

**9th ECONOMIC AND BUSINESS REVIEW CONFERENCE &
SEB LU DOCTORAL CONFERENCE 2020**

**School of Economics and Business
Friday, December 4, 2020**

PROGRAMME & ABSTRACTS

Scientific committee:

Guido Bortoluzzi, Barbara Čater, Matej Černe, Marina Dabić, Miro Gradišar, Mateja Kos Koklič,
Darja Peljhan, Roman Stöllinger, Maja Vehovec, Miroslav Verbič, Katja Zajc Kejžar

PROGRAMME

9.00 – 10.30 Parallel Sessions 1

1/1 Economics 1, [ZOOM](#) passcode: 636743

Session chair: Katja Zajc Kejžar

Petra Adelajda Zaninović, Katja Zajc Kejžar

Assessing the Effects of Trade Facilitation: Hard vs. Soft Infrastructure in Central and Eastern European Member States (CEMS)

Giulia Avanza, Erica Meneghin

UNESCO Designations and Agenda 2030: capacity-building needs of Western and Southeast Europe Cultural Practitioners for Local Sustainable Development

Veronika Gerič Škopac

Development of Income Inequality in Slovenia

Ema Kelin, Tanja Istenič, Jože Sambt

Economic Support Ratio by Age and Educational Level in EU Countries

2/1 Management 1, [ZOOM](#)

Session chair: Matej Černe

Mitja Perat, Petra Rekar

Need for Cognition Is a Poor Measure of Analytical Thinking

Melita Balas Rant, Ana Vidmar

Character Development Across the Stages of Ego Development

Tomislav Hernaus, Aleša Saša Sitar

Knowledge Hiding, Job Design and Work Performance

Marika Miminoshvili

Interplay between Knowledge Hiding and Exclusion-Inclusion at the Workplace

3/1 Marketing 1, [ZOOM](#)

Session chair: Mateja Kos Koklič

Domen Kozjek, Irena Ograjenšek

Sales Effectiveness Measurement of Stock Keeping Units in a Retail Setting

Ivana Milaković

COVID-19 and Croatian Consumers: The Significance of Demographics, Consumer Optimism and Innovativeness for Consumer Resilience

Neža Maklin, Vesna Žabkar

The Risk of Omitting Warmth or Competence Information for Brands in Social Media

Mila Zečević, Mateja Kos Koklič

Food and Nutrition Information in Social Media: Bibliometric Overview

10.30 – 11.00 Break

11.00 – 12.30 Parallel Sessions 2

1/2 Economics 2, [ZOOM](#) passcode: 089556

Session chair: Tjaša Redek

Getoar Agushi

Understanding the Digital Transformation Approach - A Case of Slovenian Enterprises

Daša Farčnik, Tanja Istenič

Division of Unpaid Household Work during the Pandemic Crisis

Željana Aljinović Bara, Ivana Tadić

Importance of Human Capital Investments for Business Excellence of Croatian Companies

Eva Erjavec

The Motivation to Invest in Intangibles: Conceptual Model

Ezgi Özkirim, Nevenka Hrovatin, Istemi Berk

Environmental Regulations and Firm Performance: An Application of the Porter Hypothesis on Turkish Manufacturing Industry

Matic Verbič, Irena Ograjenšek

Does Slovenia Stand a Chance of Becoming a Second Switzerland?

2/2 Finance, [ZOOM](#)

Session chair: Aljoša Valentinčič

Urša Ferjančič, Aljoša Valentinčič

The Influence of Hormones and Personal Traits on the Propensity for Risk-Taking

Ardit Gjeçi, Matej Marinč, Vasja Rant

Non-Performing Loans and Bank Lending Behavior

Aamir Khan

Post-Acquisition Performance of Firms: An Empirical Study Based on UK Acquiring Firms

Goran Radivojac, Aleksandra Krčmar

Analysis of the Consequences of the Coronavirus Pandemic on the Republic of Srpska Capital Market Applying the Altman's Z - Score Model to Companies Whose Shares Are Included in the Republic of Srpska Stock Exchange Index

Adam Wilson, Cristina Almirall, Antoine Dapsens

Does Better Financial Management Lead to Higher Firm Markups?

3/2 Management 2, [ZOOM](#) passcode: 880925

Session chair: Darja Peljhan

Edona Haxhiu, Mojca Marc

Understanding the Relationship Between the Type of Management Control System and the Type of Control Problem: A Review of Literature

Katja Hleb, Miha Škerlavaj, Irena Ograjenšek

Responsible Leadership and Leader Development Levels: Towards a Sustainable Research Framework

Antonio Sadarić, Miha Škerlavaj

Making Sense of Change through Storytelling: Perception of Organizational Culture and Identity in Merger and Acquisition Context

Petra Rekar, Mitja Perat

Role of Knowledge in Financial Decision Making Is Limited

12.30 – 13.00 Break

13.00 – 14.30 Session 3

Economics 3, [ZOOM](#)

Session chair: Sašo Polanec

Melika Liporace

The New News Market: A Model with Social Networks and Competition

Andrej Srakar

Robust Malliavin-Stein Confidence Intervals for Shrinkage Problems

Srđan Vuković

Classification of Key Stakeholders and Inclusion of Their Expectations in Energy Efficiency Projects

Santiago Bonilla, Sašo Polanec

Organizational Hierarchies in the Slovenian Manufacturing Sector

Maja Dolinar, Irena Ograjenšek

Data Sharing in Scientific Business Journals: Preliminary Exploratory Analysis

ABSTRACTS

Economics 1

Petra Adelajda Zaninović, Katja Zajc Kejžar

Assessing the Effects of Trade Facilitation: Hard vs. Soft Infrastructure in Central and Eastern European Member States (CEMS)

In this paper we investigate the effects of trade facilitation, namely hard and soft infrastructure on international trade. In our analysis we aim to assess the role that hard and soft infrastructure plays for trade, whereby distinguishing between traditional trade and supply-chain trade. Following the approach by Portugal Perez (2012) and Yadav (2014) we derive four aggregate indicators of trade facilitation where we measure hard infrastructure in terms of physical and ICT infrastructure, while soft infrastructure accounts for border efficiency and institutions efficiency. For traditional trade, we use bilateral trade data, available from World Trade Flows database. As a proxy variable for supply-chain trade we use TiVA indicators, mainly, domestic value added embodied in foreign final demand and foreign value added embodied in domestic final demand. We focus on trade between Central and Eastern European member states (CEMS) and EU-15 and trade between CEMS and extra EU in the period from 2007 to 2015. The empirical analysis is based on panel data regression analysis with an empirical model specification built on a gravity model and applied on both gross trade and trade in value added data. To deal with this issue of zero values we use the Poisson Maximum Likelihood Estimator, while to control for multilateral trade-resistance terms we include a reporter and partner fixed effects. The results of our gravity model estimation indicate that there is a statistically significant association between hard and soft infrastructure and trade, and that trade across supply chains respond most strongly to improvements in trade facilitation. Among all trade facilitation indicators, ICT and institutions efficiency has the largest impact on supply-chain trade.

Giulia Avanza, Erica Meneghin

UNESCO Designations and Agenda 2030: capacity-building needs of Western and Southeast Europe Cultural Practitioners for Local Sustainable Development

Our research illustrates the capacity-building needed by cultural practitioners working at UNESCO Designations in Western and Southeast Europe countries in order to enhance cultural and natural sites contribution to local sustainable development.

Cultural heritage, natural heritage and creative industries are fundamental resources in processes of sustainable development and UNESCO designations represent an asset with relevant potential to boost local development. Cultural practitioners have been traditionally required to comply with tasks of conservation, safeguard and enhancement of cultural elements and sites, yet the recent global trends are compelling them to be more and more familiar with the heterogeneous declinations and impacts of the sector, particularly for what concerns the integration of cultural, natural and creative resources within broader actions of management and development of the territories.

Are cultural professionals sufficiently prepared to face this transformation of the knowledge and skills required to be effective and capable managers? Which are UNESCO designations' most salient areas of contribution to sustainable development? Which further capacities should cultural practitioners strengthen or build?

Our research has attempted to shine a light on such questions by consulting a group of 50 practitioners operating in different categories of UNESCO designated sites and elements, mainly in the context of Western and Southeast Europe and selected among the participants to the programme "International Academy on UNESCO Designations and Sustainable Development" (organised by Fondazione Santagata for the Economics of Culture and the UNESCO Regional Bureau for Science and Culture in Europe).

Based on the answers received, two categories of perceived capacity needs were identified: one that we evaluate is emerging as a direct consequence of the challenges posed by the dramatic situation relating to effects of COVID-19 pandemic and containment measures, and a second that reflects inner sectorial weaknesses, thus requiring a long-term strategic and structural answer.

Veronika Gerič Škopac

Development of Income Inequality in Slovenia

HIGHLIGHT(S): I intent to recreate the “elephant chart” originally made by Milanović and Lakner in 2013 on Slovenian data.

BACKGROUND: I intend on studying the evolution of the income inequality in Slovenia in the past 20 years or more, where data permits. I intend to produce an in depth analysis of the evolution of the distribution of income among the population to study how the structure of inequality has evolved.

METHOD(S): Income distribution data collected from Eurostat and SURS was used to obtain the trends regarding income inequality in Slovenia from the past twenty years. I followed the change in Gini coefficients and other indicators of inequality. Moreover, I follow the changes in the income distribution of income decile groups of the population.

RESULT(S): The results obtained so far point to a worsening distribution of income, with the middle class losing most in terms of the relative income distribution, while the top 10% gains the most.

CONCLUSION(S): Income inequality has been increasing in Slovenia for the past two decades, with a similar trend to the one discovered by Milanović and Lakner (2013) where the middle class is shown to be losing in terms of the relative income distribution the most.

Ema Kelin, Tanja Istenič, Jože Sambt

Economic Support Ratio by Age and Educational Level in EU Countries

HIGHLIGHTS: In this paper, we project total labour income and total consumption by age and educational level up to the year 2060 for 15 EU countries. We assess how much of future consumption will be supported by the labour income.

BACKGROUND: Population ageing affects the economic growth of the European countries. On average, the consumption of the young and the elderly exceeds their production through labour, whereas working-age individuals consume less than they produce. Previous research shows that effect of increased educational level, expected in the future, could mitigate the effect of population ageing on economic growth (see, for example, Renteria et al., 2016).

METHODS: We use the National Transfer Accounts (NTA) methodology, which is conventionally used for decomposing income and consumption by age. However, we also add education as an additional dimension to this decomposition. We project labour income and consumption for three educational groups (basic, higher, and tertiary) using age and education patterns obtained by the NTA methodology and population projections provided by Wittgenstein centre.

RESULTS: Our results show that improved educational level of individuals will have a substantial positive impact on labour production in future four decades – around 20% by 2060 on average for all included countries. However, the consumption will also increase - around 9% on average by 2060. To fully understand future economic sustainability and development, we calculate the economic support ratio, by relating total labour income and total consumption. Results show that the support ratio is higher when the level of educational attainment is considered next to age.

CONCLUSION: Fostering education is a powerful channel to cope with the negative impact of population ageing on economic growth.

Management 1

Mitja Perat, Petra Rekar

Need for Cognition Is a Poor Measure of Analytical Thinking

Analytical thinking is believed to be one of the key features which enables individuals to prevent error in applying the correct knowledge (Stanovich & West, 2008). Need for cognition (“NFC”) is a self-report measure of how much an individual enjoys in and engages in thinking (Cacioppo & Petty, 1982). It is considered a measure of intrinsic motivation (Cacioppo et al., 1996), though it is sometimes used as a measure of reflective or analytical thinking (Phillips et al., 2016; Teovanović et al., 2015). It is related to resistance to sunk cost, performance on heuristic and biases task, and framing effects (Carnavale et al., 2011; Simon et al., 2004; Šrol, 2018).

We wanted to test whether NFC is related to normatively correct decisions in various financial tasks. Based on theoretical predictions and research we hypothesized that NFC will be related to decision performance. We presented participants with a couple of short financial project valuation assignments.

In the study we used a convenience sample consisting of 188 participants (120 women; mean age = 19.81, SD = 3.95). The majority of participants (N=167) were seniors of an economic high school, while a minority (N=21) were professionals with degree in economics.

To test our predictions, we used Mann-Whitney and we found no difference in the NFC score among participants that solved the assignments correctly and those who have not. We can reject our hypothesis that NFC is not a good predictor in financial tasks, which require application of domain specific knowledge and analytical thinking.

Understanding of the interplay between individuals' thinking tendencies and decision performance in various tasks is needed to improve our understanding of decision-making process, to allow us to isolate factors which can improve the outcome.

Melita Balas Rant, Ana Vidmar

Character Development Across the Stages of Ego Development

Regularities of adult development are entering the field of organization studies. There are of special interest of leadership development and organizational development. Adult development implies that people can develop over the whole life span.

What implies adult development?

Adult development studies the development of human psyche, whereby human psyche includes aspects like reflective judgment (Fisher, 1970), social cognition (Selman, 1971, 1980), moral judgment (Kohlberg, 1981), structure of the ego (Loevinger, 1970; Hy, & Loevinger, 1996; Cook-Greuter, 1999, 2014), action logics and leadership styles (Tolbert, Associates, 2004; Rooke, Tolbert, 2005), needs and motivations (Maslow, 1967; Barret, 2016), dominant values and beliefs (Graves, 1974; Beck, Cowan, 1994/2014), meaning-making mechanisms (Kegan, 1982, 1994), personality (Vincent, 2014), composed of temperament and character (Cloninger, 1987, Cloninger, Svrkić, 1997).

In this paper we correlate two aspect of human psyche, namely how the temperament and character evolves across different stages of ego development.

This is particularly interesting correlate because Cloninger's team (2004) found the temperament is relatively stable element of human psyche, while character evolves across the life span. With such development the structure of the character can counteract the negative structure of the temperament, which is usually problematic in leads to personality disorders. Over the adult life span character evolves toward greater directedness, cooperativeness and self-transcendence. People with well evolved character on average experience also greater happiness and wellbeing (Cloninger, Zohar, 2011; Josefsson et al., 2011).

On the other hand side, Loevinger found that also ego also develops over the life span (Cook-Greuter, 2013). Ego development occurs in a logical sequence of stages or expanding world views from birth to adulthood. World views evolve from simple to complex, from static to dynamic, and from ego-centric to socio-centric to world-centric. Later stages are reached only by journeying through the earlier stages. Each later stage includes and transcends the previous ones. Each later stage in the sequence is more differentiated, integrated, flexible and capable of optimally functioning in a rapidly changing and ever more complex world. Stage influences what a person can notice and become aware of, and therefore, what they can describe, articulate, cultivate, influence, and change. As healthy development unfolds, autonomy, freedom, tolerance for difference and ambiguity, as well as flexibility, self-awareness, and skill in interacting with the environment increase while defenses decrease. A person who has reached a later stage can understand earlier world-views, but a person at an earlier stage cannot understand the later ones. This ego development is called also vertical development.

We study how the Cloninger's character profile evolves across Loevinger's stages of ego development. Our working assumption is that in the later ego stages positive aspects of character become more expressed. In other words, person become more self-directive, cooperative and self-transcendent. Due to this effects the person also experiences greater wellbeing.

Our research design uses mixed method research. Our sample account 100 subjects. The character profiles have been assessed by the Cloninger's research team at the Anthropedia research foundation. Stages of ego

development have been assessed by Loevinger's sentence completion test (Hy, Loevinger, 1996). Correlations between stage of ego development and character profile are drawn by statistical and qualitative method. The findings of the research are important not only for better understanding for the human psyche but also for the domain of leadership development and organizational development. Contributions to these two fields are then discussed and implications are made for future research.

Tomislav Hernaus, Aleša Saša Sitar

Knowledge Hiding, Job Design and Work Performance

HIGHLIGHT: In this paper, we take a knowledge hider's perspective and investigate performance consequences of hiding knowledge from coworkers, particularly focusing on the role of job design in stimulating or demotivating such behavior among work relationships.

BACKGROUND: With development of technology and advancement of society, the amount of knowledge work is increasing. Knowledge workers engage in creation, application, transmission and acquisition of knowledge (Kelloway & Barling, 2000). In organizations, employees need to share what they know, to avoid duplication of effort and waste of resources (Wang & Noe, 2010). Therefore intentionally hiding knowledge from coworkers is seen as counterproductive behavior, hurting overall performance (Černe et al., 2014). However, some previous studies recognized that in highly competitive work conditions individuals experience higher individual performance when hiding knowledge (Hernaus et al., 2019). This indicates there are certain circumstances in which individuals are rewarded for intentionally not sharing what they know. Therefore authors have been calling for research on different performance effects of knowledge hiding in specific job design conditions (Connelly et al., 2019).

METHODS: Two studies were conducted, one in academic settings (Study 1, N = 156) and second in business settings (Study 2, N = 172) to test for the influence of two job design characteristics (i.e. work autonomy and task variety) on task performance of evasive knowledge hider. A hierarchical regression analyses using the PROCESS macro was done to test impact of evasive knowledge hiding on individual task performance and for moderation effects of work autonomy and task variety. We further tested for complementarities between evasive knowledge hiding and both task characteristics in a form of three-way interaction in respect to their impact on task (objective and supervisor-rated) performance.

RESULTS: Our results confirmed all main and interaction effects in academic settings (Study 1). However, in business settings (Study 2), a positive effect of evasive knowledge hiding on task performance was only marginally supported. While having various tasks per se did not make a difference, autonomous job design (both two- and three-way interactions) weakened the positive performance consequences of hiding behavior.

CONCLUSION: The results of these studies have also some limitations as they cannot be generalized to all organizations operating in different contexts. Study findings offer important theoretical contributions to knowledge hiding theory and job design literature as well as useful practical implications for human resource and knowledge management practices. Findings extend the scope of the self-determination theory by indicating that job design has important though somewhat different impact on task performance in case of knowledge hiding in different settings.

Marika Miminoshvili

Interplay between Knowledge Hiding and Exclusion-Inclusion at the Workplace

BACKGROUND: Research shows that employees experienced exclusion are more tangible to behave passively, disengaged, show lower performance, productivity and knowledge sharing. Therefore, minority employees' will most likely engage in knowledge hiding behavior. Due to such severe exclusion, migrants usually intend to "pass" as member of dominant group. That implies conformity to majority group norms and concealment of certain characteristics to appear more similar to majority group and enhance in-group's inclusion. In this sense, striving to inclusion into the team may intensify migrants' knowledge hiding behavior.

METHOD(S): Qualitative in-depth analysis was employed to show the interplay between minorities' knowledge hiding and workplace exclusion-inclusion.

RESULT(S): Findings have demonstrated that social rejection, consequently, barriers in communication, relationship and cooperation could affect their willingness to contribute to the project, to collaborate an idea with the co-worker or simply, to provide any explanations or help when it was required from them. Furthermore, findings have identified that minority members do engage in knowledge hiding behavior in order to maintain

better relationship with majority, to keep good image of self, to be perceived better and more positively, to avoid controversy and incoordination in relation to majority at the workplace.

CONCLUSION(S): Knowledge hiding was emphasized to be a consequence of experienced workplace exclusion. Furthermore, desire to belong and be accepted member of the dominant culture could fuel minority members' knowledge hiding behavior. Consequently, knowledge hiding was found to be used as a strategy by minority members for being more included at the workplace.

HIGHLIGHT(S): 1. Workplace exclusion causes minorities' less engagement and contribution at the individual and/- or team level. 2. Minority members' engagement in the knowledge hiding behavior is triggered by the sense to be more included at the workplace. 3. Minority members employ different strategies to avoid exclusion and promote inclusion at the workplace.

Marketing

Domen Kozjek, Irena Ograjenšek

Sales Effectiveness Measurement of Stock Keeping Units in a Retail Setting

This paper explores the possibility to measure sales effectiveness of the products of the selected product group, over a certain period of time and with a novel approach. We address the field of retailing at the product level – a stock keeping unit.

A stock keeping unit (SKU) is a unique retailer identifier for the product. SKU sales effectiveness measurement is based on the conversion of inputs to the sales process into the outputs from the sales process. Sales effective are those SKUs that produce the largest value of output while spending minimum value of inputs, as compared with other SKUs in the selected product group.

The most commonly used methods for measuring sales effectiveness include logit models, generalization of logit models, models based on maximum likelihood methodology, time series analysis methods, linear modelling, etc. The main differences between the existing approaches and our proposed approach arise:

- (1) from the selection of the decision-making unit (none of the studies so far looked at the SKUs); and*
- (2) the inclusion of the assumption that deviations from output limit values are not just the consequence of the ineffectiveness in the sales process, but can also be the result of other factors (e.g. product retail prices in competitive stores, measurement errors, etc.).*

For the purpose of SKU sales effectiveness measurement, a three-step model approach is proposed and tested on real-life data. The approach makes it possible both to differentiate the effects of managerial inefficiency from statistical noise and other influential factors and to remove managerial inefficiency from the model in a controlled manner. This greatly increases efficiency measurement reliability in comparison with the existing approaches.

Ivana Kursan Milaković

COVID-19 and Croatian Consumers: The Significance of Demographics, Consumer Optimism and Innovativeness for Consumer Resilience

HIGHLIGHT(S): Gender significantly impacts consumer resilience. Considering personal characteristics, both consumer optimism and innovativeness positively influence consumer resilience.

BACKGROUND: Consumers respond differently to threat, i.e. Covid-19, which determines their further behavior. Currently, it is unknown how resilient Croatian consumers are and whether their resilience level is influenced by their individual characteristics. The main purpose of this research is to remove these uncertainties by exploring the influence of demographic (gender, age and education) and personal (consumer optimism and innovativeness) variables on the consumer resilience.

METHOD(S): Research was conducted on the convenience sample of 400 consumers using online questionnaire. Data was analysed with exploratory factor and multiple regression analyses.

RESULT(S): The research results show that both consumer optimism and innovativeness positively influence consumer resilience suggesting that consumer's resilience is higher when consumers are highly optimistic about their presence and future and when they are innovative. Furthermore, the results indicate that, unlike age and education, the gender (male) is a significant predictor of consumer resilience.

CONCLUSION(S): These results contribute to unique study context (pandemic) and consumer resilience, optimism and innovativeness literature, while having certain marketing implications. Namely, companies can better understand

the consumer behavior within a crisis, i.e. pandemic situation, with respect to their individual differences, particularly consumer resilience. Marketing experts can strive to enhance the consumer resilience by informing and educating the consumers about their product offers and safety of the purchasing place. In this way they can also enhance their optimism level. They can use reassuring communication messages by appealing to optimism and innovative consumers, whereby such appeals can increase the consumer resilience, and thus positively stimulate overall purchasing experience.

Neža Maklin, Vesna Žabkar

The Risk of Omitting Warmth or Competence Information for Brands in Social Media

HIGHLIGHTS: Stereotypes play an important role in consumer perceptions of social media communications.

Brands should adjust their communication strategy to stereotype content model (SCM) and should not omit any stereotype dimensions in their social media posts.

BACKGROUND: Stereotype Content Model is a two-dimensional model combined of warmth and competence dimensions. When applied to brands, it can serve as a tool to evaluate brand perceptions (Kervyn, Fiske & Malone, 2012). Brands often underline only one of the two dimensions in their marketing communications. Such communications can lead to innuendo effect, which means that consumers, after receiving positive information about just one dimension, make negative assumptions about the other (Edwards, Li & Lee, 2002). Since social media is one of the strongest tools to build a brand image, our goal was to test for occurrence of innuendo effect in the social media marketing communications setting.

METHODS: Two surveys (one for stimuli selection and one experiment with between subjects design) were run to test consumer perceptions toward selected brands with one of stereotypes dimensions omitted in their social media communication.

RESULTS: For warm and competent brands, competent posts result in their perceived position moving toward more competent but cold area. When respondents evaluated warm and non-competent brands after seeing competent post, the warmth as well as competence drastically decreased. Respondents responded positively to both types of cold and competent companies posts and did not perceive them worse on the omitted dimension. Cold and competent brands improved their warmth perceptions with warmer posts but at the cost of their competence position.

CONCLUSION: Our study contributes to better understanding the risk of omitting warmth or competence information for brands in social media. Brand managers should acknowledge brand position on the SCM and accordingly adjust their social media communication, in order to increase consumer loyalty and purchase intentions.

Mila Zečević, Mateja Kos Koklič

Food and Nutrition Information in Social Media: Bibliometric Overview

HIGHLIGHT: The research of food and nutrition information in social media is dispersed across three literature fields (technology, health and marketing), where the communication between them should be fostered in the future.

BACKGROUND: Images, ads, messages and various comments and advice related to food and nutrition are very present in social media (Johnson, 2015). As such, they are often influencing food choices of social media users, especially younger population (Boyland et al., 2016). While research of the relevance of social media for food and nutrition information dissemination has been increasing in the last decade, to our knowledge no study has tried to map this research area and provide a systematic overview of the knowledge.

METHOD: In order to evaluate the development of research related to food and nutrition information on social media, we have conducted a bibliometric study. Web of Science Core Collection database was searched for appropriate keywords, and 281 studies were found to match the desired title and/or abstract content. Titles, keywords, abstracts and references were extracted in a text file, and used for further analysis using bibliometric softwares (Biblioshiny (R package for bibliometrics) and VOSviewer).

RESULTS: Our analysis identified the first article on this topic being published in 2008. The growth of literature and knowledge is evident in the continuous increase in number of publications over the years. Journals from health and consumer literature have published majority of articles from this field over the last 13 years. Keyword co-occurrence analysis detected 6 clusters of keywords: food, nutrition and social media, social media, food and health, food marketing and food safety. The distribution of sources in co-citation analysis shows the existence of three separate streams of literature that deal with this topic: technology, health and medicine and marketing and consumer research.

CONCLUSIONS: Food and nutrition information in social media is becoming more and more relevant and researched in several different fields. While the body of knowledge is growing, it might be important to also foster

stronger knowledge flow between different fields of research in order to increase comprehension and applicability of this knowledge.

Economics 2

Getoar Agushi

Understanding the Digital Transformation Approach - A Case of Slovenian Enterprises

HIGHLIGHTS: Digital transformation is one of the major trends that is causing a fast and radical change and businesses are conducting a variety of initiatives to explore its benefits and find factors to be successful.

BACKGROUND: The rise of new digital technologies can provide businesses with competitive advantages that can lead to many potential benefits. However, in practice, the process is accompanied by many obstacles and success with digital transformation requires companies to work in a variety of components continually. Therefore, the objective of this master's thesis was to create a structure for understanding a proper approach for digital transformation.

METHOD: Semi-structured interview method was selected to interview personnel responsible for digital transformation efforts from five Slovenian enterprises in the banking, insurance, manufacturing, and retail industry.

RESULTS: Managers in the case companies presented a diverse meaning of digital transformation by highlighting the holistic nature of the term or defining it in terms of business benefits they have receive in customer-centricity, process optimization, and developer of new business models. The implementation of digital transformation efforts was accompanied with initiation challenges such as legislation and execution challenges such as speed of transformation, mindset, talent, finance. However, managers were focused to overcome these challenges by implementing a variety of success factors to create and communicate a transformation vision, develop competencies and recruit talent.

CONCLUSIONS: This study showed a lack of a commonly accepted digital transformation definition, the diverse competitive advantages benefits, the common challenges of the process and that internal people was found to be the most crucial factor in case companies. Studies with a larger number of companies across industries are required to prove the findings as generalizable.

Daša Farčnik, Tanja Istenič

Division of Unpaid Household Work during the Pandemic Crisis

The effect of Covid-19 crisis on labour demand is at a large extent connected to the following factors: (1) the effect of stay-at-home measures on specific sector in the economy, (2) the question, weather sector allows for telecommunicating or not (Alon et al., 2020). Compared to the last economic crisis where men's employment was effected more than women's, the effect of current economic downturn on gender-specific employment is less certain. The preliminary survey for the UK (Hupkau & Petrongolo, 2020) shows that women are over-represented in the lock-down sectors; however, they are also over-represented in the jobs that can be done from home, as well as in the critical sectors. Furthermore, division of unpaid household work could also change during the lock-down, which could result in the long-run changes in social norms towards higher gender equality (Alon et al., 2020; Hupkau & Petrongolo, 2020).

Based on the pre-conducted time use survey with approximate 500 respondents we investigate changes in the time allocated for different daily activities before and during epidemic and any visible change in the gender norms in the pre- and post-epidemic period. First, with our research we contribute methodologically and empirically. The last disposable time use survey for Slovenia was conducted in year 2000. With our time use survey we therefore shed a light on changes in individuals' time allocation over time. Secondly, our research has also important policy implications, because it serves as a basis for formulation of active employment policies.

Željana Aljinović Bara, Ivana Tadić

Importance of Human Capital Investments for Business Excellence of Croatian Companies

HIGHLIGHTS: Companies, in order to perform remarkable business results, invest in human resources. Different human resource expenditures, in terms of securing competitive compensations or providing trainings, should not be recognized as costs, but more importantly, as organisational long-term assets. Those will evolve

employees' knowledge, skills, and abilities, develop experience, stimulate creativity, innovations and motivation, or summarizing create organisational human capital. Human capital represents inevitable element in recognising and measuring organisations' values, required for supporting their business excellence.

BACKGROUND: Human capital, especially within knowledge based economy, is necessity for organisational success (financial and operational growth, image or external investments intentions), what has been researched and proved by many researchers.

METHODS: This research is conducted on the sample of 119 Croatian listed companies. OLS regression analysis was applied for testing the impact of human resources investments by providing trainings and extra bonuses or salaries to employees on company's overall excellence. One-way ANOVA is used to determine whether there are significant differences in means of those variables between high intensive intellectual capital (HIIC) and moderate intensive intellectual capital (MIIC) companies. Wilcoxon's test and t-test for paired samples were used to test difference in company's excellence capitalizing human capital expenditures in balance sheet rather than recognizing it in profit and loss account.

RESULTS: All findings confirm causal connection between good company's performance and high level of investments in human capital through salaries or trainings. OLS overall significance test shows statistically significant relationship of BEX index with the salaries and trainings costs. Both variables are positively correlated with company's excellence. ANOVA F-test value indicates significant difference in the mean of salaries per employee between HIIC and MIIC companies. Results also confirm difference in company's business excellence when human capital expenditures are capitalized in balance sheet rather than recognized as expenses in P/L account.

CONCLUSIONS: Research stresses the importance of appropriate recognition and measurement of human capital in financial statements. Summarizing the findings, it is evident that companies should pay attention in managing human resources and realizing their importance and impact on business excellence, as well as their competitive advantage.

Eva Erjavec

The Motivation to Invest in Intangibles: Conceptual Model

Intangible capital, comprises (Corrado et al., 2009) (1) computerized information, (2) innovative capital and (3) economic competencies. The literature offers significant evidence of the impact of intangible capital on productivity growth (C. Corrado, Haskel, and Jona-Lasinio 2016; C. Corrado, Hulten, and Sichel 2009b; Carol Corrado et al. 2016; Irina 2018; Ji 2018; Jona-Lasinio and Meliciani 2018; Li and Wu 2018; Lopez and Olivella 2018; Piekkola 2011, 2018; Roth and Thum 2013; Tahat, Ahmed, and Alhadab 2018; Vrh 2018; Yang and Shi 2018), but is focusing primarily on the estimation of the actual impact on productivity, firm and sector performance, financial markets and other development indicators.

The evidence on the actual motivators or determinants of intangible investment in firms is scare and lacks evidence of "comprehensive governance of intangibles" at firm level. The purpose of the paper is to conceptualize a model of investment into intangible capital at firm level following the approach by (Sánchez, Chaminade, and Olea 2000) which, is explaining differences between firms and sectors. It attempts to close the gap between the observed level of intangible investments and their impact. The model presents a bridge between the economic and management literature, which last, also provides important managerial implications.

Ezgi Özkirim, Nevenka Hrovatin, Istemi Berk

Environmental Regulations and Firm Performance: An Application of the Porter Hypothesis on Turkish Manufacturing Industry

HIGHLIGHTS: Increasing pollution and the state of climate change are placing a burden on regulators to improve environmental measures. There is therefore a growing interest among researchers to investigate the causal link between environmental regulation and corporate performance. This research aims to investigate the relationships between environmental expenditure, innovation activities and the productivity of firms, which implies a micro-level analysis of Porter Hypothesis (PH).

BACKGROUND: PH assumes that strict environmental regulation would increase both innovation activity and productivity of the firm. In this respect, PH is divided into two main strands in the literature: "weak" and "strong" PH. In line with PH it is expected that the firm would increase its innovation activity as a result of induced

regulation (weak PH), which would ultimately improve production technologies and increase the productivity of the firm (strong PH).

METHODS: We perform two econometric models based on static panel data models, i.e. fixed effect estimators. According to the literature, expenditure on pollution abatement and control is the main independent variable used as a proxy for environmental regulation. Furthermore, total factor productivity and innovation activity are dependent variables of the models for strong PH and weak PH. In order to control the effect of firm- and sector-specific variables, control variables are introduced into the regression models. In addition, regressions of instrument variables are used to address the problem of endogeneity, followed by post-estimation testing.

RESULTS: Empirical results do not support the existence of the weak PH in the Turkish manufacturing industry. Therefore, it can be concluded that environmental expenditures represent an additional burden for Turkish manufacturing companies, as these expenditures do not support innovative activities. Although innovative activities have not been promoted by the introduction of environmental regulations, the results of the tests of the strong PH confirm that the total factor productivity of firms increases with the realization of environmental expenditures.

Matic Verbič, Irena Ograjenšek

Does Slovenia Stand a Chance of Becoming a Second Switzerland?

Experts from various fields, both academics and practitioners, have been working for many years to establish a universal key to measurement of country development levels and development gaps. Economists have struggled with these issues ever since the 18th century, in which economics as a science started taking a distinct shape. But only in the recent decades have we been able to make greater efforts to understand the logic of income and wealth consumption and find realistic ways to start eradicating poverty and closing the gap between more and less developed countries.

In popular mind, the perception of Slovenia is that of a developed country. Even more: in the region, the labelling of Slovenia as the 'second Switzerland' or 'having a realistic chance to become a second Switzerland' is very much alive. But how close is this perception to reality? In order to find the answer to this question, we aim to explore the development gap between Slovenia and Switzerland based on selected economic, political, and environmental indicators.

In this paper, we first present and discuss selected aspects of development and economic growth measurement and provide a brief overview of economic theories most relevant to the subject matter. We then carry out a comparative analysis of Slovenia and Switzerland for the period since 1991, when Slovenia declared independence from Yugoslavia, until today. In the process, we identify the most important similarities as well as differences in the level of development of the two countries and present the broadest possible picture of their development tendencies. We conclude by formulating a relevant set of policy measures for the systematic long-term reduction of the development gap between Slovenia and Switzerland.

Finance

Urša Ferjančič, Aljoša Valentinčič

The Influence of Hormones and Personal Traits on the Propensity for Risk-Taking

In this study, we conduct an experiment to test the relations between the propensity for risk-taking, and psychological factors (personality traits, optimism, lifestyle characteristics) and physiological factors (testosterone and cortisol). The propensity for risk-taking is one of the central elements of interest in economics, finance and other disciplines. We measure risk propensity with self-reported (DOSPERT) and several behavioral measures (BART, Eckel & Grossman Risk Task, Holt & Laury Measure of Risk Aversion). The Committee of Ethics and Research at the School of Economics and Business of the University of Ljubljana approved the experimental design and all the related procedures. Before participation in the experiment, all subjects agreed to participate by signing a written informed consent to participate. We find that: i) testosterone and cortisol levels are positively related to risk propensity in the financial domain; ii) support for the dual-hormone hypothesis when the Holt & Laury Measure of Risk Aversion is employed; iii) the leading traits of general personality patterns for risky behavior are impulsive sensation-seeking and neuroticism-anxiety, which are negatively and positively correlated to distinct risk propensity measures, respectively. The results also reveal several positive relations between the sensation-seeking traits and various risk-propensity constructs. Finally, we find

positive associations for optimism, alcohol consumption, and smoking for several risk-taking constructs as well. Collectively, our findings show that psychological and physiological factors are correlated to the propensity for risk-taking.

Ardit Gjeçi, Matej Marinč, Vasja Rant

Non-Performing Loans and Bank Lending Behavior

This article empirically investigates whether the level of non-performing loans (NPLs) affects the bank lending behavior using bank-level data across 42 countries, spanning over the period from 2000 to 2017. We find a negative and statistically significant relationship between NPL and bank loan growth. This impact was pronounced in EU, non-EU, advanced, and emerging countries subsamples. We also analyze the channels through which NPLs affects loan growth. We find that larger and well capitalized banks can endure potential credit risks and therefore apportion higher level of their resources for granting loans. Our results reveal that the link between NPLs and loan growth is less pronounced for the banks operating in countries where asset management companies are present. In addition, our results are robust with respect to alternative measure of credit risk.

Aamir Khan

Post-Acquisition Performance of Firms: An Empirical Study Based on UK Acquiring Firms

The aim of this study is to examine the post-acquisition performance of UK acquiring firms following cross-border M&A deals over the period 2006 to 2018 using generalized method of moments (GMM) technique to investigate the impact of acquisition experience and industry relatedness and the moderating effect of institutional quality and cultural similarity on the post-acquisition performance of firms. Findings indicate that acquisition experience and industry relatedness have significant positive impact on the post-acquisition performance of UK acquiring firms. Similarly, the institutional quality and cultural similarity positively moderate the relationship between acquisition experience, industry relatedness and the post-acquisition performance of firms in the long-run.

Goran Radivojac, Aleksandra Krčmar

Analysis of the Consequences of the Coronavirus Pandemic on the Republic of Srpska Capital Market Applying the Altman's Z - Score Model to Companies Whose Shares Are Included in the Republic of Srpska Stock Exchange Index

This research project analyzed companies whose shares are part of the Republic of Srpska Stock Exchange Index (BIRS) in order to determine their insolvency risk before and during the coronavirus pandemic. In order to perceive the effects of the pandemic, we used data from publicly available semi-annual financial statements of the mentioned companies for 2019 and 2020, which we processed using Altman's Z - Score model and Altman's Z² - Score model. 14 out of a total of 15 companies from BIRS were observed, given that there was one financial institution for which the application of the above mentioned models is not recommended.

The results of our research show that in the first half of 2020, there was a significant deterioration in the performance of the observed companies and an increase in their insolvency risk. Operating revenues decreased, liabilities increased, and trading in a large number of cases was carried out at lower stock quotes, as evidenced by the negative trend of BIRS. Applying Altman's Z-Score model, it was determined that in the first half of 2020, only two companies entered the "safe zone", there were none in the "gray zone", while there were 12 companies in the "insecure zone". On the other hand, the application of Altman's Z²- Score model showed that in the same period there were eight companies in the "safe zone", four in the "gray zone", and two companies in the "insecure zone".

The conducted research supports the claims that the coronavirus pandemic had extremely harmful consequences on the economy of the Republic of Srpska, which can be remedied only with the strong support of state and international financial institutions.

Adam Wilson, Cristina Almirall, Antoine Dapsens

Does Better Financial Management Lead to Higher Firm Markups?

HIGHLIGHTS: In this study, we investigate to see if skilled financial managers can also impact firm's markups. We also look at some of the macroeconomic implications of the findings.

BACKGROUND: Markups are determined by many factors, including firm size and export status. Higher markups are a sign of increased market power and reduced labour's share of the income. If increasing managerial skill can increase markups, it could explain some of the increase in markups that has been seen in recent years.

METHODS: Using Slovenian firm level data for the 12 largest NACE 2-digit industries sectors in Slovenia, we calculated 4 measures of the quality of the financial management of a firm. These metrics covered the profitability, efficiency, cash control, and operational risk of the firm. The metrics spanned both cash and accrual accounting to track the complete range of control of a financial manager. Then, based on the method of calculating economic markups developed by DeLoecker and Warzynski (2012), we measured the annual markups for each of the firms. The markups were regressed against the financial performance measures using dynamic panel estimators while controlling for other factors that are known to impact markups, such as firm size and exporter status.

RESULTS: Of the 12 industries surveyed, 11 showed that at least one of the financial metrics was correlated with an increased markup. The connection held across a broad range of industries, such as manufacturing, construction, real estate, and computer programming/consulting.

CONCLUSIONS: Our findings show that improved managerial skill does result in higher markups for the firm and therefore contributes to the rising level of markups across the economy.

Management 2

Edona Haxhiu, Mojca Marc

Understanding the Relationship Between the Type of Management Control System and the Type of Control Problem: A Review of Literature

HIGHLIGHTS: The purpose of this paper is to identify how elements of management control systems (MCS) relate to control problems. Management control functions through systems. MCS are effective when all the employees act and perform in the best possible way. But does this happen? Even though each MCS aims to direct employees' behavior and achieve organizational objectives, some types of control are not effective under particular conditions and can have undesirable effects on employees' behavior and action. All employees, even experienced ones, will face certain limitations to perform correctly. Some MCS are effective and influence positive behavior, while others can make employees act adversely and impact organizational objectives. Therefore, this paper identifies and analyzes the relation between MCS and control problems.

BACKGROUND: Current research in management accounting and management control is focused on MCS definition and characteristics, its use and design, and the relationships between MCS, strategy, and performance. However, less is known about MCS effectiveness. This paper fills this gap by reviewing the academic literature and analyzing which types of management controls are better addressing particular types of control problems and which types of controls have adverse effects on employee actions.

METHODS: This review focuses on management accounting and management control literature and has two primary data sources: textbooks and research papers, which provide evidence on MCS types, design, characteristics, and purposes. Additionally, MCS frameworks are compared and analyzed.

RESULTS: Through this review, we discovered that even though MCS are designed to increase internal control and address control problems, it turns out that many additional problems can arise from certain types of MCS and produce deviant behavior or errors to employees.

CONCLUSIONS: In management accounting research, the relationship between MCS and control problems, regardless of the high importance, have been narrowly discussed. The findings of this literature review revealed that control problems influence and give rise to different types of human error and, consequently, impact MCS effectiveness.

Katja Hleb, Miha Škerlavaj, Irena Ograjenšek

Responsible Leadership and Leader Development Levels: Towards a Sustainable Research Framework

Responsible leadership is a relatively new concept defined as a leadership component of (1) corporate social responsibility practiced at the top of an organization and (2) constructive developmental theory (CDT) describing five orders of consciousness or levels of the development of mind. CDT builds on the foundations of two classical theories in the field of developmental psychology, Piaget's theory of cognitive development (1954) and Kohlberg's theory of moral development (1969).

At present, researchers actively explore one of its properties, the development of human mind. Kegan (1982; 1994) established further development of an adult mind that does not stop with early adulthood as previously stated but continues through a lifetime. Waldman et al. (2020) proposes two different mindsets that frame

responsible leadership, the strategist and the integrator. The field of organizational neuroscience is attempting to demonstrate task positive networks in the brain, associative to strategist mindset (Boyatzis, Rochford and Jack, 2014) and the default mode of the brain that might be predictive of integrative orientation (Waldman, Wang, Hannah and Batlhazard, 2017).

In our interdisciplinary study in the fields of leadership and developmental psychology, we plan to provide an answer to the question how does the development of human mind in adulthood of an individual determine his/her leadership abilities and related outcomes. This is important as it will offer us an insight into the natural process unfolding in a leader and make us better understand the consequences of the leadership practiced at different levels of development for the organization.

In this paper, we present and discuss the key elements of our planned research framework, starting with the definition of the target population and available sampling strategies. We then explain our reasoning for the choice of our primary data collection methods and deliberate on the expected yield of each step in data collection process both in terms of methodology (with special focus on expected sources of bias) and substance (with special focus on how does each previous step in the data collection process inform the next one).

Antonio Sadarić, Miha Škerlavaj

Making Sense of Change through Storytelling: Perception of Organizational Culture and Identity in Merger and Acquisition Context

Despite the fact that challenges surrounding merger and acquisition processes have been an important part of business, successful integration remains a challenge. Among numerous issues of successful mergers and acquisitions, people integration and cultural identification remains to be one of the biggest predicaments (Lodorfos and Boateng, 2006; Marks and Mirvis, 2011). Unfortunately, organizational culture seems to be perceived as a soft element of the integration process and is often shadowed by business process integration and legislative policies (e.g. Homburg and Bucerius, 2006). Because organizational culture positively relates to forming organizational identity (e.g. Seo and Hill, 2005) and embracing change in such an environment (Schultz and Hatch, 1996; Clark et al., 2010) change acceptance should be additionally explored.

Mergers and acquisitions change management's visions and ideologies that employees encounter, thus changing the social surrounding in which employees behave. The sensemaking process is where change recipients assess potential benefits and threats of change and form their attitudes (Balogun and Johnson, 2005) thus building resistance to change (Oreg 2003). This implies that the sensegiving process should enable easier sensemaking for affected employees (Bandura, 1989; Bandura, 2001). Leaders can make meaningful interventions here (e.g. Lüscher and Lewis, 2008) and numerous studies suggest that storytelling engages the audience, stimulates identification and ensures that the intended message understood (e.g. Lockwood, Giorgi and Glynn, 2019; Rhodes and Brow, 2005; Vaara, Sonenshein and Boje, 2016).

Storytelling should empower change leader's efforts in influencing the acceptance of management's ideology. Since leading change can be characterized as an extensive communication effort to anticipate and address conflicts arising from diverging needs and perceptions of followers (Battliana and Casciaro, 2012; Kettinger and Grover, 1995), narrative intelligence (Randall, 1999; Pishghadam, 2011) of a change leader should enable to enrich the new ideology within construct dimensions (i.e. narration, emplotment, characterization) responsible for human identity, emotions, decisions and actions (Randall, 1999).

We therefore propose that within the merger and acquisition context, the perception of organizational culture skews how employees perceive their personal identity and thus how strongly they identify with the organization. However, we hypothesize that this effect can be moderated by leader's narrative intelligence which can reduce resistance to change. Implications of our research are relevant for future understanding of storytelling and change leadership, as well as practitioners growing organizational culture as a competitive advantage.

Petra Rekar, Mitja Perat

Role of Knowledge in Financial Decision Making Is Limited

Research indicates that individuals often reach suboptimal financial decisions. Though irrational decisions are often attributed to Type 1 processing, performance is believed to be dependent also on mindware (Stanovich, 2018). Providing individuals with domain relevant declarative knowledge is one of the ways to improve decision making (Fennema & Perkins, 2007; Larrick et al., 1990; Soll et al., 2015). However knowledge often remains

inert (Renkl et al., 1996) failing to assist in economic problem solving (Stark et al., 1998), or alleviation of sunk cost (Greitemeyer et al., 2005; Roth et al., 2015).

We wanted to test whether domain relevant knowledge would subdue sunk cost effect in escalation of commitment task, and lead to normatively correct decision in investment task. Based on theoretical predictions and research stream we hypothesized that knowledge will improve decision making in line with standard economic theory. We presented participants with a couple of short financial assignments, which required them to use the knowledge of project valuation.

A total of 188 participants were included in the study (120 women; mean age = 19.81, SD = 3.95). A convenience sample was used, where the majority of participants (N=167) were seniors of an economic high school, while a minority (N=21) were professionals with degree in economics, who work in the field. We assumed that the later would have the necessary knowledge.

We applied a Chi square test, which rejected our hypothesis, we found no difference between students and professionals, on either of the tasks. Additionally, we found no difference in confidence of their decision among individuals that solved the assignment correctly. Domain knowledge didn't facilitate normatively correct decision. It appears that knowledge perattransfer is difficult, and that in order to improve outcome knowledge needs to be task oriented.

Economics 3

Melika Liporace

The New News Market: A Model with Social Networks and Competition

HIGHLIGHTS:

- *Online news market financed by advertisement is inefficient.*
- *Online outlets documenting very uncertain realities tend to provide worse information.*
- *Competition helps only if the news sharing network is dense enough.*

BACKGROUND: The news market has changed. Producers are paid per click. News propagate thanks to consumers' social networks. While previous literature has either ignored the central role of communication network, or that of competition, this paper investigates how competition modulates the incentive of producers to invest in news quality through a communication network, which mediates the spread of news articles.

METHOD: In this model, producers rely on a subset of consumers (influencers) to spread news' articles. We study the equilibrium quality of the news when one producer documents some uncertain state of the world. We then compare news' precision in a monopolist's market to that in a duopoly. To explore possible improvements, we introduce a framework to quantify welfare and study alternative business models. In particular, we wonder whether subscription-based outlets can outperform platforms based on ad-revenue.

RESULTS: We find that a producer's incentive to invest in quality decreases when uncertainty about the state of the world increases. Therefore, topics for which information is the most needed are generally those generating the least precise information. Concerning competition, we find that duopolies are not necessarily preferable to monopolies; competition helps only if the communication network is dense enough. In such a case, the dupolist's need to convince more of his influencers in order for his article to survive in the network, outweighs the lower returns of his investment in quality due to having less influencers. However, any equilibrium outcome is still Pareto inefficient.

CONCLUSION: While further research is needed to understand in which context subscription-based news outlets are preferable, this paper puts in perspective the limits of competition as a mean towards efficiency.

Santiago Bonilla, Sašo Polanec

Organizational Hierarchies in the Slovenian Manufacturing Sector

HIGHLIGHTS: We study organizational hierarchies in a transition country. Using employer-employee matched data for a set of Slovenian manufacturing firms, we find support for the knowledge-based hierarchies proposed by Garicano (2000) and Caliendo and Rossi-Hansberg (2012). Manufacturing firms in Slovenia organize their workers into hierarchical layers; higher layers exhibit fewer working hours and higher average wages.

BACKGROUND: According to the theories of knowledge-based hierarchies, firms should organize their workforce in hierarchical layers, where the less-knowledgeable workers dedicate to routine tasks, while the more knowledgeable handle more complex problems and direct others.

METHODS: To test predictions of knowledge-based theories of organizational hierarchies we use employer-employee matched data for Slovenian manufacturing firms, and map each worker into one of four possible hierarchical layers according to their ISCO-88 occupational code. We analyze the dynamics of hours of work and wages when Slovenian firms grow in terms of value added, both when they decide to change their number of layers and when they do not.

RESULTS: Slovenian firms tend to hire less hours of work and to pay higher wages in higher layers. When firms grow and decide to change their number of layers, they tend to change hours and wages differently across layers. Workers in newly added layers receive higher wages, while average wages in pre-existing layers decrease. When firms reduce their layers, workers in pre-existing layers tend to benefit. These patterns are confirmed using education and experience as direct measures of knowledge.

CONCLUSIONS: When compared to French manufacturing firms analyzed by Caliendo, Monte and Rossi-Hansberg (2015), Slovenian firms are less consistent in their consecutive ordering of organizational layers, have fewer organizational layers, and change them less frequently. We attribute the lower organizational depth to the higher wage premia to workers in higher organizational layers, which is an implication of under-investment in human capital during the socialist era.

Andrej Srakar

Robust Malliavin-Stein Confidence Intervals for Shrinkage Problems

HIGHLIGHT(S): We construct robust confidence intervals for shrinkage problems in a novel way using Stein-type methods.

BACKGROUND: Inference for shrinkage problems has been claimed by Bruce E. Hansen (2016) as a key open problem of shrinkage models in econometrics. In recent articles, Armstrong and Kolesár (2019) and Armstrong, Kolesár and Plagborg-Møller (2020) construct robust confidence intervals through empirical Bayes (EB) methods and approximate moment condition (GMM-type) models. Our article goes into another direction suggested by Hansen and constructs robust confidence intervals for shrinkage problems using Stein and Malliavin-Stein methods (Stein, 1956; James and Stein, 1961; Nualart and Peccati, 2005; Nourdin and Peccati, 2009; Beran, 2010). The intervals are centered at the usual James-Stein estimator, but use a critical value accounting for shrinkage.

METHOD(S): While the article is not empirical, we rely on a body of present day econometric theory and asymptotic statistics: high-dimensional data analysis, shrinkage models and regularization estimators; and recent extensions of Stein methods using Malliavin calculus (finding large applications in probability, statistics and econometrics).

RESULTS(S): The performance (coverage) of our CIs is similar to Armstrong, Kolesár and Plagborg-Møller's (AKPM) empirical Bayes coverage regardless of the means distribution. But they significantly outperform them for multiple shrinkage in particular when the dimension grows large. While the article relies on clear parametric assumptions, extensions to nonparametric and nonparametric Bayes (again contrasting the EB approach of AKPM) directions are suggested.

CONCLUSION(S): Novel method of constructing confidence intervals for shrinkage models is presented, addressing an important open problem in econometric and statistical theory.

Srđan Vuković

Classification of Key Stakeholders and Inclusion of Their Expectations in Energy Efficiency Projects

Developing and emerging economies nowadays are facing challenges of searching for affordable and environmentally acceptable supplies of energy and ensuring energy efficiency to its consumers. Energy efficiency still presents key objectives of EU energy policies also during COVID crisis. Although background of energy efficiency is not new, during literature review, however the stakeholders and their expectations in energy efficiency projects are still unclear, underestimated and not included in their planning.

The paper focuses on the problem of lack of consideration of aspects of adaptation to key stakeholders in the implementation of energy efficiency projects. Due to the disregard of stakeholders and adjustment factors, energy companies face lower realization of project implementation and poorer efficiency of implemented energy

efficiency projects in Slovenia. Key questions are how to identify key stakeholders and how to classify and include their expectations in company energy project planning.

To solve the research problem, the paper uses the theory of stakeholders as a theoretical starting point on the basis of a broader review of the literature. Several interviews are made with representatives of energy industry. Main result is creating a plan to take into account the key factors of adaptation to stakeholders in the implementation of the project of energy efficiency of the building in the case study one of the leading Slovenian energy company.

Contributions to the energy managers and economic decision-makers are discussed at the end by providing new approach and proceedings for inclusion of key stakeholders expectations for better energy efficiency project planning.

Maja Dolinar, Irena Ograjenšek

Data Sharing in Scientific Business Journals: Preliminary Exploratory Analysis

HIGHLIGHT(S): The frequency and quality of data sharing can be increased by introducing mandatory open data policies in scientific journals. Nevertheless, poor data curation, unclear analysis specification and reporting errors hinder analytic reproducibility, which in turn undermines the benefits of data sharing and the credibility of scientific findings.

BACKGROUND: Many publishers of scientific business journals have recently adopted policies requiring researchers to share the data underlying their results and publications. These kinds of policies increase the reproducibility of findings, as well as make more research data available for reuse and reanalysis. However, little is known about the extent to which the benefits of data sharing are realized in practice.

METHOD(S): To investigate this, we conducted a preliminary exploratory observational evaluation of mandatory open data policies introduced by the leading business journals according to the Scopus, Source Normalized Impact per Paper 2018 index (SNIP, 2020) and selected top 5 journals with such data policy in place. Secondly, we evaluated the extent to which authors have complied with these policies by analysing Data Availability Statements from papers published between 2015 and 2020.

RESULTS(S): The results show that there is an increase in policy compliance, however, there is a decline over time in papers that do not include a Data Availability Statement. There are only a small number of studies that report data being deposited in a repository, which should be the preferred method, according to the best practices of open data science. Authors often state data in supplemental information, however it remains unclear if these data meet the level of sharing required in the respective open data policy.

CONCLUSION(S): The results suggest that scientific business journals should put in place more stringent open data policies and review procedures to increase data sharing, since researchers alone will not necessarily make their data fully available if such policies only »recommend« data sharing.
