

# Dynamic Relationships Management Journal

## CONTENTS

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<b>Managing Knowledge in Organizations: On Knowledge Creation, Renewal, Hiding and Forgetting</b> Ana Aleksić Mirić, Matej Černe, Tomislav Hernaus.....	1
<b>Knowledge Hiding in Organizations: A Retrospective Narrative Review and the Way Forward</b> Namita Ruparel, Rajneesh Choubisa .....	5
<b>Knowledge Tacitness and Renewal Capital</b> Matea Zlatković Radaković .....	23
<b>Self-Regulation and Perception of Job Insecurity</b> Jasmina Knežević, Tatjana Krstić .....	39
<b>Managing Across Generations: The Case of Bibita Group</b> Besa Haxhiu Berisha .....	49
<b>How Small Cities are Stimulating Creativity and Innovation: Case Study of Ljubljana and Select European Cities</b> Sabina Bogilović, Primož Pevcin.....	67
<b>Author Guidelines</b> .....	79

## Aims & Scope

The Dynamic Relationships Management Journal is an international, double blind peer-reviewed bi-annual publication of academics' and practitioners' research analyses and perspectives on relationships management and organizational themes and topics. The focus of the journal is on management, organization, corporate governance and neighboring areas (including, but not limited to, organizational behavior, human resource management, sociology, organizational psychology, industrial economics etc.). Within these fields, the topical focus of the journal is above all on the establishment, development, maintenance and improvement of dynamic relationships, connections, interactions, patterns of behavior, structures and networks in social entities like firms, non-profit institutions and public administration units within and beyond individual entity boundaries. Thus, the main emphasis is on formal and informal relationships, structures and processes within and across individual, group and organizational levels.

DRMJ articles test, extend, or build theory and contribute to management and organizational practice using a variety of empirical methods (e.g., quantitative, qualitative, field, laboratory, meta-analytic, and combination). Articles format should include, but are not restricted to, traditional academic research articles, case studies, literature reviews, methodological advances, approaches to teaching, learning and management development, and interviews with prominent executives and scholars.

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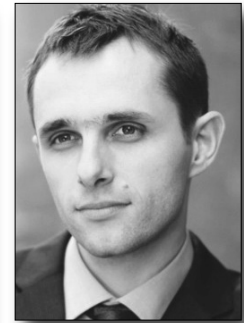


# MANAGING KNOWLEDGE IN ORGANIZATIONS: ON KNOWLEDGE CREATION, RENEWAL, HIDING AND FORGETTING

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**Volume 9, Number 1 of the Dynamic Relationships Management Journal (DRMJ)** is about many important phenomena occurring in contemporary organizations. As knowledge work, creativity and innovation become increasingly important for achieving competitive advantage, organizational learning and knowledge management continue to represent pillars for organizations to successfully create, manage and capitalize on knowledge and ideas.

**Organizational learning and knowledge management research and practice** have gone through a remarkable transformation in the last thirty years. A review carried out by Crossan & Guatto (1996) shows that in the 1960s only three papers on organizational learning were published, whereas during the 1970s, the 1980s and the mid-1990s, there were as many as 64. In the course of the 2000s, interest in the field of knowledge management is becoming increasingly important (Zollo, Reuer & Singh, 2002). Lyles (2014) states that between 2001 and 2010, ISI/Web of Knowledge journals published 1,926 papers that included “knowledge creation” and “organization” among the key words. As a result, a significant body of knowledge was generated and different disciplinary perspectives were developed: we know much about the nature of organizational learning, different types of learning and learning mechanisms, the learning process itself, etc. However, something seems to be missing from the current discussions on organizational knowledge: the existing research is predominantly focused on learning as “the acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the orga-

nization (as learning is defined by Miller, 1996, for an example), but real-life practice teaches us that *companies don't just learn; they also forget* (Holan, Phillips, & Lawrence, 2004; Holan & Phillips, 2003; Hedberg, 1995).

The easiest way to understand the process of **organizational forgetting** is to compare it to individuals – intentionally or unintentionally, people forget, usually some issues they regard as less important or unimportant, but, eventually, they sometimes forget even very important things. Organizations also go through the process of forgetting. They forget intentionally or unintentionally and consequently lose knowledge.

An intentional process of organizational forgetting happens often in situations when **organizations must unlearn old patterns and previously acquired knowledge to acquire new knowledge and skills** (Nystrom & Starbuck, 1984). This comes through the process of intentional organizational “unlearning” (Hedberg, 1995; Starbuck, 1996) and requires both behavioral and cognitive changes and that organizations change their ways of doing business and their understanding of the organization and its ways of functioning in the given environment. The loss of knowledge in organizations in this case comes from a purposefully led action of rejecting outdated ways of doing business.

On the other hand, organizational forgetting might also come as an **unintentional loss of organizational knowledge**, which might happen, for instance, as the effect of some crisis (computer memory crash, loss of documents or systems, unintentional loss of certain repositories, or uninten-

tional loss of knowledge held by individuals). In this case, forgetting comes as an unintentional event which eventually confronts organization with the effects of the resources lost in the process. Forgetting occurs as a result of losing a particular resource in the organizational knowledge base. There are common cases, for example, in the process of organizational downsizing, when, for various reasons, loss of organizational knowledge occurs.

Macro challenges inspired by globalization and tremendous development of information technology have changed the world we knew, patterns of organizing, and standards of performance. Organizations have faced the challenge of fast learning, because the speed of learning determined their survival; the learning within organizations needed to be at least equal to the level of external changes, if not greater, to enable organizational survival. Companies have invested much in the recent past to develop organizational capabilities, structures, systems, and processes that will enable them to learn fast. However, far **less attention is given to developing capacities to unlearn what is not relevant anymore** and organizational mechanisms that will help organizations forget past behavioral practices and ways of doing things.

The papers in this issue address some of these topics, or other important challenges related to organizational dynamics and behavior in organizations. The first one is co-authored by Namita Ruparel and Rajneesh Choubisa, who present a **narrative retrospective review of the field of knowledge hiding**. Given the importance of knowledge hiding and the growing popularity of this sub-field of knowledge management, their study systematically and retrospectively reviews thirty-five research articles on knowledge hiding in the last decade. Knowledge hiding field is categorized into sub-topics, and the authors discuss the scope and significance of each of them in relation to existing studies. Finally, the authors develop potential avenues for future research from theoretical, methodological, thematic and demographic perspectives, along with managerial implications.

The second paper of this issue, authored by Matea Zlatković Radaković, focuses on **knowledge and organizational renewal**. Her paper addresses and empirically tests the complementary role of tra-

ditional intellectual capital dimensions in organizational renewal in the context of a transition economy. 224 organizations were surveyed, with findings indicating that relational and structural capital are related to knowledge renewal, highlighting the significance of different forms of knowledge in organizational renewal. Theoretical and managerial implications are related to contributions in terms of effective management of intellectual capital by considering different knowledge sources and inter-relationships in relation to organizational renewal.

The third paper included in this issue is co-authored by Jasmina Knežević and Tatjana Krstić, and looks into the **relationship between self-regulation and job insecurity**. More precisely, the authors examine the way in which an increase in the quality of self-regulation influences the affective component of job insecurity: feelings of powerlessness and the perception of threat intensity. A study of 310 employees indicated that self-regulation is associated with threat perception and sense of powerlessness. The authors found that integrated self-regulation related to a lower level of threat perception, whereas the impersonal self-regulation linked to higher perception of threat and sense of powerlessness. Their paper highlights the role of personality dispositions vis-à-vis threat and complements the stream of research highlighting value of self-determination theory in the organizational context.

The fourth paper included in this issue is written by Besa Haxhiu Berisha, and deals with **multi-generational management**, that is, managing across generations. It presents a descriptive case study of Bibita Group, combining qualitative and quantitative research methods. The results of her paper help scholars and practitioners in better understanding the characteristics of employees pertaining to specific generations, as well as their preferred motivational factors. The paper concludes that the benefits earned from employing a multigenerational staff in a company out-run the difficulties and consequences associated with the challenges of managing the gap between them.

The final paper of this issue is co-authored by Sabina Bogilović and Primož Pevcin, and looks into **creativity and innovation in the context of cities**, its administration and characteristics according to multiple studied dimensions. Based on a case study approach

and secondary data, cities of Ljubljana Bratislava, Tallinn, and Edinburg are analyzed according to technological-innovative, cultural-intellectual, cultural-technological, and technological organizational characteristics and city types, providing implications for management of knowledge creation, creativity and innovation in the studied cities and beyond.

To conclude, we hope this issue stimulates further research on phenomena related to organizational learning and knowledge management, knowledge creation, renewal, hiding, and capitalization, at and across different levels. It also further behooves us to understand organizational unlearning and forgetting, their potential boundary conditions and situations in which they are useful and meaningfully contribute to long-term organizational performance. Furthermore, we hope that future studies might further explore organizational dynamics and organizing considerations at multiple levels that crucially frame these important challenges for contemporary organizations.

Ana Aleksić Mirić, Matej Černe, and Tomislav Hernaus

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## KNOWLEDGE HIDING IN ORGANIZATIONS: A RETROSPECTIVE NARRATIVE REVIEW AND THE WAY FORWARD

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### Abstract

*Knowledge serves as a strategic competitive asset for any organization to increase and sustain competitive advantage. Organizations have promoted knowledge sharing by implementing Knowledge Management Systems. Despite having ingrained policies for sharing knowledge, most employees refrain from practicing this in their workplace. Connelly et al. (2012) termed this phenomenon knowledge hiding and defined it as “an intentional attempt by an individual to withhold or conceal what has been requested by another person.” Given the importance of knowledge hiding and the importance of this growing construct, this study systematically and retrospectively reviews 35 research articles on knowledge hiding published between 2008 and 2018. The review summarizes study characteristics as research profiles and then explores knowledge hiding, which is categorized and framed under respective sub-topics. The scope and significance of the topic is discussed with reference to existing studies. Potential avenues for future research from theoretical, methodological, thematic, and demographic perspectives are highlighted along with managerial implications.*

**Keywords:** *knowledge hiding, systematic narrative review, future agendas, organizations, employees*

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### 1. INTRODUCTION

In the contemporary scenario, knowledge management systems are an integral part of any organization. Knowledge management systems are considered as a channel that facilitates organizations to create, share, and use knowledge (Brent, 2002). Knowledge consists of insights and interpretations, often is personalized, and refers to specific situations (Andriessen, 2006). Knowledge includes the ideas, information, and expertise that are relevant for the tasks performed by the members of an organization (Bartol & Srivastava, 2002). Theoretically, the knowledge that can be shared among employees is of two types: tacit and explicit. Tacit knowledge is informal, experiential, and intangible

whereas explicit knowledge is factual, codable, and formal, which potentially can be maintained (as databases, records, etc.). Moreover, knowledge transfer is defined as a “dyadic exchange of organizational knowledge between a source and a recipient unit in which the identity of a recipient matters” (Szulanski, 1999). A knowledge transfer process continuously operates in organizations thereby creating and constituting the organizational knowledge.

Organizations actively promote knowledge sharing practices among their employees, which is a key that leads to organizational success (Webster et al., 2008). Human resources policies in some organizations mandates senior employees to devote time to transfer knowledge to novices and juniors.

Therefore, knowledge sharing is considered vital for improving the performance of the organization because it acts as a determinant of organizational success. Although organizations engage in rigorous knowledge sharing practices, employees at times withhold (hide) knowledge. Knowledge hiding is defined as an “an intentional attempt to withhold or conceal knowledge that has been requested by another individual” (Connelly et al., 2012). There are three ways in which employees may hide requested knowledge: rationalized hiding (providing a rational reason for not sharing the knowledge being requested), evasive hiding (providing misleading information or promising to share the requested knowledge in the future) and playing dumb (claiming to have no idea about the knowledge being requested).

Blau’s (1964) social exchange theory proposes that a history of reciprocity among colleagues or institutional members is responsible for their engaging in hiding behaviors. More recently, Lanke (2018) studied the intricacies of knowledge hiding behaviors by breaking down the understanding of knowledge as tacit and explicit. According to Lanke (2018), explicit knowledge may be coded, and hence can be passed on without any obstacles; however, tacit knowledge is not factual and is experience driven, and therefore employees cannot be obligated to share tacit knowledge. Lanke (2018) further claimed that knowledge hiding cannot be prevented by knowledge sharing; therefore organizations need to take up alternate measures to prevent this practice. These measures can include making employees aware of the negative consequences of knowledge hiding, providing interdepartmental/cross-departmental training to employees and monitoring off-job interactions. Owing to the phenomenon of social desirability, one assumes that, similar to the ways in which employees tend to avoid reporting counterproductive behaviors, they may refrain from reporting hiding behaviors as well. Connelly et al. (2012) identified the need to explore knowledge hiding despite several studies examining it as deception (Takala & Urpilainen, 1999), counterproductive behaviors (Pearson, Anderson, & Porath, 2004), or knowledge withholding behaviors (Connelly et al., 2012). Their study established that knowledge hiding is

different from other counterproductive workplace behaviors such as deception, social undermining, incivility, aggression, mobbing behavior, violence, and bullying.

Connelly et al.’s (2012) seminal work demonstrated and validated the existence of knowledge hiding behaviors among organizations. Extending the phenomenon, three factors of knowledge hiding emerged, excluding knowledge sharing and knowledge hoarding. They labelled these three dimensions of knowledge hiding rationalized hiding, evasive hiding, and playing dumb. The study reported that knowledge sharing and knowledge hoarding were different constructs and were not significantly correlated with knowledge hiding. Taking the established measure and assessing the presence of knowledge hiding, the researchers found it important to analyze the situational and interpersonal factors. In summary, the study concluded that complexity of the knowledge requested predicted evasive hiding, whereas task-relatedness (specific knowledge about the assigned tasks) negatively predicted rationalized hiding and positively predicted evasive hiding. In addition, interpersonal distrust predicted knowledge hiding and a knowledge sharing climate predicted evasive hiding among employees. Thus, the pioneering work on knowledge hiding laid its foundation as a prevalent practice among organizations.

## **2. THEORETICAL BACKGROUND**

### **2.1 Knowledge sharing and knowledge hiding: Distinction**

Issac and Baral (2018) emphasized the distinction between knowledge hiding, knowledge sharing and other counterproductive workplace behaviors. Knowledge hiding is not meant to harm any other employee in the organization, whereas counterproductive workplace behaviors intend to harm other employees. Knowledge sharing and knowledge hiding are not opposites on a continuum because facilitating knowledge sharing does not keep employees from hiding knowledge. For example, a situation in which an employee shares requested information is knowledge sharing, whereas when an employee not sharing requested information of which he or she is



unaware of is not knowledge hiding. However, if the employee has information about the knowledge requested but deliberately does not share it, this is termed knowledge hiding. The difference between the two is that employees may hide knowledge for several reasons, but employees might not share knowledge simply because they do not have the requested knowledge. Ideas about why employees hide knowledge have grown from the literature of how employees withhold knowledge and engage in such behavior (for example, territoriality, power, psychological ownership, social exchange, etc.) (Connelly, Zweig, Webster, & Trougakos, 2012).

## 2.2 Scope and rationale

Scholars and practitioners have identified several factors responsible for the manifestation of knowledge hiding behaviors. These include territoriality (Brown, Lawrence, & Robinsohn, 2005), personal motives, secrecy (Webster et al., 2008) and others, as elaborated in this paper. In addition, employees may engage in withholding or hiding knowledge due to differences in personality, perceptions of injustice, power, reciprocity, or distrust (Webster et al., 2008). Despite all the good aspects of knowledge sharing, employees tend to engage in hiding knowledge; hence it is essential to identify, understand, and comprehend the reasons underlying knowledge hiding behaviors. To channel resources of knowledge in the direction of optimal functioning, exploring mechanisms that cause knowledge hiding is imperative. Several researchers reported the intricacies of knowledge hiding behavior at individual, team, and organizational levels, and these also have appeared in a variety of academic outputs. This study amalgamates and summarizes the extant literature on knowledge hiding. To the best of the author's knowledge, it is the first study to synthesize findings on knowledge hiding and to present directions for future research. It is believed that this ready reckoner will be a sought-after document for researchers and practitioners to advance knowledge hiding research. Researchers may combine their insights with the propositions made in this study to broaden the scope of scientific study on knowledge hiding.

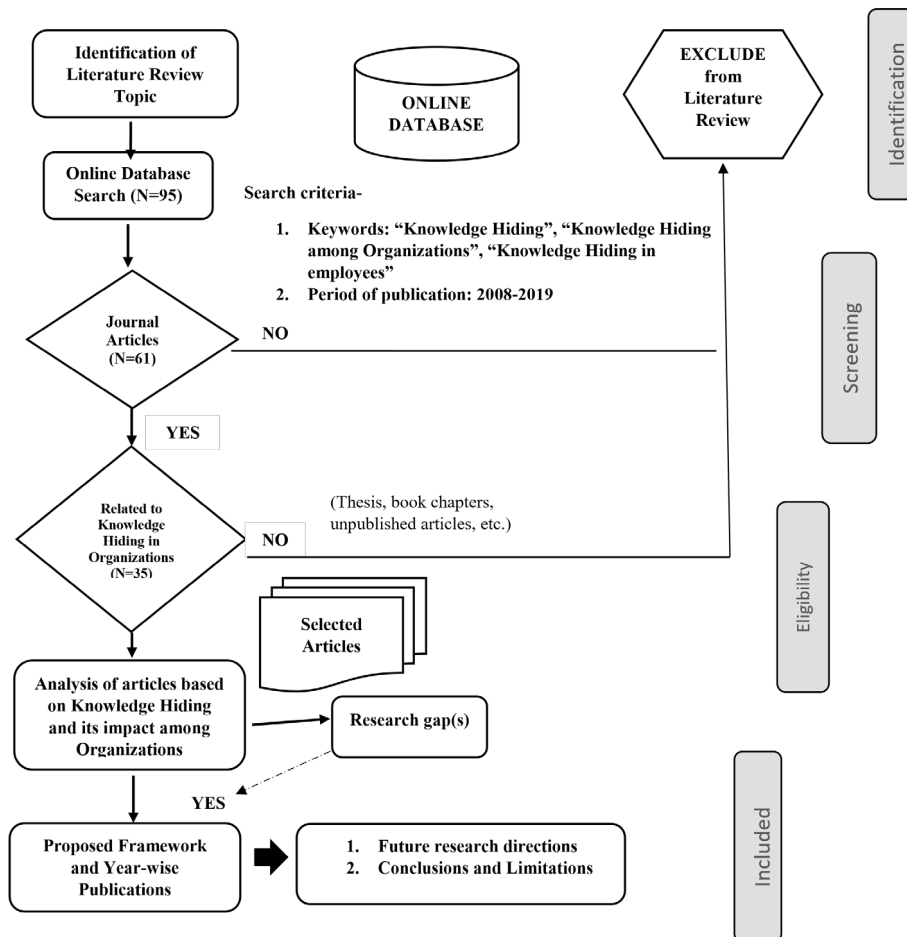
## 3. METHODOLOGY

### 3.1 Review strategy

Knowledge hiding is a relatively new phenomenon, and a small number of available studies exist in this domain. For instance, Xiao & Cooke (2018) summarized 22 published research articles on knowledge hiding in the Chinese context. To extend the scope of the academic literature on knowledge hiding, the present paper reviewed knowledge hiding studies published from 2008 to 2018. This paper comprehensively discusses the existing research on knowledge hiding and proposes a framework to outline the gaps in the existing research. A narrative analysis rather than a systematic review or meta-analysis was conducted for the following reasons: (1) a systematic review is objective and has a narrow scope of findings because they are objective in nature (Collins & Fauser, 2005); and (2) a meta-analysis consolidates the findings of empirical papers, and this study includes conceptual papers as well. Therefore, this narrative review provides an overview of knowledge hiding research carried out across the globe.

A narrative review describes and evaluates published research articles. Its uses and applications include general debates, appraisal of previous studies, present lack of knowledge in the area, and rationales for future research (Ferrari & Ferrari Milan, 2015). This paper considered only peer-reviewed journal articles, and excluded master's or doctoral dissertations, conference proceedings publications or conference presentations, and project reports on knowledge hiding construct. The articles reviewed in this paper were retrieved from databases such as Web of Science, Scopus, Google Scholar, Emerald, Wiley, SAGE, EbscoHost, and ProQuest. Following the PRISMA guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009), 35 research articles published in various peer-reviewed journals were included in this narrative review (Figure 1). Broadly speaking, knowledge hiding has been studied along with a variety of constructs such as mistreatment behaviors, distrust, job characteristics (task interdependence, decision-making autonomy), motivational climate, leadership (ethical and transformational), psychological ownership, personality, innovation, and creativity in the workplace.

Figure 1: PRISMA flowchart of studies included for the review



To add rigor to the methodology, the research profiling approach was integrated into the narrative review. This approach is employed to provide a macro focus to and enhance the scope of narrative reviews of the existing literature on a particular topic to uncovers techniques, unusual applications, and secondary variables. Research profiling generates central issues related to a topic, emphasizes techniques to study those individuals from the scholarly community who are engaged in the particular research domain, and determines how the research domain has progressed over time (Pei & Porter, 2011). This paper used the technique to study the methodologies employed (Table 1) to better understand this phenomenon through the depiction of samples used across countries (Table 2) and the journals in which knowledge hiding research has been published. Research profiling aims

at putting together (by tabulation or graphic tools) research and illustrating the publications to answer the following questions: (1) What is the annual progression of research articles published on the topic? (Figure 2); and (2) Which journals have published research on knowledge hiding? (Table 3).

Table 1. Types of papers included in the review of knowledge hiding research (2008 – 2018)

S. No.	Type of Paper	Frequency
1.	Conceptual	6
2.	Quantitative	25
3.	Mixed Design	2
4.	Qualitative	2
5.	Review	1

Table 2: Sampling and geographical distribution of knowledge hiding research (2008–2018)

Sample Characteristics	Country	Authors/Year
190 knowledge workers	China	Peng, 2013
150 leader–follower dyads (N = 300)	China	Tang, Bavik, Chen and Tjosvold (2015)
417 samples (universities, R&D)	China	Huo, Cai, Luo, Men, and Jia (2016)
253 samples in 15 Chinese hotels	China	Zhao, Qingxia, He, Sheard, and Wan (2016)
393 employees from 87 knowledge worker teams	China	Fong, Luo. and Jia (2018)
436 employees	China	Men et al. (2018)
251 employees	China	Pan, Zhang, Teo, and Lim (2018)
475 members from 121 R&D Teams	China	Peng, Wang, and Chen (2018)
240 employees from 34 groups; 132 graduate students	Two Slovenian Companies; students of Slovenian university	Černe, Nerstad, Dysvik, and Škerlavaj (2014)
240 employees and 34 supervisors	Slovenian companies	Černe, Hernaus, Dysvik, & Škerlavaj (2017)
285 employees from European firms; 62 students	Europe; Slovenian university	Škerlavaj, Connelly, Černe, and Dysvik (2018)
210 scholars, 11 educational institutions	UK	Hernaus, Černe, Connelly, Vokic, and Škerlavaj (2018)
194 employees	North America and Canada	Connelly and Zweig (2015)
691 knowledge workers	American Union	Serenko and Bontis (2016)
137 participants from various sectors in America; 275 participants various sectors in Germany	America, Germany	Burmeister, Fasbender, and Gerpott (2018)
621 employees in 70 teams; 104 international students in 24 teams	Culturally diverse sample from different industries	Bogilovic, Cerne, and Škerlavaj (2017)
214 employees from 37 teams	Managers enrolled in executive MBA, South Korea	Rhee and Choi (2017)
321 employees across organizations	Korea	Cui, Park, and Paik (2018)
386 academicians (asst. professors and RA's)	Turkey	Demirkasimoglu (2015)
20 software engineers	Iran	Labafi (2017)
355 employees	Jordan	Aljawarneh and Atan (2018)
224 employees – three time lags	Pakistan hospitality industry	Khalid, Basheer, Khan, & Abbas (2018)
296 salespersons and 83 supervisors	Market expansion companies, Myanmar	Wang, Han, Xiang, and Hampson (2018)
298 employees from software companies; 252 employees from banking sector	Turkey	Semerci (2018)
108 employees from 18 teams	Malaysia	Arshad & Ismail (2018)
19 R&D professionals	India	Jha and Varkkey (2018)
316 faculty members	Pakistan	Malik et al. (2018)
317 dyads	Saudi Arabia	Arain, Bhatti, Ashraf, & Fong (2018)

Figure 2: Growth of knowledge hiding research (2008–2018)

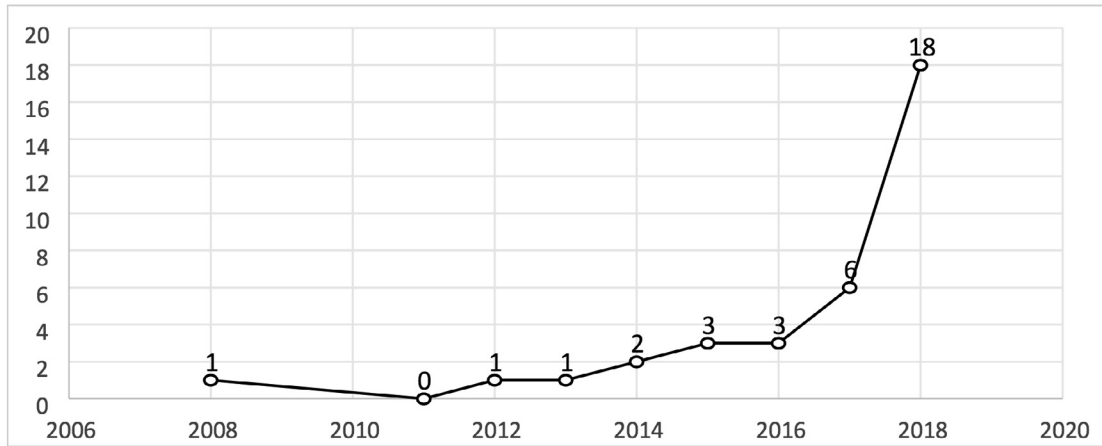


Table 3: Journal information related to knowledge hiding research (2008–2018)

Publication	Publisher	Frequency
Journal of Knowledge Management	Emerald	7
Journal of Business Ethics	Springer	3
European Journal of Work and Organizational Psychology	Taylor & Francis	2
Human resource management International Digest	Emerald	2
Journal of Organizational Behaviour	Wiley	2
Journal of Occupational and Organizational Psychology	Wiley	1
Academy of Management Journal	Academy of Management	1
Personality and Individual differences	Elsevier	1
Research in Personnel and Human Resources Management	Emerald	1
Korean Journal of Business Administration		1
Journal of Business and Retail Management Research		1
Archives of Business Research	Society for Science and Education	1
International Journal of Hospitality Management	Elsevier	1
Lingnan University Staff Publications		1
Human Resource Management Journal	Wiley	1
AD-Minister		1
International Journal of Higher Education		1
Knowledge and Process Management	Wiley	1
Management Decision	Emerald	1
Negotiation and Conflict Management Research	Wiley	1
International Journal of Information Management	Elsevier	1
Leadership and Organizational Development Journal	Emerald	1
International Journal of conflict management	Emerald	1
Journal of Organizational Effectiveness: People and Performance	Emerald	1
Journal of Business Research	Elsevier	1

*Table 4: Studies of knowledge hiding and related constructs (2008–2018)*

Knowledge hiding and other variables	n	References
Knowledge hiding studies (n = 36 included studies)	35	Malik et al. (2018); Jha and Varkkey (2018); Connelly et al. (2012); Peng (2013); Anand and Jain (2014); Cui, Park, and Paik (2018); Ladan, Nordin, and Belal (2017); Webster, Brown, Zweig, Connelly, Brodt, and Sitkin (2008); Zhao, Qingxia, He, Sheard, and Wan (2016); Connelly and Zweig (2015); Tang, Bavik, Chen, and Tjosvold (2015); Huo, Cai, Luo, Men, and Jia (2016); Rhee and Choi (2017); Bogilović, Černe and Škerlavaj (2017); Serenko & Bontis (2016); Černe, Hernaus, Dysvik, & Škerlavaj (2017); Labafi (2017); Černe, Nerstad, Dysvik, and Škerlavaj (2014); Demirkasimoglu (2015); Geofroy and Evans (2017); Fong, Luo, and Jia (2018); Men et al. (2018); Aljawarneh and Atan (2018); Lanke (2018); Pan, Zhang, Teo, and Lim (2018); Khalid, Basheer, Khan, & Abbas (2018); Hernaus, Černe, Connelly, Vokic, and Škerlavaj (2018); Wang, Han, Xiang, and Hampson (2018); Semerci (2018); Issac and Baral (2018); Škerlavaj, Connelly, Černe, and Dysvik (2018); Peng, Wang and Chen (2018); Burmeister, Fasbender and Gerpott (2018); Arshad & Ismail (2018); Arain, Bhatti, Ashraf, & Fong (2018).
The study of knowledge hiding with other variables:		
Evasive hiding	1	Hernaus, Černe, Connelly, Vokic, and Škerlavaj (2018)
Creativity	5	Malik et al. (2018); Černe, Nerstad, Dysvik, and Škerlavaj (2014); Bogilovic, Černe, and Škerlavaj, (2017); Rhee & Choi (2017); Fong, Luo, and Jia (2018)
Perceived motivational climate	3	Černe, Nerstad, Dysvik, and Škerlavaj (2014); Černe, Hernaus, Dysvik, & Škerlavaj (2017); Men et al. (2018)
Personality	3	Demirkasimoglu (2015); Anand and Jain (2014); Pan, Zhang, Teo, and Lim (2018)
Job characteristics (task interdependence, decision-making, autonomy)	2	Černe, Hernaus, Dysvik, & Škerlavaj (2017); Fong, Luo, and Jia (2018)
Personal values/ Islamic values	2	Semerci (2018); Malik et al. (2018)
Distrust	2	Arain, Bhatti, Ashraf, & Fong (2018); Connelly et al. (2012)
Territoriality	2	Huo, Cai, Luo, Men and Jia (2016)
Workplace incivility	2	Aljawarneh and Atan (2018); Arshad and Ismail (2018)
Employee cynicism	1	Aljawarneh and Atan (2018)
Abusive supervision	1	Khalid, Basheer, Khan, & Abbas (2018)
Conflict management	1	Semerci (2018)
Guilt and shame	1	Burmeister, Fasbender, and Gerpott (2018)
Perceived organizational politics	1	Malik et al. (2018)
Workplace ostracism	1	Zhao, Qingxia, He, Sheard, and Wan (2016)
Workplace deviance	1	Singh (2019)
Transformational leadership	1	Ladan, Nordin, and Belal (2017)
Ethical leadership	1	Tang, Bavik, Chen, and Tjosvold (2015)
Psychological ownership	1	Huo, Cai, Luo, Men, and Jia (2016)
Innovative workplace behaviors; obstacle for innovation	1	Černe, Hernaus, Dysvik, & Škerlavaj (2017); Labafi (2017)
Intra-organizational (individual and team level)	1	Serenko & Bontis (2016)
Goal orientations	1	Rhee and Choi (2017)
Prosocial motivation	1	Škerlavaj, Connelly, Černe, and Dysvik (2018)

Professional commitment	1	Malik et al. (2018)
Psychological engagement	1	Tang, Bavik, Chen, and Tjosvold (2015)
Cultural intelligence	1	Bogilović, Černe, and Škerlavaj (2017)
In-group social status	1	Rhee and Choi (2017)
Emotional intelligence	1	Geofroy and Evans (2017)
Psychological safety	1	Men et al. (2018)
Competition	1	Semerci (2018)
Time pressure	1	Škerlavaj, Connelly, Černe, and Dysvik (2018)
Perspective taking	1	Škerlavaj, Connelly, Černe, and Dysvik (2018)
Organizational citizenship behavior – supervisor directed	1	Arain, Bhatti, Ashraf, & Fong (2018)

#### 4. KNOWLEDGE HIDING GRAND NARRATIVE: ANTECEDENTS AND RELATIONSHIPS

To establish the construct, researchers have attempted to establish the reasons that employees hide knowledge, how leadership influences knowledge hiding, how the practice of this behavior hampers creativity and innovation at work, under what conditions knowledge is hidden, and the consequences of knowledge hiding for intra- and interorganizational relationships. The reviewed literature was classified into six sub-sections. Table 4 summarizes the knowledge hiding studies from the last decade.

##### 4.1 Knowledge hiding and psychological ownership

Peng (2013) reported that having a strong sense of psychological ownership over the possessed knowledge makes employees hide it. Peng explored knowledge-based psychological ownership with knowledge hiding through territoriality. Having feelings of ownership attached to knowledge makes an individual hide knowledge. In addition, territoriality was found to be a contributing factor to knowledge hiding. Because knowledge is acquired, created, and controlled by employees, they tend to treat knowledge as their personal property. Huo, Cai, Luo, Men, and Jia (2016) investigated antecedents and intervention mechanisms of research and development teams on a multilevel platform. Their results revealed that at an individual-level,

psychological ownership is positively related to knowledge hiding, and territoriality fully mediates the relationship between psychological ownership and knowledge hiding. Moreover, the presence of perceived knowledge value strengthened the relationship between psychological ownership and territoriality. Furthermore, speculations over justice can weaken the positive relationship between territoriality and knowledge hiding for team members who have higher justice perceptions. Procedural justice and interactive justice can weaken the positive relationships between evasive and rationalized hiding and territoriality. Ladan, Nordin, and Belal (2018) proposed a framework of knowledge hiding and its negative impact on organizations. The framework suggests that transformational leadership through psychological ownership may lead employees to refrain from knowledge hiding behavior.

##### 4.2 Knowledge hiding and leadership

Tang, Chen, & Tjosvold (2015) found that ethical leadership decreases knowledge hiding. Perceptions of employees about a leader being ethical keep employees from hiding knowledge. Men, Fong, Huo, Zhong, Jia, and Luo (2018) extended this finding by investigating the moderated mediation role of psychological safety and mastery climate (an environment that values efforts of employees, self-development, learning and cooperation) in the relationship between ethical leadership and knowledge hiding. Ethical leadership fosters psychological

safety, which in turn reduces knowledge hiding, and this relationship was stronger or weaker in a perceived mastery climate. This simply means that in a high mastery climate, the effect of ethical leadership on knowledge hiding through psychological safety is weakened. This contributes to the literature in light of positive leader behaviors.

Peng, Wang, and Chen (2018) found that self-serving leaders reduce psychological safety, thereby making employees engage in more knowledge hiding behaviors, which adversely affects team creativity. Moreover, team task interdependence buffered the adverse effects of self-serving leadership on team creativity through knowledge hiding.

### **4.3 Knowledge hiding and creativity**

Cerne, Nersted, Dysvik, and Skerlavaj (2014) revealed that knowledge hiding diminishes the creativity of an organization. It also diminishes the creativity of the knowledge hider. They reported that less-creative employees engage in hiding knowledge because they might have difficulty generating ideas. Employees who perceive a mastery climate were less likely to engage in knowledge hiding (Bogilović, Černe, & Škerlavaj, 2017). On the other hand, a high-performance climate (an environment that is characterized by social competition among teams and social comparison) significantly decreased the relationship between knowledge hiding and creativity. When the study was replicated among students, the results showed that knowledge hiding decreased creativity when a performance climate was perceived. Moreover, distrust among employees, and the relationship between knowledge hiding and creativity, was stronger in both motivational climates.

Taking this study a step further from the individual level of knowledge hiding, Bogilović et al. (2017) carried out two studies to assess knowledge hiding among employees and students at the individual and the team levels. The results from both samples indicated that individual knowledge hiding diminishes creativity of individuals and teams, thereby further diminishing overall team creativity. Among employees, cultural intelligence moderated/strengthened the relationship between knowledge hiding and creativity; i.e., that lower the level

of cultural intelligence, more likely employees are to engage in knowledge hiding while encumbering the creativity of individuals, and vice-versa. Rhee & Choi (2017) reported that knowledge hiding was negatively associated with creativity. Individuals with avoidance goal orientations (e.g., anxiousness about one's incompetence concerning knowledge being requested) tend to hide knowledge. Knowledge hiding restricts employees from the network of mutually exchanging ideas. Knowledge hiding and status (high status of employees in the organization) interact with each other and significantly decrease creativity. This finding backs high-status employees but is not supportive for low-status employees, which essentially proves that goal orientation is positively related to knowledge hiding.

Malik, Shahzad, Raziq, Khan, Yusaf, and Khan (2018) testified that perceived organizational politics is a strong predictor of knowledge hiding which further hampers creativity. However, professional commitment acts as a catalyst to weaken the relationship between perceived organizational politics and knowledge hiding. Cui, Park, and Paik (2016) suggested that low organizational politics, low fairness sensitivity, and lack of prosocial motivation makes employees engage in knowledge hiding behaviors. Fong, Men, Luo, and Jia (2018) validated earlier findings on knowledge hiding and employee creativity by establishing a negative relationship between the two. Moreover, negative consequences of knowledge hiding on creativity can be exerted through absorptive capacity. When there is low-task-interdependence environment, knowledge hiding greatly influences absorptive capacity, thereby affecting team creativity.

### **4.4 Knowledge hiding and innovative workplace behaviours**

There is a significant two-way and three-way interaction which suggests that mastery climate, task interdependence, and autonomy in decision-making moderates the relationship between knowledge hiding and innovative workplace behaviors (IWBs). High mastery climate, low task interdependence, and high autonomy in decision-making facilitate the highest levels of IWBs within a knowledge hiding environment. A low mastery climate along with high

autonomy for decision-making or a high level of task interdependence temper the negative relationship between knowledge hiding and IWB. The presence of a strong mastery climate and relatively autonomous self-contained tasks can neutralize or reverse the fact that knowledge hiding reduces IWBs (Černe, Hernaus, Dysvik, & Škerlavaj, 2017). Even and Labafi (2016) asserted that the transfer of knowledge and information helps organizations build a competitive advantage; however, employees hide knowledge to build their own portfolios (social desirability). The study outlines the factors of hiding behavior, including complexity of knowledge, individual behavioral characteristics, lack of responsibility for sharing knowledge, knowledge learning ability of the person requesting knowledge, power of the person requesting knowledge, level of trust among colleagues, the effect of ubiquitous media, a sense of internal competition, incentives provided by organization for sharing knowledge, level of personal contacts with colleagues, deceiving employees, and negative feedback from the organization.

#### 4.5 Knowledge hiding and personality

Anand and Jain (2014), based on their theoretical framework drawn from the literature, outlined the relationship between the big-five personality traits and knowledge hiding. They concluded that extraversion, neuroticism, and agreeableness were negatively related to knowledge hiding, whereas conscientiousness and openness to experience were positively related to knowledge hiding. Demirkasimoglu (2015) studied knowledge hiding and big-five personality traits among academic professionals in a Turkish milieu. The study found that the phenomenon of knowledge hiding was less prevalent among academic professionals, but reasoned that Turkey is a collectivist country. Although insignificant, academicians did engage in knowledge hiding – mostly evasive hiding, then rationalized hiding, and least often by playing dumb. It is noteworthy that academicians use rationalized hiding when dealing with a colleague and play dumb when a supervisor requests some information, and that neuroticism was negatively related to playing dumb. Contrary to the theoretical framework proposed by Anand and Jain (2014), Demirkasimoglu found that extroverts hide knowledge by

playing dumb. Demirkasimoglu also validated the knowledge hiding questionnaire by Connelly et al. (2012), and did so in the Turkish context.

Pan, Zhang, Teo, and Lim (2018) examined the effect of dark triad of personality (Machiavellianism, narcissism, and psychopathy) on knowledge hiding behaviors. These dark personality factors were positively related to knowledge hiding. Machiavellianism was most strongly associated with evasive hiding. Narcissism was strongly associated with rationalized hiding, and psychopathy was strongly related to playing dumb. These results were supported through the psychological contract theory claiming that such behaviors can be attributed to transactional psychological contracts. Employees with these dark triads of personality do not believe in the norm of reciprocity.

#### 4.6 Dyadic Intra-organizational relationships

Connelly and Zweig (2015) documented the effect of knowledge hiding on interpersonal relationships. Their research established that employees who engaged in rationalized hiding recognized the negative impact of their behavior on the relationship they shared with the target but did not anticipate that their behavior would lead the target to withhold knowledge in future. They perceived that their behavior involved a certain degree of deception and hence were unable to justify their behavior that maintains their self-belief of honesty. Evasive hiding and playing dumb have negative implications on the relationship between the hider and the target inasmuch as evasive hiding leads to greater intentions of targets to hide knowledge in the future. Employees who engaged in evasive hiding, perhaps the most deceptive form of hiding knowledge, anticipated damage to interpersonal relationships and retaliation by the target. Playing dumb is not as deceptive as evasive hiding. This explains why hidere do not perceive playing dumb to be harmful to their relationship; however, hiding is involved. Therefore, employees who play dumb foresee that targets would hide knowledge from them in the future.

A study investigating intra-organizational knowledge hiding highlighted that employees estimate their own engagement to a lesser degree compared to their coworkers (Serenko & Bontis, 2016). The existence of



stringent procedures concerning knowledge management systems and policies has no effect on knowledge hiding among employees in an organization. A culture of knowledge sharing that emphasizes group identity significantly decreases knowledge hiding among employees. Job insecurity promotes knowledge hiding, and employees reciprocate knowledge hiding or sharing behavior. They are likely to share knowledge if they have received knowledge, and they hide knowledge if a colleague has refrained from sharing knowledge in the past. More importantly, intra-organizational knowledge hiding promotes turnover, which may lead the organization to face financial as well as human capital losses (Serenko & Bontis, 2016).

Likewise, Arain, Bhatti, Ashraf, and Fang (2018) explored the supervisor–supervisee dyadic relationship with respect to knowledge hiding from the supervisor by the supervisee and organizational citizenship behavior directed by the supervisee toward the supervisor. The study found that subordinate distrust in the supervisor leads to the subordinate engaging in knowledge hiding behaviors. This finding is more prominent among foreign employees than local employees. Khalid, Basheer, Khan, & Abbas (2018) studied the relationship between abusive supervision and knowledge hiding behaviors and found that the two are positively related, and interpersonal injustice mediates this association. However, Islamic workplace behaviors moderated this relationship: in the presence of these behaviors, the association between abusive supervision and knowledge hiding is mitigated. Furthermore, Arshad and Ismail (2018) found that workplace incivility has a significant relationship with knowledge hiding in the workplace. The presence of neuroticism among employees further strengthened this relationship.

Knowledge hiding is an inescapable phenomenon at the workplace which may cause severe economic losses to companies. Zhao, Qingxia, He, Sheard, and Wan (2016) studied workplace ostracism as a potential antecedent of knowledge hiding. Their study used a time-lagged design that collected data from five-star hotels in China. Perceptions of being left out (ostracism) among employees led them to engage in knowledge hiding behaviors. Workplace ostracism made employees engage in evasive hiding and playing dumb. In addition, negative reciprocal beliefs and moral disengagement strengthened the correlation

between workplace ostracism and evasive hiding or playing dumb. There was no effect (linear or moderator: reciprocity and moral disengagement) of workplace ostracism on rationalized hiding.

#### **4.7 Knowledge hiding: Other significant paradigms**

Jha and Varkkey (2018) carried out in-depth interviews among research and development professionals in India. Their study identified factors that contributed to knowledge hiding behavior among employees. Their study identified personal factors such as distrust; perceived career insecurity; lack of reciprocity; lack of trust in one's own knowledge; lack of recognition, and organizational factors such as a competitive work environment, a threat to supremacy, and no rewards for sharing knowledge. Furthermore, the interviews identified strategies used by employees to hide knowledge. Extending the three types of knowledge hiding behaviors described by Connelly et al. (2012) – playing innocent (playing dumb), as in pretending to have no clue about the knowledge being asked for; being misleading (evasive hiding) by holding important facts about the information being requested, and rationalized hiding by giving excuses or postponing a discussion – Jha and Varkkey found counter-questioning by probing or asking the seeker for information to be a new type of knowledge hiding.

Hernaus, Černe, Connelly, Vokic, and Škerlavaj (2018) investigated evasive hiding in academia and particularly the resistance to sharing tacit knowledge. The study determined that academicians hide more tacit than explicit knowledge, and that personal competitiveness predicts evasive hiding of knowledge (tacit and explicit). However, if task interdependence and social support are high, the effect of personal competitiveness on evasive hiding can be reduced.

Wang, Han, Xiang, and Hampson (2018) documented the consequences of knowledge hiding on seekers' sales performance and team viability. The study asserted that perceived knowledge hiding has a positive effect on knowledge seekers' performance, whereas this is not true for seekers with high levels of social interaction. Moreover, perceived knowledge hiding has a negative influence on team viability. Nonetheless, extrinsic rewards can hamper this rela-

tionship and diminish knowledge hiding. In addition, Aljawarneh and Atan (2018) found that employee cynicism significantly moderates the relationship between workplace incivility and knowledge hiding.

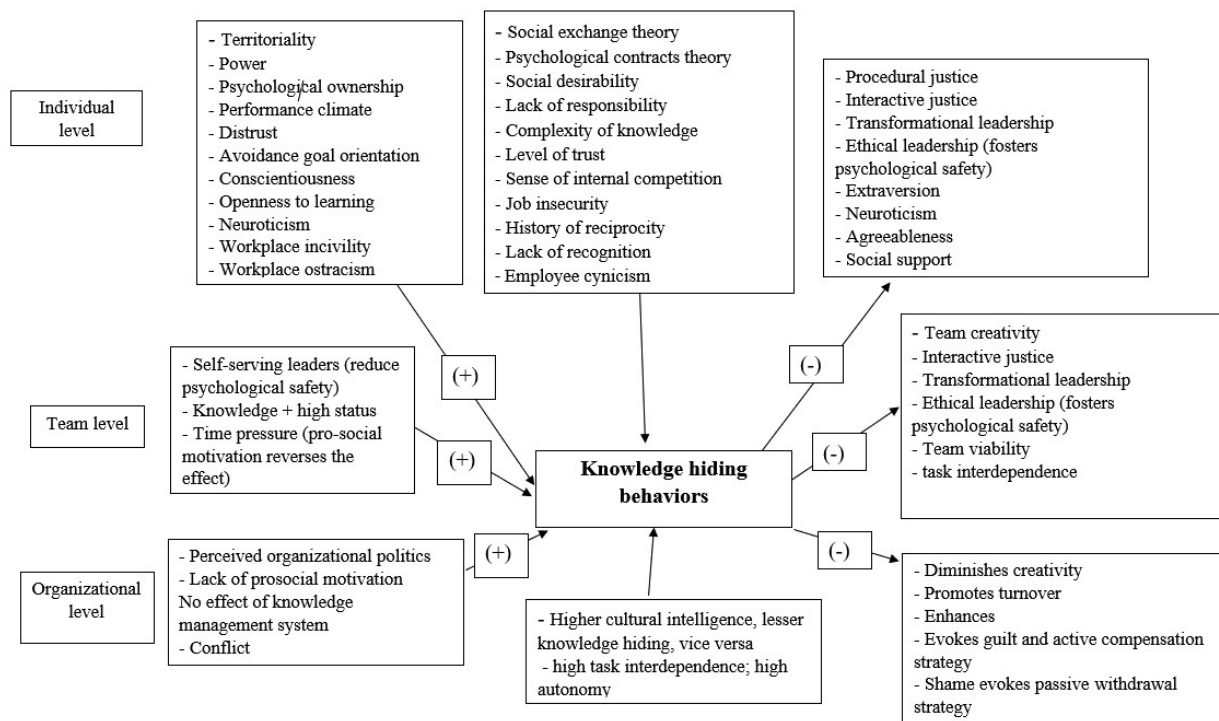
Semerci (2018) studied knowledge hiding behaviors and conflict and found that among employees in the software industry, conflict (task and relationship) was positively related to knowledge hiding, whereas perceived competition was not related to knowledge hiding behaviors. Assessing personal values as a moderator in the conflict and knowledge hiding relationship, Semerci observed that personal values moderate the relationship between task conflict and knowledge hiding. In other words, the effect of task conflict on knowledge hiding is higher if employees have individualistic personal values.

Škerlavaj, Connelly, Černe, and Dysvik (2018) moved away from the common method of self-report studies and studied knowledge hiding, perspective taking, time pressure, and prosocial motivation among employees of an insurance company through surveys and a laboratory experiment. Their survey results reported that time pressure was positively

related to knowledge hiding, and that prosocial motivation did not moderate the relationship between time pressure and knowledge hiding. To validate these findings, they experimentally tested these variables among undergraduate students of a Slovenian university and found that knowledge hiding differed depending on time pressure. Unlike the self-report study, the laboratory experiment demonstrated that prosocial motivation reverses the negative effect of time pressure on knowledge hiding.

Burmeister, Fasbender, and Gerpott (2018) examined the consequences of knowledge hiding as guilt or shame of the perpetrator. Their study found that evasive hiding and playing dumb (higher-order types of knowledge hiding) evoke greater feelings of guilt and shame among perpetrators who engage in hiding knowledge. Guilt elicits an active compensation strategy among employees, and shame elicits a passive withdrawal strategy that further governs their behavior. This finding was most appropriate in the case of playing dumb over evasive hiding, but it did not apply to rationalized hiding. Figure 3 presents a thematic map of these findings.

Figure 3: Consolidated thematic map of positive and negative relationships at the individual, team, and organizational levels



## 5. KNOWLEDGE HIDING REVIEW: SCOPE AND SIGNIFICANCE

Research published on knowledge hiding acknowledges the bias of self-report scales and the phenomenon of social desirability which makes employees report the behaviour less than their actual degree of practice. Hence, the use of qualitative measures using a mixed methodology (cross-ratings) would help to validate the actual degree of knowledge hiding. Case study examples of organizations implementing strategies to build trust among employees and to promote a mastery climate and ethical and transformational leadership can provide empirical insights to other organizations that may potentially help mold their policies and eliminate this practice in their respective organizations. Therefore, the constructs with potential associations with knowledge hiding have proliferated, thereby making knowledge hiding a vibrant phenomenon in recent times (Figure 2).

Furthermore, there are frameworks proposed by researchers that require further testing and validation. For example, Anand and Jain (2014) created a theoretical framework of the possible relationship between the big-five personality traits and knowledge hiding. They suggested that the framework should be empirically tested. Research must explore the work conditions/situations that stimulate or deter the negative relationship between knowledge hiding and creativity, especially within the purview of the motivational climate. DeGeofroy and Evans (2017) purported that emotional intelligence competencies (empathy, self-management, self-awareness, and relationship management) are positively associated with trust, organizational commitment, and teamwork, therefore reducing knowledge hiding behavior to a large extent. However, this theoretical assumption needs empirical testing which may facilitate the understanding of knowledge hiding behaviors and open prospects for developing interventions. Issac and Baral (2018) stated that job insecurity may be a causal factor of knowledge hiding which is yet to be tested.

Connelly and Zweig (2015) suggested potential dispositional moderators of knowledge hiding. For instance, Machiavellianism, agreeableness, automatic hostility, aggressiveness, irritability, anger, and Type-A personality characteristics may influence knowledge hiding and perceptions of targets who tend to hide

knowledge. Certainly, more research is required to holistically understand the costs of knowledge hiding and the interplay of the outlined factors among organizations. Demirkasimoglu (2015) studied knowledge hiding in collectivist cultures and recommended that the construct must be explored in other cultures as well. Additionally, individualistic and collectivist cultures can be compared with respect to the suggested variables. Huo, Cai, Luo, Men, and Jia (2016) recommended that a research design that integrates questionnaires with experiments must be considered for further research. Keeping in mind that justice perceptions reduce knowledge hiding behaviors and taking into consideration intervention factors such as organizational fairness as control factors in an experimental design could provide more-accurate results in exploring the intervention mechanism of knowledge hiding.

Serenko and Bontis (2016) recommended studying temporal periods that may trigger sharing or hiding behavior (for example, new employees may choose to share knowledge; however, established, and experienced employees may hide knowledge due to perceived threats to career progression). Moreover, the influence of gender and personality types on knowledge hiding also should be examined. Zhao, Qingxia, He, Sheard, and Wan (2016) suggested that a longitudinal design should be adapted to observe the effects of workplace ostracism on knowledge hiding. They also suggested observing the relationship between abusive supervision, knowledge hiding, and workplace ostracism.

Only one of the included studies used a culturally mixed group for assessing knowledge hiding; of the other 35, 20 studies related to collectivist cultures (China, Pakistan, India, Iran, South Korea, Jordan, Malaysia, Myanmar, and Turkey), and the remainder were carried out in individualistic cultural settings (the United States, Canada, Europe, Slovenia, and the United Kingdom) and were published in a variety of journals (Table 4). Collectivist cultures promote reciprocity, cooperation, and prosocial behaviors, but regardless of this fact, extensive knowledge hiding behavior has been reported in these cultures. The dearth of research on knowledge hiding in individualistic cultures calls for theoretical and empirical investigation and a cross-cultural examination of the construct for better understanding. For example, Burmeister, Fasbender, and Gerpott (2018) reported that knowledge

hiding can be reduced by eliciting an emotion for the behavior exhibited; however, their study was restricted to American and German cultures, so these results may vary for non-Western cultures. Moreover, there is no comparison of knowledge hiding among individualistic and collectivist cultures. To understand this construct in increasingly diverse organizations, it is important to compare factors that make employees hide knowledge, keeping in mind the idea of cultural diversity.

Černe (2014) established that knowledge hiding diminishes the creativity of an individual. Likewise, Bogilović, Černe, and Škerlavaj (2017) studied knowledge hiding, creativity, and cultural intelligence among individuals and teams, and concluded that individual knowledge hiding has an adverse effect on individual and team creativity and has a direct impact on the social exchange processes. They suggested that further research should be carried out to assess the effect of cultural diversity on knowledge hiding and creativity. Methods such as colleagues' assessment, leaders' assessment, or direct observation may be used, including self-report measures to validate self-report data. Knowledge transfer among organizations is a dyadic process; hence, knowledge hiding also must be observed in dyads, in addition to the individual level and the team level. According to Rhee and Choi (2017), the literature available on knowledge hiding and its antecedents can be extended by focusing on social isolation, shrinking of available knowledge over time, and simple social retaliation of underrecognized persons at work. Fong, Luo and Jia (2018) recommend exploring why and how knowledge hiding affects creativity by using experimental instead of self-report measures.

Černe, Hernaus, Dysvik, & Škerlavaj (2017) studied the relationship between knowledge hiding and innovative work behaviors such as mastery climate and job characteristics (task interdependence and decision-making autonomy) using a self-report and supervisor-rated method. The study further suggested that for such research, a longitudinal design is warranted. They suggested that future research should include a greater number of service organizations to address the heterogeneity among various industries. Similarly, Rhee and Choi (2017) suggested that further studies should adopt extended methodologies such as longitudinal panel design or laboratory experiments to observe knowledge hiding behaviors. Because qualitative research suggests that knowledge hiding is prominent practice owing to

various linkages outlined in the previous section, an assessment of human resource policies and knowledge hiding behaviors can be simultaneously carried out.

Future research can study psychological ownership, psychological safety, knowledge hiding, mastery climate, and ethical leadership together. For example, Men et al. (2018) suggested that moral attractiveness (perceptual and reflective) may reduce unethical decisions/behaviors, thereby proposing ethical behaviour could decrease knowledge hiding. Likewise, Arshad and Ismail (2018) could be extended by further studying how team-level incivility influences knowledge hiding. This will help organizations tackle this behavior, because it hinders the organization on creative, innovative, and performance fronts. Scholars essentially provide recommendations based on the assessment of their study and the methodology they have used, and if this phenomenon needs to be addressed, it has to be done in a systematic manner. Overall, experimental interventions in varied work contexts using dual methodologies and powerful statistical techniques such as conditional process analysis may give researchers noteworthy insights into the existing literature on the significant topic of knowledge hiding behaviors.

## **6. ADDRESSING KNOWLEDGE HIDING: PROSPECTS AND IMPLICATIONS**

Research thus far helped understand the establishment and progression of the construct and described its linkages with respect to its adverse effects on an organization (diminishing creativity and innovation); transformational and ethical leadership; performance; goal orientations; perceived motivational climate; abusive supervision; mistreatment behaviors; and psychological ownership, including intra-organizational aspects. The dyadic knowledge hiding process has a major underpinning in social exchange theory and is well documented in the literature.

Although Connelly et al. (2012) acknowledged that knowledge hiding is a socially undesirable phenomenon among organizations, the base rate of employees reporting such behavior is less than the degree to which they practice it in the workplace. This may be addressed through qualitative studies in which assuring employees of the confidentiality

of the results shows that knowledge hiding does occur in organizations. Knowledge hiding can be due to a lack of personal knowledge resources or to personal interests, and its implications would also be worthy of research investigation.

Because trust has been identified as a significant predictor of knowledge hiding, human resource managers should work on building trust among employees through conducting workshops that aim at building cohesion among employees. Constantly sharing feedback with employees (say, every fortnight or once a month) may facilitate a mastery climate among teams. A mastery climate promotes cooperation, learning, and skill development, which in turn promote knowledge sharing. Nurturing a mastery climate in an organization also promotes psychological safety and will help reduce knowledge hiding behaviors among teams. Perspective-taking that involves employees getting to know each other may reduce knowledge hiding. In addition, time pressure has been identified as an antecedent of knowledge hiding, so organizations seeking to promote knowledge transfer may decrease role overload, role ambiguity, work overload, and sudden deadlines. Organizations may become more productive if employees face less time pressure for completing tasks urgently. Burmeister et. al. (2018) stated that knowledge hiding has emotional sentiments attached to it and is based on the emotion-based reciprocity mechanism. Therefore, if employees are made to emotionally attach themselves, they may become involved in moral and organization-oriented behaviour rather than immoral and self-oriented behaviour.

Khalid et al. (2018) implied that values and beliefs serve as a safeguard against abusive supervision and keep employees stable and make them refrain from knowledge hiding behaviours. Subsequently, building ethical values among employees can reduce the adverse effects of abusive supervision among employees. Likewise, Arshad and Ismail (2018) found that identifying neurotic employees and training them can help reduce knowledge hiding behaviours in the workplace. Personal competitiveness can be an antecedent of evasive knowledge hiding, and training can prove beneficial in up-skilling and making employees competent. In addition, the combination of job characteristics, especially task interdependence, social support, decision making, autonomy, and a mastery climate, are significant conditions which can hampered knowl-

edge hiding behavior to a large extent, thus keeping employees on the track of creativity, innovation, enhanced performance, and productivity.

## 6.2 Prospects: The Way Forward

Several facets of knowledge hiding are yet to be examined. On the basis of four broad themes, namely theoretical perspectives, employee behaviours, demographic learning, and team-level predictors, we suggest recommendations for future research of parameters which have not yet been considered by researchers.

From a theoretical and employee behaviour standpoint, we propose a couple of theories and behaviours that can extend the academic literature on knowledge hiding. Firstly, the theory of planned behaviour (Ajzen, 1991) can explain whether employees plan hiding knowledge. Secondly, the job demands resources theory (Bakker & Demerouti, 2014) explains that employees craft their jobs (using social and structural job resources) to cope with the demands the job places on them. Knowledge hiding here can be understood in two ways: do employees hide knowledge because of the demands their job places on them, or do employees use knowledge as a resource to cope with their job demands, and hence engage in hiding it? Studies of these research perspectives will not only enrich literature but also provide insights for managers to deal with knowledge hiding behaviours. Thirdly, the time perspective of an individual (Zimbardo & Boyd, 1999) can be measured to predict knowledge hiding behaviours. Time perspective is the totality of the perception of past, present, and future of an individual at a point in time. There are five types of time perspective, namely past positive, past negative, present hedonistic, present fatalistic, and futuristic. Does being in a perspective lead to employees hiding knowledge? Decreasing knowledge hiding practices is beneficial for healthy organizational functioning at all levels. Therefore, we suggest studying knowledge hiding with special reference to the aforementioned questions to understand the construct in a comprehensive manner.

Some of the demographic learnings can be of great benefit for practitioners and organizational development experts, such as the effect of gender, career stage, and work experience in predicting knowledge hiding. Furthermore, adding to the theory of planned be-

haviour, the interaction effect between work experience and the position held within a team can be assessed to understand and decrease knowledge hiding behaviours. The proposed framework is presented in Figure 4.

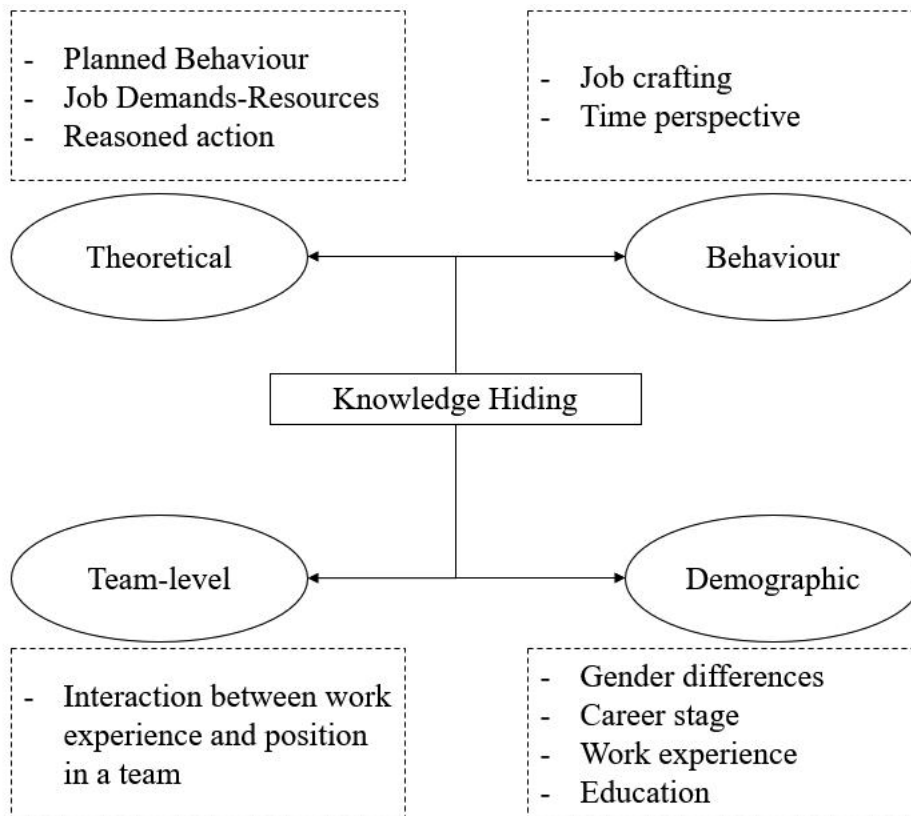
### 6.2 Managerial implications

Overall, the greatest implication lies in training and development professionals to conduct training that enhances the emotional intelligence of employees. Such human resource development activities may save employees from engaging in knowledge hiding practices and can build accountability among the employees. Thus, learning experiences from the training and development activities will further help understand employee behaviors. This, in turn, will help in formulating suitable human resource policies to facilitate individual and situational norms to be adopted by employees. Moreover, promoting prosocial behaviours and organizational citizenship among employees and ingraining a sense of community will largely reduce knowledge hiding behaviours.

### 7. DISCUSSION AND CONCLUSION

This retrospective narrative review with research profiling of knowledge hiding behaviours and related research is a ready reckoner for researchers and practitioners which eventually will improve the knowledge management systems. Taking into account prominent studies of knowledge hiding, the review summarizes the major areas of literature, namely psychological ownership, leadership, personality, creativity, innovative workplace behaviours, and dyadic relationships. It also addresses the linkages and associations of knowledge hiding with other paradigms along with its implications and future extensions. Above all, it provides a framework for future courses of research using possible theoretical paradigms. Our review might present a myopic viewpoint of perceived differences in perspectives including sampling methodologies, and this narrative analysis is no exception. Thus, we recommend that sophisticated systematic reviews and meta-analysis should also be carried out on the construct.

Figure 4: Directions for future research



## EXTENDED SUMMARY/IZVLEČEK

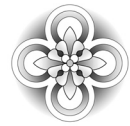
Znanje je sredstvo za povečanje in ohranjanje konkurenčne prednosti vsake organizacije. Slednje spodbujajo izmenjavo znanj preko uvedbe sistemov za upravljanje znanja. Kljub temu, da imajo organizacije že integrirane različne politike za izmenjavo znanja, se večina zaposlenih vedno ne poslužuje prakse izmenjave na svojih delovnih mestih. Raziskava avtorjev Connelly et al. (2012) ta pojav poimenuje "skrivanje znanja" in ga opredeli kot "naklepni poskus posameznika, da se prekrije informacija ali znanje, ki jo zahteva druga oseba." Zaradi pomembnosti in vse večje pojavnosti omenjenega konstrukta avtorji študije sistematično in retrospektivno analizirajo 35 raziskovalnih člankov na temo skrivanja znanja, objavljenih med letoma 2008 in 2018. Prispevek tako podaja glavne ugotovitve omenjenih analiz ter raziskuje prakse skrivanja znanja, razvrščene v kategorije in ustrezne podteme. Na podlagi obstoječih raziskav avtorji dodajajo svoje ugotovitve o obsegu in pomenu skrivanja znanja. Izpostavljene so možnosti nadaljnjega raziskovanja s teoretičnega, metodološkega, tematskega in demografskega vidika ter implikacije za managerje.

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## KNOWLEDGE TACITNESS AND RENEWAL CAPITAL

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### Abstract

*Organizational ability to create and successfully manage knowledge, in its different forms, has become the basis of superior organizational performance and sustainable competitiveness. Nowadays, especially in developed economies, the importance of knowledge and intangible resources, i.e., intellectual capital, is rapidly increasing. The intangibles have a dominant role and gradually are replacing physical resources as the most important production factors of organizational success. Many studies gave significant findings in the field of intellectual capital measurement and its conceptualization, but there still is not a worldwide consensus on the dimensions of intellectual capital. Previous research focused mainly on traditional intellectual capital dimensions—human, relational, and structural capital—neglecting organizational renewal capability as a dimension of intellectual capital. There are no systematic findings on whether there are interrelationships of traditional intellectual capital dimensions in transition economies. This paper addresses and empirically tests the complementary role of traditional intellectual capital dimensions in organizational renewal, in the context of a transition economy. Primary data were collected using previously psychometrically validated questionnaires from 224 organizations in the Republic of Srpska, Bosnia and Herzegovina. Partial least squares structural equation modelling (PLS-SEM) was used to test hypothesized relationships. Research findings suggest that renewal capital has a significant role. Furthermore, it demonstrates the intensity of relational and structural capital connection with knowledge renewal, highlighting the significance of different forms of knowledge in organizational renewal. Managers can find some useful directions to efficiently manage intellectual capital and to be aware of the presence of knowledge resource interrelationships and their importance for organizational renewal.*

**Keywords:** *intellectual capital, renewal capital, PLS-SEM, transition economy*

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### 1. INTRODUCTION

In a modern economy, under the influence of globalization and increasing information-technological changes, organizational success is not determined primarily by traditional, well-known factors such as physical and financial resources. The process of value creation and the competitive advantage of organizations are defined mainly by intangible or invisible resources such as intellectual capital (Bontis, 1998; Sveiby, 1997; Edvinsson & Malone, 1997; Stewart, 1997; Inkinen, 2015) and the capability of organizations to change and renovate their knowledge bases to respond to an unpredictable, dynamic, and turbulent environment (Edvinsson & Malone, 1997). Parallel to the transformation from a production-based

to a knowledge-based economy (Bontis, 1998; Martinez-Torres, 2006; Huang & Wu 2010) and organizational sensitivity to market needs was a shift from managing tangibles toward managing intangibles and intellect-based resources (Bontis et al. 1999). Intellectual capital and how to efficiently and effectively manage intellectual capital as a function of organizational success and lasting competitiveness became a focus of research interest in last few decades.

Intellectual capital represents a bundle of intangibles such as organizational knowledge, experience, skills, and links between organizations and external parties (Bontis, 1998; Sveiby, 1997). Because intellectual capital is composed of various dimensions, intellectual capital composition has been discussed widely in the literature. In addition to its composition, views

on intellectual capital can be classified as static and dynamic. Whereas the static approach to intellectual capital focuses on intellectual capital as stock owned by an organization in the form of patents, trademarks, or brands (Brooking, 1996; Stewart, 1991), the dynamic approach frames intellectual capital as a dynamic organizational capability or flow (Pöyhönen, 2005). The main purpose of the static approach is to identify and evaluate existing intangibles, as opposed to the dynamic approach, the aim of which is to possess the capability to use, develop, and modify intangibles. The most frequently used intellectual capital perspective to conceptualize intellectual capital is the static view (Bontis, 1999). This research uses the static approach to enhance the understanding of specifics of intellectual capital dimensions and their connections in the context of a transition economy. Therefore, intellectual capital is regarded as stock – something that can be easily identified, moved, and traded (Kianto, 2007).

There are various classifications of intellectual capital, but the most widely accepted involves three dimensions: human, relational, and structural capital (Stewart, 1997; Edvinsson & Malone, 1997; Roos et al., 1998; Bontis, 1998; Bontis et al., 2000). A less frequently mentioned intellectual capital dimension, renewal capital, consists of resources linked to organizational growth and long-term research and development (Bontis, 2004); it is used as a fourth intellectual capital dimension in the proposed research model. This intellectual capital dimension shows how well an organization reacts to challenges coming from outside (Edvinsson & Malone, 1997). Renewal capital becomes a crucial part of intellectual capital in a turbulent and unpredictable market.

According to the author's knowledge, there is a lack of research that examines the proposed interrelationships between intellectual capital dimensions, including renewal capital as an important dimension, in context of transition economies, especially in case of the Republic of Srpska, Bosnia and Herzegovina. Organizational renewal is a crucial dimension of intellectual capital because it renovates the existing knowledge of the organization and focuses on the importance of organizational learning. However, organizational renewal is dependent on the previous use and development of human, relational, and structural capital.

This research proposes and empirically tests links between traditional intellectual capital dimensions and renewal capital as a key aspect of intellectual capital in a dynamic and unpredictable organizational environment in the context of a transition economy such as the Republic of Srpska, Bosnia and Herzegovina. Dimensions of intellectual capital are conceptualized based on a literature review and measured using a psychometrically validated questionnaire. Research findings showed significant positive interaction between traditional intellectual capital dimensions and renewal capital and indicated a more pronounced importance of tacit knowledge gained through communication with customers for organizational learning and knowledge renewal.

The paper is organized as follows. The first section consists of a literature review of intellectual capital phenomenon and its different classifications. The role of renewal capital was less frequently mentioned, but the crucial intellectual capital dimension was emphasized. In the next section, the research methodology including a sample structure, statistical power analysis, data collection process, and application of an econometric technique to test the defined hypotheses is presented. A detailed data analysis, discussion of obtained results, and final remarks are presented as a conclusion. A summary of results, research contributions, and guidelines for managing intellectual capital are given for academics and business practitioners. Some limitations of the research are addressed, and future research directions are suggested.

## **2. THEORETICAL BACKGROUND**

### **2.1 Intellectual capital phenomenon and its classification**

The term intellectual capital was first mentioned by Kronfeld & Rock (1958), who used this term to explain differences in net worth appraisals and price/earnings ratios between (Edvinsson, 2009). Galbraith (1969) is regarded as the first economist who used the term intellectual capital as a construct that explains differences between market and book value (Edvinsson, 2009; Khan, 2011). According to Galbraith, intellectual capital is not just knowledge or intellect. It represents all invisible or intangible re-

sources and actions that are able to generate future value (Roos et al., 1997; Bontis, 1998).

Research interest in the intellectual capital field increased in recent years (Bontis, 2001; Serenko & Bontis, 2004). Two different streams of intellectual capital research can be identified. The first is the measurement stream of intellectual capital research (Martin Castro et al., 2011), the purpose of which is to measure and report intangible resources using traditional financial indicators (Roos et al., 1997; Petty & Guthrie, 2000). The second, the strategic-oriented stream (Martin Castro et al., 2011), is focused on analyzing and detecting the role of intellectual capital in the creation of values and organizational success (Roos et al., 1997; Pett & Guthrie, 2000). There are various definitions of intellectual capital, such as “knowledge that can be converted into value” (Edvinsson & Malone, 1997); the sum of intangible resources and their flows (Bontis et al., 1999); and the sum of stocks or knowledge funds, intangible assets, and capabilities, which allow development of the main business processes in organizations, providing a competitive advantage (Martín de Castro et al., 2011). Because there are many different definitions of intellectual capital, consequently there is no clear classification of intellectual capital. The literature review indicated different dimensions of intellectual capital, such as human and structural capital (Edvinsson & Malone, 1997); human, organizational, and social capital (Reed et al., 2006); and structural, consumer, and employee capital (Zerenler et al., 2008). The most widely used is the classification of intellectual capital as human, structural, and relational capital (Bontis, 1999; Zerenler et al., 2008, Cabrita & Bontis, 2008).

## **2.2 Intellectual capital components and their interrelationships**

Traditionally, intellectual capital is composed of human, relational, and structural capital, combined in different ways. Recently, renewal capital has been considered as part of intellectual capital (Kianto, 2010) that enables organizational growth and long-term research and development (Bontis, 2004) emphasizing how well organization respond to future challenges and radical changes in the market (Edvinsson & Malone, 1997). A brief description of intellectual capital dimensions follows.

Human capital represents a key dimension of intellectual capital composed of the knowledge, skills, and expertise of employees. Human capital is the sum of the values, attitudes, and capabilities of employees, providing a competitive advantage and value creation (Cohen & Kaimenakis, 2007). It refers to know-how, experience, and talent of employees and managers in organizations (Edvinsson & Sullivan, 1996; Roos et al., 1997; Bontis, 1998). The significance of human capital is enormous because it is considered to be a prime intellectual capital dimension with unquestionable economic value (Stewart, 1997; Cohen & Kaimenakis, 2007; F-Jardón & Martos, 2009). However, significant individual knowledge accumulation does not influence intellectual capital unless it is considered to be complementary to organizational capital. In this paper, human capital refers to the intelligence of organizational members (Bontis, 1998), composed of outstanding, experienced, and skilled employees, who are prone to teamwork, knowledge sharing, continuously improving their capabilities, and doing the best that they are able.

Relational capital refers to relationships between an organization and external parties such as customers, suppliers, business associations, and other stakeholders (Roos et al., 1997; Sveiby, 1997; Bontis, 1999; Marr, 2006). Bontis (1999) emphasized the significance of any knowledge flow from external sources to organizations and vice versa. The literature often mentions external parties' perceptions of the organization and its products, brands, reputation, and image as parts of relational capital. It is assumed that these relationships are specific to organizations and are tacit and nontransferable, which disables their imitation and substitution. Therefore, relational capital is considered to be as strategic relevant source of sustainable competitive advantage and above-average organizational performance. In this paper, relational capital refers to knowledge of marketing channels and customer relationships (Bontis, 1998).

Structural capital is a relevant strategic resource encompassing intangible assets such as organizational structures, business process (manuals), organizational routines, administrative systems, distributional networks, communications, databases, and information-communication technologies (Edvinsson & Sullivan, 1996; Roos et al., 1997; Stewart,

1997; Sveiby, 1997; Bontis, 1998; Marr, 2006; Cabrita & Bontis, 2008). It represents developed organizational knowledge inseparable from the organization. Although structural capital improves the capabilities of employees, it must be considered apart from employees. Structural capital refers to knowledge remaining in an organization after employees leave the organization at the end of the workday or even when they permanently leave the organization. In this paper, structural capital consists of elements of efficiency, transaction times, procedural innovativeness, and access to information for codification into knowledge (Bontis, 1998). Without structural capital, intellectual capital would just be human capital. Structural capital has a critical role because it enables measurement of intellectual capital at organizational level (Bontis, 1998).

Renewal capital represents organizational resources to renovate an existing knowledge base and advance learning capabilities. Organizations with more-developed renewal capital are capable of building and enhancing based on previous knowledge and creating new knowledge (Meditinos et al., 2010). Because organizations need to survive in an unpredictable and turbulent environment, renewal capital is an important dimension of intellectual capital (Kianto et al., 2010). In this dynamic environment, organizations need to continuously develop and renovate to be ahead of the competition (Eisenhardt & Martin, 2000). Many studies investigated organizational renewal using different terms, such as organizational learning (Huber, 1991), knowledge creation (Nonaka & Takeuchi, 1995), organizational change and development (Weick & Quinn, 1999), dynamic capabilities (Eisenhardt & Martin, 2000), organizational agility (Bessant et al., 2001), continuously innovating (Boer & Gertsen, 2003), and organizational renewal (Kianto, 2008). The capability to learn and to renovate knowledge in organizations determines renewal capital (Kianto et al., 2010), which is a critical aspect of intellectual capital especially in organizations facing a competitive environment (Zollo & Winter, 2002). In this paper, renewal capital consists of organizational learning and knowledge base renewal (Kianto et al., 2010). Renewal capital indicates an organizational ability to learn and to renovate its knowledge which depends on the use of human, relational, and structural capital (Kianto et al., 2010).

The interaction of intellectual capital dimensions combined with tangible resources improves competitive advantage and provides above-average performance (Meditinos et al., 2010; F-Jardon & Martos, 2012). Human capital is crucial for building structural capital. It is needed to store knowledge in organizations. On the other hand, structural capital is important for establishing relational capital (F-Jardon & Martos, 2009, 2012). Creative, skilled, and experienced employees with well-developed relationships with customers lead to a large number of product innovations (Martin de Castro et al., 2013). Bontis (1998) indicated that human and structural capital cannot be considered isolated from each other in order to obtain organizational success. Bontis et al. (2000) determined that structural capital is complementary to human and relational capital. Welbourne and Pardo-del-Val (2009) suggested an intrinsic connection between human and relational capital due to humans in organization who create, maintain, and nurture relationships that contribute to organizational performance. Employees, organizational infrastructure, and established networks, individually, are insignificant; their importance becomes crucial because of their interrelationships.

Structural capital has an obvious influence on renewal capital. Explicit knowledge codified and stored in databases of organizations, information systems, and written procedures is a standard basis for creation of new knowledge (Nonaka & Takeuchi, 1995). It is impossible for an organization to learn if there is no accumulated knowledge in databases with open access for employees (Argote & Miron-Spektor, 2011). Because learning is crucial for knowledge renewal, more developed structural capital is a necessary condition for updating knowledge funds. Structural capital, as a consequence of implementing a codification strategy of knowledge management, provides easy access to stored knowledge that can be used to enhance renewal capital. Relational capital refers to knowledge as a product of tacit knowledge sharing in and out of the organization. Relationships between an organization and customers, business partners, and research centres are a source of new knowledge which nurtures and improves organizational capability to learn (Hsu, Fang, 2009). Thus, renewal capital depends on existing knowledge (Kianto et al.,

2010), especially in the form of tacit cognitive and technical knowledge (Bueno et al., 2010). Access to tacit knowledge is possible only through individuals' interaction, which represents an element of personalization strategy of knowledge management focused on communication among individuals instead of knowledge objects located in databases (Hansen et al., 1999).

The following hypotheses are proposed:

- H1. Human capital positively effects relational capital.
- H2. Human capital positively effects structural capital.
- H3. Relational capital positively effects structural capital.
- H4. Relational capital positively effects renewal capital.
- H5. Structural capital positively effects renewal capital.

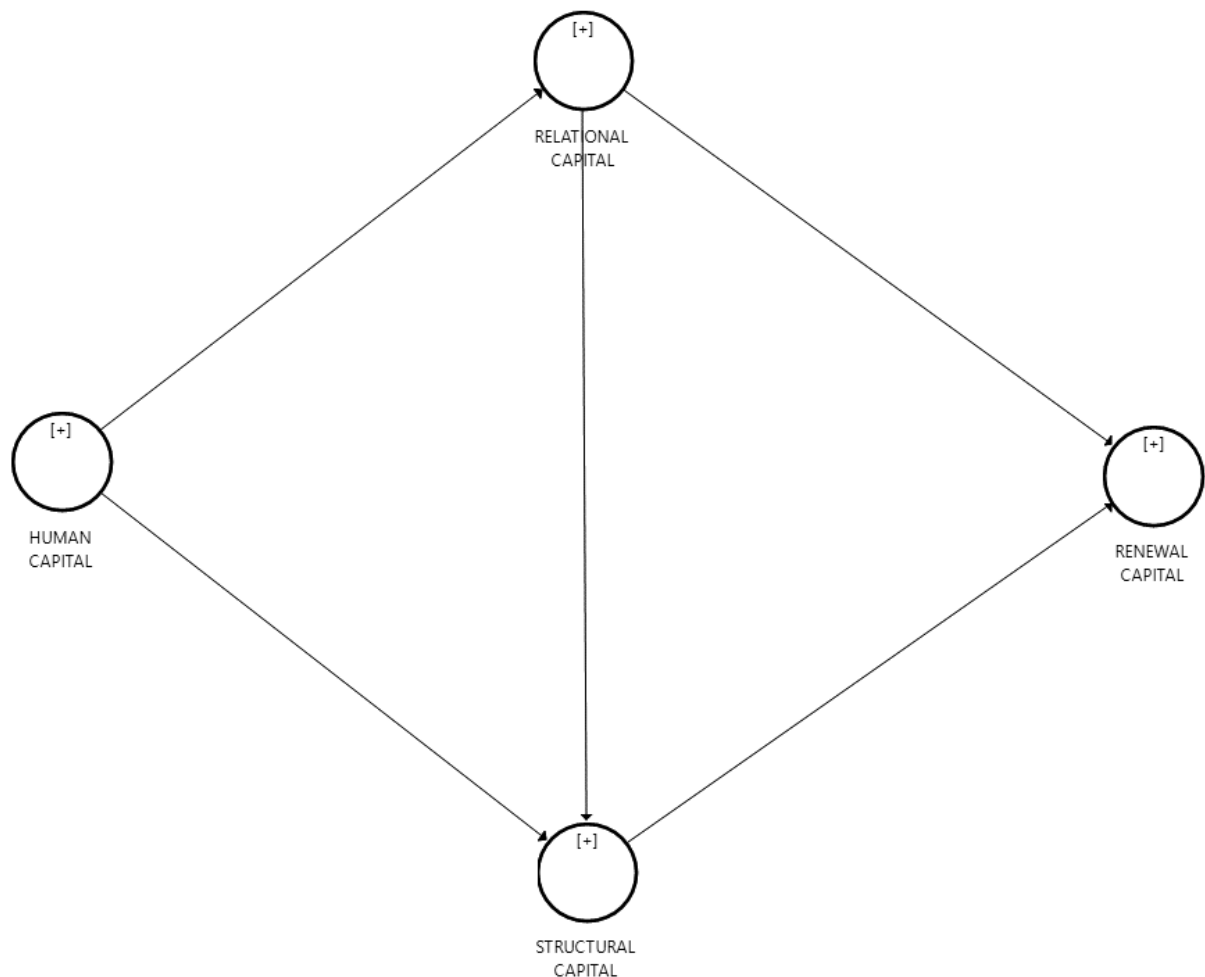
The aim was to test the proposed conceptual research model in Figure 1.

### 3. METHODOLOGY

#### 3.1 Sample and collection of data

The population used to collect necessary data consisted of registered 3838 organizations as members of Chamber of Commerce and Industry of the Republic of Srpska. To obtain representativeness of the results, 349 organizations were contacted by phone, email, or face-to-face with a request that questionnaire be fulfilled by executives as representatives of each organization. The data collection period was from February to July 2018. Many organizations were contacted several times to obtain representativeness of the sample. At the end of the collection period, questionnaires were returned by 243 organizations. The response rate was 69.62%. Returned questionnaires were thoroughly exam-

Figure 1: Proposed conceptual research model



ined to detect missing data, inconsistency, and outliers that can lead to distortion of results. Through a data-cleansing procedure, 18 questionnaires were detected and excluded from the sample. A final sample of 224 correctly filled questionnaires was used to test the complex relationships between latent variables. The structure of the sample by industry branch is presented in Figure 2.

### 3.2 Measures

The questionnaire used to measure the intellectual capital dimensions of human capital, structural capital, and relational capital, contained 53 items, developed and validated by Bontis and applied in

many empirical studies on intellectual capital (Bontis, 1998, 1999, 2000). Measures for renewal capital, a less empirically observed intellectual capital dimension, were developed and tested to provide their content validity and psychometric robustness and validated by (Kianto et al., 2010). The questionnaire used in this research is presented in Table 1.

A seven-point Likert scale, where 1 indicated completely disagree and 7 indicated completely agree, was applied to measure intellectual capital dimensions. Perceptual measures were applied to evaluate intellectual capital which are regarded as acceptable indicators of intangibles (Kannan & Aulbur, 2004).

Figure 2: Sample structure: industry branches

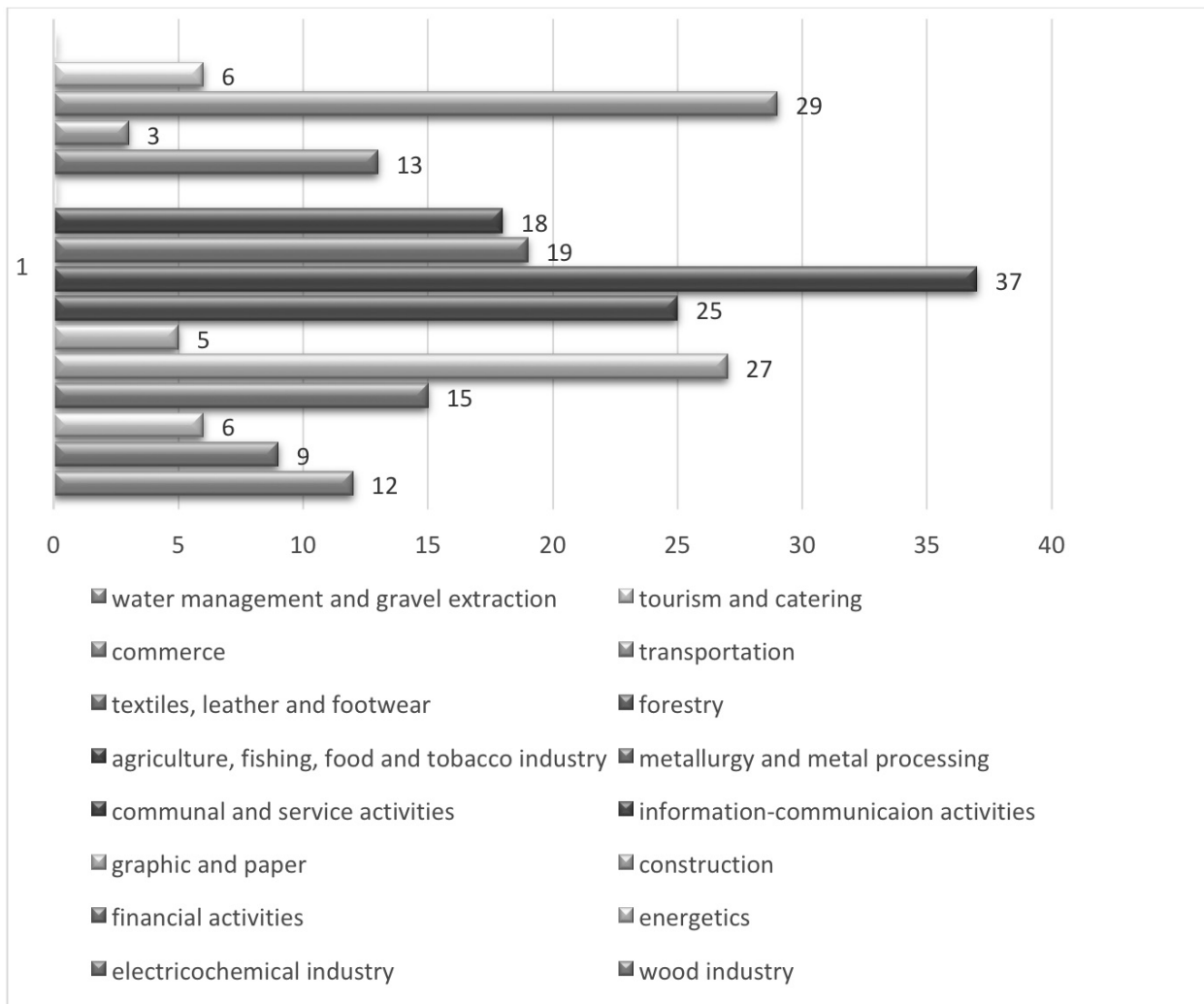


Table 1: Summary of survey items (excerpts from questionnaire)

Human capital				
hc1	competence ideal level		hc11	employees perform their best
hc2	succession training program		hc12	recruitment program comprehensive
hc3	planners on schedule		hc13r*	big trouble if individuals left
hc4	employees cooperate in teams		hc14r*	rarely think actions through
hc5r*	no internal relationships		hc15r*	do without thinking
hc6	come up with new ideas		hc16	individuals learn from others
hc7	upgrade employees' skills		hc17	employees voice opinions
hc8	employees are bright		hc18	get the most out of employees
hc9	employees are best in industry		hc19r*	bring down to others' level
hc10	employees are satisfied		hc20	employees give it their all
Relational capital				
rc1	customers generally satisfied		rc10	meet with customers
rc2	reduce time to resolve problem		rc11	customer info disseminated
rc3	market share improving		rc12	understand target markets
rc4	market share is highest		rc13r*	do not care what customer wants
rc5	longevity of relationships		rc14	capitalize on customers' wants
rc6	value added service		rc15r*	launch what customers don't want
rc7	customers are loyal		rc16	confident of future with customer
rc8	customers increasingly select us		rc17	feedback with customer
rc9	firm is market-oriented			
Structural capital				
sc1	lowest cost per transaction		sc9	develops most ideas in industry
sc2	improving cost per revenue		sc10	firm is efficient
sc3	increase revenue per employee		sc11	systems allow easy info access
sc4	revenue per employee is best		sc12	procedures support innovation
sc5	transaction time decreasing		sc13r*	firm is bureaucratic nightmare
sc6	transaction time is best		sc14	not too far removed from each other
sc7	implement new ideas		sc15	atmosphere is supportive
sc8	supports development of ideas		sc16r*	do not share knowledge
Renewal capital				
rnw1	Our company has acquired a great deal of new and important knowledge			
rnw2	Our employees have acquired many important skills and abilities			
rnw3	Our company can be described as a learning organisation			
rnw4	The operations of our company can be described as creative and inventive			

\* r denotes reverse-coded item.

Adapted from Bontis, 1998; Kianto et. al., 2010

### 3.3 Econometric analysis

Descriptive analysis was carried out using IBM SPSS software in order to indicate the level of development of each item and each latent construct – the intellectual capital dimension. The *t*-values, *p*-values, and bootstrapping 95% confidence interval of the bootstrapping procedure indicated the statistical significance of each item.

Structural equation modelling based on partial least squares was used to test the proposed research hypotheses. Structural model evaluation was performed using SmartPLS 3.2.8 software. The conceptual research model proposes relationships between intellectual capital dimensions which are not directly observable, called latent constructs (Chin, 1998; Ringle et al., 2006). These constructs are operationalized with indicators called manifest variables (Chin, 2010; Hair et al., 2010) which in this study are items in the questionnaire (Chin, 2010). There are two parts to the structural equations. First, a measurement model known as an outer model indicates the relationships between items and their appropriate latent construct. Second, a structural model known as an inner model contains relationships between latent constructs indicating research hypotheses (Chin, 1998).

## 4. RESULTS

### 4.1 Power analysis

The partial least squares structural equation modelling (PLS-SEM) technique is appropriate for smaller sample sizes. However, the general rule of thumb indicates that the sample size should be at least 10 times greater than the maximum number of arrows pointing to a certain latent construct (Hair et al., 2014). In this case, there were a maximum of two arrows pointing to the endogenous construct, so the minimal sample size should be 20. The final sample size was 224 observations, which suggests that this sample size is appropriate for PLS estimation. Apart from the rule of thumb, statistical power analysis for multiple regression was performed using G\*Power 3.1.9.2, which indicated that the minimal sample size was 55 observations in order to achieve 80% statistical power of the model, a coefficient of determination of 25% of endogenous

construct, or  $f^2$  effect size of 0.15. The final sample size was 224 observations, which exceeds the minimal required sample size for PLS analysis (Chin et al., 2003, 2010).

### 4.2 Some additional assumptions

Application of the PLS algorithm requires some preconditions to be met. In addition to sample size, SEM based on variance needs to be used in studies in which the research aim is to predict constructs of interest. All latent constructs in the structural model are connected with one-way arrows in a nonrecursive model, so this assumption was met. PLS-SEM belongs to a family of nonparametric techniques that handles nonnormal data in analysis. Kolmogorov–Smirnov’s and Shapiro–Wilk’s normality tests are used for items of intellectual capital dimensions. Tests showed that the normality assumption of the data was not met, which cannot be considered as a barrier to use structural equation modelling. PLS-SEM is regarded as robust enough not to require normality distributions of data (Barclay et al., 1995).

### 4.3 Outer model assessment

According to the literature, there are many guidelines for the evaluation of PLS-SEM results (Chin 1998, 2010; Henseler et al., 2009; Hair et al., 2017). Assessment of PLS-SEM involves two stages: the outer model or measurement model is assessed in the first stage, followed by the second phase in which the structural model or inner model is evaluated. The measurement and structural models are assessed according to some guidelines which offer rules of thumb as a basis to determine whether the obtained results are adequate or not.

In the proposed research model, all latent constructs – human, relational, structural, and renewal capital, as intellectual capital dimensions – are measured by reflective indicators. To assess the fulfilment of reflective measurement model criteria, the following criteria must be examined: indicator reliability, internal consistency analysis to determine construct reliability, convergent validity, and discriminant validity (Hair et al., 2017). In the case of the reflective measurement model, indicator loadings are examined. Indicators with loadings above



the threshold value of 0.7 are retained in the model because loadings above 0.7 indicate that the latent construct explains more than 50% of the variance of indicator, which means that the indicator has a satisfactory level of reliability. Next, internal consistency reliability is assessed using several indicators. Values of these indicators between 0.7 and 0.95 indicate satisfactory to good levels of reliability (Hair et al., 2017). Composite reliability,  $\rho_c$ , generally used to assess a construct's reliability (Jöreskog, 1971), has values for intellectual capital dimensions between 0.836 and 0.921, demonstrating high level of construct reliability. The values of other construct reliability coefficients, such as Cronbach's  $\alpha$  and  $\rho_A$  (Dijkstra & Henseler, 2015), exhibit satisfactory internal consistency of constructs. Convergent validity shows the extent to which a construct converges in its constructs by explaining the variances of items. In other words, convergent validity exhibits whether each intellectual capital dimension is linked with its items. It is assessed by the average variance extracted (AVE) across all items linked with a certain latent construct. All AVE values are above the threshold of 0.5, which means that all intellectual capital dimensions, on average, explain more than 50% of the items' variance. When indicators' and constructs' reliability and convergent validity are successfully established, the next step is to assess discriminant validity. Discriminant validity determines to what extent a latent construct is empirically unique and different from other constructs in the structural model. In this study, discriminant validity is assessed by the heterotrait-monotrait criterion (HTMT) (Henseler et al., 2015). All obtained HTMT values are above the conservative threshold of 0.85. Results are derived from a bootstrapping procedure at the 5% significance level with 5.000 samples and use no sign change option, and two-tailed testing. The BCa bootstrapping confidence interval showed that none of the HTMT BCa confidence intervals include a zero value, which means that all HTMT values are significantly different from 1 and the discriminant validity for all intellectual capital dimensions in the structural model is established.

Results in Table 2 indicate that all parameters have acceptable values above the thresholds, indicating finalization of the assessment of the reflective measurement model.

*Table 2: Internal consistency analysis, convergent and discriminant validity*

Internal consistency reliability and convergent validity			
Intellectual capital			
Human capital (HC)	Relational capital (RC)	Structural capital (SC)	Renewal capital (RNWC)
Cronbach's $\alpha$			
0.836	0.740	0.700	0.886
$\rho_A$			
0.849	0.743	0.711	0.891
$\rho_c$			
0.883	0.836	0.834	0.921
AVE			
0.602	0.561	0.626	0.745
Retained indicators with loadings above 0.7			
hc6 0.794	rc1 0.784	sc7 0.854	rnwc1 0.868
hc8 0.834	rc2 0.748	sc10 0.765	rnwc2 0.893
hc9 0.771	rc8 0.714	sc12 0.750	rnwc3 0.875
hc10 0.767	rc10 0.749		rnwc4 0.815
hc18 0.706			
Discriminant validity – HTMT values and bootstrapping bias-corrected intervals			
	HC	RC	RNWC
RC	0.637 *[0.502; 0.744]		
SC	0.598 *[0.449; 0.726]	0.567 *[0.385; 0.721]	0.678 *[0.533; 0.794]
RNWC	0.526 *[0.389; 0.647]	0.753 *[0.632; 0.851]	
* The values in brackets represent the lower and the upper bounds of the 95% confidence interval			

#### 4.4 Inner model assessment

After proving the satisfactory quality of the reflective measurement models, next step in the PLS algorithm is the evaluation of the structural model according to several criteria: collinearity issues, coefficient of determination  $R^2$ ,  $f^2$  effect size, predictive relevance  $Q^2$ , significance and relevance of the path coefficients, and holdout sample validation.

After checking for collinearity issues among latent constructs and establishing that the variance inflation factor (VIF) has values below the conservative threshold of 3 (VIF values from 1 to 1.35), the evaluation procedure focuses on identification of the predictive relevance of the structural model using the following criteria: coefficient of determination ( $R^2$ ), cross-validated redundancy ( $Q^2$ ), and the path coefficients (Table 3).

The coefficient of determination indicates endogenous variance explained by other constructs pointing at them. Relational, structural, and renewal capital have  $R^2$  values of 0.259, 0.27 and 0.472, respectively (Table 3). As a rule of thumb,  $R^2$  values of 0.25, 0.5, and 0.75 are regarded as substantial, moderate, and weak (Henseler et al., 2009; Hair et al., 2011). Interpretation of the obtained  $R^2$  value needs to consider the research context and to compare the  $R^2$  value to  $R^2$  values obtained in related studies. Effect size  $f^2$  indicates the intensity of the impact of certain omitted constructs on the endogenous construct, where  $f^2$  values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects of exogenous constructs (Cohen, 1988). Omitting relational capital has a large effect, whereas omitting structural capital has a moderate effect on renewal capital (Table 3). Omitting human capital has a large effect on relational capital. Predictive relevance of the model can be assessed using the  $Q^2$  value (Geisser, 1974; Stone, 1974) obtained by a blindfolding procedure. Using a blindfolding procedure with omission distance 6, the obtained  $Q^2$  values are larger than zero ( $Q^2$  values from 0.135 to 0.32 were obtained from cross-validation redundancy analysis) for certain en-

dogenous constructs, which indicates that the predictive relevance and accuracy of the path model is acceptable for certain constructs. To test the significance at the 5% level of the direct effect, a bootstrapping procedure with 5,000 samples and no sign change option, two-tailed test is performed. The BCa bootstrapping confidence intervals showed that none of the direct effects of BCa confidence intervals include zero values, which means that all direct effects are significant at the 5% level (Table 3). In terms of relevance, the path coefficients have values ranging from -1 to +1. All direct effects in the research structural model have values from 0.224 to 0.509, indicating positive relationships between particular constructs significant at the 5% level, indicating that all hypotheses are confirmed. Results of the structural model estimation are shown in Figure 3.

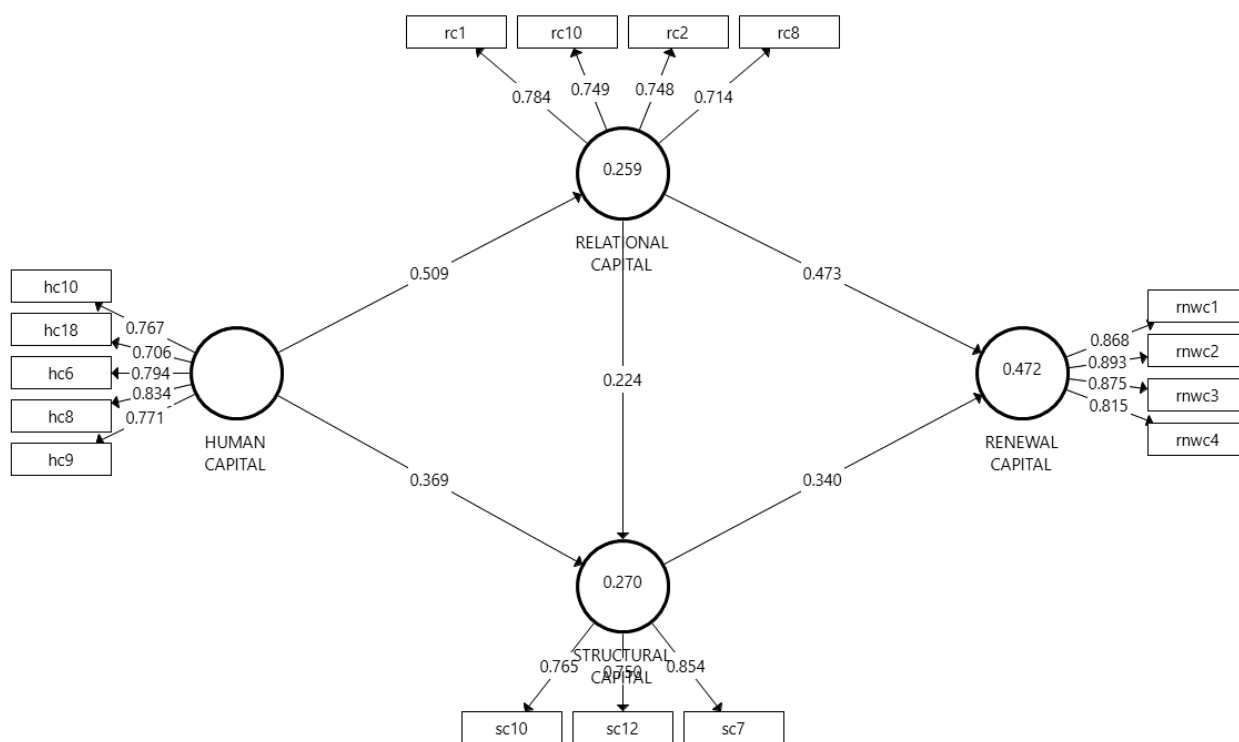
The strongest effect in the structural model is the direct effect of human capital on relational capital (0.509). Human capital has a stronger effect on structural capital (0.369) than does relational capital (0.224). Relational capital has a stronger effect (0.473) on renewal capital than does structural capital (0.34). Details of the relevance and significance of the path coefficients and the predictive relevance of the model are given in Table 3 and Figure 3. When examining the structural model results, researchers should interpret the total effects that represent the sum of direct and indirect effects in the structural model. Interpretation of the total effects provides more comprehensive understanding of the links between latent constructs in the path model. Human capital has only indirect effects on renewal capital via relational and structural capital in the path

Table 3: Direct effects and predictive relevance of structural model

	Direct effects	t-value	p-value	95%BCa confidence interval		Expected result*	Obtained result*	$R^2$	$f^2$ effect size
				2.5%	97.5%				
HC -> RC	0.509	9.812	0.000	0.399	0.602	+	√	0.259	0.350
HC -> SC	0.369	5.473	0.000	0.234	0.497	+	√	0.270	0.138
RC -> RNWC	0.473	8.459	0.000	0.352	0.575	+	√	0.472	0.352
RC -> SC	0.224	3.039	0.002	0.076	0.367	+	√	0.270	0.051
SC -> RNWC	0.340	5.564	0.000	0.220	0.458	+	√	0.472	0.181

\* + denotes positive relationship; √ denotes confirmed relationship.

Figure 3: Structural model assessment



model, so it can be concluded that human capital has a significantly larger impact on organizational renewal through relational capital. In addition to direct effects, relational capital has an indirect effect on renewal capital via structural capital. The total effect of relational capital on renewal capital is stronger than its direct effect, with the help of structural capital as mediator.

## 5. DISCUSSION AND CONCLUSION

This research examined the complementary role of traditional intellectual capital dimensions, such as relational and structural capital, as representatives of tacit and explicit knowledge in renovating knowledge bases and organizational renewal. Extant previous research in the field of intellectual capital rarely mentions renewal capital as part of intellectual capital or focuses on its relevance. The findings of this study reveal the important role of renewal capital as a potential dimension of intellectual capital, especially in the dynamic and unpredictable business environment of organizations in transition economies.

In terms of the intercorrelation of intellectual capital dimensions, human capital has the strongest direct effect on relational capital. More-developed human capital, which means a more-qualified and better-trained work force, leads to more-developed capabilities and skills to satisfy customers demands and needs (Bontis et al. 2000). Workers possessing advanced knowledge and skills are more capable of developing better and higher-quality relationships with customers based on their formal education, expertise, and capabilities, which enables accumulation of relational capital resources. Hypothesis 1 is confirmed. Results of previous research confirm a positive relationship between human capital and relational capital with following direct effects: 0.315 (Tseng & Goo, 2005), 0.391 (Cabrita & Bontis, 2008), 0.463 (F-Jardon & Martos, 2009), 0.465 and 0.568 (Shih et al., 2010), 0.701 and 0.771 (Maditinos et al., 2010), and 0.798 (Bontis et al., 2000).

The weakest direct effect in the proposed research model is that of human on structural capital, which indicates a lack of or underdeveloped organizational capabilities to transform individual tacit knowledge into explicit knowledge. Obviously, orga-

nizations in the Republic of Srpska are aware of the importance of the externalization of knowledge owned by employees. However, organizations still are facing challenges how to manage tacit knowledge, through adequate knowledge codification systems and innovation procedures, and retain knowledge inside the organizations. Hypothesis 2 is confirmed. Previous research detected similar direct effects of human capital on structural capital, such as 0.264 and 0.280 (Meditinos et al., 2010), 0.304 and 0.525 (Bontis et al., 2000), 0.397 (F-Jardon & Martos, 2009), 0.546 (Martínez-Torres, 2006), 0.550 (Tseng & Goo, 2005), 0.755 (Cabrita & Bontis, 2008), and 0.886 (Shih et al., 2010).

Relational capital has a weaker positive direct effect on structural capital than renewal capital. External communication with stakeholders and the market leads to the development of adequate systems and procedures as providers of relevant information to employees. However, incorporating external information into internal organizational structures is undeveloped. Neglecting the importance of explicit knowledge adoption and integration implies omission of potentially significant information about clients, which can result in missing interesting business and market opportunities. Redirecting organizations toward the market and customers can lead to the creation of efficient organizational routines and processes as determinants of customer satisfaction (Bontis et al., 2000). Hypothesis 3 is confirmed. Results of previous studies indicate a positive stronger direct effect of relational capital on structural capital, such as 0.359 (Shih et al., 2010), 0.399 (Cabrita & Bontis, 2008), 0.441 and 0.496 (Bontis et al., 2000), and 0.489 (F-Jardon & Martos, 2009). Relational capital has a nearly two times stronger direct effect on renewal capital than does structural capital in organizations in the Republic of Srpska, Bosnia and Herzegovina. Clients and business relationships represent a channel for gaining new knowledge that enhances organizational capability to learn (Hsu & Fang, 2009). Organizations in the Republic of Srpska are focused on the development of connections with the external environment that improve organizational knowledge. Hypothesis 4 is confirmed. Results of similar studies showed the direct effect of relational on renewal capital, such as 0.179, 0.208, 0.278, and 0.324 (Buenechea-Elberdin et al., 2018).

Structural capital has a weaker positive direct effect on renewal capital than does relational capital. Explicit knowledge codified and stored in organizational systems and procedures represents one of the main sources of knowledge creation (Nonaka & Takeuchi, 1995). Without organizational systems and procedures that deliver relevant information to employees (Argote & Miron-Spektor, 2011), organizations cannot learn. Structural capital development enables easy access to knowledge that enhances organizational renewal capability. Hypothesis 5 is confirmed. Relational and structural capital play an important role in renewal capital creation and development. Knowledge base renovation depends on previously developed knowledge resources and tacit knowledge created through employee–environment interaction. The synergetic effect of relational and structural capital improves organizational capability to learn (Hansen et al., 1999; Storey & Kahn, 2010; Kuma & Ganesh, 2011). Relational capital has a dominant role in acquiring new knowledge and learning, which implies the dominance of personalization strategy as a knowledge management strategy in which knowledge is created through individuals' interaction, whereas codification knowledge has a secondary role.

In terms of the prediction relevance of the structural model, it can be concluded that the proposed interrelationships between intellectual capital dimensions explain 47.2% of renewal capital's variance, which is relatively high considering that the model has only relational and structural capitals as predictors. Results of previous studies indicated similar values of renewal capital's coefficient of determination, such as 0.393 and 0.433 (Buenechea-Elberdin et al., 2017). Structural capital's coefficient of determination of 27% is a relatively weak result, but similar to results were obtained in other studies with human and relational capital as predictors, with values of  $R^2$  such as 0.565 (F-Jardon & Martos, 2009), 0.680 (St-Pierre & Audet, 2011) and some weaker results such as 0.039 (Wang & Chang, 2005) and 0.249 (Bontis, 1998). With values of 25.9%, the  $R^2$  of relational capital is quite high considering that it has only human capital as its predictor. Results of previous studies indicated similar values of relational capital's  $R^2$ , such as 0.170 (St-Pierre & Audet, 2011) and 0.214 (F-Jardon & Martos, 2009).

The aim of this research was to test and emphasize the relevance of intellectual capital management in the context of a transition economy such as the Republic of Srpska, Bosnia and Herzegovina. To the author's knowledge, there are no studies examining the relationship between intellectual capital dimensions of human, relational, structural, and renewal capital in the case of organizations in the Republic of Srpska, Bosnia and Herzegovina.

It can be concluded that renewal capital to a large extent is dependent on previously developed knowledge resources in organizations in the form of relational and structural capital. Organizations with a developed base of tacit and explicit knowledge have better preconditions to create and enhance organizational renewal. Relational and structural capital as a result of pursuing personalization and codification knowledge management strategies have a significant role in creating renewal capital. These knowledge management strategies are combined in organizations in the Republic of Srpska, which is in accordance with previous empirical results (Hansen et al., 1999; Storey & Kahn, 2010). Results show that it is important to promote personal interaction and codification of tacit knowledge in an organization to enhance the knowledge base and to improve the organizational ability to learn.

Future studies should examine the impact of interrelationships of intellectual capital dimensions on organizational performance. It would be especially interesting to determine the role of renewal capital as a mediator in intellectual capital–innovation performance in transition economies. In addition, innovation performance could be classified into process and product innovations to gain detailed insight into the nature and intensity of relationships between tested conceptualized intellectual capital and certain types of innovations in transition economies. As control variables in future studies, the size of the organization, the industry branch, product- or service-oriented organizations, and the level of technological sophistication could be used to gain a comprehensive understanding of the nature of links between intellectual capital dimensions.

There are several limitations of this study. The sample structure is a limitation because there was a dominance of service-oriented organizations, which prevents generalization of the results for the population. The assumption of the application of PLS-SEM implies the possibility of using the PLS algorithm to test only nonrecursive models. This represents one of the methodological limitations of the study. In the proposed research model, certain types of one-way relationships were tested. Studies showing other types of intellectual capital dimensions' interaction could be tested in the context of a transition economy such as the Republic of Srpska, Bosnia and Herzegovina. Using only perceptual measures to measure intellectual capital dimension represents the next research limitation. Future studies should reconsider using objective measures to measure intellectual capital dimensions.

From an academic perspective, the results of this research contribute to the existing literature in the intellectual capital field by examining intellectual capital in a transition economy and by identifying the importance of analyzing renewal capital as an intellectual capital dimension and its links with other intellectual capital dimensions. According to the obtained results, renewal capital represents an important knowledge resource, especially in organizations in transition economies.

From a managers' perspective, this research suggests the importance of using an intellectual capital frame to assess the presence of different forms of knowledge resources in organizations in a transition economy such as the Republic of Srpska, Bosnia and Herzegovina, and their inter-relationships. Managers are able to better understand the significance of each intellectual capital dimension and intensity of their mutual links in order to make better decisions to allocate their limited resources to those activities which yield direct and indirect effects on intellectual capital development.

## EXTENDED SUMMARY/IZVLEČEK

Organizacijska sposobnost ustvarjanja in uspešnega ravnanja z znanjem v različnih oblikah je postala osnova za vrhunsko organizacijsko uspešnost in trajnostno konkurenčnost. Dandanes se pomen znanja in neopredmetenih sredstev, tj. intelektualni kapital hitro povečuje. Slednje je moč opaziti predvsem v razvitih gospodarstvih. Neopredmetena sredstva imajo prevladujočo vlogo in postopoma nadomeščajo fizične vire kot najpomembnejši proizvodni faktor za organizacijski uspeh. Kljub temu da so številne študije pokazale pomembne ugotovitve na področju merjenja intelektualnega kapitala in njegove konceptualizacije, še vedno ni enoznačnega soglasja glede razsežnosti intelektualnega kapitala. Pretekle raziskave so se osredotočile predvsem na tradicionalno razsežnost intelektualnega kapitala – človeški, relacijski in strukturni kapital – zanemarjajo pa zmogljivost obnavljanja v organizaciji kot razsežnost intelektualnega kapitala. O tem, ali obstajajo medsebojne povezave tradicionalnih razsežnosti intelektualnega kapitala v tranzicijskih gospodarstvih, ni sistematičnih ugotovitev. Ta prispevek, pripravljen v okviru tranzicijskega gospodarstva, obravnava in empirično preverja dopolnilno vlogo tradicionalnih razsežnosti intelektualnega kapitala v organizacijskem obnavljanju. Primarni podatki so bili zbrani z uporabo predhodno psihometrično validiranih vprašalnikov iz 224 organizacij iz Republike Srbske znotraj Bosne in Hercegovine. Hipoteze so bile preizkušene z modeliranjem strukturnih enačb po metodi delnih najmanjših kvadratov (PLS-SEM). Izsledki raziskave kažejo, da ima obnovitveni kapital pomembno vlogo. Prav tako dokazuje intenzivnost povezovanja relacijskega in strukturnega kapitala z obnovo znanja, pri čemer je poudarek na pomenu različnih oblik znanja v organizacijski obnovi. Managerji lahko najdejo nekaj koristnih navodil za učinkovito upravljanje intelektualnega kapitala in se zavejo prisotnosti medsebojne povezanosti virov znanja ter njihovega pomena za organizacijsko obnovo.

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## SELF-REGULATION AND PERCEPTION OF JOB INSECURITY

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### Abstract

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*According to self-determination theory, the attitude toward a threat is determined by the quality of self-regulation. Job insecurity represents an intensive chronic stress, a threat without any objective signs that can undermine self-regulation. This paper investigated the relationship between self-regulation and job insecurity. More precisely, it investigated the way in which an increase in the quality of self-regulation influences the affective component of job insecurity: feelings of powerlessness and the perception of threat intensity. The study was conducted on a sample of 310 employees of both genders, working in 24 companies of different sizes, profiles, structures, and ownership. The instruments used were the Perception of Job Insecurity Scale and the Ego Functioning Questionnaire. The hypotheses that an increase in self-regulation quality is followed by a decrease in the sense of powerlessness with regard to the threat generated by job insecurity and a decrease of threat intensity caused by job insecurity were tested using multiple regression analysis. Results indicated that self-regulation is associated with threat perception and sense of powerlessness. Integrated self-regulation is related to a lower level of threat perception, whereas the impersonal one relates to higher perception of threat and sense of powerlessness. The paper confirms the role of personality dispositions vis-à-vis threat and further substantiates the value of self-determination theory in the organizational context.*

**Keywords:** *self-regulation styles, job insecurity, self-determination theory*

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### 1. INTRODUCTION

The term *self* is associated with a host of under-defined terms, such as self-concept, self-scheme, ego, psyche, personal or social identity, and executive organ, although all these terms point to the same dynamic and recursive process of self-organizing and integration as a means of development of a person out of a biological entity (Markus & Kitayama, 2010). Self-regulation represents one of the most important executive functions of the self (Baumeister, 2002); it consists of the ability to regulate a person's own emotional and social behavior (Ryan, Deci & Grolnick, 1995; Ryan, La Guardia,

Solky-Butzel, Chirkov, & Kim, 2005). Self-regulation entails not only being goal-driven but also being able to avoid environmental interference and to control emotional impulses which could make the progress of the individual toward preset goals more difficult.

Taking into consideration a domination of a specific self-regulation style, Hodgins and Knee (2002) described three types of self: integrated self, ego-invested self, and impersonal self. Integrated self refers to a harmonized self-system. Integrated self occurs in individuals who were able during their development to obtain the needed social support for their strivings toward the fulfill-

ment of all three basic psychological needs (the needs for relatedness, competency and autonomy). Persons with an integrated self succeed in learning how to value themselves for who they really are, in recognizing the importance of their own authentic internal impulses, and in developing unconditional self-appreciation and a good quality of self-regulation.

Ego-invested self develops in circumstances of lacking support for autonomy (Hodgins & Knee, 2002); it leads to a fake self-image, dependent on obtaining approval from others. When a person's actual experiences do not support the fake image of self that had been created, the individual attempts to preserve the existing self-image through avoidance, denial, and distortion of events and information, in order to keep a sense of self-value.

Impersonal self represents the lowest level of self-regulation. This type of self ensues during an individual's development and it entails personal experience in which the three basic psychological needs largely were unfulfilled (Hodgins & Knee, 2002). These persons display an absence of intention in behavior, they are easily excited, and often overwhelmed with information and negative thoughts and feelings; they have a sense of an inability to control things happening to them and tend to withdraw from novel experiences.

Several studies have suggested specific manifestations of the aforementioned three self-systems (Kasser & Ryan, 1993, 1996; Knee & Zuckerman, 1996, 1998). The described self-types influence stress perception, assessment of stress, and the entire process of integrating novel (especially threatening) experiences. Integrated self is characterized by the highest threshold for threat; less-pronounced defenses and the capability to integrate new and contradicting information. Impersonal self withdraws from novel experiences, turns to routines and repetitive activities and engages in social self-isolation in order to preserve its own unstable functioning (Hodgins, 2008; Hodgins & Knee, 2002). The controlled functioning of ego-invested self implies regulating conscious experience in threatening situations so as to deny or avoid events that are not congruent with the constructed reality and self-image (Deci & Ryan, 2002).

Studies indicate that self-regulation is often the key factor in the perception and assessment of stress in different life domains (Skinner & Edge, 2002; Hodgins & Knee, 2002; Hodgins, 2008). Therefore, it is important to investigate whether a similar relationship exists between this construct and stress caused by job insecurity.

Job insecurity represents a severe stress – threat, which occurs due to the fear of losing one's job (DeWitte, 2005; Landesbergis, Grzywacz, & La-Montagne, 2014). De Witte (2000) defined job insecurity in terms of a concept which includes a cognitive and an affective dimension; the affective dimension pertains to different emotions which follow the insecurity of employment continuity, whereas the cognitive dimension includes assessment and perception of the probability that the threat of losing one's job will become reality. By making a clear distinction between the affective and cognitive dimensions of job insecurity, it is evident that the affective dimension is more strongly associated with psychological pressure, whereas the cognitive dimension is linked to different work outcomes, such as dedication to the company and job satisfaction (Huang, Lee, Ashford, Chen, & Ren, 2010; Huang, Niu, Lee, & Ashford, 2012).

## 2. THEORETICAL BACKGROUND

The theoretical framework of all studied constructs was best covered by self-determination theory, within which the theory of basic psychological needs (Ryan & Deci, 2000), deals with the development of different self-structures. According to the theory of basic psychological needs, development of self-structures and self-regulation is determined by basic psychological needs (Hodgins & Knee, 2002). The level of satisfaction thereof dictates the perceptive, cognitive, emotional, and interpersonal aspects of processing experience (Deci & Ryan, 2002). Fulfilled basic psychological needs (for autonomy, competence, and relatedness) provide vitality for optimal functioning of the self, as well as positive affectivity and optimal motivation (Baard, Deci, & Ryan, 2004; Blascovich, Mendes, Tomaka, Salomon, & Seery, 2003; Van den Broeck, Vansteenkiste, De Witte & Lens, 2008). Motivation is an important component of self-regulation

(Baumeister & Vohs, 2007). Even in the presence of significant self-regulatory resources, in the situation of job insecurity, motivation is needed for regulating the self vis-à-vis threat intensity and sense of powerlessness.

Basic psychological needs lie in the foundation of three motivational orientations: autonomous, controlled, and impersonal (Ryan & Deci, 2000). The orientation with the highest quality, autonomous motivation, is accompanied by an integrated and stable self, whereas controlled motivation involves ego-investing functioning of the self (Decy & Ryan, 1995; Kernis, Paradise, Whitaker, Wheatman, & Goldman, 2000; Ryan, 1991). The impersonal self correlates positively with the controlled and negatively with the autonomous orientation (Majstorović, Legault & Green-Demers, 2008). Legault and Inzlicht (2013) indicated the existence of neural differences associated with different types of self-regulation and believed them to be related to motivation quality and not quantity. Autonomous motivation leads to increased cognitive control, improved thought suppression (Muraven, Gagne & Rosman, 2008), increased concentration (Bernier, Carlson, & Whipple, 2010; Muraven et al., 2008), better and more accurate awareness, and more successful acceptance of negative affect and threat (Legault & Inzlicht, 2013). Therefore, autonomous motivation enhances basic self-regulation processes, whereas controlled motivation has no such neuroaffective effect (ibid). With regard to the psychological pressure exerted by continuous threat assessment and management of a sense of powerlessness, as well as the fact that fatigue, emotions (Heatheron & Baumeister, 1991), and decision-making processes use up a person's self-regulation capacities (Vohs et al., 2008), it is important to investigate the functionality of each type of self-regulation in the context of threat generated by job insecurity.

#### *The present study*

Previous studies have dealt with the relationship between self-regulation and perception of threats and confirmed the value of self-regulation in the perception of threat (Knee & Zuckerman, 1998; Skinner & Edge, 2002, Hodgins & Knee, 2002;

Hodgins, 2008; Knee, Patrick, Vietor, Nanayakkara, & Neighbors, 2002; Hodgins, Yacko, & Gottlieb, 2006; Legault & Inzlicht, 2013). This paper adds to the body of knowledge by investigating the relationship between self-regulation and the two-dimensional threat construct: threat intensity and sense of powerlessness.

Specifically, we were interested in the way in which an increase in the quality of self-regulation impacts the affective component of the perception of job insecurity: the sense of powerlessness and the perception of threat intensity. Because an integrated self-system is characterized by substantial psychological potential, we can assume that employees with this type of self-regulation will cognitively assess the situation of job insecurity more positively, and accordingly will have a less negative emotional experience thereof. In contrast, it can be expected that a nonfunctional system of impersonal self-regulation will put additional pressure on the employees, thus intensifying their negative emotional state in the context of job insecurity. Because the ego-invested self uses emotional defenses in processing threatening experiences (Deci & Ryan, 2002), we expected its role not to be significant in relation to the sense of powerlessness or intensity of threat generated by job insecurity. The formulated hypotheses reflect the aforementioned research questions:

*Hypothesis 1:* An increase in the quality of self-regulation of everyday behavior correlates with a decrease in the sense of powerlessness with regard to the threat generated by job insecurity.

*Hypothesis 2:* An increase in the quality of self-regulation of everyday behavior correlates with a decrease in the perception of threat intensity generated by job insecurity.

### **3. METHODOLOGY**

#### **3.1 Sample and data collection**

The convenience sample consisted of employees from 24 companies of different sizes, profiles, structures, and ownership. It involved 310 employees, both genders being approximately equally represented, working in both the state and the private sectors. The sample included executives and work-

ers with different educational levels and marital and socioeconomic statuses. The participants were divided into three age categories (Table 1).

*Table 1: Descriptive characteristics of the sample (N= 310)*

	Category	Number	%
Gender	Male	144	46.5
	Female	166	53.5
Age	20–35 years	115	37,1
	36–45 years	93	30
	46–65 years	102	32.9
Company ownership	State	130	41.9
	Private	180	58.1
Position in the company	Employees	247	79.7
	Executives	63	20.3
Level of education	Primary school	15	4.8
	High school	186	60
	College/University	98	31.6
	Master/Doctoral degree	11	3.5
Marital status	Married	181	58.4
	Unmarried	98	31.6
	Divorced	23	7.4
	Widow(er)	8	2.6
Socioeconomic status	Below average	46	14.8
	Average	226	72.9
	Above average	38	12.3

### 3.2 Instruments

The Perception of Job Insecurity Scale (Knežević & Majstorović, 2013) was constructed based on similar scales (Ashford, Lee & Bobko, 1989; Isaksson, Hellgren & Pettersson, 1998). The scale measures the affective and the cognitive dimensions of job insecurity with 22 items to which the examinees respond on a five-point Likert-type scale (from 1 = strongly disagree to 5 = strongly agree). The reliability of the scale is  $\alpha = 0.903$ .

Principal component analysis yielded four factors whose eigenvalues exceeded 1, whereas the scree test suggested isolating three dimensions. Based on the results of the pilot study, we opted for the three-factor solution, which, rotated into the promax position, best represented the collected data and explained 55.42% of the total variance (Table 2).

*Table 2: Eigenvalues of factors for the Perception of Job Insecurity Scale*

Components	Initial values			After promax rotation
	Eigenvalue	% of variance explained	Cumulative % of variance explained	Eigenvalue
<b>1</b>	<b>7.987</b>	<b>36.306</b>	<b>36.306</b>	<b>7.453</b>
<b>2</b>	<b>2.839</b>	<b>12.906</b>	<b>49.212</b>	<b>5.406</b>
<b>3</b>	<b>1.366</b>	<b>6.208</b>	<b>55.420</b>	<b>3.065</b>
4	1.186	5.389	60.809	2.451

The obtained data matrix pointed to high loadings of most items being grouped around the isolated components, whereas two items (9 and 18) had multiple loadings, which led to a repeated factor analysis upon their exclusion. Table 3 lists the eigenvalues of factors for the Perception of Job Insecurity Scale (after the exclusion of items with multiple loadings).

*Table 3: Eigenvalues of factors for the Perception of Job Insecurity Scale (after the exclusion of items with multiple loadings)*

Components	Initial values			After promax rotation
	Eigenvalue	% of variance explained	Cumulative % of variance explained	Eigenvalue
<b>1</b>	<b>7.244</b>	<b>36.219</b>	<b>36.219</b>	<b>6.951</b>
<b>2</b>	<b>2.816</b>	<b>14.080</b>	<b>50.299</b>	<b>2.973</b>
<b>3</b>	<b>1.326</b>	<b>6.630</b>	<b>56.929</b>	<b>3.825</b>
4	1.149	5.745	62.674	2.223

This allowed the construction of three subscales with the following number of items: Threat intensity, 11 items; Job loss probability, four items; and Sense of powerlessness, five items. The reliability analysis of subscales of the Perception of Job Insecurity Scale showed that the subscale Sense of powerlessness had a somewhat lower reliability (Table 4).

*Table 4: Reliability of subscales for the Perception of Job Insecurity Scale*

Subscale	Cronbach's alpha coefficient ( $\alpha$ )
Threat intensity	0.926
Sense of powerlessness	0.656

The Ego Functioning Questionnaire (EFQ) (Majstorović, Green-Demers, & Legault, 2008) is an instrument intended for the assessment of three types of self: the integrated self, the ego-invested self, and the impersonal self. The questionnaire consists of 30 items assessing different types of self (10 items for each type). All items are responded to on a seven-point Likert-type scale (from 1 = strongly disagree to 7 = strongly agree).

Factor analysis yielded eight factors whose eigenvalues were above 1, whereas the scree test suggested isolating three components. Considering the theoretical hypothesis according to which items grouped within three dimensions, the analysis was repeated with the preset three-component solution. The three isolated factors accounted for 39.58% of the total variance, with all 30 items being included in this solution (Table 5).

*Table 5: Eigenvalues of factors for the EFQ scale*

Components	Initial values			After rotation
	Eigenvalue	% of variance explained	Cumulative % of variance explained	Eigenvalue
1	5.013	16.709	16.709	5.013
2	4.910	16.366	33.076	4.910
3	1.951	6.502	39.577	1.951
4	1.687	5.623	45.200	1.687
5	1.471	4.904	50.105	1.471
6	1.245	4.149	54.253	1.245
7	1.037	3.456	57.710	1.037
8	1.005	3.351	61.061	1.005

This allowed all three original subscales to be kept, with 10 items each. The reliability of all scales was shown to be satisfactory (Table 6).

*Table 6: Reliability of theoretically preset EFQ subscales*

Subscale	Cronbach's alpha coefficient ( $\alpha$ )
Integrated self	0.742
Ego invested self	0.773
Impersonal self	0.868

### 3.3 Variables

*Predictor/independent variable – self-regulation styles:* in this study, self-regulation styles were operationalized as total scores on three subscales of the EFQ scale: impersonal, ego-invested, and integrated. Due to the congruence of the factorial and theoretical structures of the instrument, all items of the EFQ scale were used in hypotheses testing.

*Criterion/dependent variable – job insecurity perception* represents a measure of subjective perception of the level of job insecurity. Two affective dimensions of job insecurity were assessed: sense of powerlessness and threat intensity. The sense of powerlessness represents an employee's subjective feeling of lack of control over losing his/her job, whereas threat intensity involves a subjective assessment of the intensity of the threatening situation. The dimensions of job insecurity perception were operationalized as scores on the Perception of Job Insecurity Scale. Items finally included in the subscales were those that, after factor analysis, had highest loadings on the isolated factors.

Variables that were used in the study are shown in Table 7.

Analysis indicated that none of the variables deviated significantly from normal distribution, except the value of kurtosis for the variable of Threat intensity, which was close to the critical point. Reliability below the lower confidence limit was found for the subscale of Sense of powerlessness. The reliability indexes of the other subscales used were satisfying.

## 4. RESULTS

Our first hypothesis expected that with an increase in self-regulation quality of everyday behavior, the sense of powerlessness in the face of a threat generated by job insecurity decreases. To test

*Table 7: Descriptive measures of variables explored in the study (the number of items in each scale is given in parentheses)*

Variables	Minimum	Maximum	Mean	SD	$\alpha$	Skewness	Kurtosis
Threat intensity (11)	1.09	5.00	3.063	1.038	0.926	-0.107	-1.039
Sense of powerlessness (5)	1.00	5.00	3.322	0.892	0.656	-0.469	-0.143
Integrated self (10)	2.50	7.00	4.935	0.894	0.742	-0.283	-0.303
Ego-invested self (10)	2.00	7.00	4.653	1.009	0.773	-0.236	-0.290
Impersonal self (10)	1.00	6.30	2.823	1.174	0.868	0.706	-0.041

this hypothesis, a multiple regression analysis was conducted with three types of self-regulation as predictors and the sense of powerlessness as the criterion. A statistically significant model was obtained in the prediction of the sense of powerlessness [ $F(3, 227) = 8.42, p < 0.001$ ] (Table 8). The impersonal self was singled out as a significant positive predictor ( $\beta = 0.26, p < 0.001$ ). With an increase in the use of impersonal self-regulation, the sense of powerlessness also increased, whereas integrated and ego-invested self-regulation had no influence on the prediction of the sense of powerlessness, therefore our hypothesis can be rejected.

*Table 8: Significance of the model and partial contributions of predictors (three types of self-regulation) in predicting the sense of powerlessness*

Model	Predictors	$\beta$	t	p
R2 = 0.10; F = 8.42; p < 0.001	Integrated self	0.020	0.287	0.774
	Ego-invested self	0.135	1.921	0.056
	Impersonal self	0.261	3.945	0.000

In testing the second hypothesis, which expected that with an increase in quality of self-regulation of everyday behavior, the perception of threat intensity due to job insecurity decreases, a multiple regression analysis was conducted with the three types of self-regulation as predictors and the threat intensity as the criterion. We obtained a statistically significant model for the prediction of perception of threat intensity [ $F(3, 227) = 13.99, p < 0.001$ ] (Table 9). The integrated self was isolated as a significant

negative predictor ( $\beta = -0.16, p < 0.05$ ), whereas the impersonal self was shown to be a significant positive predictor ( $\beta = 0.32, p < 0.001$ ). With an increase in the quality of self-regulation, the perception of threat intensity decreases; therefore the postulated hypothesis was supported.

*Table 9: Significance of the model and partial contributions of predictors (three types of self-regulation) in the prediction of the perception of threat intensity*

Model	Predictors	$\beta$	t	p
R2 = 0.16; F = 13.99; p < 0.001	Integrated self	-0.157	-2.328	0.021
	Ego-invested self	0.123	1.811	0.071
	Impersonal self	0.316	4.937	0.000

## 5. DISCUSSION AND CONCLUSION

This paper addressed the way in which an increase in the quality of self-regulation influences the affective component of job insecurity perception: the sense of powerlessness and the perception of threat intensity. Analyzing the relationship between self-regulation and the perception of job insecurity indicated that an increase in self-regulation correlates with a decrease in the perception of threat intensity. The use of impersonal self-regulation increases both the perception of threat intensity and the sense of powerlessness in the face of a threat. This finding is explained by the developmental capacities of the integrated self, which include an increased level of tolerance of threat and decreased vulnerability, leading to a decrease in the

perception of threat intensity. This type of self-regulation is characterized by a highly efficient self – a well-developed capability of the self to plan and to manage specific areas of psychological functioning, thus being a significant coping resource which moderates stress, i.e., threat intensity inherent to job insecurity.

In a stressful transaction with job insecurity, impersonal self-regulation uses up a large amount of psychological energy and instigates physiological arousal and dysfunctional cognitive functioning. It can be surmised that employees with impersonal self-regulation will be preoccupied with worry and threat in the situation of job insecurity, and they will have low self-confidence and be overwhelmed with negative emotions, which will interfere with their cognitive functioning.

In an attempt to overcome the situations of job insecurity, an ego-invested self is prone to mental and behavioral distancing from stressors, which explains the lack of significance of this type of self-regulation in our study. Employees with ego-invested self-regulation approach the situation of job insecurity intently, with direction toward self and psychological processes that maintain the stability of the personality, rather than being directed toward the stressor itself (Knežević & Mitrić Aćimović, 2017).

Our results are in line with the results of previous studies of the relationship between the quality of self-structures and the perception of the level of threat (Hodgins, 2008; Hodgins & Knee, 2002). An integrated self develops high self-confidence that decreases the negative assessment of stressors and level of threat (Lee-Flynn, Pomaki, DeLongis, Biesanz & Puterman, 2011). A positive self-concept facilitates the adjustability of employees to organizational changes (Judge, Thoresen, Pucik & Welbourne, 1999), and superior self-evaluations lead to better capabilities of coping with transitions in the organizational context (Kammeyer-Mueller, Judge, & Scott, 2009).

Impersonal self-regulation accentuates a high level of defense against a currently experienced event, which diminishes and limits perception and therefore excludes potentially beneficial information (Balcetis & Dunning, 2006). In addition, negative arousal generated in response to threat

weakens the coping capacity and exhausts the individual's cognitive resources (Blascovich & Tomaka, 1996). Empirical data suggest that impersonal self-regulation is associated with social anxiety, self-derogatory behavior, and an external locus of control (Deci & Ryan, 1985). This type of self-regulation potentiates neuroticism as a personality trait, and the literature contains an abundance of studies pointing to the connection between neuroticism and negative assessments of a stressful situation (Deary et al., 1996; Lee-Flynn, Pomaki, DeLongis, Biesanz, & Puterman, 2011), as well as its relationship with using maladaptive coping (McCrae & Costa, 1986). Studies also demonstrated that the lack of motivation, which lies in the basis of impersonal self, does not lead to a constructive engagement of the self; rather, it provokes negative emotional experience by bringing on less-adaptive forms of coping (Doron, Stephan, Maiano, & Le Scanff, 2011) and is linked with passivity, distress, and poor adaptation (Vallerand et al., 1993).

In the context of general job insecurity, the obtained results are of great practical value. Because the quality of self-regulation is associated with the psychological pressure induced by job insecurity, the quality of self-regulation can be a significant element in the selection of job applicants, but also is a field in which organizational psychologists can be engaged.

The results of this study provide a basis for creating organizational interventions aimed at strengthening resilience against stress caused by the perception of job insecurity. Namely, although the quality of self-regulation is a matter of personality disposition, self-regulation can be practiced and perfected. The role of managers and organizational psychologists in this process is paramount, and it concerns primarily the verbalization of an employee's success associated with self-regulation of emotions, thoughts, and behavior: effective regulation of anxiety, successful mastering of new forms of working behavior, etc.

An important organizational intervention to promote employees' self-regulation consists of establishing goals – behavior or an outcome (emotional, social, etc.) which a person wittingly tries to perform or achieve. In the circumstances of job

insecurity, goals can be significant because they maintain an active relationship with stress: by helping to focus the attention on the task at hand – maintaining the focus of attention and eliminating distractors, encouraging making a greater effort, enhancing perseverance, and instigating the use of new strategies when old ones are no longer successful – goals enhance motivation to use novel strategies if those strategies used so far have been inefficient in accomplishing goals (Locke & Latham, 1990).

This study is the first conducted of job insecurity perception in Serbia, and as such it has significant implications for both the theory and praxis in the field of organizational stress and wellbeing of employees in Serbia. The limitations of this study primarily concern the cross-sectional study design, as well as the fact that all variables were assessed by the same source, self-evaluation by employees, which can lead to inflation of correlations between phenomena. A way to overcome these limitations would be to apply a longitudinal research design in the study or to combine different data sources: self-evaluations and observations made by managers, for example.

Low reliability of the scale for sense of powerlessness is a further limitation of this study.

Future studies should include more variables to gain better understanding of individual differences in the perception of job insecurity as well as of the mechanisms at the core of this phenomenon (personality traits, basic psychological needs, and other motivational variables).

Dispositional differences originating from the developmentally achieved quality of self-regulation play a key role in the dynamic relationship between the personality and the affective perception of job insecurity. Concerning attitude toward the threat generated by job insecurity, the impersonal and integrated self-regulation stand out. Integrated self-regulation remains stable in the transaction with a threat, moderating the perception of job insecurity, whereas impersonal self-regulation is additionally undermined by job insecurity, accentuating the sense of powerlessness and threat intensity in employees. This study showed that with an increase in the quality of self-regulation, the perception of threat intensity decreases. Self-determination theory provided a valid conceptual framework for understanding the relationship between self-regulation style and perception of job insecurity.

## EXTENDED SUMMARY/IZVLEČEK

Teorija samodoločenosti pravi, da je odnos do grožnje določen s kakovostjo samoregulacije. Negotovost zaposlitve predstavlja intenziven kronični stres, grožnjo brez objektivnih znakov, ki bi lahko oslabili samoregulacijo. Raziskava preučuje razmerje med samoregulacijo in negotovostjo zaposlitve. Natančneje raziskava preučuje, kako povečanje samoregulacije vpliva na čustveno komponento negotovosti zaposlitve: občutke nemoči in dožemanje intenzivnosti grožnje. Študija je bila izvedena na vzorcu 310 zaposlenih, moških in žensk, ki delajo v 24 podjetjih različnih velikosti, profilov, struktur in lastništva. Uporabljeni instrumenti so vključevali lestvico dožemanja zaposlitvene negotovosti in vprašalnik o delovanju ega. Hipoteze, da povečanju samoregulacije sledi zmanjšanje občutka nemoči in zmanjšanje intenzivnosti grožnje, ki ju povzroča negotovost zaposlitve, so bile preizkušene z multiplo regresijsko analizo. Rezultati kažejo, da je samoregulacija povezana z zaznavanjem grožnje in občutkom nemoči. Integrirana samoregulacija je povezana z nižjo stopnjo zaznave grožnje, medtem ko je medosebna samoregulacija povezana z večjo percepcijo grožnje in občutkom nemoči. V članku je potrjena vloga osebnostnih dispozicij do grožnje in dodatno utemeljena vrednost teorije samodoločenosti v organizacijskem kontekstu.

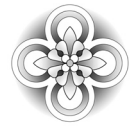
**Ključne besede:** samoregulacija, negotovost zaposlitve, teorija samodoločenosti



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## MANAGING ACROSS GENERATIONS: THE CASE OF BIBITA GROUP

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### **Abstract**

*Working in a multigenerational company is a great challenge, especially when holding a managerial role. The differences between the core competencies of employees, their motivational factors, and the way they perceive ideas differs from generation to generation. Understanding and distinguishing between these differences entails a challenge in itself. To be a successful manager, one needs to be a leader and hold knowledge on properly motivating its employees. This articles' main aim is to identify the gap between the different generations in the market, using a case example of Bibita Group. This article is of high relevance because this sort of research, although quite popular in other countries, has never been conducted in Kosovo. It uses a case example approach, which is a descriptive research design, to derive its conclusions. An overarching research method was used, including multiple research techniques, both qualitative and quantitative, to derive data that were useful for the purpose of this article. The results obtained from a questionnaire helped to better understand the characteristics of each of the staff members as well as their preferred motivational factors. The results revealed that the benefits earned from employing a multigenerational staff in a company outweigh the difficulties and consequences associated with the challenges of managing the gap between them.*

**Keywords:** multi-generational workplace, millennials, generational gap

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### **1. INTRODUCTION**

Working in a multigenerational company can be quite a challenge because it requires understanding how each of the generations work and think, and the factors that motivate them. In order to be able to handle the pressure of successfully managing a multigenerational staff, a manager also should be a leader with a considerable amount of information and the ability to utilize that information to create incentives to motivate each of them. Considering the fast-changing pace of the business environment nowadays, successful management and appropriate organizational behavior are vital factors that contribute to a company's success. Depending on the particular circumstances, different generations require different treatments and thus different management styles. This article examines four different generations that currently are in or

are entering the marketplace: Baby Boomers, Generation X, Generation Y (Millennials), and Generation Z. (AMA, 2017).

Tolbize (2008) conducted a similar project in the U.S., and developed a list of things that motivates employees of different age groups and how to train these groups effectively. The study mainly analyzed attitudes of respect, supervision, authority, work, and loyalty to the employer (Tolbize, 2008). The present article is based on a case example. It focuses on analyzing the behaviors and preferences of different generations working in Bibita Group. Finding the right approaches to different generations is a crucial contributor to any company's success.

The suggestions made in this article can help managers to appropriately attract, recruit, and retain a workforce. The research questions that this article investigated are:

- How should different generations properly be managed in the work place in the case of Bibita Company?
- What are some of the most important motivational factors that drive each generation to contribute to this company?
- What are some of the best approaches one could use toward a multigenerational staff in a company?
- How does Kosovo culture influence employees' work values and attitudes?
- What are some of the benefits of having a multigenerational staff?

The relevance of these research questions lies in the fact that these problems have not been elaborated for the specific case of this company. Furthermore, because culture plays a significant role in determining motivational factors, such a study previously had not been conducted in Kosovo's major companies, so this particular case example also may be able to help other significant companies in Kosovo. In this case, managers need to be able to distinguish among the different factors that motivate different generations of employees. It also is crucial for employers to determine the similarities among the different generations on which they will have to focus. By understanding the similarities among the employees of different generations, managers can set up common rules and goals which make it easier for them to lead.

The primary goal of this article was to explore the differences and similarities among the different generations working in Bibita Group in Kosovo and to suggest some of the best approaches that could be used by Kosovo managers to manage properly their multigenerational staff. Because Kosovo is a small country with a high impact of culture on people's behavior, by understanding the motivational factors that affect the employees of Bibita Company, the suggestions developed from this study also may be of great help to the managers in the other large corporations in Kosovo. Particular focus was given to motivational factors that affect these employees. Understanding these driving forces will help managers to gain a wide picture of the needs and wants of the employees, and in this way to address those preferences in a better, more profitable way.

This article addresses the problems that current managers have when leading a multigenerational company and gives them solutions for better understanding their employees.

Lastly, this article can serve as a guide for managers who are interested in advancing their communication and understanding skills toward the four generations within a company. It will give them knowledge of all the benefits to be gained from leading a multigenerational company. "Generational differences in values and job expectations can be a cause of conflict hindering productivity at the working place" (Goldbeck, 2016).

## 2. THEORETICAL BACKGROUND

The first thing a manager needs to understand best in order to manage an intergenerational gap properly in the workplace is what motivates the employees. There are many of definitions of the concept of motivation. Simply, motivation is a concept whose root word is motive. A motive is an internal force that makes people act (Crouse, 2005). Therefore, motivation is an internal force driving people to achieve their goals and satisfy their needs (Crouse, 2005).

A cost-benefit analysis should be in place which shows managers just how much they are prepared to give up, profit-wise, to have highly motivated employees. However, one should not forget that in the long run, motivated employees become loyal employees, and loyal employees become highly productive given the specific experience that they get from a particular company. Therefore, a loss in profit now can easily translate into a higher profit in the future if one uses the right strategies to sufficiently motivate one's staff so that they are most productive at their tasks without hindering the company's success and productivity.

A person can come up with many differences once analyzing a multi-generational workforce, but the magic only happens if these differences are taken into account and people are given the correct tasks in which they can use their full potential. "Younger workers' enthusiasm for trying new things could be used to encourage a culture of innovation, while older workers can leverage their experience

and broad perspective to help Millennials understand some of the costs and risks associated with their ideas” (The Expedite Team, 2016). Nevertheless, it is crucial to foster an environment in which employees feel free to communicate with one another, and, much more critically, to adapt to one another (Baker, 2015).

## 2.1 Characteristics of Different Generations

Due to entirely different circumstances in which employees were brought up, many differences in values and in the way they view the workplace have occurred (Lawrence & Nohria, 2001). However, there are several critiques of the generalizations made about what motivates each generation. “When people become aware of theories that try to describe them as part of a trend, at least a few will consciously adjust their behavior to disprove the theory or will object on principle to being stereotyped” (Salkowitz, 2008). Therefore, it is good to keep in mind that before using incentives to create motivational factors that satisfy employees’ needs, each employee is a unique individual with unique goals and needs in the workplace. Therefore, some motivating factors that may work on one Millennial may just as quickly be a turn-off for another employee who also is a Millennial (Myers & Sadaghiani, 2010).

Baby Boomers are a generation that values authority and hard work. This trait is due to the circumstances in which they were raised, and their parents’ mindset, a generation who were working during World War II. They were raised to show responsibility in the workplace, and during their generation, gender equality gained increased attention. They believe in good work organization, they have a high working ethic, and they are polite. They are motivated mostly by integrity, and, among other things, community involvement (Lawrence & Nohria, 2001).

Generation Xers grew up peacefully after the end of the wars. They concentrated on updating their skill sets and suiting them to market needs. This generation is very resourceful and independent and does not mind adapting to the workplace. For them, it is mostly about career

advancements and teamwork (Lawrence & Nohria, 2001).

Millennials are the tech-savvies in the workforce. They grew up during tremendous technological changes, and thus are very tech savvy and flexible. They prefer to be mobile during their work experience, are independent, and do not fancy micromanagement. This generation is very fond of creativity and innovation, likes diversity, and prefers having work–life balance (Lawrence & Nohria, 2001).

Generation Z is even more technologically prone than Millennials, but they still are in starting positions because they have entered the market quite recently. With the oldest being 22 years old, working straight out of college, they value face-to-face interaction, are very innovative, and also value work–life balance (Patel, 2017).

## 3. METHODOLOGY

The research questions presented at the beginning of the article are all descriptive. Five research questions are answered throughout this research using different methods of obtaining research data. The first method was qualitative analysis designed to answer as a whole of the research problems and grasp the manager’s point of view. Data were collected through an interview conducted with the Company’s CEO, Granit Gruda. Quantitative data were gathered through a questionnaire with multiple-choice questions addressed toward the staff of the organization. This questionnaire was taken from a research study which analyzed the differences between two generations, Gen X and Baby Boomers, in the workplace (Govitvatana, 2001). This questionnaire was chosen because the studies performed in this particular case were similar to and compatible with the studies performed by Govitvatana (2001).

When performing a case study approach, it is quite time-consuming to gather all the information available without hindering the researchers’ objectivity. Furthermore, it is not possible to make generalizations when presenting the results, because the objective of the case study itself is to gain an in-depth understanding of the subject researched and evaluated (UK Essays, 2018).

### 3.1 Brief Description of the Company

Bibita Group was founded by Ymer Gruda in 1991 in the city of Peja, Kosovo. First, a production line for carbonated beverages was established in a space of not more than 16 m<sup>2</sup>. In January 2009, Bibita Group signed a license agreement for the category of noncarbonated drinks with Tampico Beverages from Chicago and became a general distributor for the Balkan region. With its presence in many markets around the globe, Bibita Group won two prizes at Gulfood Dubai 2017 with the Dum Dum Fitness line:

- Best soft beverage; and
- Best packaging design.

Bibita Group employs over 60 highly qualified, educated employees of different ages and experiences, who put their best efforts into their workplace. Table 1 presents generational statistics of the employees of Bibita Group.

*Table 1: Age of Respondents in Bibita Group*

Age	Name of generation	Number of employees	Percentage
TBD–22	Generation Z	4	6.50
23–37	Millennials	29	46.80
38–57	Generation X	19	30.60
58+	Baby Boomers	10	16.10
<b>TOTAL</b>		62	100

## 4. RESULTS

### 4.1 Analysis of In-Depth Interview with CEO Granit Gruda

When considering the benefits of leading a multi-generational company, Mr. Gruda brings three of the most important values that diversity in generations to the table. These are: experience exchange among different staff members, mentoring each other, and the creation of a culture in which open communication is valued and is very useful for reaching a high profitability index. According to Mr. Gruda, it is highly essential for a

company to be informed of its staff members' needs and motivational factors, and that it is imperative to overcoming the management struggles for dealing with generations' high diversity. Because of the impression that older generations are more knowledgeable, Millennials tend to suppress their creativity toward problem-solving. Therefore, groups of people of the same generation tend to form cliques inside the company, which is unhealthy for the company's overall success. This also happens because people of different generations have different strategies for solving issues, and different work mentalities. In this way, a conflict among different groups is born, requiring management's help in solving communication issues among staff members. One of the strategies that has not been successful is assigning a team leader based on seniority, meaning that the oldest employee also is a leader because of their experience.

The CEO of the company, Mr. Gruda, also shared his opinions based on his experience of how to ease the process of working with multiple generations. He implied that some key factors that they use to identify which motivational factors work for which generation are listening to the comments of their employees based on their needs and expectations of the job position, their complaints about the management and work process, and whether they have any ideas about how to solve their issues; and including staff in their motivation process.

Mr. Gruda also elaborated further on how every generation has its point of view in the workplace, including different aims regarding their careers. He stated his point of view of the main differences: "What we know for sure is that the main difference among the generations is technology and our knowledge about it."

Mr. Gruda implied that colleagues learn more from each other than from training; thus it is of utmost importance to create a culture of collaboration and openness in communication. Sincere and continuous communication has resulted in the best strategy for managing a multigenerational workforce.

#### 4.2 Analysis of Questionnaires with Bibita Group Staff Members

The first section of the questionnaire collected data regarding the respondents' characteristics, using a Likert scale with five different choices, from the lowest (not obvious) to the highest (extremely obvious). All the respondents were asked to rate their agreement with each characteristic. A total of 33 characteristics were discussed and rated, and those that had a mean score higher than 3 (the average) and a standard deviation lower than 1 are mentioned in the text. The standard deviation indicates how dispersed data are from the mean.

Other statistical tests were performed on the data to obtain significant differences among the generations from the questionnaire. There were six dif-

ferent combinations in total, which emphasized the significant differences between Gen Z and Gen Y, Gen Z and Gen X, Gen Z and Baby Boomers, Gen Y and Gen X, Gen Y and Baby Boomers, and Gen X and Baby Boomers. A  $p$ -value less than 0.05 is considered to be significant; the significant results, i.e., those with  $p$ -values less than 0.05, are presented in the text.

Respondents from Generation Z are more inflexible to change and far more competitive than are Millennials and Gen Xers. Gen Z are more loyal than Millennials. They value individuality and give a great deal of importance to the balance between work and personal life. On the other hand, Millennials are in a way more intense than are Generation Z. However, Generation Z has a slightly better work ethic than Millennials.

Table 2: Staff characteristics in Bibita Group

Characteristics of staff - Bibita group			
Generation Z (mean)	Generation Y (mean)	Generation X (mean)	Baby Boomers (mean)
Idealistic (4.00)	Competitive (4.10)	Idealistic (3.42)	Involvement (3.30)
Competitive (4.75)	Loyalty (4.72)	Competitive (3.89)	Loyalty (4.50)
Involvement (4.25)	Team orientation (4.41)	Loyalty (4.84)	Value individuality (4.40)
Loyalty (5.00)	Value diversity (4.41)	Value individuality (4.26)	Team orientation (3.70)
Value individuality (4.75)	Entrepreneurial (4.07)	Team Orientation (4.53)	Values diversity (4.10)
Value diversity (3.75)	Thinking globally (4.41)	Technology skills (4.32)	Entrepreneurial (3.60)
Entrepreneurial (4.00)	Go getters (4.24)	Value diversity (4.16)	Ambitious (4.10)
Thinking globally (4.50)	Ambitious (4.59)	Think globally (4.37)	Team player (3.70)
Go getters (4.50)	Team player (4.24)	Go getters (4.32)	Self-reliant (3.30)
Ambitious (4.50)	Self-reliant (4.45)	Ambitious (4.47)	Pragmatic (3.10)
Likes challenges (4.75)	Pragmatic (3.72)	Like challenges (4.58)	Workaholic (4.10)
Self-reliant (4.50)	Too intense (4.38)	Self-reliant (4.58)	Too intense (4.40)
Work-life balance (4.75)	Committed (4.55)	Work-life balance (4.11)	Respectful (4.40)
Pragmatic (3.75)	Work ethic (4.45)	Workaholics (4.42)	Work ethic (4.40)
Workaholic (4.50)	Self-focused (4.21)	Personal growth (4.26)	Adaptable (4.40)
Personal growth (4.25)	Adaptable (4.10)	Committed (4.79)	Creative (4.00)
Committed (4.50)	Creative (4.21)	Creative (4.42)	
Work ethic (5.00)			
Self-focused (4.00)			
Adaptable (4.50)			
Creative (4.25)			

Generation Z and Baby Boomers, which are respectively the youngest and the oldest generations in the workplace, have many significant but not large differences. Furthermore, respondents from the youngest generation are more active and faster in performing their designated tasks; thus they had a higher mean score for the characteristic “Go Getters” compared to the oldest generation in the workplace, Baby Boomers. They like challenges more than Boomers do, are more self-reliant, and fight to achieve a better balance between personal life and work. Being practical is a skill obtained by Generation Z; therefore they scored higher in pragmatism. Baby Boomers have a different mentality and idea of a respectable working place; therefore they work more intensely. However, this does not necessarily mean that they will reach higher productivity. Generation Z does have slackers, in comparison to the oldest generation, which values hard work. Lastly, the youngest generation also scored higher in whining.

The next pair of generations, Generation Y and Generation X, do not have many characteristics in which they differ. Only one characteristic resulted in a difference between the two generations that was significant, with a  $p$ -value less than 0.05. This characteristic is “clueless about the future,” in which Generation X had a slightly higher mean score in comparison to Generation Y, meaning that they are more clueless about the future compared to the Millennials.

Another comparison to be made is between Generation Y and Baby Boomers. These two generations differed in many characteristics; those that had a  $p$ -value less than 0.05 were considered to be significant. A total of 10 characteristics had significant differences, such as inflexible to change, involvement, team orientation, technology skills, go-getters, likes challenges, self-reliant, pragmatism, slacker, and whiner. Elaborating further on the significant differences between the two generations, Millennials are more pro-change compared to Baby Boomers. They are also highly involved in their workplace, are better team players, and have superior technological skills. Millennials also are go-getters, love to take on challenging tasks, and are considerably more self-reliant in comparison to the oldest generation in the workplace. They are practical, and therefore scored high in pragmatism.

However, they did turn out to be bigger slackers and whiners compared to baby boomers, although both generations had means less than 2 for these last two characteristics.

Comparing Generation X and Baby Boomers indicated some significant differences between these two generations in terms of the workplace. There were a total of nine significant differences between these two generations, such as inflexible to change, involvements, team orientation, technology skills, go-getters, like challenges, self-reliant, too intense, and clueless about the future. Participants from Generation X are less inflexible to change.

They are more involved in the job, are great team players, and have much better technical skills compared to the oldest generation, Baby Boomers, who spent most of their working lives without technological developments. Gen Xers are quite goal-oriented and work hard to get attain the goals they set for themselves. They like to take on new challenges, and rely on themselves to get the work done by working intensely. However, they are clueless about the future.

### 4.3 Analysis of Motivational Factors Affecting Employees

This section of the questionnaire was concerned with discovering the different motivational factors that affect the work experience for each generation. The data were gathered using a Likert scale ranging from 1 = not important (NI) to 5 = extremely important (EI). Respondents were asked to rate each of the motivators based on which one suited them best. There were a total of nine motivational factors, which were further elaborated through the mean score and standard deviation. Those with a mean score higher than 3 are discussed in more detail by also considering their standard deviation.

The two top motivators for Generation Z were Training and Challenging work, both with a mean score of 4.75 and a standard deviation of 0.50. Therefore, the results show that participants from Generation Z are willing to learn, and managers should take steps to encourage them through training sessions. Advancing the skills that they gained from their studies plays an important role in their workplace motivation.



Table 3: Motivational factors of the four generations in Bibita Group

Motivation Factors in Different Generations								
Motivation Factors	Generation Z		Generation Y		Generation X		Baby Boomers	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Salary	3.5	0.58	4.14	0.74	3.74	1.15	4	0.67
Incentive	2	1.41	3.86	0.92	3.32	1.25	3.9	0.99
Reward	4	0.82	4.41	0.78	4.37	0.6	4.2	0.79
Personal recognition	4.25	0.96	4.69	0.66	4.37	1.07	4.5	0.71
Training	4.75	0.5	4.41	0.82	4.32	0.75	4	0.67
Challenging work	4.75	0.5	4.17	0.54	4.53	0.7	3.3	0.82
Team building	4	0.82	4.41	0.78	4.63	0.5	4	1.25
Retirement plan	2.25	1.89	2.93	1.69	3.89	1.24	4.7	0.48
Benefits	3.75	0.5	3.97	1.05	4.05	1.03	3.5	0.85

The results in Table 3 indicate that almost every factor in the table is a strong motivator for Generation Y, according to the mean score and the standard deviation for each of the options. Except for retirement plan, which was not included in the list of motivators of respondents from Generation Y, all the motivators had mean scores higher than 3. Respondents from Generation Y are quite ego-centric and like to get proper recognition in front of their peers in order to feel that their contribution to the company matters. This is followed by team building, because they are team-oriented people; training (meaning that they value further career developments); and rewards (monetary or nonmonetary). Salary also is significant for this generation, because they are a generation consisting mostly of young couples who recently started families, and these extra expenses require a substantial monetary foundation.

Another very active generation of the workforce in the case of Bibita Group is Generation X. The most important motivator of this generation was team building, with a mean score of 4.63 and a standard deviation of 0.5. The motivator with the next best mean score, 4.53, was challenging work. Generation X is a hard-working generation who value not only monetary compensation but also different benefits, training, and rewards.

Compared to the respondents from Generation Y and Generation Z, the respondents from this generation, because they are older and closer to retirement than the other two generations, also value the retirement plan as a good motivator, with a mean score of 3.89. However, this motivator has a standard deviation greater than 1, meaning that it has different value throughout the generation.

Lastly, Baby Boomers, the oldest generation in the workplace, valued all the motivators; however, the one motivator which they value most is the retirement plan, which is very logical, because they are approaching retirement and have started thinking of securing a good standard of living once they do retire. The next most critical motivation factor which affects their working environment is personal recognition, with a mean score of 4.50 and a standard deviation of 0.71. This means that Baby Boomers like to get credit for their work and earn authority among their peers, being the oldest members of the working community.

From these trends, not only differences but also similarities can be spotted, which, if used correctly, can make the management's task of decreasing the generation gap much easier. Especially with the similarities, management can find solutions to decrease the generation gap in the workplace.

#### 4.4 Analysis of Approaches to Decreasing the Generation Gap

This section introduces several approaches to decreasing the generation gap in the workplace. Table 4 lists the percentages of each of the options that were selected by the respondents employed at Bibita Group using a Likert scale from 1 = strongly disagree to 5 = strongly agree.

### 5. DISCUSSION

This section discusses the final findings of this article, based on which a set of recommendations is presented for managing the generation gap. This section also answers the research questions based on the research findings. Future studies in this field of research are recommended due to certain limi-

tations. Recommendations are given to managers, which also should be useful for HR managers of other companies operating in Kosovo.

#### 5.1 Theoretical Contribution and Interpretation of Results

In today’s workplace, there are four generations. Each of these generations has its idea of work ethic, productivity, and culture. This creates a generation gap in the workplace, which is a challenge to manage. This generation gap impacts the workplace and atmosphere, often in negative ways, hindering productivity and business profitability.

The four generations discussed in this article are Baby Boomers (born 1945–1960), Generation X (born 1961–1980), Generation Y (born 1981–1995),

Table 4: Approaches to Decreasing the Generation Gap

Solutions to generation gap	SD%	D %	N %	A %	SA %	MEAN	SD
Work unit meeting	1.6	1.6	27.4	48.4	21.0	3.85	0.83
Team building	1.6	1.6	12.9	41.9	41.9	4.21	0.85
Create an atmosphere of fellowship	0.0	0.0	3.2	37.1	59.7	4.56	0.56
Put the right people in the right job	0.0	1.6	4.8	19.4	74.2	4.66	0.65
Rotate people's positions so they can enrich their experience and understand the needs of other people and departments	0.0	3.2	11.3	35.5	50.0	4.32	0.81
Provide training and development opportunities	1.6	0.0	8.1	21.0	69.4	4.56	0.78
Keep open communication channels	0.0	3.2	12.9	29.0	54.8	4.35	0.83
Respect competence and initiative	1.6	6.5	9.7	25.8	56.5	4.29	1
Create an atmosphere of mutual empathy and respect	0.0	0.0	12.9	24.2	62.9	4.5	0.72
Train in generational preferences	1.6	6.5	16.1	32.3	43.5	4.1	1
Coaching and mentoring	0.0	9.7	16.1	30.6	43.5	4.08	1
Operate from a sophisticated management style	3.2	0.0	19.4	37.1	40.3	4.11	0.94
Treat employee like customer	11.3	17.7	27.4	25.8	17.7	3.21	1.26
Walk the talk	0.0	3.2	14.5	19.4	62.9	4.42	0.86
Provide information about each group’s trait	3.2	17.7	19.4	25.8	33.9	3.69	1.21
No longer “one size fits all”	0.0	4.8	22.6	32.3	40.3	4.08	0.91
Increase open lines of communication in order to voice and articulate differences in work styles and values	0.0	0.0	22.6	30.6	46.8	4.24	0.8
Learn to value the difference and to leverage the talents of all members	0.0	1.6	6.5	29.0	62.9	4.53	0.69

SD = Strongly disagree, D = Disagree, N = Neutral, A = Agree, and SA = Strongly agree

and Generation Z (born 1996–2010). Through a thorough elaboration of each research question, this article provides recommendations for managers and creates a more profound understanding of the workforce available in Bibita Group.

### ***5.1.1 Proper Way to Manage Different Generations in the Workplace in the Case of Bibita Company***

Taking a look at the wide picture, a common base among the four different generations can be identified. This is determined first by looking at the mean scores of all the generations regarding their characteristics. The characteristics which describe them best are loyalty, value individuality, entrepreneurial, ambitious, self-reliant, and creativeness. These six characteristics are the common base among the four discussed generations; therefore, they should be considered when managing strategies are being built. Looking deeper, each generation has its own differences and preferences based not only upon age but also upon the different events that occurred throughout life. For example, to keep good relations with Baby Boomers, one must provide them with growth opportunities, because they are quite authoritative. They feel the need to be the star of the company (Tanner, 2018); therefore, personal recognition plays a crucial role when dealing with them. Generation X values work–life balance; therefore, making them work long hours can backfire (Tanner, 2018). Millennials also are a generation eager to learn and work, but also to have a life outside their daily jobs. They are quite optimistic (Tanner, 2018) and like challenges and achievements; therefore, management has to provide them with an opportunity to be mentored by Baby Boomers and provide them training with which they can advance in their careers (Tanner, 2018).

According to the questionnaire results, staff members of all generations gave importance to loyalty. Therefore, companies should reward employees for their loyalty by giving them extra benefits, such as extra vacation days for every year spent with the company. Management should give employees enough space to express themselves and get things done in their way. It is essential for the employees to know what the company wants to achieve in the

future, and to know in what areas each of them can help it to arrive at that stage successfully. Cross-generational leadership approaches can be used to help manage the gap created among different generations employed in the company. Benefits should be assessed based on employees' individual needs, and mentoring should become part of the company's culture, so that the knowledge created over the years can be passed on to the younger generations joining the company (Morris, 2018). Mutual respect and understanding are crucial when considering the profitability of the company; therefore, giving employees a chance to work together and mentor each other in their areas of knowledge can enhance the company's overall success (Morris, 2018).

Employees at Bibita Group are quite ambitious; therefore, management should give them tasks in which they can creatively come up with different solutions, always keeping open communication channels between the management and staff. The staff should feel welcome to discuss problematic issues with the management, and together, combining the managements' experience in the business and the employees' technical skills, to achieve cost-effectiveness, which is quite important for the company's profitability. Lipman (2017) discussed certain techniques for breaking the ice and easily managing generational differences which also were indicated by the answers provided by the staff members of Bibita Group. Creating teams with people of different generations to generate ideas is a good start (Lipman, 2017), an approach which was positively rated by the employees of Bibita Group. Creating an atmosphere of fellowship is another approach to decrease the generation gap, according to the answers of the surveyed staff, which complies with a technique discussed by Lipman, in which companies create an atmosphere in which employees interact with one another less formally in order to break the ice among them (Lipman, 2017). The most important idea proposed by Lipman and that also is very important according to the initial survey results is for management to use more-sophisticated methods of understanding their staff needs, and put an end to the "one size fits all" model of motivation. This can be achieved by updating the management style and adapting it to each employee individually (Lipman, 2017).

### **5.1.2 Most Important Motivational Factors Driving Each Generation to Contribute to this Company**

When discussing the motivational factors in the survey, it was identified that almost all the motivational factors were listed as important. The bottom line is that staff members value financial security, and above all they value personal growth within the company. Therefore the factors that were the most important were salary, rewards, personal recognition, training, the presence of challenging tasks, team building, and other benefits available.

Looking at the wide picture, by training employees to perform well in their tasks, giving them challenging work, and rewarding them with both monetary and nonmonetary means, each employee will be motivated to give the shot in the workplace. There is no doubt that management also should consider revising its motivational HR policies when managing different generations, for example when dealing with Baby Boomers, who mostly value the retirement plan. This can be done by offering them good retirement conditions in exchange for other benefits, which can be offered to younger generations who are not necessarily interested in retirement.

A few data points obtained through the literature review agreed with the data obtained through the case example results. Because Generation Z employees are among the youngest in the market, and have been in the market for a short time, companies do not have much information about them. According to Patel (2017) this generation is motivated mostly by achievement and independence, which also is true in the case of Bibita, because they value challenging work and training programs in which they can further advance their working skills. Furthermore, CWB (2017) discussed how this generation is driven by monetary benefits, which again is confirmed through the results indicating that staff members of Generation Z mostly are motivated by salaries, rewards, and different monetary benefits associated with the job.

CWB (2017) and Lawrence & Nohria (2001) both discussed independence and flexibility as two traits that should be taken into consideration when opting for the best strategies to motivate

Generation Y employees. This theory is supported by the data obtained through the Bibita Group case example, which indicated that this generation is self-reliant. Furthermore, according to Alton (2017), Generation Y is very accepting of diversity among work-place colleagues, which is supported by the case example results which showed this generation to be quite adaptable toward people. Moreover, Schweyer (2015) pointed out that rewarding Generation Y employees with recognition plays a crucial role in effectively motivating them to give their best effort in the workplace, a theory which is supported by the questionnaire results obtained in the Bibita Group case example.

Generation X is a unique generation which is both independent and likes teamwork (Lawrence & Nohria, 2001). The ease of this group of employees when working in teams also is evident from the questionnaire results. According to DelCampo, Haggerty, Haney & Knipple (2011), Generation Xers have a high drive to acquire. This trait also is described as the go-getter characteristic, which was rated high in Bibita Group Generation X questionnaires. Because this group is very competitive in nature and values career security (CWB, 2017), this generation developed good technological skills despite being a generation older than Millennials. This theory is well backed up by the case example results gathered through the questionnaires. Lawrence & Nohria (2001) claimed that employees of the Baby Boomer generation are hard workers and have a strong work ethic, two traits that are backed up by the data obtained through the questionnaires. Therefore, managers should keep in mind that this generation is motivated by integrity.

An important difference in the motivations of Baby Boomers and other generations in the workplace is a retirement plan. This high motivation factor is backed up both by the literature and the questionnaire results. Another option which may motivate them is post-retirement opportunities (Sullivan, 2018). Because 42% of this generation do not have savings for their retirement, they will need a chance to extend their working period so that they can begin saving in order to retire financially secure (Sullivan, 2018).

In addition to using the data gathered from the questionnaire and the literature review, management should consider the life stages of their employees in order to motivate them properly. For example, if Millennials are in an early stage of marriage, when they have babies and more obligations, one can presume that this particular segment is in need of higher salaries, as opposed to other benefits, and so on. Therefore, it is of utmost importance that management is familiar with its staff not just in terms of age, but also in terms of personal interests affected by life stages on an individual level.

### **5.1.3 Best Approaches toward a Multigenerational Staff in a Company**

Because all the employees were interviewed for this article, it was relatively easy to identify the motivating factors and determine the staff characteristics and what works best for each of them. When building different strategies for how to address staff members of different generations, one should keep on mind the several options/alternatives of Section 3 of the questionnaire. Employees valued having the right people in the right positions. They appreciated an environment in which open communication channels are present, creating opportunities for them to express their ideas and give input to the company's success. In a company such as Bibita Group, with a large variety of ages, it is quite a challenge to create strategies which include all the motivational factors, because it will be quite costly. Therefore, recommendations for managers of Bibita Group are included, explaining what they should consider in order to successfully handle the challenges that are present within a multigenerational company. These recommendations were derived by analyzing the data obtained from the questionnaire, and by obtaining information from a thorough literature review discussing multiple companies that have similar generational gap challenges.

First and foremost, management should keep open communication channels and keep in mind that stereotypes are only stereotypes. Therefore, building a trusting environment, in which the employer and the employees discuss issues and collaborate to find solutions together gives the

managers a chance to get a fresh perspective and gives the employees a sense of respect and appreciation. The results from the questionnaires and similar research show that building collaborative relationships between staff and management is crucial for the healthy operation of an organization (AMA, 2019).

Managers should stop analyzing differences among the staff members and focus on the similarities instead. Therefore, they should look beyond differences and try to come up with solutions best suited to mutual gain and to the company's success. It is imperative for a company's management to keep in mind that there are differences not only among generations, but also among individuals. Therefore, knowing all employees and understanding their individual needs is of great value and builds a solid base for successful outcomes in the future (AMA, 2019).

Lastly, mixing people in a group of different generations is a good strategy; therefore, it is crucial that the management takes advantage of the benefits of a multigenerational workforce. To eliminate some of the disadvantages of the generation gap, one can help the employees to better understand the needs of each generation through different training programs. In this way, employees can collaborate without challenges of communication (AMA, 2019).

### **5.1.4 The Influence of Kosovo Culture on Employees' Work Values and Attitudes**

There is no arguing that the culture in which people grow up and spend their life affects the way they think and what they find motivating and vital. Differences in generations and their work mentality also are affected by culture.

According to NDP (2018), although Kosovo has the youngest population in Europe, it has a high unemployment rate and therefore it is challenging to find a job in Kosovo. This difficulty is suffered mostly by the younger generations, who are caught in this transitioning state at a crucial age, leaving many educated young people inexperienced and on a waiting list for future employment (UNDP, 2018).

About 30% of Kosovo's population lives below the poverty line, which ranks the country among the least developed countries in Southeastern Europe (BTI Project, 2018). Because there is a gap between genders in the employment rate—45.6% of males are in the workforce, whereas only 12.6% of women are present in Kosovo's workforce—these employees' value more motivational factors such as salaries. This happens because in many families, men support their family alone, whereas women stay at home and bring up the children (ASK, 2018). "The most pronounced unemployment rate is in the age group of 15–24 with 55.0%" (ASK, 2018).

These factors of a transitioning state affect the mindset of employees in the workforce in Kosovo. Much work needs to be done by the state to create a better marketplace. One of the most important is lowering the corruption rate, which would make foreign investors feel safer about conducting work in Kosovo. A decreasing rate of unemployment may ease some of the motivational factors that are based solely on salary or monetary benefits. This, in turn, will promote loyalty due to the decrease in the threat that employees feel in such a competitive workforce and a low market demand.

Generally speaking, the imbalance between the market necessity and the supply of workers, creates fierce competition in terms of getting and keeping a job, which might affect work productivity in the end. This could occur from directing so much attention to further advancements and training that work productivity at the office falls.

Trying always to be ahead in terms of education does not necessarily translate into better productivity in the current workplace. On the contrary, too much attention to training may hinder productivity at work. However, it is a chain which needs to be disassembled over a longer period by increasing employment to relieve some of the pressure that young people feel nowadays about work and family support.

### **5.1.5 Benefits of a Multigenerational Staff**

Despite the vast amount of challenges that a multigenerational staff represents, there are many benefits involved as well. One of the most important benefits that a multigenerational workforce brings

to the company is creating a particular culture in a company in which employees can freely communicate with one another, learn from each other through mentoring, and exchange their experiences with one another. The exchange of experiences in a multigenerational workplace makes the company stronger and more reliable both in terms of productivity and in terms of how others view it from the outside. A stronger decision-making process due to many viewpoints that are available as a result of a multigenerational staff is another benefit to companies (AARP, 2007).

Looking further into the secondary data obtained through the literature review, it can be concluded that diversity is a great innovation drive (Schultz, 2015). Looking at the generations present in the marketplace, many of their traits that were found by both Schultz (2015) and the results obtained through primary research at Bibita Group can bring multiple benefits to companies employing multigenerational staff, thus increasing their revenues.

The technical skills and the multitasking that Millennials bring to the table easily can be combined with the skills of older generations to achieve higher efficiency (Schultz, 2015). Generation Xers, who are considered to be loyal (Schultz, 2015; Bibita Group, 2018), well-educated, and creative in their problem-solving techniques, are a great asset to a company. They are the one generation that has traits of both Baby Boomers and Millennials, combining them into an almost perfect combination, which makes them quite versatile, or, in other words, adaptable. They are independent and tech savvy, and also like challenges (Bibita Group, 2018), as described by the traits from the questionnaires; therefore, they are "revenue generators" (Schultz, 2015). Baby Boomers are hard workers and competitive (CWB, 2017; Lawrence & Nohria, 2001; Schultz, 2015) which is confirmed by the questionnaire results, thus giving the company the benefit of a well-experienced team member who can mentor younger generations in the tricks of the business world and deliver the best knowledge (Schultz, 2015). Schultz (2015) found that a diverse group of problem solvers was better at solving company issues than were the best problem solvers who were not diverse within their teams.

Bibita Group built a strong reputation for loyalty and a unique culture in which a horizontal management style is used, and they consistently try to get the best out of every employee by understanding their needs and motivating them with the proper factors according not only to their age but also to their individual needs. In order to do this, they enable successful communication between the staff members and the management, in which no idea goes unheard.

## 5.2 Limitations and Future Research Suggestions

Because this study had a relatively small sample size, one cannot apply the conclusions to a broader population sample, which in the future might be done by conducting research about the entire country. This research was conducted only on a specific workforce, employees of Bibita Group; therefore, a recommendation for future research is to use a larger sample size representing the entire population of Kosovo.

Future study recommendations include widening the area of research among the different generations, such as evaluation of the similarities, evaluation of the degree to which different generations employ their so-called characteristics, discussions of cross-cultural values, and ethnical differences among different generations and ethnicities in Kosovo. Another study could be entirely theoretical and could discuss how to make sense of all these differences that already exist among the different generations (Campbell, Twenge & Campbell, 2017).

## 6. CONCLUSION

The generation gap in the case of Bibita Group is dismantled. The company employs all four generations that are currently in the market. They encountered many difficulties in motivating their staff members due to the variety of employees' mindsets which are due to different generational mindsets. In this study, a thorough literature review was performed in order to grasp the main ideas of generational challenges and motivational factors for each generation.

After inputting the results of the secondary data, primary data were gathered from an open-ended question interview with the company's CEO, Granit Gruda, and from 62 questionnaires that were distributed among the staff of the company. Therefore, the primary data consisted of both qualitative and quantitative methodology designs. This research provides knowledge of Bibita's employees and their characteristics and motivating factors which were gathered by surveying each of them individually. There are several accomplishments and data tests derived in this article, which can be used by the management of Bibita Group to best suit their employees' needs to company objectives.

First and foremost, this article identified staff preferences and opinions about different motivational factors that affect them. It also identified a set of characteristics which can be analyzed to ease the team-making process in the future.

Secondly, by analyzing the data in this article, Bibita Groups' management team can gain a better understanding of their staff's needs. In this way they can come up with strategies for fulfilling these needs without hurting the organization's culture or wellbeing. This will decrease the challenges presented when dealing with a multigenerational staff.

Lastly, the questionnaire provided answers and gathered opinions about the best approaches to decreasing the challenges of a generation gap in the workplace. These approaches may, in turn, help the company to take advantage of the benefits that are presented by a multigenerational staff.

In conclusion, this article provides the management of Bibita Group with a road map of alternatives to address the problems that a multigenerational company might create. This will give them a chance to better satisfy their staff, may result in higher job effectiveness.

## EXTENDED SUMMARY/IZVLEČEK

Delo v večgeneracijskem podjetju predstavlja velik izziv, zlasti za posameznike na vodstvenih položajih. Razlike med temeljnimi kompetencami zaposlenih, njihovimi motivacijskimi dejavniki in načinom dojemanja idej se od generacije do generacije razlikujejo. Sposobnost razumevanja teh razlik predstavlja svojevrsten izziv. Uspešen manager mora biti dober vodja ter posedovati znanja o tem, kako motivirati svoje zaposlene. Glavni cilj raziskav je ugotoviti vrzel med različnimi generacijami na trgu dela s pomočjo študije primera skupine Bibita. Prispevek je zelo pomemben, saj tovrstne raziskave, kljub priljubljenosti v drugih državah, še nikoli niso bile izvedene na področju Kosova. Avtorji so se v raziskavi poslužili metode študije primera z opisno raziskovalno zasnovo. Za pridobitev podatkov so uporabili raziskovalno metodo, ki vključuje številne raziskovalne tehnike, tako kvalitativne kot kvantitativne. Končne ugotovitve prispevka pripomorejo k boljšemu razumevanju značilnosti zaposlenih ter razumevanju dejavnikov, ki povečujejo njihovo raven motiviranosti. Rezultati raziskave so razkrili, da koristi zaposlovanja večgeneracijskega osebja v podjetju presegajo težave in posledice, povezane z izzivi njihovega ravnanja.

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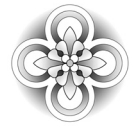


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## HOW SMALL CITIES ARE STIMULATING CREATIVITY AND INNOVATION: CASE STUDY OF LJUBLJANA AND SELECT EUROPEAN CITIES

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### Abstract

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*This paper examines creative city incentives of Ljubljana and small to medium-sized European cities (Bratislava, Tallinn, and Edinburgh) according to the type of creative city (technological-innovative, cultural-intellectual, cultural-technological, and technological-organizational) they are. The paper utilizes a case study approach, because it allows in-depth research of the particular object, taking into account multiple dimensions. Based on secondary data of the Cultural and Creative Cities Monitor from the European Commission and European Smart Cities, we provide evidence that Ljubljana and Bratislava belong to the cultural-intellectual type, Tallinn is technological-innovative, and Edinburgh is a cultural-technological type of creative city.*

**Keywords:** *creative city, creativity, smart city, policymaking*

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### 1. INTRODUCTION

Creativity is the first step in the innovation process (Amabile, 1996), and therefore creative ideas can provide and maintain a competitive organizational advantage (e.g., Shalley, Zhou & Oldham, 2004; Grant & Ashford, 2008). Therefore, it is not surprising that creativity has gained considerable attention in academic research, especially by organizational psychologists and management scholars (Zhou & Hoever, 2014). Traditionally, creativity was researched mostly as an individual personality and intellectual trait (Findlay, & Lumsden, 1988) that can occur only in creative industries, such as design, publishing, or the arts, (Bakshi and McVittie, 2009; Miles and Green, 2008; Müller, Rammer, & Trüby, 2009). However, according to the interactionist perspective of organizational creativity (Woodman, Sawyer, & Griffin, 1993), creativity can occur at multiple levels and is not limited to particular industries (Lee & Rodríguez-Pose, 2014).

Creative cities can influence organizational and individual creativity through a top-down approach (Kozlowski, & Klein, 2000) from the upper ground (e.g., formal institutions) and through underground (e.g., creative individuals such as artists or other knowledge workers) local innovative initiatives (Caves, 2000; Hartley, 2005; Aage and Belussi, 2008, Cohendet, Grandadam, & Simon, 2010). Moreover, cities can enhance creativity by providing a diversity of urban environments, human capital, financial resources, and other tangible and intangible resources that may provide a range of stimulations for creative ideas (Lee & Rodríguez-Pose, 2014, Borseková, Petříková, & Pevcin, 2013). However, there is a lack of a clear understanding of how the connections, relationships, and interrelations between creative city incentives can stimulate creative individual and organizational innovations. Therefore, several scholars have called for more-detailed investigation of the specific circumstances of how creative cities can stimulate organizational innovation and

creative individuals (Lee & Rodríguez-Pose, 2014; Lee and Drever, 2013; Sunley, Pinch, Reimer, & Macmillen, 2008) from the upper ground and from the underground level, and how local innovative initiatives create different types of creativity cities (Hospers & Pen, 2008).

This paper examines the creative city incentives by exploring how different levels of creativity (e.g., upper ground and underground) can stimulate creativity in small cities. We provide empirical evidence based on a case study analysis which highlights the importance of the different levels (i.e., upper ground and underground) of a creative city and the development of individual creativity and organizational innovation. Ljubljana is a part of the Creative Cities Network and was designated a permanent City of Literature by UNESCO in December 2015, and thus provides a detailed view of how creative initiatives can stimulate individual creativity. Ljubljana was selected to show that creativity can be found in small urban areas (Waitt and Gibson 2009). First, we provide evidence through the Cultural and Creative Cities Monitor from European Commission (2017) that Ljubljana indeed is enhancing different levels (i.e., upper ground and underground) of the creative city. Second, we provide empirical evidence of how different levels of creativity (e.g., upper ground and underground) are stimulating creativity in Bratislava, Tallinn, and Edinburgh compared to Ljubljana. We compare Ljubljana to Bratislava and Tallinn, because they are three capitals of Central and Eastern European (CEE) countries and have approximately the same size; Edinburgh was used as benchmark because it is also to some extent a capital and has approximately the same population as the other three cities, but it is the best-ranked city according to some creative cities measures. Third, based on our empirical evidence, Ljubljana, Bratislava, Tallinn, and Edinburgh, due to different upper ground and underground initiatives, can be labeled as different types of creative cities (i.e., technological-innovative, cultural-intellectual, cultural-technological, and technological-organizational).

## 2. THEORETICAL BACKGROUND

### 2.1 Concept of Creative Cities and Its Layers

A creative city is defined as a place with a high percentage of creative and arts professions, creative individuals, and a stimulating environment for inno-

vativeness and innovations (Fischer, Diez, Snickars, & Varga, 2001; Florida, 2002; Van Oort, 2003). Moreover, the creative city phenomena is fueled by the work of urban scholar Richard Florida that defines a creative city as a city in which knowledge, creativity, and innovation are highly stimulated (Landry, 2000; Florida, 2002, 2005, 2008), and that has gained much of attention in the last two decades. Different types of creative cities have emerge throughout history and have been recognized by scholars, such as technological-innovative, cultural-intellectual, cultural-technological, and technological-organizational cities (Hospers & Pen, 2008).

A technological-innovative creative city is a place where new technological developments or theological revolution occur; the classic example of this type of city is Detroit, where Henry Ford and his Model T laid the foundations of the American automobile industry around 1900, or America's Silicon Valley cities, such as San Francisco and Palo Alto. We also found technological-innovative creative cities in Europe that are imitating the Silicon Valley technopole, such as Silicon Glen (Scotland), Silicon Saxony (Dresden), and Bavaria Valley (Bayern) (Hospers & Pen, 2008). Cultural-intellectual creative cities are the opposite of the technological-innovative city and are related more to culture and arts (e.g., Florence during the Renaissance, or Paris in terms of painting). The cultural-intellectual creative city provides so-called "soft" creative city initiatives that enhance creative reactions on the part of artists, philosophers, and intellectuals. The cities Dublin and Amsterdam are examples of contemporary cultural-intellectual creative cities.

Cultural-technological creative cities combine both cultural and technological aspects of creativity and innovation (e.g., the film industry in Indian variant Bollywood, or the haute couture industry in Paris and Milan). It is expected that most of the cities in this century will become cultural-technological creative cities (Hall, 1998) due to the use of "internet and other multimedia (e.g., technological part) in an intelligent manner with culture" (Hospers & Pen, 2008, p. 262), for example, through virtual museum visits. Technological organizational creative cities emerge when local actors provide original solutions to problems (e.g., government collaboration with the local business community in case of a public-private partnership or running the city of Tilburg as a

company). Moreover, technological-organizational creative cities deal more with the supply of water, and creative solutions for good infrastructure, transport, and housing. Therefore, although the creative city phenomenon has a long history and can be found in every era of history, in the last decade some scholars have tried to replace the creative city construct with the smart city initiative.

A smart city can emerge only if there are some innovative technological solutions (Shapiro, 2006; Giffinger et al., 2007; Chourabi et al., 2012) or high concentrations of learning and innovation (Richter et al., 2015, p. 216). However, based on previous examples of different creative cities, we can conclude that a creative city encompasses not only innovative technological solutions, but also cultural and organizational creative dimensions. Therefore, we follow Landry (2014), Carta (2015), and O'Connor and Andrejevic (2017), in which the smart city concept is an upgraded version of the creative city (it also can be labeled Creative City 3.0). This means that not just cultural reimagining but also complete retooling of the social and governmental infrastructure of the city should be done and is important for the creative city analyses. Therefore, our analyses also included smart city results in order to provide empirical evidence of different types of creative cities (i.e., technological-innovative, cultural-intellectual, cultural-technological, and technological-organizational).

The creative city is constituted by an upperground and by an underground level, through which we can understand how cities stimulate innovation. The upper ground of the creative city represents innovative firms that can be found in the city and institutions that can be innovative, such as research labs, universities, or cultural and artistic centers. This level of creative city contributes to creative and innovative processes by dispersing different types of knowledge and bringing creative ideas to the market (Caves, 2000; Howkins, 2001; Hartley, 2005). On the other hand, the underground "brings together the creative, artistic and cultural activities taking place outside any formal organization or institution based on production, exploitation or diffusion" (Cohendet et al., 2010, p. 96). Moreover, the underground relates individuals that share a common deep interest in their art and culture (e.g., graffiti artists, extreme sports aficionados, and gamers). According to Cohendet et al.

(2010), the underground culture is focused mainly on exploration, to the extent that it has now become common in industries related to different artistic and cultural domains. Some authors (e.g., Richards and Wilson, 2007; Eglins-Eglitis and Lusena-Ezera, 2016) even stress that the creative possibilities of a particular city are based on three elements: creative hardware (infrastructure for possible creative industries), creative software (ambience and vibrancy enabling creative industries), and creative orgware (policies and governance on creative industries).

This paper extends the work of Cohendet et al. (2010) and provides empirical evidence for the upper ground to the underground levels of small creative cities. We provide evidence from the Cultural and Creative Cities Monitor of the European Commission (2017). We chose Ljubljana because it is a capital city in the CEE region, but with less than 300,000 residents, it belongs to the group of small cities, or, according to some classifications, to smaller medium-sized cities. Second, we compare Ljubljana to Bratislava and Tallinn (both of which are capitals in the CEE region, with approximately 450,000 residents) and Edinburgh (with approximately 490,000 residents but ranked the first according to the aforementioned monitor). Third, we provide empirical evidence about the type of creative city (i.e., technological-innovative, cultural-intellectual, cultural-technological, and technological organizational cities) to which each analyzed city (i.e., Ljubljana, Bratislava, Tallinn, and Edinburgh) belongs. First, we present results of the Cultural and Creative Cities Monitor from the European Commission (2017) and European Smart Cities (2014, 2015) classification for the chosen cities (i.e., Ljubljana, Bratislava, Tallinn, and Edinburgh). Then, with the discussion and via given examples, we provide evidence of the upper ground to the underground levels of the small creative city and different types of creative cities.

### 3. METHODOLOGY

The empirical part of the paper predominantly uses a case study approach (Simons, 2009) which involves in-depth research of a particular object, taking into account multiple dimensions and using various qualitative and quantitative research methods. The fundamentals of this approach are based on research

object, and not on the methodology, and the context is an important factor in this research (Flyvbjerg 2011). Accordingly, this research positions Ljubljana as a small (or medium-sized) city as a research object, and we describe the case and discuss how the city became a creative city, taking into the account multiple dimensions of this definition. Moreover, we compare Ljubljana with other similar size cities in EU (e.g., Tallinn, Bratislava, and Edinburgh) via multiple creative dimensions in order to provide an in-depth evaluation of the main strengths and weaknesses. We present opportunities and address threats challenging the position of Ljubljana as a promoter of the creative city concept and use international comparisons with similar cities from the region as a benchmark.

As noted in the literature review, there sometimes is some discrepancy and overlapping of the terms creative, smart, or knowledge city. This paper follows Landry (2014), Carta (2015), and O'Connor and Andrejevic (2017), in which the smart city concept is an upgraded version of the creative city (it also can be labelled Creative City 3.0). This means that not just cultural reimagining but also complete retooling of the social and governmental infrastructure of the city should be done and is important. If the creative city (version 2.0) indicates greater awareness of the power of creative economy sectors and the link between the arts and their role in the economy, the smart city, that is, version 3.0, goes one step further and also focuses on a collective imagination and intelligence of citizens in making, shaping, and co-creating their city. Thus, we also compare Ljubljana with similar-sized cities in the EU (e.g., Tallinn, Bratislava, and Edinburgh) in terms of the smart city concept. Consequently, this enables us to utilize various data sources and benchmark sources to explain in-depth the factors that shape the creativity of Ljubljana. Thus, we use the relevant data on creative city as well as smart city status, because we consider the later to be an upgraded and updated formulation the type of modern creative city concept.

#### 4. RESULTS

The European Commission (2017) publishes The Cultural and Creative Cities Monitor, which examines 168 European cities from 30 countries (including all capital cities) according to 29 indicators

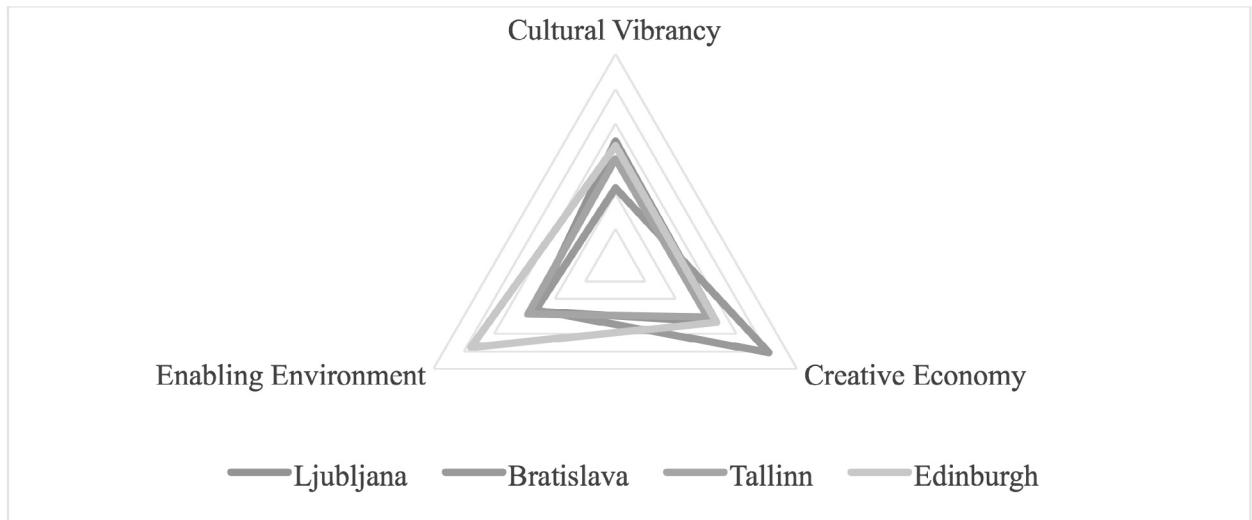
in eight dimensions, which are grouped into three major sub-indices of the cultural and socioeconomic vitality of a city: cultural vibrancy, creative economy, and enabling environment. Cultural vibrancy represents the cultural “pulse” of a city in terms of cultural infrastructure and participation in culture and was measured by two items: cultural venues/facilities, and cultural participation and attractiveness of the city. The creative economy encompasses how the cultural and creative sectors contribute to a city’s employment, job creation, and innovative capacity. It was measured by the number of creative and knowledge-based workers, intellectual property and innovations, as well as by the new jobs in the creative fields. Enabling environment identifies the tangible and intangible assets that help cities attract creative talent and stimulate cultural engagement, and was measured by different items (e.g., human capital and education, openness, tolerance, trust, governance, and regulation).

The existing international databases and comparative methodologies of the status of creative city (e.g., European Commission, 2017; European Smart Cities, 2014) indicate that Ljubljana is placed relatively high, particularly compared with cities of a similar size in the region of Central and Eastern Europe. According to European Commission (2017), Ljubljana is ranked eighth in the group of medium-sized European cities with a population between 250,000 and 500,000 residents. Bratislava is ranked sixth, Tallinn is ranked 13<sup>th</sup>, and Edinburgh is ranked first, and therefore serves as a benchmark. Figure 1 presents the three major sub-indices of the cultural and socioeconomic vitality of each city: cultural vibrancy, creative economy, and enabling the environment.

Edinburgh ranks high in enabling a creative environment, and Bratislava has the highest creative economy (Figure 1). On the other hand, Ljubljana has the highest cultural vibrancy and the same results of enabling the environment and creative economy as Tallinn. However, these results cannot be interpreted without understanding the dimension of three major sub-indices (i.e., cultural vibrancy, creative economy, and enabling environment). Therefore, we provide more-detailed result of three major sub-indices in Figure 2 and Table 1.

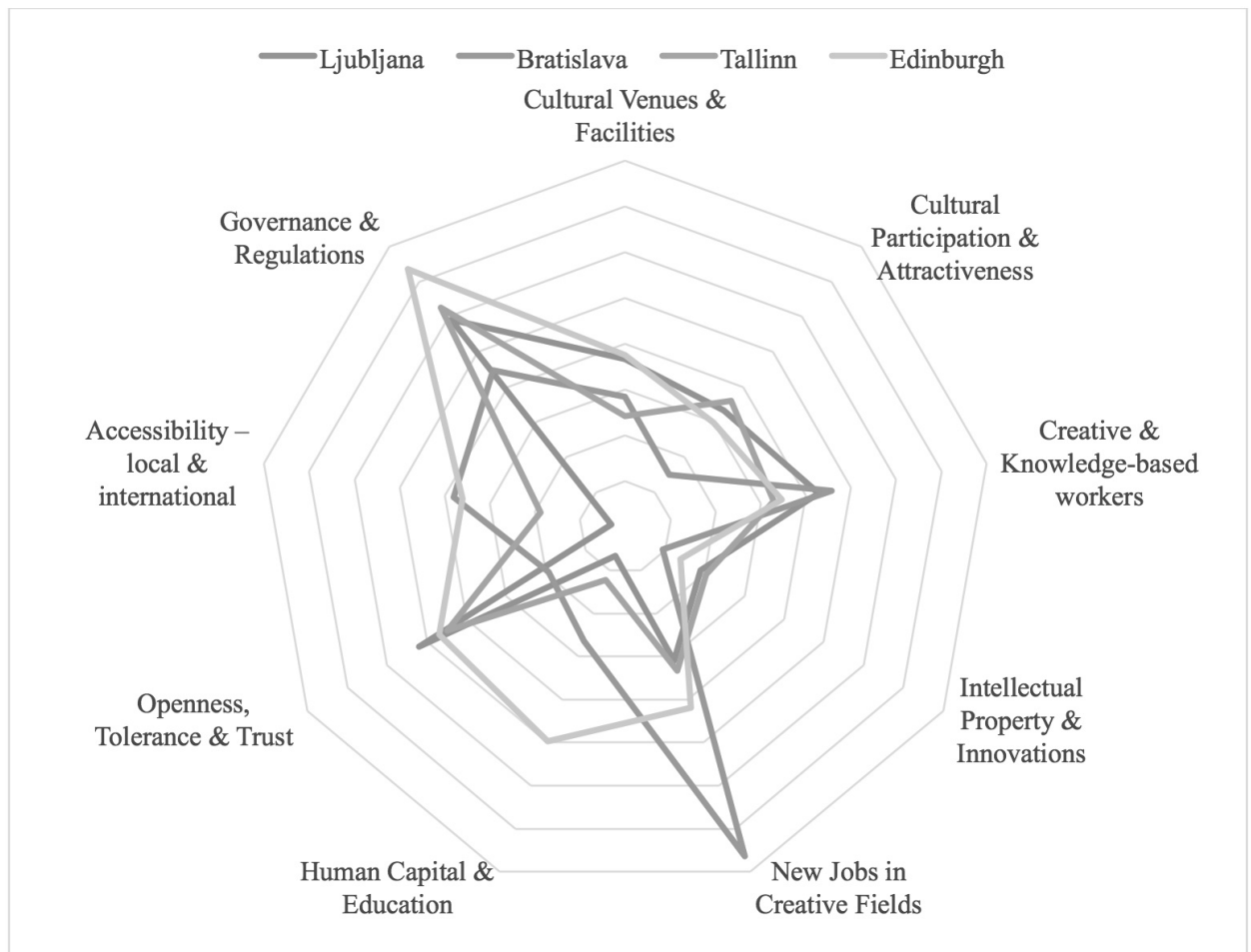


Figure 1: Creativity sub-indices of Ljubljana and selected cities



Adapted from European Commission, 2017

Figure 2: Cultural and creative dimensions of Ljubljana and selected cities



Adapted from European Commission, 2017

Table 1: Cultural and creativity dimensions of Ljubljana, Bratislava, Tallinn, and Edinburgh<sup>1</sup>

	Ljubljana	Bratislava	Tallinn	Edinburgh
<b>Total score</b>	<b>32.7</b>	<b>34.2</b>	<b>30.0</b>	<b>36.4</b>
<b>Cultural Vibrancy</b>	<b>35.1</b>	<b>21.7</b>	<b>30.1</b>	<b>33.8</b>
Cultural venues and facilities	36.8	28.5	24.3	37.7
Cultural participation and attractiveness	33.4	15.0	36.0	29.8
<b>Creative Economy</b>	<b>33.3</b>	<b>50.7</b>	<b>30.6</b>	<b>33.4</b>
<b>Creative and knowledge-based workers</b>	<b>42.8</b>	<b>45.7</b>	<b>32.9</b>	<b>34.7</b>
Jobs in arts, culture, and entertainment	37.1	25.3	40.6	38.9
Jobs in media and communication	50.5	52.5	32.8	25.6
Jobs in other creative sectors	40.7	59.2	25.4	39.7
<b>Intellectual property and innovations</b>	<b>18.9</b>	<b>9.5</b>	<b>20.4</b>	<b>13.8</b>
ICT patent applications	6.2	3.5	8.2	13.1
Community design applications	31.7	15.4	32.5	14.4
<b>New jobs in creative fields</b>	<b>31.0</b>	<b>76.4</b>	<b>33.3</b>	<b>41.9</b>
Jobs in new arts, and entertainment enterprises	29.2	29.3	28.0	27.8
Jobs in new media and communication enterprises	34.4	100	30.5	47.8
Jobs in new enterprises in other creative sectors	29.5	100	41.4	50.0
<b>Enabling Environment</b>	<b>26.9</b>	<b>26.3</b>	<b>28.8</b>	<b>47.7</b>
Human capital and education	6.6	26.4	12.3	49.7
Openness, tolerance and trust	52.0	19.3	44.9	46.8
Governance and regulations	59.1	44.8	62.6	73.7

Adapted from European Commission, 2017

According to the sub-indices (Figure 2), Ljubljana is relatively well positioned regarding cultural vibrancy, but the inhibitor is, in general, an enabling environment. For the particular dimension, i.e. cultural vibrancy, cultural venues and facilities, creative and knowledge-based workers, openness, tolerance and trust, and quality of governance are dimensions that are particularly strong, in increasing order of strength. In contrast, intellectual property and innovation, human capital and education, and accessibility are the main weaknesses, in increasing order. To provide more in-depth information, Table 1 details all the dimensions of the creative cities monitor and compares Ljubljana to Tallinn, Bratislava, and Edinburgh. Specifically, we focus on the creative economy dimension by providing the number of creative

and knowledge-based workers in a particular sector, patent applications, and new jobs in creative fields.

Ljubljana, as previously mentioned, is the highest ranked in cultural vibrancy (35.1), followed by Edinburgh (33.8) and Tallinn (30.1) (Table 1). In terms of the dimensions of cultural vibrancy (i.e., cultural venues and facilities, and cultural participation and attractiveness), only Edinburgh (37.7) has a higher score for cultural venues and facilities than Ljubljana.

A creative economy encompasses creative and knowledge-based workers, intellectual property and innovations, and new jobs in creative fields. In terms of creative and knowledge-based workers, Ljubljana mostly has jobs in the media and communication sector (50.5), followed by other creative sectors (40.7)

<sup>1</sup> Edinburgh is presented as the benchmark, since it has the highest rank among analysed cities that have population in the range 250,000-500,000.

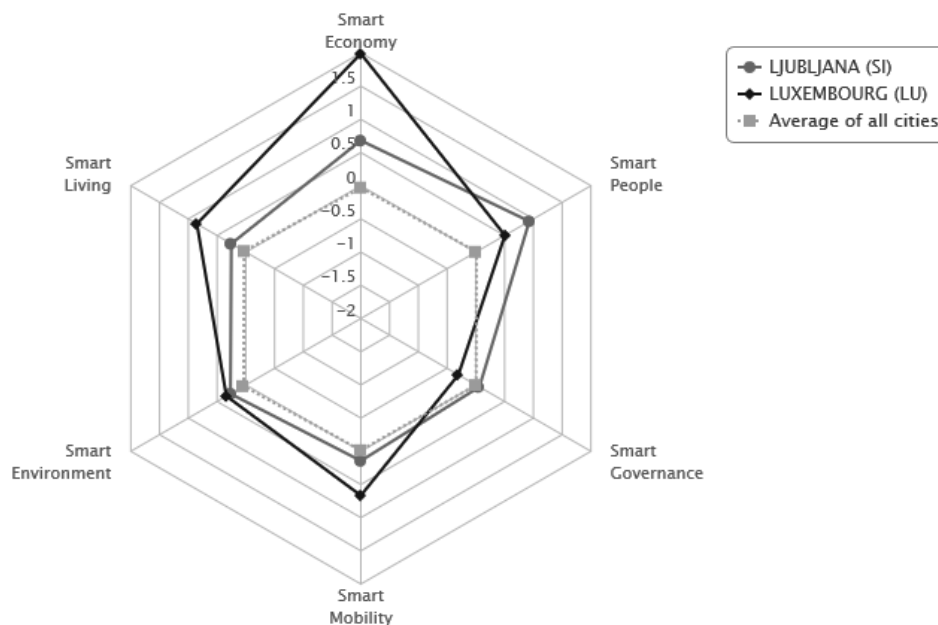
and arts, culture, and entertainment (37.1). Bratislava has almost the same number of creative and knowledge-based workers in different sectors, but a higher number of jobs in media and communication (52.5) and other creative sectors (59.2). On the other hand, Tallinn and Edinburgh have a lower number of creative and knowledge-based workers, and a number of jobs in media and communication and other creative sectors. Moreover, comparing Ljubljana to similarly sized capital cities of Central and Eastern European countries, such as Bratislava and Tallinn, all cities have a small number of ICT patent applications (Bratislava has the lowest number, followed by Ljubljana). On the other hand, Ljubljana has a high number of community design applications (31.7), almost twice the number of the community design applications in Bratislava (15.4) and Edinburgh (14.4).

New jobs in creative fields in Ljubljana mostly are available in the media and communication sector (34.4), followed by other creative sectors (29.5) and arts, culture, and entertainment (29.2). Tallinn has almost the same number of new jobs in creative fields, but a higher

number of new jobs in other creative sectors (41.4). However, Bratislava has the highest number of new jobs in creative fields (76.4), followed by Edinburgh (41.9). In particular, Bratislava and Edinburgh are well ahead of Ljubljana with jobs in new media and communication enterprises and in other creative sectors. The main inhibitor to Ljubljana is the available human capital and education within the enabling environment sub-index. This suggests a rather limited contribution of the underground to the creativity of the city.

Similarly, the European Smart Cities (2014) classification positions Ljubljana relatively high in the group of smaller medium-sized cities, 15<sup>th</sup> among 77 included cities, which is the highest rank among the included Central and Eastern European cities. This classification measures the smartness of the city according to the six dimensions: smart economy, smart people, smart governance, smart mobility, smart environment, and smart living. The combination of these endowments and activities of citizens creates the level of city smartness. The results of European Smart Cities (2014, 2015) are presented in Figures 3 and 4.

Figure 3: Smart dimensions of Ljubljana<sup>2</sup>



Adapted from *European Smart Cities, 2014*

<sup>2</sup> Ljubljana is here compared to Luxembourg, which is ranked number 1 in this classification of 77 small European cities, and the averages of all cities are presented. Bratislava, Tallinn, and Edinburgh are listed in the group of larger European cities, so they are presented separately in Figure 4. Because of the different data and methodologies utilized between those two groups, we cannot make direct comparisons regarding the ranking.

Ljubljana ranks very well in smart economy and smart people dimensions but lags behind in smart management and smart mobility dimensions (Figure 3). In particular, within those two dimensions, indicators such as transparency of governance and participation in public life, and local accessibility and sustainability of transport systems, are major obstacles to the improvement in smartness.<sup>3</sup>

Ljubljana and Tallinn have the highest number of smart people, followed by Edinburgh, Luxemburg, and Bratislava (Figures 3 and 4). In addition, Ljubljana has the same score for smart economy as Edinburgh (Luxemburg has the highest score of a smart economy, and Tallinn has the lowest score). Only Edinburgh has a higher smart governance score than Ljubljana. Moreover, Ljubljana has average scores for dimensions of smart governance among all cities (European Smart Cities, 2015; European Smart Cities, 2014). Ljubljana has the same score for smart environment as Tallinn, but Edinburgh has the highest score for the smart environment dimension. The compared cities have almost the same scores for the smart mobility and smart living dimensions. Thus, we can conclude that Ljubljana has a higher score for smart city than Bratislava and is about average among all cities in the 2014 and 2015 research. Moreover, Ljubljana has on average almost the same score for the smart city dimension as Tallinn and Edinburgh (Figures 3 and 4).

Based on the results and additional examples, the next section discusses which levels of upper ground to underground of the small creative city can be found in Ljubljana and the other analyzed cities (Bratislava, Tallinn, and Edinburgh). Moreover, based on the Cultural and Creative Cities Monitor from the European Commission (2017) and the European Smart Cities (2014, 2015) classification interpretation, we discuss the type of creative cities (i.e., technological-innovative, cultural-intellectual, cultural-technological, and technological-organizational) that best describe the analyzed cities (i.e., Ljubljana, Bratislava, Tallinn, and Edinburgh).

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<sup>3</sup> Among other indicators, low scores for quality of housing (smart living dimension), sustainable resource management (smart environment dimension), and flexibility of the labor market (smart economy dimension) are major problems in advancing the smartness of the city.

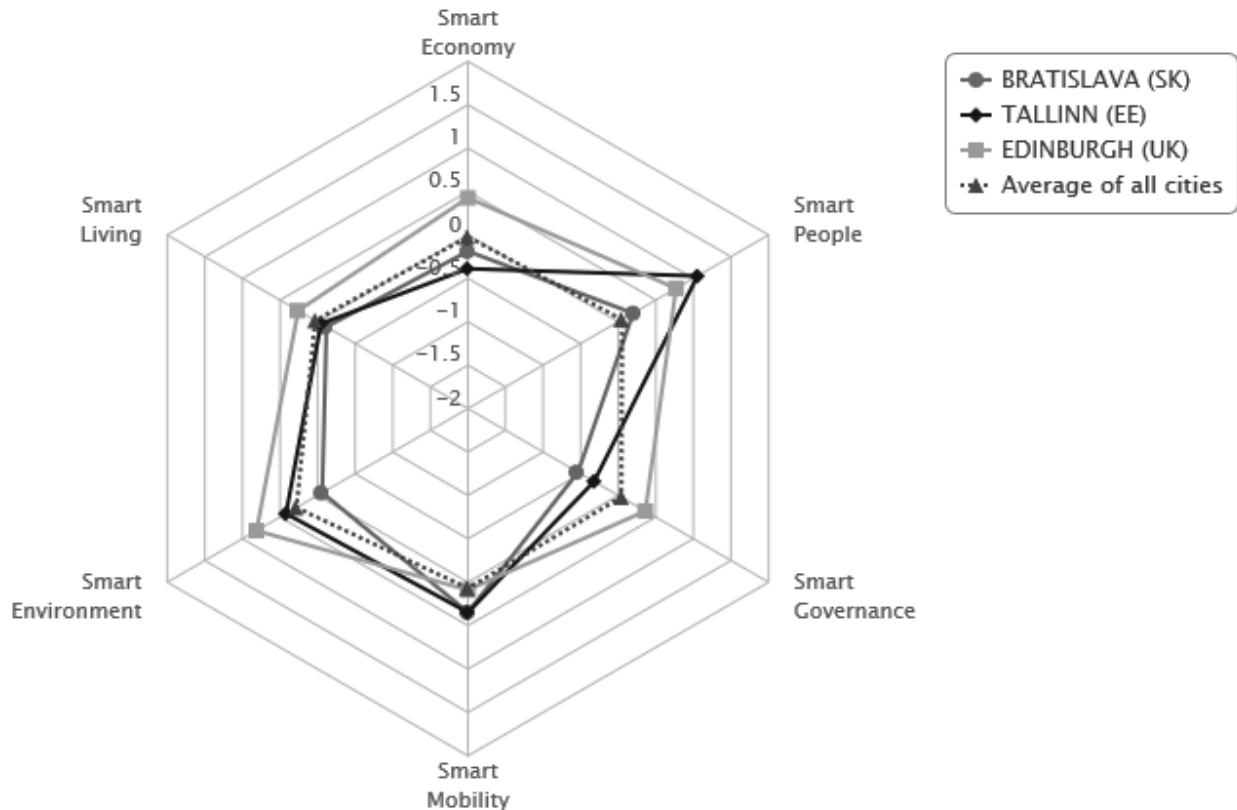
## 5. DISCUSSION

Ljubljana has been rather successful predominantly in the active promotion of culture and creative industries by giving the hardware, i.e. infrastructure, often labelled creative centres (e.g., Poligon, Kino Šiška, etc.), to the freelancers working in the creative sector, thus empowering them. Usually, an urban regeneration process also was involved, because the sites of abandoned factories were used for this purpose (e.g., Cerar, 2012; Gray, 2015). Similarly, creative software was provided, not just because Ljubljana was a UNESCO City of Literature or the European Green Capital in 2016, but also because of other events that are a backbone of creativity and vibrancy. Needless to say, the creativity stimulation mostly takes place at the municipal level, and the notion of Ljubljana as being a creative city also is addressed at the city level, where the so-called local implementation plans are created (Murovec, Kavaš and Cerar, 2012).

Addressing this issue from the perspective of Ljubljana's use of a top-down approach, it is evident that an upper ground and a middle ground focus are utilized, because creative individuals are supported, communities in various districts are supported and enabled to become creative centres, and formal institutions are well established. However, it seems that according to the monitors there is a slight lack of underground contribution to the city creativity, which can be observed indirectly through the lack of available human capital. Furthermore, it seems that top-down policies are rather narrow, because predominantly cultural aspects of creativity are targeted, whereas there is a lack of jobs to boost the creative economy development; and furthermore, there is a lack of human capital to enable creativity improvement. Thus, it can be argued that Ljubljana to some extent understands creativity and being a creative city as more of a cultural phenomenon, and less as an economic category.

Nevertheless, given the status of main the inhibitors to increasing the creativity and smartness of the city, it seems that there is a lack of orientation for improving the creative orgware of the city, which include policies regarding creative industries and governance issues. This also was evident from the cross-dimensional analysis, which indicated the lack

Figure 4: Smart dimensions of selected cities<sup>4</sup>



Adapted from *European Smart Cities, 2015*

of jobs in those industries and lack of human capital and education. Furthermore, there is a lack of sustainability policies regarding transportation, and public participation is missing in governance, thus reducing the “smartness” of the city’s management. Ljubljana did a great amount of work to boost the culture and creativity of the city, and it often is referred to as a benchmark city for the Art Nouveau, mostly for other Central and Eastern European cities (e.g., Eglins-Eglitis and Lusena-Ezera, 2016). In this context, Ljubljana can be classified more as a cultural-intellectual type of creative city (although more stress should be put on the first word), because culture and the arts contribute more to the city level of creativity. Nevertheless, it can be argued that the main advancement was done in boosting

culture and creativity, thus becoming a Level 2.0 city, but the managerial, sustainability policy, and participation issues have yet to be improved. As it was mentioned previously, a smart city requires large innovative technological solutions, which, according to the aforementioned comparisons, are missing. To summarize, additional efforts should be made to improve creative and smart management of the city in order for Ljubljana to advance closer to a Level 3.0 city.

Bratislava has the highest creative economy score, especially in creating new jobs in creative fields and providing creative and knowledge-based workers. It has a longstanding tradition in music (e.g., major musicians including Mozart, Haydn, Liszt, and Beethoven visited or lived in the town)

<sup>4</sup> Ljubljana is not included in this comparison because it is listed in the group of smaller European cities, i.e., those below 300,000 residents, whereas the three other selected capitals are listed in the group of larger cities.

and therefore, like Ljubljana, it can be classified more like as cultural-intellectual type of the creative city. Moreover, Bratislava stimulates creativity through the underground by having creative individuals such as artists or other knowledge workers. Edinburgh, on the other hand, mostly stimulates creativity through the upper-ground level of creativity, and it has the highest results for enabling environment, especially in dimensions related to governance and regulations. In addition, it has the highest results in the smart environment, smart governance, and smart economy dimensions. Thus, we suspect that traditionally Edinburgh was more of a cultural-intellectual creative city; it was the world's first UNESCO City of Literature, and it has the world's largest literary International Book Festival (European Commission, 2017). However, although the city stimulated creativity through the upper-ground (e.g., formal institutions) level of creativity, we suspect that Edinburgh is becoming more of a cultural-technological creative city.

Tallinn also stimulates creativity through the upper-ground level of creativity—it has the highest results for enabling environment, especially governance and regulations, —and through the underground, because it scored the highest in the smart people classification. However, it also has the highest results for intellectual property and innovations (i.e., ICT patent applications and community design applications). The results are not surprising, because Tallinn Creative Incubator in 2010 ranked second among more than 50 competitors in combining

technological entrepreneurship with creativity and culture at the worldwide Best Science Based Incubator Awards (European Commission, 2017). Taken together, based on the results we predicted that Tallinn is on its way to becoming a technological-innovative creative city.

## 6. CONCLUSION

This paper examined the creative city incentives by exploring how different levels of creativity (e.g., upper ground and underground) can stimulate creativity in Ljubljana. Moreover, we clarified the type of creative city (i.e., technological-innovative, cultural-intellectual, cultural-technological, and technological-organizational cities) to which Ljubljana belongs. To better interpret the results, we compared Ljubljana to other small to medium-sized cities: Bratislava, Tallinn, and Edinburgh. Our results, based on the Cultural and Creative Cities Monitor from the European Commission (2017) and European Smart Cities (2014, 2015) data sets, show that Ljubljana and Bratislava are quite similar creative cities, because they both belong to the cultural-intellectual type and stimulate through both levels of creativity (underground and upper ground). On the other hand, the results show that Edinburgh and Tallinn stimulate creativity in the city mostly through the upper-ground levels. Moreover, the results indicate that Tallinn is more of a technological-innovative creative city, whereas Edinburgh is becoming more of a cultural-technological creative city.

### EXTENDED SUMMARY/IZVLEČEK

Raziskava preučuje pobude ustvarjalnega mesta Ljubljane in drugih majhnih do srednje velikih evropskih mest (Bratislava, Talin, Edinburgh), glede na kategorijo ustvarjalnega mesta (tehnološko-inovativno, kulturno-intelektualno, kulturno-tehnološko in tehnološko-organizacijsko), kateri omenjene prestolnice pripadajo. Avtorji so raziskavo izvedli na podlagi raziskovalne metode študije primera, saj slednja dovoljuje globinsko raziskovanje omenjene teme in upošteva različne dimenzije. Na podlagi sekundarnih podatkov Poročila o kulturnih in ustvarjalnih mestih Evropske Unije in organizacije Evropskih pametnih mest raziskava potrjuje, da Ljubljana in Bratislava pripadata kulturno-intelektualnemu tipu, Talin tehnološko-inovativnemu in Edinburgh kulturno-tehnološkemu.

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