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Intergenerational Cooperation, Learning and Knowledge-Sharing in the Workplace

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Abstract

Background and Originality: The article focuses on organizations that face the challenge of establishing a working environment adapted to the characteristics of different generations of employees. Each of the generations in the workplace must be motivated to work, cooperate and share knowledge among co-workers of different ages. Many research studies have been done on motivation in the workplace, but we have not found the research on the impact of different learning forms to motivate different generations to cooperate and exchange knowledge at the workplace, either on a Slovenian or global scale.
Method: In this study, we examine the following two issues: If different approaches are needed to motivate different generations of employees to cooperate, and whether different generations differ in the desired ways of acquiring and sharing knowledge, using Piktialis and Greenes (2008) categorization of learning and knowledge-sharing forms at work. In the critical assessment of motivation for intergenerational cooperation and knowledge-sharing, we used a quantitative research method. The survey was conducted on a random sample among employees in a selected organization with 2,000 staff, with 334 responding to the survey.
Results: The results showed that for Generation Z it is least important that they to share their knowledge and work experience with colleagues from other generations and that the younger generations (Y and Z) are less suited to knowledge-sharing through storytelling (examples from practice, comparisons, summarizing experiences) and summaries of key knowledge (from conversations, interviews, conferences).
Society: The concept of intergenerational cooperation in the workplace includes knowledge-sharing among staff, as well as a shift from knowledge-sharing to co-creating knowledge. We believe this shift is of key importance for further development of human capital as well as knowledge accumulation in the organization. Therefore, co-creating knowledge should represent the future ambitions of every organization and research's communities.
Limitations / further research: Research limitations and suggestions for further research.
A selective sample should be taken into account as this research only included one organization and individuals from this particular organization that were motivated to participate. The small sample of generation Z should also be mentioned. The main limitation of this research was the failure to consider an individual's characteristic, organizational climate and communication pattern among different departments. At the same time, the focal organization operates in different geographical locations, as this can play an important role in intergenerational cooperation and knowledge-sharing. Herefore, each organization needs to determine the preferred form of knowledge-sharing in each specific environment and choose a form that suits both the employees who provide information and those who receive it. This is also an area of further research, thus the influence of organizational climate and culture on the process of intergenerational cooperation and knowledge exchange.

Keywords: generations at work, intergenerational cooperation, forms of intergenerational learning, knowledge-sharing, transfer knowledge at work.

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1 Introduction

The presence of employees of different ages in the workplace is an important source of organization success in terms of mutual cooperation and knowledge-sharing. However, both the organization and the employees must recognize this resource as an opportunity and not as an obstacle. Therefore, the organization and employees need to understand and respect diversity and difference according to age and generational affiliation. Only in this way can each employee realize their potential and contribute to the entire organization's success.

Organizations are thus forced to engage in a number of activities with age-diverse employees. They must rationally and effectively integrate the needs and abilities of employees of different ages into managing their work and increasing the work efficiency of both older and younger employees, which is inextricably linked to the constant need to spread learning and exchange knowledge. Although learning in organizations mainly takes place as individual learning, it occurs with the mutual influences and connections that employees have with each other (Rozman & Kovač, 2012). This means that employees learn individually, but not in isolation, and must be connected with other employees in the firm. In this way, knowledge is transferred throughout the organization, leading to greater efficiency, creativity and innovation. An individual employee represents the smallest link in organizations, and relations among people are formed during work processes. Therefore, work processes in organizations can only be effective if collaborative relationships are established among employees. Knowledge is an important component of modern organizations; therefore, it is especially important to establish cooperation and connections among employees of different ages and encourage learning and knowledge-sharing. It is thus necessary to create an environment that will be adapted to different generations' characteristics so that each of the generations in the workplace can be motivated to work and participate in achieving the firm's goals. Many organizations are looking for ways to improve this process, with various measures designed depending on which age group or generation of employees they are intended for, as some can be intended for all employees and some only for a certain generation. As Bjursell (2019, p. 217) notes, "Although the ability to learn remains throughout one's life, one may change how one participates in education or educational activities."

The article focuses on the issue of organizations that face the challenge of establishing a working environment that will be adapted to the characteristics of different generations of employees. Each of the generations in the workplace must be motivated to work, cooperate and share knowledge among co-workers of different ages.

In this study, we examine the following two issues: If different approaches are needed to motivate different generations of employees to cooperate, and whether different generations differ in the desired ways of acquiring and sharing knowledge, using Piktialis and Greenes (2008) categorization of learning and knowledge-sharing forms at work.

The concept of intergenerational cooperation in the workplace includes knowledge-sharing among staff, as well as a shift from knowledge-sharing to co-creating knowledge. We believe this shift is of key importance for further development of human capital as well as knowledge accumulation in the organization. Therefore, the area of co-creating knowledge should represent the future ambitions of every organization and research communities.

2 Theoretical Framework

It is necessary to define the concept of a generation and that of age in the work environment. From the point of view of the present article, age is the umbrella construct, which includes all changes related to age that an individual experiences during aging. Age-related changes do not occur equally in all people, and there are considerable differences between individuals. Some 50-year-old employees feel young and able to work, while others at the same age feel exhausted and unmotivated to continue in their careers. Therefore, the chronological age of the individual is insufficient to explain the differences in work motivation and employee behaviour.

The individual's motivation for work is influenced not so much by the individual's perception of their chronological age, but by the perception of their future: in terms of whether they see this in the organization and are thus open to new work challenges. As people age, they go through various changes during their working lives, such as changes in personality, needs, impulses, intelligence, physical abilities, (working) memory, work experience, emotional regulation and social perceptions (Bal, Kooij, & Rousseau, 2018, p. 13). It is impossible to find an unambiguous answer to how old an individual employee should be to be considered an "older employee" in theory and practice. In the literature, it is possible to recognize the consensus that employees in the age group of 50 or 55 fall into this category (Bal, Kooij, & Rousseau, 2018, p. 17).

On the other hand, generations are groups of individuals born in a particular historical period, in a particular area, and share important life historical events of major social dimensions that are most representatives of the generation directly confronted with during their personal development.

Generations in society change approximately every twenty years or so, where some deviations from the years of birth emerge from the literature (Dolot, 2018, p. 44, Speer, 2011, p. 15). Each generation is divided into three to seven annual subgroups, based on the first wave, core, and last wave (Tolbize, 2008, p. 1). Due to the importance of the issue – the impact on the economy, the labour market, corporate strategies – intergenerational differences and the emergence of new generations have become the subject of research throughout the developed world. Age management and intergenerational differences are increasingly issues in all organizations (May, 2015).

Although these various authors identify different generational year continuums (e.g., specific

authors conclude generation Y in 1995, others in 1996, and so forth), the following recent generations have been identified (Tolbize, 2008, p. 2):

- Traditionalists (silent generation, veterans), born between 1922 and 1945, who unconditionally value authority and a hierarchical managerial approach;
- Baby-boom Generation (baby boomers, children of prosperity), born 1946 to 1964, defined as the workaholic generation;
- Generation X, born 1965 to 1980, respect authority and believe that a work-life balance is needed;
- Generation Y (millennials), born from 1981 to 1995 or 1996, who grew up in prosperity and rapid technological development;
- Generation Z, which also has many other names, such as iGeneration, Gen Tech, Online Generation, Facebook Generation, and Generation C (Dolot, 2018, p. 45), born approximately 1995 to 2010, which naturally communicates and works in both real and virtual worlds and loves change;
- Generation Alpha, a new generation that already follows Generation Z and was born after 2010 as children of millennials, living in a world of digital technology, and has not yet entered the labour market (McCrindle, 2019).

Generations have different learning styles that depend on whether the matter is learned involves hard or soft skills. Hard skills are closely related to knowledge, such as the knowledge of laws, theories, regulations, and procedures, while soft skills are closely related to relationships and include communication, negotiation, leadership, teamwork, innovation, and creativity. The hard skills are easier to observe, learn and measure than the soft ones, as the latter is less tangible and also more challenging to quantify and develop (European Commission, 2011, p. 9). Tolbize (2008, p. 14) notes that while Generation X and younger want to learn soft and hard skills at work, the Baby-boom Generation prefers the classic classroom environment for learning hard skills, while soft ones are happier learning while working. Learning in a group is the second most popular learning method for older employees, but it is less popular among the younger generations. Younger generations have highlighted the use of assessment and feedback as one of the most desirable learning methods, while the opposite is found for older employees.

Knowledge as the accumulated knowing and understanding of facts, rules, laws, and experience is the foundation for achieving a competitive advantage. Knowledge in an organization can be divided into the following (Rozman & Kovač, 2012, p. 317):

- knowledge of the individual as a result of employee learning,
- group knowledge as the knowledge of employees connected in a group,
- knowledge of the organization as knowledge of all the employees in the organization,
- knowledge generated as a result of connections among organizations.

Important characteristics of knowledge in an organization (Rozman & Kovač, 2012, p. 347) include the level of general knowledge, enabling the organization to achieve greater efficien-

cy and effectiveness, and the level of specific knowledge that cannot be found elsewhere and is challenging to imitate. Based on this definition of skills, employees in organizations can be divided into four groups:

- related external collaborators who have little general and much specific knowledge,
- employees with key knowledge who have a lot of general and specific knowledge,
- contract employees with little general and specific knowledge, and
- traditional employees who have little general and much specific knowledge.

The organization needs to deal with both external and internal employees. It is necessary to establish long-term cooperation with external ones and form working groups of internal and external collaborators. To maintain or expand group knowledge (i.e., the knowledge of employees connected in a group) and the organization's knowledge (i.e. the knowledge of all the employees in the organization), it is important to establish cooperation among employees, which naturally includes intergenerational cooperation.

Knowledge-sharing among employees as a form of cooperation is important in creating the competitive advantages of an organization (Jiacheng, Lu & Francesco, 2010). It encompasses behaviours that facilitate sharing the knowledge an individual has acquired or established within the organization (Hsu, 2006). In order to enhance the acquisition of knowledge and knowledge-sharing, it is important what form of learning or training the organization chooses. The acquisition of knowledge in organizations takes place in various organized ways, both through direct personal participation and in the form of e-learning, as summarized by Brečko (2018, p. 8):

- Course: several consecutive meetings, usually with a few daily breaks to reflect on what has been learned.
- Seminar: one or more daily meetings involving the one-way presentation of information.
- Consultation: one or more daily meetings to discuss a specific topic.
- Problem conference: one or more daily meetings where one problem is discussed from several angles, usually with the participation of experts.
- Symposium: A gathering where experts discuss and consult on a specific topic.
- Workshop: one or more daily interactive meetings, with an emphasis on training.
- College: a short problem meeting to find ideas or solutions.
- Lecture: an informative presentation of a certain thing, novelties.
- Educational meeting: a meeting with the purpose of exchanging knowledge and experience among participants.
- Working meeting: a meeting with the purpose of producing a specific product.
- Consultations: a professional conversation about something, with counselling on a specific problem.
- Coaching: a special form of learning by asking questions that lead an individual or group to self-awareness and the solution to a problem
- Mentoring: a process in which an experienced individual assists a less experienced person in professional and personal development. The mentor guides the mentee with

advice, suggestions and explanations. A mentor is a trusted person who transfers his knowledge and experience to the mentee. In the mentoring process., the mentor follows a mentoring program that clearly defines the goals of mentoring and the criteria for evaluating the entire mentoring process. Mentors must also be appropriately trained for their work.

Piktialis and Greenes (2008, p. 25 - 61) note some other learning and knowledge-sharing forms at work, which we also address in our research:

- Blog or weblog: a record on web pages or web portals, also on an organization's intranet.
- Circles: forms of organized socializing of employees, during which knowledge is transferred among people who have the same profession or field of work.
- Sending messages: the transfer knowledge between employees by sending messages to each other in real time, such as: email, Skype, SMS, and so on.
- Records: records of information or knowledge in books or online.
- Conversations: a conversation or unstructured interview between a person possessing knowledge and a person who asks for certain information.
- Summaries: extracts of key knowledge from conversations, interviews, conferences.
- Notes: notes made by individuals themselves for their own purpose to record certain information, lesson summaries.
- Guided workshops: workshops led by a specific person, during which the transfer of knowledge between workshop participants is accelerated.
- Mentoring: mutual cooperation between a person with advanced knowledge (mentor) and a novice, with a focus on career advancement for both. It is intended for the extensive transfer of knowledge among employees arising from different but related content, generations or departments.
- Employee assistance: meetings or workshops where employees share their experience and knowledge with colleagues who have asked for help in relation to a specific work challenge.
- Podcast: a way of transferring knowledge to a broader audience via audio or video media. The listener or viewer downloads audio or video recording from a specific medium (e.g. a website) and then played back.
- Retrospective: a meeting of a team that takes place immediately after a certain event, and at which the team members make summaries of essential, newly acquired information or knowledge.
- Storytelling: a form of knowledge transfer that is generally used to share and acquire specific expertise among employees from different backgrounds. It is considered to be one of the oldest forms of complex information transfer. For example: concrete examples from practice, comparisons, summarizing experiences.
- Wikis: websites (including on an intranet, a organization's internal website) where anyone can create and edit content. It is a fast way to create, share and transfer group knowledge in a quickly accessible way.

There are thus many different ways of learning and transferring knowledge in the workplace, and organizations must understand the learning style of each generation so they can adapt the ways and techniques of learning or knowledge transfer. Only with the right choice of learning methods will the members of an individual generation be motivated for learning and knowledge-sharing at work.

With this research, we wanted to examine the following two questions:

- Research question 1: Are different approaches needed to motivate different generations of employees to collaborate?
- Research question 2: Do different generations of employees differ in their desired way of acquiring and transferring knowledge?

3 Method

In studying intergenerational collaboration and knowledge-sharing in Organisation X we used a quantitative research method, which was carried out using a random sample of the employees, where the desired sample was 10 % of all the staff at Organisation X. Individual variables (nominal, ordinal and interval measurement scales) were analyzed. The questionnaire was hosted on the website www.1ka.si. The survey was conducted from 24 November 2019 to 16 December 2019.

The research was performed using the snowball method. We sent the questionnaire to 21 people employed in the selected organization (in leading positions) and asked them to pass it to their subordinates, taking into account the generational diversity of the workplace. The persons to whom we sent a hyperlink to the questionnaire were selected from our directory (105 persons) with a random 20 % sample (random selection, as all units had the same probability of selection). A total of 394 people responded to the survey, and we received 334 questionnaires with at least one question completed, giving a positive response rate of 85 %. A total of 255 surveys were completed in full (i.e. 76 % of all questionnaires with at least an answer). See also Figure 1.

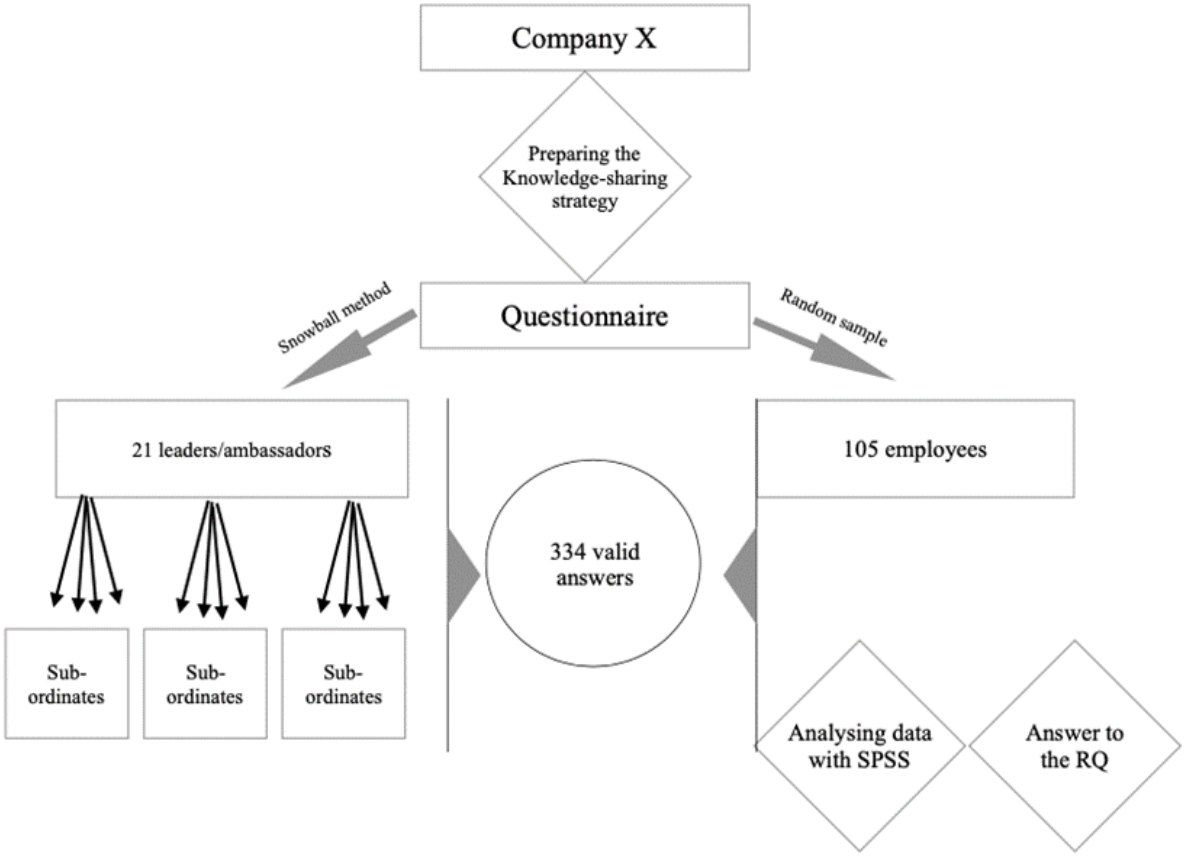

Figure 1. The theoretical model of research

We undertook critical assessments of intergenerational cooperation and knowledge-sharing in an organization with over 2,000 employees from four generations and a large share of older staff. The selected organization, called Organisation X in this study, was founded in Slovenia. According to its size, it is classified as a large organization. It is engaged in gainful activity, being a Slovenian provider of technological solutions. The technological industry, by its very nature, is changing, developing and adapting to new technologies and the growing demands of users (Organisation Annual Report X, 2018, p. 134)

At the end of 2018, the focal organization had over 2,000 employees, and the average age of these was 44.8 years. Just over 500 employees were over 51, representing 23 % of all staff. In the age structure of older employees, the majority were between 51 and 55 (64.1 %), followed by employees over 55 and up to 60 (32 %), with just 3.9 % over 60 (internal material of Organisation X, 2018, 2019).

The number of respondents by generation is satisfactory in terms of the number or share of representatives of each generation in the primary population. Most respondents are from Generation X (the average age of this generation, born between 1965 and 1980, is 46.5 years), which roughly coincides with the average age in the organization, which is 44.8 years. We,

therefore, estimated that the structure of respondents aligns with the age structure of employees in the organization.

In the statistical analysis of the survey, we considered the relatively large sample, with more than 334 individuals, all born between 1946 and 2010, who completed the questionnaire.

In the analysis of the questionnaires, we used the statistical software package SPSS (Statistical Package for the Social Sciences). The first question asked the respondents about which generation they belong to and then asked for their opinions on what motivates them to cooperate with other employees and which form of learning they prefer to accumulate and share knowledge within the organization.

In studying intergenerational and knowledge-sharing in Company X, we designed the questionnaire for the research study only. We started from the already existing practice of knowledge transfer in the organization, using an observation method (focus groups) that we performed with 150 employees. Moderated focus group meetings were held in the company from 10 to 25 September 2019, primarily for preparation of the company's strategy. We formed a total of six focus groups, each with 25 participants. The sample included approximately the same number of employees from all departments.

Moderators introduced to the participants the importance of cooperation and knowledge transfer in the workplace and the modern knowledge-transfer methods. They then quantitatively checked the participants' perceptions in the following areas: motivation for cooperation and collaboration with colleagues at work, attitudes towards knowledge-sharing, and current and desired method for knowledge-sharing in the workplace. Moderators checked the perceptions of the participants with four pre-designed questions:

- *What does cooperation with co-workers means to you?*
- *In what concrete ways do you connect and cooperate with co-workers at work?*
- *What kind of knowledge-transfer practices do you already use at work?*
- *What kind of (new) methods of knowledge transfer in the workplace would you like to use in the future? Your ideas?*

Each question was written separately on a poster, and the participants spontaneously wrote down their answers. Focus groups were moderated according to the principle of the open space method, which means that each participant in the focus group wrote down the answer to those questions to which they wanted or felt they could contribute an answer. For example, for the questions - *What kind of knowledge-transfer practices do you already use at work?* We obtained a total of 107 spontaneous responses. Those that were very similar in content were combined into one answer.

Based on the focus group results, we prepared the questionnaire to assess the motivation for cooperation and knowledge transfer in a broader population. We did not conduct a pilot test of

the questionnaire, as we conducted pre-testing that was performed on the population of one company with common elements of organizational culture. Pre-testing was performed in two parts. In the first part, we discussed the structure of the questionnaire and the formulation of the questions in a small group of human resources experts who were preparing a new strategy for intergenerational cooperation and learning in company X. In the second part, we surveyed eight employees (two from each generation). We asked the respondents the meaning of each question and asked them to say out loud the course of thinking and then to answer the question. Based on the results of the pre-testing, we made some final corrections to the questionnaire.

4 Results

4.1 Basic and surveyed population

Figure 2 shows the distribution of responses concerning "Which generation do you belong to according to your year of birth?", which shows that 207 (62 %) respondents are representatives of Generation X, 54 (16 %) of Generation Y, 50 (15 %) of the Baby-boom Generation, and 23 (7 %) of Generation Z.

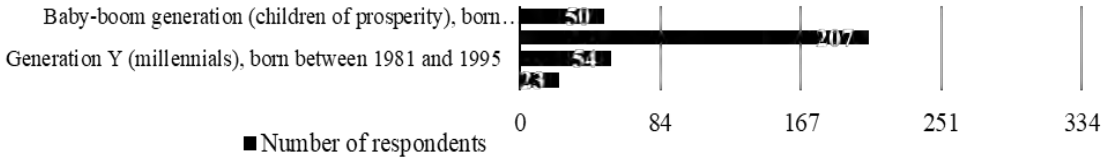

Figure 2. Distribution of responses on which generation according to the year of birth?

Figure 3 shows the distribution of respondents in correlation with the primary population.

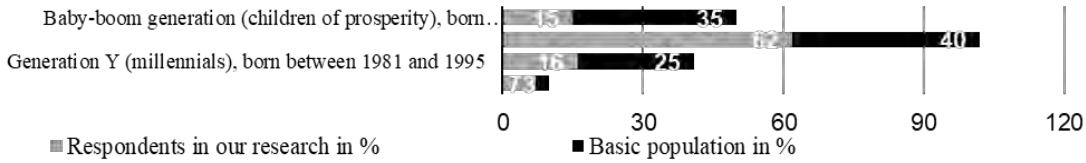

Figure 3. The distribution of respondents in the primary population

4.2 Research question 1: Are different approaches needed to motivate different generations of employees to collaborate?

In the first research question, *Are different approaches needed to motivate different generations of employees to collaborate?* We were interested in which aspects of motivation have statistically significant differences between individual generations. We analyzed the transformed variables (1 = very unmotivated, to 4 = very motivated) and used the ANOVA (analysis of variance) test to compare the averages of several independent samples (see Table 1).

Table 1. ANOVA on for "To what extent does the statement apply to you…?"

Variable		Sum of Squares	df	Mean Square (MS)	F	Sig.
I believe that mutual advice and the sharing of ideas and information about work are an important part of my responsibility	Between Groups	1.393	3	.464	1.615	.186
	Within Groups	72.739	253	.288		
	Total	74.132	256			
I do the work faster and more efficiently on my own than in a team of co-workers	Between Groups	1.409	3	.470	.873	.456
	Within Groups	136.140	253	.538		
	Total	137.549	256			
If I help a co-worker get the job done faster, I benefit from it myself	Between Groups	.997	3	.332	.603	.614
	Within Groups	139.408	253	.551		
	Total	140.405	256			
It is important to me to share my work experience and knowledge with co-workers	Between Groups	2.383	3	.794	2.932	.034
	Within Groups	68.536	253	.271		
	Total	70.918	256			
Personal contact with co-workers is the most desirable way to transfer knowledge and experience for me	Between Groups	.260	3	.087	.268	.849
	Within Groups	81.599	252	.324		
	Total	81.859	255			
It is important to me that I have relationships with my colleagues in which I can openly share my feelings about our work	Between Groups	1.382	3	.461	1.604	.189
	Within Groups	72.649	253	.287		
	Total	74.031	256			
When I encounter a problem at work, I turn to my colleagues for advice or knowledge	Between Groups	.531	3	.177	.593	.620
	Within Groups	75.277	252	.299		
	Total	75.809	255			

From Table 1, we can see that statistically significant differences between the average of generations occur only in the statement "*It is important to share my work experience and knowledge with co-workers"* with Mean Square (MS) between groups =, 794; F = 2.932 and Sig. = 0.34. For the other statements, there are no differences between the averages. We did not detect significant differences. We conclude that different motivational tools between generations are not required, as they all have a very similar impact.

ANOVA gives us an answer as to whether the averages between the groups are statistically significantly different, but it does not tell us which groups are those where the differences occur, so we checked this with post-hoc tests.

In Table 2, we used a post-hoc test to analyze which generations contribute the most to the differences in the variable "*It is important for me to share my work experience and knowledge with my colleagues".* We find that Generation Z contributes the most to the differences, which is significantly more unmotivated for these variables than the other generations (MD of Baby Boom = -.458; to Generation X= -.384 and Generation Y = -.381), while there are no significant differences in this statement between the other three generations. We conclude that the same motivational tools regarding the sharing of work experience and knowledge among co-workers have the least effect on Generation Z, while the impacts on the other three generations are very similar. Although we did not detect significant differences between the averages of all groups in the other statements, we perceive some partial differences between the Baby-boom and Generation Y averages in the statement "*I believe that mutual advice and trans-*

fer of ideas and information about work is an important part of my responsibility" (The baby-boom generation feels more motivated on average) and between Generation Y and Z averages in the statement *"It's important for me to have a relationship with co-workers in which I can openly share my feelings about our work"* Generation Z feels on average less motivated).

From the post-hoc test results (see Table 2), we can conclude that for Generation Z, it is least important to share their work experience and knowledge with co-workers. Representatives of Generation Z use technical devices practically all the time and have access to a large amount of information due to the World Wide Web; their technical and linguistic knowledge is at a high level. They are independent, self-sufficient and find it difficult to accept authority. They know how to find the correct information and resources. Perhaps this is why they do not feel motivated to share their knowledge and work experience with others. It is also possible to interpret that the youngest generation in the selected company does not yet have enough work experience and knowledge to feel competent to share it with others.

Table 2. Post-hoc tests for "To what extent does the statement apply to you…?"

Dependent Variable	(I) Which generation do you belong to according to the year of your birth?	(J) Which generation do you belong to according to the year of your birth?	Mean Difference (MD) (I-J)	Std. Error	Sig.	95 % Confidence Interval Lower Bound	Upper Bound	
I believe that mutual advice and sharing of ideas and information about work are an important part of my responsibility	Baby-boom	Generation X	.136	.097	.160		-.05	.33
		Generation Y	.263*	.119	.029	.03	.50	
		Generation Z	.125	.164	.447	-.20	.45	
	Generation X	Baby-boom	-.136	.097	.160	-.33	.05	
		Generation Y	.126	.092	.171	-.05	.31	
		Generation Z	-.012	.145	.936	-.30	.27	
	Generation Y	Baby-boom	-.263*	.119	.029	-.50	-.03	
		Generation X	-.126	.092	.171	-.31	.05	
		Generation Z	-.138	.161	.392	-.45	.18	
	Generation Z	Baby-boom	-.125	.164	.447	-.45	.20	
		Generation X	.012	.145	.936	-.27	.30	
		Generation Y	.138	.161	.392	-.18	.45	
I do the work faster and more efficiently on my own than in a team of co-workers	Baby-boom	Generation X	-.053	.132	.688	-.31	.21	
		Generation Y	-.185	.163	.257	-.51	.14	
		Generation Z	.139	.224	.536	-.30	.58	
	Generation X	Baby-boom	.053	.132	.688	-.21	.31	
		Generation Y	-.132	.126	.294	-.38	.12	
		Generation Z	.192	.198	.334	-.20	.58	
	Generation Y	Baby-boom	.185	.163	.257	-.14	.51	
		Generation X	.132	.126	.294	-.12	.38	
		Generation Z	.324	.220	.142	-.11	.76	
	Generation Z	Baby-boom	-.139	.224	.536	-.58	.30	
		Generation X	-.192	.198	.334	-.58	.20	
		Generation Y	-.324	.220	.142	-.76	.11	
If I help a co-worker get the job done faster, I benefit from it myself	Baby-boom	Generation X	.097	.134	.470	-.17	.36	
		Generation Y	.196	.165	.236	-.13	.52	
		Generation Z	.223	.226	.326	-.22	.67	
	Generation X	Baby-boom	-.097	.134	.470	-.36	.17	
		Generation Y	.100	.127	.436	-.15	.35	
		Generation Z	.126	.200	.530	-.27	.52	
	Generation Y	Baby-boom	-.196	.165	.236	-.52	.13	
		Generation X	-.100	.127	.436	-.35	.15	
		Generation Z	.026	.223	.906	-.41	.46	

"to be continued"

"continued"	Generation Z	Baby-boom	-.223	.226	.326	-.67	.22
		Generation X	-.126	.200	.530	-.52	.27
		Generation Y	-.026	.223	.906	-.46	.41
It is important to me to share my work experience and knowledge with co-workers	Baby-boom	Generation X	.074	.094	.431	-.11	.26
		Generation Y	.076	.116	.510	-.15	.30
		Generation Z	.458*	.159	.004	.15	.77
	Generation X	Baby-boom	-.074	.094	.431	-.26	.11
		Generation Y	.002	.089	.978	-.17	.18
		Generation Z	.384*	.141	.007	.11	.66
	Generation Y	Baby-boom	-.076	.116	.510	-.30	.15
		Generation X	-.002	.089	.978	-.18	.17
		Generation Z	.381*	.156	.015	.07	.69
	Generation Z	Baby-boom	-.458*	.159	.004	-.77	-.15
		Generation X	-.384*	.141	.007	-.66	-.11
		Generation Y	-.381*	.156	.015	-.69	-.07
Personal contact with co-workers is the most desirable way to transfer knowledge and experience for me	Baby-boom	Generation X	-.053	.103	.609	-.25	.15
		Generation Y	.006	.127	.965	-.24	.26
		Generation Z	.047	.174	.785	-.29	.39
	Generation X	Baby-boom	.053	.103	.609	-.15	.25
		Generation Y	.058	.098	.553	-.13	.25
		Generation Z	.100	.154	.516	-.20	.40
	Generation Y	Baby-boom	-.006	.127	.965	-.26	.24
		Generation X	-.058	.098	.553	-.25	.13
		Generation Z	.042	.171	.806	-.29	.38
	Generation Z	Baby-boom	-.047	.174	.785	-.39	.29
		Generation X	-.100	.154	.516	-.40	.20
		Generation Y	-.042	.171	.806	-.38	.29
It is important to me that I have relationships with my colleagues in which I can openly share my feelings about our work.	Baby-boom	Generation X	.057	.097	.554	-.13	.25
		Generation Y	-.026	.119	.830	-.26	.21
		Generation Z	.312	.163	.057	-.01	.63
	Generation X	Baby-boom	-.057	.097	.554	-.25	.13
		Generation Y	-.083	.092	.368	-.26	.10
		Generation Z	.255	.145	.079	-.03	.54
	Generation Y	Baby-boom	.026	.119	.830	-.21	.26
		Generation X	.083	.092	.368	-.10	.26
		Generation Z	.338*	.161	.036	.02	.65
	Generation Z	Baby-boom	-.312	.163	.057	-.63	.01
		Generation X	-.255	.145	.079	-.54	.03
		Generation Y	-.338*	.161	.036	-.65	-.02
When I encounter a problem at work, I turn to my colleagues for advice or knowledge	Baby-boom	Generation X	.105	.099	.287	-.09	.30
		Generation Y	.024	.122	.845	-.22	.26
		Generation Z	.139	.167	.406	-.19	.47
	Generation X	Baby-boom	-.105	.099	.287	-.30	.09
		Generation Y	-.081	.094	.387	-.27	.10
		Generation Z	.033	.148	.821	-.26	.32
	Generation Y	Baby-boom	-.024	.122	.845	-.26	.22
		Generation X	.081	.094	.387	-.10	.27
		Generation Z	.115	.164	.485	-.21	.44
	Generation Z	Baby-boom	-.139	.167	.406	-.47	.19
		Generation X	-.033	.148	.821	-.32	.26
		Generation Y	-.115	.164	.485	-.44	.21

* The mean difference (MD) is significant at the 0.05 level.

Table 3 shows the ANOVA results for the transformed variables in terms of motivation to participate by different generations. The average values of all four generations were higher than 3 for all questions, and thus all generations were at least slightly motivated, except for the item *Regarding achievement at work*, where they ranged between 2 and 3 (with all four generations somewhere between unmotivated and motivated). When we study the results of

ANOVA, we find that at a 5 % risk level, we cannot reject the zero assumption that the arithmetic means between the groups are the same or that there are no statistically significant differences between the average motivations among the generations. Therefore, we conclude that the motivational tools examined in this study work very similarly on all four generations.

We can presume that it is least important for Generation Z to share their experience and knowledge with co-workers. Generation Z uses digital devices practically all the time and has access to a large amount of information on the Internet, and thus their technical and language knowledge is very high. It is also possible to interpret the results showing that the youngest generation in Organisation X does not yet have enough work experience and knowledge to feel competent to share it with others. It is also a significant fact that there is a minimal share of Generation Z respondents in the survey, so the results are not statistically significant. However, because there is a minimal number of members of Generation Z in the focal organization, a significantly larger sample of this group would not be possible.

Table 3. ANOVA for motivation to collaborate

		Sum of Squares	df	Mean Square	F	Sig.
My idea of communicating about goals and priorities at work is	Between Groups	3.944	3	1.315	1.271	.285
	Within Groups	261.776	253	1.035		
	Total	265.720	256			
We meet in person with colleagues with whom we are involved in a joint work process	Between Groups	2.076	3	.692	.602	.614
	Within Groups	290.858	253	1.150		
	Total	292.934	256			
In relation to other co-workers	Between Groups	.904	3	.301	.546	.651
	Within Groups	139.641	253	.552		
	Total	140.545	256			
In case of disagreements and conflicts between co-workers, I deal with the situation as follows	Between Groups	2.565	3	.855	1.645	.179
	Within Groups	130.993	252	.520		
	Total	133.559	255			
Regarding my achievements at work	Between Groups	2.233	3	.744	.376	.770
	Within Groups	498.388	252	1.978		
	Total	500.621	255			
Regarding trust in the workplace	Between Groups	1.007	3	.336	.560	.642
	Within Groups	151.608	253	.599		
	Total	152.615	256			
My idea of sharing information with other co-workers is	Between Groups	.108	3	.036	.156	.926
	Within Groups	58.126	253	.230		
	Total	58.233	256			

4.2 Research question 2: Do different generations of employees differ in the desired way of acquiring and sharing knowledge?

To answer this research question, we wanted to determine which favoured ways of acquiring and sharing knowledge showed statistically significant differences among the four generations. Table 4 shows the ANOVA results for the given variables regarding the desired form of knowledge-sharing among employees, while Table 5 shows the results of post-hoc tests.

Table 4. ANOVA for Various forms of knowledge-sharing between co-workers, indicate to what extent these suit to you

		Sum of Squares	df	Mean Square	F	Sig.
Blog	Between Groups	3.131	3	1.044	.692	.557
	Within Groups	375.311	249	1.507		
	Total	378.443	252			
Circles	Between Groups	6.013	3	2.004	1.506	.214
	Within Groups	332.747	250	1.331		
	Total	338.760	253			
Sending messages	Between Groups	7.633	3	2.544	1.759	.155
	Within Groups	361.568	250	1.446		
	Total	369.201	253			
Records	Between Groups	1.817	3	.606	.596	.618
	Within Groups	253.841	250	1.015		
	Total	255.657	253			
Talking	Between Groups	5.114	3	1.705	1.867	.136
	Within Groups	228.335	250	.913		
	Total	233.449	253			
Summaries	Between Groups	8.352	3	2.784	3.235	.023
	Within Groups	215.113	250	.860		
	Total	223.465	253			
Notes	Between Groups	6.618	3	2.206	1.860	.137
	Within Groups	296.473	250	1.186		
	Total	303.091	253			
Guided workshops	Between Groups	3.723	3	1.241	1.536	.206
	Within Groups	201.978	250	.808		
	Total	205.701	253			
Mentoring	Between Groups	2.806	3	.935	.963	.411
	Within Groups	242.741	250	.971		
	Total	245.547	253			
Employee assistance	Between Groups	2.680	3	.893	1.262	.288
	Within Groups	177.068	250	.708		
	Total	179.748	253			
Podcast	Between Groups	7.453	3	2.484	2.085	.103

"to be continued"

"continued"						
	Within Groups	297.874	250	1.191		
	Total	305.327	253			
Retrospective	Between Groups	.868	3	.289	.295	.829
	Within Groups	245.545	250	.982		
	Total	246.413	253			
Storytelling	Between Groups	16.060	3	5.353	5.740	.001
	Within Groups	233.153	250	.933		
	Total	249.213	253			
Wikis	Between Groups	6.811	3	2.270	1.715	.164
	Within Groups	330.910	250	1.324		
	Total	337.720	253			

There are statistically significant differences between the averages of the generations in the Extracts (MS = 2.784; F = 3.235; Sig. = .023) and Storytetlling (MS = 5.353; F = 5.704; Sig. = .001) while in the other possibilities there are no differences between the averages.

Using post-hoc tests, we analyze which generations contribute the most to the differences in the variables Extracts and Storytelling. We find that statistically significant differences between the average values of the variable Extracts occur between Baby-boom generation and Generation Y (MD = .477); between Baby-boom generation and Generation Z (MD = .763); between Generation X and Generation Z (MD = .522). Average values of the variable Extracts fall from Baby-boom generation to Generation Z through Generations X and Y; therefore, we conclude that the younger the generation, the less suitable it is on average for the transfer of knowledge through extracts of key knowledge from conversations, interviews, conferences.

Statistically significant differences between the average values of the variable storytelling are between all pairs of generations, except between Generation X and Y, where these differences are not detectable (MD = .124). Also, in this variable, the average values fall from Baby-boom generation to Generation Z, so we conclude that the younger the generation, the less it corresponds to the average knowledge transfer through storytelling, with statistically significant differences in the 5 % risk level between Generation X and Y cannot be detected. Storytelling is used as a form of knowledge transfer for specific expertise among employees from different backgrounds. It should be pointed out that this is one of the oldest forms of information transfer - but for younger generations, this method of knowledge transfer may already be obsolete. Younger generations demand information that is fast, accurate, consistent, and unwilling to listen to long stories.

Based on arithmetic means for all generations, we conclude that on average respondents are less suited to the transfer of knowledge for "podcast" (Mean = 2,74); "blog" or "web blog", (Mean = 2,88) and most suitable for the "help of a colleague "(Mean = 4,03); "conversations" (Mean = 3,87; guided workshops (Mean = 3,84) and mentoring (Mean = 3,81). Respondents

prefer personal forms of knowledge transfer to non-personal ones.

Table 5. Post-hoc tests for the variables of various forms of knowledge-sharing between co-workers indicate to what extent it suits to you

Dependent Variable	(I) Which generation do you belong to according to the year of your birth	(J) Which generation do you belong to according to the year of your birth	Mean Difference (I-J)	Std. Error	Sig.	95 % Confidence Interval	
						Lower Bound	Upper Bound
Blog	Baby-boom	Generation X	-.199	.224	.376	-.64	.24
		Generation Y	-.396	.277	.154	-.94	.15
		Generation Z	-.258	.376	.494	-1.00	.48
	Generation X	Baby-boom	.199	.224	.376	-.24	.64
		Generation Y	-.197	.213	.355	-.62	.22
		Generation Z	-.059	.332	.859	-.71	.59
	Generation Y	Baby-boom	.396	.277	.154	-.15	.94
		Generation X	.197	.213	.355	-.22	.62
		Generation Z	.138	.369	.709	-.59	.87
	Generation Z	Baby-boom	.258	.376	.494	-.48	1.00
		Generation X	.059	.332	.859	-.59	.71
		Generation Y	-.138	.369	.709	-.87	.59
Circles	Baby-boom	Generation X	-.215	.208	.303	-.63	.20
		Generation Y	-.526*	.258	.043	-1.04	-.02
		Generation Z	-.093	.352	.792	-.79	.60
	Generation X	Baby-boom	.215	.208	.303	-.20	.63
		Generation Y	-.311	.200	.121	-.71	.08
		Generation Z	.122	.312	.696	-.49	.74
	Generation Y	Baby-boom	.526*	.258	.043	.02	1.04
		Generation X	.311	.200	.121	-.08	.71
		Generation Z	.433	.347	.213	-.25	1.12
	Generation Z	Baby-boom	.093	.352	.792	-.60	.79
		Generation X	-.122	.312	.696	-.74	.49
		Generation Y	-.433	.347	.213	-1.12	.25
Sending messages	Baby-boom	Generation X	.286	.217	.189	-.14	.71
		Generation Y	-.048	.269	.860	-.58	.48
		Generation Z	-.233	.367	.525	-.96	.49
Sending messages	Generation X	Baby-boom	-.286	.217	.189	-.71	.14
		Generation Y	-.334	.209	.111	-.74	.08
		Generation Z	-.519	.325	.111	-1.16	.12
	Generation Y	Baby-boom	.048	.269	.860	-.48	.58
		Generation X	.334	.209	.111	-.08	.74
		Generation Z	-.186	.362	.608	-.90	.53
	Generation Z	Baby-boom	.233	.367	.525	-.49	.96
		Generation X	.519	.325	.111	-.12	1.16
		Generation Y	.186	.362	.608	-.53	.90
Records	Baby-boom	Generation X	.228	.182	.211	-.13	.59
		Generation Y	.140	.226	.534	-.30	.58
		Generation Z	.074	.307	.811	-.53	.68
	Generation X	Baby-boom	-.228	.182	.211	-.59	.13
		Generation Y	-.088	.175	.615	-.43	.26
		Generation Z	-.155	.272	.570	-.69	.38
	Generation Y	Baby-boom	-.140	.226	.534	-.58	.30
		Generation X	.088	.175	.615	-.26	.43
		Generation Z	-.067	.303	.826	-.66	.53
	Generation Z	Baby-boom	-.074	.307	.811	-.68	.53
		Generation X	.155	.272	.570	-.38	.69
		Generation Y	.067	.303	.826	-.53	.66
Talking	Baby-boom	Generation X	-.163	.173	.347	-.50	.18
		Generation Y	-.287	.214	.181	-.71	.13
		Generation Z	.337	.291	.249	-.24	.91
	Generation X	Baby-boom	.163	.173	.347	-.18	.50
		Generation Y	-.124	.166	.454	-.45	.20
		Generation Z	.499	.258	.054	-.01	1.01
	Generation Y	Baby-boom	.287	.214	.181	-.13	.71

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“continued”		Generation X	.124	.166	.454	-.20	.45
		Generation Z	.624*	.287	.031	.06	1.19
Talking	Generation Z	Baby-boom	-.337	.291	.249	-.91	.24
		Generation X	-.499	.258	.054	-1.01	.01
		Generation Y	-.624*	.287	.031	-1.19	-.06
Summaries	Baby-boom	Generation X	.241	.167	.151	-.09	.57
		Generation Y	.477*	.208	.022	.07	.89
		Generation Z	.763*	.283	.007	.21	1.32
	Generation X	Baby-boom	-.241	.167	.151	-.57	.09
		Generation Y	.236	.161	.143	-.08	.55
		Generation Z	.522*	.251	.038	.03	1.02
	Generation Y	Baby-boom	-.477*	.208	.022	-.89	-.07
		Generation X	-.236	.161	.143	-.55	.08
		Generation Z	.286	.279	.307	-.26	.84
	Generation Z	Baby-boom	-.763*	.283	.007	-1.32	-.21
		Generation X	-.522*	.251	.038	-1.02	-.03
		Generation Y	-.286	.279	.307	-.84	.26
Notes	Baby-boom	Generation X	.191	.197	.332	-.20	.58
		Generation Y	.199	.244	.415	-.28	.68
		Generation Z	-.458	.332	.169	-1.11	.20
	Generation X	Baby-boom	-.191	.197	.332	-.58	.20
		Generation Y	.008	.189	.966	-.36	.38
		Generation Z	-.649*	.294	.028	-1.23	-.07
	Generation Y	Baby-boom	-.199	.244	.415	-.68	.28
		Generation X	-.008	.189	.966	-.38	.36
		Generation Z	-.657*	.328	.046	-1.30	-.01
	Generation Z	Baby-boom	.458	.332	.169	-.20	1.11
		Generation X	.649*	.294	.028	.07	1.23
		Generation Y	.657*	.328	.046	.01	1.30
Guided workshops	Baby-boom	Generation X	.189	.162	.246	-.13	.51
		Generation Y	.048	.201	.813	-.35	.44
		Generation Z	.533	.274	.053	-.01	1.07
	Generation X	Baby-boom	-.189	.162	.246	-.51	.13
		Generation Y	-.141	.156	.367	-.45	.17
		Generation Z	.345	.243	.157	-.13	.82
	Generation Y	Baby-boom	-.048	.201	.813	-.44	.35
		Generation X	.141	.156	.367	-.17	.45
		Generation Z	.486	.270	.074	-.05	1.02
	Generation Z	Baby-boom	-.533	.274	.053	-1.07	.01
		Generation X	-.345	.243	.157	-.82	.13
		Generation Y	-.486	.270	.074	-1.02	.05
Mentoring	Baby-boom	Generation X	.016	.178	.929	-.33	.37
		Generation Y	-.234	.221	.289	-.67	.20
		Generation Z	.189	.300	.529	-.40	.78
	Generation X	Baby-boom	-.016	.178	.929	-.37	.33
		Generation Y	-.250	.171	.145	-.59	.09
		Generation Z	.174	.266	.515	-.35	.70
	Generation Y	Baby-boom	.234	.221	.289	-.20	.67
		Generation X	.250	.171	.145	-.09	.59
		Generation Z	.424	.296	.154	-.16	1.01
	Generation Z	Baby-boom	-.189	.300	.529	-.78	.40
		Generation X	-.174	.266	.515	-.70	.35
		Generation Y	-.424	.296	.154	-1.01	.16
Employee assistance	Baby-boom	Generation X	-.014	.152	.928	-.31	.29
		Generation Y	-.288	.188	.127	-.66	.08
		Generation Z	-.026	.257	.918	-.53	.48
Employee assistance	Generation X	Baby-boom	.014	.152	.928	-.29	.31
		Generation Y	-.274	.146	.061	-.56	.01
		Generation Z	-.013	.227	.956	-.46	.44
	Generation Y	Baby-boom	.288	.188	.127	-.08	.66
		Generation X	.274	.146	.061	-.01	.56
		Generation Z	.262	.253	.302	-.24	.76
	Generation Z	Baby-boom	.026	.257	.918	-.48	.53
		Generation X	.013	.227	.956	-.44	.46
		Generation Y	-.262	.253	.302	-.76	.24
Podcast	Baby-boom	Generation X	.063	.197	.748	-.32	.45
		Generation Y	.511*	.244	.037	.03	.99
		Generation Z	.135	.333	.685	-.52	.79
	Generation X	Baby-boom	-.063	.197	.748	-.45	.32

“to be continued”

“continued”		Generation Y	.448*	.189	.019	.07	.82
		Generation Z	.072	.295	.808	-.51	.65
	Generation Y	Baby-boom	-.511*	.244	.037	-.99	-.03
		Generation X	-.448*	.189	.019	-.82	-.07
		Generation Z	-.376	.328	.253	-1.02	.27
	Generation Z	Baby-boom	-.135	.333	.685	-.79	.52
		Generation X	-.072	.295	.808	-.65	.51
		Generation Y	.376	.328	.253	-.27	1.02
Retrospective	Baby-boom	Generation X	.029	.179	.872	-.32	.38
		Generation Y	.086	.222	.697	-.35	.52
		Generation Z	.258	.302	.394	-.34	.85
	Generation X	Baby-boom	-.029	.179	.872	-.38	.32
		Generation Y	.058	.172	.738	-.28	.40
		Generation Z	.229	.268	.393	-.30	.76
	Generation Y	Baby-boom	-.086	.222	.697	-.52	.35
		Generation X	-.058	.172	.738	-.40	.28
		Generation Z	.171	.298	.566	-.42	.76
Retrospective	Generation Z	Baby-boom	-.258	.302	.394	-.85	.34
		Generation X	-.229	.268	.393	-.76	.30
		Generation Y	-.171	.298	.566	-.76	.42
Storytelling	Baby-boom	Generation X	.352*	.174	.044	.01	.70
		Generation Y	.476*	.216	.029	.05	.90
		Generation Z	1.200*	.294	.000	.62	1.78
	Generation X	Baby-boom	-.352*	.174	.044	-.70	-.01
		Generation Y	.124	.168	.460	-.21	.45
		Generation Z	.848*	.261	.001	.33	1.36
	Generation Y	Baby-boom	-.476*	.216	.029	-.90	-.05
		Generation X	-.124	.168	.460	-.45	.21
		Generation Z	.724*	.290	.013	.15	1.30
	Generation Z	Baby-boom	-1.200*	.294	.000	-1.78	-.62
		Generation X	-.848*	.261	.001	-1.36	-.33
		Generation Y	-.724*	.290	.013	-1.30	-.15
Wikis	Baby-boom	Generation X	-.003	.208	.989	-.41	.41
		Generation Y	-.397	.258	.124	-.90	.11
		Generation Z	-.388	.351	.270	-1.08	.30
	Generation X	Baby-boom	.003	.208	.989	-.41	.41
		Generation Y	-.394*	.200	.049	-.79	.00
		Generation Z	-.385	.311	.217	-1.00	.23
	Generation Y	Baby-boom	.397	.258	.124	-.11	.90
		Generation X	.394*	.200	.049	.00	.79
		Generation Z	.010	.346	.978	-.67	.69
	Generation Z	Baby-boom	.388	.351	.270	-.30	1.08
		Generation X	.385	.311	.217	-.23	1.00
		Generation Y	-.010	.346	.978	-.69	.67

* The mean difference (MD) is significant at the 0.05 level.

5 Discussion

In research question 1, we analyzed the importance of cooperation between colleagues, where we asked respondents to assess (1) the extent to which mutual advice and transfer of ideas and information about work represent an important part of the responsibility of an individual employee; (2) the extent to which they do the work faster and more efficiently on their own than in a team of colleagues; (3) the extent to which helping an employee to get the job done faster also benefits of individuals; (4) the extent to which it is important to share work experience and knowledge with colleagues; (5) the extent to which personal contact with colleagues is a desirable way of transferring knowledge and experience; and (6) the extent to which an individual needs to have a relationship with co-workers in which he or she can openly share his or her feelings about working together.

With the statement "To what extent the statement applies to you" have been measured on a

scale between 1 and 5 (1 ... not true at all, 5 ... absolutely true). The median of the respondents' scores were between 3 and 5, and the arithmetic means were between 2.96 and 4.49. All but one of the variables (i.e., I do the work faster and more efficiently on my own than in a team of co-workers) have a negative asymmetry coefficient, indicating some asymmetry to the left compared to the normal distribution. Flattening coefficients are positive for all but one variable *(I do the work faster and more efficiently on my own than in a team of co-workers),* suggesting more pointed distributions compared to the normal distribution.

Respondents, on average, agreed with all the statements to a greater extent, except for the variable *I do the work faster and more efficiently on my own than in the team of co-workers,* where they agreed only to a moderate extent. This finding is not surprising, as all variables, except the one mentioned, contained claims about the importance of relationships and mutual cooperation at work, while the mentioned variable advocates the opposite, more individual approach.

Research question 1:Are different approaches needed to motivate different generations of employees to collaborate? Here we found statistically significant differences between the generation averages for the statement: *It is important for me to share my work experience and knowledge with co-workers*. In contrast, in other statements, there were no significant differences between the averages. Where characteristic differences did not occur, we concluded that different motivational tools for different generations are not required, as they have a very similar impact on all ages. We used post-hoc tests to analyze which generations contributed the most to the differences concerning the responses to the statement. *It is important for me to share my work experience and knowledge with my colleagues.* We found that Generation Z, which is significantly less motivated than the other generations, contributed the most to the differences, while we did not detect any significant differences for this statement for the other three generations. We conclude that the same motivational tools regarding the sharing of experience and knowledge among co-workers had the least effect on Generation Z, while the impacts on the other three generations were very similar. Although we did not detect significant differences between the averages of all groups in the other statements, we perceived some partial differences by averages between the Baby-boom Generation and Generation Y for the statement *I believe that mutual advice and transfer of ideas and information about work is an important part of my responsibility* (for which the Baby-boom Generation feels more motivated on average), and between Generations Y and Z for the statement *It is important to me to have a relationship with co-workers in which I can openly share my feelings about our work* (for which Generation Z feels less motivated on average).

We especially want to highlight the aspect of motivating individual employees for cooperation, where respondents answered very bimodally about how they wanted to highlight their achievements at work: about the same percentage of respondents did not want their achievements to be publicly announced in the organization (39 %), and those who found it important that co-workers became acquainted with their achievements (48 %). Since the results showed

no statistically significant differences between the generations on this issue, we conclude that the motivational tool of praise of the employee by the employer for all four generations works very similarly. This means that praise requires a very individual approach. Certain employees did not want their achievements to be exposed, and public praise could mean demotivation. Meanwhile, it was important for others to become acquainted with them and that there were criteria for defining achievement, as achievement affects an organization's common goals, and therefore public non-recognition of praise would be demotivating.

Research question 2: Do different generations of employees differ in the desired way of acquiring and sharing knowledge? There were statistically significant differences between the averages of the generations in *Summaries* and *Storytelling*, while there are no differences between the averages for the other possibilities. We found that statistically significant differences between the average values for *Summaries* occured between the Baby-boom Generation and Generation Y, the Baby-boom Generation and Generation Z, and between Generations X and Z. The average values for *Summaries* fell from the Baby-boom Generation to Generation Z, so we concluded that the younger a generation was, the less it enjoyed knowledge-sharing with regard to *Summaries*.

Statistically significant differences between the mean values for *storytelling* existed between all generations, except between Generations X and Y, where these differences were not detectable. Moreover, the average values fell from the Baby-boom Generation to Generation Z, so we concluded that the younger the generation, the less interested in knowledge-sharing through *storytelling.* Based on the arithmetic means for all generations, we concluded that the respondents were on average less suited for knowledge-sharing via podcasts or blogs and most suited for learning and sharing knowledge based on help from colleagues, conversations, guided workshops and mentoring. The results also indicated that the respondents prefer personal forms of knowledge-sharing to non-personal ones.

It should be pointed out that this research had certain limitations as that the conclusions based on the results are also limited. Selective sample should be taken into account as this research only included one organization and individuals from this particular organization motivated to participate, so the sample is not representative of the Slovenian working population educational and gender structure. The small sample of generation Z should also be mentioned, as it means there were limitations in the conclusions of statistical analyses, as the sample of generation Z did not represent the statistically robust group. The main limitation of this research was the failure to consider an individual's characteristic, organizational climate, and communication pattern among different departments. At the same time, the focal organization operates in different geographical locations, as this can play an important role in intergenerational cooperation and knowledge-sharing.

6 Conclusion

In this article, we examined intergenerational cooperation and knowledge-sharing at work. It is of great importance for organizations to encourage the continuous learning of employees and knowledge-sharing among them. We have categorized various forms of training that organizations can use to share knowledge among employees. We performed a critical analysis of the favoured approaches of different generations for cooperation and knowledge-sharing at Organisation X, with more than 2,000 employees. This organization deals with technological solutions intended for both business and private customers and is therefore necessarily engaged in a market with constant and rapid changes.

To answer the research question of whether different approaches are needed to motivate different generations of employees to collaborate, we found that it is least important for Generation Z to share their work experience and knowledge with co-workers. However for all of the following four generations gave positive responses: that mutual advice and transfer of ideas and information about work is an important part of the employee's responsibility, that work is done faster in a team, that helping a co-worker brings benefits, that a personal contact is a desirable form of knowledge-sharing, and that it is good to have relationships and be able to turn to colleagues to share advice and knowledge.

Concerning whether different generations of employees differ in their desired way of acquiring and transferring knowledge, the results showed that podcasts or blogs for knowledge-sharing were seen as less appropriate by the respondents, who prefer peer support, interviews, guided workshops, and mentoring. The respondents thus prefer personal forms of knowledge-sharing to non-personal ones. The results for all the selected forms of knowledge-sharing in the focal organization were roughly the same across the generations, except for *Summaries* and *Storytelling*, where we found that the younger the generation, the less they were interested in knowledge-sharing in these ways.

'With age diversity increasing in society, organization face the challenge of reconstructing the learning processes' (Prelog & Ismagilova & Boštjančič, 2019, p. 64) and encouraging the knowledge-sharing among the different generations. Therefore, each organization needs to determine the preferred form of knowledge-sharing in each specific environment and choose a form that suits both the employees who provide information and those who receive it. The concept of intergenerational cooperation in the workplace includes knowledge-sharing among staff and a shift from knowledge-sharing to co-creating knowledge. We believe this shift is of key importance for further development of human capital as well as knowledge accumulation in the organization. Therefore, the area of co-creating knowledge should represent the future ambitions of every organization and research's communities.

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Povzetek:
Medgeneracijsko sodelovanje, učenje in izmenjava znanja na delovnem mestu

Ozadje in izvirnost: Članek se osredotoča na vprašanje organizacij, ki se soočajo z izzivom vzpostavitve delovnega okolja, ki bo prilagojeno značilnostim različnih generacij zaposlenih. Vsaka generacija na delovnem mestu mora biti motivirana za delo, sodelovanje in izmenjavo znanja med sodelavci različnih starosti. O motivaciji na delovnem mestu je bilo opravljenih veliko raziskav, vendar nismo zasledili raziskave o vplivu različnih učnih oblik, da bi motivirali različne generacije za sodelovanje in izmenjavo znanja na delovnem mestu, ne v slovenskem ne v svetovnem merilu.
Metoda: V tej študiji preučujemo dve raziskovalni vprašanji: Ali so potrebni različni pristopi za motiviranje različnih generacij zaposlenih k sodelovanju in ali se različne generacije razlikujejo v želenih načinih pridobivanja in izmenjave znanja. Pri raziskovanju smo se naslonili na Piktialis in Greenes (2008) kategorizacijo oblik učenja in izmenjave znanja pri delu. Pri kritični oceni motivacije za medgeneracijsko sodelovanje in izmenjavo znanja smo uporabili kvantitativno raziskovalno metodo. Raziskava je bila izvedena na naključnem vzorcu med zaposlenimi v izbranem podjetju z 2.000 zaposlenimi, na anketo pa se je odzvalo 334.
Rezultati: Rezultati so pokazali, da je za predstavnike generacije Z najmanj pomembno, da svoje znanje in delovne izkušnje delijo s kolegi iz drugih generacij in da je za mlajše generacije (Y in Z) pri izmenjavi znanja manj primerno uporabljati pripovedovanje zgodb (primeri iz prakse, primerjave, povzemanje izkušenj) in povzetke ključnih znanj (iz pogovorov, intervjujev, konferenc).
Družba: Koncept medgeneracijskega sodelovanja na delovnem mestu vključuje izmenjavo znanja med zaposlenimi in prehod od izmenjave znanja k soustvarjanju znanja. Verjamemo, da je ta premik ključnega pomena za nadaljnji razvoj človeškega kapitala in tudi za potrebno akumulacijo znanja v organizaciji. Področje soustvarjanja znanja bi torej moralo predstavljati prihodnje ambicije vsake organizacije, pa tudi raziskovalnih skupnosti.
Omejitve / nadaljnje raziskovanje:
Upoštevati je treba selektivni vzorec, saj je raziskava vključevala samo eno organizacijo in posameznike iz te organizacije, ki so bili motivirani za sodelovanje. Omeniti je treba tudi majhen vzorec generacije Z. Glavna omejitev te raziskave je bila nezmožnost upoštevanja specifične organizacijske klime in komunikacijskega vzorca posameznika med različnimi oddelki, medtem ko podjetje deluje na različnih geografskih lokacijah, saj lahko to igra pomembno vlogo pri medgeneracijskem sodelovanju in izmenjavi znanja. Zato je ključno, da vsako podjetje v vsakem določenem okolju določi prednostno obliko izmenjave znanja in izbere obliko, ki ustreza tako zaposlenim, ki informacije posredujejo, kot tistim, ki jih prejmejo. To pa je tudi področje nadaljnjega raziskovanja; torej vpliv organizacijske klime in kulture na proces medgeneracijskega sodelovanja in izmenjave znanja.

Ključne besede: generacije pri delu, medgeneracijsko sodelovanje, oblike medgeneracijskega učenja, delitev znanja, izmenjava znanja pri delu.

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Position of Slovenian High-Growth Firms within the European Context

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Abstract

Purpose and Originality: This research aimed to present the position of Slovenian high-growth firms (HGFs) or gazelles in the European area and compare Slovenian high-growth firms with their European counterparts in terms of their growth rates. This research is based on a systematic review of high-growth firms and their position in Slovenia and Europe. The comparison of data on Slovenian high-growth firms and those in the European area enabled us to position the Slovenian high-growth firms within the broader European context.
Method: The survey is based on a systematic review of the Financial Times newspaper ranking of the 1000 high-growth firms in Europe and the Dnevnik publishing house ranking of the 500 high-growth firms in Slovenia, as well as on data obtained from the statistical office of the European Union and Slovenia. Using the Minitab software, we verified the normality of the distribution of the considered data, performed the transformation of non-normal distributed data and calculated the Pearson correlation coefficient »r« between the individual considered factors, based on which we then confirmed the hypotheses. The distribution of data was shown with Pareto and bar charts.
Results: The research showed the position of Slovenian high-growth firms in the European area. According to the research findings, it is evident that both Slovenian and European high-growth firms are mostly smaller organizations. The biggest share of high-growth firms is in Germany, while the biggest share of such firms in Slovenia is in the Osrednjeslovenska (Central Slovenia) region. The growth rate of high-growth Slovenian and European firms is comparable. The level of sales revenues and the number of employees do not show any impact on the companies' growth rates, while gross domestic product, on the other hand, contributes positively to their growth rate. By comparing the Slovenian and European high-growth firms considered in the survey, we found that the European firms show a higher growth rate than their Slovenian counterparts, while they are comparable in sales revenues.
Society: The research enables better visibility of high-growth firms among the general public. The wider society evaluates the impact, operation and social responsibility of high-growth firms in a given environment. Last but not least, a well-informed public can positively contribute to the success of high-growth firms.
Limitations / further research: This research is limited to comparing Slovenian high-growth firms with those in the European area based on two HGF rankings. Based on the fact that Slovenia is a small country in the common European area, it would be appropriate to conduct a survey or comparison with smaller European countries and to position Slovenian high-growth firms within this group. The other possibility would be to use a greater number of representative rankings and repeat the existing survey.

Keywords: high-growth firms, gazelles, Slovenia, Europe, companies' performance indicators, growth rate.

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1 Introduction

There has been a growing interest in high-growth firms lately (Hölzl, 2014, p. 199). Different factors and their impact on companies' (in)ability to cope with rapidly changing environment are widely researched and discussed, especially in periods of greater economic fluctuations or even in times of major crises. Successful companies thus attract public interest, but the real interest and attention are given to high-growth firms (Krasniqi & Desai, 2016, p. 1075). This is due to the widespread opinion that fast-growth firms significantly contribute to creating jobs and have a positive impact on economic growth Henrekson & Johansson, 2009, str. 227).

According to an increasing body of literature on this subject, the vast majority of high-growth firms, also known as gazelles, are small and young businesses (Pereira & Temouri, 2018, p.11-14). Among the potential positive factors of these firms' growth and entrepreneurial dynamics are the research and development activity, innovation and organization flexibility, which are the principal modes of operation and which enable them to respond promptly to external and internal changes as well as to structural economic changes (Segarra-Blasco, Teruel & Jové-Llopis, 2018, p. 661-662). However, high-growth firms are not immune to institutional, social, cultural and economic characteristics of the environment in which they originate (Giner, Santa-María, & Fuster, 2016, str. 75). Therefore, these factors have a direct or indirect impact on these firms. Nevertheless, regardless of the environment in which they originate, they all operate in common markets, either in the European Union or global markets.

Slovenian high-growth firms, operating also in the EU market, are compared with one another on Slovenia's relatively small geographic territory. The comparisons have been made since 2001 by the Dnevnik publishing house within the framework of the Gazelle project. This raises the question of Slovenian high-growth firms' position within the European context where the comparison of the fastest growing firms is made by the Financial Times newspaper.

The research allows for a comparison of a list of high-growth firms in Slovenia with that of their counterparts elsewhere in Europe. Furthermore, Slovenia and Europe's comparison provides Slovenian high-growth firms and those with such aspirations an insight into a wider economic area and their position therein. The research aims to stimulate Slovenian high-growth firms to implement continuous improvement processes and thus, vigorously enhance their competitiveness and performance.

2 Theoretical framework

There is a constant public interest in successful companies. The increased interest in high-growth firms has been driven by their remarkable ability to create new jobs (Brown & Mawson, 2016, p. 207). The two authors conducted research among Scottish high-growth firms. They observe that high-growth firms adopt more aggressive forms of international expansion when compared with other firms.

However, high-growth firms also differ in many other aspects, such as their geographical location and industry in which they operate. In this regard, high-growth firms are the subject of many studies examining individual factors that are at work in these firms. Henrekson and Johansson (2009, p. 240) undertook a detailed analysis of the existing studies on high-growth firms and found that these studies differ in their definitions of gazelles, measures of growth and time periods over which growth was measured. Moreover, high-growth firms also differ in size, industry affiliation, age and geographic location. High-growth firms exist in all industries but are still somewhat overrepresented in service industries. The authors also note that a certain proportion of high-growth firms generate a disproportionately large share of new jobs compared to non-high-growth firms. They also state that size is not a factor that would significantly impact the growth of a firm. It seems that the factor of newness is more important than size.

Different studies deal with the analysis of factors that have an impact on the rapid growth of firms. One of these studies was conducted by Pereira and Temouri (2018, p.11-14) on a sample of firms from 11 European emerging countries. The survey results suggest that there is a negative correlation between a firm's age and the likelihood of it becoming a high-growth firm. This means that younger firms are more likely to become high-growth firms. The authors note that smaller firms are those that are most likely to become high-growth firms. Regarding institutional factors, the authors emphasize that an improvement in an institutional environment positively impacts the likelihood of firms becoming HGFs. Reduction of bureaucracy and its greater efficiency seem to have a larger positive impact as compared with corruption and investment climate. A study covering 179,970 firms from nine European countries, which was conducted by Weinblat (2018, p. 33), indicates that among the most important variables affecting a firm's growth are the number of employees and the firm's age.

The growth rate differs between firms. Characteristics of Slovenian firms with different types of growth were examined by Tajnikar, Ponikvar and Bonča (2016, p. 43-45). Their findings show that firms' rapid growth is based on the better use of existing capacities and the adjustment of the volume of capacity to changing market conditions. Such firms are mainly export-oriented. The majority of HGFs are in manufacturing (HGF stands for a high-growth firm). Authors point out that fast growth can only last a short while because different companies emerge as generators of fast growth in different years. As regards the life cycle, it could be said that younger companies start growing by investing in production capacity and employing workers, whereas older companies try to utilize their existing capacity better. The study also shows the negative side of fast growth, which may be reflected in the company's reduced liquidity and indebtedness.

The fact that HGFs do not grow in the same way was also established by Delmar, Davidsson and Gartner (2003, p. 211) who conducted an analysis of Swedish firms. They found that different forms of growth are measured with different growth measures. Nevertheless, the authors note that a firm's growth is systematically related to the firm's age, size and industry affiliation.

When it comes to successful long-term operation of a company or instead the life cycle of HGFs, some researchers focus their attention on the duration of the period of rapid growth. In relation thereto, Hölzl (2014, p. 225-226) examined the factor of the survival of companies in Austria in the period of three to nine years after becoming HGFs. As is evident from the research results, the mere fact that a company is a high-growth firm does not increase the likelihood of its survival compared to other companies. Moreover, the majority of HGFs are not able to repeat this exceptional growth. The classification of a company as a high-growth firm is probably related to the large one-off project of the company's expansion.

As was already mentioned in the introduction, HGFs also differ in terms of their geographic location. This diversity also includes the factor of the state as the institution that sets the rules and thus helps shape the factors affecting the high growth of firms. Krasniqi and Desai (2016, p. 1075) conducted a research of the role of state institutional factors in HGFs in twenty-six transition countries, including Slovenia, and discovered that the interaction between formal and informal institutions positively influences HGFs. They further found that formal institutions in fast-reforming transition economies discourage HGFs, while informal institutions in slow-reforming transition economies encourage them.

Nowadays, institutions stimulate companies through various mechanisms to move towards the so-called green way of working. This is where the ecological awareness and orientation of HGFs, as well as their use and utilization of the so-called green technologies, comes into focus. The role of ecological or rather green technologies in 5,498 manufacturing firms in Italy was analyzed by Leoncini, Marzucchi, Montresor, Rentocchini and Rizzo (2019, p. 900). The study confirmed the important role of green technologies in fostering the firms' growth, as measured by employment growth. By using green technologies, firms enter green markets more easily, while on the other hand they optimize their internal operations by decreasing production costs due to greater resource efficiency and possibility of recycling these resources. All this contributes to a higher growth of firms.

There are many studies that emphasize the leading role of HGFs in job creation. Of course, these jobs vary in terms of their complexity, affecting the need for employment of people with different skills and levels of education. In her study of Danish firms, Eklund (2020, p. 700-701) establishes that the correlation between a firm's high growth and highly educated employees' share is rather important. Moreover, a firm's high growth is facilitated by its organizational as well as human capital. The author also concludes that innovation capabilities can significantly contribute to a firm's high growth.

It is the innovations that positively impact a firm's growth and are actually a synonym for its long-term existence and performance. In addition to green technologies, innovations are those that today receive a lot of attention and incentives. The role of innovation in HGFs in EU countries was studied by Segarra-Blasco, Teruel and Jové-Llopis (2018, p. 655-659). The countries were classified into three clusters (core countries, Mediterranean countries and new EU member states, including Slovenia). The key finding of the research is that there is a

positive and highly significant correlation between investments in R&D and the likelihood of introducing innovations. In terms of size, the study notes that medium and larger firms show a larger propensity to innovate than small firms. Moreover, a firm is more likely to be innovative if it is an export-oriented firm and one that cooperates with other firms within a group because this provides them with greater support in carrying out innovative activities. This is especially evident in the Mediterranean and new EU member states. While institutional cooperation seems to be more important for core country firms, Mediterranean firms rely more on market cooperation. Cooperation with other firms that belong to the group positively affects new EU member states' ability to innovate. Access to public funds, including EU subsidies, is also a variable that positively impacts innovation and significantly affects the likelihood of a firm being an innovative firm and thus also a high-growth firm.

Innovation as an impact factor was also emphasized by Brüderl and Preisendörfer (2000, p. 66-67) who mainly focused on employment effects and the growth potential of newly established businesses in Upper Bavaria, Germany. The authors claim that job creation can be attributed to a small number of fast-growing firms, while a firm's size and innovation are a strong predictor of rapid growth.

Slovenian HGFs operate in a domestic market and, above all, in external or international markets because they are mostly export-oriented. This is the competitive environment in which they operate and in which they compare themselves with other foreign HGFs. Although the growth rate is based on the positive change in sales value within a specific period of time, the absolute value of sales in the examined body of literature is not identified as an independent factor that would positively impact growth rates of HGFs. On the other hand, the number of employees is identified as a significant factor affecting a firm's growth rate. Finally, it should be noted that the geographical locations of HGFs or the environments in which they operate differ greatly. Moreover, access to public funds and subsidies as well as the economic power of the country in which HGFs are located cannot be ignored because all these are factors that contribute to innovation and result in faster growth of firms.

Our research aimed to examine these statements. Therefore, a number of hypotheses were formulated that relate to correlations between the characteristics of HGFs in Slovenia and those in other European countries.

Hypothesis 1: »The growth rate of Slovenian HGFs is comparable to that of other European HGFs.«

Hypothesis 2: »The number of employees does not impact a firm's rapid growth.«

Hypothesis 3: »Sales revenues do not impact a firm's rapid growth.«

Hypothesis 4: »The level of gross domestic product has a positive impact on the number of HGFs.«

3 Method

The Financial Times newspaper uses its own method of selecting HGFs in Europe by means of which it compiles the FT 1000 ranking featuring 1000 fastest growing companies in Europe. A significant indicator on the basis of which companies make a list is the firms' growth rates in the last three years. The selection committee conducts an extensive inquiry of companies and their data with the purpose of making the ranking as complete and representative as possible, but the ranking is not ideal as some companies do not want to make their figures public or do not participate for other reasons. Companies that wish to participate may apply via the website of Financial Times or company Statista. In addition, through research in company databases and other public sources, Statista identifies the companies in Europe that could be potential candidates for the FT 1000 ranking. These companies are then invited to participate in the competition by post, email and telephone.

Companies that wished to be listed in the ranking for 2020 had to meet the following criteria:

- revenue of at least € 100,000 generated in 2015,
- revenue of at least € 1,500,000 generated in 2018,
- the company is independent and not a subsidiary or branch office of another company,
- the revenue growth between 2015 and 2018 was primarily organic and
- if a company is listed on a stock exchange, its share price has not fallen by 50 % or more since 2018.

The countries that were eligible to participate in the competition for the fastest growing companies in Europe in 2020 were as follows: Austria, Belgium, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. The minimum average growth rate required to be included in the FT 1000 ranking for 2020 was 38.4 per cent.

The Dnevnik publishing house performs the selection of HGFs or gazelles in Slovenia. The selection is based on the firms' growth in the last six consecutive financial years with the purpose of promoting companies that are focused on long-term growth. The selection is conducted in five steps. In the first step, company Bisnode analyzes financial data and compiles a ranking of the fastest-growing companies in six Slovenian statistical regions defined in the Dnevnik methodology. These regions are the following: Dolenjsko-Posavska (Lower Carniola-Sava), Dravsko-Pomurska (Drava-Mura), Gorenjska (Upper Carniola), Osrednjeslovenska (Central Slovenia), Primorsko-Notranjska (Littoral-Inner Carniola) and Savinjsko-Zasavska (Savinja-Central Sava). Companies can make the regional list if they have a minimum of 15 employees, net revenues from sales of € 400,000 in the selected year, if they operate profitably and have exhibited the highest revenue growth in the last five years. In addition to the listed criteria, companies' ranking also depends on their credit rating, profit, personal incomes, management efficiency, and values of sustainable growth. Members of the

selection committee then have interviews with the firms' owners and managing directors through which they establish some other attributive factors, such as the level of internal communication, corporate social responsibility, sales orientation and target markets, level of development and innovation, possible patent protections as well as the implementation of the firms' vision, strategy and goals. In the third step, the committee takes into consideration all firms identified in the first two steps and nominates three of them for the title of the fastest-growing firm or gazelle within its region. Innovative companies and those operating internationally are given precedence. The selection committee then selects the first, second and third fastest growing firm within each region. The regional winner is then eligible to compete on a national level and list the fastest growing firms in the country. In the final stage, three fastest growing firms in Slovenia are selected and presented with the Golden Gazelle, Silver Gazelle and Bronze Gazelle awards based on their economic performance, growth rate and positioning in the wider environment.

A comparison between the methods of the Financial Times and Dnevnik shows differences between the two. The ranking compiled by Financial Times is based on the growth rate in the preceding four consecutive financial years, while the Dnevnik ranking takes into consideration the growth rate in the preceding six consecutive financial years. The method of entering the ranking also differs. While companies cannot apply to enter the Dnevnik ranking by themselves, this is possible with the Financial Times ranking. The Dnevnik method of ranking the 500 fastest growing companies in Slovenia does not change in a given year, while the entry conditions according to the Financial Times method are adjusted every time a new ranking of 1000 fastest growing European countries is compiled. However, both rankings include data on the growth rate, sales revenues, and the number of employees of each firm listed in the ranking.

Our research was conducted on the basis of the Financial Times ranking of Europe's 1000 fastest growing companies and the Dnevnik ranking of Slovenian gazelles or the 500 fastest growing companies in Slovenia. Data for our research was taken from these two rankings, namely for the first 500 HGFs from each ranking. The research model (Figure 1) illustrates the main steps to verify the set hypotheses and the positioning of Slovenian HGFs within the European context based thereupon.

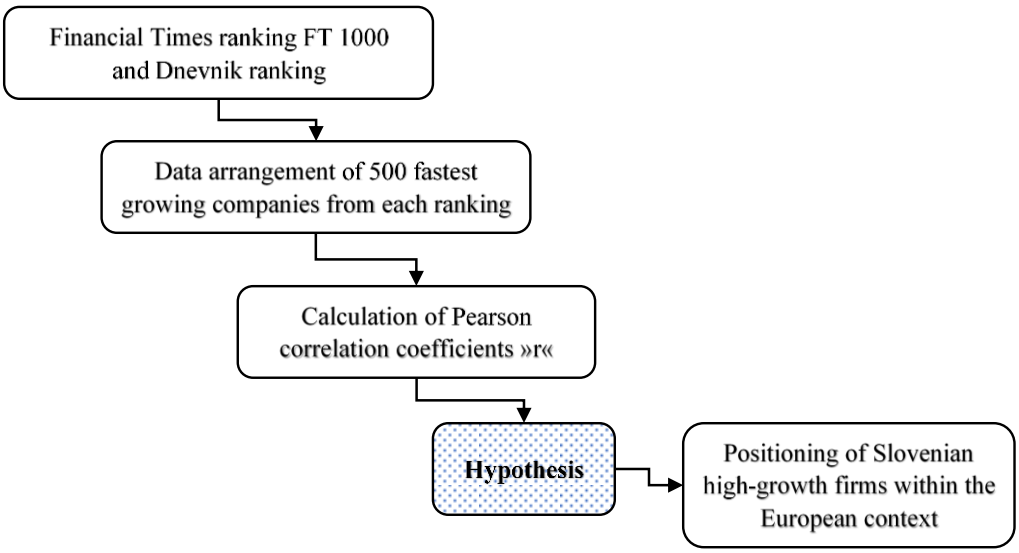

Figure 1. Research model.

Figure 2 shows factors considered in our research and the set hypotheses.

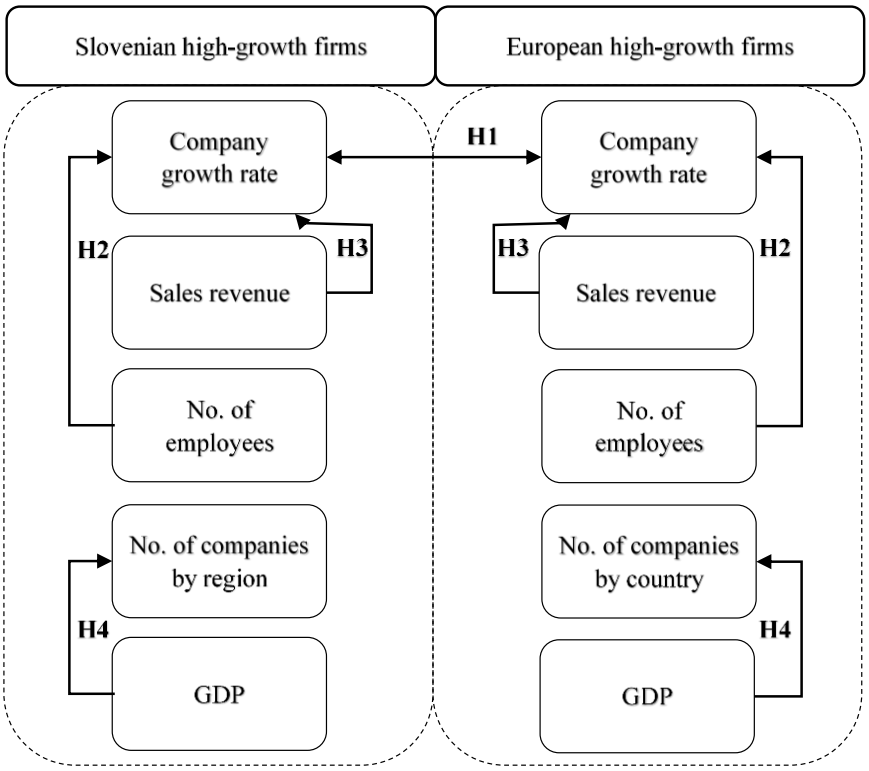

Figure 2. Factors considered in Slovenian and European HGFs, and the set hypotheses.

The Financial Times ranking illustrates the growth rates of the 1000 fastest growing companies in Europe in a four-year period from 2015 to 2018 inclusive, while the Dnevnik ranking of the 500 fastest growing companies in Slovenia illustrates the growth rates for a six-year period, from 2013 to 2018 inclusive. The survey includes data on sales revenues and number of employees for 2018, as they are considered in both rankings. Because the Dnevnik

ranking lists 500 fastest growing companies, we only considered data for the first 500 companies listed in the Financial Times ranking. We thus made sure that the sample size was equal. Comparing the above-mentioned data for the same factors ensured the validity of the method of our research. Data on gross domestic product for 2018 was obtained from the European Union's statistical office (Eurostat) and that of the Republic of Slovenia.

When selecting the fastest growing companies, both Financial Times and Dnevnik verify the data's reliability and validity according to their methods. Moreover, both newspaper companies have been compiling the ranking of the fastest-growing companies for several years, thereby enabling the analysis of the trends of the rapid growth of companies and the measuring suitability of the selection methods. The same applies to the statistical offices of the European Union and the Republic of Slovenia. By making this information publicly available, they all guarantee their reliability and credibility.

Distribution of data that illustrate the number of HGFs in individual countries of the European Union and regions of Slovenia is shown by Pareto and bar charts.

Prior to statistical analysis of data by means of the Minitab software, the normality of the distribution of the considered data was verified. Non-normal distributed data was transformed with Johnson transformation. Normal distributed data obtained in this manner was then applied to verify the hypotheses. Correlations between the companies' growth rates, sales revenues and the number of employees, as well as between gross domestic product and the number of HGFs were examined by means of the Pearson correlation coefficients »r«.

4 Results

4.1 HGFs in Slovenia regions and European countries

According to the Companies Act of the Republic of Slovenia (ZGD-1), companies are classified as micro, small, medium-sized and large companies. This classification also takes into consideration the number of employees, namely:

- a micro company: up to 10 employees,
- a small company: from 11 up to 50 employees,
- a medium-sized company: from 51 up to 250 employees and
- a large company: more than 250 employees.

In view thereof, European HGFs from the Financial Times ranking for 2018 and Slovenian HGFs from the Dnevnik ranking for 2018 were distributed by size (Figure 3).

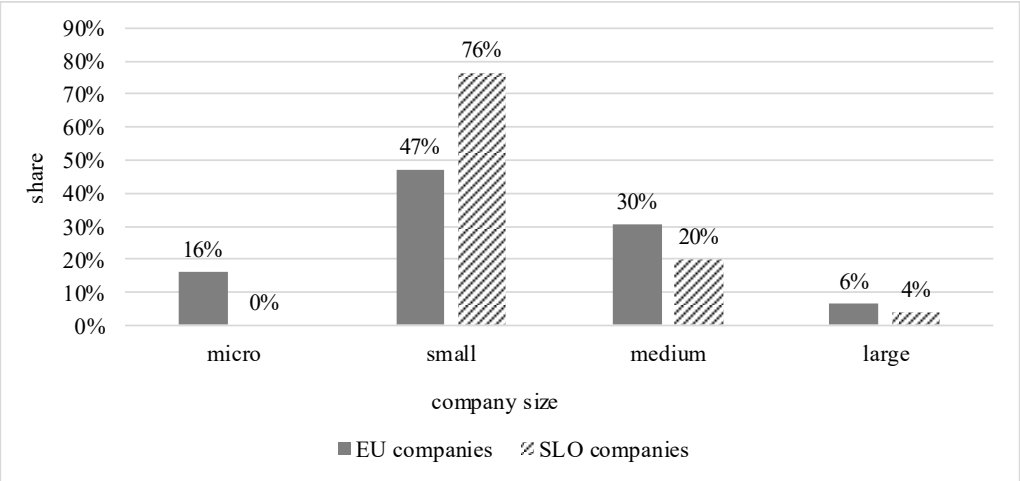

Figure 3. European and Slovenian HGFs distributed by size.

Among the considered companies, small companies' share is the highest, followed by medium-sized, micro and large companies.

The Dnevnik ranking for 2018 lists HGFs from six Slovenian regions (Figure 4).

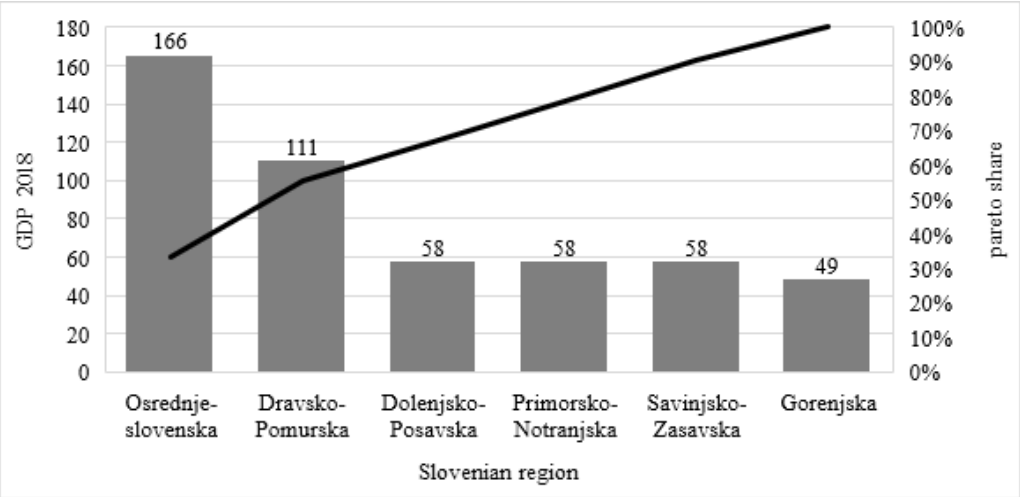

Figure 4. Number of high-growth firms by individual Slovenian regions.

Slovenian regions are illustrated with bar charts, while the sum of Pareto shares is shown with a line. There is a significantly higher number of HGFs in the Osrednjeslovenska (Central Slovenia) region, followed by the Dravsko-Pomurska (Drava-Mura) region, while the number of HGFs in other regions is very similar.

The Financial Times ranking for 2018 lists HGFs from 27 European countries (Figure 5).

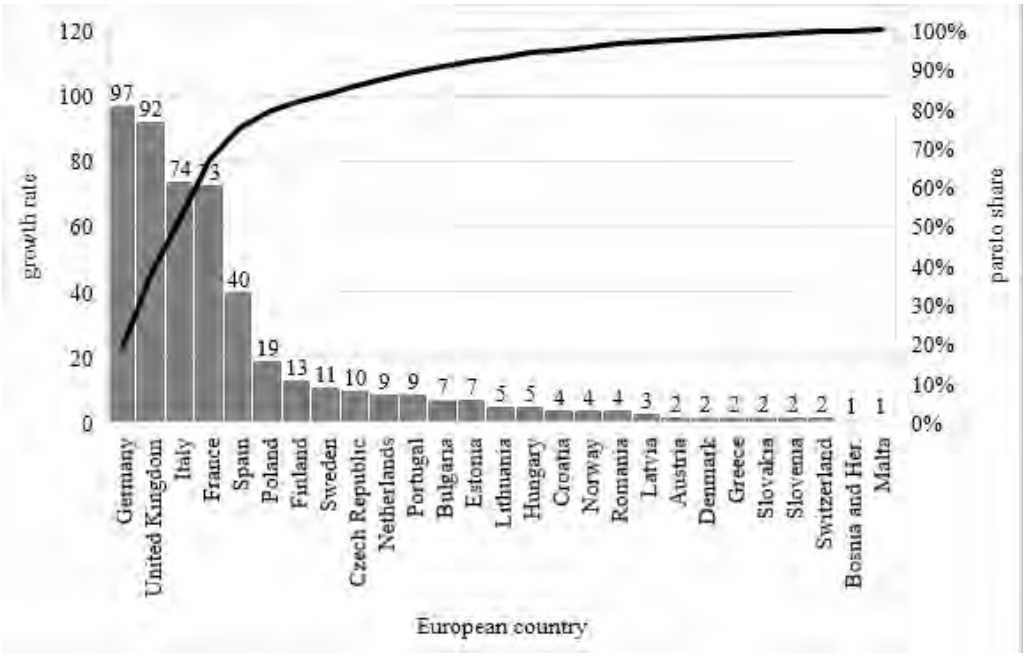

Figure 5. Number of high-growth firms by individual European countries.

Figure 5 shows European countries illustrated with bar charts, while the sum of Pareto shares is shown with a line. Germany and the United Kingdom stand out as the two leading countries; Italy and France follow them closely, while Spain comes in fifth place. Other countries constitute the lower part of the ranking.

4.2 Comparison of growth rates of HGFs in Slovenia and elsewhere in Europe

Correlations between various factors were examined by means of the Pearson correlation coefficients »r«. The critical value of the Pearson correlation coefficient for 500 high-growth firms (N = 500) at a level of confidence of 95% (α = 0.05) is at **0.0877**. The same critical value was considered in all the correlation calculations that follow.

A possible correlation between the growth rates of Slovenian firms listed in the Dnevnik ranking for 2018 and those listed in the Financial Times ranking for 2018 is shown in Table 1.

Table 1. The Pearson coefficient values for the correlation between the growth rates of Slovenian and European companies.

	Growth rate EU
Growth rate SLO	r = **0.997** Confidence interval (CI) = 0.997; 0.998 p < 0.001 Standard deviation = 3.022

The correlation coefficient has a significant positive value indicating a complete correlation between the growth rates.

The first thirty European HGFs exhibit significantly higher growth rates than Slovenian HGFs, after which the growth rates gradually converge (Figure 6).

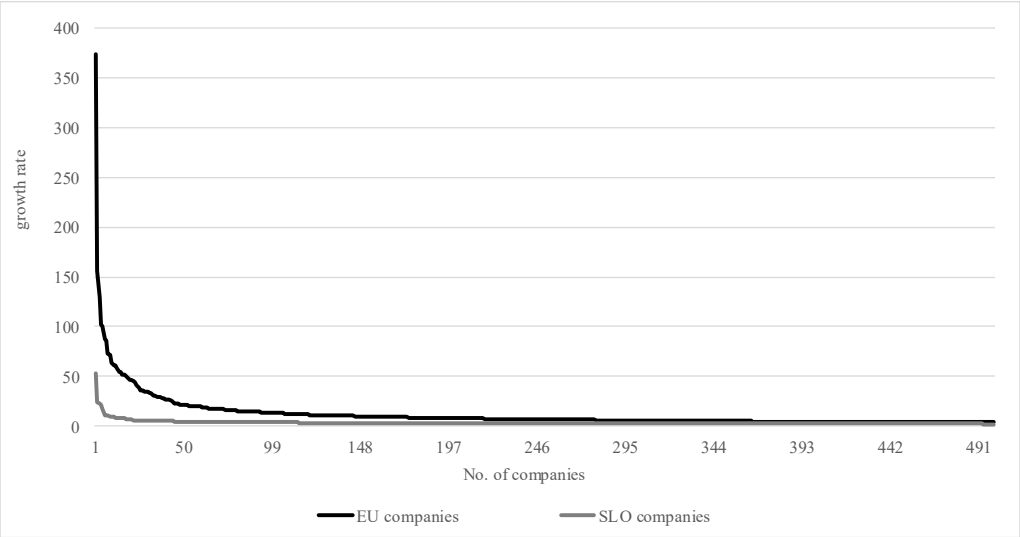

Figure 6. Comparison of growth rates of HGFs in Slovenia and elsewhere in Europe.

The matrix plot of growth rates is shown in Figure 7.

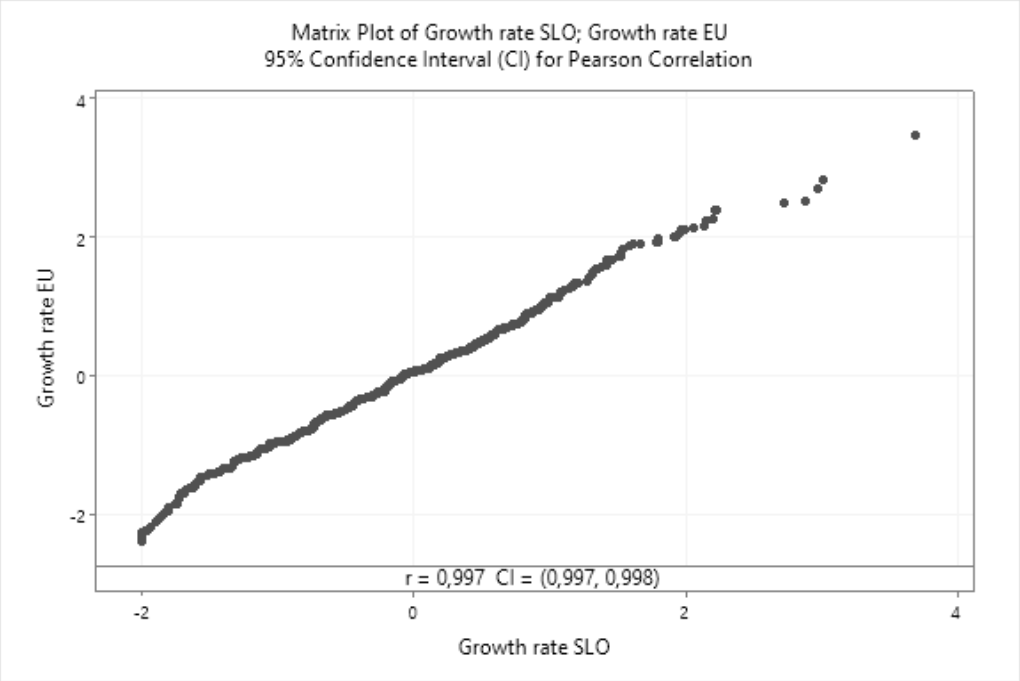

Figure 7. Matrix plot of growth rates of HGFs in Slovenia and elsewhere in Europe.

The matrix plot of growth rates illustrates a complete correlation between the growth rates of Slovenian and European companies as well as a significant positive value of the Pearson correlation coefficient (Table 1).

4.3 Correlation between sales revenues, number of employees and growth rate

The correlation between sales revenues and the growth rate and the number of employees and the growth rate of Slovenian HGFs is shown in Table 2.

Table 2. The Pearson coefficient values for correlation between sales revenues, number of employees and growth rates in Slovenian HGFs.

Slovenia	Growth rate
Sales revenues	r = 0.071 Confidence interval (CI) = -0.017; 0.158 p < 0.112 Standard deviation = 81.39
Number of employees	r = 0.029 Confidence interval (CI) = -0.059; 0.116 p < 0.524 Standard deviation = 184.12

No correlation between sales revenues and growth rates in Slovenian HGFs was identified. The same applies to the number of employees and the growth rate.

Correlations between sales revenues and growth rates as well as between the number of employees and growth rates of European HGFs are shown in Table 3.

Table 3. The Pearson coefficient values for correlation between sales revenues, number of employees and growth rates in European HGFs.

Europe	Growth rate
Sales revenues	r = **0.193** Confidence interval (CI) = 0.108; 0.276 p < 0.001 Standard deviation = 51.81
Number of employees	r = 0.078 Confidence interval (CI) = -0.010; 0.165 p < 0.081 Standard deviation = 245.50

There is a weak correlation between sales revenues and growth rates in European HGFs, while no correlation was identified between the number of employees and growth rates.

Sales revenues of Slovenian HGFs are comparable to those of European HGFs (Figure 8).

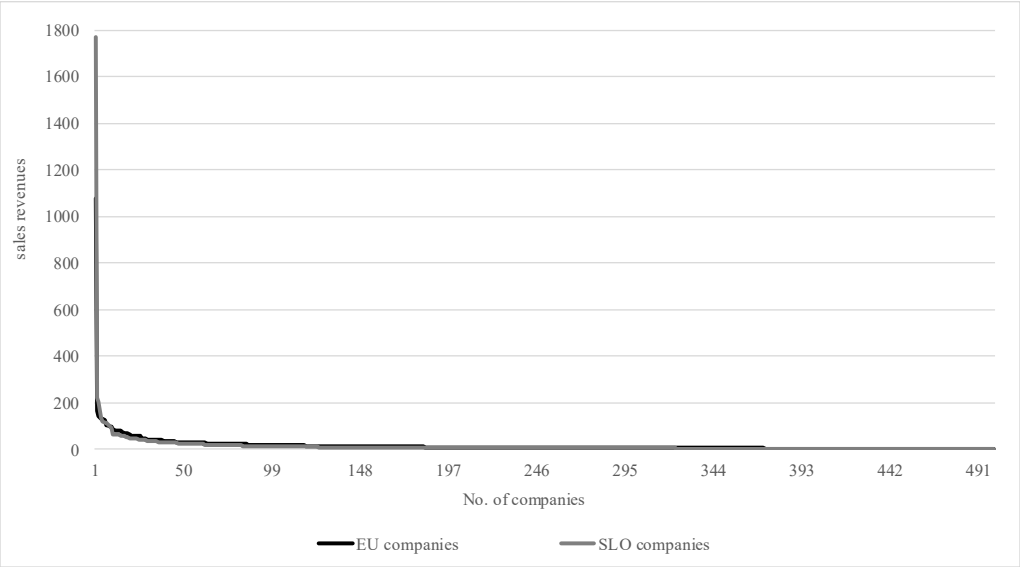

Figure 8. Comparison of sales revenues of HGFs in Slovenia and elsewhere in Europe.

4.4 Correlation between gross domestic product and the number of HGFs

Gross domestic product (henceforth GDP) is often used to compare different regions or countries' development levels. These development levels may be reflected in a higher number of HGFs. A correlation between gross domestic product and the number of HGFs in Slovenia (Table 4) and elsewhere in Europe (Table 5) was thus explored.

Table 4. The Pearson coefficient values for the correlation between the gross domestic product and the number of HGFs in Slovenia.

Slovenia	Number of companies
GDP	r = **0.954**
	Confidence interval (CI) = 0.631; 0.995
	p < 0.003
	Standard deviation = 4,861

There is a strong correlation between the gross domestic product and the number of HGFs in Slovenia.

Table 5. The Pearson coefficient values for the correlation between the gross domestic product and the number of HGFs in Europe.

Europe	Number of companies
GDP	r = **0.770**
	Confidence interval (CI) = 0.552; 0.890
	p < 0.001
	Standard deviation = 872,803

As regards the European companies, the correlation between the two considered factors is also strong.

5 Discussion

Slovenian and European HGFs studied in the research were mostly small companies with up to 50 employees (see Figure 3). The proportion of such companies in Slovenia is at 76 %, while in Europe it is 47 %. They are followed by medium-sized companies with up to 250 employees, constituting 20 % of HGFs in Slovenia and 30 % in Europe. In Slovenia, there are no micro-companies with up to 10 employees among HGFs, while the share of such companies elsewhere in Europe is at 16 %. Large companies with over 250 employees come last. The percentage of such companies in Slovenia (4 %) is similar to that in Europe (6 %). The findings of our research are consistent with those of some other studies, noting that the share of small companies among HGFs is rather significant (Henrekson & Johansson, 2009, p. 240) because the likelihood of small companies becoming HGFs is higher (Pereira & Temouri, 2018, p. 12).

As regards the number of HGFs in Slovenia, the Osrednjeslovenska (Central Slovenia) region comes first, followed by the Dravsko-Pomurska (Drava-Mura) region. The number of HGFs in these two regions is higher than elsewhere in Slovenia. Compared with the Osrednjeslovenska (Central Slovenia) region, the share of HGFs in the Dolenjsko-Posavska (Lower Carniola-Sava) region, which is in the third place, is lower by as much as 65 %. These regions are then followed by the Primorsko-Notranjska (Littoral-Inner Carniola), Savinjsko-Zasavska (Savinja-Central Sava) and Gorenjska (Upper Carniola) region (see Figure 4). The number of HGFs in these last four regions is very similar. In more developed regions, conditions for the creation and development of HGFs seem to be better. Other studies (Tajnikar, Ponikvar & Bonča, 2016, p. 43) also found that the number of HGFs is the highest in the most developed Slovenian regions.

Among the 27 studied European countries, the highest number of HGFs listed in the Financial Times FT 1000 ranking is in Germany followed by the United Kingdom, Italy, France, Spain and others (see Figure 5). The fifth country in the ranking is Spain, with a proportion of HGFs smaller by 59 % than that in Germany, which is in the first place. Central and Eastern European countries are not to be found among the leading countries in the ranking. For example, Poland comes in sixth place, while the Czech Republic is in ninth. The share of HGFs in Slovenia is at 0.4 %, ranking the country in the 24th place among the 27 studied countries. It probably comes as no surprise that in Germany, the economic superpower, the number of HGFs is the highest. The more competitive the country is, the better the conditions for creating companies, particularly smaller ones, resulting in a higher number of HGFs (Pereira & Temouri, 2018, p. 13).

In the study, we calculated the Pearson correlation coefficients for predefined factors (see Chapter 4) by means of which the set hypotheses listed in the following chapter were confirmed or refuted.

Hypothesis 1: *»The growth rate of Slovenian HGFs is comparable to that of other European HGFs.«*

The calculated Pearson coefficient value for correlation between the growth rate of HGFs in the Dnevnik ranking for Slovenia and the growth rate of HGFs in the Financial Times FT 1000 ranking for Europe has a significant positive value (r = **0.997**). Although studies of other authors emphasize differences in measures of growth (Henrekson & Johansson, 2009, p. 240) or growth rate measurement methods (Delmar, Davidsson & Gartner, 2003, p. 211), our research confirms that there is a complete correlation between the studied growth rates (Table 1). *Based on the calculation, it can be established that Hypothesis 1 was confirmed by our research.*

Hypothesis 2: *»The number of employees does not impact a firm's rapid growth.«*

The calculated correlation coefficient between the number of employees in Slovenian HGFs listed in the Dnevnik ranking and these companies' growth rate is low (r = 0.029). There is an insignificant correlation between the two studied factors (Table 2). The calculated correlation coefficient between the number of employees in European HGFs listed in the Financial Times FT 1000 ranking and these companies' growth rate is also low (r = 0.078). Also in this case, the correlation between the number of employees and the growth rate is insignificant (Table 3). Although Weinblat (2018, p. 33) finds in his research that a company's growth rate is affected by the number of employees, our research did not establish any correlation between the two factors. *Based on the calculation of both correlation coefficients, it can be established that Hypothesis 2 was confirmed by our research.*

Hypothesis 3: *»Sales revenues do not impact a firm's rapid growth.«*

A potential correlation between sales revenues and growth rates of HGFs listed in both rankings that were studied in our research was determined on the basis of the calculated correlation coefficient. The correlation coefficient for Slovenian HGFs (r = 0.071) shows that there is an insignificant correlation between the two factors (Table 2). In view of the calculated correlation coefficient for European HGFs (r = **0.193**), it was established that there is a weak correlation between the two factors (Table 3). Sales revenues do not impact the rapid growth of Slovenian HGFs, while, based on the statistically significant correlation coefficient, sales revenues in European HGFs seem to have a slight effect on their rapid growth. *Based on the calculation of both correlation coefficients, Hypothesis 3 can only be partially confirmed.*

Hypothesis 4: *»The level of the gross domestic product has a positive impact on the number of HGFs.«*

The calculated correlation coefficient between the gross domestic product of individual Slovenian regions studied in the research and the number of HGFs in those regions (r = **0.954**) confirms a very strong correlation between these two factors (Table 4). Moreover, the

correlation coefficient between the gross domestic product of individual European countries and the number of HGFs in those countries (r = **0.770**) confirms a strong correlation between the two (Table 5). *Based on the calculation of both correlation coefficients, it can be established that Hypothesis 4 was confirmed by our research.*

The Pearson correlation coefficients calculated in the research have demonstrated the existence or non-existence of correlations between the examined factors. On the one hand, the calculated correlation coefficients are low, while on the other, they are very high which means that correlations between individual factors are weak, insignificant or strong. No medium or moderate correlations were established in our research, making the confirmation of hypotheses easier. For our research, the critical value of the Pearson correlation coefficient was at **0.0877.**

At the beginning of our research, we were interested in the position of Slovenian HGFs within a wider European context and their position in respect of the comparison of Slovenia and other European countries in terms of their growth.

By confirming Hypothesis 1, it was established that growth rates of Slovenian and European HGFs are comparable as there is a complete correlation between the studied growth rates (Table 1). Growth rates are shown in Figure 7.

There are two Slovenian companies among the 500 fastest growing companies in Europe listed in the Financial Times FT 1000 ranking, namely in the 92nd and 284th place. Both companies are classified as micro companies having less than ten employees. These two companies were not listed in the Dnevnik ranking of the 500 fastest growing companies in Slovenia. This can be attributed to different entry conditions for both rankings (see Chapter 3).

Based on the studied growth rates, we positioned Slovenian HGFs within the context of other European HGFs as well as within the wider European area. For this purpose, we merged the Financial Times FT 1000 and Dnevnik rankings and arranged HGFs in order by their growth rates. Although other authors also acknowledge that growth rates are calculated using different methods (Delmar, Davidsson, & Gartner, 2001, p. 32), the only difference in our study is the time component. The Financial Times FT 1000 ranking period is two years longer than that of the Dnevnik ranking. Nevertheless, both calculations are representative, taking into consideration four or rather six consecutive financial years. Moreover, when merging the two rankings, we took into consideration the fact that, based on the calculated Pearson correlation coefficient between the growth rate of HGFs in the Dnevnik ranking for Slovenia and that of HGFs in the Financial Times FT 1000 for Europe, there was a complete correlation between the two (Table 1).

HGFs in the merged ranking were thus ranked by their growth rates from the highest to the lowest (Appendix). The merged ranking represents the first 608 HGFs since from here on out follows only Slovenian HGFs. As regards the growth rates for 2018, the first place was taken

by a company from the United Kingdom having a growth rate of 37.463 %. The highest-ranked Slovenian HGF was the golden gazelle for 2018 positioned in the 16th place with a growth rate of 5.288 %. The second highest-ranked Slovenian HGF or the silver gazelle was in the 46th place with a growth rate of 2.377 %, while the third HGF or the bronze gazelle was in the 48th place with a growth rate of 2.270 % (see Appendix).

In view of sales revenues in 2018, the position of Slovenian HGFs among their European counterparts is better. The first place in the merged ranking was thus taken by a Slovenian company with sales revenues of EUR 1,771 million, followed by a Czech company with revenues of EUR 1,079 million. The third and fourth places also belonged to Slovenian companies with sales revenues of EUR 221 million and EUR 203 million respectively. There are as many as ten Slovenian companies among the top twenty HGFs.

When compared with growth rates (Figure 6), sales revenues of Slovenian HGFs are much more comparable to those of European HGFs (Figure 8).

6 Conclusion

The research was based on the analysis of HGFs in Slovenia and elsewhere in Europe, and comparisons between them. The results of our research show that the studied HGFs are mostly small businesses, which is also consistent with the findings of authors Henrekson and Johansson (2009, p. 240) who note that the biggest share of HGFs is made up of small companies. It was also established that most HGFs in Slovenia are located in the Osrednjeslovenska (Central Slovenia) region. It is namely a fact that the majority of HGFs are concentrated in the most developed regions of Slovenia, such as the Osrednjeslovenska (Central Slovenia) region (Tajnikar, Ponikvar & Bonča, 2016, p. 43). Our research shows that Germany stands out among the European countries with the highest number of HGFs, followed by the United Kingdom, Italy, France and Spain. Conditions for establishing smaller companies are better in more competitive countries (Pereira & Temouri, 2018, p. 13), resulting in a higher number of HGFs. Our research confirmed that growth rates of Slovenian and European HGFs are comparable since the calculated value of the Pearson correlation coefficient (Table 1) indicates that there is a complete correlation between the studied growth rates. It is also noteworthy that the number of employees and the amount of sales revenues do not affect the rapid growth of a company, although Weinblat (2018, p. 33) argues that the number of employees also impacts the rapid growth of companies. Our research shows that the growth rate is positively affected by the level of gross domestic product. A comparison of all considered HGFs in our research showed that the first three Slovenian HGFs or rather the golden, silver and bronze gazelle rank between the 16th and the 48th place among the European HGFs. When it comes to growth rates, European HGFs exhibit higher growth rates than the best Slovenian HGFs. However, in terms of sales revenues, Slovenian HGFs are fully comparable with their European counterparts.

There are a number of studies (Brown & Mawson, 2016, p. 207; Hölzl, 2014, p. 225-226; Krasniqi & Desai, 2016, p. 1; Leoncini, Marzucchi, Montresor, Rentocchini & Rizzo, 2019, p.

900) that explore HGFs in individual countries or communities of countries. No scientific research was found that would compare Slovenian HGFs with larger territories or global markets and that would show positive effects in terms of facilitating competitiveness, growth and potential collaboration with other companies. Our research is based on a systematic review of HGFs in Slovenia and their counterparts elsewhere in Europe, which is a much greater territory to explore. Based on the comparison of data on Slovenian HGFs and their European counterparts, Slovenian HGFs were positioned within the wider European context and thus internationalized. We believe that our approach to the research is applied rarely, if at all.

Our research helps Slovenian HGFs gain insight into their position among other European HGFs in terms of their growth rates and sales revenues. Companies can use such comparisons to plan or upgrade their business strategies or draw up their business plans to improve their business operations. Moreover, other fast-growing companies that are likely to become HGFs can use the data to compare themselves with their counterparts and to analyze the environment they are entering. The purpose of our research is also to increase the visibility of HGFs among the general public. The wider society evaluates the impact of HGFs, their attitude towards the stakeholders and corporate social responsibility towards the environment in which they operate. Better visibility of HGFs on the one hand and a well-informed public familiar with the activities within these HGFs on the other can have a positive impact on the companies' performance.

The research that we conducted was limited to only two representative rankings of HGFs – the Financial Times FT 1000 ranking of European HGFs and the Dnevnik ranking of Slovenian HGFs – and five factors, namely the growth rate, sales revenues, number of employees, number of companies by individual countries and gross domestic product. These two rankings provided us with enough data to confirm the hypotheses in our research and to position Slovenian HGFs within the wider European context. In view of the small geographical size of Slovenia, our research was limited to the European territory.

Considering the scope of our research, further research studies that include a greater number of comparable rankings of HGFs and data of national as well as European statistical offices would be recommended. Such research studies could also consider a more significant number of factors than those studied in our research. Research comparing Slovenian HGFs with firms from neighbouring countries or countries comparable in size to Slovenia (e.g. the Czech Republic, Slovakia or Croatia) would also be interesting. Such studies could provide suggestions for the harmonization of the so-called entry conditions for HGFs to be listed in various rankings as well as for the implementation of uniform criteria for the calculation of individual factors. All this would contribute to an easier and more transparent implementation of studies, classification and comparisons in the future.

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Appendices: Common ranking of the fastest growing firms

The Dnevnik ranking of the 500 Slovenian and the Financial Times ranking of the 500 European HGFs were merged into a new common ranking which represents the first 609 HGFs by their growth rates in 2018 from the highest to the lowest. After 609th place there are only Slovenian HGFs and therefore are not listed in the following ranking. Slovenian companies are listed in bold italics.

	High-Growth Firm	Country	Growth rate
1	OakNorth Bank	United Kingdom	37463%
2	Wolt Enterprises	Finland	15642%
3	Bolt Technology	Estonia	12960%
4	Elements Global Services	Spain	10233%
5	Les Eco-Isolateurs	France	10078%
6	Gismart	United Kingdom	8788%
7	Enens	France	8603%
8	Qred Företagslån	Sweden	7301%
9	Mamma 2.0	Italy	7110%
10	In Touch Networks	United Kingdom	6325%
11	Farmermobil	Germany	6056%
12	Holidu	Germany	6031%
13	Feiniko Handelsgesellschaft	Germany	5854%
14	Franco Fresco	Germany	5487%
15	MessengerPeople	Germany	5378%
16	***Milšped, d. o. o.***	***Slovenia***	***5228%***
17	Foot District	Spain	5129%
18	Deelit Ventures	Netherlands	5116%
19	ID Finance Investments	Spain	5019%
20	getAir	Germany	4706%
21	PastBook	Netherlands	4623%
22	Supermercato24	Italy	4567%
23	Donatella	Germany	4495%
24	Futureplay	Finland	4410%
25	Jobandtalent	Spain	4093%
26	Jungle Creations	United Kingdom	3900%
27	# sinob	Germany	3614%
28	Global-e Online	United Kingdom	3567%
29	Rinah	Italy	3425%
30	Domator24.com	Poland	3419%
31	UPLINK Network	Germany	3417%
32	Trouva	United Kingdom	3353%
33	STA PORTAGE (H2S)	France	3271%
34	SoftwareHut	Poland	3090%
35	Beattie Passive Group	United Kingdom	3027%
36	Fensterblick	Germany	2926%
37	Eskimoz	France	2900%
38	Indie Campers	Portugal	2878%
39	Zonneplan	Netherlands	2807%
40	ITP Nord	Germany	2778%
41	Agriconomie	France	2697%
42	Bettzeit	Germany	2662%
43	Blue Motor Finance	United Kingdom	2586%
44	Vidsy Media	United Kingdom	2528%
45	Darktrace	United Kingdom	2446%
46	***Tekoma Marguč, d. o. o.***	***Slovenia***	***2377%***
47	Sorted Group	United Kingdom	2300%
48	***Aparati, d. o. o.***	***Slovenia***	***2270%***
49	FOSTEC & Company	Germany	2250%
50	Stillfront Group	Sweden	2222%
51	Tappx	Spain	2157%
52	Payment Assist	United Kingdom	2140%
53	Workcapital	Spain	2126%
54	Yoyo Wallet	United Kingdom	2103%
55	TMT International	Italy	2096%
56	***CBE, d. o. o.***	***Slovenia***	***2068%***
57	SourceBreaker	United Kingdom	2021%
58	Glassbox Digital UK	United Kingdom	2020%
59	LittleBIG Connection	France	1990%
60	Hostmaker	United Kingdom	1962%
61	Golden Bees	France	1958%
62	Chez Nestor	France	1951%
63	Solnet Green Energy	Finland	1926%
64	Osiway	France	1909%
65	Nexumstp	Italy	1898%
66	MeP Trans	Estonia	1848%
67	Bluwalk	Portugal	1811%
68	Discover Car Hire	Latvia	1780%
69	Missoma	United Kingdom	1780%
70	Grapevine (The Insiders)	Netherlands	1757%
71	LVS Brokers	Finland	1742%
72	Dall Energy	Denmark	1741%
73	***Mediforma, d. o. o.***	***Slovenia***	***1730%***
74	Sneakers & Jackets	France	1716%
75	Viralize	Italy	1710%
76	Ruehe Healthcare	Germany	1692%
77	Laundryheap	United Kingdom	1663%
78	COMATCH	Germany	1638%
79	NoviCap	United Kingdom	1635%
80	Elvie	United Kingdom	1623%
81	GPA Innova (Dlyte)	Spain	1611%
82	Lumenaza	Germany	1604%
83	Skills RH	France	1557%
84	ENPIRE	Poland	1530%
85	PALS E HIJOS IMPORT	Spain	1513%
86	Mrs Wordsmith	United Kingdom	1501%
87	Nexolub	Spain	1486%
88	INNOVI Recherche	France	1475%
89	Parkster	Sweden	1463%
90	Bending Spoons	Italy	1450%
91	ComplyAdvantage	United Kingdom	1449%
92	MAKING SCIENCE	Spain	1430%
93	Società Gestioni Lavori	Italy	1430%
94	Ooni	United Kingdom	1428%
95	Ubiquicom	Italy	1410%
96	Flight Club Darts	United Kingdom	1408%
97	***Narajan***	***Slovenia***	***1408%***
98	Studapart	France	1373%
99	Tylia Invest	France	1359%
100	Enesco	Italy	1359%
101	ConceptIF Pro	Germany	1357%
102	Carcamovil	Spain	1354%
103	Tingopol	Estonia	1350%
104	Samy Road	Spain	1347%
105	Grupo Grl (Élite Diseños)	Spain	1317%
106	GAP Vehicle Hire	United Kingdom	1314%
107	OTA Insight	United Kingdom	1312%
108	Priomold	Germany	1277%
109	Nurole	United Kingdom	1276%
110	Cru Wine	United Kingdom	1271%
111	InnovaMaxx	Germany	1245%
112	Signaturit Solutions	Spain	1227%
113	P&W Bau	Germany	1226%
114	Total Tiles	United Kingdom	1212%
115	E paper	Italy	1211%
116	Kiwi.com	Czech Republic	1189%
117	Oradian	Croatia	1167%
118	Egarri	France	1167%
119	GOVECS	Germany	1157%
120	Stayincortina	Italy	1155%
121	DMS	Germany	1135%
122	We Can Do HR	Poland	1132%
123	Univers Auto	France	1130%
124	Crossflow Payments	United Kingdom	1127%
125	Quantion	Spain	1117%
126	Democom	Italy	1110%
127	RTB House	Poland	1108%
128	FirstPhone	Hungary	1102%
129	YouLoveWords	France	1097%
130	Landbay Partners	United Kingdom	1089%
131	Verocaffè Italia	Italy	1088%
132	Soorce	Germany	1085%
133	ISO Spaces South West	United Kingdom	1084%
134	Voxpopme	United Kingdom	1080%
135	Vadeca Facility Services	Portugal	1074%
136	Superprof	France	1072%
137	Typeform	Spain	1059%
138	Dipe Concept	France	1043%
139	Fitbox	Germany	1042%
140	***MF-CT, d. o. o.***	***Slovenia***	***1037%***

	High-Growth Firm	Country	Growth rate
141	Prodigi Group	United Kingdom	1026%
142	***Pekarna Kaučič, d. o. o.***	***Slovenia***	***1025%***
143	TBT	Italy	1023%
144	Biochem Organics	Romania	1020%
145	Malagris	Lithuania	1016%
146	***Eltim, d. o. o.***	***Slovenia***	***1012%***
147	Applifting	Czech Republic	1011%
148	MTM Ruhrzinn	Germany	1011%
149	Rezatec	United Kingdom	1009%
150	ACCENTA Music	Germany	1009%
151	Facephi Biometria	Spain	1000%
152	Mia	Italy	993%
153	eila Consulting	Germany	992%
154	Ankerkraut	Germany	978%
155	Cornexim	Hungary	977%
156	Adsmurai	Spain	974%
157	2E Vertriebs-GmbH	Germany	973%
158	Beer52	United Kingdom	964%
159	Circle Imperium	Netherlands	963%
160	Widget Brain Holding	Netherlands	963%
161	Velotransport	Italy	961%
162	***Dani AFC, d. o. o.***	***Slovenia***	***956%***
163	***Technobell, d. o. o. Koper***	***Slovenia***	***955%***
164	FIDUCIM	France	953%
165	Matsmart in Scandinavia	Sweden	946%
166	Moluna	Germany	945%
167	Metis	Germany	937%
168	CP Group	Germany	934%
169	Ogury	United Kingdom	931%
170	Elements Talent Consultancy	United Kingdom	931%
171	Miyagi	Italy	923%
172	ARES	France	918%
173	Q Agency	Croatia	917%
174	Binary Subject	Portugal	912%
175	Königskinder Immobilien	Germany	904%
176	Macropix	Italy	903%
177	New Systems HandelsgmbH	Austria	902%
178	Rojen Commerce	Romania	901%
179	YourParkingSpace	United Kingdom	901%
180	Infratech Bau	Germany	900%
181	n Dreams	United Kingdom	898%
182	Nova Cartotecnica Roberto.s	Italy	898%
183	***Geneplanet, d. o. o.***	***Slovenia***	***884%***
184	Neuhoff Massivbau	Germany	868%
185	HR XPERIENCE	Germany	863%
186	Ogrodosfera	Poland	857%
187	Velvet Media Italia	Italy	857%
188	Sendcloud	Netherlands	853%
189	Ds Glass	Italy	852%
190	Liikennevirta	Finland	850%
191	MetaMinds	Romania	845%
192	Prestige Car Center	Finland	840%
193	Eland Oil & Gas	United Kingdom	835%
194	InTradeLog	Hungary	829%
195	Gecko Labs	United Kingdom	826%
196	***Riedl CNC, d. o. o.***	***Slovenia***	***824%***
197	Silxo	United Kingdom	822%
198	SOLSOL	Czech Republic	820%
199	Ministry of Programming	Bosnia and Herz.	819%
200	Ramge Software Distribution	Germany	819%
201	Genius Sports Group	United Kingdom	814%
202	ITP TECHNOLOGIE	France	813%
203	Letisan (RocketBaby)	Italy	813%
204	***Štolfa GP, d. o. o.***	***Slovenia***	***812%***
205	Santigado	Portugal	809%
206	Kombitex	Germany	808%
207	Tower Hamlets GP Care Group	United Kingdom	801%
208	***Mega tekstil, d. o. o.***	***Slovenia***	***800%***
209	DEFAMA Deutsche Fachmarkt	Germany	800%
210	Etno Cafe	Poland	800%
211	Lockwood Publishing	United Kingdom	800%
212	Plan Communications Holding	United Kingdom	798%
213	***Gipin, d. o. o.***	***Slovenia***	***798%***
214	Globalwork	Italy	792%
215	Parlem Telecom	Spain	791%
216	Anteco Systems (AnyTech365)	Spain	791%
217	***Praesto, d. o. o.***	***Slovenia***	***782%***
218	Xtream Codes	Bulgaria	781%
219	Mobile Wave Solutions	Bulgaria	780%
220	Watt And Volt	Greece	776%
221	84codes	Sweden	775%
222	VH24	Germany	773%
223	***Sagles, d. o. o.***	***Slovenia***	***771%***
224	JBR Capital	United Kingdom	770%
225	PlasmaPro	Estonia	769%
226	DataValue Consulting	France	760%
227	Seargin	Poland	760%
228	A.N.NE	Germany	759%
229	Fram Skandinavien	Sweden	755%
230	Versoprobo	Italy	752%
231	Proficio Marketing	Czech Republic	750%
232	Reverse Media Group	United Kingdom	734%
233	Grabyo	United Kingdom	729%
234	Housekeep	United Kingdom	727%
235	Powerspace	France	727%
236	DUSAPRO Immobilien	Germany	719%
237	REMA-Solutions	Germany	715%
238	Eciglogistica	Spain	711%
239	Forsyth Barnes	United Kingdom	706%
240	Gute Marken Online	Germany	706%
241	New Wave Capital	United Kingdom	703%
242	My Portage	France	703%
243	Born Stahlbau	Germany	698%
244	tecRacer Consulting	Germany	697%
245	Medical Net	Italy	696%
246	***Eksist, d. o. o.***	***Slovenia***	***695%***
247	Midstream Lighting	United Kingdom	693%
248	***Budišin, d. o. o.***	***Slovenia***	***693%***
249	Good one	Lithuania	691%
250	Lapelle	Italy	685%
251	***Goap, d. o. o.***	***Slovenia***	***682%***
252	Eesti Metsameister	Estonia	681%
253	Cookies Factory	Italy	681%
254	MC2 Technologies	France	675%
255	Stavební Interiérové Systémy	Czech Republic	672%
256	cosos	Germany	670%
257	HalalBooking	United Kingdom	669%
258	Idento	France	668%
259	T-WATT	Czech Republic	668%
260	DrDoctor	United Kingdom	665%
261	SKILLSDAY	France	665%
262	Sonarworks	Latvia	663%
263	griep Baulogistik	Germany	662%
264	checkout.com	United Kingdom	662%
265	ZeitWerk Personal	Germany	661%
266	Tresorit	Hungary	657%
267	Oxwork	France	657%
268	STEPS	France	657%
269	Virtus Lab	Poland	654%
270	Aquis Exchange	United Kingdom	653%
271	Eco Pro	France	652%
272	Maxxi Engineering	Italy	648%
273	Alpha Real Estate Holding	Germany	647%
274	Kumulus Vape	France	646%
275	Nuevo Conseil et Formation	France	645%
276	Recambios Endado	Spain	645%
277	SCA Investments (Gousto)	United Kingdom	637%
278	Nu'Art Events	Italy	637%
279	Noonic	Italy	635%
280	Brodynt Global	Spain	634%
281	Dolly Noire	Italy	634%
282	Ideria	France	634%
283	Simples Análises	Portugal	627%
284	Hyper Recruitment Solutions	United Kingdom	626%
285	Italianway	Italy	624%
286	Rosano Dry Fruit	Italy	622%
287	Gruppo Del Barba Consulting	Italy	621%
288	Oni Foods Overseas	Spain	618%
289	***Žaga Pogorelc, d. o. o.***	***Slovenia***	***618%***
290	WeWATCH Security Service	Germany	612%
291	SuperAwesome	United Kingdom	610%
292	Vmway	Italy	609%
293	CLICKLEARN Aps	Denmark	603%
294	Dexatel	Estonia	601%
295	BXR IndustrieService	Germany	601%
296	City Shop West Kiosk	Germany	600%
297	Heltti	Finland	600%
298	Zero	Italy	599%
299	BKE Eisenbahn-Service	Germany	599%
300	Naïo Technologies	France	594%
301	Decor Leader	Italy	593%
302	***Nutrisslim, d. o. o.***	***Slovenia***	***593%***
303	Standal	Spain	592%
304	Mytho	Italy	587%
305	Motius	Germany	586%
306	***Rumi Storitve***	***Slovenia***	***586%***
307	Herrero Brigantina	Spain	586%
308	Lorefice & Ponzio	Italy	586%
309	Qaiware	Bulgaria	582%
310	SIMWERT	Germany	580%

	High-Growth Firm	Country	Growth rate
311	***507, d. o. o.***	***Slovenia***	***579%***
312	CogBooks	United Kingdom	577%
313	Sierra Paper	Spain	575%
314	INDOS Financial	United Kingdom	571%
315	Ecosupply	Portugal	568%
316	Streetec	Germany	568%
317	Buzzoole	Italy	562%
318	Cye Energia	Spain	562%
319	Monterosa Productions	United Kingdom	560%
320	***Treves, d. o. o.***	***Slovenia***	***558%***
321	PTM	Germany	556%
322	***SZM, d. o. o.***	***Slovenia***	***552%***
323	***Mapri, d. o. o.***	***Slovenia***	***550%***
324	***Šeruga VAC, d. o. o.***	***Slovenia***	***549%***
325	Gioielleria Duca	Italy	547%
326	Epidemic Sound	Sweden	547%
327	TECHPROS	Norway	547%
328	gohenry	United Kingdom	543%
329	Northmill Group	Sweden	543%
330	LBBZ	Germany	543%
331	Solar Clim - BF Cote d'azur	France	542%
332	Assetz Capital	United Kingdom	541%
333	Maxpay	Malta	541%
334	HiveMQ	Germany	537%
335	All Good	Poland	537%
336	freestyle	Germany	537%
337	New Truck	Italy	536%
338	Scribbr	Netherlands	532%
339	Heart Apartments	Italy	531%
340	GpasPlus	France	530%
341	Pharazon (PHZ Full Stack)	Finland	529%
342	Personalhaus Bielefeld	Germany	529%
343	CLAREO	France	529%
344	Comal Impianti	Italy	527%
345	***C-Astral, d. o. o.***	***Slovenia***	***526%***
346	SPG Steiner	Germany	524%
347	Velocity Outlet	United Kingdom	522%
348	Laser Wire Solutions	United Kingdom	520%
349	CO.NET	Germany	520%
350	Phenofarm	Italy	519%
351	AlterBoutique	France	519%
352	myElefant	France	519%
353	Senergica	Italy	518%
354	Global Control 5	Poland	517%
355	VIPCON	Germany	516%
356	innercircle	Germany	515%
357	Vialterra Infraestructuras	Spain	515%
358	***Alprem oprema, d. o. o.***	***Slovenia***	***515%***
359	***Burgar-teh, d. o. o.***	***Slovenia***	***514%***
360	Transmission	United Kingdom	513%
361	Zelená pošta	Slovakia	512%
362	***Rhenus logistika, d. o. o.***	***Slovenia***	***509%***
363	Trans and Trade 1	Bulgaria	509%
364	SILKHOM	France	508%
365	***Dato avtomatizacija, d. o. o.***	***Slovenia***	***508%***
366	***LIT Tranzit, d. o. o.***	***Slovenia***	***507%***
367	Rocksteady Music School	United Kingdom	505%
368	Botron Software Solutions	Bulgaria	503%
369	***Kariera, d. o. o.***	***Slovenia***	***502%***
370	CSG (Greencell)	Poland	502%
371	JSC Medium Group	Lithuania	500%
372	WED2B	United Kingdom	500%
373	Xcede Recruitment	United Kingdom	497%
374	LEAD Consult	Bulgaria	494%
375	Cloudi-Fi	France	494%
376	***Pergola, d. o. o.***	***Slovenia***	***492%***
377	C2A	France	492%
378	Fast-Up Partners	France	489%
379	AFR-IX Telecom	Spain	489%
380	StillKom	Norway	489%
381	raumweltenheiss	Germany	487%
382	MyPostcard.com	Germany	485%
383	Arpilabe	France	485%
384	I.C.E.	Italy	484%
385	Alternativa Impianti	Italy	483%
386	***Impera, d. o. o.***	***Slovenia***	***483%***
387	NowaLed	Poland	482%
388	***Rosenbauer, d. o. o.***	***Slovenia***	***480%***
389	bizforward	Germany	477%
390	Globalis Viagens e Eventos Corp.	Portugal	476%
391	Forever Entertainment	Poland	475%
392	***Cablex Plastik, d. o. o.***	***Slovenia***	***475%***
393	Exacaster	Lithuania	474%
394	***Rotra, trgovina, d. o. o.***	***Slovenia***	***474%***
395	Adrenaline X-Treme Adv. Group	Italy	473%
396	***Feroles, d. o. o.***	***Slovenia***	***473%***
397	A..E. Genc Warenhandels	Germany	473%
398	***Prohit, d. o. o.***	***Slovenia***	***473%***
399	truu wasserweik	Germany	471%
400	Kolinpharma	Italy	471%
401	***Mabotrans, d. o. o.***	***Slovenia***	***471%***
402	GSM Telecom Products	Norway	470%
403	Reech	France	470%
404	***Mercur Commerce, d. o. o.***	***Slovenia***	***468%***
405	Neo Systems	France	467%
406	Fountain Partnership	United Kingdom	466%
407	FUGU	France	465%
408	Iplan Gestión Integral	Spain	464%
409	***Mojstrovina, d. o. o.***	***Slovenia***	***464%***
410	New adVentures	Portugal	463%
411	Pulsar Photonics	Germany	463%
412	Podium Engineering	Italy	462%
413	Vizolution	United Kingdom	462%
414	Azuri Technologies	United Kingdom	460%
415	***Bitset, d. o. o.***	***Slovenia***	***460%***
416	BigChange	United Kingdom	459%
417	ADay's March Shirts & Staples	Sweden	456%
418	Intito	Finland	456%
419	Le Slip	France	456%
420	Home Instead	Germany	455%
421	Schneider Financial Solutions	United Kingdom	454%
422	ARCESI Occitanie	France	452%
423	CSHARK	Poland	452%
424	Fill Up Média	France	449%
425	Bunker Partner	Estonia	447%
426	Holla Online	Finland	446%
427	lengoo	Germany	446%
428	ELS Express Logistik Service	Germany	443%
429	GROUPE INOVEFA	France	441%
430	Eco CO2	France	441%
431	***Pan-Jan, d. o. o.***	***Slovenia***	***439%***
432	Torsion Group	United Kingdom	433%
433	ETYO	France	433%
434	Fb.M.	Italy	431%
435	Farmacosmo	Italy	431%
436	Famoco	France	430%
437	Da.Dif Consulting	Italy	430%
438	***B-MB, d. o. o.***	***Slovenia***	***429%***
439	Durophan Handelsgesellschaft	Germany	428%
440	Sl Frais Distribution	France	428%
441	***A.B.C., d. o. o.***	***Slovenia***	***427%***
442	Quickcom	Italy	427%
443	***Sonet plus, d. o. o.***	***Slovenia***	***427%***
444	***MPPM, d. o. o.***	***Slovenia***	***426%***
445	Lämpö-Valli	Finland	426%
446	Bauer Energiekonzepte	Germany	426%
447	T1 Solution	Czech Republic	424%
448	***Super, d. o. o.***	***Slovenia***	***424%***
449	Tavan Tiefbau	Germany	422%
450	***Links, d. o. o.***	***Slovenia***	***422%***
451	***SOS sejemske rešitve, d. o. o.***	***Slovenia***	***421%***
452	Workable Software	United Kingdom	420%
453	***Lestro-Ledinek, d. o. o.***	***Slovenia***	***420%***
454	eSMART Technologies	Switzerland	419%
455	Tropic Skincare	United Kingdom	418%
456	cerascreen	Germany	417%
457	Dein Stellplatz	Germany	417%
458	Lazer Lamps	United Kingdom	416%
459	Awinsi Technologies	France	416%
460	Nanushka International	Hungary	415%
461	Energía, Innovación y Desarrollo F.	Spain	415%
462	Branchspace	United Kingdom	413%
463	B-Open Solutions	Italy	413%
464	UAB Incorpus	Lithuania	412%
465	Aconity3D	Germany	412%
466	Bittnet Systems	Romania	412%
467	nanosun	Czech Republic	411%
468	***PR, d. o. o.***	***Slovenia***	***411%***
469	Genba Digital	United Kingdom	409%
470	GoodCall	Czech Republic	409%
471	Dairylac	Spain	409%
472	ON ZE AIR	France	409%
473	***Faniani skupina, d. o. o.***	***Slovenia***	***409%***
474	Pomorska Platforma Pracy	Poland	409%
475	***Ekipa2, d. o. o.***	***Slovenia***	***408%***
476	Financial Consulting Lab	Italy	408%
477	***L - Inox, d. o. o.***	***Slovenia***	***408%***
478	MOORE	France	408%
479	Treesystem	Italy	408%
480	Audensiel	France	407%

	High-Growth Firm	Country	Growth rate
481	***Tips, d. o. o.***	***Slovenia***	***407%***
482	***Simes, d. o. o.***	***Slovenia***	***406%***
483	Basemark	Finland	405%
484	***Tegar, d. o. o.***	***Slovenia***	***404%***
485	***Lesnina MG oprema, d. d.***	***Slovenia***	***402%***
486	Synapsy	Italy	402%
487	***Enerdat - S, d. o. o.***	***Slovenia***	***401%***
488	OBIZ CONCEPT	France	401%
489	Edubroker	Poland	401%
490	Werksräder24	Germany	400%
491	Upgrade	Italy	399%
492	***Conditus, d. o. o.***	***Slovenia***	***398%***
493	Edilbiangi	Italy	398%
494	KBS Group	Germany	398%
495	BAM GmbH	Germany	398%
496	Fokus Premium	Poland	397%
497	***D' agencija, d. o. o.***	***Slovenia***	***396%***
498	VanMoof Global Holding	Netherlands	394%
499	Stiltz	United Kingdom	392%
500	***Stilles, d. o. o.***	***Slovenia***	***392%***
501	***Haberkorn, d. o. o.***	***Slovenia***	***392%***
502	AerFin	United Kingdom	391%
503	France Bières	France	390%
504	STEBU	Germany	390%
505	Microblink	Croatia	390%
506	Omnia Group	Italy	389%
507	Versandmanufaktur	Germany	388%
508	Autovia	Italy	388%
509	MC Conseil	France	387%
510	Intellienergy	Italy	387%
511	Younited Credit	France	387%
512	Unify Communications	United Kingdom	386%
513	Readly International	Sweden	385%
514	***Fering fam, d. o. o.***	***Slovenia***	***385%***
515	***Regius, d. o. o.***	***Slovenia***	***384%***
516	***Zuum, d. o. o.***	***Slovenia***	***384%***
517	***Mizarstvo Košak, d. o. o.***	***Slovenia***	***383%***
518	Go Concept	France	383%
519	Dermaroller	Germany	383%
520	Axopar Boats	Finland	383%
521	The Currency Cloud Group	United Kingdom	382%
522	E-Novia	Italy	381%
523	KEROC	Norway	381%
524	DCMN	Germany	381%
525	***MBS vzdrževanje, d. o. o.***	***Slovenia***	***380%***
526	***Liko, d. d.***	***Slovenia***	***379%***
527	FPTP	France	379%
528	IGW	Italy	379%
529	***Coatransporti, d. o. o.***	***Slovenia***	***378%***
530	***T-Momo, d. o. o.***	***Slovenia***	***378%***
531	Bulchicken JSC	Bulgaria	377%
532	halsdorfer + ingenieure projekt	Germany	377%
533	Norma Meccanica	Italy	376%
534	Catalyx	Switzerland	376%
535	Joannes Distribution	France	374%
536	Mediterranean Food Solutions	France	374%
537	***Ino, d. o. o.***	***Slovenia***	***373%***
538	***Solis Straža, d. o. o.***	***Slovenia***	***373%***
539	***Dorssen hrm, d. O. O.***	***Slovenia***	***372%***
540	Infinum	Croatia	372%
541	R exy	Czech Republic	372%
542	WKND	Latvia	371%
543	***3fs, d. o. o.***	***Slovenia***	***371%***
544	Aura	Italy	370%

	High-Growth Firm	Country	Growth rate
545	***Varovanje Galekom, d. o. o.***	***Slovenia***	***370%***
546	WILLIE BEAMEN	France	369%
547	***Kompas Novo mesto, d. o. o.***	***Slovenia***	***369%***
548	***Interstar, d. o. o.***	***Slovenia***	***368%***
549	***Arhel, d. o. o.***	***Slovenia***	***368%***
550	Sitem Motori Elettrici	Italy	366%
551	Fekra Consulting	France	366%
552	Emark	Slovakia	366%
553	***Te-Tis Testen, d. o. o.***	***Slovenia***	***365%***
554	***Aluvar, d. o. o.***	***Slovenia***	***365%***
555	Resgreen Europe	Spain	365%
556	***Aplast, d. o. o.***	***Slovenia***	***364%***
557	IS Prime	United Kingdom	363%
558	Almac	Italy	363%
559	GPS	Germany	363%
560	Communis Projektbau	Germany	362%
561	Novastar	Greece	361%
562	***Ledinek Engineering, d. o. o.***	***Slovenia***	***361%***
563	ITFS	Poland	361%
564	***Don Don, d. o. o.***	***Slovenia***	***361%***
565	***Avtoservis Koper, d. o. o.***	***Slovenia***	***360%***
566	ContactEngine	United Kingdom	360%
567	Peter Kenkel	Germany	360%
568	hedgehog lab	United Kingdom	359%
569	Innocv Solutions	Spain	358%
570	***Victus, d. o. o.***	***Slovenia***	***358%***
571	***Sgerm, d. o. o.***	***Slovenia***	***357%***
572	Alpha FX Group	United Kingdom	357%
573	Castel	Italy	356%
574	mVISE	Germany	356%
575	***Resal, d. o. o.***	***Slovenia***	***355%***
576	***Mežnar, d. o. o.***	***Slovenia***	***354%***
577	Thiga	France	354%
578	***Škerjanc, d. o. o.***	***Slovenia***	***353%***
579	***Virs, d. o. o.***	***Slovenia***	***353%***
580	Pekrul ProjektPartner	Germany	353%
581	***Solid World, d. o. o.***	***Slovenia***	***352%***
582	We Exhibit	Italy	352%
583	***Willy Stadler, d. o. o.***	***Slovenia***	***350%***
584	Prima Solutions	France	350%
585	GomSpace Group	Sweden	350%
586	Tarlogic Security	Spain	349%
587	Signor Prestito	Italy	348%
588	***Berus, d. o. o.***	***Slovenia***	***348%***
589	***Vaukan, d. o. o.***	***Slovenia***	***348%***
590	Kiddus Accesorios	Spain	348%
591	***Lipar, d. o. o.***	***Slovenia***	***347%***
592	RadarServices Smart IT-Security	Austria	347%
593	***A-sprint, d. o. o.***	***Slovenia***	***346%***
594	***Darson, d. o. o.***	***Slovenia***	***346%***
595	***Ni-Mi, d. o. o.***	***Slovenia***	***346%***
596	SGS Facility Management	Germany	345%
597	MyChauffage.com	France	344%
598	CCHG (VPZ)	United Kingdom	344%
599	Fincite	Germany	344%
600	***Kalit, d. o. o.***	***Slovenia***	***344%***
601	Cerámicas Anoru	Spain	344%
602	Kleine Riesen Nord	Germany	344%
603	***Protekt Dolenjska, d. o. o.***	***Slovenia***	***343%***
604	***Euro Grad, d. o. o.***	***Slovenia***	***343%***
605	***OKK, d. o. o.***	***Slovenia***	***343%***
606	***MDT & T, d. o. o.***	***Slovenia***	***343%***
607	Kyo Electric	Spain	342%
608	Ergos Technology	Spain	342%

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Povzetek:
Položaj slovenskih hitro rastočih podjetij v evropskem prostoru

Namen in izvirnost: Namen te raziskave je bil predstaviti položaj slovenskih hitro rastočih podjetij oziroma gazel v evropskem prostoru in izvesti primerjavo slovenskih hitro rastočih podjetij z evropskimi z vidika stopnje rasti. Raziskava temelji na sistematičnem pregledu hitro rastočih podjetij in njihovem položaju v Sloveniji in Evropi. Prav primerjava podatkov o slovenskih hitro rastočih podjetij in tistih v evropskem prostoru omogoča umestitev slovenskih hitro rastočih podjetij v širši evropski prostor.
Metoda: Raziskava temelji na sistematičnem pregledu lestvice časopisne hiše Financial Times 1.000 najhitreje rastočih podjetij v Evropi in lestvice časopisne hiše Dnevnik 500 najhitreje rastočih podjetij v Sloveniji ter podatkih, pridobljenih iz statističnega urada Evropske unije in Slovenije. Z uporabo programske opreme Minitab smo preverili normalnost porazdelitve obravnavanih podatkov, izvedli transformacijo nenormalno porazdeljenih podatkov ter izračunali Pearsonov koeficient korelacije »r« med posameznimi obravnavanimi faktorji, na podlagi katerih smo nato izvedli potrditev postavljenih hipotez. Distribucijo podatkov smo prikazali s pareto in stolpčnimi grafikoni.
Rezultati: Raziskava je pokazala položaj slovenskih hitro rastočih podjetij v evropskem prostoru. Glede na ugotovitve raziskave je razvidno, da so tako slovenska kot evropska hitro rastoča podjetja v večini manjše organizacije. Največ hitro rastočih podjetij v evropskem prostoru je v Nemčiji, medtem ko je največ takih podjetij v Sloveniji v Osrednjeslovenski regiji. Stopnja rasti hitro rastočih slovenskih in evropskih podjetij je primerljiva, višina prihodkov od prodaje in število zaposlenih ne izkazujeta vpliva na stopnjo rasti podjetja, bruto domači proizvod pa na drugi strani pozitivno prispeva k stopnji rasti. S primerjavo v raziskavi obravnavanih slovenskih in evropskih hitro rastočih podjetij smo ugotovili, da evropska izkazujejo višjo stopnjo rasti kot slovenska, iz vidika prihodkov od prodaje pa so med seboj primerljiva.
Družba: Raziskava omogoča boljšo prepoznavnost hitro rastočih podjetij v družbi. Iz tega naslova lahko širša družba oceni vpliv, delovanje in socialno odgovornost hitro rastočih podjetij v določenem okolju. Nenazadnje lahko tudi boljša informiranost družbe pozitivno prispeva k uspešnosti hitro rastočih podjetij.
Omejitve/nadaljnje raziskovanje: Raziskava je omejena na primerjavo slovenskih hitro rastočih podjetij s tistimi v evropskem prostoru na podlagi dveh lestvic hitro rastočih podjetij. Glede na dejstvo, da je Slovenija v skupnem evropskem prostoru majhna država, bi bilo primerno izvesti raziskavo oziroma primerjavo z manjšimi evropskimi državami in umestiti slovenska hitro rastoča podjetja v tej skupini, ali pa uporabiti več reprezentativnih lestvic in obstoječo raziskavo ponoviti.

Ključne besede: hitro rastoča podjetja, gazele, Slovenija, Evropa, kazalniki podjetij, stopnja rasti.

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Soodvisnost med velikostjo občine in vloženimi sredstvi v investicijske projekte

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Povzetek:
Ozadje in izvirnost: Namen raziskave je ugotoviti koliko sredstev na prebivalca vlagajo posamezne občine v investicijske projekte in kako je to odvisno od velikosti občine. Cilj raziskave je ugotoviti soodvisnost med vloženimi sredstvi na prebivalca v investicijske projekte ter velikostjo občine. Originalnost raziskave je v tem, da na enem mestu vsebuje podatke o odobrenih sredstvih iz državnega proračuna za izvedbo projektov po posameznih občinah. Raziskava lahko tudi služi posameznih županom, kot orientacija koliko sredstev so uspeli pridobiti v ostalih občinah, na podlagi različnih kriterijev.
Metoda: Izvedena je bila kvantitativna raziskava iz podatkov, katera je bila na najdena na spletu.
Rezultati: Z izvedeno raziskavo smo ugotovili, da v splošnem večje občine, po številu prebivalcev, pridobivajo več sredstev, iz državnega proračuna, kot manjše občine. Hipoteza, da se v večjih občinah vlaga več sredstev v projekte na prebivalca, kot v manjših občinah ni bila potrjena. Po raziskavi se v občine s prebivalci, do 1000 prebivalcev, celo več vlaga, kot v večje občine.
Družba: Rezultati raziskave lahko imajo vpliv na družbo, ker bo lahko župan določene občine preveril kaj vpliva na pridobivanje sredstev in bo to lahko uporabil pri sprejemanju svojih bodočih odločitev. Raziskava je lahko v pomoč in ideja za nadaljnje raziskave.
Omejitve/nadaljnje raziskovanje: Omejitve pri raziskavi so bile v tem, da ni bilo vseh podatkov o projektih na enem mestu (na spletni strani Transparency International Slovenia). Težava je bila odpravljena tako, da so bili podatki poiskani po različnih uradnih listih. Predlog za nadaljnje raziskovanje je, da se v raziskavo vključi in primerja tudi ostale kazalnike, kot so vložena sredstva za investicije na število zaposlenih, na prihodek podjetij, na povprečno neto plačo, na površino občine. Prav tako je predlog, da se v analizo vključi tudi projekte izvedene iz EU sredstev.

Ključne besede: projekt, projektni management, investicija, finančna sredstva, državni proračun.

1 Uvod

Vsaka občina potrebuje za svoje delovanje finančna sredstva, ki jih vlaga tudi v investicijske projekte, kateri so potrebni za delovanje in razvoj občine. Financiranje občin določa Zakon o financiranju občin (ZFO-1). »Zakon o financiranju občin ureja enak sistem financiranja za vse občine. Občine so upravičene do prihodkov iz treh virov: lastni viri, transferni prihodki iz državnega proračuna in sredstva EU, tretji vir je zadolževanje. Navedeni zakon ureja tudi sofinanciranje investicij, ki jih občine načrtujejo v svojih načrtih razvojnih programov in zanje zagotavljajo sredstva, s sredstvi državnega proračuna.« (Vlada Republike Slovenije)

V Sloveniji imamo velik delež majhnih občin, kjer živi celo manj kot 2000 prebivalcev. Po eni strani je v takšnih občinah prisotna večja pripadnost in preglednost nad delovanjem

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občine, po drugi strani pa se pojavljajo tudi določeni problemi, ki so povezani predvsem s financiranjem. S to raziskavo želimo preveriti ravno to, ali se v večjih občinah dejansko vlaga več sredstev na prebivalca v investicijske projekte, kot v manjših občinah.

Namen raziskave je ugotoviti koliko sredstev na prebivalca vlagajo posamezne občine v investicijske projekte in kako je to odvisno od velikosti občine.

Cilj raziskave je dokazati, da se več sredstev na prebivalca v investicijske projekte vlaga v večjih občinah.

2 Teoretična izhodišča

2.1 Teorija o projektih, projektnem vodenju in investicijah

Uporaba projektnega vodenja kot poslovnega procesa sega že dolgo nazaj. Številni verjamejo, da je pri gradnji egiptovskih piramid mnogim pomagala uporaba preprostih načel vodenja projektov. (Hall, 2012, str. 130) Različni avtorji imajo različna mnenja o tem kdo je začetnik in kdaj se je začelo sodobno vodenje projektov. Večina avtorjev si je enotna, da se je pomemben dogodek zgodil leta 1917, ko je Henry L. Gantt izumil Ganttovo karto. Ta grafikon spremlja napredek nalog in dodeljevanje virov skozi čas in je osrednje orodje za vizualizacijo napredka projekta pri uporabi programske opreme za upravljanje projektov (Hall, 2012, str. 131). Kwak trdi, da se je začetek sodobnega vodenja projektov začel med 1900 in 1950 leti. V tem obdobju se je vodenje projektov iz obrtnega sistema preoblikovalo v upravo za človeške odnose. Takrat so boljši prometni in telekomunikacijski sistemi začeli tudi omogočati večjo mobilnost in hitrejšo komunikacijo. (Seymour & Hussein, 2014, str. 235) S tehnološkim razvojem se s pomočjo boljšega usposabljanja za upravljanje projektov, objavo informacij o najboljših praksah in boljšo programsko podporo olajšuje vodenje projektov. Po drugi strani pa ugotavljajo tudi trende, ki otežujejo vodenje projektov. To povzroča: povečana konkurenca, krajši življenjski cikli izdelkov in storitev, strožji proračuni, neznane in bolj zapletene aplikacije, globalno porazdeljene in večkulturne projektne skupine. (Hall, 2012, str. 140) Tradicionalni projekti so po svoji naravi pogosto dolgotrajni, sodobni projekti pa so lahko veliko krajši, zlasti za nove izdelke in storitve. Zaradi kratkih življenjskih ciklov izdelkov, na primer v industriji zabavne elektronike, lahko zamuda pri dokončanju projekta pomeni, da je izdelek preprosto že nekonkurenčen. (Hall, 2012, str. 131)

Za razlikovanje med projektom in projektnim vodenjem je treba razviti ločeni opredelitvi obeh pojmov. Projekt lahko štejemo za doseganje določenega cilja, ki vključuje vrsto dejavnosti in nalog, kateri porabljajo vire. Izpolniti ga je treba v določeni specifikaciji, z določenimi datumi začetka in konca. V nasprotju s tem je projektno vodenje mogoče opredeliti kot postopek nadzora doseganja ciljev projekta. (Munns & Bjeirmi, 1996, str. 81)
Po definiciji PMI je projektni management proces, s katerim se projekti definirajo, načrtujejo, spremljajo, nadzorujejo in izvajajo, tako da se uresničijo dogovorjene koristi (Project Management Institute 2006, str. 151). Za primerjavo poglejmo na primer definicijo PMI, ki trdi, da je projekt običajno opredeljen kot »začasno prizadevanje za ustvarjanje edinstvenega

izdelka ali storitve« (Project Management Institute 2008, str. 442). Klastorin pa trdi, da je projekt dobro opredeljen sklop nalog, katere je potrebno v celoti izvesti, da dosežemo cilj projekta (Klastorin, 2004, str. 78). Poznamo še več definicij, ki jih zagovarjajo različni avtorji. Na splošno lahko rečemo, da se projekt izvaja za koristne spremembe in ima tri bistvene lastnosti, kot jih navajata Turner in Müller (Turner & Müller, 2003, str. 1):

- je edinstven, ker se vsak projekt razlikuje od vsakega predhodnega oz. kasnejšega,
- izvaja se z novimi postopki: noben projekt pred ali po njem ne bo uporabljal popolnoma enakega pristopa,
- je prehoden: ima začetek in konec.

Posebna lastnost projektov je tudi, da se lahko številne naloge izvajajo sočasno oz. paralelno. Obstajajo tudi prednostna razmerja med določenimi nalogami, kar pomeni, da se mora določena naloga končati pred začetkom naslednje. V primerjavi s številnimi poslovnimi procesi se zdi upravljanje projektov še posebej težko, tako s teoretičnega kot tudi s praktičnega vidika. S teoretičnega vidika je temeljni problem načrtovanje razporejanja virov. S praktičnega vidika sta standardna cilja pri vodenju projektov proračunska vrednost in pravočasno dokončanje projekta. (Hall, 2012, str. 129)
Za projekte so značilni tudi naslednji trije pritiski (Turner & Müller, 2003, str. 1):

- Projekti so izpostavljeni negotovosti: ne moremo biti prepričani, da bodo naši načrti prinesli zahtevane rezultate projekta ali želene koristne spremembe.
- Ustvarijo potrebo po integraciji: virov za izvedbo projekta, med različnimi deli projekta in projekta v posel.
- Izvajajo se ob nujnosti: doseči želene rezultate v želenih časovnih okvirih.

De Wit in drugi avtorji razlikujejo med uspešnim projektom (merjeno glede na splošne cilje projekta) in uspešnim vodenjem projekta (merjeno glede na stroške, čas in kakovost). Pomembno je tudi drugo razlikovanje - to je razlika med merili uspeha (ukrepi, na podlagi katerih se bo ocenjeval uspeh ali neuspeh projekta) in dejavniki uspeha (tisti vložki v sistem upravljanja, ki neposredno ali posredno vodijo do uspeha projekta). (Cooke-Davies, 2002, str. 185) Za vedno večji pomen vodenja projektov kot poslovnega procesa je več razlogov (Hall, 2012, str. 131):

- Vodenje projektov učinkovito nadzoruje spremembe in omogoča organizacijam, da uvedejo nove izdelke, procese in programe.
- Projekti postajajo vse bolj zapleteni, zato jih je težje nadzirati brez formalne strukture upravljanja.
- Pojavljajo se projekti z bistveno drugačnimi značilnostmi.
- Vodenje projektov pomaga večfunkcionalnim skupinam, da postanejo učinkovitejši.
- Podjetja uporabljajo projektno vodenje za razvoj in preizkušanje svojih prihodnjih vodij.

Morris in Hugh trdita, da je uspeh projekta odvisen od naslednjih dejavnikov (Munns & Bjeirmi, 1996, str. 82):

- realen cilj,
- tekmovanje,
- zadovoljstvo strank,
- določen cilj,
- donosnost,
- tretje osebe,
- razpoložljivost na trgu,
- postopek izvajanja,
- zaznana vrednost projekta.

Vodenje projektov igra vlogo pri uspehu projekta, vendar na to vlogo vplivajo številni drugi dejavniki, ki niso pod neposrednim nadzorom vodje projekta. Ti dejavniki so (Munns & Bjeirmi, 1996, str. 82):

- neustrezna osnova za projekt,
- napačna oseba kot vodja projekta,
- najvišje vodstvo ne podpira projekta,
- neustrezno opredeljene naloge,
- pomanjkanje tehnik vodenja projektov,
- napačno uporabljene tehnike upravljanja,
- zaprtje projekta ni načrtovano,
- pomanjkanje zavezanosti projektu.

Investicija je sredstvo ali predmet, pridobljen z namenom ustvarjanja dohodka ali apreciacije. Apreciacija se nanaša na povečanje vrednosti sredstva sčasoma. Ko posameznik blago kupi kot naložbo, njegov namen ni zaužiti blago, temveč ga v prihodnosti uporabiti za ustvarjanje bogastva. Naložba se vedno nanaša na današnje izdatke nekega sredstva - časa, denarja ali truda - v upanju, da bo v prihodnosti večji izplačilo od tistega, kar je bilo prvotno vloženo. (Investopedia)

Naložbeni projekt je podroben predlog porabe likvidnih virov s ciljem sprejeti ukrepe, ki bodo vodili do prihodnjih dobičkov (Radzhabov & Rustamov, 2019, str. 95). Nabor metod in ustrezna merila, ki se uporabljajo za oceno ekonomske učinkovitosti naložb in investicijskih projektov, lahko razdelimo v tri skupine, odvisno od načina upoštevanja časovnega dejavnika pri izvedbi investicijskih stroškov in pridobivanju donosnega investicijskega toka (Danylyshyn et al., 2019, str. 2696):

- dinamične - modeli diskontiranih denarnih tokov,
- statični - modeli, ki predvidevajo uporabo pri izračunih računovodskih podatkov o investicijskih stroških in dohodkih brez diskontiranja skozi čas,
- alternativni ali nestandardni - modeli, ki upoštevajo omejitve in slabosti drugih dveh skupin metod..

2.2 Hipoteza

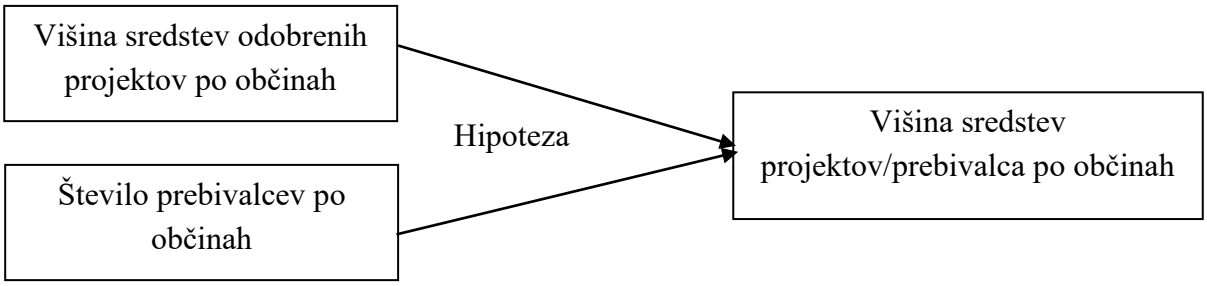
Pojavljajo se očitki, da se v manjše občine vlaga manj sredstev za investicijske projete na prebivalca, kot v večjih občinah. Te isti trdijo, da je to problem, ki zaradi slabše finančne podpore, manjšim občinam onemogoča ustrezen razvoj. S to raziskavo želimo preveriti ravno to ali se v večjih občinah, iz državnega proračuna, dejansko vlaga več sredstev na prebivalca, v investicijske projekte, kot v manjših občinah.

Hipoteza: V večjih občinah se vlaga več sredstev na prebivalca v investicijske projekte, z državnega proračuna, kot v manjših občinah.

3 Metoda

Izvedli smo kvantitativno raziskavo iz podatkov, katere smo našli na spletu. Podatke smo dobili iz baze statističnih podatkov občinskih projektov v Sloveniji financiranih iz državnega proračuna, na spletni strani Transparency International Slovenia (TI Slovenia). TI Slovenia je nevladna in neprofitna organizacija s statusom v javnem interesu pri Ministrstvu za javno upravo, ki je del mednarodne mreže Transparency International. Ker so podatki predstavljeni na tej spletni strani nepopolni, smo preostale podatke poiskali v različnih Uradnih listih Republike Slovenije. Statistične podatke o naseljenosti posameznih občin smo črpali iz spletne strani Statističnega urada Republike Slovenije.

V teoretičnem delu raziskave je bil uporabljen sistematični pregled znanstvene in strokovne literature s področja projektnega vodenja. Značilnost izbrane metode temelji na zbiranju, pregledovanju in analiziranju obstoječe literature. Pri predpostavki, da obstaja literatura na temo projektnega vodenja smo najprej, po različnih bazah (ERIC, Scopus, SSCI, ProQuest), poiskali članke s primernimi naslovi. Pogoj je bil, da je bil članek objavljen v indeksiranih revijah.



Slika 1. Model raziskave

Podatke smo obdelali s pomočjo programa MS Excel. Rezultate smo prikazali v obliki grafov in tabel ter jih tudi komentirali.

Baza podatkov je pripravljena na osnovi podatkov iz Uradnih listov Republike Slovenije. Poleg tega smo manjkajoče podatke sami poiskali, nekatere pa tudi vzorčno preverili v različnih uradnih listih, zato menimo, da so podatki zanesljivi.

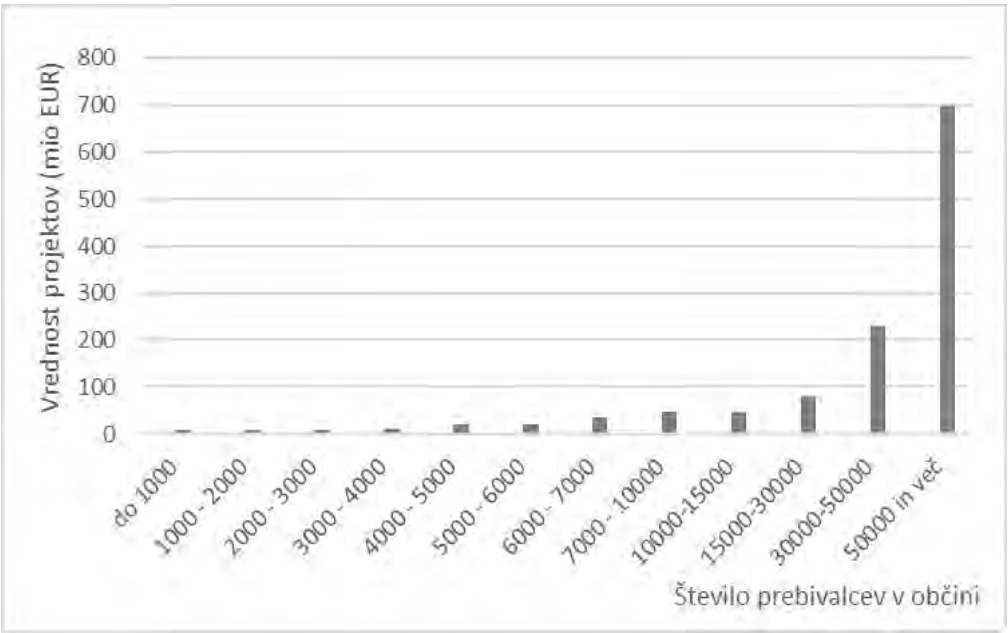
4 Rezultati

V tabeli 1 so predstavljeni podatki vrednosti projektov po velikosti občin. Velikosti občin so razdeljene po kategorijah oz. po številu prebivalcev, ker je v Sloveniji kar 212 občin. Te so predstavljene v tabeli 3. Poleg tega so v tabeli predstavljeni podatki za različna obdobja, in sicer za obdobja: 1998-2014, 2015-2018, 2019-2029 in za celotno obdobje od leta 1998 do leta 2029. Leto 2029 je navedeno zato, ker se nekateri projekti, ki so že odobreni in se tudi že odvijajo, predvideni z zaključkom v letu 2029.

Tabela 1. Analiza vrednosti projektov po občinah

	Vrednost projektov			
Št. preb.	**1998-2014**	**2015-2018**	**2019-2029**	**1998-2029**
do 1000	4.230.250	1.572.211	1.833.857	7.636.317
1000 - 2000	3.925.311	2.503.279	1.757.882	8.186.471
2000 - 3000	2.888.256	1.889.117	4.142.071	8.919.444
3000 - 4000	5.741.068	5.082.842	2.035.389	12.859.300
4000 - 5000	5.159.411	5.287.888	11.321.675	21.768.974
5000 - 6000	11.593.566	5.446.400	3.693.622	20.733.587
6000 - 7000	16.994.627	9.621.394	8.091.617	34.707.638
7000 - 10000	15.068.291	5.623.512	25.882.033	46.573.836
10000-15000	17.526.197	10.790.002	17.553.546	45.869.745
15000-30000	39.056.655	30.692.025	11.080.768	80.829.448
30000-50000	133.069.813	49.109.112	47.625.237	229.804.161
50000 in več	306.343.300	308.027.203	84.791.169	699.161.672

Za bolj nazorno predstavitev vrednosti odobrenih sredstev, glede na velikost občin po številu prebivalcev, so za celotno obdobje, od leta 1998 do 2029, vrednosti predstavljene v grafični obliki (glej sliko 2).



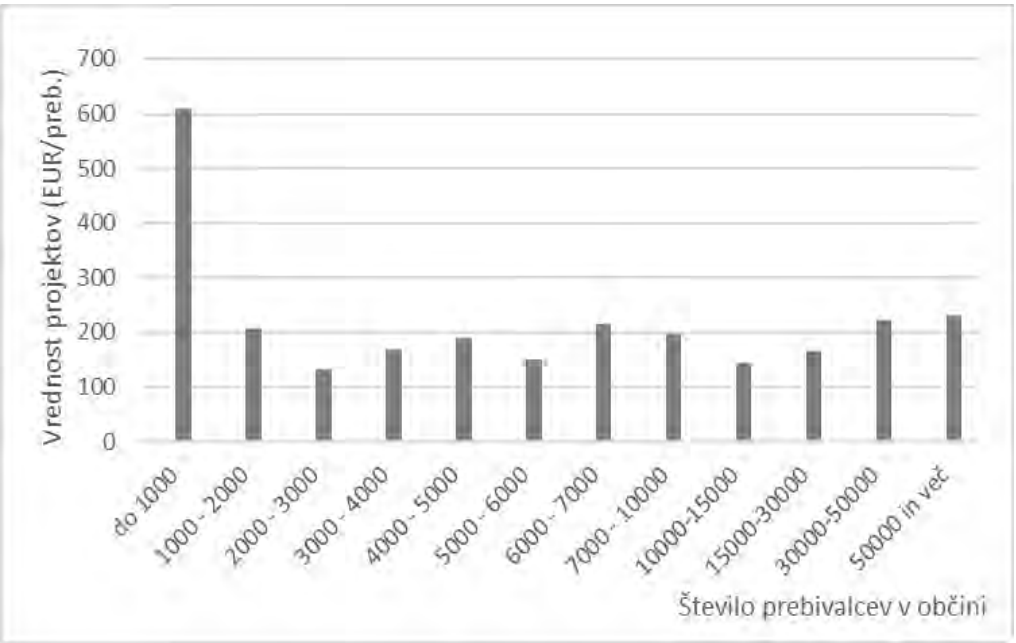
Slika 2. Vrednosti projektov glede velikost občin po številu prebivalcev

Tabela 2. Analiza vrednosti projektov na število prebivalcev po občinah

	Vrednost projektov/ št. prebivalcev			
Št. prebivalcev	**1998-2014**	**2015-2018**	**2019-2029**	**1998-2029**
do 1000	**522**	**830**	**344**	**609**
1000 - 2000	139	383	105	208
2000 - 3000	69	193	140	133
3000 - 4000	101	**388**	54	169
4000 - 5000	70	299	**228**	189
5000 - 6000	123	250	63	150
6000 - 7000	**155**	378	114	215
7000 - 10000	110	170	**280**	197
10000-15000	84	219	135	145
15000-30000	114	356	50	165
30000-50000	**216**	293	111	**223**
50000 in več	132	**562**	61	**230**

V tabeli 2 so prikazani že podatki, ki bodo ključni pri potrjevanju hipoteze. Kategorije občin so razdeljene isto, kot v tabeli 1, ki je bila že obrazložen, zato ne bomo ponavljali. V tabeli 2 so s sivim odtenkom obarvane celice s šestimi najvišjimi vrednostmi oz. s poudarjeno pisavo najvišji dve vrednosti. Vrednosti so predstavljene v EUR/prebivalca, pri čemer je navedena povprečna vrednost na leto, za posamezno obdobje.

Prav tako so podatki predstavljeni v grafični obliki, na sliki 3.



Slika 3. Vrednosti projektov glede na število prebivalcev po občinah

V tabeli 3 je predstavljeno katere občine spadajo v posamezne kategorije.

Tabela 3. Kategorije občin

Število prebivalcev	**Občine**
do 1000	Hodoš, Osilnica, Solčava, Kobilje, Jezersko, Kostel, Dobje
1000 - 2000	Ribnica na Pohorju, Sveti Andraž v Sl. Goricah, Razkrižje, Dobrovnik, Veržej, Žetale, Bistrica ob Sotli, Trnovska vas, Šalovci, Velika Polana, Luče, Zavrč, Bloke, Kuzma, Odranci, Tabor, Cankova, Podlehnik, Loški Potok, Središče ob Dravi, Gornji Petrovci, Sveti Tomaž
2000 - 3000	Makole, Grad, Cerkvenjak, Sveta Trojica v Sl. Goricah, Sveti Jurij v Sl. Goricah, Sodražica, Dobrna, Vitanje, Sveta Ana, Rečica ob Savinji, Podvelka, Cirkulane, Juršinci, Kostanjevica na Krki, Gornji Grad, Ljubno, Benedikt, Nazarje, Destrnik, Vransko, Mirna, Vuzenica, Gorje, Sveti Jurij ob Ščavnici, Dornava, Lovrenc na Pohorju, Šentrupert, Mirna Peč
3000 - 4000	Horjul, Kozje, Rogašovci, Bovec, Mokronog - Trebelno, Rogatec, Turnišče, Ankaran, Šmartno ob Paki, Črna na Koroškem, Škocjan, Šmarješke Toplice, Muta, Podčetrtek, Dolenjske Toplice, Apače, Križevci, Komen, Mežica, Log - Dragomer, Preddvor, Loška dolina, Dobrepolje, Semič, Hajdina, Straža, Trzin, Črenšovci, Tišina
4000 - 5000	Markovci, Starše, Majšperk, Kobarid, Gorišnica, Oplotnica, Mozirje, Radeče, Divača, Renče - Vogrsko, Velike Lašče, Žirovnica, Poljčane, Selnica ob Dravi, Hrpelje - Kozina, Borovnica, Mislinja, Štore, Cerkno, Žužemberk, Kungota, Žiri, Vodice, Miren - Kostanjevica
5000 - 6000	Radenci, Bohinj, Prebold, Kranjska Gora, Kanal, Naklo, Moravče, Braslovče, Videm, Šmartno pri Litiji, Brda, Vipava, Moravske Toplice, Lukovica, Puconci
6000 - 7000	Pivka, Radlje ob Dravi, Polzela, Šempeter - Vrtojba, Dol pri Ljubljani, Komenda, Kidričevo, Zreče, Železniki, Prevalje, Miklavž na Dravskem polju, Duplek
7000 - 10000	Ruše, Šentjernej, Pesnica, Rače - Fram, Gorenja vas - Poljane, Ig, Cerklje na Gorenjskem, Dobrova - Polhov Gradec, Bled, Beltinci, Mengeš, Šentilj, Metlika, Gornja Radgona, Lenart, Šoštanj, Šenčur, Vojnik, Dravograd, Hrastnik, Ribnica
10000-15000	Šmarje pri Jelšah, Lendava, Tolmin, Rogaška Slatina, Ljutomer, Ravne na Koroškem, Škofljica, Cerknica, Idrija, Hoče - Slivnica, Ormož, Brezovica, Trebnje, Laško, Ilirska Bistrica, Sežana, Logatec, Črnomelj, Tržič, Slovenske Konjice
15000-30000	Litija, Kočevje, Trbovlje, Postojna, Izola, Zagorje ob Savi, Slovenj Gradec, Medvode, Ivančna Gorica, Vrhnika, Sevnica, Piran, Murska Sobota, Radovljica, Šentjur, Ajdovščina, Jesenice, Grosuplje, Žalec, Škofja Loka, Ptuj, Brežice, Slovenska Bistrica, Krško, Kamnik
30000-50000	Nova Gorica, Velenje, Domžale, Novo mesto, Celje
50000 in več	Koper, Kranj, Maribor, Ljubljana

5 Razprava

Kot že navedeno so v tabeli oz. na sliki 1 predstavljeni podatki o višini odobrenih sredstev za projekte, po posameznih kategorijah velikosti občin. Podatki so predstavljeni za različna časovna obdobja. Če se osredotočimo na kategorijo celotnega obdobja, za katerega so zbrani podatki, se pravi od leta 1998 do leta 2029, lahko takoj opazimo, da z velikostjo občine rastejo tudi odobrena sredstva. Rezultat je definitivno pričakovan. Bolj pomembni podatki oz. rezultati, za našo raziskavo, so predstavljeni v tabeli oz. na sliki 2. Ti rezultati že prikazujejo koliko sredstev so občine prejele na prebivalca, po posameznih obdobjih.

Za podrobnejši komentar rezultatov, najprej zopet poglejmo našo hipotezo, ki se glasi: **»V večjih občinah se vlaga več sredstev z državnega proračuna na prebivalca, v investicijske projekte, kot v manjših občinah.«** Iz podatkov v tabeli 2 je takoj razvidno, da ne velja trditev oz. navedena hipoteza. Glede na našo hipotezo bi moralo biti s sivim odtenkom obarvanih zadnjih šest celic in poudarjeni vrednosti zadnjih dveh celic. Takoj vidimo, da temu ni tako. Lahko rečemo, da podatki prikazujejo ravno nasprotno. Kategorija občin z velikostjo do 1000 prebivalcev, v vseh posameznih obdobjih, vsebuje najvišje vrednosti sredstev projektov na število prebivalcev. Če iz analize izključimo kategorijo najmanjših občin, ki najbolj odstopa iz vseh kategorij, vidimo, da so odobrena sredstva po ostalih kategorijah približno enaka in bistveno ne odstopajo oz. se spreminjajo glede na velikost občin. Morda je v kategoriji od 1998 – 2029 (vsi projekti v analizi) moč zaznati, da malce odstopajo zadnji dve kategoriji po velikosti občin, če seveda ne upoštevamo kategorijo tistih najmanjših občin. Če bi podrobneje pogledali podatke za vse občine, bi lahko videli, da se tudi znotraj posameznih kategorij podatki oz. odobrena sredstva zelo razlikujejo. Za primer poglejmo kategoriji najmanjših in največjih občin, ki sta predstavljeni v tabelah 4 in 5.

Tabela 4. Analiza vrednosti projektov s številom prebivalcev do 1000 ljudi

			Št. pr.	Vrednost projektov				Vred. proj./ št. prebiv.			
Občina	**Površ. (km2)**	**Št. preb.**	**1998-2029**	**1998-2014**	**2015-2018**	**2019-2029**	**1998-2029**	**1998-2014**	**2015-2018**	**2019-2029**	**1998-2029**
Hodoš	18	358	8	78.284	498.593	0	576.877	12	347	0	94
Osilnica	36	366	13	14.178.001	3.032.000	2.830.000	20.040.001	**2.230**	**2.077**	703	**1.970**
Solčava	103	517	15	3.917.175	5.386.285	8.467.000	17.770.460	445	**2.590**	**1.489**	**1.400**
Kobilje	20	545	9	63.093	27.108	0	90.201	6	12	0	7
Jezersko	69	635	5	5.270.782	952.972	980.000	7.203.754	480	380	140	401
Kostel	56	643	11	3.778.165	945.000	560.000	5.283.165	344	365	79	303
Dobje	18	965	6	2.326.248	163.515	0	2.489.763	140	42	0	86

V tabeli 4 so predstavljeni podatki za kategorijo najmanjših občin, s številom prebivalcev do 1000. V prvem stolpcu so navedene občine, nato podatek o številu prebivalcev, vrednosti odobrenih sredstev za posamezna obdobja in vrednosti projektov na prebivalca, prav tako po posameznih obdobjih. Kot vidimo iz podatkov, odstopata občini Osilnica in Solčava, katerih vrednosti so bistveno višje od povprečnih vrednosti. Če bi podatke teh dveh občin odstranili,

bi bile pridobljene vrednosti primerljive s povprečnimi vrednostmi ostalih občin v tej kategoriji. Podrobneje sem preveril še podatke oz. projekte v občinah Osilnica in Solčava, ki povišujejo vrednost odobrenih sredstev. V primeru občine Osilnica je to povzročil projekt »Vzpostavitev nove prometne povezave Kočevska Reka - Osilnica.«, ki je v celotnem obdobju od 1998-2029 prispeval kar 16.811.195,53 EUR. Vrednost preostalih sredstev, v navedenem obdobju, znaša 3.228.805,62 EUR. V občini Solčava je situacija podobna. Tudi v tem primeru je oz. bo za cestne povezave namenjeno kar 12.992.509,57 EUR od skupno 17.770.460,23 EUR. Če bi navedene projekte izločili iz analize, bi bila slika povsem drugačna.

Tabela 5. Analiza vrednosti projektov s številom prebivalcev višjim od 30000 ljudi

			Št. pr.	**Vrednost projektov**				**Vred. proj./ št. prebiv.**			
Občina	**Površ. (km2)**	**Št. preb.**	**1998-2029**	**1998-2014**	**2015-2018**	**2019-2029**	**1998-2029**	**1998-2014**	**2015-2018**	**2019-2029**	**1998-2029**
Nova Gorica	280	31.932	61	79.585.068	22.329.214	21.680.000	123.594.281	147	176	62	143
Velenje	84	33.506	31	21.980.053	7.683.251	11.952.000	41.615.304	39	58	32	46
Domžale	72	36.429	23	6.427.643	9.502.488	0	15.930.131	11	66	0	22
Novo mesto	236	37.280	49	**505.179.354**	71.093.972	**142.532.000**	**718.805.327**	**821**	483	348	662
Celje	95	49.602	61	52.176.944	**134.936.633**	61.962.183	**249.075.761**	63	681	114	242
Koper	311	52.540	75	**203.967.902**	**214.652.229**	26.075.011	**444.695.142**	221	**1.035**	45	392
Kranj	151	56.715	35	43.837.279	66.231.519	24.870.000	134.938.798	46	297	40	111
Maribor	148	112.095	106	**188.029.215**	68.522.535	**136.941.909**	**393.493.658**	99	155	111	129
Ljubljana	275	294.113	341	**789.538.806**	**882.702.529**	**151.277.755**	**1.823.519.089**	162	761	47	288

Iz tabele 5 je podobna situacija vidna, kot smo opazili že v prejšnjem primeru, in sicer, da se podatki med občinami razlikujejo oz. odstopajo od ostalih. V tem primeru takoj opazimo odstopanje občin Domžale in Velenje, ki sta bistveno pod povprečjem ostalih občin. Iz podatkov glede površine občin je sicer tudi razvidno, da sta manjši od ostalih občin. Za podrobnejšo analizo bi morali vključiti še druge faktorje, kar je morda priložnost za nadaljnje raziskave.

Z raziskavo smo dokazali, da:

- z velikostjo občine po številu prebivalcev, naraščajo tudi odobrena sredstva za projekte,
- najmanjše občine po številu prebivalcev (kategorija do 1000 prebivalcev) prejemajo največ sredstev za projekte na število prebivalcev in hipoteza, da so najmanjše občine najbolj prikrajšane, ne velja.

Iz podatkov v tabeli 2 je takoj razvidno, da ne velja trditev oz. navedena hipoteza.

Glede na to, da hipoteza ni bila potrjena, menimo, da je neupravičeno pritoževanje manjših občin, da so prikrajšane pri financiranju iz državnega proračuna. Rezultati analiz, v določenih manjših občinah, prikazujejo ravno nasprotno sliko. Iz pridobljenih podatkov se odpirajo še nadaljnje možnosti za raziskave, ki so predstavljene v poglavju 6.

6 Zaključek

Z izvedeno raziskavo smo ugotovili, da v splošnem večje občine, po številu prebivalcev, pridobivajo več sredstev, iz državnega proračuna, kot manjše občine. Gledano z vidika odobrenih sredstev na število prebivalcev smo z raziskavo ugotovili, da je kategorija najmanjših občin (do 1000 prebivalcev) na nek način celo privilegirana. Iz rezultatov je namreč razvidno, da so v vseh časovnih kategorijah imeli bistveno največ odobrenih sredstev na število prebivalcev. V tej kategoriji odstopata občini Osilnica in Solčava, ki sta višino sredstev povečala predvsem na račun izgradnje novih cest. Tudi v kategoriji največjih občin, je razvidno, da imamo odstopanja. Od povprečja ostalih občin sta odstopali najmanjši po površini, Domžale in Velenje. Z raziskavo smo prišli do zaključka, da navedene hipoteze ne moremo potrditi ter da ostaja še veliko možnosti za nadaljnje raziskave.

Pridobljeni podatki iz raziskovalne naloge so dostopni na internetu, kar pa ne pomeni da niso uporabni. Podatki iz spletne strani Transparency International Slovenia so dopolnjeni iz podatkov raznih uradnih listov in predstavljeni v obliki, ki doslej ni bila na voljo.

Rezultati raziskave lahko imajo vpliv na družbo, ker bo lahko župan določene občine preveril kaj vpliva na pridobivanje sredstev in bo to lahko uporabil pri sprejemanju svojih bodočih odločitev. Raziskava je lahko v pomoč in ideja za nadaljnje raziskave.

Omejitve pri raziskavi so bile v tem, da ni bilo vseh podatkov o projektih na enem mestu (na spletni strani Transparency International Slovenia). Težavo smo odpravil tako, da smo podatke poiskali po različnih uradnih listih.

Predlog za nadaljnje raziskovanje je, da se v raziskavo vključi in primerja tudi ostale kazalnike, kot so vložena sredstva za investicije na število zaposlenih, na prihodek podjetij, na povprečno neto plačo, na površino občine. Prav tako je predlog, da se v analizo vključi tudi projekte izvedene iz EU sredstev.

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Simon E. Pantar je diplomiral na Fakulteti za elektrotehniko s področja zagotavljanja kakovosti. Zaposlen je na delovnem mestu vodje projektov. Vodi projekte v matični družbi in odvisnem podjetju v Ruski federaciji, kjer je bil pred tem zaposlen kot vodja tehnične službe. V odvisnem podjetju je odgovarjal za tehnično področje in uredil postopke na ostalih povezanih področjih. Pred tem je delal na delovnem mestu tehnologa v službi za meroslovje, kjer je uvedel mnoge postopke kalibracij na področju mase in sodeloval v mednarodnih interkomparacijah. Bil je mentor študentom in novozaposlenim ter izvajal izobraževanja sodelavcev na področju tehtanja. Za uspehe na področju inovacij, razvoja kalibracijskih metod ter mentorstva je v letu 2007 prejel nagrado občine Novo mesto na raziskovalnem področju. Prejel je tudi nagrado v sklopu projekta naj-sodelavec.

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Abstract:
Correlation Between the Size of the Municipality and the Funds Invested in Investment Projects

Background and Originality: The purpose of the research is to determine how much funds per capita individual municipalities invest in investment projects and how this depends of the size of the municipality. The goal of the research is to determine the correlation between the funds invested per capita in investment projects and the size of the municipality. The originality of the research lies in the fact that it contains in one place data on approved funds from the state budget for the implementation of projects by individual municipalities. Research can also serve individual mayors as an orientation of how much fundings they have managed to obtain in other municipalities, based on different criteria.
Method: We conducted a quantitative research from the data which we found on the internet. The datas we obtained from statistical database of municipal projects in Slovenia financed from the state budget, on the website Transparency International Slovenia. Transparency International Slovenia is a non-governmental and non-profit organization with a status in the public interest at the Ministry of Public Administration, which is part of the international network Transparency International. Because the data presented on this website are incomplete, we searched for the remaining data in various Official Gazettes of the Republic of Slovenia. Statistical datas of the population of individual municipalities we drawn from the website of the Statistical Office of the Republic of Slovenia.
The data we processed in MS Excel. The results we showed in graphs and tables, and they are also commented.
The database is prepared on the basis of data from the Official Gazettes of the Republic of Slovenia. In addition, we searched for the missing data ourselves, and also checked some of them in various official gazettes, so we believe that the data are reliable.
Results: With the performed study we found that in general larger municipalities, by the number of inhabitants, gaining more resources from the state budget as smaller municipalities. Seen from the perspective of the approved funds, to the number of inhabitants, was with the survey founds that the category of the smallest municipalities (up to 1000 inhabitants), in a way, even privileged. From the results it is evident that in all time categories had substantially the most approved funds to the number of inhabitants. In this category differ municipality Osilnica and Solčava, which are the amount of funds increased mainly on account of the construction of new roads. Even in the category of the largest municipalities, it is clear that we have deviations. From the average of other municipalities have departed the smallest at the surface, Domžale and Velenje. With the research we came to the conclusion that the stated hypothesis cannot be confirmed and that there is still a lot of space for further research.
Given that the hypothesis has not been confirmed, we believe that it is unjustified for smaller municipalities to complain that they are deprived of funding from the state budget. The results of the analyzes, in certain smaller municipalities, show just the opposite picture. From the obtained data, we have further possibilities for research.
The data obtained from the research are available on the Internet, which does not mean that they are not useful. Data from Web pages Transparency International Slovenia are updated from the data of various official gazettes and presented in a form, which has not been available so far.
Society: The results of the survey can have an impact on society because the mayor of a particular municipality will be able to check what influences fundraising and will be able to use this in making his or her future decisions. Research can be helpful and an idea for further research.
Limitations / further research: The limitations of the research were that not all data of projects were in one place (on the website Transparency International Slovenia). The problem was solved by searching the data in various official gazettes. The proposal for further research is to include in the research and compare other indicators, such as invested funds for investments in the number of employees, company income, average net salary, the area of the municipality. It is also a proposal to include projects derived from EU funds in the analysis.

Keywords: project, project management, investition, financial resourses, state budget.