of entrepreneurs, practitioners and governmental officers in order to boost exports and increase international trade. For the moment, the existing research reveals examples from various mostly developed countries, with a list of success and risk factors for internationalization. In this paper the authors will present some of the success and risk factors and will introduce the case study research methodology as most adequate approach in this study.

1. SUCCESS AND RISK FACTORS OF INTERNATIONALIZATION OF SMEs

1.1 Networking as one of the most important success factors of internationalization of SMEs

One of the most important factors for successful internationalization of small and medium sized companies if compared to multinational companies has been networking. Many scholars have researched the networking occurrence, that is, the inter-connection of the firm with its foreign partners, customers and suppliers, as the most significant success determinant in internationalization (Sekliuckiene et al, 2016). In the process of new product creation, companies tend to use their internal resources, however when foreign markets are considered, then the SMEs have to include international networks in order to gain external knowledge (Sekliuckiene et al, 2016). Several opportunities are created with the international networking incremental for success: foreign market possibility identification, potential partners, reductions of foreignness and newness on the market, etc. The more networking activities an entrepreneur engages in, the larger his/her personal network and the more central his/her position in it should be (Shirec and Bradach, 2009).

SMEs need to take into consideration that networking can have different forms, such as strategic alliances, joint ventures, licencing agreements, subcontracting, joint R&D, joint marketing activities, etc. (Shirec and Bradach, 2009). Social personal networking is one form of networking that can assist internationalization. Lianxi Zhou (2007) and several other scholars researched the social informal networking in national frames in Chinese born-global SMEs and argued that even such social networking domestically should be considered by business managers as an efficient means for internationally oriented SMEs (Zhou et al, 2007). These social networking and personal connections assist newer, international entrepreneurial SMEs in emerging economies like China to go internationally more rapidly and profitably (Zhou et al, 2007). Joint ventures have been a different form of networking used by SMEs in successful internationalization. International joint ventures have often been used as an entrance strategy by companies from developed countries, including small and medium sized companies, but often when it has been implied by the foreign country regulations (Zheng and Larimo, 2014).

In continuation of the above argument for networking, another form of networking has been incorporating the customers, suppliers, higher education institutions, research laboratories, public organizations, clusters, public groups and communities in the innovation process with adopting open

innovation strategy that also could greatly assist the internationalization process (Sekliuckiene et al, 2016). Although most researchers have devoted their work upon multinationals gaining benefits out of the open innovation approach, recent studies show that open innovation is even more significant for SMEs, due to less bureaucracy, increased willingness to take risks and faster ability to change in accordance to the changing environment, which would imply internationalization processes as well (Sekliuckiene et al, 2016). Therefore, various forms of international networking exist and SMEs should be open minded and embrace as many forms as possible in order to successfully enter foreign markets.

In continuation to the research, other critical success factors for internationalization of SMEs are offshore outsourcing, skills of owners, training of people in international business as key to expertise, cultural closeness and psychic proximity, international market monitoring and preparation for the market, governmental funding programs and other assisting mechanisms, financial managerial skills, ability of shifting of resource as key to limited resources, logistics, technology levels (investments in technology), niche markets specialization and imitating successful competition.

1.2 Shortages of capital and limitations of banking support and limited entrepreneurial and/or managerial internationalization knowledge are some of the most important risk factors of internationalization of SMEs

In order to have a complete assessment of why a small and medium sized company can succeed or fail in a foreign market, one needs to investigate the past failures of companies when going abroad and/or the risks these companies need to acknowledge in order to productively anticipate and overcome them. In the literature, readers can also meet the wording difficulties, challenges and barriers for internationalizations. Some of the scientists that have analysed the barriers and difficulties of internationalization of companies group the barriers in internal and external barriers, explaining that some of the barriers are generally associated with internal issues, such as corporate resources, managerial expertise, quality of goods and services, etc, while other barriers are generally related to external contexts, such as export structure of the country, governmental subsidies, bureaucracy, development of the country, tariff barriers, etc (Vanegas et al, 2017; Leonidou, 1995). Performing a PESTLE analysis of the country to be targeted for next exports is crucial and highly preferable in order to come up with the main risks related to external barriers, as this analysis will provide the company with the Political, Economic, Social, Technological, Legal and Ecological environment (Bilas et al, 2013). In addition to comprehending the external settings, the company is highly recommended to make a SWOT analysis, as in this analysis main internal problems/weaknesses would appear that might become major barriers for exporting as well as threats that could become external barriers (Bilas et al, 2013).

Shortages of capital and limitations of banking support have been a major difficulty for going abroad, for all companies in general, but especially for

small and medium sized enterprises. The financing of the internationalization processes of companies is done by equity and debt, where first equity is introduced, but later shortages of working capital are financed by debt (Ruiz and Perez, 2017). Ruiz and Perez (2017) in their research of financing the internationalization process of Spanish SMEs evidence that SMEs have been viewed as weak and insecure enterprises when compared to bigger companies and crediting organizations are not very willing to finance exporting activities of SMEs. Internationalization means confronting unknown markets, new competitors, unknown institutions and banks do not like to credit such uncertainties or usually would charge SMEs bigger interest rates if compared to MNEs (Ruiz and Perez, 2017; OECD, 2009). Due to the increase of number of companies going international, financing institutions have seen the importance of such products and in some countries slowly progressed into providing more and more competitive solutions for SMEs as well (OECD, 2009). Ruiz and Perez analyse a Spanish company successfully internationalizing its activities and they provide some lessons to be learned so the financial risk is decreased; namely the analysed company signed an alliance partnership with a big international company. This alliance helped SMEs gain important knowledge and network of financial instruments in the foreign countries and reduce the risk of failure because of financial shortage (Ruiz and Perez, 2017). Management of financial risk during internationalization has been highly discussed among scholars researching internationalization strategies and resources involvements. By gradual increase in market commitment, companies slowly decrease the foreignness liability of a company and thus more efficiently manage the financial risk (Sui and Baum, 2014), "Gradual internationalization balances the risks and opportunities associated with internationalization and maximizes the survival of exporters" if we take more conservative theories in consideration (Sui and Baum, 2014). Sui and Baum (2014) confirm that this no longer applies for born-global Canadian SMEs and that financial institutions need to have this in mind when analysing the SMEs internationalization survival. Therefore, lack of capital and shortages of working capital to finance exports has been one of the major challenges for internationalization of SMEs and SMEs should invest in better financial managerial knowledge and expertise in order to efficiently manage the scarce resources and become successful in the international markets.

The next significant barrier that has emerged from current research is limited managerial internationalization knowledge, lack of managerial time and skills or entrepreneurial skills (OECD, 2009). Managerial risk perceptions were one of the major reasons why companies did not go abroad in a study done in Canadian and American firms. Filatotchev (2009) also confirms in his study upon 711 high technology SMEs in China that human capital, the founders international background and global network and his/her entrepreneurial characteristics were challenges for the success of the companies abroad. Inter-organizational relationships, networks partners and alliances may assist SMEs in overcoming the barrier of lack of international managerial skills temporary and could be a successful way to go abroad (Oehme and Bort, 2015). In addition, Oehme and Bort (2015)

confirm that imitation of other successful SMEs is a very often the way of how managers act upon international expansion.

Another significant difficulty or risk to be managed is limited information to locate/analyse markets. This was revealed in a study done over Australian companies when information gaps were emphasised as the most frequent barrier and a critical challenge although we live in an information era (OECD, 2009). Last, but not least, a significant barrier noted in the OECD report has been the inability to contact potential overseas customers and difficulties of finding the right distribution channels and representation distributors.

2. CASE STUDY RESEARCH AS MOST ADEQUATE METHODOLOGY

2.1 Case study research definition and research objectives

The case study research is a research strategy that involves one or multiple cases, presenting the dynamics of the cases and getting deeper in the individual settings. It is mostly appropriate in new topics, as it could bring new perspective, new theory or upgrade of a theory (Eisenhardt, 1989; Yin, 1994; Yin, 2016). Researchers use it when the research is modest and limited with budget (Rowley, 2017), but also use it to provide description, to test theory or to generate theory (Eisenhardt, 1989). The challenge of the researchers applying case study approach is to succeed to lift the analysis from a descriptive into a study that will have an addition to knowledge and theory (Rowley, 2017). Eisenhardt (1989) strongly believes that case study is complementary to incremental theory from normal science research. The case study should be used when the research is in an early stage or when a fresh perspective is needed, while normal science research should be used in later stages of knowledge.

As Yin (2016) claims, either for an experienced or emerging social scientist, doing case study research is still one of the most challenging of all social sciences accomplishments. It is not enough to design a good case study, collect, present and analyze the data, but the challenge is to complete the analysis with a brilliant closure in an article, report, book, etc. Setting high expectations for one's own work is crucial for gaining best results, and of course setting a clear methodological path is one of the most significant issues whatsoever. Case study research has been practiced by scientists in various social sciences disciplines, such as psychology, sociology, political science, social work, business, education, etc. Therefore, one's own expectation should be in line with the field of study.

Statistical modeling, experiment, survey, analysis of archival records, etc. are all various social science research methods. Why should we practice case study research in our study? Each method is different, has its own logic and procedures, as well as its own advantages and disadvantages (Yin, 2016). According to Yin (2016), the most important thing in a research study is to define the research question (for example, what is my study about? and are we asking a "who", "what", "where", "how", or "why" question?). Yin (1994, 2016) states, who, what and where questions are investigated with documents, surveys and interviews, while how and why questions are

investigated with case study research and to be answered one needs to go in greater details and deeper in the case. How SMEs become successful on international markets and why certain SMEs are successful and certain SMEs are not are the research objectives of the thesis and for this reason we strongly believe that we would need to go deeply in the operations of the SMEs and the authors need to undertake case study research methodology to reach their objectives.

"Case studies are preferred when the relevant behaviors still cannot be manipulated and when the desire is to study some contemporary event or set of events" says Yin in his recent book *Case Study Research and Applications* (pg.12, 2016). The case study research is very similar to the history study. However, the case study research incorporates direct observations of events and interviews of persons who were or are involved in the event. The case study exceptional advantage is variety of evidences that can be used such as documents, artifacts, interviews and direct observations.

Once again, the above presented analysis convinces the audience that case study research is the most adequate methodology for researching the topic of critical success factors and risks for internationalization of SMEs.

2.2 Concerns about the Case Study Research

Criticizers of Case Study Research tend to emphasize the inferiority of this method with explaining the major concerns about it (Yin, 2016). One of the concerns is generalization. They explain that case study research lacks objectivity because of the few cases analysed and this is the most important reason for being especially cautious in the research design and implementation (Rowley 2017). Yin (2016) explains simply that case studies, like experiments, generalize towards a theoretical proposition and not towards populations. The case study does not represent a sample. The case study research's essence is to deeply understand a case, to expand and generalize to theory (analytic generalization) and not to search for probabilities (statistical generalization).

Another important concern is the fact that case study as a terminology has been used in many other instances outside of the research sphere. These include teaching-practice case studies, case studies in media and popular literature and case studies or records as integral part of many administrative archives. Some people have only seen case studies in such instances. For example, case studies in teaching are extremely used nowadays and could misguide persons from the exact nature of Case studies as a research method. The researchers using this method should be fully aware of this, clearly define the methodical procedures, report all evidence fairly and try to overcome this confusion (Yin, 2016).

Another very important concern of the case study research method is that there are no strict guidelines and there is need for greater rigor. Due to this, some of the researchers are not careful enough, do not follow systematic procedures, etc. It is crucial that researchers take care to avoid such examples. In addition, criticsers discuss that case study research method ends up with big files of data that are difficult to be managed and analysed.

In many ways, this was true for past researches and should be also an alarm for future scientists to be cautious about.

Least, but not last, a very important concern has been the fact that case study research methods can not directly address the effectiveness issue. Recently scientists are in favour of randomized controlled trials or true experiments, which can lead to the effectiveness of various treatments or interventions. In a way the case study research was put in a shadow. However, such experiments can provide information whether it was effective or not, but they are limited in explaining "how" or "why" a given treatment worked or not. Case study research can provide answers to how programs work and not whether the programs work (Rogers, 2000) and for this reason, they have their own advantages (Yin, 2016).

The authors have carefully analysed the concerns about case study research as method and are fully aware of the risks of choosing such a method for their thesis. They will have the above possibilities for mistakes and flaws in full consideration while gathering and analysing the data from the companies. They still remain to their decisiveness that this approach is most adequate to their research.

2.3 Case Study Research Design

One of the most important issues that will bring value to the research is the design of the case study research. The design is the pathway from here to there, or from the set of questions which are addressed to the set of conclusions that will be reached after proper collection and adequate analysis of the data (Yin 2016, Nachmias & Nachmias, 2014). Named as the logical model of proof, the research design is more than a work plan. Researchers have to be extremely cautious as case study research design is not the same with the ones already developed and analysed in other research methods (Yin, 2016).

Furthermore, the case study design has five components that are tremendously significant. The first component, the case study's question has been already discussed in the previous section with emphasizing that the questions "how" and "why" directly lead to case study research. The second component, the propositions are essential in order to move the researcher in the right direction of research. The questions themselves are not enough, but the scientists should have certain study propositions so these will guide them where to seek relevant evidence. The case is the third component of the design and it can be an individual person, groups, or families (Kindell et al, 2014), events such as social movements (Vos & Wagenaar, 2014), entities, communities, schools (e.g. Dimartino & Jessen, 2016), etc. The study questions and study propositions upon the individual case or multi cases are needed so that the research stays within feasible limits (Yin, 2016). Setting boundaries of the cases is also an important assignment for the scientist, as one needs to set strict limits what is inside the case and what is outside the case.

The fourth component consists of all the analytic techniques available that would link the collected data to the propositions. Pattern matching,

explanation building, time-series analysis, logic models and cross-case synthesis are several techniques that could be implemented in our research study (Yin, 2016). Most often a case study research is not capable to prove some statistical significance, as for example conventional and quantitative studies consider a p level of less than 0.05 (Yin, 2016). For this reason, another way to prove the strength of the case study's findings is to present rival explanations. The author is best to analyse as many rivals as possible for stronger findings and this would be the fifth component of the research design. With carefully preparing the research design and taking in considerations all the above explained components, the researcher will greatly benefit in preparation of an exemplary case study research.

The authors will be extra careful in the research design and will incorporate the following components: the study questions that will investigate the critical success and risk factors of SMEs in the internationalization process in developed and developing countries in specific industries; the study propositions that will include results derived from the case analysis; the study's units of analysis, the logic linking the data to the propositions and the criteria for interpreting findings (Rowley 2017). The units of analysis are the crucial part and the basis for the case. The chosen SMEs will be 12 successful international companies in 3 major industries (IT, Healthcare products and services industry and wine industry) from 4 different countries. We especially choose 3 various industries in order to have experience and insight from different industries in both services and products. In addition, we particularly chose 2 developing and 2 developed countries in order to present comparisons between companies from these countries. The two developed countries will be Germany and Austria, and the two developing countries will be Serbia and North Macedonia.

Our research will have two phases; the 1st phase includes 8 interviews with experts in international business or SME management in all 4 countries, that is 2 experts per country. The interviewers will be coming either from universities, chambers of commerce or other credible sources and would try to depict the most important factors for success of internationalization. In addition, the 1st phase will start with one company per country in its analysis. The 1st phase will be the pilot phase as it will define and confirm the 2nd phase critical issues, such as exact industries, questions included in the interviews within the companies, research developments and course of results, etc. Interviews will try to depict and analyse the most significant success factors and difficulties of internationalization of SMEs. SMEs will be selected with certain predefined criteria, such as 5 years of experience in international markets, 3 successful foreign markets, etc.

2.4 Judgement of the quality of the case study

According to Yin (1994), case study research can involve qualitative and/or quantitative data as well. This should be taken in consideration with the start of the analysis of data. In addition, the authors need to take in consideration the case study design acceptability; Yin (1994) demands that the scientists should be careful in case study research for the research

validity. Yin (1994) describes four design tests: construct validity, internal validity, external validity and reliability.

Construct validity as first step is highly critical, as researchers often do not embrace sufficiently various sources of evidences and many times present subjective judgments or judgments that mostly tend to support their own predetermined proposition (Yin, 2016). Yin suggests three tactics in order to have satisfactory construct validity: the researcher to use as multiple sources of evidence during data collection, to establish chain of evidence during data collection, and to have key informants review the draft study as many times as possible.

Furthermore, internal validity is used mainly for explanatory studies, where the researcher needs to show a causal relationship of certain events leading to other events (Yin 2016). For example, there is a threat to internal validity if the researcher did not take in consideration the event-z in the causal relationship, but only events x and y. In order to have credible internal validity, Yin suggests four analytic tactics: pattern matching, explanation building, addressing rival explanations and using logic models.

The external validity tests address the problem of generalization of the research study, as there is no statistical generalization possible. The essence starts in the how and why questions and the need for the study to be possible to be applied in another settings. Yin suggests that the researchers should use theory in single-case studies and replication logic in multiple-case studies. With the external validity test, the researchers set their theoretical propositions and this is the most appropriate time to see whether case study research methodology is the appropriate method of the upcoming study (Yin, 2016).

The last fourth test for considering the quality of the research design is the reliability. Most familiar test around the researchers, reliability proves the objectivity of the case study and assures that if the study would be repeated with the same or another researcher the results derived would be the same (Yin, 2016). In reality, it is very difficult to repeat a case study, however the recommendations for an exemplary case study are that researchers develop very rich documentation, with very cautious documented procedures of data collections. Two desirable tactics are proposed by Yin (2016), case study protocols and case study database. Similar to accountants doing their jobs by knowing that auditors will check their work, the researchers should document and always take in consideration that someone else should check their research as well.

The authors will carefully follow all the recommended tests with the objective to gain an exemplary study. They will try to gather all information in a valuable roadmap for successful internationalization of SMEs from developed and developing countries. This roadmap will contribute to the academic knowledge of internationalization of SMEs, being applicable for both developed and developing countries. With such a case analysis, it will be evident that this research can be replicated in any developed and developing country in order to find the exact characteristics of the specific country and it can be replicated in any industry in order to find the peculiarities of the industry. In this way, the study will provide significant

contribution to the methodology and current theories of internationalization of SMEs. Not only theoretically and methodologically, but also practically, this research will add value to the SMEs that are speculating to go abroad, to the SMEs that are already international and, of course, to the governmental relevant institutions that aim to increase exports of local companies.

Discussion:

Findings: Previous scientific research revealed the following success factors as most important: networking, offshore outsourcing, entrepreneurial skills, training of people in international business, cultural closeness and psychic proximity, international market monitoring, governmental funding programs, financial managerial skills, technology and niche markets specialization. In addition to the positive factors, the literature review revealed the following factors as most important risks, difficulties or barriers to internationalization of SME: shortages of capital and limitations of banking support, limited managerial internationalization knowledge, limited information to analyse markets, bureaucracy, development of the country, customs and tax tariffs, difficulties of finding the right distribution channels, etc.

Originality/value: Recently there is a great increase in involvement of SMEs in international business. At the moment, we observe scattered research of this topic in various countries in certain industries; more research in developed countries and less in developing ones. Therefore, additional research in this increasingly significant topic is of added value. In addition, comparison between success factors for internationalization of SMEs btw developed and developing countries has not been done before and a Roadmap for successful internationalization of SMEs has not yet been developed.

Research/practical implications: The outcomes found in this paper are highly significant for entrepreneurs and managers of SMEs to assist them in successful internationalization of their companies, very important to practitioners to enhance learning, knowledge transfer and risk management, but also imperative for governments officials to assist them in developing national strategies of boosting exports. The case study research methodology has also positive implications as it provides possibility to use the applied method to replicate the study in any developed and developing country in the future and the possibility to use the applied method to replicate the study in any other industry.

Conclusion:

This paper's added value will be to identify areas for further research, to contribute to current economic theories with presenting some of the most significant success factors and risks of SMEs internationalization and to justify case study research as adequate methodology. The authors first present the increasing trend of SMEs going abroad and the specificities of

SMEs in general. Then they proceed with analysis of networking and offshore outsourcing as critical success factors for internationalization of SMEs as mostly found in literature review. In addition, they continue with analysis of the most significant risks of internationalization of SMEs met in previous research.

At the end they present the case study research methodology as the most adequate methodology for this topic. To conclude with, as the overall research of this topic is in an early stage, the authors require an in-depth analysis of several successfully international companies in order to gain the knowledge and insight in what are the most critical factors and risks for internationalization of SMEs. Case study research is the correct methodology to gain such a knowledge and insight, especially in the case of comparison between developed and developing countries where no previous research exists whatsoever. Finally, the authors will try to lift the analysis from a descriptive into a study that will add value to current theories or even generate a novel approach to the theory with the expected results.

REFERENCES:

- Allen, R. Kathleen (1999) 'Growing and Managing an Entrepreneurial Business', textbook by Houghton Mifflin Company
- Bilas, V., Franc, S. and Kvaternjak, I. (2013) 'Internationalization of Micro and Small Enterprises in the Information Technology Industry of the Republic of Croatia', *Economic Review: Journal of Economics & Business / Ekonomska Revija: Casopis za Ekonomiju i Biznis*, 11(1), pp. 45-59. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=91281626&site=ehost-live> (Accessed: 25 June 2019)
- Chiao, Y.-C., Yang, K.-P. and Yu, C.-M. J. (2006) 'Performance, Internationalization, and Firm-Specific Advantages of SMEs in a Newly-Industrialized Economy', *Small Business Economics*, 26(5), pp. 475-492. doi: <https://link.springer.com/journal/volumesAndIssues/11187>
- Di Gregorio, D., Musteen, M. and Thomas, D. E. (2009) 'Offshore Outsourcing as a Source of International Competitiveness for SMEs', *Journal of International Business Studies*, 40(6), pp. 969-988. doi: <https://link.springer.com/journal/volumesAndIssues/41267>
- Dimartino, C., & Jessen, S. B. (2016). School brand management: The policies, practices, and perceptions of branding and marketing in New York City's public high schools. *Urban Education*, 51, 447-475.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532-550. <https://doi.org/10.5465/AMR.1989.4308385>
- Filatotchev, I. et al. (2009) 'The Export Orientation and Export Performance of High-Technology SMEs in Emerging Markets: The Effects of Knowledge Transfer by Returnee Entrepreneurs', *Journal of International Business Studies*, 40(6), pp. 1005-1021. doi: <https://link.springer.com/journal/volumesAndIssues/41267>
- Gankema, H. G. J., Snuif, H. R. and Zwart, P. S. (2000) 'The Internationalization Process of Small and Medium-sized Enterprises: An

- Evaluation of Stage Theory', *Journal of Small Business Management*, 38(4), pp. 15-27. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=3647223&site=ehost-live> (Accessed: 12 May 2019)
- Herstatt, C., Buse, S., Tiwari, R., and Umland, M. (2007): *Innovationshemmnisse in kleinen und mittelgroßen Unternehmen: Konzeption der empirischen Untersuchung in ausgewählten Branchen*, Hamburg University of Technology
- Hodgetts M. Richard, Fred Luthans and Jonathan P. Doh (2006) *International Management: Culture, Strategy and Behavior*, 6 e, textbook by McGraw-Hill International Edition
- Kindell, J. et al. (2014). Living with semantic dementia: A case study of one family's experience. *Qualitative Health Research*, 24, 401-411.
- Kinkel, S., Lay, G. and Maloca, S. (2008) 'Patterns of Internationalization of German SMEs: Surveying Manufacturing Offshoring', in Dana, L.-P. et al. (eds) *Handbook of Research on European Business and Entrepreneurship: Towards a Theory of Internationalization*. Cheltenham, U.K. and Northampton, Mass.: Elgar, pp. 246-262. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=1042280&site=ehost-live> (Accessed: 11 May 2019).
- Kubickova, L. & Prochazkova. (2014), 'Success Evaluation of Small and Medium-Sized Enterprises in Terms of Their Participation in the Internationalization Process', *Ekonomie A Management*, 17, 2, pp. 131-145, EconLit with Full Text, EBSCOhost, viewed 8 September 2018
- Knight, G. A. and Cavusgil, S. T. (1996) 'The Born Global Firm: A Challenge to Traditional Internationalization Theory', in Madsen, T. K. (ed.) *Advances in international marketing*. Volume 8. Greenwich, Conn. and London:, pp. 11-26. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=0466950&site=ehost-live> (Accessed: 20 July 2019).
- Leonidou, L. C. (1995) 'Empirical Research on Export Barriers: Review, Assessment, and Synthesis', *Journal of International Marketing*, 3(1), pp. 29-43. doi: 10.1177/1069031X9500300103.
- Nachmias, C., & Nachmias, D. (2014). *Research methods in the social sciences* (8th ed.). New York: St. Martin's.
- OECD (2009), "Top Barriers and Drivers to SME Internationalisation", Report by the OECD Working Party on SMEs and Entrepreneurship, OECD
- Oehme, M. and Bort, S. (2015) 'SME Internationalization Modes in the German Biotechnology Industry: The Influence of Imitation, Network Position, and International Experience', *Journal of International Business Studies*, 46(6), pp. 629-655. doi: <https://link.springer.com/journal/volumesAndIssues/41267>.
- Rogers, P. J. (2000). Program theory: Not whether programs work but how they work. In D. L. Stufflebeam, G. F. Madaus, & T. Kelleghan (Eds.), *Evaluation models: Viewpoints on educational and human services evaluation* (2nd ed., pp. 209-232). Boston: Kluwer.
- Rowley, Jennifer (2017). *Using Case Studies in Research*. Management Research News. Volume 25 Number 1 2002. [ONLINE] Available at:

- http://psyking.net/HTMLobj-3843/using_case_study_in_research.pdf
[Accessed 18 February 20]
- Ruiz, J. L. G. and Pérez, P. F. (2017) 'Financing the Internationalization of Spanish Industrial SMEs, 1980-2000: The Case of the Grifols Group', *Universia Business Review*, (55), pp. 64-79. doi: 10.3232/UBR.2017.V14.N3.03
- Sekliuckiene, J., Sedziniauskienė, R. and Vibury, V. (2016) 'Adoption of Open Innovation in the Internationalization of Knowledge Intensive Firms', *Engineering Economics*, 27(5), pp. 607-617. doi: 10.5755/j01.ee.27.5.15371
- Širec, K. and Bradač, B. (2009) 'How does Networking Impact the SMEs Growth', *Organizacija*, 42(2), pp. 59-66. doi: 10.2478/v10051-009-0003-417
- Sui, S. and Baum, M. (2014) 'Internationalization Strategy, Firm Resources and the Survival of SMEs in the Export Market', *Journal of International Business Studies*, 45(7), pp. 821-841. doi: <https://link.springer.com/journal/volumesAndIssues/41267>
- Tiwari, Rajnish and Buse, Stephan, Barriers to Innovation in SMEs: Can the Internationalization of R&D Mitigate Their Effects? (October 1, 2007). *Proceedings of the First European Conference on Knowledge for Growth: Role and Dynamics of Corporate R&D - CONCORD 2007*, October 8-9, 2007, Seville, Spain. Available at SSRN: <https://ssrn.com/abstract=1583446>
- Vanegas López, J. G., Merlos García, J. J. and Mayorga Abril, C. M. (2017) 'Flower Export Barriers: A Comparative Study in Colombia, Mexico and Ecuador', *Latin American Business Review*, 18(3/4), pp. 227-250. doi: 10.1080/10978526.2017.1354705.
- Vos, J., & Wagenaar, H. (2014). The Münchhausen movement: Improving the coordination of social services through the creation of a social movement. *American Review of Public Administration*, 44, 409-439.
- Yin, R.K. (1994) *Case Study research: design and methods*. 2nd edition. Thousand Oaks, CA: Sage.
- Yin, Robert K. (2016). *Case Study Research and Applications*. SAGE Publications. 6th Edition. Kindle Edition.
- Zheng, X. and Larimo, J. (2014) 'Identifying Key Success Factors for International Joint Ventures in China: A Foreign Parent Perspective from Finnish Firms', *Ekonomie a Management*, 17(2), pp. 106-119. doi: <http://www.ekonomie-management.cz/en/archiv/>
- Zhou, L., Wu, W. and Luo, X. (2007) 'Internationalization and the Performance of Born-Global SMEs: The Mediating Role of Social Networks', *Journal of International Business Studies*, 38(4), pp. 673-690. doi: <https://link.springer.com/journal/volumesAndIssues/41267>

IMPACT OF CORPORATE INVESTMENT ON BUSINESS PERFORMANCE: THE CASE OF SLOVENIAN FIRMS FOR THE PERIOD 2000-2017

Vladimir Bukvič
GEA College, Faculty of Entrepreneurship
Slovenia
vladimir.bukvic.ce@gmail.com

Abstract

The author presents a conceptual and measurement model to define, assess and measure the impact of corporate investment on business performance. His findings derive from a comprehensive research based on the microeconomic theory of investment and the theoretical approach to measuring the financial performance of firms. In terms of investment, the focus falls only on tangible fixed assets, whereas business performance is defined solely as performance measured by the relevant financial indicators. Several research hypotheses are tested on an extensive sample of Slovenian firms. A statistically significant correlation between investment and financial performance indicators is found for the period 2000-2017. This correlation is particularly strong with net sales revenues, added value and operating cash flow (EBITDA). Since the global financial crisis occurring at the break of the last decade is also included in the designated period, the creditless growth of investment together with the simultaneous deleveraging that took place after the financial crisis is explored and compared with the growth of the selected financial performance indicators. On top of that, the author also studies the behavior of the firms as investors. He shows how the firms as investors were able to exploit investment opportunities, what their prevailing motives to invest were, how often and when they invested (investment dynamics), what their investment growth in the longer study period was, how efficient their investment implementation was, and what economic effects they achieved by their investments. Such a complex and all-embracing analysis of the investment activity of firms in the real economic sector in a longer period of time (after the last big financial crisis) at the national level had not been carried out previously. The relevance of the author's research consists predominantly in the findings that investment activity is crucial for the firms' sustainable growth and long lasting performance, and that awareness among managers

regarding it should be increased by means of education so they may consider the resources which define and influence their investment ability differently than they do currently. Investment ability manifests in investment implementation and business performance. For this reason, it is very important that firms do not pay attention only to the pre-investment period, i.e. when they make investment decisions, but also to the implementation of their investments and to the post-investment period, when they have to monitor and measure the financial results of their investments in order to assess how efficient and successful they were. It is especially relevant to know what financial indicators and ratios the investments have influenced. This is the author's important contribution to the existing body of literature.

Key Words

corporate strategic investment, tangible fixed assets, dynamics of investment, rating and indebtedness, financial performance

PRESENCE OF STRESSORS IN TELEWORKING DURING THE COVID-19 EPIDEMIC

Andrej Raspor
School of Advanced Social
Studies Nova Gorica; GEA
College - The Faculty of
Entrepreneurship
Slovenia
andrej.raspor@ceatm.org

Andrej Kovačič
Fakulteta za medije
Slovenia
andrej.kovacic@ceos.si

Tjaša Rendić
ERUDIO master's student
Slovenia
tjasa.rendic@gmail.com

Abstract

Purpose: The present research mainly on one issue: "What was the presence of stressors in teleworking in the period of the Covid-19? The purpose was to find out the impact of knowledge of technologies and the right organisation of time on stress management in teleworking. The research also focused on organisational methods for coping with stress and ways to manage stress when working from home.

Methodology: To conduct the research, a quantitative study was applied. The employees from 232 different organisations were invited to take part in our random sample. 727 employees replied to the survey questionnaire of which 631 worked from home during the Covid-19 epidemic. The level of stress after the first week and after the first month of working from home was compared. The obtained replies were analysed by using SPSS.

Results: We established that the respondents already had previous experience in using IT, which enables teleworking, and that provided a smoother transition from conventional work to teleworking. It was found that the type of company in which an employee works plays an important role in terms of his/her level of technological knowledge. After the first week of teleworking, the employees saw working from home as an obstacle, particularly due to the issue of acquiring new knowledge associated with technology and also because of the problems related to the organisation of time. After one month of working from home, the results of the research indicated that the information technology made teleworking easier for the employees and helped them to manage stress.

Key Words

teleworking, stress management, stress related to remote work, contemporary technologies, Covid-19 epidemic

INTRODUCTION

In the city of Wuhan, China, an outbreak of novel coronavirus occurred in 2019 (therefore, also named Covid-19). The virus has quickly spread across the country (Novel, 2020) and beyond, transforming into a full-blown epidemic (European Centre for Disease Prevention and Control, 2020). Furthermore, the disease is not over yet as new daily infections were reported in July 2020 (Centers for Disease Control and Prevention, 2020). The experiences from previous influenza epidemics, in particular the 2009-10 epidemic, have shown that we cannot expect to geographically contain the next influenza epidemic in the location it emerges, nor can we expect to prevent the international spread of infection for more than a short period of time (Fong et al., 2020). The governments around the world have taken steps to curb the spread of the virus. The Coalition for Epidemic Preparedness Innovations (CEPI) is working with global health authorities and vaccine developers to support the development of vaccines against the Covid-19, but vaccines are not expected to be available during the early stage of epidemic, and the stockpiles of antiviral drugs will be limited, mostly reserved for treating more severe illnesses and for patients at higher risk for influenza complications (Fong et al., 2020). Therefore, nonpharmaceutical interventions (NPIs) have been introduced, such as social distancing. Social distancing is a long-established public health tool, which seeks to reduce opportunities for an infectious agent to spread among individuals and to reduce the overall speed of transmission (Hatchett, Mecher, & Lipsitch, 2007)). Social distancing measures include instructions that individuals maintain a distance from one another in public, limitations on gatherings, limitations on the operation of businesses and instructions to remain at home. Rapid implementation of comprehensive social distancing is particularly important in case of a more infectious disease (Bootsma & Ferguson, 2007; Kelso, Milne, & Kelly, 2009) (Mohler et al., 2020). Health authorities would like to slow down influenza transmission in the community, with three desired outcomes. The first would be to delay the time of the peak of infections to buy time for preparations in the healthcare system, the second outcome is to reduce the size of the epidemic peak so that the healthcare system is not overwhelmed, and the third is to spread infections over a longer time period. In doing so, they would enable better management of those cases and the potential for vaccines to be used at least later in the epidemic to reduce impact (Fong et al., 2020).

The Health Minister of Slovenia declared coronavirus epidemic on 13 March 2020. The infectologists call for measures to be taken in the coming days and weeks, which will be crucial in curbing the spread of the coronavirus.

All EU member states have adopted similar measures to those in Slovenia, and are gearing up for a potential further spread of the virus. Slovenia has already taken the following measures: (1) closure of educational institutions, (2) restrictions on border crossings with Italy, (3) restrictions on public life, (4) work from home (Government Communication Office, 2020e). Millions of people worldwide suffer from economic stress (Hiswåls, Marttila, Mälstam, & Macassa, 2017). Stress can be the consequence of working conditions (Gowan & Gatewood, 1997) or fear of employment loss (Fleming, Baum, Reddy, & Gatchel, 1984). It can also be encouraged by technology (Kumar & Aithal, 2016).

Based on the works of the mentioned authors, we set up the following research question: "What was the presence of stressors in teleworking in the period of the Covid-19?"

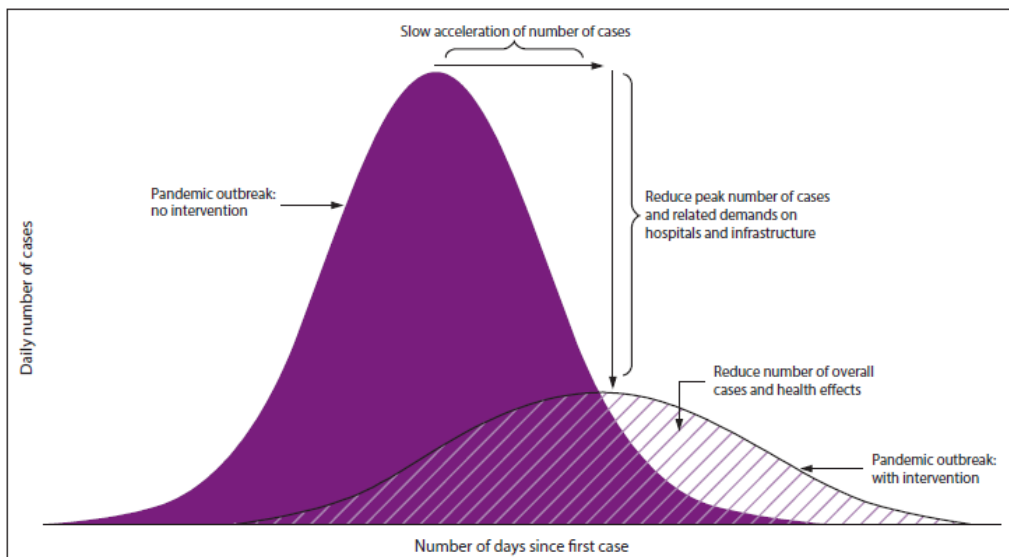
LITERATURE REVIEW

Epidemics and Covid-19

The epidemic of the 2019 novel coronavirus (now called SARS-CoV-2, which caused the disease Covid-19) has expanded from Wuhan throughout China and is being exported to a growing number of countries, some of which have seen an onward transmission. The early efforts have been invested in describing the clinical course, counting severe cases and treating the sick. Experience with the Middle East respiratory syndrome (MERS), epidemic influenza and other outbreaks has shown that as an epidemic evolves, we face an urgent need to expand public health activities in order to elucidate the epidemiology of the novel virus and identify its potential impact. The impact of the epidemic depends on the number of persons infected, on the infection's transmissibility and on the spectrum of clinical severity (Lipsitch, Swerdlow, & Finelli, 2020).

The application of public health measures will, to some extent, reduce the number of people who are infected, need medical care and die during the influenza epidemic. By lowering and perhaps delaying the peak of the epidemic curve, the measures will probably also reduce the numbers of people affected by severe epidemics of seasonal influenza. (Figure 1).

Figure 1. Goals of community mitigation for epidemic influenza



Source: (Centers for Disease Control and Prevention, 2007)

The measures could also mitigate the secondary consequences of THE epidemics that appear when many people fall sick at once, i.e. the impact of mass absenteeism on key functions such as delivering healthcare and maintaining food supplies, fuel distribution and utilities, etc. Public health measures may even delay the peak of the epidemic curve until the vaccine starts to become available in the near future, thereby possibly also reducing the total numbers of people affected. In addition, theoretically, they may delay the peak until influenza transmission declines naturally in the summer months. With interventions: (1) to delay and flatten the epidemic peak; (2) to reduce the peak burden on healthcare systems and threat to other essential systems through high levels of absenteeism; (3) to somewhat reduce the total number of cases and (4) to buy some time (ECDC, 2009). A range of measures have been suggested, including personal actions, like hand-washing and mask-wearing and pharmaceutical interventions such as antivirals, human avian influenza vaccines (also called pre-epidemic vaccines) and, late in the epidemic, specific vaccines, as well as community social distancing measures. It is thought by many that combinations of measures will be even more effective than just single measures, so called "defence in depth" or "layered interventions". Both modelling work system and present sense suggest that early interventions would be more effective than waiting until the epidemic is well advanced. It is hard to imagine that measures like those within the category of social distancing would not have some positive impact by reducing transmission of a human respiratory infection spreading from human to human via droplets and indirect contact. However, the evidence that supports each individual measure is often weak. It is also unclear how a number of them will interact. Specifically, will the effect of social distancing measures be cumulative? In some cases, this lack of clarity is due to lack of research. More often, it is because the measures are hard to evaluate with any experimental approach, and when measures have been implemented in real situations they have been used in

combination. Hence the absolute positive effect and relative strengths of different measures are extremely hard to judge. Also, the strength of effect could quite reasonably vary according to the characteristics of the epidemic. For example, interventions targeting children might have been quite effective during the 1957 epidemic where transmission in younger age groups seems to have been especially important, but they would have been less effective during the 1918-19 and 1968 epidemics. Hence it will not be possible to have fixed plans that fit every epidemic. Furthermore, the effectiveness, feasibility and costs of social distancing measures will presumably vary among European countries or even within countries (for example, dense urban areas compared with rural areas).

Measures of the Government of the Republic of Slovenia and their impact on public life and work

The government adopted several preventive measures to curb the spread of coronavirus. On 12 March 2020, Slovenia declared epidemic. On 15 March 2020, the Slovenian government adopted the ordinance of a temporary ban on the sale of goods and services to consumers in the Republic of Slovenia (Government Communication Office, 2020a). On 16 March 2020, the government also closed down schools, kindergartens, bars and restaurants and suspended public transport (Government Communication Office, 2020d). On 17 March 2020, the government of the Republic of Slovenia issued the ordinance prohibiting the provision of air services in the Republic of Slovenia (Government Communication Office, 2020g). By 20 March 2020, only individual groups of up to 50 people may gather at the same place at the same time (apart from certain exceptions), but only if they can maintain the required safety distance (Government Communication Office, 2020b). On 28 March 2020, the government also adopted amendments to the mentioned ordinance, on the temporary prohibition of offering and selling goods and services to consumers in the Republic of Slovenia, which dictates that purchases from 8 am to 10 am can only be made by vulnerable groups (e.g. persons with disabilities, pensioners, pregnant women). Pensioners can carry out their purchases only in this period (Government Communication Office, 2020f). On 30 March 2020, the government of the Republic of Slovenia adopted the ordinance on the temporary general prohibition of movement and public gathering in public places and areas in the Republic of Slovenia and the prohibition of movement outside the municipality of permanent or temporary residence (Government Communication Office, 2020e). By 26 May 2020, the entry into the country without mandatory quarantine is now allowed for Slovenian citizens and foreigners with permanent or temporary residence in Slovenia. Incoming travellers from third countries were required to undergo a mandatory 14-day quarantine (Government Communication Office, 2020c).

To alleviate the consequences of the looming economic crisis due to the Covid-19 epidemic, the government of the Republic of Slovenia (2020) proposed that employers adopt different measures for reducing the risk of infection as well as in terms of liquidity of their companies. Such measures

are crucial to protect human dignity of a man (Kleindienst, 2017; Kleindienst & Tomšič, 2017).

During the epidemic, the employees had to stay at home due to the measures imposed by the government, while the employers helped them to keep their jobs by providing work from home and at the same time kept them safe by preventing contacts with their colleagues. Since many employees have different standards of living, this kind of work does not provide the same working conditions for all, and therefore working from home can be seen more as an obstacle than a challenge.

Fong and colleagues collected (Fong et al., 2020) 6 measures in reducing influenza transmission in the community: isolation of ill persons; contact tracing; quarantine for exposed persons; school dismissals or closures; workplace measures, including workplace closures; and avoidance of crowds (Table 1).

Table 1: Summary of results for systematic review of literature on nonpharmaceutical interventions for epidemic influenza

Type of NPI	No. studies identified	Study designs included	Main findings
Isolation	15	Observational, simulation	Isolation has a moderate impact in reducing influenza transmission and impact.
Quarantine	16	Intervention study, observational, simulation	Quarantine has a general moderate impact in reducing influenza transmission and impact.
Contact tracing	4	Simulation	Combination of contact tracing with other measures (e.g. isolation and quarantine) can reduce influenza transmission and impact; the addition of contact tracing to existing measures might provide only a modest benefit but will also need substantial resources.
School closure	28	Observational	The transmission of influenza decreases during routine school holidays but might increase after schools reopen.
Planned holiday			
Reactive closures	16	Observational	The effectiveness of reactive school closure varies.
Pre-emptive closures	13	Observational	Pre-emptive school closure has a moderate impact in reducing influenza transmission.

Workplace measures	18	Intervention study, observational, simulation	Workplace measures are effective; the combination with other interventions will further strengthen the effect.
Workplace closures	10	Simulation	Workplace closures might have a moderate impact in reducing influenza transmission.
Avoiding crowds	3	Observational	Timely and sustained application of measures to avoid crowds might reduce influence.

Source: (Fong et al., 2020)

Workplace measures and closures aim to reduce influenza transmission in the workplaces or during the commute to and from work. Teleworking at home, staggered shifts and extended holidays are some of present workplace measures considered for mitigating influenza epidemics (Fong et al., 2020). These measures secure physical distance between people (of at least one metre) and reduce contact with contaminated surfaces, while encouraging and sustaining virtual social connection within families and communities (World Health Organization, 2020).

Working from home

Telecommuting, telework or remote work is getting more and more present practice (Bloom, Liang, Roberts, & Ying, 2015). So, what is telework? A number of key elements that might be involved in any definition (Haddon & Brynin, 2005): technology, location, contractual arrangements, and time. In the EU, 5.0% of total employees have worked from home since 2010, and 5.4% in 2019, which represents an 8% increase. In comparison to Slovenia, the percentage of teleworkers increased from 6.7% to 6.9% in the mentioned periods of time, what represents a 3% increase. (Eurostat, 2020). Before the coronavirus, the majority of Slovenian companies provided a flexible arrival to or departure from work, while reduced working hours and work from home. At that time, remote work was not very widespread (Zupan, 2019). In 2019, 2062 people were registered for working from home. In March 2020, the number of registrations of work from home started to increase. Between 1 January and 23 March 2020, 2534 employers registered telework, which is more than in the entire year before that (MMC, 2020). The companies were not prepared for the epidemic, the and the school system did not have strategic plans for distance learning, should such case arise (Makovec, 2020). Evaluating the economic impact of "social distancing measures" taken to arrest the spread of the Covid-19, raises a fundamental question about the modern economy: How many jobs can be performed at home? We classify the feasibility of working at home for all occupations and merge this classification with occupational employment counts. Dingel and Neiman found out that 37% of jobs in the United States can be performed entirely at home, with significant variation across cities and industries. These jobs

typically pay more than jobs that cannot be done at home and account for 46% of all US wages. Applying our occupational classification to 85 other countries reveals that lower-income economies have a lower share of jobs that can be done at home (Dingel & Neiman, 2020)

The measures for the general public include: introduction of flexible work arrangements such as telecommuting, distance learning, reduction and avoidance of crowds, closure of non-essential facilities and services, protection for vulnerable groups, restrictions on local or national movement, staying-at home measures, coordinated reorganisation of health care and social services networks to protect hospitals. The mentioned actions are combined with individual protective actions against Covid-19; those are frequent hand washing and cough etiquette. (World Health Organization, 2020)

Job loss stress

Work from home includes a lot of mood swings in comparison to the work in office. The level of concentration on work can also be less constant when working from home. Besides, the capacity of an average employee to work with broader and general guidance is under question. Work in company includes more bureaucracy and more coordination than telework. The latter requires more preparation and independence for a successful performance of work assignments (Kumar & Aithal, 2016).

After the first month of working from home, many employees were in some state of semi-shock. They had to face the logistics of telecommuting, which was not easy, and they had no time to deal with the related emotions. Only once they managed to settle into the routine, they have been able to manage the emotional side of remote work (Murphy, 2020).

Here are mentioned some sources of stress in people working from home (Scott, 2020): (1) Lack of structure: a specific schedule is required for work, private obligations and rest. (2) Too many distractions: people who live with those who have to work from home, can be a distraction or certain things can be distractive, too. (3) Difficulty with setting limits: it is of crucial importance to set boundaries between productivity and free time and between time for socialisation and working time. (4) Social isolation: the level of social isolation can be increased due to lack of social contacts and can be detrimental to work. (5) Lack of focus: it can happen that teleworkers give priority to private matters over work assignments.

The advantages for telecommuters are more autonomy and flexibility. Increased human resource capacity and the reduction of indirect costs are a plus for companies. Lastly, the benefits for society are a reduction in environmental damage, solutions for special-needs populations and savings in infrastructure and energy. The disadvantages for teleworkers are a possible sense of isolation and blurred lines between work and home. The minuses for organisations are the expenses in the transition to new work methods, training, damage to commitment and identification with the organisation. Lastly, one disadvantage for a society is a threat of creating detached individuals (Harpaz, 2002).

Job loss is a dramatic and stressful event for many people. (Fleming et al., 1984) Systematic research of job loss began during the Great Depression (Gowan & Gatewood, 1997) and it became very widespread in recent times. The review of previous models of responses to job loss highlight the increasing reliance on the stress research (Fleming et al., 1984; Gowan & Gatewood, 1997; Hiswåls et al., 2017). All studies confirm that stress is present in the case of job loss. If the current situation continues, we can, therefore, expect economic slowdown, an increase in dismissals, in stress and in stress-related health problems.

METODOLOGY

The research was based on a survey questionnaire; it was the 1ka online survey, submitted on 14 April 2020 via e-mail and was also published on social networks. It was available from 14 to 26 April 2020. The survey was short-term, which means that respondents were to experience the first days of working from home to the greatest extent possible and to compare this period to the situation after one month of working from home. The first part of the questionnaire collected the data on gender, age, education, profession and marital status. The second part of the questionnaire collected the statements related to information technology. The third part had the questions regarding working from home and were measured on the 5-point Likert scale. The respondents used the scale to express their level of agreement with single statements. To demonstrate a comparison of experienced stress after one week and one month of telework, we applied a table with two scales.. The questionnaire was sent to 68 faculties, 24 primary schools, 26 secondary schools, 16 adult education centres, 18 libraries, 5 music schools, 13 museums, 53 companies and 9 business incubators, and it was also shared both on Facebook and LinkedIn. The data was statistically analysed and tested by SPSS.

Research Instrument

Our random sample included the employees from 232 different organisations, 727 of which replied to the given survey questionnaire. It was found that 631 of them worked from home during the Covid-19 epidemic. As mentioned, a comparison between the level of stress after the first week and after the first month of telework was compared and the obtained replies were analysed by SPSS.

To measure the quantity of mobbing?, a part of Web Questionnaire 1ka was used. The questions were adapted to Slovenian population, tested and revised before the final version.

A preliminary research small scale analysis (five employees) was carried out in order to test the questionnaire. We also revised the disparity of answers and the general understanding of the questions.

The first part of the questionnaire collected information on gender, age, education, profession and marital status, the second part consisted of statements on information technology and the third part comprised

questions about teleworking. All questions were measured by the 5-point Likert scale.

Demographic data

Through the random sampling procedure, we managed to collect opinions from 727 respondents (605 females and 122 males). As indicated in the table below, the women participating in the survey represent 0.15% of the working age population, while the share of men is 0.02%. Sample gender ratio reflected the organisation gender ratio 8:2 in favour of females. The sampled employees were almost equally divided into two age groups: 26 to 35 years and 36 to 45 years. There were 61% with university degree in the sample.

Table 2: Demographic data

Gender	Working age of population (Source: SORS, 2020)	Number of participants	Percent by working age of population	Percent by participating population
Women	401,754	605	0.15%	83%
Men	492,475	122	0.02%	17%
Age group				
Under 25 years	42,625	39	0.09%	5.36%
26-35 years	198,858	186	0.09%	25.58%
36-45 years	264,766	241	0.09%	33.15%
46-55 years	251,148	170	0.06%	23.38%
Over 56 years	136,832	91	0.06%	12.52%
Total	894,229	727	0.01%	100%
Education				
University/Master's degree/PhD		445		61%
Higher/tertiary		180		25%
Secondary professional/general		78		11%
Secondary vocational		22		3%
Primary		0		0%
Type of work				
Managerial function		50		7%
Head of group, department, manager		130		18%
Employee (office, school, healthcare establishment)		442		61%
Employee (production, factory, warehouse)		10		1%
Other		93		13%
Type of company				
Production company		50		7%
Service company		167		23%

Educational institution		408		60%
State administration		80		11%
Work experience				
Under 5 years		228		31%
6-10 years		123		17%
11-20 years		171		24%
20-30 years		122		17%
Over 30 years		83		11%
Marital status				
Married (or consensual union)		615		85%
Single		112		15%
Care in private life				
Care for school-age children		240		33%
Care for preschool children		167		23%
Care for parents		87		12%
Care for grandparents		14		2%
None		189		26%
Other		36		5%

To summarise the socio-demographic data of the research, the participants were mostly women from the age groups 26-35 and 36-45 and had a university degree. The majority of respondents were employed in schools, offices and health care system and had up to five years of work experience. The respondents were mainly married and took care of the school-age children.

Hypotheses

H1: In the Covid-19 period, the level of stress in people working from home was greater in women.

The aim of the given hypothesis was to find out the correlation between single stressors and the gender of the respondents. We also made the comparison between the variable "gender" and different stressors.

H2: In the Covid-19 period, the level of stress in people working from home was greater in younger employees.

For the given hypothesis, we used the variable "age groups" and we tried to identify its correlation to single stressors. The research was carried out after the first week of working from home and also after the first month of working from home.

H3: In the Covid-19 period, the level of stress in people working from home was greater in those in manufacturing companies.

In these terms, we tried to figure out the connection between single stressors and the type of company in which the respondents work. We divided the companies into state administration, education system, services company and manufacturing company.

RESULTS

H1: In the Covid-19 period, the level of stress in people working from home was greater in women.

In order to detect the presence of a single stressor according to the gender of respondents, the Point-biserial correlation coefficient was used. A nominal variable "gender" was compared to interval variables, which were different stressors. To calculate the Point-biserial correlation coefficient, we first applied the Pearson correlation coefficient on the basis of which we studied the correlation between gender and a single stressor. The correlation between stressors and gender was identified only in relation to the first week of working from home since no large number of deviations was identified in the answers after one month.

In the case of correlation between the variables "fear of dismissal" and "gender", the Point-biserial correlation coefficient has the value of 0.005 and $p = 0.452$. It follows that the correlation is statistically significant. By calculation $R^2 = (0.005)^2 = 0.000025$, we found that 0.0025% of the variance Y (fear of dismissal) can be explained by the impact of X (gender). From this it follows that despite its statistical significance, only 0.0025% of the variance Y (fear of dismissal) can be explained by the impact of X (gender), therefore, we cannot talk about the validity of the test.

In relation to correlation between the variables "fear of wage reduction" and "gender", the Point-biserial correlation coefficient holds the value of 0.047 and $p = 0.119$. Thus the correlation is statistically significant. By calculation of $R^2 = (0.047)^2 = 0.0022$, we found that the variance is extremely low (0.22%).

Regarding the correlation between the variables "it is hard for me to organise work from home" and "gender", the Point-biserial correlation coefficient has the value of 0.099 and $p = 0.006$. Consequently, there is no positive correlation. By calculation of $R^2 = (0.099)^2 = 0.0098$, we found that the variance is low (1%). Even though there was a statistical significance of the correlation, that the variance would still be very low.

In terms of correlation between the variables "I am not used to remote communication" and "gender", the Point-biserial correlation coefficient holds the value of 0.107 and $p = 0.004$. Consequently, there is no positive correlation. By calculation of $R^2 = (0.107)^2 = 0.0114$, we found that the variance is extremely low (1,1%). Although the correlation was statistically significant, the variance would still be very low.

In the case of correlation between the variables "I am not updated on the company development" and "gender", the Point-biserial correlation coefficient has the value of 0.067 and $p = 0.046$. It follows that there is no positive correlation. By calculation of $R^2 = (0.067)^2 = 0.0044$, we figured out that the variance is extremely low (0.4%). Even in the case of statistical significance of correlation, the variance would still be very low. Thus, the correlation is statistically significant.

Regarding the correlation between the variables "enclosed space-anxiety" and "gender", the Point-biserial correlation coefficient holds the value of 0.053 and $p = 0.090$. It follows that there is no positive correlation. By

calculation of $R^2 = (0.053)^2 = 0.0028$, we found that the variance is extremely low (0.28%).

In terms of correlation between the variables "restriction of movement in nature" and "gender", the Point-biserial correlation coefficient has the value of 0.043 and $p = 0.143$. As a result, the correlation is statistically significant. By calculation of $R^2 = (0.043)^2 = 0.0018$, we figured out that the variance is extremely low in this case (0.18%).

On the basis of given descriptions, we can conclude that the correlation of present stressors is not statistically significant or that the variance is so small that validity cannot be confirmed. We see the cause of that in gender imbalance in completing the survey as there were considerably more female than male respondents.

In the table below, we can see the illustrative presentation of all correlations between stressors with "gender" after the first week of working from home.

Table 3: Correlations between the presence stressors with gender

		GENDE R	fear_ of_dis missal	fear_ of_wa ge_re ducti on	time_ mana gemen t	rem ote_ _co mm unic atio n	I_am_not _updated _on_the_ company _develop ment	loneli ness_i solati on	enclo sed_s pace_ anxie ty	restrict ion_of_ movem ent_in_ nature
GENDER	Pearso n correla tion coeffic ient	1	0.005	0.047	0.099 [*]	0.107 ^{**}	0.067 [*]	0.030	0.053	0.043
	Import ance (1- sided)		0.452	0.119	0.006	0.004	0.046	0.225	0.090	0.143
fear_of_d ismissal	Pearso n correla tion coeffic ient	0.005	1	0.626 [*]	0.176 [*]	0.014	0.232 ^{**}	0.192 [*]	0.160 [*]	0.144 ^{**}
	Import ance (1- sided)	0.452		0.000	0.000	0.359	0.000	0.000	0.000	0.000
fear_of_w age_redu ction	Pearso n correla tion coeffic ient	0.047	0.626 [*]	1	0.190 [*]	0.122 ^{**}	0.251 ^{**}	0.212 [*]	0.168 [*]	0.205 ^{**}
	Import ance (1- sided)	0.119	0.000		0.000	0.001	0.000	0.000	0.000	0.000

time management	Pearson correlation coefficient	0.099**	0.176*	0.190*	1	0.371**	0.301**	0.292*	0.188*	0.103**
	Importance (1-sided)	0.006	0.000	0.000		0.000	0.000	0.000	0.000	0.005
remote communication	Pearson correlation coefficient	0.107**	0.014	0.122*	0.371*	1	0.350**	0.362*	0.269*	0.184**
	Importance (1-sided)	0.004	0.359	0.001	0.000		0.000	0.000	0.000	0.000
I_am_not_updated_on_the_company_development	Pearson correlation coefficient	0.067*	0.232*	0.251*	0.301*	0.350**	1	0.372*	0.335*	0.264**
	Importance (1-sided)	0.046	0.000	0.000	0.000	0.000		0.000	0.000	0.000
loneliness_isolation	Pearson correlation coefficient	0.030	0.192*	0.212*	0.292*	0.362**	0.372**	1	0.645*	0.403**
	Importance (1-sided)	0.225	0.000	0.000	0.000	0.000	0.000		0.000	0.000
enclosed_space_anxiety	Pearson correlation coefficient	0.053	0.160*	0.168*	0.188*	0.269**	0.335**	0.645*	1	0.452**
	Importance (1-sided)	0.090	0.000	0.000	0.000	0.000	0.000	0.000		0.000
restriction_of_movement_in_nature	Pearson correlation coefficient	0.043	0.144*	0.205*	0.103*	0.184**	0.264**	0.403*	0.452*	1

	Importance (1-sided)	0.143	0.000	0.000	0.005	0.000	0.000	0.000	0.000	
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**Correlation is important at 0.01 (1-sided).

*Correlation is important at 0.05 (1-sided).

H2: In the Covid-19 period, the level of stress in people working from home was greater in younger employees.

The table below presents the presence of a single stressor in terms of the respondents' age after the first week and after the first month of working from home.

As we can see in the chart below, in the first week of working from home, most present stressor was "fear of dismissal", in the age group up to 25 years ($M = 2.20$). The stressor "fear of wage reduction" was also most present stressor in the first week and in the age group up to 25 years ($M = 2.53$). Further on, in the first week, the stressor "it is hard for me to organise work from home" was most present in the age group from 26 to 35 years ($M = 2.51$). Still in the first week, the stressor "I am not used to remote communication with co-workers/clients" was most present in the age group above 56 years ($M = 2.93$). During the first week, the stressor "I am not updated on the company development" was most present in the age group above 56 years ($M = 2.51$). After the first week of working from home, the stressor "loneliness, sense of isolation" was most present in the age group up to 25 years ($M = 2.47$). Also after the first week of working from home, the stressor "enclosed space - anxiety" was present in the age group above 56 years ($M = 0.07$). The stressor "restriction of movement in nature" was most present in the age group up to 25 years ($M = 2.60$) after the first week of working from home.

As is apparent from the given chart, the stressor "fear of dismissal" was also reduced in the age group up to 25 years ($M = 2.00$), so consequently it is no longer present in any age group. The stressor "fear of wage reduction" remained most present in the age group up to 25 years after the first month and with reference to the first week, it increased ($M = 2.73$). After the first month, the stressor "it is hard for me to organise and work from home" is most present in the age group from 36 to 45 years ($M = 2.32$), whereas it was reduced in the age group from 26 to 35 years ($M = 2.23$). After the first month, the stressor "I am not used to remote communication with co-workers/clients" was most present in the age group above 56, although it was also reduced in the same group ($M = 2.28$). After the first month, the stressor "I am not updated on the company development" is most present in the age group above 56 years, but it was also reduced after the first month ($M = 2.46$). The stressor "loneliness, sense of isolation" was most present in the age group up to 25 years after the first month of working from home and it was increased in relation to the first week ($M = 2.53$). After the first month of working from home, the stressor "enclosed space - anxiety" was present in the age group above 56 years and somewhat increased in terms of the first week ($M = 2.15$). The stressor "restriction of movement in nature", which was most present in the age group up to 25 years also after the first

month of working from home, was reduced in relation to the first week ($M = 2.46$).

Table 4: The presence of a single stressor in terms of the respondents' age

Stressor/age	Up to 25 years	26-35 years	36-45 years	46-55 years	Above 56 years
The first week of working from home					
Fear of dismissal	2.20	1.85	1.79	1.63	1.39
Fear of wage reduction	2.53	2.40	2.23	2.50	2.03
It is hard for me to organise work from home	2.13	2.51	2.49	2.19	1.95
I am not used to remote communication	2.13	2.54	2.17	2.44	2.93
I am not updated on the company development	2.20	2.16	2.40	2.13	2.51
Loneliness, sense of isolation	2.47	2.01	2.00	2.07	2.37
Enclosed space - anxiety	1.87	1.66	1.67	1.77	2.07
Restriction of movement in nature	2.60	2.35	2.13	2.32	2.39
The first month of work from home					
Fear of dismissal	2.00	1.70	1.85	1.55	1.42
Fear of wage reduction	2.73	2.45	2.39	2.44	2.07
It is hard for me to organise work from home	1.67	2.24	2.32	1.95	1.85
I am not used to remote communication	1.60	2.07	2.02	2.03	2.29
I am not updated on the company development	2.20	2.08	2.39	2.08	2.46

Loneliness, sense of isolation	2.53	2.31	2.22	2.21	2.42
Enclosed space - anxiety	1.93	1.72	1.70	1.78	2.15
Restriction of movement in nature	2.47	2.42	2.26	2.34	2.39

H3: In the Covid-19 period, the level of stress in people working from home was greater in those from manufacturing companies. As it is shown in the table below, in the first week of working from home, the stressor "fear of dismissal" was most present in manufacturing company ($M = 2.55$). During the first week, the stressor "fear of wage reduction" was most present in services company ($M = 2.51$). Also in the first week, the stressor "it is hard for me to organise work from home" was most present in manufacturing company ($M = 2.65$), followed by education system ($M = 2.43$). The stressor "I am not used to remote communication with co-workers/clients" was most present in education system in the first week ($M = 2.69$). Still in the first week, the stressor "I am not updated on the company development" was most present in manufacturing company ($M = 2.50$), followed by education system ($M = 2.32$). The stressor "loneliness, sense of isolation" was most present in education system in the first week, ($M = 2.19$), followed by manufacturing company ($M = 2.10$). After the first week of working from home, the stressor "enclosed space - anxiety" was barely present in any types of companies; its highest average was in education system ($M = 1,83$). Also after the first week of working from home, the stressor "restriction of movement in nature" was most present in manufacturing company ($M = 2.55$), followed immediately by services company ($M = 2.40$).

Table 5: The presence of a single stressor in terms of the respondents' type of company

Stressor/type of company	State administration	Education system	Services company	Manufacturing company
The first week of working from home				
Fear of dismissal	1.56	1.57	2.09	2.55
Fear of wage reduction	2.15	2.29	2.51	2.40
It is hard for me to organise work from home	1.88	2.44	2.11	2.65
I am not used to remote communication	1.95	2.70	1.96	2.10
I am not updated on the company development	1.90	2.33	2.25	2.50
Loneliness, sense of isolation	1.71	2.20	1.96	2.10

Enclosed space - anxiety	1.49	1.84	1.69	1.65
Restriction of movement in nature	2.12	2.26	2.40	2.55
The first month of work from home				
Fear of dismissal	2.41	2.43	2.40	2.41
Fear of wage reduction	2.12	2.39	2.24	1.95
It is hard for me to organise work from home	1.97	1.84	2.14	2.02
I am not used to remote communication	2.16	2.09	2.36	2.17
I am not updated on the company development	2.43	2.00	2.19	2.20
Loneliness, sense of isolation	1.77	1.54	1.79	1.80
Enclosed space - anxiety	2.35	2.32	2.26	2.35
Restriction of movement in nature	4.30	4.45	4.38	4.50

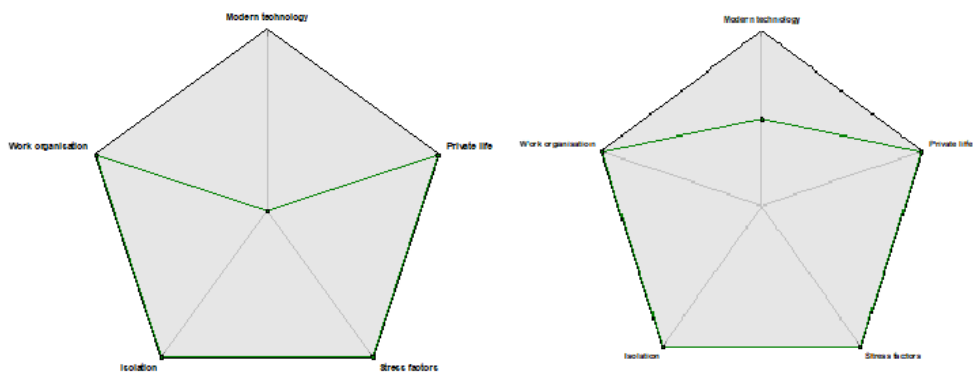
DISCUSSION

The Covid-19 epidemic quickly and unexpectedly spread from China throughout Europe. The governments were forced to promptly adopt measures to curb the epidemic, and the organisations had to respond to the changed way of working. They had to provide adequate conditions and equipment to their employees so that they could start to work from home immediately. This kind of circumstances evokes a sense of uncertainty in people; thus, the work from home upon a prior agreement between an employee and an employer is significantly different from the work from home in a crisis situation.

On the basis of the decision-support system (Dexi), we assessed which are the main factors for causing stress in employees at work from home. The model in Dex represented two variants: the first week of work from home and the first month of work from home. The main attribute is "stress factors", which has value domains: "high levels of stress", "occasional stress", "low levels of stress". With the help of sub attributes and in relation to an individual, I tried to identify which factor causes high levels of stress, which factor causes occasional stress and which factor causes low levels of stress. The chart below presents the evaluation of the criteria: stress factors, isolation, privacy, work organisation, media and modern technology after the first week of working from home and after the first month of working from home. On the basis of the evaluation of the variants, we figured out

that the attribute "private life" caused low levels of stress to an individual both after the first week of working from home and after a month of working from home. The attributes "work organisation" and "isolation" also caused low levels of stress to an individual after the first week and after the first month of working from home. The attribute "modern technology" caused high levels of stress to an individual after the first week of working from home, whereas after the first month of working from home, it caused occasional stress to an individual. This stressor is particularly present due to learning new skills and the fear of new ways of working. At the beginning, the stressor "media coverage of the Covid-19" caused higher levels of stress to individuals, but later the levels of stress decreased. The individuals believe that work from home takes more time than working in organisation.

Chart 2: Presentation of the criteria evaluation



Source: Lasten 2020.

RESEARCH LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Due to conditions we were faced with for the first time, there were no similar studies available to compare them with our research. In obtaining replies by using survey questionnaires, the respondents working from home were limited due to lack of time and also because of taking care for their children who were not in school at that time. Certainly, there will be plenty of similar studies in the future, as the given topic is the object of interest. However, we will have to focus on older researches in the case of making comparisons.

CONCLUSION

The research question was: "What was the presence of stressors in teleworking in the period of the Covid-19?"

Whether due to constantly changing and increasingly flexible relationships between employers and employees or owing to the recent economic crisis, job insecurity and job loss; unemployment and underemployment represent some of the worst stressors that people encounter in their working lives (Hiswåls et al., 2017). During the period of teleworking because of the

epidemic, work from home did not cause greater levels of stress in the individuals. Modern technology enabled many companies smooth functioning even in epidemic times. It is true that employees had to gain certain new knowledge and skills, but the majority of them easily adapted to a new situation. Stress present in the period of the epidemic, has been increasing from week to week mainly due to the sense of loneliness, isolation and restricted movement in nature. Organisation of time also caused many problems to the individuals as the majority of them had additional concerns with their school-children. People have different working conditions; some do not have a peaceful working environment, whereas others are not successful at time management. However, a wide range of different applications is already available to make working from home and switching between private and work obligations easier. It is expected that new waves of the Covid-19 epidemic will follow in the next year. That is why it is important for employees, employers and occupational health institutions to familiarise themselves with the findings based on experience and prepare an action plan for systematic stress management in such cases. The selection of findings and measures can become a guide for employees to help them in dealing with and managing stress when working from home.

The other aspect of working from home is the fear of dismissal. Job loss, unemployment, job insecurity, and underemployment form a conglomerate of interrelationships that can easily lead to a vicious cycle of overall increasing economic stress (Hiswåls et al., 2017). It is therefore important that the employees are prepared for stressful situations and loss of employment.

During the COVID-19 epidemic, there were many free webinars from different fields available; how to manage stress, the use of ICT when working from home and also the topics of personal and spiritual growth. Such forms of training and learning new skills enables the employees to overcome crisis more easily and to shift focus more quickly towards seeking a new job.

References

- Bloom, N., Liang, J., Roberts, J., & Ying, Z. J. (2015). Does working from home work? Evidence from a Chinese experiment. *The Quarterly Journal of Economics*, 130(1), 165-218. <https://doi.org/https://doi.org/10.1093/qje/qju032>
- Bootsma, M. C. J., & Ferguson, N. M. (2007). The effect of public health measures on the 1918 influenza epidemic in US cities. *Proceedings of the National Academy of Sciences*, 104(18), 7588-7593. <https://doi.org/https://doi.org/10.3410/f.11511956.12552054>
- Centers for Disease Control and Prevention. (2007). Interim pre-epidemic planning guidance: community strategy for epidemic influenza mitigation in the United States. Retrieved March, 21, 2007.
- Centers for Disease Control and Prevention. (2020). COVID-19 situation update worldwide. Retrieved 18 July 2020, from <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>

- Dingel, J. I., & Neiman, B. (2020). *How many jobs can be done at home?* National Bureau of Economic Research. <https://doi.org/https://doi.org/10.3386/w26948>
- ECDC. (2009). Guide to public health measures to reduce the impact of influenza epidemics in Europe - 'The ECDC Menu'. Retrieved 18 July 2020, from <https://www.ecdc.europa.eu/en/publications-data/guide-public-health-measures-reduce-impact-influenza-epidemics-europe-ecdc-menu>
- European Centre for Disease Prevention and Control. (2020). Use of gloves in healthcare and non-healthcare settings in the context of the COVID 19 epidemic. Retrieved from <https://www.ecdc.europa.eu/en/coronavirus>
- Eurostat. (2020). Employed persons working from home as a percentage of the total employment, by sex, age and professional status (%) [lfsa_ehomp] Last update: 13-07-2020. Retrieved 18 July 2020, from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_ehomp
- Fleming, R., Baum, A., Reddy, D., & Gatchel, R. J. (1984). Behavioral and Biochemical Effects of Job Loss and Unemployment Stress. *Journal of Human Stress*, 10(1), 12-17. <https://doi.org/10.1080/0097840X.1984.9934954>
- Fong, M. W., Gao, H., Wong, J. Y., Xiao, J., Shiu, E. Y. C., Ryu, S., & Cowling, B. J. (2020). Nonpharmaceutical measures for epidemic influenza in nonhealthcare settings—social distancing measures. *Emerging Infectious Diseases*, 26(5), 976. <https://doi.org/https://doi.org/10.3201/eid2609.201990>
- Government Communication Office. (2010). The prohibition of movement outside the municipality of permanent or temporary residence in force from midnight. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-03-29-the-prohibition-of-movement-outside-the-municipality-of-permanent-or-temporary-residence-in-force-from-midnight/>
- Government Communication Office. (2020a). Decisions adopted by the government to contain COVID-19 epidemic. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-03-15-decisions-adopted-by-the-government-to-contain-covid-19-epidemic/>
- Government Communication Office. (2020b). Measures to contain the spread of COVID-19 infections. Retrieved 18 July 2020, from <https://www.gov.si/en/topics/coronavirus-disease-covid-19/measures-to-contain-the-spread-of-covid-19-infections/>
- Government Communication Office. (2020c). New ordinance on measures to prevent the spread of COVID-19 at border crossing points and checkpoints enters into force. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-05-26-new-ordinance-on-measures-to-prevent-the-spread-of-covid-19-at-border-crossing-points-and-checkpoints-enters-into-force/>
- Government Communication Office. (2020d). Prime Minister Janez Janša discusses EU measures against the coronavirus with President of the European Commission Ursula von der Leyen. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-03-16-prime-minister-janez-jansa-discusses-eu-measures-against-the-coronavirus-with-president-of-the->

- europa-commission-ursula-von-der-leyen/
Government Communication Office. (2020e). Slovenia declares coronavirus epidemic. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-03-12-slovenia-declares-coronavirus-epidemic/>
- Government Communication Office. (2020f). The Government adopts proposal for an act on the intervention measures to mitigate the consequences of the communicable disease SARS-CoV-2 (COVID-19) epidemic for citizens and the economy. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-03-28-the-government-adopts-proposal-for-an-act-on-the-intervention-measures-to-mitigate-the-consequences-of-the-communicable-disease-sars-cov-2-covid-19-epidemic-for-citizens-and-the-economy/>
- Government Communication Office. (2020g). The Government has adopted the proposal for an intervention act on temporary measures regarding judicial, administrative and other public law-related matters and the Ordinance prohibiting air services in the Republic of Slovenia. Retrieved 18 July 2020, from <https://www.gov.si/en/news/2020-03-16-the-government-has-adopted-the-proposal-for-an-intervention-act-on-temporary-measures-regarding-judicial-administrative-and-other-public-law-related-matters-and-the-ordinance-prohibiting-air-services-in-the-republic-o>
- Gowan, M. A., & Gatewood, R. D. (1997). A model of response to the stress of involuntary job loss. *Human Resource Management Review*, 7(3), 277-297.
- Haddon, L., & Brynin, M. (2005). The character of telework and the characteristics of teleworkers. *New Technology, Work and Employment*, 20(1), 34-46. <https://doi.org/https://doi.org/10.1111/j.1468-005x.2005.00142.x>
- Harpaz, I. (2002). Advantages and Disadvantages of Telecommuting for the Individual, Organization and Society. *Work Study*, 51, 74-80. <https://doi.org/10.1108/00438020210418791>
- Hatchett, R. J., Mecher, C. E., & Lipsitch, M. (2007). Public health interventions and epidemic intensity during the 1918 influenza epidemic. *Proceedings of the National Academy of Sciences*, 104(18), 7582-7587. <https://doi.org/https://doi.org/10.1073/pnas.0610941104>
- Hiswåls, A.-S., Marttila, A., Mälstam, E., & Macassa, G. (2017). Experiences of unemployment and well-being after job loss during economic recession: Results of a qualitative study in east central Sweden. *Journal of Public Health Research*, 6(3).
- Kelso, J. K., Milne, G. J., & Kelly, H. (2009). Simulation suggests that rapid activation of social distancing can arrest epidemic development due to a novel strain of influenza. *BMC Public Health*, 9(1), 117. <https://doi.org/https://doi.org/10.1186/1471-2458-9-117>
- Kleindienst, P. (2017). Understanding the different dimensions of human dignity: analysis of the decision of the Constitutional Court of the Republic of Slovenia on the »Tito street« case. *DANUBE: Law, Economics and Social Issues Review*, 8(3), 117-137.

- <https://doi.org/https://doi.org/10.1515/danb-2017-0009>
- Kleindienst, P., & Tomšič, M. (2017). Human Dignity as the Foundation of Democratic Political Culture: Legal and Philosophical Perspective. *Law, Culture and the Humanities*, 1743872117738229. <https://doi.org/https://doi.org/10.1177/1743872117738229>
- Kumar, P. M., & Aithal, P. S. (2016). Working from Home-A Transition in the concept of Workplace. *International Journal of Current Research and Modern Education (IJCRME) Volume I, Issue I, 1(1)*, 244-249.
- Lipsitch, M., Swerdlow, D. L., & Finelli, L. (2020). Defining the epidemiology of Covid-19—studies needed. *New England Journal of Medicine*, 382(13), 1194-1196.
- Makovec, S. (2020). Pouk na daljavo: danes izziv, jutri vsakdan? In 3. mednarodna konferenca o trajnostnem razvoju v izobraževanju (sodelujoče države: Slovenija, Hrvaška, Srbija, Severna Makedonija, Združeno kraljestvo). Ilirska Bistrica.
- MMC. (2020). Inšpektorat za delo: Delodajalci množično odredjajo delo od doma. Retrieved 18 July 2020, from <https://www.rtvsl.si/slovenija/inspektorat-za-delo-delodajalci-mnozicno-odredjajo-delo-od-doma/518553>
- Mohler, G., Bertozzi, A. L., Carter, J., Short, M. B., Sledge, D., Tita, G. E., ... Brantingham, P. J. (2020). Impact of social distancing during COVID-19 epidemic on crime in Los Angeles and Indianapolis. *Journal of Criminal Justice*, 101692. <https://doi.org/https://doi.org/10.1016/j.jcrimjus.2020.101692>
- Murphy, M. (2020). Three Warning Signs That Your Remote Employees Are Starting To Crack Under The Stress Of Working From Home. Retrieved 18 July 2020, from <https://www.forbes.com/sites/markmurphy/2020/04/23/three-warning-signs-that-your-remote-employees-are-starting-to-crack-under-the-stress-of-working-from-home/#49f8d22e2237>
- Novel, C. P. E. R. E. (2020). The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China. *Zhonghua Liu Xing Bing Xue Za Zhi= Zhonghua Liuxingbingxue Zazhi*, 41(2), 145. <https://doi.org/https://doi.org/10.46234/ccdcw2020.032>
- Scott, E. (2020). The Stress of Working From Home. Retrieved 18 July 2020, from <https://www.verywellmind.com/the-stress-of-working-from-home-4141174>
- World Health Organization. (2020). Coronavirus disease 2019 (COVID-19): situation report, 72.
- Zupan, Š. (2019). Delo v slovenskih podjetjih: katera nudijo fleksibilen delovni čas, delo od doma ...? Retrieved 18 July 2020, from https://cekin.si/izobrazevanje_in_zaposlitev/delo-od-doma-slovenska-podjetja-fleksibilen-delovni-cas-delovnik-skrajsan-teden.html

INVESTIGATING CUSTOMER PERCEIVED VALUE TOWARDS SUBSCRIPTION VIDEO ON DEMAND (SVOD)

Zixuan Jin
Wenzhou-Kean University,
College of Business and Public
Management
China
jinzi@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

The purpose of this paper is to identify various factors such as perceived consumption values and identity salience that lead to customers' disposition to use subscription video on demands (SVOD) services provided by entertainment streaming applications (ESAs). This study uses the Technology Acceptance Model, Perceived Value, and Identity Theory to analyze how distinctive features of SVOD services and consumer-associated factors affect consumer motivations to subscribe to the online video service and use streaming. A quantitative method was used to analyze the relationship between consumers' values, identity salience, and intentions to use SVOD service on streaming apps. It is essential for streaming service providers to understand what perceived characteristics of SVOD services possess and what customers value the most to improve their competitiveness. On the other hand, it is also significant for firms to understand consumer behavior when it comes to video services in the entertainment industry and adjust their business models.

Key Words

subscription video on demands (SVOD), entertainment streaming applications (ESAs), Technology acceptance model, perceived value

ANALYSIS OF ONLINE GAME ADDICTION ON MULTIPLAYER ONLINE COOPERATIVE GAMES

Siyuan Feng
Wenzhou-Kean University,
College of Business and Public
Management
China
fengs@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

With the development of the Chinese internet, different kinds of games have become a significant part of internet users' entertainment. In different periods, foreign games, domestic games, online page games, and big online games all have a golden period in Chinese internet history. There are some outstanding representatives; game designers take kinds of operation to make them interesting and popular, which enriched Internet users' break time. On the other hand, game addiction problems are also existing with them. To analyze current popular multiplayer online game, we could know some basic game design logic: what operation did game designers take to make people addicted and why people are addicted to these games. Generally, the design features are taken in these five areas: interaction, character, aesthetic, narrative, interface. In addition, for game players, we could find some traits that make users addicted; these traits include compulsive, withdrawal, interpersonal problems, health problems, and tolerance.

Key Words

online games, game addiction, game design, multiplayer online game

EFFECT OF ANTHROPOMORPHISM ON COVID-19 PUBLIC SERVICE ANNOUNCEMENT

Peipei Ni

Wenzhou-Kean University,
College of Business and Public
Management
China
nip@kean.edu

Candy Lim Chiu

Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

During the pandemic, China's National Center for Disease Control (CDC) and Prevention has published Public Service Announcements (PSAs) regarding how to prevent the infection, intending to persuade the public to do or stop doing specific behavior. Frequent handwashing is considered one of the useful measures to prevent COVID-19 infection. To promote correct handwashing steps, such persuasive information in PSAs usually contains behavioral suggestions to encourage the audience to follow the prescribed behavior. The purpose of this paper is to provide insight into potentially beneficial effects of pictures, textual arguments, and anthropomorphism on perceived effectiveness, attitude, and behavioral intention to follow the COVID-19 precaution in public service announcements. Four hundred participants were provided with a questionnaire to assess their emotional reaction, attitude on the issue of COVID-19, and intended use or sharing of the precaution messages.

Key Words

COVID-19, public service announcements, advertisement, marketing

PERCEIVED STRESS DURING COVID-19: ITS IMPACT ON CONSUMPTION COPING STRESS BEHAVIOR

Xinxin Zhu
Wenzhou-Kean University,
College of Business and Public
Management
China
zhuxinx@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

During the COVID-19, people have different ways to release stress, such as online shopping, drinking, watching TV, and other home activities during the lockdown. People with high anxiety have a tendency to avoid situations that trigger physiological feelings of fear, and compulsive shopping is likely to be another reaction and way of avoiding and negative emotions. This research used Perceived Stress Modeling to understand different coping mechanism such as (1) consumption coping confrontative, (2) consumption coping avoidance, (3) non-consumption coping confrontative, and (4) non-consumption coping avoidance. The research shows that the higher the level of fear during a disaster, the more it affected people's consumption behavior. Little is known about the specific strategies people use to reduce stress. This study will provide a valuable reference for enterprises and marketers better to understand consumer behavior changes in response to stressful situations.

Key Words

perceived stress, consumption behavior, consumption coping mechanism, COVID-19

THE PROSPECTS FOR TOURISM ENTREPRENEURS IN COVID-19 PANDEMIC AND POST-PANDEMIC ENVIRONMENT

Saša Zupan Korže
Vanadis Ltd.
Slovenia
sasa.zupan@vanadis.si

Matej Škabar
Državna revizijska komisija za revizijo
postopkov oddaje javnih naročil
Slovenia
Mateja.skabr@gmail.com

Abstract

According to conventional wisdom, more life-style entrepreneurs can be found in tourism, travel and hospitality than in other economic sectors. Increased focus to their personal goals compared to economic ones usually decreases financial performance of their business entities. Even in times of usual business environment, their financial performance can be lower from entrepreneurs motivated by economic goals. In the Covid-19 pandemic crisis, tourism entrepreneurs have faced with new reality far away from the usual. The purpose of the study is twofold: firstly, to discuss the consequences of the temporal shutdown of tourism businesses on life-style entrepreneurs in tourism, and secondly, to highlight the possibilities for tourism entrepreneurs to adapt to the new circumstances in travel and tourism. Data were collected in an integrated literature review in the first half of 2020 and analyzed with the content analysis method. Temporary shutdown of the tourism, their gradual recovery and great uncertainty about the future evolvement of the pandemic have severely endangered existence of the most tourism related entrepreneurial business. It is presumed that the existence of life-style entrepreneurs' businesses have been - and still are - more affected than entrepreneurs in other economic sectors are. The results indicate that Covid-19 pandemic put at risk the existence of one third to half of the entrepreneurs in tourism subsectors. Those tourism entrepreneurs who have effectively restructured their business and are - and will - manage to survive, will have to attack the new tourism market conditions with innovative tourism services. Some successful entrepreneurial businesses, developed after the previous crisis of the new millennium (e.g. Google, eBay, Airbnb, Instagram, WhatsApp etc.), indicate that even crisis can be opportunity to those who are capable to recognize it. It is likely that travel and other tourism related activities may not be the

same in the post-pandemic environment as they were known from the past, but will not vanish entirely. Therefore, the innovative tourism entrepreneurs should adapt to the opportunities in the new tourism ecosystem and become a part of the digitalized and sustainable tourism future.

Key Words

entrepreneurship, tourism, small business, COVID-19 pandemic

EVERYDAY EXPERIENCES DURING CORONAVIRUS OUTRBEAK: ANALYSIS OF LIFESTYLE AND CONSUMPTION PATTERN IN CHINA

Shiqing Yuan
Wenzhou-Kean University,
College of Business and Public
Management
China
yuans@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

This paper's original contribution builds on examining people's daily patterns in China during and after the coronavirus outbreak. It provides new insights concerning lifestyle patterns and consumption patterns. The research was conducted in two separate times: during and after the virus outbreak. This paper discusses people's daily mobility, diet, entertainment activities, and changes in academic life in terms of lifestyle. And concerning consumption patterns, this paper discusses people's shopping behavior, payment method, and consumption mode choice. The study uses a qualitative approach comprising twenty semi-structured interviews with twenty Chinese people living in a highly infected China area. Respondents expose their individual feelings, challenges, and crisis management strategies. In particular, we shed light on the understanding of consumer psychology during the outbreak and evaluate whether the identified practices persisted after the outbreak was over, expanding existing literature in the field.

Key Words

consumption pattern, lifestyle pattern, coronavirus outbreak, China

THE IMPACT OF COVID-19 CRISIS ON ZHEJIANG PROVINCE CHINA: ANALYSIS OF HEALTH, GOVERNMENT, AND SOCIO-ECONOMIC ISSUES

Xiayu Xu
Wenzhou-Kean University,
College of Business and Public
Management
China
xuxi@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

Zhejiang, as a coastal province in China, is densely populated and relatively vulnerable to COVID-19 outbreaks. At the end of January 2020, data released by Health Commission that Zhejiang has the most coronavirus infections and the worst-hit area after Hubei province. With a population of around 30 million, Chinese authorities resort to extreme lengths to lock down the area to prevent the virus's spread. For example, residents must have their government-issued ticket stamped as special identification codes before allowing one person from each household to leave and buy necessary supplies like food. The situation exacerbated a complex fear among the public. People have a natural fear of the coronavirus that cannot be reached and cannot be seen. So, this paper summarizes the epidemic response situation and people's living conditions in Zhejiang, China. It analyzes the health system issues, governance, political issues, government decisions and impacts, and socioeconomic issues during the epidemic outbreak.

Key Words

coronavirus outbreak, socio-economic crisis, Zhejiang, China

IMPACT OF COVID-19 OUTBREAK TO INTERNATIONAL CHINESE STUDENTS: ANALYSIS OF STRESS SCALE

Jiayi Zhu
Wenzhou-Kean University,
College of Business and Public
Management
China
zhuji@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

Due to COVID-outbreak, international Chinese students around the world had attracted widespread attention. Many government agencies in different countries issue strict rules such as a travel ban on international students from mainland China to prevent the virus's spread in the university community. International Chinese students face distress; they live with the fear of alienation, discrimination, hate crimes, and being infected with the coronavirus. This situation can lead to mental health issues that will affect their academic performance and academic engagement. Hence, we urgently need to address the source of international Chinese students' distress, which may exceed their coping skills. The study used the COVID Stress Scale developed by Steven Taylor and other psychology experts to understand better and assess COVID-19-related distress. The results show that international Chinese students' needs timely, appropriate mental health care and counseling in times of crisis or disaster.

Key Words

international students, COVID Stress Scale, academic engagement, academic performance, China

COVID-19 RELATED LEGAL ISSUES IN SLOVENIA

Saša Zupan Korže
Vanadis Ltd.
Slovenia
sasa.zupan@vanadis.si

Abstract

The purpose of the paper is to expose major restrictions that have been imposed by the Government of Slovenia to public life and to life of individuals to contain the Covid-19 in the state in the first few month of pandemic. The study is based on the review of the events in Slovenia assessed through the interpretation of human right lens. The results show that the Government managed pandemic in the state with substantive use of law technique, mostly following those restrictive measures implemented in other countries. The most controversial measure was the one of limiting people's movement inside the boarders of their municipality. However, the Constitutional Court decided the measure was in conformity with the Constitution. The pandemic continues and so does the polarization of public and professional opinion, which measures are proportionate and justifiable, and which are not. The study contributes to the evolving literature on protection of human rights in exceptional circumstances.

Key Words

regulations, COVID-19, pandemic, constitutional rights, crisis management

INTRODUCTION

To cease the spread of Covid-19, governments around the world introduced unprecedented temporary measures that severely restricted some individual human rights. Consequently, the pandemic itself and the response to it were (and still are) putting human rights to the test (Spadaro, 2020). As billions of people around the world have been put under some sort of lockdown, a growing number of literature has been emerging to discuss this issue (e.g. Amon and Wurth, 2020; Spadaro, 2020; Valerio, 2020).

Following the practice of other states, the Government of the Republic of Slovenia (in continuation: Government) has also implemented several measures that strongly affected basic human rights of the citizens, particularly in the first two months of epidemic. There have been some doubt that all measures to contain the virus (e.g. limitation of people's movement within the borders of the municipality of their residence) were justifiable, scientifically based, proportionate and necessary (e.g. Teršek, 2020b; Pirnat, 2020; Vuksanović, 2020b, Vuksanović, 2020c). Consequently, proposals have been filed to the Constitutional court to decide on the conformity of the regulations of the Government adopted during Covid-19 pandemic with the constitutional provisions (Teršek, 2020a).

The goal of the study is twofold. First, the study highlights how extensively the Government used laws and regulations to manage the Covid-19 pandemic life in Slovenia in the 'first wave' of the virus and what kind of human rights were affected by the restrictions. Second goal is to present different opinions of the legal experts that have accompanied the assessment of the Constitutional Court decision relate to so called 'intra-municipality restrictions of movement.

THEORY

All affected countries in the world have imposed extremely strict restrictions of private and economic life to contain the Covid-19 (Meßerschmidt, 2020), e.g. movement and gathering restrictions, using mobile telephone data, contact tracing digital apps, work-from-home orders, closing non-essential businesses etc. (Richardson and Divine, 2020). The limitations of people's rights to the extent that has been unprecedented in democratic counties in time of peace raised important question of international human rights (Spadaro, 2020). If human rights are limited, substantive claims brought by individuals complaining about the restrictions adopted can be adjudicated in terms of their legality, necessity and proportionality with the regards of the identified legitimate aim (ibid).

States authorities have the monopoly on the legitimate use of physical force in their territory (Lebret, 2020). However, their power is not limitless. International Convention on Civil and Political Rights (ICCPR, 1966) imposes conditions under which limitation or derogation of human rights can be

justified. For EU member states, human rights are also subject of European Convention on Human Rights (ECHR, 1950) which is - according to the European Court of Human Rights - qualified as an 'instrument of European public order'. The absolute human rights (e.g. right to life, no torture, no slavery etc.) cannot be limited or derogated, non-absolute human rights can, but only for valid purposes (ICCPR, 1966). Those are: if they are prescribed by the law, when they pursue a legitimate aim, when such limitations are necessary in a democratic society and proportionate to identified legitimate aim. That means that no other less restrictive alternative is available. Limitations allow precisely for the balancing of individual and collective interests (Spadaro, 2020).

Several scholars have discussed the relation between protecting human rights and containment measures for ending the Covid-19 crisis. Spadaro (2020) emphasizes the tension that is caused by the scarce resources to address and manage the pandemic on one side and by competition between individual and collective interest. Public health measures clash with a number of individual rights e.g. freedom of movement, particularly restricted movement within the borders of a state/region/municipality or even within the walls of the apartment or house, so-called shelter-in-place orders. Furthermore, the enjoyment of the right to personal freedom is affected by the imposition of mandatory quarantine for the passengers coming from abroad or by imposition of isolation to the people suspected or known to be positive. Prohibition of public gathering affects freedom of assembly and association. Some surveillance measures aim at tracing contacts by using mobile data and artificial intelligence tools. Those measures pose a challenge to full enjoyment of the right to private life. The closure of place of worship affected the human right to religion. The closure of businesses and workplace also has consequences on the right to work, especially for workers in the informal economy and for those who cannot work from home (ibid.). Therefore, governments can use some limitations or derogations of those to address the exceptional character of the pandemic. However, it is of paramount importance that the measures are limited - materially and temporally - to what is strictly necessary to manage the pandemic.

In some studies, the 'war metaphors' were pointed out to present the way some state leaders (e.g. French president Emmanuel Macron, USA president Donald Trump) wanted to emphasize the exceptional nature of the situation of the Covid-19 pandemic. War rhetoric can suggest that the outbreak should be designated as an armed attack, which should be followed by the war-like responses to the pandemic, taking the measures that severely limit the enjoyment of personal freedom (Spadaro, 2020). Linguistic and communication experts diverge such rhetoric. For some, such rhetoric makes clear about the severity of Covid-19 situations and allows gathering the nation together toward the same objective. On the other hand, war metaphors might serve as a political justification of serious human rights limitations (Lebret, 2020).

In any case, the Covid-19 pandemic should not create a world where human rights have lost all significance (Spadaro, 2020), as there have already been evidences even in the EU. In the EU, certain governments have already used the Covid-19 crisis as an opportunity for more autocratic way of leading their states. Drinóczi and Bień-Kacala (2020) pointed out the example of Hungary and Poland, where governments already apply the non-liberal version of the Rule of Law (illiberal legality) and exploited Covid-19 pandemic for political gain.

Therefore, it is of paramount importance that interferences with fundamental human rights should be viewed with caution, if no suspicion. Limitations should not be used to promote power grabs, quash dissent or prosecute minorities. Therefore, constant scrutiny should be applied by national courts, legislative bodies and civil societies to all governmental initiatives. Instead of using continued restrictions or suspensions of human rights, states should adopt a long-term strategy to manage the pandemic (Spadaro, 2020).

METHODS

For data collection, the method of integrative literature review was used. This method allows for a more creative approach from systematic or semi-systematic literature review (Snyder et al., 2019). It does not cover all literature that has ever been published on a research topic but combines different perspectives on it. Data were collected from secondary sources. The process was designed to prepare relevant and quality set of documents, which included steps, criteria and guidelines taken from existing qualitative studies, adapted to this research. The documents, published in Slovene language, online and offline, in the period from March until the middle of October 2020, were collected. The documents were searched in the relevant daily news, weekly magazines, legal journals, in statements of relevant legal experts, in EU documents, in public opinions and researches, in Official Gazette and PISRS data base and other relevant research-related publications. A selection of the collected documents was performed in the next step. The final selection was processed using the content analysis method, following the guidelines of Miles et al. (2004), how to analyse qualitative data. The results are presented in descriptive way, using the methods of condensation, interpretation, compilation and comparison.

FINDINGS

The finding section is divided to two subsections. Restrictive measures implemented by the Government are presented in the first subsection, while the second subsection is focused to the decision of the Constitutional Court.

Restrictive measures implemented by Government of Republic of Slovenia

In Slovenia, the beginning of Covid-19 pandemic coincided with the changes in the political arena. In March 2020, the formation of a new government was taking place.

A day after the World Health Organization declared Covid-19 as pandemic (WHO, 2020), Slovenia declared Covid-19 as epidemic (Odredba o razglasitvi epidemije, 2020). Two days later, the state got new Government and the new Prime Minister (STA, 2020). When he communicated the measures to contain the virus to the public and to the National Assembly, he often used war rhetoric. Teršek (2020a) believed that due to the communication of daily politics with the public, fear among people became more epidemic than Covid-19 epidemic itself.

The spread of the Covid-19 in the state required quick governmental response. It came in the form of several decrees that temporary limited people's movement, socializing, performing business etc. Following the area of their restrictions, limitations are classified into four groups: a) ban on free movement and gathering; b) ban on performing non-essential businesses; b) limited access to public services - health, education, public transport; c) application of safety and hygiene measures (use of face masks, physical distance, hygiene).

The often discussed topic in the period of the first declaration of the Covid-19 epidemic in Slovenia was the ban on movement and gathering of people (Odlok o prepovedi gibanja in zbiranja, 2020), particularly the restriction of movement outside the borders of their municipality. The latest decision of the Government was submitted to the Constitutional court for review (the decision of the Court is discussed in the next subsection) soon after its implementation.

This first crucial general ban prohibited - in the first version for non-definite period - movement and gathering of people in public places/areas in the state and prohibited access to public places/areas. There were certain exception to this general prohibition, e.g. going to work, buying essential goods, buying pharmaceutical products etc. Milder approach from the strict version of the bans was adopted in Slovenia than e.g. in Italy or Spain. People could walk outside with family members, perform individual sport activities if they respect physical distance and wear face-masks in closed spaces.

With the amended version of the decree adopted at the end of March 2020, the Government enforced the restriction of the movement of the people outside the municipality of their residence (Odlok o prepovedi gibanja izven občin, 2020). This decision was not accepted among the whole population as a necessary measure to contain the virus; it rose severe considerations about its proportionality with the current epidemiologic situation in the country. Several amendments of the decree were adopted in the following

next few months of the epidemic and pandemic. The last day in May was also the last day of official state of epidemic in Slovenia (Odlok o preklicu epidemije, 2020).

Despite the limitation on gathering, the protests emerged in the cities across Slovenia, similar as in other cities around the world. The protest in capital of Slovenia took place 25 Fridays in a row. The authorities have tolerated them until the severe deterioration of the epidemic situation in October 2020 (Kořak, 2020).

From the declaration of epidemic on, the Government limited or restricted several others area of public and individual life. The Government:

- closed kindergartens, schools and faculties (Odlok o zaprtju vrtcev, řol, fakultet, 2020);
- restrict people from crossing the state borders (by land, sea and air) (Odlok o prehodih na zunanji meji, 2020);
- prohibited the offering and sale of goods and services directly to consumers, e.g. services as tourist accommodation, food and beverages, wellness, sports and recreation, cultural, hairdressing, cosmetic, pedicure, gambling (Odlok o začasni prepovedi ponujanja, 2020);
- prohibited public transport (Odlok o prepovedi javnega prevoza, 2020);
- discontinued all medical preventive activities and dental services other than emergency (Odlok o prekinitivi in omejitvi zdravstvenih dejavnosti, 2020);
- issued a decree for application of hygiene and safe measures, particularly to physical distance and face masks.

Decrees, instructions and recommendations have been changing constantly (even in two or three days), explained differently by various governmental representatives and therefore brought confusion among the public. The confused approach has repeatedly revealed different standpoints among epidemiologists, between epidemiologists and politicians, and ignorance of the latest to explain what kind of measures functioned and which did not (Magdalenc, 2020). It seemed that the 'herd instinct' played a major role in the adoption of restrictive measures (Zgonik, 2020): states have monitored what kind of measures were adopted in other countries. The majority of politicians quickly became afraid that they might have been accused of negligence if they had not adopted at least the same strict measures. In that process, Slovenia was no exception to the rule.

Constitutional Court decision about intra-municipality movement

The initiative for the assessment of the constitutionality and legality of the measure of restriction of movement across municipality borders (in continuation: disputed provision) was filed at the Constitutional Court (in continuation: the Court) by a group of citizens. They claimed that disputed provision contradicted the principle of proportionality; therefore, it is not

in accordance with the first paragraph of Article 32 of the Constitution of RS, which guaranties freedom of the movement (Odločba Ustavnega sodišča, 2020).

Different opinions of legal/constitutional experts have been expressed in the following months. For some (e.g. Pirnat, 2020; Teršek and Dragan, 2020; Teršek, 2020b; Vuksanović, 2020a), restriction of movement inside municipalities seemed to be the most controversial and incomprehensible measure implemented in Slovenia (Figelj, 2020). It should have been neither reasonable nor proportional with the current epidemic situation in the state, while Slovenia was far from having such epidemic situation as Italy or Spain had in March 2020 (Teršek, 2020a).

The Constitutional Court adopted final decision in August 2020 (Odločba Ustavnega sodišča, 2020). The Court conducted meritory assessment on the basis of a test of legitimacy (if by interfering the Government pursued constitutionally permissible aim) and the strict test of proportionality (assessment of the appropriateness, necessity and narrower proportionality of the interference). It decided that the disputed provision did not disproportionally interfere with the freedom of movement.

Five constitutional judges have supported the Governmental decree, four have not. Tight majority could be interpreted in the way that the opposite situation might have happened (Trampuš, 2020). Four constitutional judges wrote a separate opinion to the majority decision. One of the judges emphasized that the Court has renounced its basic mission - to control the executive branch of the Slovene legal system. The other pointed out that at least ten constitutional rights have been restricted with the Governmental decrees, but Constitutional Court simply ignored that fact.

The Constitutional Court decision - agree with it or not - is here to be respected. It is a precedence that will serve to the Government as a guideline to test how far it can restrict the human rights when managing the Covid-19 pandemic.

DISCUSSION

Having no vaccine for Covid-19, the non-pharmaceutical measures were (and still are) the only measures to contain the spread of the virus: limitation of movement, restriction on gathering, closing of non-essential businesses etc. Some of them severely restricted basic human rights, the right to free movement the most. However, when evaluating the rights in Covid-19 pandemic, the value of the society is more important than the individual rights. Therefore, setting the public interest of managing the health crisis in front of the certain individual human rights is a legitimate goal for their temporary restrictions.

Restrictions of human rights can be justifiable only if the measures meet certain legal standards; they have to be necessary, proportional, scientifically valid and time-bounded. Constant check of those standards by national courts is the tool to prevent abuse of governments to extend their power under the pretext of protecting public interest. Western democracies are more resilient to such attempts than younger ones. Therefore, Covid-19 has put Slovenia, as a young democracy, under severe test of their constitutionality.

CONCLUSIONS AND APPLICATIONS

The study is focused on governmental management of the Covid-19 situation in Slovenia. It reveals comparable events in the state and approaches of the Government to those in other countries: severe interference in basic human rights, use of war rhetoric, protests of disagreed part of citizens, initiatives for assessing conformity of governmental decrees with constitutional rights and attempts of extending the power of executive bodies.

During the days following the declaration of epidemic in the country, six crucial sectorial decrees were adopted, with more than 50 amendments in the next couple of months. Such managerial approach of the Government indicates that the technique of law has been used to manage people, bringing confusion among citizens and some disagreements. There was a polarized opinion among public, legal and medical experts, if all measures were proportionate to the epidemiologic situation in the state. Even when the most controversial restriction measure (intra-municipality movement) has passed the assessment of its constitutionality and become an important precedence for the consequent governmental decisions, the polarization continued.

Some limitations related to this study need to be mentioned. The first one is subjectivity of the researcher, which commonly accompanies the collection, selection and analysis of the non-numerical data. The second limitation relates to the limited number of documents available on the research topics and their quality. Thirdly, the study is geographically limited to Slovenia.

The research can be used as study material or as a synthesis of acts and events of certain period in Slovenia for those who are interested in this topic.

REFERENCES

- Amon, J.J. and Wurth. M. (2020). A Virtual Roundtable on COVID-19 and Human Rights with Human Rights Watch Researchers. *Health and Human Rights Journal*. 22 (1). 399-413. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7348426/> [September 29, 2020].
- Drinóczi, T. in Bień-Kacata, A. (2020). COVID-19 in Hungary and Poland: extraordinary situation and illiberal constitutionalism. *The theory and practice of legislation*. Vol. 8, 1-2-. 171-192. Available at: <https://www.tandfonline.com/doi/full/10.1080/20508840.2020.1782109> [September 29, 2020].
- ECHR (1950). European Convention on Human Rights. Available at: https://www.echr.coe.int/documents/convention_eng.pdf [July 7, 2020].
- Figelj, M. (2020a). Morala med epidemijo. Kaj so nam ukradli. *Dnevnik*. Available at: <https://www.dnevnik.si/1042929473> [September 29, 2020].
- ICCPR (1966). International Covenant on Human and Political Rights. Available at: <https://www.ohchr.org/Documents/Professionalinterest/ccpr.pdf> [July 7, 2020].
- Košak, K. (2020). Vlada želi končati "fešte" in proteste. *Dnevnik*. October 8, 2020. Available at: <https://www.dnevnik.si/1042940608/slovenija/video-hojs-od-jutri-zbiranje-ljudi-omejeno-na-najvec-10-ljudi-policija-strogo-nad-petkove-protestnikeike> [October 15, 2020].
- Lebret, A. (2020). Covid-19 pandemic and derogation to human rights. *Journal of Law and the Bioscience*. Vol. 7, iss. 3. Available at: <https://academic.oup.com/jlb/article/7/1/lsaa015/5828398> [August 13, 2020].
- Magdalenc, I. (2020c). Premalo vas je strah. *Dnevnik* nm. 217, year LXX, pp. 14. September 19, 2020.
- Meßerschmidt, K. (2020). Covid-19 legislation in the light of the precautionary principle. *The Theory and Practice of Legislation*. Available at: <https://www.tandfonline.com/doi/full/10.1080/20508840.2020.1783627> [August 13, 2020].
- Miles, M.B., Huberman, A.M and Sandaña, J. (2014). *Qualitative Data Analysis: A Method Sourcebook*. Sage: Los Angeles.
- Odločba Ustavnega sodišča (2020). Odločba nm U-I-83/20-36. August 27, 2020. Uradni list RS nm 28/2020. September 25, 2020.
- Odreba o razglasitvi epidemije nalezljive bolezni SARS-Cov-2 (COVID-19) na območju Republike Slovenije. Uradni list RS nm 19/2020, March 13, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0532?sop=2020-01-0532> [July 7, 2020].
- Odlok o prepovedi gibanja in zbiranja (2020). Odlok o začasni splošni prepovedi gibanja in zbiranja ljudi na javnih mestih in površinah v Republiki Sloveniji. Uradni list RS nm 30/2020, March 13, 2020. Available at: <https://www.uradni-list.si/pdf/2020/Ur/u2020030.pdf> [July 7, 2020].

- Odlok o prepovedi gibanja izven občin (2020) Odlok o začasni splošni prepovedi gibanja in zbiranja ljudi na javnih mestih in površinah v Republiki Sloveniji ter prepovedi gibanja izven občin. Uradni list nm 38/2020, March 29, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0688/odlok-o-zacasni-splosni-prepovedi-gibanja-in-zbiranja-ljudi-na-javnih-mestih-in-povrsinah-v-republiki-sloveniji-ter-prepovedi-gibanja-izven-obcin> [July 7, 2020].
- Odlok o prehodih na zunanjih mejah (2020). Odlok o odrejanju in izvajanju ukrepov, povezanih s preprečevanjem širjenja COVID-19, na mejnih prehodih na zunanji meji in na kontrolnih točkah na notranjih mejah Republike Slovenije. Uradni list RS nm. 50/2020. April 11, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0775?sop=2020-01-0775> [July 7, 2020].
- Odlok o začasni prepovedi ponujanja in prodajanja blaga in storitev potrošnikom v Republiki Sloveniji (2020). Uradni list RS nm 25/2020. March 13, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0570/odlok-o-zacasni-prepovedi-ponujanja-in-prodajanja-blaga-in-storitev-potrosnikom-v-republiki-sloveniji> [July 7, 2020].
- Odlok o zaprtju vrtcev, šol, fakultet (2020). Odlok o začasni prepovedi zbiranja ljudi v zavodi s področja vzgoje in izobraževanja ter univerzah in samostojnih visokošolskih zavodih. Uradni list RS nm 25/2020. March 15, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0568?sop=2020-01-0568> [July 7, 2020].
- Odlok o prekinitvi in omejitvi zdravstvenih dejavnosti (2020). Odlok o začnih ukrepih na področju zdravstvene dejavnosti zaradi zaježitve in obvladovanja epidemije COVID-19. Uradni list RS nm 40/2020. March 31, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0708?sop=2020-01-0708> [July 7, 2020].
- Odlok o prepovedi javnega prevoza (2020). Odlok o začasni prepovedi in omejitvah javnega prevoza potnikov v republiki Sloveniji. Uradni list RS nm 24/2020. March 15, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0566/odlok-o-zacasni-prepovedi-in-omejitvah-javnega-prevoza-potnikov-v-republiki-sloveniji> [July 7, 2020].
- Odlok o preklu epidemije nalezljive bolezni SARS-Cov-2 (COVID-19). (2020). Uradni list RS nm. 68/2020. May 14, 2020. Available at: <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-1030/odlok-o-preklicu-epidemije-nalezljive-bolezni-sars-cov-2-covid-19> [July 7, 2020].
- Richardson, E. and Devine, C. 2020. Emergencies and Eventually: How to Bette Analyze Human Rights Restrictions Sparked by COvid-19 Pandemic Unter International Covenant on Civil and Political Rights. *Michigan Journal of International Law* (in press). Available at: <https://lsolum.typepad.com/legaltheory/2020/07/richardson-devine-on-covid-19-the-international-covenant-on-civil-and-political-rights.html> [August 13, 2020].
- Pirnat, R. (2020). V Trampuš, J: Demokracija ne deluje na podlagi hitrega odločanja. *Mladina* nmb 17, pp 41-45. April 24, 2020.

- Snyder, H. 2019. Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*. Vol. 104. 333-339. Available at: <https://www.sciencedirect.com/science/article/pii/S0148296319304564> [July 7, 2020].
- Spadaro, A. (2020). COVID-19: Testing the Limits of Human Rights. *European Journal of Risk Regulation*. 11. 317-325. Available at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/DED8334F9C1D793ACDB43054A2A9F19C/S1867299X20000276a.pdf/covid19_testing_the_limits_of_human_rights.pdf [September 29, 2020].
- STA (2020). Vlada 2020: Slovenija dobila 14. Vlado. Available at: <https://www.sta.si/v-srediscu/vlada2020> [July 7, 2020].
- Teršek, A. (2020a). O zakonitosti in ustavnosti ukrepov in omejitev. Ustavne pravice med uradno epidemijo. *Dnevnik*. July 11, 2020. Available at: <https://www.dnevnik.si/1042933835> [September 29, 2020].
- Teršek, A. (2020b). V Gasar. J: Ohranjam upanje, da se ljudje ne bodo dali poneumiti. *Dnevnik* nm 217, year LXX, pp. 13-14. September 19, 2020.
- Teršek, A. in Dragan, J. (2020). Ustavno pravna analiza omejitve ustavnih pravic v času pandemije. *Javna uprava nmb* 1-2/2020.
- Trampuš, J. (2020). Bianco menica. *Mladina*. September 25, 2020. Available at: <https://www.mladina.si/201501/bianco-menica/> [September 29, 2020].
- Valerio, C. (2020). Human Rights and COvid-19 pandemic. *JBRA Assisted Reproduction*. 24 (3). 379-381. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7365536/> [September 29, 2020].
- Vuksanović, I. (2020a). Tehtanje med konkretnimi in statističnimi življenji. *Delo nmb*. 90, year 62, pp 8. April 18, 2020.
- Vuksanović, I. (2020b). Kako zagotoviti sorazmernost odziva na epidemijo covida-19? Ustavno sporna prepoved gibanja. *Dnevnik*. March 28, 2020. Available at: <https://www.dnevnik.si/1042925777> [September 29, 2020].
- Vuksanović, I. (2020c). Preventivno zapiranje brez podlage. *Dnevnik*. August 22, 2020. Available at: <https://www.dnevnik.si/1042936942> [September 29, 2020].
- WHO (2020). Archived: WHO Timeline COVID-19. Available at: <https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19> [July 7, 2020].
- Zgonik, S. (2020). "Po mojem mnenju najnovejši drastični ukrepi niso bili potrebni. S strokovnega vidika jih ne morem zagovarjati. Intervju z Ivanom Erženom. *Mladina* nm. 14, pp. 35-38. April 3, 2020.

THE IMPACT OF THE COVID-19 CRISIS ON INTERNATIONAL STUDENT MOBILITY

Jialing Xu

Wenzhou-Kean University,
College of Business and Public
Management
China

xujiali@kean.edu

Candy Lim Chiu

Wenzhou-Kean University,
College of Business and
Public Management
China

cchiu@kean.edu

Abstract

When the COVID-19 exploded globally, students faced the choice of whether to study overseas or not. Studying abroad showed an upward trend for international students in the past decades. Students from Asia, especially China, account for a large percentage of international students enrolled worldwide. Australia, the United Kingdom, and the United States depend heavily on Chinese students' enrollment, but this business model will be significantly affected, given the pandemic's broad and indeterminate impact on global mobility. The longer the epidemic it lasts, the more international students will alter their plans. This paper investigates the effect of COVID-19 on prospective Chinese students' global academic mobility overseas under the variables of teaching model, school policies, and security during the outbreak of COVID-19. Chinese students' concerns about studying overseas decision-making are collected and considerably analyzed using Push-Pull Theory. As this paper explores the impact of COVID-19 in different aspects in the education industry, it will provide insights on how universities can address this crisis and move forward.

Key Words

higher education, international students, mobility, COVID-19, China

COVID-19 INFORMATION EPIDEMIC ON TWITTER

Soo Jin Wen
Wenzhou-Kean University,
College of Business and Public
Management
China
jinso@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

Since the Coronavirus health emergency was declared, social media has become a home ground for misinformation or fake news, including rumors, conspiracy theories, and myths. Fake news is one of the threats in today's societies since this type of information circulates fast and is often inaccurate and misleading. To tackle this infodemic, scientific oversight and a better understanding by practitioners in crisis management are needed. The present study compares the type of Tweets posted regarding COVID-19 that contain either false or scientific veracious information. This study has extracted all Tweets and hashtags related to COVID-19 using keywords (e.g., COVID, COVID-19, corona, coronavirus) between April 1, 2020, and June 1, 2020, using Twitter's application programming interface (API). This resulted in 1500 tweets relating to 1274 false and 276 partially false claims, respectively. This study revealed that the verified twitter handle (including organization/celebrity) is also involved in either creating (new tweets) or spreading (retweet) the misinformation.

Key Words

Twitter, fake news, COVID-19, tweet

COVID-19 IMPACT ON SUPPLY CHAINS IN SHENZHEN CITY CHINA: POLICY RESPONSE AND OPPORTUNITIES FOR SMES

Qingyun Fu
Wenzhou-Kean University,
College of Business and Public
Management
China
fuqi@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

Under the impact of COVID-19, supply chains were interrupted. The market demand was reduced, production and circulation across the country are almost at a standstill, and companies suffer from operating difficulties and cash flow risks. Generally, SMEs are affected most in disasters but have the least post-disaster reconstruction abilities. Post-disaster policies are very needed at the exact time for SMEs. This paper investigates the COVID-19's impact on Shenzhen supply chains from the public data and analyzes the internal factors and external factors. Policy responses issued by Shenzhen municipal government are gathered and comparatively analyzed using Disaster Management Theory. Shenzhen municipal government has issued many policies to support enterprises, especially SMEs, in responding to pandemic shocks, mainly including the following five categories: financial support, preferential tax, and fee, resumption of production, and social security support, optimize services, and reduce costs. These policies are critical for SMEs' post-disaster reconstruction.

Key Words

COVID-19, supply chains, Disaster Management, SME, China

DEFINING THE PERCEPTION AND A 4C MARKETING STRATEGY FOR SUSTAINABLE WINES IN SLOVENIA

Katja Trop
GEA College, Faculty of
Entrepreneurship
Slovenia
katja.trop@gea-college.si

Katja Kerin Rozman
GEA College, Faculty of
Entrepreneurship
Slovenia
katja.kerin@jub.si

Abstract

Slovenia has defined sustainability as one of the key development pillars. As wine industry plays an important role in Slovene economy and culture, this paper aims to understand the perception and potential of sustainable wines in the country. The results of past research and an empirical study among Slovene adult population show, that an increase of awareness of the distinguished characteristics of sustainable wines could lead to an increased demand. Using the frame of sustainability marketing and the 4C marketing mix proposed by Beltz and Peattie (Beltz and Peattie, 2009), key directions for a marketing strategy of sustainable wines in Slovenia are proposed.

Key Words

sustainability, wine market, marketing strategy

Introduction

Wine plays an important role in economic and cultural life of Slovene population. Slovenia produces around 63 million of liters of wine per year, dominated by white grape varieties. There are around 30.000 wine makers registered, accounting for 15.600 ha vineyards. 70% of production is of quality wine. This can be ascribed to the fact, that wine production in Slovenia is expensive, as mostly vineyards are positioned on steep slopes. (<https://www.gov.si teme/vinogradnistvo-in-vinarstvo/>).

Wine consumption in EU countries is in decline. The trend is expected to continue at a rate of -0.4% per year, reaching 24.5 l per capita in 2030.

Production will follow a similar trend, from 156 million hl in 2019 to 155 million hl in 2030. According to European Commission, this trend is driven by health concerns and changing consumption pattern (EC, 2019). Nonetheless, the value of EU wine export is growing as the result of a high demand for wine with a geographical indication (GI) and sparkling wines in general (EC, 2019). Slovenia follows the EU trend of decline in wine consumption, thus more wines need to be exported (<https://www.gov.si/teme/vinogradnistvo-in-vinarstvo/>).

Slovenia has joined other EU countries in defining sustainability as one of key pillars in its Development strategy till 2030. Sustainable development could be defined as “economically viable, ecologically sound and socially equitable”. In its CST 1/2004 resolution, OIV defines sustainability as a global strategy related to grape production and processing, economic sustainability of structures and territories, product quality as well as other aspects, such as heritage and culture. The CST 1/2007 resolution defines further guidelines on traceability of production process, supply chain and commercial lifecycle of a product. The goal is to make data available to buyers and end consumers. Data include the origin, characteristics and specifications of the raw and other materials, production, processing, packaging, storage and distribution among others (OIV, 2007). Some of the key principles include: (1) reuse and recycling of inputs (energy, water, packaging materials...) and outputs (waste, effluents, by-products); (2) consideration of social and cultural aspects (working conditions, integration with the local community and the health and safety of consumers), thus stressing the importance of traceability and authenticity of products; (3) a good planning, assessment and communication to internal and external public (OIV, 2016).

Sustainability in wine industry can refer to production techniques (such as organic or biodynamic wine production), but also to the reduction of packaging waste or the application of fair trade principles (OIV, 2016).

The market of sustainable wine is still a niche with promising growth potential. Entering this market involves challenges, such as convincing consumers of its quality (a heritage of the issues with low quality of organic wines in past) or communicating the value of the winery's sustainable approach (OIV, 2016). The purpose of this paper is to analyze the perception of sustainability wines in Slovenia, resulting in a marketing strategy framework based on the 4c model (by Beltz and Peattie, 2009) to increase its demand among consumers. We believe, this could contribute to the competitive advantage of Slovene wine market.

Defining sustainable wines

The term “sustainable wines” is not defined clearly, causing confusion. Most commonly, sustainable wines include “organic,” “biodynamic,” “natural” and “fair-trade” products.

Organic viticulture pays particular attention to protecting the natural balance of the vineyard and the surrounding environment. It focuses on soil fertility by promoting biodiversity, grapes cultivation without artificial chemicals (fungicides, pesticides, herbicides or fertilizers), little to no manipulation of wines (excessive filtration, use of flavor additives) (IFOAM EU). All wines were organic until the 19th century, when chemical fertilizers, the use of pesticides and the sulfites were introduced throughout the century (Jones and Grandjean, 2017).

As pointed out by CBI, the spectrum of labels and certification bodies is vast, causing confusion among consumers. The introduction of the EU organic label and respective legislation should solve this issue. A wine can be defined “organic” when produced according the Regulation of the European Commission (EC) no. 203/2012. Until 2012, only grapes could have been certified, allowing the mention “wine made from organic grapes”. In 2012, the EU rules that allow farmers to use the term “organic wine” together with the EU-organic-logo (see Fig.1) and the code number of certifier were introduced. One of the implications is lower sulfites content (maximum 100 mg/L for red wine and 150 mg/L for white/rosé) (EU, 2012).

Fig. 1: Logo for organic products in EU



In Slovenia “organic” wines are often referred to »ecological« or »bio« and there is no clear differentiation in meaning. “Biodar” is a Slovenian certificate issued under the Association of Slovenian Organic Farms for the labeling of food from controlled organic production. It follows the applicable regulations and standards for organic farming, adding requirements that are even stricter than EU legislation. (<http://www.ekoportal.si/eko-oznace-na-izdelkih/>)

Biodynamic approach shares many principles with organic growing and production, adding some spiritual practices (CBI, 2016). The core idea stands on the belief, that the universe is interconnected: planting and other

activities are coordinated with the movements of celestial bodies, like the moon and the planets (Jones and Grandjean, 2018). Farms are required to maintain at least 10% of total acreage as a biodiversity set-aside. Riparian zones, wetlands, grasslands, and forests: all are considered an integral part of the life of the farm. Specially prepared medicinal plants, minerals, and composted animal manures help increase the vitality of the grapes grown. Biodynamic farming emphasizes integration of animals and animal feeds, perennial plants, flowers and trees, water features, composting, water conservation. A healthier vineyard begins with healthier soil. Healthier soil results in expansive root systems, which essentially channel terroir into the grapes. All these factors ensure a wine with an expressive and unique individuality: a “taste of place”.
<https://www.demeter.de/verbraucher/landwirtschaft/weinbau/weltweit/faq>

In Slovenia, wine producers can get certified by Demeter International.

Fig 2: Logo for Demeter certified products



The term “natural wine” is often used, but there are no legal standards for this designation (IFOAM EU). Usually, a wine is considered natural if the use of a limited variety of chemicals, additives and conventional technologies that prevent spoilage are minimized.
<http://discoversustainablewine.com/sustainable-wine/#02>

Fair trade wine refers to Fairtrade International or Fair for Life certified wines. The concept promotes fair pricing and improved social conditions for producers and their communities (CBI, 2016). Fairtrade focus is on trade and social aspects, though environmental factors are often added (source of raw materials, usage of energy efficient technologies, minimizing waste etc.).
<https://wfto-europe.org/the-10-principles-of-fair-trade/>

For the purpose of this paper, we will refer to all of the mentioned categories when addressing sustainable wines.

Sustainable wines in EU and Slovenia

As the concept of sustainable wines is not defined clearly, understanding the size and trends of the market is a challenge. Below, we will refer to the market of organic wines, for which official data are available.

Europe is the leading region in production of organic wines, which represented around 8% of its wine making in 2017. Almost 90% of world's organic grape area is in Europe. The global market of organic wines has been growing from 2004 till 2017 as shown in Fig 3 (note: data vary, some sources include all organic grapes, though not all of the grapes are used for wine making). (BIOFACH, 2019).

Fig 3: Grapes development of the global organic area 2004-2017 ((IFOAM 2019)



According to Jones and Grandjean ([Jones and Grandjean, 2018](#)) “the “purity” in taste and the charm of local winemaking tradition often associated with organic wine proved to be a powerful marketing tool. Individuals looking for artisan-made wines with clear terroir and healthier wines with few added chemicals have started looking after organic wines.

In 2016 there was a small amount (536 ha) of vineyards registered for production of organic wines in Slovenia. Vineyards represent only 1,2% of all organic farmland or 3,4% of all vineyard area, though their surface is constantly growing (<https://www.gov.si/teme/vinogradnistvo-in-vinarstvo/>). According to Drojcev, Flint and Signori, Slovene organic wineries are facing significant challenges in their international marketing efforts. There are two major challenges on macro level: firstly, organic wine is still a niche segment; secondly, Slovenia has a low recognition in the category, where country of origin plays an important role. The authors see the potential in national brand recognition and its organic wines (Drojcev, M., Flint, D.J. and Signori, P., 2015).

Biodynamic agriculture did not gain traction until the 1970, when it started to spread, especially in Europe. Today, some of the world's most sought-after, awarded, and expensive bottles of wine are biodynamic ([Jones and Grandjean, 2018](#)). The same has been noted by CBI, claiming, that the world-famous vineyards have stimulated the category. Yet, biodynamic wine remains a small niche. (CBI, 2016)

Consumer perceptions of sustainable wines

Consumers rely on many attributes, whether intrinsic (sensory characteristics, type and color) or extrinsic (price, region of origin, brand, label information, and packaging features) to evaluate wine. However, there is a vast research available on the recognition and the differentiation of sustainable wines comparing to the conventional ones. Siriex and Remaud (2010) found very few distinguishing attributes (e.g. “good for health”) among Australians, ascribing it to the high share and strong associations created by conventional wines. Organic, preservative-free and biodynamic industry would gain by adopting a collective approach to communicate its distinctiveness to consumers, suggest the authors.

Similar results were obtained by Capitello and Siriex (2019) in France and Italy, though a change in image of organic and biodynamic wines was noticed. They gained in familiarity and were perceived as less expensive, which, according to authors, is in correlation with the growing market share of such wines as well as smaller pricing gap between unconventional and conventional wines. French and Italian respondents perceived sustainable wines as more innovative and trendy, while conventional wines were related with tradition, good value for money, pleasure and fun and either low quality or luxury.

Research conducted by Barber (Barber et al, 2009) examined three variables as predictors of purchase behavior: involvement, knowledge and attitude. His work suggests that higher general environmental involvement builds wine environmental knowledge and strongly influences environmental attitudes as well as purchase behavior. The paper suggests redirecting consumer needs and wants toward environmentally friendly wine products through new marketing strategies, including packaging and labelling.

In 2012 a research in Switzerland confirmed “organic” attribute was less important than the price and the country of origin, however it ranked higher than the wine color. Urban and female consumers were more likely to consume organic wine, as they perceive it as being healthy. The author suggests that marketing for organic wine in well-developed markets should focus on health argument. (Mann et al, 2012).

When reviewing the literature in EU and USA, Mariani and Vastola (2015) found a lack of attributes related with sustainability. Environmental and social quality of products are credence attributes that wine consumers cannot ascertain during purchase or use. They suggest addressing environmental consciousness through its influence on health in order to avoid appealing only to environmentally aware consumers. Furthermore, there is considerable evidence that taste influence preference when purchasing wine. Information on environmental friendly products adds to positive attitude only when these sensory expectations are satisfied. One of the issues is that the benefits of sustainable practices on wine quality are

still controversial; some consumers negatively associate unconventional wines with lower quality.

Danielle Borra et al (2014) researched how the concept of sustainability is known and perceived by Italian consumers. Most of consumers described sustainable practice as an attempt to reduce the use of chemicals and the impact on the environment. From 6 sustainability attributes (smaller quantities of chemicals, use of energy from renewable sources, reduction in the use of packaging materials, better management of sewage and water, reduction of the use of sulfite, focus on recruitment and human resources), smaller quantities of chemicals ranked highest as they are strongly associated with organic wines. However, among a list of 14 attributes with an impact on wine purchase, sustainability ranked in the middle, while the top three ranked were quality, area of origin and naturalness. Interestingly, smaller quantities of chemicals ranked higher than organic and biodynamic practices, proving the lack of knowledge on sustainability practices.

Findings by Mastroberardino (Mastroberardino et al., 2019) have shown sustainability is not among the main factors that influence the choice of wine among Italian consumers, who are still mainly attracted by organoleptic properties and characteristics linked to the terroir concept. Anyhow, the importance of sustainable attributes is increasing.

The new EU Regulation on organic wine has the advantage to improve transparency and recognition. As stressed by Castellini (Castellini et al., 2014), a suitable communication should be adopted by public policy or commercial segment. Facing people's low awareness of this type of product, a collective approach communicating the organic wine distinctiveness could be a strategic step forward. As suggested by Mastroberardino, to develop a long-term perspective on sustainability in the wine sector, it is necessary to have the courage to make a distinction between sustainability and short-term commercial performance. In addition, a cultural change in wine consumers is necessary and requires a willingness to pay a premium price for sustainable products (Mastroberardino et al., 2019).

Marketing of sustainable wines: opportunities and threats

According to the literature overview, there is an opportunity to distinguish sustainable wines from conventional ones with a clear marketing strategy. The goal should be to increase awareness and knowledge of target segments. Woods (Woods et al., 2013) and Pomarici (Pomarici and Vecchio, 2019) identify females with higher income and urban population as the most potential segments. As stated by CBI (CBI, 2016), apart from consumers looking for healthier and sustainable products, organic wines compete for the same target segment as conventional ones. These consumers focus on conventional attributes such as

quality/price ratio.

According to Jones and Grandjean (Jones and Grandjean, 2018) one of the issues in marketing of sustainable wines is the doubt about their quality created by conventional wine makers and by past experience (some wines turned into vinegar-like due to lack of sulfites). Furthermore, distributors and retailers see organic wines as more prone to spoilage. According to authors, this reputation continues, regardless of the prestigious awards won by some organic wines. Similarly, CBI (CBI, 2016) notices a prejudice among European consumers about the quality of organic wines, suggesting a higher investment in promotional activities by suppliers of organic wines. (CBI, 2016). These possible threats were tested in our research among Slovene consumers (see below).

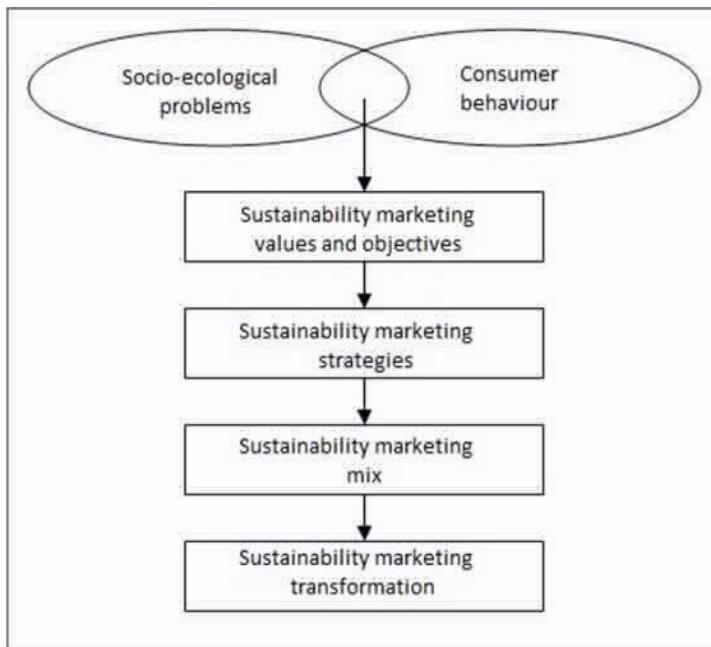
Transparency might represent a solution for marketing of sustainable products. Target audience should have access to credible and relevant data about the whole product lifecycle. Different approaches for guaranteeing transparency have been found using labelling and digital technology (QRcodes, blockchain...). However, as stated by IFOAM (IFOAM, 2017), defining and proving sustainability is difficult, which leads to the fact, that a big proportion of these claims are the so-called “greenwashing”, written to invoke a positive response from environmentally-minded consumers.

Below we present a theoretical framework for sustainability marketing and apply it to sustainable wines market in Slovenia.

Theoretical framework for sustainable wines marketing strategy

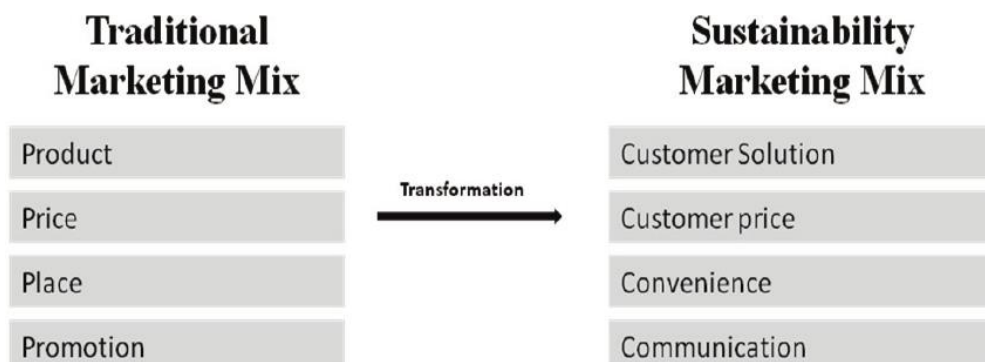
Adding the sustainability dimension to marketing management enlarges its focus. Further to meeting the needs of consumers, it stresses the importance of the economic, environmental and societal costs of consumption. Marketers should consider the macro environment (socio-ecological problems), the micro level through the whole product lifecycle (development, usage and disposal) as well as the changing consumer aspirations towards a more sustainable behavior. Marketers should look for a competitive advantage in the selection of raw materials, production processes, safeguarding the biodiversity, influence on local communities, distribution, the health aspects of products etc. All the involved stakeholders should be considered.

Fig. 4: Framing sustainability marketing; Beltz and Peattie, 2009



The context of sustainability marketing is presented in Fig.4 (Beltz and Peattie, 2009). Socio-ecological as well as consumer behavior aspects should be taken into account to decide on core values and objectives. In the next step value proposition is defined for the selected target groups. We believe at this stage marketers should weight the role of sustainability dimensions in product positioning. Should sustainability be part of the core product positioning or maybe it should not be communicated at all? This decision is based on the influence of such attributes on purchase decisions for each of the segments. Furthermore, the most relevant sustainability attributes should be selected, like free from pesticides, less harmful towards the environment etc. These are some of the key strategic insights for a relevant marketing mix, commonly represented by the 4P model. Beltz and Peattie propose a marketing mix adapted to the sustainability dimensions, the 4C model: Customer solution, Customer cost, Convenience, Convenience.

Fig.5: McCarthy's 4P Approach vs Sustainability Marketing Mix



According to the model, customers buy solutions not products. Meaning, they are not buying a bundle of product characteristics, emphasizing, that products might solve one issue, whilst causing other problems. From a sustainability perspective, products and services need to address both, customer and socio-ecological needs.

The 4C model uses a larger perspective when defining “place”, thus re-named as “convenience”. It considers the purchase, as well as the usage and disposal phase of products. Finding a way to increase convenience for customers in all the three phases should be one of the key goals of a marketing tactics.

In terms of communication, the 4C model stresses the importance of building a long-term relationship, transparency, traceability, relevance and consistency in order to combat “greenwashing”.

Customers price include the idea of total customer costs, consisting of acquisition costs (price and purchase costs, such as searching for information and transportation), use costs (such as energy consumption and switching costs to another product type) and post-use costs (storage, disposal, recycling, to mention a few). Though, as stressed by Beltz and Peattie (Beltz and Peattie, 2009), consumers tend to focus on present, not future costs, so price still plays “the lion share in the cost evaluation process”.

Research method & research results

Our research among end users was conducted between 29.8. and 2.10.2020. The sample was composed of 117 Slovene adults aged 21 or above, of which 66% women, mostly with university or master degree. We noticed that more than half of respondents clicked to the survey questionnaire and left after reading the introduction to the topic, which could be an indicator of the lack of knowledge and interest in sustainable wines. Thus, further research into the topic is recommended.

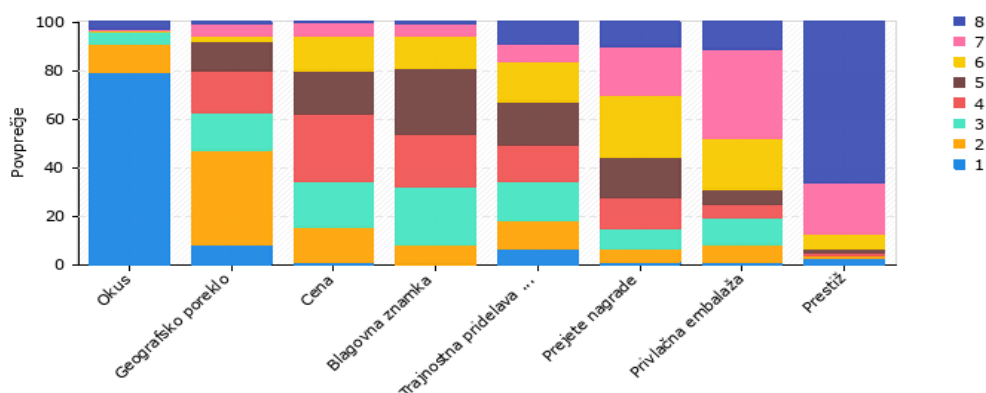
Due to a non-representative sample size and structure results should be interpreted with caution. For the purpose of this paper, the results of the questionnaire will be considered as an additional support for the conclusions of past research of the topic.

First, the knowledge and attitude towards sustainability were tested. Protection of the environment and biodiversity as well as the usage of sustainable and recycled materials are the strongest associations connected to the topic. Sustainable products are used occasionally by approximately a half of respondents (53%), while 44% uses them often.

In the next step attitude towards wine was tested. Almost half (46%) of respondents drink wine a few times per month, while one quarter do it

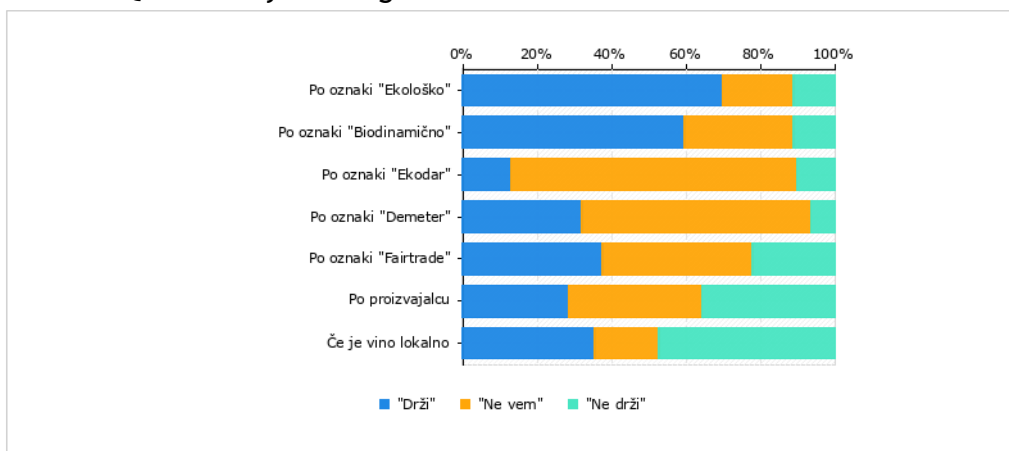
regularly (a few times per week). The sample was almost evenly split between quite good (45%) and quite poor (42%) wine connoisseurs. Almost two thirds of respondents buy wines in the price range between 5 EUR and 15 EUR, followed by an upper middle price segment of 15 EUR to 30 EUR (22%). Our research confirmed the earlier findings on key attributes that influence the choice of wine. Taste is absolutely the predominant factor (79% of respondents marked it as key), followed by geographical origin (the second most important criteria for 39% of respondents). When it comes to sustainability, 6% of respondents marked it as a key feature, showing there is a clear niche target segment. Furthermore, sustainability was among the top 3 features for 34% of respondents, which shows a clear opportunity for promoting sustainability as an additional attribute (after key criteria that influence wine purchase).

Table 1: Q: How important are individual wine characteristics for you when buying? (1- feature was chosen as the most important among respondents; 8 - feature was chosen as the least important among respondents)



Next, perception of sustainable wines was tested. As shown in table 2, most respondents (70%) are aware of the »ecological« label, followed by »biodynamic« (60%), which could be recognized as the strongest awareness attributes of sustainable wines. On the other hand, the knowledge of branded labels is much lower: Fairtrade 38%, Demeter, the only label for biodynamic products in Slovenia, 32% and Ekodar, the Slovene label for ecological products, 13%.

Table 2: Q: How do you recognize sustainable wines?



When asking about the purchase habits, 40% of respondents could not answer whether the wines they purchased was sustainable, as they were not paying attention to this attribute. Meaning, there is a big opportunity to distinguish unconventional wines by stressing the sustainable attribute as a distinguishing factor. However, when asking explicitly which attributes distinguish sustainable wines from conventional ones, »less pesticides« (83%), »environmentally friendly« (82%) »natural« (81%) and »healthier because of less pesticides« (78%) are dominating. Interestingly, there seems to be no general negative perceptions related to quality and taste (only 15% of respondents find sustainable wines less tasty than conventional ones). Furthermore, one third of respondents could not evaluate this attribute, which is probably due to the lack of experience. Lack of information on sustainable wine production was mentioned by almost half of respondents, followed by the need for a stronger media advertising and better visibility on package. We believe taste should be promoted together with the other attributes that distinguish sustainable wine.

Price is not an obstacle when choosing sustainable wines, though the samples shows clearly a higher frequency of purchase among respondents with higher monthly salary.

Our research confirmed a positive correlation between the attitude towards sustainability and the purchase of sustainable wines: when asking about the frequency of purchase of sustainable wines, the % of »don't know/didn't pay attention« was significantly lower among regular buyers of sustainable products; furthermore 61% of them buy sustainable wines at least occasionally. On the other hand, the correlation between wine involvement and the purchase of sustainable wines is not so clear. Good or quite good wine connoisseurs do not buy sustainable wines more often. On the other hand, who rated sustainability attribute on 1st or 2nd place, drink wines more frequently. This topic should be studied further on a representative sample.

Discussion

Our research confirmed the past findings (Mann et al., 2012; Danielle Borra et al., 2014): conventional attributes such as taste, geographical origin and quality are key attributes when purchasing wine, while sustainability ranked in the middle. In our research sustainability ranked on the third place, after taste and geographical origin. This can also indicate that general awareness about sustainability increases during the time among EU citizens. Nonetheless, our research confirms previous findings that sustainability characteristics could be added as a differentiator, especially health and environment related benefits.

In our research main attributes which distinguish sustainability wines from conventional ones are connected with health and environmental issues ("less pesticides", "environmental friendly", "healthier because of less pesticides", "natural"). This is similar to findings by Remaud (2010); he found one very distinguishing attribute, "good for health", among Australians and to findings by Danielle Borra et al. (2014) where "smaller quantities of chemicals" ranked as the strongest attribute associated with organic wines.

Marketing strategy aimed to increase demand for sustainable wines should be focused on building customer knowledge. Marketers should build the story on the basis of quality, origin, environmental and health aspects which are already recognized as important attributes and look for a competitive advantage in the selection of raw materials, production processes, safeguarding the biodiversity, influence on local communities, distribution, the health aspects of products.

Education built on information as well as emotions should be joined with an improved access and visibility of sustainable wines, making them more convenient to buy and lowering the total customer costs.

When defining the value proposition for sustainable wines in Slovenia, distinguishing attributes stressing their positive impact on the environment, health and the charm of local production are suggested. Such benefits could be applied to different target segments. We identified three core segments: 1. buyers prioritizing sustainability attributes; 2. buyers choosing wine by conventional attributes, rating sustainability attributes; 3. Buyers not paying attention or not having enough knowledge on sustainability attributes. Furthermore, our research confirmed that in terms of demographic segmentation, women with higher income and urban population should be defined as a priority.

There is some evidence that people with a higher affinity towards sustainable products show a higher knowledge and readiness to buy sustainable wines. On the other hand, there is no clear correlation between the higher involvement in wine category and the choice of sustainable wines. We believe further research into the topic is needed to

understand better the behavioral and psychographic needs of potential sustainable wines users.

Below we propose some recommendations for a marketing mix using the 4c model.

Customer solution

Based on our research we could conclude that sustainable wines in Slovenia generally meet customer needs in key conventional attributes that influence wine purchase. As our research showed, taste and geographical origin are the two main attributes which sustainable wines should take as a starting point.

At the same time, perception exists that organic and biodynamic wines have a positive impact on the environment and are thought to be healthier. Therefore we could conclude that such wines address both, customer and socio-ecological needs. Unfortunately, social impact is often not perceived by the customers as it does not affect them directly. Producing sustainable wines is still a niche segment and mostly small family wineries are involved. With a stronger involvement of the local public (including municipalities, tourist centers, regional development agencies), sustainable wines in Slovenia could make an important social impact in local communities and beyond.

Convenience

In our view, limited distribution, choice and visibility of sustainable wines on point of sale increase the total customer costs (such as increased search efforts, travelling, uncertainty due to lack of information).

On the other hand, sustainable wine production is influenced by climate conditions and other environmental factors which can not be controlled by sustainable wine makers: Therefore it is difficult to guarantee a consistent organoleptic characteristics and production quantities, which could be from the distributors and retailers perspective an obstacle (CDI, 2016).

A transparent and informative communication on the specifics of such wines as well as an updated status on its availability (using own or external internet sites as an option) could help lowering this threat. Being even more daring, this “threat” could be transformed in very distinguishing and positive attribute of “limited edition” or “wine of season 2020”, which can increase positive attitude to buy (by principle “now or never”). It could be also with positive effect when marketers of such wines reveal the whole story of the season with all its special conditions (weather, water issues, some wine-making family anecdotes...)

When talking about convenience, broad accessibility is very important. Besides conventional stores, sustainable wines could be added to the “bio” department in mass markets or in special “bio” stores in order to be closer to users with a higher sustainability attitude. Also, touristic stores with local food and local souvenirs can be a good channel to reach customers.

Online shop is a great way to improve convenience, however good and safe logistic is required.

Sustainable wines should also be offered in gourmet, bio and “feels-like-home” restaurants and wine bars. If the wine maker offers an “open door” option at its vineyard, this could be added value, too.

Communication

After selecting the key differentiating attributes for the chosen segments, a clear and consistent communication through different touch points along customer journey should be started. As touchpoints were not the topic of our research, we focus on the ones that are most common used in communication of wines.

Labelling plays a crucial role in presenting wine characteristics. We believe it should be used more optimally in promotion of sustainable wines in terms of design (associating sustainable characteristics such as health, environmentally friendly, local production), content (clear information, visible certification, storytelling with educational and entertaining content offered by IoT and blockchain technology) and materials (recycled paper, less paper, environmentally friendly printing...).

Point of sale is an important touchpoint to build knowledge of sustainable wines among end consumers. It could include a dedicated shelf (physical retailing) or a sub-page (online retailing) for consumers looking for sustainable wines (as already used by some of retailers). Where wine shelves are organized by color, origin or type, shelf-markers could be added in order to mark the sustainability characteristic. In this way, searching efforts for consumers that are attentive to such attributes would be lowered, at the same time users, who are not paying attention to sustainability could be attracted.

Further to merchandizing, education on point of sale could increase interest and first trial of sustainable wines. Displays and printed materials (using recycled paper) could combine a fact-based presentation of the benefits of sustainable wine making and an emotional approach storytelling. Furthermore, transparent communication on sustainable wine production using IoT and blockchain technology could build trust and stimulate purchase. Such project have already been launched and some are in preparation, so case studies on the topic should be presented.

Sales promotion including free trial and special offers could be a good approach to stimulate first trial and assure consumers on conventional attributes of sustainable wines (like taste and texture).

Due to the extremely competitive business environment, especially in mass retailing, joined forces by wine makers, municipalities and other public organizations (such the center for regional development, tourist information centers etc.) is recommended. Furthermore, certifying bodies (like Demeter and Ekodar) should join the promotional activities in order to help distinguish sustainably certified wines.

Awareness could be also built through media advertising, taking into account the law restrictions. Advertising could take place on different classical mass media, but can also take advantage of the digital world (due to limited budgets of sustainable wine makers, a targeted campaign to get earned media and free publicity is suggested; the most effective tools could be search engines, social media and bloggers). Content should be based on emotional storytelling, supported by informative data to ad credibility.

There is also a need to increase the recognition of branded labels, such as Demeter and Ekodar, not yet well known among Slovene population.

Customer costs

Analyzing sustainable wine market in Slovenia, there are no additional costs for users in terms of a higher price, lower quality or poor taste. Sustainable wines are generally not premium priced in Slovenia, though our research showed they are not bought in the low price segment (up to 5 EUR). Total customer costs are increased by the lack of knowledge, distribution, visibility and a limited choice, which should be solved as explained above.

To conclude, we believe sustainable wines could contribute more importantly to the sustainable development of Slovenia. A marketing strategy focused on building awareness and lowering the total customer costs, joined by wine makers and the public sector, could make this opportunity a reality in near future.

Literature:

1. CBI Market Intelligence, *Sustainable wine in Europe*; 2016: https://www.cbi.eu/sites/default/files/market_information/researches/product-factsheet-europe-sustainable-wine-2016.pdf
2. Djordev, M., Flint, D.J., and Signori, P. (2015), "Marketing approaches for small scale organic wine producers in Slovenia: proposing the DODS cluster model"; *Proceedings of the annual International Marketing Trends Conference 2015*

3. EC (2019), *EU agricultural outlook for markets and income, 2019-2030*. European Commission, DG Agriculture and Rural Development, Brussels
4. OIV, Resolution OIV-CST 518-2016: <http://www.oiv.int/public/medias/5766/oiv-cst-518-2016-en.pdf>
5. OIV, Resolution CST 1/2007 <http://www.oiv.int/public/medias/2084/cst-1-2007-en.pdf>
6. E. Pomarici, R. Vecchio; *Corrigendum to "Will sustainability shape the future wine market?"*
7. *Wine Economics and Policy*, Volume 8, Issue 2, December 2019, Pages 216
<https://www.sciencedirect.com/science/article/pii/S2212977419300250>
8. IFOAM; EU Rules for organic wine production; https://orgprints.org/29867/1/ifoameu_reg_wine_dossier_201307.pdf
9. G.Jones, E. Granjeaen: How organic wine finally caught on; HBR.com; 2018: <https://hbr.org/2018/04/how-organic-wine-finally-caught-on>
10. G.Jones, E. Granjeaen: Creating the Market for Organic Wine: Sulfites, Certification, and Green Values; HBR, 2017 https://www.hbs.edu/faculty/Publication%20Files/18-048_d01f3b10-e03f-435b-9b2e-a7873f8353e1.pdf
11. BIOFACH: The world of Organic Agriculture. Statistics and Emerging trends 2019.; <https://www.organic-world.net/yearbook/yearbook-2019.html>
12. EU press release: (https://ec.europa.eu/commission/presscorner/detail/en/IP_12_113).
13. GOV, Slovenia: <https://www.gov.si teme/vinogradnistvo-in-vinarstvo/>
14. Borra D. et all, Sustainability of Italian wines: Knowledge, understanding, and interest of consumers, BIO Web of Conferences 3, 03003 (2014), DOI:10.1051/bioconf/20140303003, published by EDP Sciences, 2014
15. Sirieix L., Remaud H.: Consumer perceptions of eco-friendly vs. conventional wines in Australia; Refereed paper - 5th International Academy of Wine Business Research Conference, 8-10 Feb. 2010 Auckland (NZ)
16. Italy,
17. Capitello, & Sirieix, Lucie, (2019), "Consumers' Perceptions of Sustainable Wine: An Exploratory Study in France and Italy", *Economies*. 7. 33. 10.3390/economies7020033.
18. (https://www.researchgate.net/publication/332653914_Consumers'_Perceptions_of_Sustainable_Wine_An_Exploratory_Study_in_France_and_Italy)
19. Mariani A, Vastola A. Sustainable winegrowing: current perspectives. *International Journal of Wine Research*, (2015), 7:37-48; <https://doi.org/10.2147/IJWR.S68003>

20. Nelson Barber N, Taylor C, Strick SK., (2009), "Wine consumers' environmental knowledge and attitudes: Influence on willingness to purchase", *International Journal of Wine Research*,, 1:59-72; <https://doi.org/10.2147/IJWR.S4649>
21. Forbes SL, Cohen DA, Cullen R, Wratten SD, Fountain J., (2009), "Consumer attitudes regarding environmentally sustainable wine: an exploratory study of the New Zealand marketplace", *J Cleaner Prod.*, 17 (13):1195-1199. doi:10.1016/j.jclepro.2009.04.008
22. Castellini, Alessandra & Mauracher, Christine & Procidano, Isabella & Sacchi, Giovanna (2014), "Italian market of organic wine: A survey on production system characteristics and marketing strategies", *Wine Economics and Policy*, 3. 10.1016/j.wep.2014.12.001.
23. Mastroberardino, Piero & Calabrese, Giuseppe & Cortese, Flora & Petracca, Miriam (2019), "Sustainability in the wine sector: An empirical analysis of the level of awareness and perception among the Italian consumers", *British Food Journal*, ahead-of-print. 10.1108/BFJ-07-2019-0475.
24. Beltz, Frank-Martin & Peattie, Ken (2009), *Sustainability Marketing, A global perspective*, Wiley.

SOCIAL MEDIA ENGAGEMENT: WHAT MOTIVATES USERS' PARTICIPATION AND CONSUMPTION ON TIKTOK DURING COVID-19 OUTBREAK?

Yuchen Dai
Wenzhou-Kean University,
College of Business and Public
Management
China
daiyuc@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

By the year 2003, many social networking sites have emerged, people show great interest in social media and User Generated Content (UGC). Recently, due to the continuous coronavirus pandemic, TikTok, a Chinese video creation app, has seen a surge in downloads and tops the iOS App Store for the fifth quarter in a row. Based on the growing popularity of UGC, this paper investigates the factors that influence users' participation and consumption of TikTok. This study combines UGT and TPB to develop a conceptual framework to analyze the relationship between independent variables (e.g., seeking information from videos, sharing videos, self-status seeking, social interaction, perceived entertainment, perceived utilities), and attitude towards TikTok and usage intention. This paper will be of great value to enterprises' understanding of the influence of social media, and utilize it to gain user recognition, increase user stickiness, and expand the market

Key Words

social media, User Generated Content (UGC); Uses and Gratification Theory (UGT); Theory of Planned Behavior (TPB), TikTok

WHAT THE FUTURE HOLDS FOR USING CASH: IS THE PATH TO A CASHLESS SOCIETY INEVITABLE?

Brane Bertoncelj
GEA College - Faculty of
Entrepreneurship
Slovenia
bertoncelj.b@siol.net

Abstract

The future is always associated with uncertainty, and future of cash is no exception. Predictions of the imminent cessation of the use of cash as a medium of exchange are exaggerated. The role of cash as a payment instrument is well known. Much economic literature discusses the resilience of cash, its effectiveness compared to non-cash payments, and cash's role **among alternative payment instruments**. Cash is the most commonly used payment instrument, but the competition between cash and alternative payment is stepping up. With the growth of card payments and the rise of alternative payment methods, the future of money is questionable. The importance of **cash** in the community is set before a severe test. Like every payment instrument, the cash also has certain advantages and disadvantages. There are efforts by countries and financial institutions to exclude physical currency from the world of payment instruments in the future. Besides, the COVID-19 virus has posed several new challenges to society, including paying for goods and services. We will present four long-term cash use scenarios.

Key Words

cash, electronic payment, choice of pay, scenarios of cash usage.

EXPLORING THE CONSUMER BEHAVIORS TOWARDS ONLINE FOOD DELIVERY

Yuxuan Gao
Wenzhou-Kean University,
College of Business and Public
Management
China
gaoy@kean.edu

Candy Lim Chiu
Wenzhou-Kean University,
College of Business and
Public Management
China
cchiu@kean.edu

Abstract

The COVID-19 outbreak has created unprecedented challenges for the food industry. After government health officials worldwide recommended lockdowns and travel restrictions, fear of infection has quickly increased online food deliveries (OFD) as consumers preferred means of purchasing food. OFD has conquered many obstacles brought by this epidemic and provide customers with convenient options. It is mainly the case in China, the world's largest online retail market. It is, therefore, essential to understand what drives the use of online food shopping services. The study tested five independent variables: hedonic motivation, prior online purchase, time savings, price savings, convenient motivations that will influence attitude and behavioral intention to use OFD. The results from this study will help the retail industry create a beneficial connection with consumers while alleviating the fears of an epidemic and enhancing their understanding of the benefits of OFD.

Key Words

online food delivery, retail food, COVID-19, China

MANAGING ORGANIZATIONAL KNOWLEDGE WITH ARTIFICIAL INTELLIGENCE

Krešimir Buntak
University North
Croatia

kresimir.buntak@unin.hr

Matija Kovačić
University North
Croatia

matkovacic@unin.hr

Maja Mutravidžija
University North
Croatia

mamutavidzija@unin.hr

Abstract

The development of artificial intelligence, driven by the development of Industry 4.0, as a consequence can use artificial intelligence to manage organizational knowledge. Organizations can create knowledge based on the adaption of their business model to the new conditions that are arising from the organizational environment. Furthermore, with the development of Industry 4.0 and implementation of Industry 4.0 technologies such as sensors, Internet of things, etc., organizations can generate a large amount of the data and store such data in databases so-called big data. Created and stored data have big potential regarding discovering new organizational knowledge. But discovering knowledge from such databases has different challenges related to the way of discovering data as well as the way of storing such data in organizational knowledge databases. With development of the Artificial intelligence there is a possibility to use it for knowledge mining as well as for managing once discovered and created knowledge. Organizations that use such systems for discovering and managing knowledge can develop a competitive advantage as well as increase their efficiency and effectiveness.

Key Words

artificial intelligence, organizational knowledge, digital transformation

MACHINE LEARNING TODAY AND TOMORROW

Boštjan Aver

*GEA College, Faculty of Entrepreneurship
Slovenia*

bostjan.aver@gea-college.si

Abstract

The aim of this paper is to give a brief insight on machine learning today and in the future - focusing on applications, advantages and disadvantages, the progress and sustainable future. Now more than ever, the global community faces choices that can either lead us toward or away from a more peaceful and prosperous future. Thus, we give a critical view of the progress of machine learning and how artificial intelligence can be used in the context of sustainability.

Key Words

Machine Learning, Artificial Intelligence, Sustainability

MACHINE LEARNING TODAY

When we are talking about machine learning we are usually thinking about computers which can perform specific task without having some programme behind. More precisely, computers are learning from data to carry out this certain task. This means that programmers do not need to specify every step - computer develops its own algorithm. It is also well known that machine learning is the subset of artificial intelligence which refers to any computer program that solve problems or tasks based on a set of rules.

In 1990s programmers started to talk about machine learning and this was the time when machine learning was recognized as a separate field. Here, let us also point out that machine learning is very close to data mining, optimisation and statistics. Indeed, in data mining we are looking for unknown properties in a huge amount of data. On the other hand, in machine learning we are predicting according to the training data. The methods can be similar, but the goal is different. Next, in statistics the goal is to minimize

the loss on a specific set and in machine learning we are concentrated on the minimization of loss on unseen samples. At the end, statistics predicts from a sample to the population and the machine learning finds predictive patterns in the total population.

There are many applications of machine learning, among others (Daffodil, 2017):

- virtual personal assistant which helps you to find specific information;
- traffic predictions;
- video surveillance which makes it possible to detect possible crimes (before anything happens);
- facial recognitions;
- using computer vision to identify objects;
- online customer support and product recommendations;
- online fraud detection; etc.

Let us also give examples of famous companies that use machine learning (Shewan, 2019): Facebook (filtering spam and poor-quality content), Twitter (scoring tweets according to various matrices), Google (speech translation, natural language processing, search ranking, prediction systems), Apple, Amazon, Baidu, IBM, Netflix, BBC, BMW, American Express, etc. And, of course, many others. Even more, today it is difficult to find a successful company which does not use machine learning in its everyday tasks.

Recently, Bernard Marr wrote about top four trends of machine learning for the near future. Firstly, he pointed out how important is a quick and smart analyse and interpretation of data - this was even more important during the Covid-19 pandemic. Next, drones and other advanced applications with the capability of detecting, for example, COVID symptoms, are becoming more and more important. Moreover, in the period of pandemic most of the events, shopping, school lectures etc. were moved “from live to on-line”. At the end, machine learning is and will be even more widely used for prediction in epidemiology - to be able to prepare and react appropriately (Marr, 2020).

MACHINE LEARNING IN THE FUTURE

It is not so long ago, Stephen Hawkins was claiming that Artificial Intelligence (AI) could “spell the end of the human race.” Today this doesn’t seem realistic - quite opposite. It has become an essential tool for future progress.

There is no doubt that in the next five to ten years the development of artificial intelligence and machine learning will have a dramatic impact on our lives. The Market Research Engine Report projected that the Global Service Robotics market has a compound annual growth rate (CAGR) of more than 15%. Even more, the machine learning market is expected to grow 2016

to USD 8.81 Billion by 2022, at a Compound Annual Growth Rate (CAGR) of 44.1% during 2016 and 2022 (Rose, 2020).

Today, automation is being done almost everywhere. And most of us are hardly aware of all applications. Our e-mails are filtered for security, we are being unknowingly protected from monetary fraud attempts, we are receiving product recommendations, suggestions who we should become friends with, doctors are supported by advanced computer systems etc. So, what is more important, machine learning is strongly anchored in our lives and we are not even aware of the price in terms of compromising our privacy. Let us just mention facial recognition, imitations of our handwriting, generating realistic speech, forging legal and historical documents etc. And all this is compromising our privacy.

Note also that machine-learning programmes often fail to deliver expected results. The reasons for that are usually the following (Artasanchez, 2018):

- lack of (suitable) data,
- lack of access to the data,
- data bias, privacy problems,
- badly chosen tasks and algorithms,
- wrong tools and people,
- lack of resources, and
- evaluation problems.

Let us just mention a self-driving car from Uber that could not detect pedestrian in 2018. And, for instance, even after years of research machine learning could not be used in healthcare with the IBM Watson.

In the near future, computers will learn much more effectively. Machine learning will undoubtedly take a greater role in cyber attacks. There will be incredibly convincing generative models. At the end, machine learning systems will learn much faster with significantly less data.

7.1.1. According to Professor dr. Boris Cizelj, chairman of the board of directors of the Knowledge Economy Network, the biggest challenge in the future will be the required quality and speed of human adaption (rational and emotional) as we are facing fundamental changes in how we operate professionally and privately, as well as how effectively they will perceive their possibilities, options and limitations. Machines are already our decision-making partners which can come to a superior solutions we were not be able to develop.

ARTIFICIAL INTELLIGENCE AND SUSTAINABILITY

The neoclassical economic theory uses the gross domestic product as the main indicator of growth. So, growth is linked to the well-being and prosperity of a nation. The industrial revolution has enabled economic

growth, industrialization and ground-breaking innovations and has brought many benefits. But today, we are all confronted with the effects of this growth.

As we already wrote, machine learning and artificial intelligence are having a significant impact on the nature, society and global economy. We can diagnose diseases, make traffic predictions, machines can make shopping plans for our needs, etc. And now we can go even further: human and earth friendly artificial intelligence. For example, Google is already using artificial intelligence for the purpose of energy use. Thanks to DeepMind's "Earth Friendly" artificial intelligence they reduced their energy consumption by 40%. And this is just one example how artificial intelligence can be used to create sustainable outcomes for our planet.

In January 2018, PWC published the report *Fourth Industrial Revolution for the Earth: Harnessing Artificial Intelligence for the Earth*, where they highlighted six priority action areas: climate change, biodiversity and conservation, healthy oceans, water security, clean air, weather and disaster resilience. They claim that machine learning has a potential to minimize climate change. For example, "machine learning is being used to match energy generation and demand in real-time, realizing more fully the potential of "smart grids", decreasing unpredictability, and increasing efficiency, power balancing, use, and storage of renewable energy." (Herweijer et al., 2018) Here, we are talking about computing and finding unknown values from huge amount of datasets. But in the near future we can expect even more sophisticated autonomous decision making which will make much more opportunities but also risks. For instance, the above mentioned PWC Report predicts that by the 2030s, machine learning and artificial intelligence will be used for: real-time digital dashboard of the earth; autonomous farming and optimised food system; reinforcement learning for natural sciences breakthroughs; quantum and distributed computing to dramatically scale computational power for AI for the earth; home supercomputer and artificial intelligence research assistants for democratised scientific progress. On the other hand, there are also risks like performance, security, control, ethical, economical, societal risks.

So, on one hand, artificial intelligence is a big promise for the future, our planet and future generations. On the other hand, there are still many unknown points, undiscovered areas and risks that can this technology bring to our lives.

At the end, digitalisation, robotisation and artificial intelligence have made us much more productive (OECD estimates general increase of about 400% between 1950 and 2020) - while this has not been reflected adequately in improved quality of life. We are more educated, also healthier (though more health hazards, including deaths, come from man-made causes than ever: e.g. 7 million lives are lost annually only due to polluted air). We live longer, consume and communicate more than ever. But this has its price.

Moreover, we have to be aware that artificial intelligence is not as "green" as we might think. Recently there have been several studies showing, for instance, the actual heavy Internet footprint, computer's embodied energy, extracted ores and worker hazards challenges. For the desired changes to be achieved, we should simply living more sustainably.

8. REFERENCES

- Artasanchez, A. (2018). Nine reasons why your machine learning project fail. Available at <https://www.kdnuggets.com/2018/07/why-machine-learning-project-fail.html>
- Daffodil. (2017). Nine Applications of Machine Learning from Day-to-Day Life. Available at <https://medium.com/app-affairs/9-applications-of-machine-learning-from-day-to-day-life-112a47a429d0>
- Dietrich, T., Dereszynski, E., Hutchinson, R., Sheldon, D., (2012). Machine learning for computational sustainability. [2012 International Green Computing Conference \(IGCC\)](#).
- Goralski, M. A., Keong Tan, T. (2020). Artificial intelligence and sustainable development. *The International Journal of Management Education*, 18(1). <https://doi.org/10.1016/j.ijme.2019.100330>
- Herweijer, C. et al. (2018). Fourth Industrial Revolution for the Earth: Harnessing Artificial Intelligence for the Earth. Available at: https://www.google.com/search?q=pwc&rlz=1C1DIMC_enSI885SI885&oq=pwc&aqs=chrome..69i57j46l2j0l3j69i60l2.1159j0j7&sourceid=chrome&ie=UTF-8
- Marr, B. (2020). The 4 Top Artificial Intelligence Trends for 2021. Forbes. Available at: <https://www.forbes.com/sites/bernardmarr/2020/09/21/the-4-top-artificial-intelligence-trends-for-2021/#3116c4221c2a>
- Rockström, J. et al. (2009). A safe operating space for humanity. *Nature*, 461(7), 472-475.
- Rose, S. (2020). What is the future of Machine Learning? Available at <https://codeburst.io/what-is-the-future-of-machine-learning-f93749833645>
- Shewan, D. (2019). Ten Companies Using Machine Learning in Cool Ways. <https://www.wordstream.com/blog/ws/2017/07/28/machine-learning-applications>
- Singer, K. (2014). *An Electronic Silent Spring*. London: Portal Books.
- World Economic Forum, Top Ten Urban Innovations, October 2015, available at: http://www3.weforum.org/docs/Top_10_Emerging_Urban_Innovations_report_2010_20.10.pdf.

DIGITAL MATURITY OF THE ORGANIZATION

Ivana Martinčević
University North
Croatia

ivana.martincevic@unin.hr

Krešimir Buntak
University North
Croatia

kresimir.buntak@unin.hr

Vesna Sesar
University North
Croatia

vesna.sesar@unin.hr

Abstract

The digital transformation of business reflects and represents the integration of radical changes at the level of business processes and business models in the function of further creation and increase of company value in the digital age. Organizations today are faced with and forced to constantly improve their business processes and capabilities precisely through the application and use of new technology. Digital business transformation implies reengineering and optimization of business processes, which affects the business performance of the company (products and processes) but also the organizational structure and managerial concepts. The aim of this paper is to investigate the level of digital maturity of the organization where we can argue that the digital maturity of the organization is a new phenomenon caused by digital business transformation and where organizations are in terms of digital maturity largely depends on their ability and readiness for digital business transformation.

Key Words

digital transformation, digital maturity, digitalization, business models, new technology

LOGISTICS AND ITS SPECIFICS WITHIN CROATIAN AND ANGLO-SAXON HIGHER EDUCATION

Ivana Grabar
University North
Croatia
ivana.grabar@unin.hr

Ana Globočnik Žunac
University North
Croatia
ana.globocnik.zunac@unin.hr

Sanja Zlatić
University North
Croatia
sanja.zlatic@unin.hr

Abstract

The process of delivering goods and/or services from the point of production or design to their consumption in the best and cheapest possible way for both the customer and the business is one of the key factors in the area of logistics. Managing and organizing the logistics of business activity is a challenging task that requires specific knowledge, skills and competences. For this reason, it requires specialized education and expertise. This has become highly evident in these pandemic times where changes and adaptations to organizing businesses became 'the new normal'. In Croatia, logistics became a field worth researching and teaching at secondary and tertiary institutions in the beginning of the 21st century when in other parts of the world it had already been part of economic and scientific research much earlier. This paper will give an insight into the specifics of the Croatian and Anglo-Saxon educational politics by analyzing the position of logistics from the academic point of view and by paying special attention to the courses and topics being taught within the field of these two points of view. The conclusions will inform interested parties from both the academic and business field of logistics on the present situation within the area of educating prospective logistics professionals.

Key Words

Anglo-Saxon educational politics, business activity, Croatian educational politics, logistics, logistics professionals

INTRODUCTION: LOGISTICS

According to the general online Cambridge Dictionary¹, the term *logistics* is defined as ‘the careful organization of a complicated military, business, or other activity so that it happens in a successful and effective way’. Similarly, the section of Business English of the same dictionary defines it as ‘the process of planning and organizing to make sure that resources are in the places where they are needed, so that an activity or process happens effectively’. Even more specific definition can be found on Investopedia² where it says that ‘logistics refers to the overall process of managing how resources are acquired, stored, and transported to their final destination’. Therefore, as an originally military-based term in a military environment not immune to innovations and advancements (Crow and Reichard, 2011), it is nowadays mostly used in the area of business in relation to managing resources, i.e. in the process of delivering goods and/or services from the point of production or design to their consumption in the best and cheapest possible way for both the customer and the business.

However, Zelenika & Pupovac (2001:101-102) state a clear distinction between logistics as a science and logistics as an activity. Therefore, logistics as an activity implies a collection of non-material activities that connect efficiently and effectively processes of overcoming the spatial and temporal transformations of materials, goods, things, matters, (semi)products, raw materials, animals, capital, knowledge, information from the sender to the receiver and at the same time satisfying the needs of the market using the minimum resources and potentials invested by offering an optimal solution to the market demands in the shape of particular and adequate logistics activities. On the other hand, logistics as a science presupposes the most important foundation for logistics as an activity; it is a set of interdisciplinary and multidisciplinary knowledge that investigates and applies validity of numerous and complex activities that connect efficiently and effectively processes of overcoming the spatial and temporal transformations of materials, goods, things, matters, (semi)products, raw materials, animals, capital, knowledge, information to safe, fast, rational and unique logistics processes of the flows of material, capital, knowledge and information from the point of delivery to the point of reception with the aim of using the minimum resources and potentials invested at the same time satisfying the needs of the market by offering a more efficient, more effective, more adequate and more optimal solution to the market demands in the shape of particular and adequate logistics services within the particular and adequate logistics systems.

¹ <https://dictionary.cambridge.org/dictionary/english/logistics> (retrieved on September 2, 2020)

² <https://www.investopedia.com/terms/l/logistics.asp> (retrieved on September 2, 2020)

It need not be said that the process seen as a set of activities is complex and its management is reasonably challenging and thus requires specific professional knowledge, skills and competences. In order to obtain these, specialized education is required to obtain interdisciplinary and multidisciplinary knowledge: it mostly depends on the type of tasks and activities that might appear in the job description of a logistician or a logistics manager in accordance with the development and modernization of logistics.

Continuous development in the area of logistics is crucial as companies, in order to be successful and profitable, need to adapt to the changes in the market. This can easily be regarded as of extreme significance in these pandemic times: some of the stories reported by Financial Times³ prove that despite some initial obstacles, companies and their managements can find opportunities created by the Covid-19 situation that can improve business in the area of logistics. On the other hand, according to the survey conducted by Barclays and BDO in conjunction with specialist sector research agency Analytiqa (Smith, Bird & Whitworth, 2019), confidence and expectations in the UK logistics sector have never been so low, one of the reasons being workforce shortages. Consequently, in order to be able to proceed with innovations in logistics, it is of great importance for a logistics professional to have various skills and knowledge which can be used and applied when making changes. For that reason, education is imperative whether we talk about logisticians and their various skills or the knowledge and competences needed to work with specific automation software.

LOGISTICS EDUCATION

Even though logisticians can be found in most of the industries, their tasks might differ depending on the type of an organization and its supply chain or the product and its life-cycle. Differences might appear even on the level of education and educational politics of different systems since the job of a logistician is manifold. In order to find out whether there are any similarities and differences between the Croatian and Anglo-Saxon (British and American to be precise) educational politics, the authors of this paper have decided to analyze the position of logistics from the academic point of view by paying special attention to the courses and topics being taught at tertiary level. In the sections that follow, preliminary results of the research will be described together with conclusions that will inform interested parties from both the academic and business field of logistics.

Logistics education in the Anglo-Saxon area

According to Mattingly (1986:20), the importance of logistics as a career field was recognized in the USA as early as 1960s when the interested parties (businessmen, consultants, and academicians) decided to actively seek ‘to

³ <https://www.ft.com/reports/coronavirus-logistics> (retrieved on September 28, 2020)

develop and integrate the concept of business logistics management in business firms' which consequently lead to the research of the education needed for a logistics manager. In order to become a logistics manager, a person needs to be educated not in one but in several 'functional areas of logistics' such as transportation, inventory management, or information systems (Mattingly, 1986:22). Therefore, it could be noticed that the work in the field of logistics requires people with a wider background education with skills that belong to both technical and social area. This is in accordance with the data that can be found regarding the position of a logistician in the USA and the UK.

On the website of the U.S. Bureau of Labor Statistics (n.d.), an official website of the United States government, it says that the position of a logistician can be found in almost every industry. The majority of companies which hired logisticians in 2019 could be found in manufacturing. The job is described as one that can be stressful since it requires working fast and full time. The typical entry-level education and the one most preferred by companies is a bachelor's degree for the majority of jobs - many logisticians have a bachelor's degree in business, systems engineering, or supply chain management. However, for some jobs (warehousing or transportation) an associate's degree may be sufficient as well as related work experience. According to the website *study.com*, when graduating with a bachelor's degree, students can expect to work in managerial and sales positions. In addition, people already working in the field of logistics have the option of becoming certified by the American Society of Transportation and Logistics or the International Society of Logistics. The position of a logistician requires of them to possess specific skills needed to collaborate with colleagues, listen to customers, do business in a flexible and organized way, and be creative even before problems appear. Thus, communication skills, critical-thinking skills, customer service skills, organizational skills, and problem-solving skills are the skills stated as needed to perform the job of a logistician. Therefore, ensuring that a logistician improves their soft skills is as important as providing them with the technical knowledge leading and expertise in logistics processes.

The situation is very similar in the UK. A logistician can have a career in various parts of the supply chain and jobs are available at all levels, from drivers to managers. Each of these positions requires a certain level of education. According to Pearson (n.d.) nearly ten per cent of all UK workers work in logistics. In order to work in the area of logistics, a person having a degree (or similar) can work for large organizations which often recruit graduates directly onto management training schemes. Being a logistics manager makes you responsible not only for staff, but also for public relations, health and safety, finance, ICT, business planning or marketing. This also includes the knowledge of using specialist computer systems to help manage the logistics procedures. What is fairly common in education in the area of logistics is to choose to do a joint honours degree, combining one of the logistics-related subjects with another relevant subject such as

economics or business management. Additional skills that might be useful for the job are foreign language skills since work in another country is not uncommon. In addition, beginning the career only with General Certificate of Secondary Education (e.g. as a stock control/replenishment assistant) does not mean a person has to stay at that level - continuing education and taking it to the higher level might lead them to a supply chain leadership professional. According to the report based on the survey mentioned earlier in the paper that was conducted by Barclays and BDO (Smith, Bird & Whitworth, 2019), operational-based warehouse workforce is expected to be replaced by technology, automation and robotics. This would consequently mean those logisticians could invest time and money into education and present themselves to prospective employers as skilled recruits willing to fill the gap in the logistics labor market and thus help resolving the issue of the lack of staff mentioned in the report.

Logistics education in the Croatian area

According to the European Logistics Platform (n.d.), logistics is crucial for the success of the European economy as being the “single biggest industry sector in the EU: it generates €1 trillion of revenue and provides employment to over 7 million Europeans in all European industries”. This was not recognized as early in Croatia as it was in the Anglo-Saxon area or in Europe in general. Logistics was introduced to schools and universities in Croatia in the beginning of the 21st century, which was followed by an intensive development of logistics as a scientific discipline and a topic in the Croatian educational system at secondary and tertiary levels through specific study programs (Rihtarić & Šafran, 2017). However, by looking at the jobs related to logistics offered at the Croatian job-seeking websites, it must be noticed that there is no 'logistician' as an occupation, only jobs within the field of logistics or warehousing. Even when there is a position of a logistician, it refers to working in a warehouse as a warehouse operative or a forklift operator. However, when the owner is a foreign company, the whole complexity of the position and the tasks is visible. This leads towards the conclusion that the position of a logistician as a person who works in the field of logistics has not yet been recognized to its full extent in Croatia.

By searching the data available online, it is not possible to find the description of qualifications required for the position of a logistician. The data available from the website of the Croatian Qualifications Framework⁴ points to the fact that logistics is a subsector of the sector named Transport and Logistics. When analyzing the data, it is visible that at the tertiary level the programs offered by higher education institutions intended for prospective managers, directors and scientists are supported by adequate workplaces. On the other hand, there is a discrepancy within the secondary education level which leads to the conclusion that engineers, administrative officers, or people working in jobs within fishing industry or service and

⁴ <http://hkosektor.poslovna.hr/?tmp=pregled-podsektora&sif=1120&nv=2>
(retrieved on October 10)

trade business have gained their knowledge and skills through their work experience, not education. This is surprising to an extent since according to the *Agency for Vocational Education and Training*⁵ (in Croatian *Agencija za strukovno obrazovanje i obrazovanje odraslih*) there are programs offered within secondary vocational education that are in the field of logistics. However, in the programs, the emphasis is placed on transport, which is only one section of the logistics field and activities.

As previously mentioned, there is the need for precisely stating qualifications a logistician working at jobs of different levels of complexity. Since this is so well covered in the Anglo-Saxon area, why not take them as examples? For that purpose, the authors of this paper have decided to conduct a research to pinpoint the main similarities and differences that could be used as a guidance towards creating a representative qualifications framework of a logistician as a general term that covers any business activity within the process of logistics.

ANALYSIS OF EDUCATIONAL POLITICS

The task of the research presented in this paper was to find out whether differences and similarities exist within the field of logistics with regard to the Anglo-Saxon and the Croatian educational politics. In order to gain an insight into the current situation, studying programs in the area of logistics offered by tertiary institutions in the USA and the UK (as the representatives of the Anglo-Saxon systems) have been investigated and compared to the similar ones in Croatia. Their programs based on the courses they offer have been analyzed and for the purposes of this article, only two in each of the countries (one bachelor's and one master's program) will be presented and used as examples of educational policies of these countries in the paragraphs to follow. The chosen programs can be studied at the same institution at both levels and are therefore used for comparison. The first choice was a Croatian higher-education institution University North as a university which offers both undergraduate (*Logistics and Mobility*) and graduate programs (*Sustainable Mobility and Logistics*) within the field of logistics. Based on this, similar programs were found in the USA and the UK on the website <https://www.hotcoursesabroad.com> and the filter 'on campus' was used and only those universities that offer the programs at both undergraduate and graduate levels were taken into consideration. The chosen university in the USA was The Ohio State University offering a bachelor's (*Bachelor of Science in Logistics Management*) and a master's degree (*Master of Business Logistics Engineering*). In the UK, the University of Huddersfield was chosen. The chosen programs are at bachelor's (*Business with Logistics and Supply Chain Management BSc*) and master's level (*Logistics and Supply Chain Management MSc*).

⁵ <https://www.asoo.hr/obrazovanje/strukovno-obrazovanje/kurikulumi-nastavni-planovi-i-programi/promet-i-logistika/> (retrieved on September 26, 2020)

FINDINGS AND DISCUSSION: SIMILARITIES AND DIFFERENCES

Based on the analysis of various studying programs and courses offered by tertiary education institutions in the USA, the UK, and Croatia, three institutions have been chosen to be used as examples of offering logistics programs at tertiary level.

The first interesting difference appeared when looking for universities in the USA and the UK where the field of Business and Management appeared as the term superior to the terms Logistics and its superior Transportation and Logistics. Logistics in the Anglo-Saxon area is perceived as part of social sciences, whereas in Croatia, it belongs to technical sciences. In the UK, the majority of the courses which are offered are at the bachelor's level, which is in accordance with this level of education being the most common in the field of logistics.

When comparing courses and topics that students need to complete and be familiar with, they are quite similar to a certain extent. The similarity is more evident in the Anglo-Saxon area. With regard to core courses at the bachelor's level, these are as follows in the USA: Business Skills and Environment, Business Law, International Business, Finance, Management Sciences, Management and Human Resources, Marketing, Logistics, Strategic Management. In the UK, the subjects to be explored are Sustainable Logistics and Supply Chain Management, Planning and Control, Operations Management, Understanding Organisational Behaviour, Managing People, Procurement and Supply Chain Strategy. In Croatia, the courses are IT in Logistics, Math, Economics, Economic Logistics, Engineering Physics, English Language, 2D Modelling, Microeconomics, Accounting, Statistics, Law, Electrical Engineering, Machine Elements, Business Management, Production Systems and Technologies, Transport Logistics, Technology of Materials, Industrial Logistics, Reliability and Maintenance of Technological Systems, Quantitative Methods, Tax Systems and Controlling, Quality Management. Therefore, the courses and topics at undergraduate level point to the difference in the Croatian and the Anglo-Saxon areas which confirms the difference the position logistics has within the scientific field.

At the master's level, there are more similarities than differences. In the USA, the analyzed course is designed to enable the graduates entering the job market to be equally comfortable with logistics strategy, the management of logistics operations and engineering tasks such as facility design and implementation of logistics technology. In the UK, the graduates are provided with the essential framework, concepts and toolkit required for the strategic management of logistics and the supply chain, which makes it almost identical to the one in the USA. In Croatia, graduates are educated to consider sustainable transportation system development, logistics systems management using modern technological, technical, economical, managerial and ecological cognitions. At this level, similarities are more visible and the topics are more common.

CONCLUSIONS AND IMPLICATIONS

By analyzing educational politics based on the studying programs offered by tertiary institutions in the Anglo-Saxon systems and comparing them to the Croatian educational system, it can be concluded that the USA and the UK have similar educational politics. They clearly state that each of the processes in the field of logistics requires specific levels of education. The most desirable (and common) level is a bachelor's degree. By earning a degree, a logistician can build their career and climb the ladder within a company.

When looking at the courses and topics in the Anglo-Saxon area, it can be concluded that they are mostly related to business and management and social sciences in general, while in Croatia engineering topics are prevailing at undergraduate level. At graduate level, there are more similarities than differences: in all three countries at the master's level the emphasis is placed on management of logistics systems and supply chain using modern technologies.

In Croatia, the position of a logistician is still not precisely defined to be recognized enough, whereas in the USA and the UK it is clearly stated what skills, competences and knowledge are expected of a logistician at any level of logistics business activities. Nevertheless, higher education institutions have managed to accomplish that people who work in the field of logistics have the required education level and are provided with adequate knowledge and competences.

This paper based on its conclusions contributes to the advancement of business and business-related science and practice by providing an insight into the differences and similarities of different educational politics related to educating prospective logistics professionals. Taking these basic conclusions into consideration, interested parties from both the academic and business field of logistics can become aware of some key skills or competences that logistics professionals from a particular area are equipped with. This can be useful when doing business internationally and relying on particular people to be in charge of complex logistics processes. Their acquired knowledge stemming from their education can be crucial for a particular logistics task and can therefore affect the logistics process. By being informed on the quality and content of a logistician's education, all the interested parties can cooperate to fill potential gaps or effectively use the person's competitive knowledge as an asset to the whole process.

During this research, the authors of this paper have come to realize that it would be interesting and informative to study the differences and similarities on the less general level by looking into a particular process or type of logistics in order to find out if such differences and similarities exist on a more particular level. More extensive research will be presented in one of the papers to come.

REFERENCES

- Bureau of Labor Statistics, U.S. Department of Labor (n.d.). *Occupational Outlook Handbook*, Logisticians (retrieved from <https://www.bls.gov/ooh/business-and-financial/logisticians.htm> on September 28, 2020).
- Crow, E. C., & Reichard, K. M. (2011). Military Logistics. In Johnson, S. B., Gormley, T. J., Kessler, S. S., Mott, C. D., Patterson-Hine, A., Reichard, K. M., & Scandura, P. A. Jr. (Eds), *System Health Management: with Aerospace Applications*. John Wiley & Sons, Ltd.
- European Logistics Platform (n.d.). *Our Mission* (retrieved from <http://www.european-logistics-platform.eu/> on September 25, 2020).
- Mattingly, J. G. Jr. (1986). Logistics Education. *Defense Transportation Journal*, 42 (4), 20, 22. (retrieved from <https://www.jstor.org/stable/44117260>).
- Pearson UK (n.d.). *Working in Logistics* (retrieved from <https://www.pearson.com/uk/learners/fe-and-college-students/career-choices/business-legal-and-finance/logistics.html> on September 28, 2020).
- Rihtarić, M. & Šafran, M. (2017). Transportna logistika. *Hrvatska tehnička enciklopedija* (retrieved from <https://tehnika.lzmk.hr/transportna-logistika/> on August 1, 2020).
- Smith, R., Bird, P. & Whitworth, J. (2019). *The UK Logistics Confidence Index 2019: Investing in the future despite tough conditions* (report retrieved from <https://www.barclayscorporate.com/content/dam/barclayscorporate-com/documents/insights/industry-expertise/logistics-confidence-index-2018.pdf>).
- Zelenika, R. & Pupovac, D. (2001). Suvremeno promišljanje temeljnih fenomena logističkoga sustava. *Naše more*, 48 (3-4), 99-112.