EDUCATION FOR ENTREPRENEURIAL BUSINESS AND EMPLOYMENT

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CONTENT

PREFACE

The Collection of Works of the 6th International Conference in the organization of the Faculty of Business Economics and Entrepreneurship from Belgrade, titled ***Education for entrepreneurial business and employment*** is the result of the research work carried out by 31 scientific workers who, by presenting their papers, have made a great contribution to the clarification of numerous thematic issues and affirmation of scientific thought through multidisciplinary consideration of current phenomena and paradigms in the sphere of education, entrepreneurship and employment.

These papers signify the continuity of scientific thought that began at the first conference held in 2012. Through well-argued, competent and critical pointing to phenomena that generate the economic crisis, as well as to possible ways of overcoming it through innovative entrepreneurial and integrational processes in which knowledge and business skills acquired in education and scientific work represent the main leverages of development and most profitable investments.

Globally speaking, the world is the in state of constant changes, and education and development of entrepreneurship are the key factors of these changes. For the developed world, economy today represents a conglomerate of two inseparable activities:

- Development of entrepreneurship that initiates and intensifies a series of factors of organizational culture and economic liberties and
- Knowledge industry that implies all forms of education and acquisition of business skills.

In order to initiate the development of our society towards the educated society and to increase professional mobility, it is necessary to, in addition to formal education, develop abilities for advanced training as a correction of formal education and knowledge obsolescence, which implies the integration into modern world streams.

The papers point out to the need for and ways of development of innovative education mechanisms that imply the transfer of knowledge and skills through new visions of multidisciplinary and transdisciplinary competences. This is primarily because education and development of entrepreneurship, hence employment, increase social inclusion and affect the reduction of regional disproportions through the development of entrepreneurial initiative and economic liberty.

Thematic framework of the collection of works consists of papers on the influence of education on the development of entrepreneurship and entrepreneurial skills which point to the basic expectation that education is a significant factor of entrepreneurial business content, system of value and business culture through an insight into the diversity of entrepreneurial needs and the “scale” of educational

impulses. It is also pointed out to the fact that education through various educational channels influences the developmental effects of entrepreneurship by stating that the economy of knowledge is the main means of reaching the new model of economic and social growth and development.

General conclusion is that the promotion of the education quality of entrepreneurs – promotion of their knowledge, skills and professional mobility is the primary instrument for the socio-economic transformation, promotion of employment, social cohesion and promotion of the quality of living in its totality. By defining appropriate solutions we want to make a contribution to positive changes. This primarily since the necessary changes of reality are faster than the reflex thought and in the same time burdened by the surplus of expectations concerning the conditions of living, working, as well as chances in life.

With the presented papers, we've stepped into the fields in which there are many open, insufficiently explored and in the right way studied issues.

In this moment, there are several questions that are beyond our reach and to which we shall hopefully find answers at the next conference.

Associate Professor Marija Cukanovic-Karavidic, PhD
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Part I

EDUCATION AS A PREREQUISITE FOR THE DEVELOPMENT OF ENTREPRENEURSHIP

IDENTIFICATION OF ENTREPRENEURSHIP TEACHING METHODS IN EDUCATION'SAFFECTIVE DOMAIN THROUGH EDUTAINMENT APPROACH

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Ghanbar Mohammadi Elyasi[3]

ABSTRACT

Considering the undeniable role of education in the development of societies, identifying educational methods is a worthwhile topic. The principal objective of this research is to identify the methods of entrepreneurial teaching in affective learning domain using the "Edutainment" approach. The affective domain is mentioned in Bloom's learning taxonomy (1956) beside cognitive and psycho-motor domains. In this study, which is conducted using a qualitative method, the experiences of 13 of the experts in the field of education and entrepreneurship has been documented through semi-structured interviews and the coding method has been used for analysing the experiences. The results indicate that teachers employ 4 accordant methods with the Edutainment approach for teaching entrepreneurship in the affective learning domain of students which are guest lecturer, educational workshop, role-playing and field trips. Recognizing these entrepreneurial teaching methods can aid both entrepreneurship tutors and educational policy makers in formulation and preparation of entrepreneurship lesson plans and curriculum.

Key words: *Entrepreneurship Education, Edutainment, Affective Learning Domain, Games*

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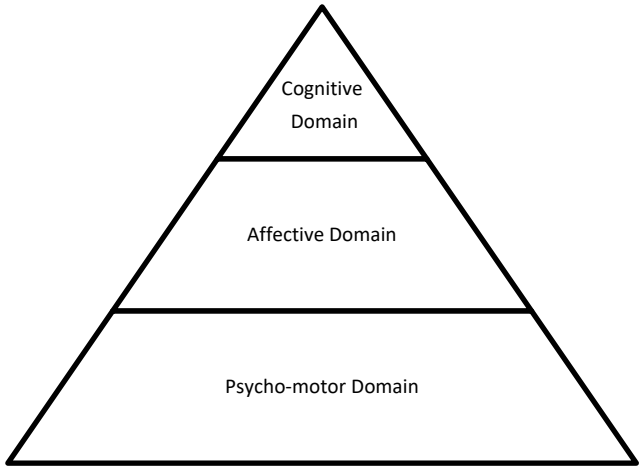
INTRODUCTION

Educational activities have a positive impact on individuals and groups mostly through creating motivation and changing perspectives (Aguinis and Kraiger, 2009). Mashayekh and Bazargan (2007) classify entrepreneurship education approaches into two major groups of inactive and active approaches. The first group is "traditional" or "passive" approaches like ordinary lectures and the second group is "innovative" or "active" approaches which are mostly based on actions. Nowadays different approaches and methods are used for educational purposes (Feng, et.al, 2011). Among them, the "Edutainment" approach using "serious games" is one of the valuable views on Education (Bers and Ueera, 2000; Resnick, 2004; Sakamura, 1999). In addition to this, entrepreneurship education through Edutainment is also very useful from a social point of view (Tasnim and Yahya, 2013). Making use of engaging activities and games in class encourage active learning, interaction and cooperation in class. The students' feedback in class, shows their amount of participation and increases their cooperation with others in order to reach the purpose of educational activities (Korkmaz, 2013).

In the past, teachers and parents had not realized the significance of edutainment; they did not understand how the children's game experiences could turn into a tool for their learning; this approach has become a popular topic of discussion in the recent years (Hussain, et.al, 2003). We should understand its potentials by accepting games as learning tools instead of looking at them as a way to pass time. Mind games are very useful especially for developing countries; since teachers don't have enough time and resources and there might not be the required infrastructures for electronic games (Lennon and Coombs, 2007). These kind of games can be done both inside and outside of the class, with or without the assistance of the teacher. Traditional teaching methods such as class lectures might be effective for teaching courses, however games as educational tools can stimulate students' interest (Keller, 1987).

LITERATURE REVUEW

Although in the past, known classifications for learning domains were introduced and used for years, in 1956, a new version of classification which was known as "Bloom's taxonomy" was set forth. This classification which includes three cognitive, affective and psychomotor learning domains, was presented by Bloom and his colleagues in 1956 and is observable in the picture 1 below:



Picture 1. Taxonomy of learning domains
Source: Bloom, 1956

By considering the aforementioned classification which indicates the three cognitive, affective and psycho-motor domains, this research is after identification of appropriate methods of entrepreneurship education in the affective learning domain.

AFFECTIVE LEARNING DOMAIN

The classification for the affective learning which was first presented by Bloom and his colleagues in 1956, consists of 5 levels: Perception, when the student is alert and aware and pays attention to the education flow; Reaction, when the student reacts to the education flow or educational content; Valuing, when a student develops a voluntary commitment to the education flow or educational content; Structuring, when the student internalizes their own value systems; and Personality description, when the student acts inside their own value system.

In this field, Anderson and his colleagues believe that the affective learning domain is demonstrated by behaviors which show states of awareness, interest, attention, concern, responsibility, ability to listen and react in communication with others, and the ability to demonstrate characteristics or values that suit the experimental conditions and area of study (Anderson, et.al, 2001).

The affective learning domain is about how learners feel while learning and how their learning experiences get internalized in accordance with their beliefs, perspectives and their future behavior (Miller, 2005). Basically, the affective domain shapes learning via beliefs, interests and incentives of the learners (Krathwohl, et.al., 1964; Smith and Ragan, 1999; Gronlund and Brookhart, 2009).

ENTREPRENEURSHIP EDUCATION AND ITS METHODS

A review on the history of entrepreneurship indicates that a lot of researchers believe that the entrepreneurship process is teachable (Fayole and Gailly, 2008; Kuratko, 2005; Hindle, 2007; Fiet, 2001) and this makes it possible to urge individuals to entrepreneurship. The matter of the "best learning approach" in entrepreneurship education is still under debate (Tasnima and Yahya, 2013). Gibb has stated in 1987 that the learning process in entrepreneurship education is different from other educations and should be done through an approach that is more flexible, active and based on experience. Garavan and O'Cinneide (1994) also believe that active methods of teaching are more suited for nurturing entrepreneurial characteristics than passive methods of teaching. They declare that the low effectiveness of passive methods of teaching will cause the students to not be able to understand the complexities of an entrepreneurial environment.

Whereas active education, using a set of exercises such as roleplaying, simulation, brainstorming, team activities and interactive discussions, uses the lecturing method as an assistant-and not controlling-tool for the education flow (Carayannis, et.al, 2003; Fiet, 2001; Rae, 2004). Before this, in 1984, Sexton and Bowman argued that teaching entrepreneurship should be relatively unstructured and pose problems which require novel solutions under conditions of ambiguity and risk.

In the past, teachers tried to help the learners to keep the lessons in mind by doing exercises, rereading the lessons and so on; while nowadays it is agreed upon that traditional teaching and learning methods arent enough for training entrepreneurs and innovative methods of teaching lead to better learning (Pasawano, 2015). Traditional approaches in entrepreneurship education also ignore the uncertainties and indeterminacies that surround the entrepreneurial process; so a there is a pressing need for promoting innovative methods for advancing and developing entrepreneurial methods of teaching and learning (Higgins, et.al, 2013) Young and Sexton have confirmed these declarations in 1997 by stating that it is almost impossible to teach the experimental and operational skills required for entrepreneurs by using traditional methods.

14 useful methods of entrepreneurship education which are agreed upon by many experts have been identified by examining the research literature in the entrepreneurship field. These methods of teaching include guest lecturer (fiet, 2001; Sherman et.al, 2008), group discussion (Lonappan and Devaraj, 2011), creating a business model (Solomon et.al, 2002), lecture (Solomon et.al, 2002; Bennet, 2006) case study (Solomon et.al, 2002; Bennet, 2006), course project (Shepherd and Douglas, 1997; Fiet, 2001), being coached by an entrepreneur (Fayolle and Gailly, 2008), scientific visits (Kuratko, 2005; Mwasalwiba, 2010), educational workshop (Fiet, 2001), game and competition (Fiet, 2001), simulation (Fayolle and Gailly, 2008; Fiet, 2001), roleplaying (Kuratko, 2005), and stories of entrepreneur experiences (Shepherd and Douglas, 1997).

According to what has been said, edutainment is one of the active educational methods in which the teacher is acting as a facilitator in the educational process (Bennet, 2006; Andreev, et.al, 2014) and organizes activities based on the learners' cooperation and interaction (Johnson, et.al., 1981; Millis and Cottell, 1998; Okan, 2003).

EDUTAINMENT

Specifically, edutainment based on technology has been set forth since the early 90s and combines multimedia elements and games (Jang, et.al, 2006). This new educational approach consists of behaviorism, cognitivism and the socio-cultural theory. Crawford and Haller (1990) believe that games are the most ancient and time-honored vehicle for education throughout the years, they are the original and natural educational technology, and are valuable from an educational point of view. Nowadays, the concept of edutainment is more of a combination of one of the educational methods and entertaining games (Charskey, 2010). Jarvin (2015) believes the focus of this educational approach is on serious games; games which are specifically designed for improving deep learning in Bloom's Taxonomy and are used for creating entertainment and forming new learning approaches (Gentile, et.al, 2014), in favor of education. A kind of "Game Community" can be created using games; game community consists of players who interact with a high frequency around a game, and might develop a particular set of norms and forms of interaction (Egenfeldt-Nielsen, et.al., 2016).

In the modern theories, the word "Edutainment" has been used to refer to a new approach in the education domain (Okan, 2003; Anikina and Yakimenko, 2015). For instance, Okan (2003) stated that "Edutainment, is a hybrid genre that relies less heavily on visual material, on narrative or game-like formats, and on more informal, less didactic styles of address". Andreev and his colleagues (2014) believe that "The education process has turned into an event, active cooperation and a kind of activity for students. Education process should be an event and not only one actor (the teacher), but everyone should cooperate in the environment. This, is Edutainment".

Currently, education is transitioning from the traditional and passive state to a state in which learners engage with lessons more than ever (Neck et.al, 2014) and interact more (Anikina and Yakimenko, 2015). Němec (2008) believes that by using new education methods we can teach the educational content and related activities to the students in different environments such as museums (Baccarin, 2017) and parks and not necessarily the classroom. (Němec, 2008)

Psychologists and philosophers in the effective learning field have stated that satisfaction and entertainment are important factors which lead to enhanced learning (Wiberg, 2005; Taran, 2005; Albert and Mori, 2001; Rigas and Ayad, 2010) and the more the students enjoy the class, the more productive the results and outputs will be. This kind of students can improve their problem solving ability, enhance their creativity, and strengthen their motivation for learning (Chang, et.al, 2010).

Several researches regarding edutainment have been conducted by researchers and experts in these fields which are provided in table 1:

Table 1. Similar researches on edutainment and their key findings

Researcher	Research topic	Findings
Pasawano (2015)	Examining the results of enhanced learning with the edutainment format	Physical attributes of the learning location and also the sound and image quality of the multimedia elements during teaching have an impact on the learning effectivity.
Basaran (2015)	Examining the students' interest in edutainment	For technological education to children, not only content and learning process matters, but also physical environment and the teachers' knowledge have an important role in the future teachers' professional development. Physical environment should be accepted as a part of the teacher's education process.
Jarvin (2015)	Edutainment, games and the future of education in a digital world	Some of the games' features can be defined as structured activities which enhance learning.
Tasnim and Yahya (2013)	Examining the effect of games on entrepreneurship education	Teachers execute learning theories and psychologists on the other hand, execute behavioral and cognitive theories for entrepreneurship education. Still, there is a deep gap between these two perspectives.
Korkmaz (2013)	Examining the possibility of using the edutainment approach to teach foreign languages	Using the edutainment approach is more effective in enhancing the learning of young learners compared to the traditional education.
Hussain et al. (2003)	Providing a conceptualized framework for edutainment	Motivation and psychological needs have a direct impact on the learners learning.

As mentioned, the edutainment approach can be considered as one of the methods of entrepreneurship education (Korkmaz, 2013) in which games (especially serious games), competitions and simulation are used for deep and effective learning (Ulicsak, 2010).

ENTREPRENEURSHIP EDUCATION WITH EDUTAINMENT

Educationalists define a 'game' as any contest (play) among adversaries (players), operating under constraints (rules) for an objective (winning, victory, or pay-off) (Tasnim and Yahya, 2013). Games have been the center of attention for years because of their entertaining manner. The application of simulation and gaming in education, began in the 18th century when war games were widely introduced (Tasnim and Yahya, 2013). In management and business classes, simulation and gaming have been used as a tool for improving decision making and problem solving abilities. Not long after, the first business game with the title "case study method" was produced by the American management association of Harvard University and in the 1970s, the popularity of games as an educational tool spread to science and technology courses (Ellington, et.al, 2006). In a very short time, simulation and other kinds of games were used in education in all levels, from nurseries to schools to universities. In the past 40 years we have witnessed an impressive development in the field of simulation and gaming, both in the variety and affluence in game types and of the scale of its users and applications (Crookall, 2010). Simulations seem to be the favorite of educational games where it is defined as a "game in which participants are provided with a simulated environment in which to play" (Cruickshank & Telfer, 2001).

Based on the experts' opinion, which is that the entrepreneurship process is teachable, there is a possibility of exploiting new educational approaches in this professional area in order to enhance the affective learning of learners. Also as mentioned, one of the new educational approaches which is used in entrepreneurship related education is edutainment that studying it and its implementation will vary in each country due to cultural differences in countries. Therefore the question of this research is "What are the methods of entrepreneurship education in the affective learning domain with the edutainment approach in Kardanesh all-girl schools of Tehran?". As Kardanesh schools are the only schools currently teaching a modular entrepreneurship course along with a book, the Kardanesh all-girls school of Tehran are the statistical population of this study. In order to answer the research question, the related studies were examined and after that, attempts to identify and analyze the essential data suiting the research objective have been made.

METHODOLOGY

This is an applied research and has a qualitative-narrative approach. This research method is used when the researcher wants to represent the gained experiences of an individual in a specific area and use them for creating meaning (Creswell, 2002). Studying the methods of entrepreneurship education in the

affective learning domain, is a retrospective topic which is identifiable by writing and constructing meaning to designed narrations; for this purpose, the semi structured interview tool based on the interview protocol has been used and its questions have been designed considering the research literature with a combination of the conceptual frameworks provided by Hussain, et.al (2003) and Korkmaz (2013).

Experts in the education and entrepreneurship field throughout the city of Tehran in Kardanesh all-girls school in secondary school make up the statistical population of this study which have been designated based on these criterions: "Having operational experience in the educational domain (at least 4 years)" or "Having taught the principles of entrepreneurship (at least for 2 semesters)" and their interview has been conducted during September and November of 2015. Furthermore, the identification of the statistical population and granting access to it has been done by the Ministry of Education. In this study, 13 experts in the education and entrepreneurship field have been chosen as sample. The sample size was not definite at first and the snowball sampling process continued until theoretical saturation was reached. This means that the interview gets carried out until no new findings and conceptual insights are generated and all of them are recurrent. Theoretical saturation was reached at sample number 10, however, interviews were carried out until sample number 13 to be sure.

To ensure the questions' validity, two methods of editing them by experts and after that, revision of questions by three pre-interview in pre-test step, and to ensure the questions' reliability, two methods of internal checking and external checking have been used. In internal checking, after the interview and coding, the interviewee is asked to review the interview text with the extracted codes and determine whether the interviewer's interpretation was right or wrong. Considering the limited assistance of the experts in the education and entrepreneurship field in the research, this has been done for 9 interviews. In external checking, experts- other than the interviewees- are asked to oversee the coding method and determine the accuracy or inaccuracy of the interview analysis. For this, the opinions of two experienced professors and two experts in qualitative analysis have been used to evaluate the coding quality of all the interviews. The logical accordance of several evaluators' judgement about how they view a phenomenon or how they interpret the responses, is a reliability check.

This kind of reliability (between the evaluators) is suitable when the data gathered through observation, narration or irregular interviews are interpreted concretely. When the reliability between evaluators is high, the resulted item is more reliable. So through these evaluations, a type of reliability known as "reliability between evaluators" (Alvani and DanaeiFard, 2004) was formed. In the end, the open coding method by Strauss and Corbin (1990) and categorization for analyzing the data has been used which was conducted in three steps of narration, basic conceptualization and categorization.

FINDINGS

Examining the properties of the research sample indicated that all of them are women and entrepreneurship teachers have the highest frequency among them, 54 percent. Analyzing data based on coding is proposed as follows:

- **Narration identification stage**: For data analysis, the full interview text was implemented from the audio files and the evidence was extracted from the interview texts thereafter. A sample of this stage is in table 2:

Table 2. Part of the narrations (sample interview No.1)

Narrations	Basic concepts
When we arrange visits for the students, we take them to see sights which are related to their major, they're related to entrepreneurship. These work. They get motivated and get prepared to study.	Using recreational field trips to motivate the students
I tell everyone to introduce an entrepreneur if they know one, we can invite him/her to class and use their experience. Sometimes when I invite an entrepreneur, I see they get attracted to the same job. It gives them a self-confidence boost and they feel like they can be like them.	Inviting an entrepreneur

- **Basic conceptualization**: Basic conceptualization was carried out based on the identification and classification of existent messages in narrations. Based on analysis of the data gathered from the interviews, 30 cases of narrations and 30 basic concepts have been extracted from the 13 interviews of this research as shown in table 3:

Table 1. Basic conceptualization of the interviews

Sample	Basic concepts
1	1.Motivating in order to create entrepreneurial intention 2.Teaching ways for reaching financial security 3. Encouraging students to participate in entrepreneurship related events 4. Encouraging students to make money by selling their products
	5. Inviting a businessperson to the class
2	6. Supporting the students' products
	7. Motivating students with recreational field trips
	8. Running the class as a workshop
3	9. Motivating in order to create entrepreneurial spirit
4	10. Encouraging students to visit related exhibitions 11. Assigning marks to the students' money-making in school market

Sample	Basic concepts
	days
5	12. Motivating in order to create entrepreneurial intention 13. Encouraging students to participate in entrepreneurship related events 14. Using educational field trips as a way to create enthusiasm for learning
6	15. Motivating in order to create entrepreneurial action 16. Conducting a several-day workshop for teaching a lesson.
7	17. Encouraging students to make money from selling their products 18. Using recreational field trips to engage the students
8	19. Inviting an experienced person in industry 20. Conducting educational workshops
9	21. Encouraging students to make money 22. Supporting the students' products
10	23. Motivating in order to create entrepreneurial intention 24. Encouraging students to participate in entrepreneurship related events
11	25. Using recreational field trips as a way to create interest in the students
12	26. Encouraging students to participate in school market days 27. Running the class as a workshop
13	28. Encouraging students to participate in entrepreneurship related events 29. Inviting entrepreneurs 30. Holding classes in various educational locations

- **Categorization stage:** The process of the classification of concepts which seem like they have the same meanings and appear to pertain to a similar phenomenon is called categorization (Strauss and Corbin, 1990). In table 4, the known categorizations of this research have been written:

Table 2. Identified categories and their classification

Categories	Basic Concepts
Educational workshop	8, 16, 20, 27, 30
Invited lecturer	5, 19, 29
Role-playing	1, 2, 3, 4, 6, 9, 10, 11, 12, 13, 15, 17, 21, 22, 23, 24, 26, 28
Scientific visit	7, 14, 18, 25

As seen in table 4, analyzing the data gathered from the interviews indicates that methods of entrepreneurship education in the affective learning domain with the edutainment approach generally fits in four major categories. In other words, the categories of this research are "Inviting a guest lecturer", "Scientific visit", "role-playing" and "running the class as an educational workshop" methods of teaching.

DISCUSSION AND CONCLUSION

The objective of this research is the identification of methods of entrepreneurship education in the affective learning domain with the "Edutainment" approach. For this, first by reviewing the research history and then interviewing the statistical sample, four educational methods were identified; methods which focus on the affective learning level and also possess elements of the "Edutainment" approach.

Although exploiting recreations and entertainment in the education field has been proposed from a long time ago (Taran, 2005; Albert and Mori, 2001; Rigas and Ayad, 2010) but the combination of "Edutainment" and "entrepreneurship education" or in other words reviewing the application of this approach in "educating entrepreneurs" is a missing link in entrepreneurship education studies; actually in spite of lots of studies in this field, not much attention has been paid to the role of games and similar entertaining methods in entrepreneurship education (Dilts and Fowler, 1999).

Using the "guest lecturer" educational method is one of the identified methods in this research which has been referred to in several studies of researchers such as Gartner and Vesper (1994), Sherman et.al (2008) and Lautenschlager and Haase (2010). This educational technique can lead to entrepreneurial intention development by affecting personal desirability, self-belief and collective belief (Arasti et.al, 2012). Based on the research results, teachers who invited entrepreneurs to share their experiences, believed that this teaching method helps the students apprehend entrepreneurship better and gives them the required motivation to start their own entrepreneurial business. "Visits and field trips" is also another method for entrepreneurship education which has been referred to in the studies of researchers such as Fiet (2001) and Kuratko (2005). The experts studied in this research also stated that field trips lead to an improvement in the students' motivation and their liveliness and increase their readiness so that they can better understand the lessons.

"Roleplaying" is also an entrepreneurship education method referred to in studies of researches such as Kuratko (2005). Based on the research results, the experts in the education and entrepreneurship field argued that using roleplaying exercises motivate the students to learn entrepreneurial content more. "Teaching in the class with workshops" is another identified method that has been stated as an appropriate method for entrepreneurship education by researchers such as Fiet (2001). According to the experts studied in this research, using this educational method improves the students' social skills and facilitates their interactions among themselves and with their teacher.

RECOMMENDATIONS

Based on the research results, these recommendations are provided:

1. Inviting entrepreneurs and business owners to schools and using online meetings and Q/A sessions in order for the students to get more familiarized with the individual and social procedures of entrepreneurship;
2. Conducting entrepreneurship education workshops using interactive methods such as brainstorming, critical thinking and exploratory learning;
3. Facilitation of holding entrepreneurial events and exhibitions by the school and encouraging students to attend related conferences and seminars;
4. Going on purposeful scientific visits;
5. And teaching in locations other than the classroom, such as museums, environmental learning parks, factories, industrial towns, incubators and entrepreneurship centers.

In the section that follows, recommendations deemed appropriate for future research is provided:

1. Identifying the methods of entrepreneurship education in the cognitive learning domain with the “Edutainment” approach,
2. Identifying the methods of entrepreneurship education in the psycho-motor learning domain with the “Edutainment” approach,
3. And using quantitative methods to prioritize methods of entrepreneurship education.

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KNOWLEDGE MANAGEMENT AND YOUTH CAREER DEVELOPMENT

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ABSTRACT

This research presents the readiness of young people to improve and adapt according to the needs of the labor market. Also analyzed is the readiness of young people to take responsibility in defining the direction of personal career development. The research, which included 412 students on the territory of Vojvodina, had the aim to analyze and understand the personnel potential of the area as a potential driver of the economic development of that region. The data obtained by the research indicate that a relatively small number of students are working or further training by attending specific management skills training courses. Also, they were more oriented towards the state sector, as well as postponing problem solving for later. Students also had problems with stressful situations in which they often found themselves. A positive aspect of the results is the fact that the students confirmed their readiness to face risks and challenges, as well as having the willingness to reorient to some trades that could provide an existence.

Key words: *Management, Knowledge, Career, Young People, Students*

JEL Classification: *J24*

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INTRODUCTION

Knowledge management is a complex system that implies the planning and implementation of the education process in accordance with the specifics of the environment and the needs of the labor market. Each individual must take responsibility for the development of his/her skills and knowledge, aimed at acquiring competency adequacy and market attractiveness. In fact, economic circumstances are a variable category that significantly affects each individual. Global change requires the willingness of institutions and individuals to accept the inevitability of flexibility and adaptation.

Managers are today confronted with an environment in which there are constant changes in circumstances, needs, opportunities. Many previous approaches to troubleshooting and planning cannot be applied in these altered circumstances. The principles and approaches that were planned for a world that was more stable and predictable can no longer be applied (Robbins, 2005, p. 41).

For the success of a modern organization, it is necessary to encourage learning and dissemination of knowledge among employees. The exchange of acquired knowledge is a prerequisite for improving individuals and the entire organization. In this way, employees are provided, those who make quality strategic decisions and strive to maintain a competitive edge in the global environment (Coulter, 2010, p. 66).

THEORETICAL DISCUSSION

Knowledge management can be defined as a process of planning, organizing, motivating and controlling people in order to ensure the maximum use of knowledge and achievement of results. It represents a set of relatively new organizational activities aimed at improving knowledge, knowledge-based practices, organizational behavior and decision-making. Knowledge management as a process focuses on the creation of knowledge, its processing, storage, transmission, sharing and use. The process includes: innovation, individual learning, collective learning and decision-making cooperation (King, 2008). In fact, without creativity there is no innovation. Innovation is the ultimate product and it improves the performance of business organizations through efficiency, productivity, competitive advantage, market share, etc. (Yekini, 2011, p. 202) Markets are variable and require constant adjustment and also, they are becoming increasingly dependent on the needs of consumers. In addition, we see trends such as flexibility, deregulation, professionalization, specialization and increased mobility on the employment market. The developed economies of Western countries are transformed into a knowledge economy in which technological development and knowledge development complement each other. There is an accelerated pace of development within the framework of such things as information and communication technology, networks, international competition

and knowledge and services, playing a dominant role (R. P. Beijerse, 2000). Independent development is the kind of responsible behavior of individuals directed towards themselves and society. Self-analysis and defining personal strengths and weaknesses are the first step towards a realistic assessment of personal abilities and knowledge. In self-development, emphasis is put on the personal responsibility of the individual in the direction of planning and implementing the development plan. When individuals are consciously working on their own development, they consciously use the learning cycle and provide an excellent starting point for their superiors' support (Torrington, 2004, p. 433). In addition to personal knowledge and independent acquisition of knowledge, the knowledge transfer process is very important. Knowledge transfer is an important process in knowledge management. Transmission occurs at different levels: the transfer of knowledge among individuals, individuals to explicit sources, from individual groups, groups, groups, and from group to organization (Alavi, 2001, p. 119). Furthermore, organizations have encountered an intense need for resource-based knowledge and they started the process of learning how to manage this new resource. Managers have met with a new type of management that was not related to a particular thing or being, but rather, a new type of resource - knowledge (Ruggles, 1998, p. 1). Knowledge management is a social and organizational process, and it does not only apply to data management. One of the principles of facilitating the process of knowledge creation is the process of encouraging the management of knowledge dispersion in an organization through improving communication (Alrawi, 2011, p. 194). In fact, this research found that the sharing and distribution of knowledge of employees in order to improve their skills is one of the main reasons for the process of integrating knowledge management into organization through people and technology.

THE SUBJECT, AIM AND TASKS OF RESEARCH

The subject of the research was the analysis of student readiness to actively manage their knowledge and careers. The readiness of the respondents to improve, change their profession, or start their own business was analyzed. The aim of the survey was to analyze the potential of individuals in terms of knowledge management and personal careers. Within these goals, individual tasks as guidelines were defined in methodological terms.

Research tasks:

- To create a motivation questionnaire,
- To carry out a survey in the educational institutions,
- To statistically process data obtained by the questionnaire,
- To analyze the statistically obtained information,
- To bring conclusions.

Independent variables: age, gender, year of study, scientific area.

Dependent variables:

- Improving knowledge and skills
- Risk and challenges inclination
- Delays in problem solving
- Orientation towards state instead of private sector
- Reorientation towards trades

RESEARCH HYPOTHESES

H1 – There is a significant statistical difference between respondents of different ages in regards to dependent variables.

H2 – There is no significant statistical difference between respondents of different study years in regards to the tested dependent variables.

H3 – There is no significant statistical difference between the respondents of a different gender in regards to dependent variables.

H4 – There is no significant statistical difference between the respondents who are studying natural sciences in regards to those studying social sciences.

METHODOLOGY

This research represents an empirical research of a transferable character. The data were collected by the survey technique, using a questionnaire. The research was conducted on the territory of Vojvodina in the period from April 15, 2017 until May 20, 2017 and included 412 respondents (students).

Before completing the questionnaire, the respondents were thoroughly acquainted with the nature of the research and all the details needed to properly answer the questionnaire. During the research, there were no irregularities that could affect the reliability of the data and the quality of the research. To that extent, the simplified procedure, introductory remarks and instructions contributed greatly. The data obtained by the research was subjected to statistical analysis (descriptive and comparative), in order to make adequate conclusions based on assumptions expressed in terms of hypotheses. For processing data, Intel processor with Windows XP operating system was used. Data obtained by surveying were processed by the statistical data processing program SPSS0.10.

The following statistical procedures were applied to the data gathered by the questionnaire procedure:

- Descriptive analysis, for determining the presence of studied phenomena in the sample of respondents;
- t – test, for determining the significance of differences between the arithmetic mean of two-category variables; ;
- The Univariate Analysis of Variances (ANOVA) for determining the existence of statistically significant differences between the arithmetic mean of the categories in multi-categorical variables.

The tables presented only the results of those variables which have a statistical significance on the level of 95% (Sig.≤ 0.05).

RESEARCH RESULTS

The results of the research, as well as their explanation and discussion, are shown in the order that corresponds to that of the independent variables from the questionnaire: first, the results of descriptive statistics, and then the results of comparative statistics.

Table 1. Frequency

Did you attend a management skills training course?		Frequency	Percent	Mean	Median
Valid	YES	165	40.0	1.6934	2.0000
	NO	247	60.0		
	Total	412	100.0		

In Table 1 it can be noticed that a smaller number of respondents attended management skills training courses (40%), which points to insufficient student ambition in terms of acquiring a certain position in regards to market attractiveness.

Table 2. Frequency

I perform well under stress		Frequency	Percent	Mean	Median
Valid	DA	170	41.2	1.5211	2.0000
	NE	242	58.78		
	Total	412	100.0		

Table 2 indicates that students have a great problem with stressful situations (58.78%).

Table 3. Frequency

Risk and challenge inclined		Frequency	Percent	Mean	Median
Valid	YES	318	77.2	1.2282	1.0000
	NO	94	22.8		
	Total	412	100.0		

The results in Table 3 point to an inclination towards risk and challenges of the tested students, which was reflected in 77.2%.

Table 4. Frequency

I postpone solving problems		Frequency	Percent	Mean	Median
Valid	PT	151	36.7	1.6408	2.0000
	UT	260	63.1		
	PN	1	0.2		
	Total	412	100.0		

The results in Table 4 are interesting. They point to a negative habit of students to delay solving problems for later (PT 36.7% and UT 63.1%).

Table 5. Frequency

Rather state than private sector		Frequency	Percent	Mean	Median
Valid	YES	231	56.1	1.4393	1.0000
	NO	181	43.9		
	Total	412	100.0		

The respondents showed a growing interest in the state sector in relation to the private sector. In fact, as many as 56.1% of the respondents preferred to be part of the state sector.

Table 6. Frequency

Reorientation towards trades		Frequency	Percent	Mean	Median
Valid	YES	245	59.5	1.4053	1.0000
	NO	167	40.5		
	Total	412	100.0		

Table 6 presents the frequency of respondents in terms of their willingness to reorient toward trades. The results in Table 6 indicate a higher percentage of respondents (59.5%) who would accept some of the programs of reorientation toward trades, although their primary education has no contact points with the trades as such.

COMPARATIVE STATISTICS

The application of comparative statistics examined the difference between respondent subgroups in terms of dependent variables that describe the willingness of the respondents to improve and take responsibility for their careers.

For age and seniority, which belong to the category of multi-category variables, the ANOVA variance analysis was used in order to determine the significance of differences between subgroups of respondents in terms of dependent variables (Table 7).

Table 7. ANOVA – Age

Age		Sum of Squares	df	Mean Square	F	Sig.
Did you attend a management skills training course?	Between Groups	4.714	3	1.571	6.806	0.000
	Within Groups	94.206	408	0.231		
	Total	98.920	411			
I perform well under stress	Between Groups	1.329	3	0.443	2.809	0.039
	Within Groups	64.351	408	0.158		
	Total	65.680	411			

The ANOVA results (Table 7) indicate the existence of a statistically significant difference between students of different ages in terms of two dependent variables: "Did you attend a management skills training course?" and "I perform well under stress." For a more precise definition of the mentioned difference, a Kruskal-Wallis test was used (Table 8).

Table 8. Kruskal–Wallis test (Age)

Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.
Did you attend a management skills training course?	<20	21-25	0.05589	0.05270	0.290
		26-30	0.28414*	0.08276	0.001
		>30	0.30806*	0.08987	0.001
	21-25	<20	-0.05589	0.05270	0.290
		26-30	0.22825*	0.08165	0.005
		>30	0.25217*	0.08885	0.005
I perform well under stress	>30	<20	0.12491	0.07428	0.093
		21-25	0.16308*	0.07343	0.027
		26-30	0.24983*	0.09041	0.006

The results in Table 8 indicate that there is a statistically significant difference between respondents <20 years and respondents 26-30 and >30 years. There is also a statistically significant difference between subgroups 21-25 and subgroups 26-30 and >30 years. These results relate to the dependent variable "Did you attend a management skills training course?" Regarding the other dependent variable for which the ANOVA test observed the existence of a statistically significant difference ("I perform well under stress"), it can be noted that the difference was observed between the subgroup >30 and subgroups 21-25 and 26-30 years of age.

Table 9. Mean

Did you attend a management skills training course?	Mean
<20 years of age	1.5322
21-25 years of age.	1.5849
26-30 years of age	1.8163
>30 years of age	1.8402

Table 10. Mean

I perform well under stress	Mean
<20 years of age	1.5116
21-25 years of age	1.5497
26-30 years of age	1.6365
>30 years of age	1,3867

Based on the values of the arithmetic means in Table 9, it can be concluded that students aged 25-26 and >30 to a statistically significant extent attended management skills training courses in relation to students aged <20 and 21-25. Table 10 shows that students aged >30 and <20 have a statistically significantly better tolerance for stressful situations than students aged 21-25 and 26-30.

Table 11. ANOVA – Years of study

Years of study		Sum of Squares	df	Mean Square	F	Sig.
Did you attend a management skills training course?	Between Groups	4.499	4	1.125	4.848	**0.001**
	Within Groups	94.421	407	0.232		
	Total	98.920	411			

By analyzing the variance of ANOVA, it was found that there was a statistically significant difference in the number of respondents in different study years in terms of the dependent variable ("Did you attend a management skills

training course?"). For the purposes of a more precise definition of the differences, the Kruskal-Wallis test was applied.

Table 12. Kruskal–Wallis test; Years of study ("Did you attend a management skills training course?*")*

(I) Year of study	(J) Year of study	Mean Difference (I-J)	Std. Error	Sig.
I	II	-0.08151	0.06630	0.220
	III	0.02296	0.06821	0.737
	IV	0.19210*	0.07044	0.007
	APS	0.23112*	0.08688	0.008
II	I	0.08151	0.06630	0.220
	III	0.10447	0.07647	0.173
	IV	0.27362*	0.07847	0.001
	APS	0.31264*	0.09351	0.001
III	I	-0.02296	0.06821	0.737
	II	-0.10447	0.07647	0.173
	IV	0.16915*	0.08009	0.035
	APS	0.20816*	0.09487	0.029
IV	I	-0.19210*	0.07044	0.007
	II	-0.27362*	0.07847	0.001
	III	-0.16915*	0.08009	0.035
	APS	0.03902	0.09649	0.686
APS	I	-0.23112*	0.08688	0.008
	II	-0.31264*	0.09351	0.001
	III	-0.20816*	0.09487	0.029
	IV	-0.03902	0.09649	0.686

The results in Table12 indicate that there is a statistically significant difference between the respondents of the 4th year of study and respondents of the 1st, 2nd, 3rd and 4th years, as well as a difference between the final years and the students of the first three years in regards to the dependent variable "Did you attend a management skills training course?"

Table 13. Mean

Did you attend a management skills training course?	Mean
I	1.5015
II	1.5832
III	1.4785
IV	1.3004
APS	1.2704

Based on the values of the arithmetic meanings shown in Table 13, it can be concluded that students of the 4th and final year of study have statistically significantly more frequently attended management skills training courses in relation to students of the lower years of study.

For gender as a two-category variable, a T-test was used to determine the significance of the differences between the subjects of both genders in terms of the six dependent variables listed in the table (Table 14).

Table 14. T-test (Gender)

Independent Samples Test POL	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	T	df	Sig. (2-tailed)
Did you attend a management skills training course?	4.115	0.043	-1.073 -1.070	410 388.241	0.284 0.285
Risk and challenge inclined	14.933	0.000	-1.888 -1.914	410 406.755	0.060 0.056
I perform well under stress	5.481	0.020	1.431 1.428	410 389.047	0.153 0.154
Rather state than private sector	6.988	0.009	1.405 1.400	410 386.124	0.161 0.162
Reorientation toward trades	11.837	0.001	-1.621 -1.641	410 306.149	0.106 0.102
Satisfied with knowledge and skills	15.064	0.000	-1.895 -1.925	410 408.130	0.059 0.055

Based on the values of the T-test results presented in Table 14, it can be concluded that there is a statistically significant difference between students of both genders in terms of all dependent variables examined.

Table 15. Mean (Gender)

Mean	Gender	N	Mean	Std. Deviation	Std. Error Mean
Did you attend a management skills training course?	M	184	1.5707	0.49633	0.03659
	F	228	1.6228	0.48575	0.03217
Risk and challenge inclined	M	184	1.1848	0.38918	0.02869
	F	228	1.2632	0.44132	0.02923
Rather state than private sector	M	184	1.4783	0.50089	0.03693
	F	228	1.4079	0.49252	0.03262
Reorientation towards trades	M	184	1.3913	0.48937	0.03608
	F	228	1.4167	0.49409	0.03272
Satisfied with knowledge and skills	M	184	1.4185	0.49466	0.03647
	F	228	1.3509	0.47829	0.03168
I perform well under stress	M	184	1.1576	0.36537	0.02694
	F	228	1.2325	0.42333	0.02804
I postpone solving problems	M	184	1.6141	0.48813	0.03599
	F	228	1.6491	0.47829	0.03168

The following can be concluded by comparing the arithmetic means:

- Male students attended management skills training courses in a statistically more significant number (M=1.5707) in comparison to female students (M=1.6228);
- Male students are more inclined towards risk and challenges (Mm=1.1848/Mf=1.2632);
- Female students express statistically more significant interest for working in the state sector than in the private sector than male students (Mf=1.4079/Mm=1.4783);
- Male students were readier for reorientation to some trade in comparison to female students (Mm=1.3913 / Mf=1.4167);
- Female students expressed greater satisfaction with their personal knowledge and skills in comparison with male students (Mf=1.3509/Mm=1.4185);
- Male students perform better under stress than female students (Mm=1.1576/Mf=1.2325);
- Make students more often postpone problem solving than female students (Mm=1.6141/Mf=1.6491).

By comparing the arithmetic meanings, the following conclusions can be stated:

- Male students in a statistically significant number attended management skills training courses (M=1.5707) compared to female students (M=1.6228);
- Male students are more inclined towards risks and challenges (Mm=1.1848/Mf=1.2632);

Female students expressed a statistically significant interest in working in the state sector rather than in private compared to male students (Mf=1.4079/Mm=1.4783);

- Male students are more willing to reorient to trades than female students (Mm=1.3913/MJ=1.4167); Female students expressed greater satisfaction with their personal knowledge and skills than male students (Mf=1.3509/Mm=1.4185);
- Male students handle stressful situations better compared to female students (Mm=1.1576/Mf=1.2325);
- Male students postpone solving problems in relation to female students (Mm=1.6141/Mf=1.6491).

Table 16. T-test (University – type of science)

Type of science (Natural/Social studies)	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2 tailed)
Reorientation towards trades	11.837	0.001	-1.621	410	0.106
			-1.641	306.149	0.102
Satisfied with knowledge and skills	5.825	0.016	1.399	410	0.162
			1.387	288.350	0.166

T-test results from Table 16 point to a statistically significant difference between students of natural and social sciences regarding the two dependent variables: "Reorientation toward trades" and "Satisfied with knowledge and skills."

Table 17. Mean (University – type of science)

Mean	University	N	Mean	Std. Deviation	Std. Error Mean
Reorientation toward trades	Social	145	1.3379	0.47464	0.03942
	Natural	267	1.4195	0.49440	0.03026
Satisfied with knowledge and skills	Social	145	1.4414	0.49827	0.04138
	Natural	267	1.3708	0.48392	0.02962

On the basis of arithmetic mean values, it can be stated that students of social sciences (Mean=1.3379) are more willing to reorient toward trades than students of natural sciences (Mean=1.4195). Table 13 also shows that students of natural sciences (Mean=1.3708) are more satisfied with their knowledge and skills of students of social sciences (Mean=1.4414).

RESULTS ANALYSIS

This research has indicated the willingness of the respondents to improve in professional terms, to reorientate, accept responsibility and risk, and the like. The data obtained by the questionnaire were processed by descriptive and comparative statistics. Adequate conclusions were made on the basis of the obtained research data, as well as information on the confirmation or lack thereof of the hypotheses previously set.

The data obtained by descriptive analysis point to the fact that a relatively small number of students are working on additional by attending specific management skills training courses (40%), which indicates an insufficient ambition of students to gain a certain position in terms of market attractiveness. The data also shows that students have a higher percentage of problems with stressful situations (58.78%). On the contrary, there are data indicating that most students are prone to challenges and risk (77.2%). The results presented in Table 4 are interesting. They indicate a negative habit of students; namely, the problems they face are not addressed immediately, but postponed for later (PT 36.7% and UT 63.1%). Also, the respondents showed a growing interest in the state sector in relation to the private sector. In fact, as much as 56.1% of respondents would prefer to work in the state sector. Regarding the reorientation toward trades as a possibility of retraining for the purpose of easier employment, 59.5% of students expressed willingness to step in that direction.

After the descriptive analysis of the data, a comparative analysis was carried out with the aim of a more detailed examination of the investigated phenomena. The results of the variance analysis (Table 7) point to the existence of a statistically significant difference between students of different ages in terms of two dependent variables: “Did you attend a management skills tainting course?” and “I perform well under stress.” Based on the values of the arithmetic means expressed in Table 9, it can be concluded that students aged 25-26 and >30 to a statistically significant extent attended management skills training courses in relation to students aged <20 and 21-25. Table 10 shows that students aged >30 and <20 statistically significantly better tolerate stressful situations than students aged 21-25 and 26-30. Based on the obtained results, the H1 hypothesis cannot be confirmed, i.e., that there is a statistically significant difference between students of different ages in terms of the two dependent variables.

By analyzing the variance of ANOVA, it was found that there was a statistically significant difference in the number of respondents in different years of study in terms of the dependent variable (“Did you attend a management skills training course?”). The results of Table 11 indicate that there is a statistically significant difference between the 4^{th} year students and respondents in the first three years, and the same difference between the final year students and the students of the first three years regarding the dependent variable “Did you attend a management skills training course?” The values of arithmetic means point to the conclusion that students of the 4^{th} year of studies have statistically significantly

attended more management skills courses in relation to students of the lower years of study. Based on the results obtained, the H2 hypothesis cannot be confirmed, i.e., that there is a statistically significant difference between students of different years of study in terms of one dependent variable.

Based on the values of the T-test results presented in Table 13, it can be concluded that there is a statistically significant difference between students of both genders in terms of all dependent variables examined. By comparing the arithmetic means, the following conclusions can be made:

- Male students in a statistically significant greater number attended a management skills training course in relation to female students, were more inclined to challenge and risk, more willing to reorient to some trades, and more often postponed solving problems.
- Female students have expressed a statistically significant interest in working in the state sector rather than in the private one compared to male students, and had greater satisfaction with their personal knowledge and skills.

The confidence of female students is higher in relation to their male counterparts, which points to a greater potential in terms of entrepreneurship and leadership. An entrepreneur must have self-confidence, otherwise there may be a number of potential jobs to ruin. In fact, a business environment cannot sustain entrepreneurs with a lack of confidence (Kastratović, 2015). The results of comparative statistics indicate that female students have expressed a statistically significant greater interest in working in the state sector rather than the private one compared to male students, as well as greater satisfaction with their personal knowledge and skills. Thus, although they are less prone to risk and are more interested in working in the state sector, they are also more confident in their knowledge and skills. That is exactly what points to the potential for personal development and success on the labor market. Their theoretical knowledge and safety regarding their skills are also confirmed by the results of the research carried out on female students regarding their entrepreneurial potential. The results of the survey show a relative knowledge of economic analysis, which represents a significant segment of entrepreneurial business. Results related to entrepreneurial characteristics indicate a high level of self-assessment of respondents (Kastratović, 2017).

T-test results from Table 16 point to a statistically significant difference between students of natural and social sciences regarding the two dependent variables: “Reorientation toward trades” and “Satisfied with knowledge and skills.” On the basis of the value of arithmetic means, it can be concluded that students of social sciences are more willing to reorient toward trades than students of natural sciences. Table 17 also indicates that students of natural sciences are more satisfied with their knowledge and skills from students of social sciences. Based on these data, it can be concluded that the H4 hypothesis was not confirmed, i.e., that there is a statistically significant difference between students of different years of study in terms of one dependent variable.

CONCLUSION

In this research, the readiness of young people to improve and adapt according to the needs of the labor market was analyzed. The readiness of young people to take responsibility in defining the direction of personal career development was also under analysis.

The data obtained by the questionnaire were analyzed using descriptive and comparative statistics. Data derived from descriptive analysis indicate that students remain insufficiently involved in the development of personal development through additional training courses. The increasingly higher demands in terms of specific knowledge and skills for individuals is a challenge for young people, who need to make rational plans for their education and careers. The irresponsibility and lack of interest of individuals in the period reserved for learning and training can represent a huge handicap in the future. Subsequent training is an aggravating circumstance due to the fact that many get married and experience financial problems in the meantime.

Descriptive analysis also points to data showing that students have a higher percentage of problems dealing stressful situations. The study process represents a transition phase from one way of acquiring knowledge to a completely different way of learning. The transition from a high school to a university is stress for many students. Examinations and a significantly higher criterion for passing exams are just some of the factors that cause stress. Going to another city, getting to know new people, financial problems, traveling, life in big cities are just some of the factors that cause stress in the process of learning as a variable that influences success. The obtained data also indicate that most male students are inclined toward challenges and risks. The big problem is the fact that young people look up to individuals from the political and show business milieu, as well as eccentric businessmen who have acquired their capital and fame in a very short period of time. The reason for this phenomenon is the moral decline of the media in our country and the highlighting of bad examples. The inclination toward risk and challenges is a positive feature in the modern economic environment. Thus, the positive examples for young people should be successful young entrepreneurs who have achieved their success thanks to persistence, knowledge, risk, adaptability and self-confidence.

The results that indicate a negative habit of students are interesting: they do not address the problems they face immediately, but postpone them for later. This habit poses a great danger to the development of an individual's career. The lack of readiness to take risks and immediate problem solving is a feature of individuals living under the illusion that time is not money. Respondents also showed a growing interest in the state sector in relation to the private sector. The tradition of the state sector and lifelong employment is an impediment in terms of economic progress and an increase in social standards. The market-unsustainable model in the form of a social enterprise remains a subject of interest for young people in view of the privileges and unrealistic valorization of the effects in that sector. An additional motivating role in student commitment to this sector is also the interest and political practice of human resources security.

The only light in the tunnel is the readiness of students in terms of reorientation to trades as a possibility of retraining for the purpose of easier employment. As much as 59.5% of students expressed the willingness to step in that direction. Starting your own business and retraining for trades that can enable individuals to exist is one of the options for young people in Serbia and other countries in transition. Another possible option is much more popular for individuals, but not for our country, and it refers to the mass exodus of qualified work abroad.

Challenge and risk are a prerequisite for entrepreneurial activity. There is a certain degree of confusion in the results of the survey regarding the tested variables. On the one hand, students are prone to risk and challenges and are ready to face a reorientation toward trades, and on the other hand, they have little tolerance for stress, they prefer to work in the state sector, and delay problem solving. Such confusing responses indicate a major problem in terms of youth drifting. They have no clearly defined goals and carry out poor analyses of market conditions. The cause of such confused answers lies in an insufficiently reformed educational system, a problematic political and economic environment, a bad living standard, disastrous journalistic and media liberalism and other similar negative phenomena.

These investigated phenomena point to the personnel image of our society and potential economic and professional migration of individuals within and outside the state framework. The problem of unemployment, the instability of the labor market, corruption, and the politicization of society are important factors that negatively affect the student population in terms of employment, career definition and family planning.

Based on the obtained research data, it can be concluded that there is a need for intervention of state bodies in the form of the Ministry of Labor and active cooperation with educational institutions in order to overcome the problem of unemployment. Students themselves must take an active part in securing market competence through a plan-based process of further training, reorientation to trades or starting up their own businesses. The Ministry of Youth, Ministry of Labor and Social Policy, as well as reputable domestic and international funds for stimulating entrepreneurship, can play an important role in this context.

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FORMATION OF ENTREPRENEURIAL COMPETENCIES IN THE DIFFERENTS PROGRAMS OF ENTREPRENEURIAL EDUCATION AND TRAINING

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ABSTRACT

The entrepreneurial learning means the learning from different sides, including both obtaining theoretical knowledge about entrepreneurship, and acquiring the practical skills necessary to carry out entrepreneurial activities, which together can positively influence the individual's intentions to become an entrepreneur. The important area of university activity in the development of entrepreneurial skills and entrepreneurial competencies is additional training and retraining of existing entrepreneurs through various programs: both narrowly specialized and broad-based, aimed at informing a wide range of knowledge and information.

By entrepreneurial learning we mean a set of knowledge and skills necessary for entrepreneurial activities that students and trainees in training entrepreneurship receive in the process of studying at the university. The knowledge and skills gained in the process of education and related to entrepreneurship, which are necessary for effective activity in the creation and management of a company, can be described using the competence of learning.

The paper contains the confirmation that the entrepreneurial learning at the university helps create a positive attitude of students and trainees in training entrepreneurship to entrepreneurship, fosters their skills and knowledge of entrepreneurship and, as a result, is positively connected with the intentions to create a new business.

Key words: *Entrepreneurship, Entrepreneurship Education, Theoretical Knowledge, Practical Skills, Entrepreneurial Activities*

JEL Classification: *L26, A20*

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INTRODUCTION

Entrepreneurship plays a very important role in economic development, being one of the sources of economic growth and realizing social goals. Entrepreneurship is the basis of creating new workplaces (Liñán, et al., 2005, pp. 23-27). Entrepreneurial behavior is a committed behavior that can best be explained and predicted with the help of entrepreneurial intentions (Bird, 1988, pp. 442-453; Kolvereid, 1996, pp. 47-57; Schlaegel & Koenig, 2014, pp. 291-332).

At the present time, a sufficiently large number of empirical studies have been devoted to the study of factors that can explain and predict the entrepreneurial intentions of the individual. The part of the research covers the issues of the globalization of education and the application of open learning practices in the training of entrepreneurship (Mingaleva & Mirskih, 2012, pp.1702-1706; Tovar, et al., 2016, pp. 3-18).

The study of the role of entrepreneurship education at the university belongs to the field of research devoted to the analysis of the importance of the external context in the formation of intentions to become an entrepreneur (Bae et al., 2014, pp. 217-254). Attitudes toward entrepreneurship begin to take shape in the student years, and the university environment plays an important role in shaping the students' intentions to start their own business. The university develops students' skills and competences, which, in turn, can contribute to the formation of entrepreneurial intentions and early entrepreneurial activity.

Entrepreneurial learning is a poorly understood area in the literature devoted to entrepreneurship in general and on entrepreneurial intentions in particular. Thus, the study and assessment of the link between entrepreneurial learning and entrepreneurial intentions will help to understand better the process of forming students' intentions to create their own business.

THEORY

In the academic literature there is growing interest in studying the factors of the formation of entrepreneurial intentions of students in the context of the university (Martin, et al., 2013, pp. 221-224). The main part of the research is devoted to the study of the links between entrepreneurial education and entrepreneurial programs with the choice of an entrepreneurial career by students. (Athayde, 2009, pp. 481-500; Fayolle, & Gailly, 2015, pp. 75-93; Fretschner, & Weber, 2013, pp. 410-428).

Previous studies have shown that a favorable business environment at the university helps to form a positive attitude of students and trainees to entrepreneurship in the course of entrepreneurial learning and can inspire them to create a new business (Mavrina, & Mingaleva, 2017a, pp.370-381; Souitaris, et al., 2007, pp. 566-591).

Many studies are devoted to the analysis of the shaping the students' intentions to start their own business (Pfeifer, et al., 2014; Mingaleva et al., 2013, pp. 985-989), the formation of entrepreneurial intentions and entrepreneurial activity (Imaginario, et al., 2016, pp.102-114).

The creation of a new business is a deliberate and planned action that can be explained and predicted with the help of entrepreneurial intentions (Krueger, & Carsrud, 1993, pp. 351-330).

Entrepreneurial intentions are the prerequisites of the actual entrepreneurial behavior of the individual and reflect the extent to which he shows motivation and willingness to exert efforts to implement such behavior (Ajzen, 1991, pp. 1-20). Entrepreneurial intentions direct the attention and actions of the individual to the creation of a new business (Bird, 1988, pp. 442-453).

The results of the available works have shown that entrepreneurial intentions are influenced by a number of individual characteristics and features of the individual, such as his age, sex, area of education and psychological characteristics (Carter et al., 2003, pp. 13-39; Laspita et al., 2012, pp. 414-435; Ilouga, et al., 2014, pp. 717-728).

While in some studies, when using the model of entrepreneurial intent as a theoretical basis, it is shown that the model is widely applicable to understanding the formation of entrepreneurial intentions of students and scholars of entrepreneurship training courses (Azzahra, & Dhewanto, 2015, pp.1858-1862; Brown, & Hanlon, 2016, pp. 399-419).

The theory of planned behavior and the model of an entrepreneurial event are the most frequently used models of entrepreneurial intentions, based on the idea that intentions to take certain actions are formed by the individual's desire and his ability to fulfill them. We use these two theories in our model.

The results of the international project Global University Entrepreneurial Spirit Students' Survey - GUESSS, conducted in 2013-2014, during which 84,453 students from 28 countries were tested, are used in the work (GUESSS, 2017).This project was first launched at the Swiss Institute for Small Business and Entrepreneurship Research of the University of St. Gallen in 2003. The priority area for research in frames of the project is studying the entrepreneurial intentions and entrepreneurial activity of students at the global level. The GUESSS project is aimed at studying student entrepreneurial activity through the prism of the planned behavior theory (Ajzen, 1991, pp. 1-20), 34 countries and 759 universities took part in the survey in 2013-2014. The sample includes 103,010 students, which can be divided into three groups: students without the intention to establish their own business, potential entrepreneurs and active entrepreneurs.

We also used the results of the study, contained in the Global Business Monitoring report (Amoros, & Bosma, 2014), which includes 28 countries from the GUESSS project, as well as data from the Global Entrepreneurship Monitoring (GEM) project report (Singer et al. , 2015).

METHODOLOGY

For the purposes of this study, 4 focus groups a group of potential entrepreneurs was selected, which allows to take into account differences in the level of entrepreneurial intentions between students and entrepreneurs. These are the target groups: undergraduate students, graduate students, potential entrepreneurs and practicing entrepreneurs.

Evaluation of the operationalization of entrepreneurial learning and entrepreneurial intentions of students and trainees in entrepreneurship training courses is based on a subjective evaluation of the usefulness of entrepreneurial training and is measured on the 7-point Likert scale (Linán, & Chen, 2009, pp. 593-617). The choice of the subjective evaluation of education is due to the fact that the perception of university proposals may be more likely to explain entrepreneurial intentions than objective facts, such as the availability of courses or other activities related to entrepreneurship.

In order to assess the effectiveness of operationalization of entrepreneurial learning and the availability of entrepreneurial intentions, students and trainees of on entrepreneurship training courses were offered 2 groups of questions. The list of questions asked by groups is given in Table 1.

Table 1. List of questions for the evaluation of the operationalization of entrepreneurial learning and entrepreneurial intentions

Presence of entrepreneurial intentions	Level of operationalization of learning
I am ready to do anything to be an entrepreneur.	University offers that I visited deepened my understanding of the attitudes, values and motivations of entrepreneurs
My professional goal is to become an entrepreneur.	University offers that I visited have deepened my understanding of the actions that need to be taken to open my own business
I am ready to take all the necessary efforts to start my own business and manage my own firm.	The university offers that I visited
I am determined to create my company in the future	University offers that I visited have developed my ability to tie personal contacts to improve my practical managerial skills necessary to build my business
I have a serious intention to start my own business one day	University offers that I attended improved my ability to identify business opportunities
I'm seriously considering the possibility of starting my business	

Source: Authors, 2017.

The answers included 2 types of "yes" and "no", to which numeric values 1 (for yes) and 0 (for none) were assigned.

The sample included students and trainees of entrepreneurial learning courses enrolled in undergraduate, graduate, MBA and short-term entrepreneurship training courses. 2,746 people were interviewed in total.

MODEL

MODEL OF FORMATION OF ENTREPRENEURIAL COMPETENCIES IN LEVELS AND THE PROGRAM OF EDUCATION AND TRAINING

Entrepreneurial learning is the entire set of knowledge and skills necessary for entrepreneurship, which students receive in the process of studying at the university.

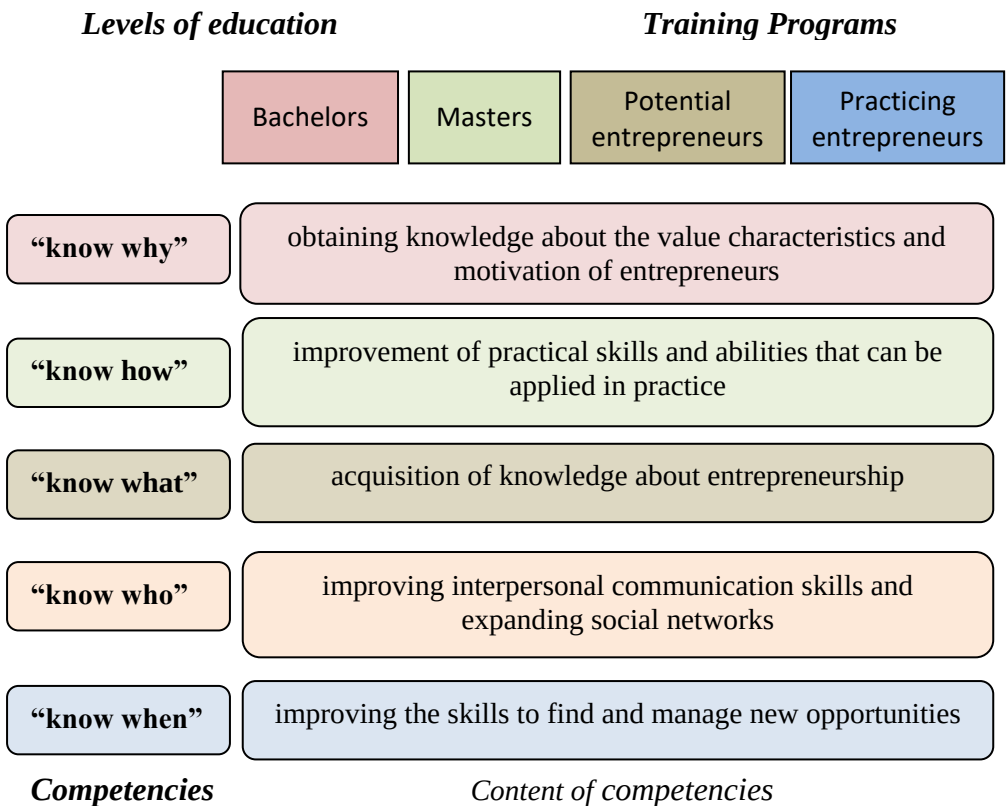
At the same time, entrepreneurial learning is understood in a broad sense and covers various types of university offerings, including training events (courses and seminars on entrepreneurship), extracurricular activities (networking, mentoring programs, business communities, etc.) and financial support from the university to create a new business. These proposals develop entrepreneurial thinking of students and give them practical skills and competencies that can persuade young people to choose an entrepreneurial career (Täks et al., 2014, pp. 573-598).

In addition, entrepreneurship training helps to improve the skills of searching for new market opportunities that serve as an integral characteristic of entrepreneurial behavior. Students and trainees of entrepreneurship training courses that have developed these skills are more likely to find and use new opportunities in the market, and to act innovatively, turning new ideas into concrete entrepreneurial solutions.

Practical skills and knowledge required in entrepreneurial activities can also have an indirect effect on the entrepreneurial intentions of students through improving their self-efficacy and creating a positive attitude towards entrepreneurship.

Entrepreneurial learning at the university helps create a positive attitude of students and trainees in training entrepreneurship to entrepreneurship, fosters their skills and knowledge of entrepreneurship and, as a result, is positively connected with the intentions to create a new business.

We identified five competencies in entrepreneurship training, which were previously defined by the concept of entrepreneurial learning (Johannisson, 1991, pp. 67-82; Souitaris, et al., 2007, pp. 566-591). We analyzed their features in 4 levels of training: undergraduate students, graduate students, MBA students and short-term entrepreneurship training courses. The model is shown in Picture 1.



Picture 1. The model of formation of entrepreneurial competencies in levels and the program of education and training (Source: Authors, 2017).

This model of entrepreneurial learning describes the learning from different sides, including both obtaining theoretical knowledge about entrepreneurship, and acquiring the practical skills necessary to carry out entrepreneurial activities. Particular attention is paid to consideration of entrepreneurial intentions, attitudes towards entrepreneurship, perceived control over behavior and factors affecting future career choice by students.

In addition to individual factors, it is necessary to highlight the important role of the university environment in the formation of intentions of students and scholars of courses on teaching entrepreneurship to become entrepreneurs. In particular, in our earlier works it has been shown that entrepreneurial education and a favorable entrepreneurial climate at the university help to form entrepreneurial thinking and provide knowledge necessary for entrepreneurial activity, which in turn positively affects the entrepreneurial intentions of students and trainees in training courses in entrepreneurship and can improve the performance of their firms.

INSTITUTIONAL INFRASTRUCTURE OF ENTREPRENEURSHIP LEARNING IN RUSSIA

A study of the activity level of the country's universities and specialized organizations in the field of entrepreneurship education was conducted to assess the effectiveness of measures to support entrepreneurship in Russia, to identify the potential of entrepreneurship, including innovative one, the potential of small and medium-sized businesses. Educational institutions belonging to the National Association of Entrepreneurship Training (RAOU) were taken as a base for the study (National Association of Entrepreneurship Training, 2017). The National Association of Entrepreneurship Training is currently the main institutional entity coordinating activities in the field of entrepreneurship education in Russia and engaged in entrepreneurship training, was established in 2008 with the goal of overcoming the formation of the system of entrepreneurial education in Russia.

The main partners of RAOU are the Graduate School of Management of SPbSU, the Faculty of Engineering Business and Management of the Moscow State Technical University named after N.E. Bauman, Innovation Business and Entrepreneurship Laboratory INNOVATIONSTUDIO of the MSU, Department of Entrepreneurship and Commerce of the St. Petersburg State Polytechnic University, Institute of Public Administration and Entrepreneurship of the UrFU, Moscow Financial and Industrial University "Synergy", Center for Entrepreneurship, Regional Social Programs Foundation "Our Future", European Forum for Entrepreneurship Research (EFER), the International Council for Small Businesses (ISCB), the Small Business and the Enterpreneurship Association of the United States of America (USASBE), the Swedish Entrepreneurship Development Program of the Swedish Entrepreneurship Training Fund (SEED). RAOU branches and subdivisions operate in all federal districts of Russia (the main agencies of the National Association of Entrepreneurship Training in the Federal Districts of Russia are reflected in Picture 2).

Picture 2. Partners and units of the National Association of Entrepreneurship Training in Federal Districts of Russia
Source: Baboshin, 2016

The leading center for entrepreneurship education in the Urals Federal District is the Ural Federal University named after the first President of Russia BN Yeltsin (Ural Federal University), primarily its structural subdivision - the Institute of Public Administration and Entrepreneurship (Institute of Public Administration…, 2017).

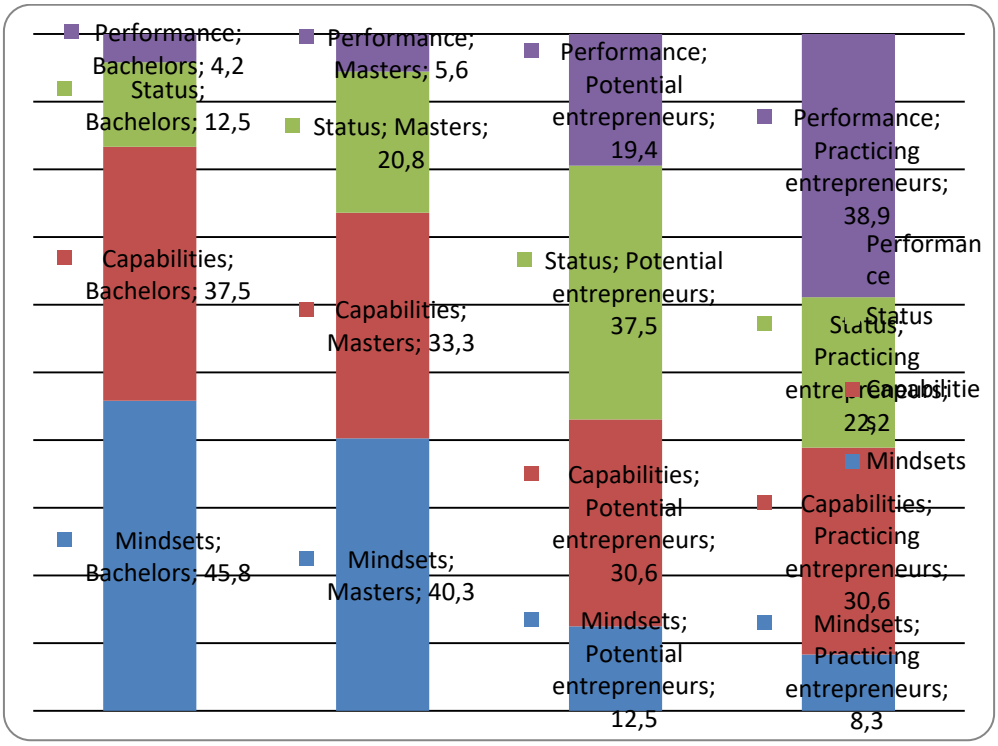
The Institute of Public Administration and Entrepreneurship of the UrFU currently carries out 4 bachelor programs, 7 master's programs, as well as a wide range of management programs within the framework of the Center for Continuing Professional Education, including professional retraining programs, trainings and seminars for businessmen and entrepreneurs (more than thirty in quantity). An important feature of entrepreneurial training conducted on the basis of the UrFU is the special emphasis that is being placed on the formation of competences.

In accordance with the model of the formation of different competencies and skills for different groups of entrepreneurs in different forms of training, developed in the framework of World Bank studies and published in 2014 (Valerio, et al.,. 2014), we assessed the correlation of competences formed with various entrepreneurship training programs in the UrFU.

As a result, the following data were obtained.

RESEARCH

The results of research have shown that education and training on different programs forms different entrepreneurial competences (see *Picture 3*, compiled by the authors on the basis of the analysis of the competencies of entrepreneurship training programs in UrFU).



Picture 3. The main entrepreneurial competencies, formed in the framework of training bachelors masters, in the framework of vocational training and ongoing training of existing entrepreneurs
Source: Authors, 2017.

As can be seen in Picture 3, the ratio of the main objectives of entrepreneurship training and core competencies within the framework of different training programs varies significantly. Even greater changes are observed in the transition from higher education programs to training and retraining programs for already operating entrepreneurs. In these programs, the formation of entrepreneurial thinking takes less and less place, and more attention is paid to the formation of innovative competencies (the "productivity" factor), as well as to the status.

A list of specific entrepreneurial competencies that are formed on different training and education programs in the URFU present in Table 2.

Table 2. Formation of specific entrepreneurial competencies in different training and education programs

	Higher education students		Training and retraining programs	
	Bachelor's degrees	Master's degrees	Potential entrepreneurs	Practicing entrepreneurs
Mindsets				
Socio-emotional skills	✓			
Entrepreneurial willingness	✓			
Entrepreneurship theory	✓			
Capabilities				
Management skills	✓	✓	✓	✓
Accounting and financial literacy		✓		✓
Marketing and sales		✓		
Strategic planning				✓
Risk assessment		✓		
Vocational skills				
Networking skills	✓		✓	
Status				
Enterprise formation		✓		
Self-employment		✓		✓
Employability			✓	✓
Income and savings				
Network formation	✓			✓
Performance				
Profits and sales		✓	✓	
Job creation				✓
Market expansion		✓		✓
Productivity			✓	✓
Reinvestment				✓
Innovation	✓			✓

Source: Authors, 2017.

The results of research have shown that the personal motivation and confidence of the individuals in their own abilities to create a new business are important factors that determine entrepreneurial behavior. In particular, such characteristic features of the entrepreneur as a motive of achievement and acceptance of risk can be acquired in the process of training, and students' knowledge of entrepreneurial values and motives can create a positive attitude towards self-employment and increase the level of entrepreneurial intentions (Mavrina, & Mingaleva, 2017b, pp.337-346).

In addition to motivating students and trainees of entrepreneurship training courses, the university can help improve their knowledge in the field of entrepreneurship, develop practical skills and competences, and create a favorable atmosphere for the development of entrepreneurial ideas, as well as to provide students with access to the necessary resources for the development of entrepreneurship.

The survey showed that as a result of training and education entrepreneurship in URFU such professional traits and personal qualities of entrepreneurs are formed, which exactly determine the success of the activity - initiative, the ability to operate at their own risk and responsibility, the ability to combine factors of production and coordinate their interaction with the goal of creating new products, new types of services, the desire to implement modern forms of business organization and advanced technologies in the production process, the innovative opportunities for self-employment and others (Clark, 2011; Fayolle, & Gailly, 2015, pp. 125-161; Nieminen, & Hytti, 2016, pp.715-732) . And this, in turn, contributes to the socio-economic development of the region as a whole, to the growth of employment and self-employment of the population, to the growth of the well-being and quality of life.

The skills of interpersonal communication and the ability to expand social connections that serve as sources for acquiring new knowledge and resources are another important competency of the entrepreneur that can be obtained in the process of studying at the university [Johannisson, 1991]. Therefore, all training and education programs of the UrFU pay great attention to these skills.

The results of research have shown that social connections help entrepreneurs to use more opportunities and to get access to more resources, while their absence is perceived as one of the obstacles to doing business.

CONCLUSION

The results of the panel survey of 2,746 students and trainees of entrepreneurship training courses of the Institute of Public Administration and Entrepreneurship of the Ural Federal University have shown that an individual's assessment of his competencies and his ability to create a new business is positively associated with entrepreneurial intentions.

The availability of such offers for students, such as communication with experts, entrepreneurs and other specialists, competitions in business plans, mentoring and coaching programs, business incubators and business communities, helps the development of entrepreneurial social capital of students, which, in turn, can promote formation of entrepreneurial intentions.

Entrepreneurship education and training in UrFU covers various types of university offerings, including training events (courses and seminars on entrepreneurship), extracurricular activities (networking, mentoring programs, business communities, etc.) and financial support from the university to create a new business. These proposals develop entrepreneurial thinking of students and give them practical skills and competencies that can persuade young people to choose an entrepreneurial career.

Entrepreneurial learning at the university is positively associated with the formation of entrepreneurial intentions of individuals and their intention to continue entrepreneurial activities, even if their first attempts were unsuccessful.

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THE POSITION OF ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION IN FORMAL AND NON-FORMAL EDUCATION IN SERBIA

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ABSTRACT

In this paper, we analysed the position of entrepreneurship and entrepreneurial education in the system of formal, non-formal and informal education in the Republic of Serbia. As far as the system of formal education is concerned, we have examined to what extent and in what way is entrepreneurship represented as a subject in all its levels – from primary schools, through high schools and vocational schools, up to colleges and universities. We also included a review of the initiative and entrepreneurship orientation as one of the eleven general and curricular competencies at primary and secondary educational levels. Within the chapter about non-formal and informal education, we examined whether there are institutions of non-formal education in terms of educational centres that offer courses in the field of entrepreneurship. We paid special attention to the way the employees in education are trained, that is, how they acquire the competencies from the field of entrepreneurship.

Key words: *Entrepreneurship, General and Curricular Competencies, Long-Life Learning Competencies, Teachers' Professional Development*

JEL Classification: *A20, I21, M50*

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INTRODUCTION

Entrepreneurship is not easy to define, it can be determined and considered in different ways – as a process, as a specific behavior, as a personality trait, as a way of thinking, as a new organization, etc (Bjekić, Stojković, Kuzmanović, Rendulić, 2017, pp. 17-30, p 19). Entrepreneurship is primarily practice, that is, practical application of knowledge and skills, with a high level of individual abilities expression (Karavidić, Radović-Marković, Čukanović-Karavidić, 2015, p. 21). The complexity of entrepreneurship phenomenon is reflected in the existence of various forms of influence on its functionality, that is, the launch of a new business and further development of the existing one. Anyway, these factors form the business frame the individuals should adjust to if they wish to do business with profit. Some of the conditions necessary for the start of entrepreneurial activities are as follows:

- The existence of entrepreneurial spirit and initiative
- Personal motivation for their own business
- Personal characteristics of the entrepreneur
- Risk taking at the beginning of entrepreneurial activity and
- The wish for a reward for the effort involved in entrepreneurial activities (Magdinčeva-Šopova, 2011, pp. 591-597, p. 592/93).

The willingness to face the challenges, innovative and creative business based on the visionary view of the future as well as the acceptance of everyday changes, represents the frame for complete entrepreneurial activity definition and observation. Modern conditions of doing business are based on the intensive competition and changes that happen every day determined by numerous factors and their combined influence represent the scope of the complete economic activity of an entrepreneur. Business environment place a number of obstacles and challenges that the subjects constantly face in the market, so knowledge and understanding of the rules is the first step towards starting a business and later successful business management.

Entrepreneurs are a part of the business world, but they cannot be identified with all its participants. The main difference lies in the fact that a large number of people do the job, and the entrepreneur lives it. An entrepreneur and the business venture he starts represent a whole, they are inextricably linked, and as such, they appear in the market standing out from the rest. The boldness that is his characteristics gives him the strength to enter the world of business, deviating from the conventional, established ways of thinking, behavior and work. The creation or application of something that has not existed before, or it has not been used in the specific way, can be observed as strange and unusual, as something that deviates from mediocrity, and entrepreneurship is such a phenomenon, the phenomenon that confirms success as the child of the daring (Voltaire). When most of the business entities accepts *status quo*, the entrepreneurs encourage and open new business and organisational horizons with their ideas, plans and bravery, breaking down the barriers of the economic despair and hopelessness (Karavidić, Radović-Marković,

Čukanović-Karavidić, 2015, p. 33). The observation and analysis of the business environment give the entrepreneur an opportunity to spot the existing changes or the indications of those that may arise in the future as well as the opportunities they carry with them. Some of these opportunities are, of course, more or less likely, but it is important to recognise and take advantage of them because even the less likely ones are often the beginning of great ventures (Demosthenes). An individual should be prepared for them because not even these last forever, so if the individual does not accept the invitation, the opportunity will not wait for a long time and will soon ask for someone else.

It would be simply impossible to determine all characteristics of an entrepreneur because even the entrepreneurs themselves are all different. The feature of the frame that can still be extracted, and it gives a better insight into the problem of the personality analysis and entrepreneurship behavior, contains the following characteristics (Grozdanić, Radojičić, Vesić, 2007, p. 1, 2):

- Initiative and innovation
- Persistence
- Readiness to take risks
- Intelligence
- Opportunity and goal orientation
- Self-confidence and optimism
- Communication
- Motivation
- Flexibility
- Forcefulness
- Morality, etc.

The optimum combination of the above mentioned characteristics is only possible for the individuals who are prepared to be devoted to all the aspects of their business, and they are the most valuable part of a society, the wealth with a potential to increase its worth additionally in time. If we consider this statement from the aspect of education and if we could motivate the students to educate themselves and devote to all its aspects to the maximum, we would be without competition as a society. Because, as the Chinese proverb says (Guanze, around 645 BC), „If you plan ahead for a year, you should plant corn. If you plan ten years in advance, plant the trees. If you plan for a lifetime, teach and educate people."

Entrepreneurs are the people who know what they want and have a vision how to make that come true. These people have much more chance to achieve the goal set, to get the reward they deserve. The most important thing is to know yourself first, your own personality. The strengths and weaknesses are present in all of us, but the thing that distinguishes a true entrepreneur from the rest is the awareness that they are not perfect, yet they are prepared to improve themselves and turn their faults into advantages through constant work. This claim is totally true about other areas of life, e.g. top professional sport, and the most important thing is that we can draw a parallel through current trends in the educational systems of the European countries, Serbia included. With regard to that, in the document "The standards of general

curricular competencies at the end of secondary education“, issued by the Institute for teaching quality evaluation, it is stated that there are a number of factors influencing the national and international educational and public areas, and they define the need for restructuring the educational system by the content, knowledge application and teaching or learning approach change. Some of the most important factors are the following: global orientation towards competencies; new technology, the Internet and media influence on learning, the nature of business and private life of individuals; increasing social mobility and competition in the labour market. The identification of widely defined key competencies and school programme reform according to them has started in 2006 when the European Union adopted the European Reference Framework of Key Competences for Lifelong Learning. Knowledge, skills and attitudes recognised in this document as the key ones from the point of individual development, are also the key to the development of innovation, productivity and competitiveness of each society (The Institute for Teaching Quality Evaluation, 2013, p. 2). There are eight key competences set aside, whereas the competency is defined as a combination of knowledge, skills and attitudes appropriate to the context. The key competencies are those which all individuals need for personal fulfillment and development, active citizenship, social inclusion and employment (European Reference Framework of Key Competences for Lifelong Learning, 2006, p. L 394/13). They are:

1. Communication in the mother tongue;
2. Communication in foreign languages;
3. Mathematical competence and basic competences in science and technology;
4. Digital competence;
5. Learning to learn;
6. Social and civic competencies;
7. Sense of initiative and entrepreneurship;
8. Cultural awareness and expression (Official Journal of the European Union, 2006/962/EC, p L 394/14).

Based on the above mentioned, and according to the specific traits of the educational system in the Republic of Serbia, the Institute for Teaching Quality Evaluation has issued the document called “The standards of general curricular competencies at the end of the secondary education”, where they state the basic outcomes of the educational process as far as the subjects of general education. The following general curricular competencies are pointed out (The Institute for Education Quality and Evaluation, 2013, p. 3):

1. Lifelong learning competencies
2. Communication
3. Data and information work
4. Digital competences
5. Problem solving
6. Cooperation
7. Responsible participation in the democratic society

8. Responsible attitude towards health
9. Responsible attitude towards the environment
10. Aesthetic competencies
11. Enterprise and entrepreneurial orientation

As far as the competency of lifelong learning, which best describes the claims we made about the characteristics necessary for entrepreneurs, the following is stated: personal and professional development of individuals primarily depends on their ability to manage the learning process. The student should be prepared to initiate learning, to choose learning strategies and design the context to learn within, to follow and control the advance during the learning process, to manage the learning according to his intentions and goals. The student can find and assimilate new knowledge and skills, using the previous learning and non-school experience. Aware of the learning process, opportunities and difficulties, he can overcome the difficulties and persist in learning. He applies the knowledge in various situations depending on the characteristics of the situation as well as his own goals (The Institute for Learning Quality Evaluation, 2013, p. 3).

We can come to the conclusion that the system of formal education tends to teach the students to learn, that is, they cannot rely on formal education alone, but should be active in the fields of non-formal and informal education as well in the course of their lives.

Concerning the above mentioned, this paper will analyse: (1) how much and in what way is entrepreneurship and entrepreneurial education represented in the system of formal education – from primary education, through high and vocational schools, up to colleges and universities; (2) whether there are the institutions of non-formal education that offer the courses in the field of entrepreneurship; and (3) the way the teachers are trained, that is, how they acquire the competencies in this area in order to pass them on to the students.

ENTREPRENEURIAL EDUCATION

The task of the process of education is to inform an individual about a number of aspects of observing the world they live in. The entrepreneurial component of its implementation prepares a person to connect the skills and knowledge, and apply them hoping for a business success. Entrepreneurial education is, therefore, a very important and unavoidable part of the complete concept of education.

Despite its promising influence on students and society, it is very important to bear in mind that the field of entrepreneurial education is still in its early stage of development. There is tremendous work remaining if we are to succeed in making effective and efficient entrepreneurial education available to the majority of people in the educational system of the world (Lackéus, 2015, p. 35).

Entrepreneurial skills and abilities offer the basic guidelines for teaching programme framework formulation that can help and encourage more interest of

the young for starting and managing their own business. However, the inclusion of entrepreneurship into the official educational system without systematical understanding of the essence of the term offered could cause a serious problem because entrepreneurship is not a field with precisely defined limits – it is a group of activities, knowledge, skills, behavior and thinking in the first place, so it can certainly not be limited.

Entrepreneurial education implies that the individuals are prepared to learn:

- Any time (which points out the role of the lifelong learning concept, from the cradle to the grave);
- Anywhere (learning observation in a wider sense, not only about school; life is a large classroom);
- But always with a reason (independent of where and when you acquire knowledge, its main characteristics should be a widespread application in all real situations).

In the process of the concept of entrepreneurial education realisation, according to the increasingly common trend of introducing new methods and techniques into teaching practice, there is an important part of mutual cooperation and interaction between:

- Students,
- Families,
- Lecturers,
- Educational institutions,
- Economy and
- The state (relevant institutions of the state) (Garabinovic, Markovic Blagojevic, 2016, pp. 86-109, p. 95).

Three components of entrepreneurial education are:

- **Personal development** – Entrepreneurial education should build confidence, motivate progress, strengthen the entrepreneurial mindset, foster a desire to achieve and inspire action;
- **Business development** – Technical, financial literacy and skills to engage in self-employment, employment and entrepreneurship that can lead to self-improvement. This would include the expected business and functional curricula;
- **Entrepreneurial skills development -** Entrepreneurial education should provide training in social skills, networking, creative problem solving, opportunity seeking, selling, interviewing, presentations, group leadership, community cooperation, dealing with bureaucracy, local cultural norms and how they affect business, etc. (World Economic Forum, 2009, p. 88).

Each type of entrepreneurial learning has its advantages and disadvantages, none can be described as the best. Their combination is a good solution and continuous entrepreneurial education during the whole life is nowadays a necessity if you want to remain in the market. Therefore, entrepreneurial education should

not be mentioned in the context of the young alone, but also the members of older generations with a wish for knowledge and business excellence. The awareness of the importance of both entrepreneurship and education is integrated into this model, it is still necessary that it becomes a generally accepted way of thinking and world view, which is the most difficult task. It needs the cooperation and devotion of all social entities (government institutions, schools and complete social community) (Bjekić, Stojković, Kuzmanović, Rendulić, 2017, pp. 17-30, p. 21) in order that the entrepreneurial initiative should become a part of the general culture of the society.

ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION IN FORMAL EDUCATION

The term formal education is often related to learning in some institution of formal (state) education system. Therefore, we still talk about it as school education. This term unites all forms of schools, from primary to university education, vocational schools included; all which are held by the state or recognized by them, and which comply with the national educational regulations (Loewen, 2011, p. 5).

The basic regulation governing the education in the Republic of Serbia is the Law on the Foundations of the Education System which, among other things, also state within the goals that it is necessary to achieve the development according to personal needs and interests, gaining good quality knowledge, skills and attitudes at the same time, with creativity encouragement, information management and ICT, problem solving, acquired knowledge application, decision making about the future occupation, ability to communicate and work in a team; all of that will help in the future jobs, regardless of whether an individual will start his own business or work in another company (The Law on the Foundations of the Education System, RS Official Gazette no. 72/2009, 52/2011 and 55/2013, article 4).

Apart from teamwork, communication skill and other important abilities necessary for an entrepreneur, the term entrepreneurship is mentioned as one of the key outcomes of the educational process: The system of education must provide all conditions that the children, students and adults achieve general outcomes, that is, to be able to…. (10) start and readily accept the changes, take responsibilities, have entrepreneurial approach and clear orientation towards reaching goals and success achievement (The Law on the Foundations of the Education System, RS Official Gazette no. 72/2009, 52/2011 and 55/2013, article 5).

The Law on Adult Education, article 43, states that the adult education is based on the plans and programmes of the adult education or parts of the appropriate programmes for students that enable adults to acquire key expert competencies and qualifications necessary for personal and professional development, work and employment, as well as for socially responsible behavior, that is, they complement their knowledge, skills, abilities and attitudes (The Law on Adult Education, RS

Official Gazette no. 55/2013, article 43) in 13 different areas, where, of course, entrepreneurship and management are mentioned as number seven.

Entrepreneurship and employment make one of the topic groups within the National Strategy for Youth in the period from 2015 to 2025 (The National Strategy for Youth 2015-2025, RS Official Gazette no. 22/2015). The support to its development is given by the Strategy for Education Development in Serbia until 2020 (the Strategy for Education Development in Serbia until 2020, RS Official Gazette no. 107/2012), the Strategy on Development of Vocational Education in the Republic of Serbia (the Strategy on Development of Vocational Education in the Republic of Serbia, RS Official Gazette no. 1/2007), the Competitive and Innovative SMEs Development Support Strategy from 2015 to 2020 (the Competitive and Innovative SMEs Development Support Strategy from 2015 to 2020, RS Official Gazette no. 35/2015), the Open Method of Coordination (OMC) (http://omk-obrazovanje.gov.rs/), the Standards for general competencies (the Institute for Education Quality and Evaluation, 2013). As we can see, there are more and more regulations that give importance to entrepreneurship as a concept of doing business and one of the basic ways of unemployment decrease in Serbia, but their application in practice is much more important than just the number.

ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION IN PRIMARY EDUCATION

The opportunity for knowledge and skill acquisition that represent the basics of the child personality development, and the gradual preparation for further education and life is provided in primary school. The subjects taught, related to a wide group of fields of learning, create the necessary knowledge and encourage the improvement of skills that will be necessary in the later stages of life. In primary schools, both junior and senior classes, we should encourage creativity and the spirit of research, determination in decision making, but also the readiness to take responsibility.

In the Law on Primary Education, which represents the key law in the area of primary education, entrepreneurship is not mentioned at all. There is a possibility for the professional orientation, where according to article 43, the team for professional orientation carries out the programme for the professional orientation for the seventh and eighth grade students. (The Law on Primary Education, RS Official Gazette no. 55/2013, article 43). There is also a possibility of student cooperatives formation for the development of a positive attitude towards work, professional orientation, connection between teaching and work, as well as the development of the positive attitude towards team work and product sale for additional funds acquisition (The Law on Primary Education, RS Official Gazette no. 55/2013, article 53). However, there are regulations missing on student cooperatives taxation, as well as doing business with the existing real companies (The Team for social inclusion and poverty reduction of the Government of the

Republic of Serbia, 2015, p. 25). In the document about the Educational standards at the end of compulsory education, issued by the Institute for Education Quality and Evaluation in 2009 (The Institute for Education Quality and Evaluation, 2009), the word entrepreneurship is also not mentioned at all.

ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION IN SECONDARY EDUCATION

If we focus on the secondary level of education (vocational schools and gymnasium), as far as the legislation is concerned, the most important act is the Law on Secondary Education, which states, among other things, that the school curriculum should contain programmes and activities for solving problem ability development, communication, team work, self initiative and entrepreneurial spirit encouragement (the Law on Secondary Education, RS Official Gazette no. 55/2013, article 11). In the above mentioned. Law entrepreneurship and the type of education which encourages it is only mentioned directly in that specific article. In the article 15, there is information about the formation of the expert team for career guidance and counseling, with the aim of supporting the students and parents in researching the possibilities for further learning and employment, that is, identification, choice and usage of numerous information about occupations, career, further learning and education, making objective difference and formation of their own attitude about these things. In order to achieve that goal, the school follows the students' development, and informs them about occupations, educational profiles, conditions for studies and the needs of the labour market (the Law on Secondary Education, RS Official Gazette no. 55/2013, article 15). The practice is also very important, with the aim of better understanding of theory and preparation for the labour market, and the school can carry it out in cooperation with a business entity, institution, other organization or legal entity (the Law on Secondary Education, RS Official Gazette no. 55/2013, article 30). As well as within the Law on Primary Education, in the Law on Secondary Education there is a point about possible student cooperatives formation (the Law on Secondary Education, RS Official Gazette no. 55/2013, article 32).

The Strategy on Development of Vocational Education in the Republic of Serbia mentions the need for entrepreneurship promotion, stating that within the important knowledge and competencies that help employment there are business and entrepreneurial skills and knowledge (entrepreneurial skills, creativity and innovation, self-employment) (the Strategy on Development of Vocational Education in the Republic of Serbia, the Government of the Republic of Serbia, RS Official Gazette no. 1/2007, p. 7).

The reform of vocational schools has started in 2003 when the first phase was launched, and it introduces entrepreneurship as a separate subject within a certain number of profiles in the process of teaching curriculum change and improvement. That has been done through the creation of new experimental profiles with the aim

of dual education introduction, and some of them have become regular. Entrepreneurship was introduced as a subject in pilot profiles for secondary vocational schools through various donor-funded projects and work on entrepreneurship education has continued through organizations such as Norwegian BIP (Business Innovation Programmes), the Centre for Entrepreneurial Learning in South-Eastern Europe – SEECEL and Junior Achievement Serbia. The Advisornet cross-border network of business advisors is being implemented within Component 2 of the IPA 2011 programme, although the strategies for lifelong entrepreneurship education have not yet been adopted (ETF – European Training Foundation, 2015, p. 16). According to the data from the Ministry of Education, Science and Technological Development (http://opendata.mpn.gov.rs/), entrepreneurship as a subject currently exists in about 100 out of 278 (ETF, 2015) educational profiles within vocational schools.

When it comes to gymnasiums, it has been established through the insight into the curricula that there is no entrepreneurship as a separate subject. However, it starts to appear as a general and curricular competency. In the standards of general and curricular competencies at the end of secondary education there is a foundation for the concept of learning on competencies from the point of curricular approach, where the basic change is more dynamic and engaged combination of knowledge, skills and attitudes relevant for various real context which demands their functional application. It is achieved through cooperation and coordination of the activities of several teachers, that is, their subjects, as well as innovative way of work in class (the Institute for Education Quality and Evaluation, 2013, p. 2). Entrepreneurship initiative and orientation is one of the 11 general and curricular competencies, and it is concisely mentioned in the document as follows:

Through education for entrepreneurship the student is taught organisational skills, various interpersonal skills included, as well as spatial organization, time and money management. The student is trained for complex planning and decision making which understands respecting several conditions simultaneously. The student can design projects according to the demands set in advance. He/she knows how to become familiar with the characteristics of certain jobs and occupations, he/she is prepared to volunteer and use various opportunities to gain work experience (the Institute for Education Quality and Evaluation, 2013, p. 15).

The expected outcomes of this, as well as other general and curricular competencies, are at the moment defined only at the basic level. The specific outcomes of entrepreneurship initiative and orientation are as follows:

- The student understands the importance of personal activation and shows initiative in the introduction to the labour market characteristics (demands of certain work places, the way the institutions function, positioning in the business world).
- He/she understands the principles of labour market functioning, as well as the necessity of constant improvement according to the development of the market and employers' demands.

- He/she can identify and adequately present his competencies and skills (strong points); can write a CV and motivational letter.
- He/she can express and defend his/her own ideas, and influence others through public speaking, negotiating and conflict solving skills development.
- He/she has the ability to set adequate and realistic goals, assessing and accepting risks; to plan and manage the resources (knowledge and skills, time, money, technologies and other resources), he/she is focused on achieving the goals.
- He/she can communicate with the employer; he/she can negotiate; he/she is prepared to do practice and volunteer respecting agreements (the Institute for Education Quality and Evaluation, 2013, p. 15).

ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION IN HIGHER EDUCATION

Higher education institutions represent the highest level of the educational system of the Republic of Serbia. They include, according to the Law on Higher Education (the Law on Higher Education, RS Official Gazette no. 76/2005, 100/2007 – authentic interpretation, 97/2008, 44/2010, 93/2012, 89/2013, 99/2014, 45/2015 – authentic interpretation, 68/2015 and 87/2016, article 25):

First level of studies:

- Basic academic studies, with 180 or 240 ECTS necessary (BAS)
- Basic professional studies (BPS)

Second level of studies:

- Master academic studies, with 60 or 120 ECTS (MAS)
- Master professional studies (MPS)
- Specialist academic studies (SAS)
- Specialist professional studies (SPS)

Third level of studies:

- Doctoral academic courses (DAS)

Table 1. Higher education institutions and study programmes with the word entrepreneurship in the title overview

Number	Institution	Study programme	Level of studies	Accreditation
1	University of Belgrade, studies at the University	Entrepreneurial management - TEMPUS	MAS	2011
2	University of Novi Sad, studies at the University	Entrepreneurship in Serbian and English	MAS	2012
3	Faculty of Technical Sciences – Čačak; former „Technical Faculty“	Entrepreneurial management	BAS BAS	2009 2014
4	“Union – Nikola Tesla“ University – studies at the University, Belgrade	Entrepreneurial business and real estate management	BAS	2016
5	“Union – Nikola Tesla“ University – studies at the University, Belgrade	Management and entrepreneurship	MAS	2016
6	„Union - Nikola Tesla“ University - Faculty of Entrepreneurship without status of legal entity, Belgrade	Entrepreneurial Business	BAS	2011
7	„Union - Nikola Tesla“ University - Faculty of Entrepreneurship without status of legal entity, Belgrade	Management and entrepreneurship	MAS	2011
8	„Union - Nikola Tesla“ University - Faculty of Entrepreneurship without status of legal entity, Belgrade	International Business and Entrepreneurship	MAS	2011
9	Faculty of Business Economics and Entrepreneurship, Belgrade	Business Economy and Entrepreneurship	BAS	2012 2015
10	Faculty of Business Economics and Entrepreneurship, Belgrade	Business Economy and Entrepreneurship	MAS	2012 2015
11	College of Vocational Studies in Management and Business Communication, Sremski Karlovci	Entrepreneurship	BPS	2013
12	College of Business – Technical Professional Studies, Uzice	Entrepreneurial Management	BPS	2007
13	College of Business – Technical Vocational Studies, Uzice	Management and Entrepreneurship	BPS	2017
14	College of Professional Studies for Entrepreneurship, Belgrade	Entrepreneurial Management	SPS	2012
15	College of Business Professional Studies, Novi Sad	Entrepreneurial Business	BPS	2007 2012
16	College of Applied Professional Studies, Vranje	Entrepreneurial Management	BPS	2015

The source of the data for making the table: Commission for Accreditation and Quality Assurance, 2017,
https://drive.google.com/file/d/0Bwr8qEMuakSJRVBUeVoyaW1aalk/view

The analysis of the accredited programmes of studies of the first, second and third level from A Guide through accredited study programs in Serbia from 21.04.2017. (table 1), led to the conclusion that entrepreneurship appears in the titles of 16 programmes of studies, two institutions of academic studies (Faculty of Business Economics and Entrepreneurship, Belgrade and Union - Nikola Tesla University, Belgrade) and one institution of professional studies (College of Professional Studies for Entrepreneurship, Belgrade).

ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION IN NON-FORMAL AND INFORMAL EDUCATION

As we should not study entrepreneurship from one point of view alone, neither is learning about entrepreneurship exclusively an element in the process taking place in the institutions of formal system of knowledge acquisition. It is a much wider and in its complexity it includes other forms – non-formal, and knowledge based on the experience, that is, informal education.

Non-formal education is a part of the process of education in a wider sense that enables the individuals to acquire various knowledge and skills using the resources outside official institutions in charge of that field. From the aspect of entrepreneurship, they can be helpful in launching a new business. In the implementation of non-formal education, the candidates volunteer for this type of learning and education, in order to earn the appropriate certificates at the end of the cycle for the results of the acquired knowledge and skills. This type of learning and education is structured through the appropriate curricula, duration, teaching resources used in the course of the learning process and the defined outcomes. In this respect, there are similarities with learning carried out in the institutions which are parts of the educational system of the state (Staletić, Petrović, Štrbac-Savić, Jovanović, 2017, pp. 233-240, p. 234), they can never be completely replaced, but represent a good addition.

On the other hand, informal learning, that is informal education, can be considered as a type of knowledge and skills acquisition resulting from everyday activities connected to work, family and free time (Staletić, Petrović, Štrbac-Savić, Jovanović, 2017, pp. 233-240, p. 234). Its characteristics is that the people acquiring or deepening the existing knowledge and skills control the learning process on their own (Staletić, Petrović, Štrbac-Savić, Jovanović, 2017, pp. 233-240, p. 235).

Non-formal and informal educations are intertwined in many things, but we will identify them from the aspect of this paper because the individuals want to educate themselves in both variants. It can be achieved in certain educational centres, institutions for culture and education and cultural and educational centres. There are 108 educational centres in Serbia (http://www.yellowopages.rs/sr/obrazovni-centri/srbija/6). A large number of those are foreign language schools

or computer schools, but there are also centres, such as Akademija educational centre in Cacak, which offers language and computing courses, as well as modern business, retraining and professional training, preparations for the entry exams at universities, as well as the school of intellectual skills. However, none of these cultural and educational centres offer the courses that are specifically about entrepreneurship.

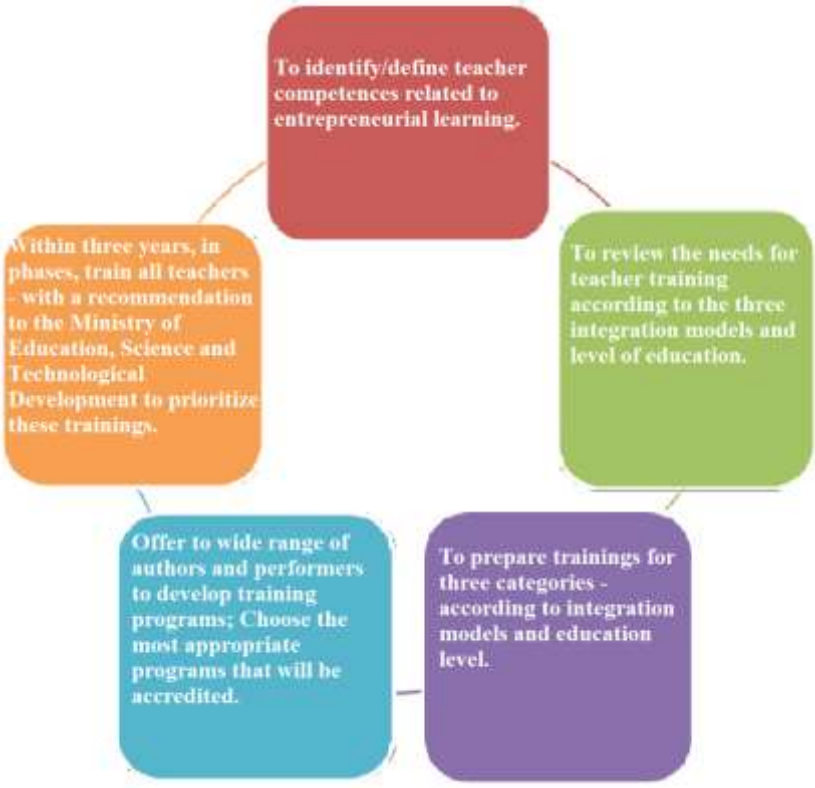
TEACHERS' PROFESSIONAL TRAINING FOR ENTREPRENEURSHIP AND ENTREPRENEURIAL EDUCATION

There are special type of institutions for non-formal education, and that is a regional centre for professional development in education, as well as a centre for professional training established through the project of the professional development in education (Professional development Project – PDP), thanks to the Memorandum of Understanding signed on 24th July 2003 between the governments of Switzerland – the Agency for development and understanding (SDC) and the Republic of Serbia – the Ministry of Education. There are 12 of these centres in Serbia where the people employed in education can work on their professional development by taking part in various seminars offered in the Catalogue of programmes for professional development of teachers, educators and professional services providers.

There are centres in the following towns: Nis, Cacak, Uzice, Kikinda, Leskovac, Sabac, Smederevo, Krusevac, Kanjiza, Kragujevac, Novi Pazar and Knjazevac.

The Regulation on continuous professional development and knowledge acquisition of teachers, educators and professional service providers (RS Official Gazette no. 86/2015, 3/2016, 73/2016, article 1) establishes: the forms of professional education of teachers, educators and professional services providers, the areas of priority for the development, programmes and type of organization of continuous professional development, and other important issues for the development of the system of professional development.

In the document called "Entrepreneurial education – comparative overview of educational policies, models and practices, produced by the Team for social inclusion and poverty reduction for the Government of the Republic of Serbia in December 2015, there is a proposition of the best way of teacher training in order to transfer the knowledge from the field of entrepreneurship to the students with as much quality as possible (picture 1).



Picture 1. The cycle of teacher trainings

The source: The team for social inclusion and poverty reduction of the government of the Republic of Serbia, 2015, p. 64

However, through the analysis of the Catalogue of the programmes for professional development of teachers, educators and professional services providers that includes programmes divided into 18 areas (librarianship, educational work, social sciences, health education, elective and optional subjects, ICT, mathematics, students with a need for additional support in education, education in national minority languages, general teaching issues, pre-school education, sciences, professional courses in vocational schools, Serbian language and literature, foreign language, art, PE, the programmes approved by the Pedagogical Institute of Vojvodina), we came to the following results:

- The Catalogue for 2012/2013 and 2013/2014 (the Institute for Education Quality and Evaluation, 2012, http://katalog.zuov.rs/, 5.6.2017) – entrepreneurship is found as a part of the title in 8 out of the total of 1002 programmes, which is about 0.8%. Also, all of them are within K1 (the competency for the narrow area of expertise) and areas – vocational schools (professional courses) – economics and entrepreneurship.

- When it comes to the Catalogue for 2014/2015 and 2015/2016 (the Institute for Education Quality and Evaluation, 2014, http://katalog2015.zuov.rs/default.aspx?oblast#34#kompetencije, 5.6.2017.) entrepreneurship has been directly mentioned in 10 out of the total of 908 programmes (≈1.1%), out of which 3 in K1 (competencies for the teaching area, subject and teaching methods) and vocational school area, 5 in K2 (competencies for student personality development support) in the area of general teaching issues, and 1 in K4 (competencies in communication and cooperation) in the area of educational work.
- The current catalogue for 2016/2017 and 2017/2018 (the Institute for Education Quality and Evaluation, 2016, http://katalog2016.zuov.rs/, 5.6.2017.) contains the total of 961 programme, and only 3 (≈0.31%) out of the total number directly point to entrepreneurship (table 2).

Table 2: The overview of the catalogue of the programmes for professional development of teachers, educators and professional services providers for 2016/2017 and 2017/2018 with entrepreneurship in the title

Competencies	Area	Programme name
K2	General teaching issues	"Entrepreneurship in Primary schools", Business Innovation Programs, Belgrade, Belgrade
K1	Professional courses in Vocational schools	"Entrepreneurship in tourism and hotel management", Singidunum University, Belgrade
K1	Professional courses in Vocational schools	"Entrepreneurial idea development – how to recognize the idea and make a business plan",The Association for the support and development of entrepreneurship for Youth, Zemun, Belgrade
The meaning of the abbreviations: K1 – competencies for the teaching area, subject and teaching method; K2 – competencies for tuition and teaching.		

The source of the data for the table: the Institute for Education Improvement, 2016, http://katalog2016.zuov.rs/ 5.6.2017.

Apart from the criteria mentioned above, if we consider a more detailed analysis of the programme goals (general and specific), and framework content (based on the topics given), in search of the programmes that deal with teachers' entrepreneurial competencies development, there are just a few programmes that match the criteria in the current Catalogue as stated by (Bjekić, Stojković, Kuzmanović, Rendulić, 2017, pp. 17-30, p. 25).

The regional centre for entrepreneurial competency development in the countries of South East Europe (South East European Centre for Entrepreneurial

Learning) states the following within the area of Teacher Training: Entrepreneurial learning means developing a culture which is through, for and about entrepreneurship. Such competencies are best acquired through people-led enquiry and discovery that enable students to turn ideas into action. They are difficult to teach through teaching and learning practices in which the learner tends to be a more or less passive recipient. They require active learner-centred methods and learning activities that use practical learning opportunities from the real world. Furthermore, since entrepreneurship is a key competence as well as transversal competence it should be available to all students and be taught as a theme rather than as a separate subject at all stages and levels of education. Clearly, the implication of these changes for teachers is substantial. They mean nothing less than a new role for every teacher. Therefore, a systematic approach to the Teacher Training which encompasses both – Pre and In service training is needed (SEECEL – Teacher Training, http://www.seecel.hr/UserDocImages/teacher-training-12321, 23.04.2017).

CONCLUSION

Due to the fact that we have already shown the results in each of the chapters, we will now only enumerate the key points:

- In the Law on Primary Education, which is the key law in the area of primary education, entrepreneurship is not mentioned at all. In the document "Educational standards at the end of the compulsory education" issued by the Institute for Education quality and Evaluation in 2009, the term entrepreneurship is not mentioned at all.
- According to the data in the Ministry of Education, Science and Technological Development (http://opendata.mpn.gov.rs/), entrepreneurship as a subject is in function in about 100 out of 278 (ETF, 2015) educational profiles within vocational schools. When it comes to gymnasiums, by the insight into their curricula we determined that entrepreneurship does not exist as an independent subject. We have not dealt with the competencies necessary for the teachers of this subject. We leave it as topic of another research.
- Through the analysis of the accredited study programmes of the first, second and third level, we came to the conclusion that entrepreneurship is studied in 16 study programmes in Serbia, and that two colleges of academic studies as well as one college of vocational studies include entrepreneurship in their names.
- As far as non-formal and informal education is concerned, we have noticed that none of the educational or cultural centres offer the courses specifically about entrepreneurship.
- Entrepreneurial initiative and orientation represents one of 11 general and curricular competencies. The development of this approach is underway so

we could say that entrepreneurship is also going to be implemented in this manner into the system of formal education at secondary school level.

- The current catalogue of the programmes for professional development of teachers, educators and professional services providers for 2016/2017 and 2017/2018 (the Institute for Education Improvement, 2016, http://katalog2016.zuov.rs/, 5. 6. 2017.) includes the total of 961 programme, but only 3 (≈0.31%) of those point to entrepreneurship with their titles.

Therefore, the current situation is such that offers teachers few options for professional development in the area of entrepreneurial initiative and orientation, as well as entrepreneurship in general. Entrepreneurship exists as a subject, but the content of the curriculum will hardly find its way to the students outside schools, as a general and curricular competency.

On the basis of all the above mentioned, we can come to the conclusion that there is an open space for us as teachers and educators dealing with entrepreneurship to create teams and offer good quality seminars which will be of professional use to primary and secondary school teachers, educators and professional services providers, as well as professional and financial use for us all.

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PERSPECTIVES OF ENTREPRENEURIAL DEVELOPMENT IN SERBIA THROUGH THE PROMOTION OF ENTREPRENEURIAL EDUCATION QUALITY

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ABSTRACT

Development of all economies, especially the transition ones, is encouraged by the promotion and strengthening of entrepreneurship. Development of entrepreneurial spirit, initiative and innovativeness can grow with the help of adequate education systems adjusted to formal education programs and life-long learning carried out through informal forms of education.

Knowledge as the key component of market competitiveness is the ground for the growth and development of the SME sector. Promotion of entrepreneurship education contributes to the improvement of the existing SMEs' performances and to the founding of a larger number of new SMEs.

Current state, perspectives and limitations of entrepreneurial development in Serbia through the processes of entrepreneurial development shall be analysed in this paper. Accordingly, this paper shows national and EU initiatives towards the promotion of entrepreneurial education, hence basic problems limiting entrepreneurial sector from the aspect of education and possible solutions on the road towards the achievement of a higher level of entrepreneurial activity, innovativeness and competency.

We shall also analyse the Strategy for education development in Serbia 2020 (hereinafter the Strategy) that sees education as the main driver of economic growth and one of the key factors of the development of entrepreneurial spirit. We shall present results of the research carried out by the National Agency for Regional Development that included 2500 owners of micro, small and medium enterprises and entrepreneurial stores. Likewise, significance of Serbia's involvement in the SEECEL organization (South East European Centre for Entrepreneurial Learning) shall be analysed in this paper.

Key words: *Entrepreneurship, Small and Medium Enterprises, Education, Competitiveness, Economic Growth and Development.*

JEL Classification: *L26, J24, O34*

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KNOWLEDGE AS THE MOST IMPORTANT CAPITAL OF THE MODERN AGE

Higher levels of globalization, speed of technological development and accentuated knowledge-based economy are trying to impose to certain countries and modern organizations the necessity of promoting education and constant development of our population' and employees' skills. Knowledge-based society and economy mean good-quality knowledge for everybody since, during the education process, people are trained to produce new knowledge and apply it through education.

Knowledge can be defined as a collection of ideas, experiences, intuitions and skills used in creating new values. Goal is to create and use knowledge in order to increase work productivity (Cvetanović & Despotović, 2014). Knowledge can be observed as a comprehensive collection of acquired and accumulated information and values. Knowledge connects policies, goals and practice by creating a coherent unity. Knowledge enables creative continuity since it generates acquired experiences as a feedback on work effects (Dimitrovski, 2010).

Knowledge is a dynamic phenomenon that changes in time. Rise of knowledge is similar to the rise of scientific information that increases in exponential function during time. By studying this process we can come to interesting information. Firstly, during one's years in college, so many new information is generated that in the end things we've acquired become obsolete. Secondly, unemployment is a common phenomenon in today's modern world. It has a very devastating effect on the acquired knowledge and competences. Thirdly, current education systems are not ready to face new challenges of exponential growth of new scientific information and knowledge (Ambrozi, 2013). In modern business conditions, it is much more important to have practically applicable knowledge and skills in combination with personal qualities (such as creativity for example) than to simply know the facts (Ravić, 2016, p. 107).

Knowledge is the crucial factor in modern business world determining business success and competitive advantage. Learning creates new knowledge which gives birth to innovations. Greatest economic struggle between developing countries is happening in the field of development of technologies and innovations based on knowledge. Appearance of the Internet has made knowledge highly accessible to everyone. It cannot be isolated, nor spent out. Specificity of knowledge as a resource is reflected in the fact that it is difficult to estimate costs of its creation (Ravić, 2016, pp. 108-109).

Education as the crucial factor in the development of competitiveness of modern economy plays the key role in social and economic development of our society (Pejanović & Radović, 2014). Education can be defined as a "continual process whose purpose is to pass on knowledge and skills and develop necessary abilities for the involvement in social processes". (Vidaković, Andevski, & Šćepanović, 2011) According to (Haleta, 2008) "education is the expansion of total knowledge, skills and abilities for an independent decisions-making and acting in

different situations. It is used for enabling employees to perform different tasks and create necessary assumptions for further development. It is mostly turned towards the future, i.e. to future business requests". (Haleta, 2008, pp. 113-114)

The task of formal education (primarily higher education) is to put an emphasis on the development of crucial competences and skills and not on the reproduction of facts (Gajić & Lungulov, 2012)

AFFECTIVE LEARNING DOMAIN

The classification for the affective learning which was first presented by Bloom and his colleagues in 1956, consists of 5 levels: Perception, when the student is alert and aware and pays attention to the education flow; Reaction, when the student reacts to the education flow or educational content; Valuing, when a student develops a voluntary commitment to the education flow or educational content; Structuring, when the student internalizes their own value systems; and Personality description, when the student acts inside their own value system.

In this field, Anderson and his colleagues believe that the affective learning domain is demonstrated by behaviors which show states of awareness, interest, attention, concern, responsibility, ability to listen and react in communication with others, and the ability to demonstrate characteristics or values that suit the experimental conditions and area of study (Anderson, et.al, 2001).

The affective learning domain is about how learners feel while learning and how their learning experiences get internalized in accordance with their beliefs, perspectives and their future behavior (Miller, 2005). Basically, the affective domain shapes learning via beliefs, interests and incentives of the learners (Krathwohl, et.al., 1964; Smith and Ragan, 1999; Gronlund and Brookhart, 2009).

ROLE OF INTELLECTUAL CAPITAL IN CREATING COMPETITIVE ADVANTAGE OF ORGANIZATIONS

Organizations are starting to base their competitive advantage on intangible property consisting of: experience, information and possibility of their processing, managerial abilities, know-how, organizational culture, image, reputation, loyalty and trust of consumers, ability to understand preferences of consumers, etc. Learning, in conditions of high turbulences and changes in business, is becoming a necessary condition for organizations to develop the essence of their competitiveness in order to successfully answer to managerial challenges.

Intellectual capital can be defined as an organizational ability of one nation, government or corporation to gain and use information, to analyse its environment, identify new threats and challenges, as well as to respond to changes and new challenges in a creative way.

Necessity of investing in the development of intellectual capital has long been noticed in developed countries in which there is a continuity in developing new technologies. Many developed countries base their progress exactly on investing in education, in the development of new knowledge and skills that will give birth to innovations and efficiency and productivity growth. (Cvetanović & Despotović, 2014) Growth in the production of high-tech products based on knowledge is a consequence of an increasing dependence of modern economies on knowledge and information (Nikolić, 2014) Investments in knowledge are the most important and profitable investments (Draker, 1995).

Journal of Intellectual Capital gives the following definition of the intellectual capital: "Intellectual capital is knowledge, applied experience, processes of enterprises and technology, relations with consumers and professional skills that represent precious resources". (Villanueva Rodrigez, n.d.)

Most common classification of intellectual capital is suggested within the Meritum directive, in which intellectual capital consists of three components:

1. Human capital;
2. Structural capital;
3. Relational capital. (Radulović-Šibek & Kutlača, 2011)

Human capital represents knowledge, intelligence and accumulated human experience and it also includes motivation, readiness to work in a team, cooperation, readiness to take a risk, adjustment to changes, as well as loyalty to the company. It is the ability of employees to meet customer expectations. It can be divided into innovative and managerial capital.

Structural or organizational capital is the ability of one organization to use innovative and intellectual potential of its employees. It most often appears as an informatics system, skills, processes, experiences and systems. Structural capital is knowledge one can use to affect the value and well-being of the company.

Relational or client capital is created when a company has a certain kind of relationship with its environment, i.e. when a company has a relationship with its buyers, partners and others. It covers a part of human and structural capital that's related to company's relations with the interest parties, i.e. stakeholders. This means that this form of intellectual capital implies having a good image, customer loyalty, ability to negotiate with financial institutions, connections with suppliers, company's rating, advertising power, adjustment to customer requests, needs, etc.

Importance of the intellectual capital management lies in the fact that every company is in dispose of knowledge, capabilities, advantages and characteristics that can turn into market values. Thomas Stewart, editor of the business journal "Fortune", believed that intellectual capital was "something which cannot be described, but slowly makes you rich". For example, Microsoft managed to create enormous value and profit with limited physical and financial capital, but significant intellectual capital. What proves this is one piece of data that in 1999 this company had a bookkeeping value that was multiple times lower than its market value estimated on the financial market, i.e. stock market. (Pravdić & Kučinar, 2015) Permanent education and professional training of employees is one of the most efficient ways of achieving competitive advantage in modern business conditions.

SMALL AND MEDIUM ENTERPRISES AS BEARERS OF ECONOMIC ACTIVITY

Small and medium enterprises are the drivers of economic development of all countries since they increase the level of resource usage with an emphasized ability to adjust to changes. They ensure the increase in the number of economic entities, opening of new work places and higher standard of living. Their significance is also reflected in the fact they are very much present in the economies of developed countries. In the EU, SMEs make up for 99% of economic entities and ensure around 60-70% of all work places and like that contribute to the achievement of economic growth (Ravić, 2016, p. 19).

Basic advantage of small enterprises, especially in modern business conditions and quick market changes, is reflected in their flexibility. Flexibility of small enterprises refers to their ability to quickly adapt to changes occurring in a business environment. Due to their size and small number of employees, employees in small enterprises have better interaction and closer relationship with their owner, they are more easily identified with their company and are often characterized by loyalty and dedication in the realization of goals, mission and vision of the company.

Small and medium enterprises have numerous advantages in comparison with large companies and they are reflected primarily in the fact they own a high level of flexibility, developed entrepreneurial spirit and precisely defined core of competences. Growth of market-based economy is based on small and medium enterprises since they can affect the problem of unemployment and growth of GDP to greatest extent. (Vujičić, Ivković, & Vukadinović, 2012) Small enterprises are characterized by a low level of the specialization of work and business functions. Businesses of small companies, as a rule, have a more local character from the perspective of market activities and employment. (Živković & Bevanda, 2012) Entrepreneurship has a significant role in economy reflected in the fact they contribute to the growth of economic efficiency and national economy through innovative activities. (Karavidić, Čukanović-Karavidić, & Ivković, 2012) In his research conducted on data from 77 countries (among which there were countries from the region, including Serbia), (Smith, 2000) confirmed the existence of positive effect of entrepreneurship on economic growth by using regression analysis. According to Smith, entrepreneurship makes the largest impact on economic growth through the process of encouraging innovativeness.

SMEs play an important role in the developing countries' transition process which can be seen in the employment of new workers and their work on achieving economic stability and economic growth. SME development strategies in developing countries are mostly based on positive experiences of developed countries (Ravić, Karavidić, 2015. pp. 1-2).

IMPORTANCE OF ENTREPRENEURIAL EDUCATION FOR THE STRENGTHENING OF COMPETITIVENESS OF COMPANIES AND THE ECONOMY

According to (Heder, Ljubić, & Nola, 2011, стр. 15) entrepreneurial education can be defined as the "crucial competence for one of the key priorities in creating the policy that encourages and determines strategic approach to promoting entrepreneurial literacy of all citizens through life-long entrepreneurial learning". Same source states that entrepreneurial learning is the "concept of education and training that supports entrepreneurial way of thinking and is based on perfecting individuals by including basic principles of efficiency in our daily lives without a special focus on starting new business – all this leads to entrepreneurial literacy for the society as a whole" (Heder, Ljubić, & Nola, 2011, p. 23)

Competency refers to experience and expert knowledge, but considering the time limitations of competences reflected in an increasingly fast obsolescence of the acquired knowledge, it cannot be applied in all time frames, in every company and in solving all problems. In modern business conditions, competences have an expressed time aspect because business life cycles are becoming shorter and shorter. Through examples of good practice, entrepreneurs contribute to the creation of values for their companies. Successful entrepreneurs are agents of economic changes that continually search for new business opportunities and possibilities for innovations.

The matter of competency and education is of critical importance for successful entrepreneurs. Large number of entrepreneurs believe that high ethical standards, personal integrity and competency of employees are extremely important for the long-term stability of company's business. However, research show that entrepreneurs are not necessarily more educated than the rest of the population. Likewise, large number of entrepreneurs in the world have found their own businesses not because they need a new job, they are unemployed or have lost their old job, but because they want and are competent to create their own business. In less developed countries, education of a large number of entrepreneurs is at a very low stage. It's been noticed that the lack of competent people is a limiting factor concerning development and business results, especially in the sector of small businesses and entrepreneurs in Serbia. This is why entrepreneurs need external support in form of counselling, consulting, professional services and additional education, in order to help them overcome their limitations in terms of resources or mitigate effects of country's policies and regulations. This situation has motivated governments all over the world to develop publicly financed models of business support in which they invest significant resources.

According to (Entrepreneurship in Higher Education, Especially in Non-business Studies, 2008) purpose of entrepreneurship education is to promote creativity, innovations and employment and can include the following elements:

1. Development of personal attributes and skills that represent the basis of entrepreneurial spirit and behaviour (creativity, sense of initiative, risk-taking, independency, self-confidence, leadership, team spirit, etc.);
2. Raising awareness of students and pupils that self-confidence and entrepreneurship are possible options for their career;
3. Work on specific entrepreneurial projects and activities;
4. Ensuring necessary skills and knowledge on how to start a business and lead it successfully.

Entrepreneurial education can be observed as a process covering the acquisition of knowledge and skills in regards to how to start and lead successful and innovative business endeavours, which implies work on entrepreneurial affinities, skills and abilities, i.e. development of those skills and characteristics considered necessary for successful entrepreneurial business.

Entrepreneurial education as a support to entrepreneurial activities can contribute to increasing the number of new companies and decreasing the rate of unemployment, but also to reducing the number of mistakes in the existing companies. (Radović-Markovic, 2016)

Objective of entrepreneurial education is to promote creativity, innovations and self-employment and can include the following elements:

1. Development of personal attributes and skills that represent the basis of entrepreneurial spirit and behaviour (creativity, sense of initiative, risk-taking, independency, self-confidence, leadership, team spirit, etc.);
2. Raising awareness of students and pupils that self-confidence and entrepreneurship are possible options for their career;
3. Work on specific entrepreneurial projects and activities;
4. Ensuring necessary skills and knowledge on how to start a business and lead it successfully. (European Commission, 2008)

EU INITIATIVE FOR THE PROMOTION OF ENTREPRENEURSHIP EDUCATION

Entrepreneurial learning stimulates the development of entrepreneurial spirit in the society, establishment of new companies and more efficient and effective use of creative potentials. As such, it represents the priority of the EU and transition countries (Ravić, 2016, p. 121).

Entrepreneurship is the critical factor for the development of a more flexible work force. “Sense of initiative and entrepreneurship” is one out of eight key competences within the concept of life-long learning that the EU defines as a collection of knowledge, skills and attitudes which are of fundamental importance for the knowledge-based society and which should be acquired at the end of formal education and throughout our life-long learning. Entrepreneurial learning has become a priority, not only in the Small Business Act, but in the entire Europe 2020 strategy and in the Entrepreneurship 2020 Action Plan. (OECD, 2016).

Oslo agenda for entrepreneurship education in Europe points out that "entrepreneurship education should be included in the curriculum of elementary schools. It is especially important at this stage of education to persuade schools, teachers and parents that entrepreneurship is the key competence for everything and that it isn't focused on turning all students into business people, but rather on promoting entrepreneurial way of thinking so that it becomes an integral part of the teaching plan and program as a horizontal element in all learning fields." (European Commission, 2006)

To strengthen competitiveness of small and medium enterprises is a strategic goal of the EU, and to promote entrepreneurship education is recognized as the crucial factor for a successful realization of this objective.

Systematic approach to this problem emphasizes the necessity of implementing entrepreneurship education in the teaching plans and programs of education institutions and that demands the following:

1. Implement changes in the teaching methods so that they motivate and stimulate students to take on initiative and carry out independent research by simultaneously improving their knowledge;
2. Insist on having classes in an economic environment in addition to having them in classrooms which will give students a chance to first handedly see how entrepreneurship functions;
3. Ensure an active role and support of the state for the achievement of this objective. (Ravić, 2016, p. 119).

Special attention in the development of human capital is dedicated to supporting human capital mobility and maximal usage of human potentials. European Qualifications Framework (EQF) came to be in the aim of supporting this process. This framework consists of numerous elements, among which key competences, as an integral part of all qualifications, are one of the most important factors. All national education systems should take relevant measures to ensure sustainable development of life-long entrepreneurial learning (Heder, Ljubić, & Nola, 2011, p. 14).

EU countries together with the countries in the pre-accession process and countries of the south region (Egypt, Israel and Tunisia) in 2010 organized a panel called "Panel for high-level deliberations" at which crucial problems in regards to entrepreneurship education were defined:

1. The public is still not sufficiently acquainted with the terminology of entrepreneurship and entrepreneurship education. Terminology being used in regards to entrepreneurship education is not sufficiently clear to the wider public, nor is there awareness about the significance of entrepreneurship in non-business environment;
2. Entrepreneurship education doesn't have a clearly defined political framework since it is under the supervision of numerous ministries;
3. Promotion of entrepreneurship in formal education should be joint with the efforts for entrepreneurship education in every country;

4. All ministries dealing with partnership in entrepreneurship education policy should ensure equally delegated dedication, all the way to the budgetary support where it's needed;
5. Even though we do understand entrepreneurship is the key competence, we lack understanding of how this competence can be efficiently included in the teaching and learning process;
6. The Panel agreed there is an obvious lack of defined outcomes of learning entrepreneurship as the key competence, especially in primary and secondary education. (The European Training Foundation, 2010)

Education and training are recognized as crucial pillars of competitiveness of both companies and the economy as a whole. Special attention is paid to potentials national education systems can offer to strategies for entrepreneurial development. For that purpose, the European Commission has created guidelines for supporting EU member states in defining programs for entrepreneurship education (European Commission, 2006). Responses and reactions of national education systems to these guidelines were different. (European Commission, DG for Enterprise and Industry, 2007) The European Commission identified two primary pillars for a more intensive development of entrepreneurship education. Firstly, to define the scope of government partners' activities, especially ministry of education and economy and economic development that need to cooperate on creating entrepreneurship education programs. Secondly, design and providing of entrepreneurship education in all segments of education systems will have to be applied in a more systematic way in order to achieve goals defined by the European Council 2007. (The European Training Foundation, 2010)

Development of entrepreneurial way of thinking has become an integral part of the policies across Europe. Previous research have showed that education plays an essential role in the development of such thinking and that the role of the teacher (mentor) is especially important. This calls for changes in the education system by stressing out the importance of active learning and of providing new experiences for students outside of the classroom. For many education systems this demands a fundamental change and a step back from the traditional system. Teachers are in the centre of these changes. They have to be equipped with appropriate knowledge, skills and attitudes to be able to give their students new teaching programs, pedagogies and research of environment they will need to develop entrepreneurial competences. How should our teachers get educated? What changes have to happen in the initial education of our teachers for them to continue professional development in the right way? What type of support will they need in the schools they teach at? These and other questions were discussed during 2011 through a pilot action started by "DG Enterprise and Industry" and "DG Education and culture", and taken over by the Ecorys team, Vavrik center University and the European Training Foundation in their work with partner countries of the European Union which are in the pre-accession stage and Mediterranean neighbouring regions. (European Commission, 2011)

In regards to the EU strategic goal to become the most competent, knowledge-based economy, they defined the ET2010 program (Education and Training Work

Program) that set basic priorities of strategic activities in regards to the reform of entire education system. Along with that, they established good-quality indicators that would measure the achievement level of the set objectives. For the sake of a more efficient implementation of desired goals, the European Commission established a support program for the achievement of these goals, i.e. support program for life-long learning. Objective of this program is the accomplishment of good-quality education, promotion of creativity, competitiveness, employment and growth of entrepreneurial spirit and innovativeness. (Ravić, 2016).

Strategic framework for the European cooperation in education and training - ET 2020, implies four strategic objectives for education and training in the European Union: encouraging life-long learning; improving the quality and efficiency of education and training; promoting equality, social cohesion and activity of citizens; and encouraging creativity and innovations (including entrepreneurship) at all levels of education and training. (Eurostat, 2016)

The concept of "life-long education" has been intensively discussed in the EU since the making of the Lisbon Declaration in which the making of the most competitive and dynamic world order based on knowledge as the most important goal of social development was stated. The Lisbon Strategy was designed on the Council of Europe in Lisbon in 2000 and the EU then decided its strategic goal should be that by 2010 it becomes the most competitive and dynamic world economy based on knowledge, capable of making sustainable economic growth with a large number of good-quality work places, as well as with better social cohesion.

Governments across the world have noticed the importance of entrepreneurship and new enterprises for the economy, hence they've started encouraging this sector in different ways by using different policies that refer to small and medium enterprises or to entrepreneurship specifically: tax reduction, facilitating procedures for starting a new business, financial incentives, etc. However, according to OECD, additional aspects in political approach to entrepreneurship refer to the following:

1. Strong emphasis on entrepreneurship education, starting from primary to higher education, by encouraging schools to include entrepreneurship in their curriculum and create entrepreneurial culture in schools;
2. Promotion of the internationalization of new and small enterprises through supporting diversification of products and export markets and network of export centers;
3. Promotion of all types of innovations including non-technological innovations. (OECD, 2010)

Entrepreneurship means you have to take initiative, to have a sense of innovativeness and creativity, ability to see and quickly solve a problem, responsibility, readiness to be criticized and to have critical opinion, independency and sometimes readiness to take the risk. Therefore, entrepreneurship is a complex phenomenon, so education and training in the service of education are a comprehensive and long-term process that implies the gathering of knowledge from several fields and acquisition of skills necessary to start a successful business and develop innovative business endeavours.

Entrepreneurial learning implies “all forms of education and training, both formal and informal, including learning at work, that contribute to entrepreneurial spirit and activities with or without the commercial goal.” (Gribben, 2006)

Research published in the report by the Global Entrepreneurship Monitor confirmed the existence of a positive relation between the training for starting a business and entrepreneurial behaviour, which isn’t always visible in the short period. Practical and interactive training programs for business and entrepreneurship during secondary school education are an important factor in the encouragement of efficient entrepreneurship of the young. (Global Entrepreneurship Research Association (GERA), 2017)

Investment in entrepreneurship education is one type of investments with the highest rate of return in Europe today. Research show that between 15 and 20% of students participating in entrepreneurship programs in secondary schools later on in their life start their own business, which is a percent 3 to 5 times larger than in general population. In countries having a longer practice of implementing student entrepreneurship programs, statistics shows that over 25% of users in the age from 25 to 34 started their own business. Likewise, research show that programs have a positive impact on the distribution of equal possibilities amongst genders. (Business Innovation Programs, 2014)

Similar statistics exists for students in the field of entrepreneurship. Students participating in entrepreneurship programs start several companies in the early age of their life. Percent of graduated students who become entrepreneurs in the period three to five years after the graduation goes from 3 to 5%, while for the ones who graduated in the field of entrepreneurship that percent goes from 15 to 20%. (OECD, 2016)

Pioneer research carried out by McClelland and his team on Harvard in the 1960s and 1970s for the first time showed that skills necessary for successful entrepreneurs can be thought and learnt. McClelland and his team established a competency-based training program whose purpose is to encourage the desire to be successful. Thanks to these trainings, many companies have become successful because they’ve put training in the focus of their success. (Cukanovic Karavidic, Karavidic, & Vujicic, 2016)

Entrepreneurial spirit, skills and attitudes of individuals can be worked on in any segment of our education, formal or informal. Therefore, entrepreneurship education is not limited to the formal education system. Interaction within and outside the companies also has a positive effect on the creation of new ideas, experiences and skills. Since entrepreneurship is based on new ideas, interactions and innovations resulting from education, everyday experiences and learning, education in its formal and informal form is an important driver of the development of innovative companies and economy based on knowledge and innovations.

Research covering 40 countries (27 EU countries) and 42 thousand people in total showed that less than one quarter of interviewees (23%) in the EU went to some kind of a course, and three quarters (76%) never participated in any kind of a course. These results are very poor. Of all the observed countries, Finland had the best results, where 39% of interviewees went to some sort of a course, while the worst result of all European and non-European countries was recorder in Japan, where only 9% of interviewees participated in some sort of a course or training. (Flash Eurobarometer 354, 2012)

What is necessary in most of the transition economies are structural reforms of the education system, especially in the field of entrepreneurship so as to encourage students and pupils to focus their attention on the creation of innovations. Basic obstacles to innovativeness in the sense of education are: lack of proper programs for the development of innovations and lack of entrepreneurial way of thinking. By using an adequate education process we should work on creating positive attitudes in our society in regards to starting and developing entrepreneurial business so that in the future we would make entrepreneurial culture based on innovations and development.

CURRENT STATE AND PERSPECTIVES OF ENTREPRENEURSHIP EDUCATION IN SERBIA

Small and medium enterprises play an important role in the transition process of developing countries, such is Serbia. Economic crisis has made an impact on the purchasing power of consumers, reduction of demand, and decrease in investments. On the other hand, risk taking and costs of business have increased. Consequence of all of this is the reduction of entrepreneurial activity through the shutting down of a large number of SMEs, as well as the release of a large number of employees. Establishment of the stability of domestic economy and economic growth should be based on the development of the SME sector. Strengthening of competitiveness of the SME sector would help us make a step forward towards the revitalization of Serbian economy (Ravić, 2016, pp. 46-47).

Key issues being imposed are: in what way should we strengthen the SME sector in Serbia? What are the basic grounds on which we will build competitiveness of small and medium enterprises? Answers to these questions are not simple since there are a lot of factors influencing company's competitiveness, hence it is necessary to work on several issues simultaneously to achieve the desired goals. Surely, one of the key factors of competitiveness is knowledge and investments in the development of entrepreneurial education in Serbia can be the solution and answer to questions asked.

Strategy for education development in Serbia 2020 emphasizes entrepreneurship as the key driver of economic growth and development of entrepreneurial spirit. The Strategy points out that the young should be guided towards entrepreneurship in primary education and that we should work on the development of entrepreneurial skills, such as creativity, innovativeness, perseverance, readiness to take the risk, etc. In 2015, action plan to realize this strategy was adopted and it suggests the following:

1. Development of the entrepreneurship education program in secondary education based on the standard of qualifications;
2. Strengthening of entrepreneurial component of higher education by prescribing additional standards for accreditation;
3. Establishment of a fund for the development of high-tech entrepreneurship;
4. Development of the model for including entrepreneurial component in higher education (Čekić-Marković, 2015, p. 27)

Entrepreneurship learning can be integrated in the education system of Serbia in several ways:

1. Entrepreneurship as an individual course;
2. Entrepreneurship learning in the partnership of schools and the economy;
3. Entrepreneurship learning through an interdisciplinary and integrated approach. (Čekić-Marković, 2015, p. 30)

South East European Centre for Entrepreneurial Learning (SEECEL) was established in 2009 as a consequence of the initiative of the South East European countries, among which is Serbia. All member states actively participate in the SEECEL management. Mission of this centre is to support the development of the life-long entrepreneurship learning system. One of the priorities of SEECEL is the education at the ISCED 2 level (International Standard Classification of Education) which is obligatory in all SEECEL member states. Message of the member states is: "every child should be entrepreneurially literate and that is our goal" (Heder, Ljubić, & Nola, 2011, pp. 18-19). Special goals of SEECEL are:

1. Encouraging innovativeness in the field of entrepreneurial development as the key competence;
2. Defining the outcome of entrepreneurship education, adjusting teaching plans and programs to entrepreneurship as the key competence;
3. Creating a system for the implementation of innovative solutions for entrepreneurship as the key competence in the member states. (Heder, Ljubić, & Nola, 2011, p. 24)

In Serbia, in addition to unfavourable demographic trends, unsatisfactory education structure, high rate of unemployment and low standard of living, entrepreneurship as a very important source of employing and creating work places is still insufficiently developed. According to the World Bank data, on every 1000th citizen of working age in Serbia (from 15 to 64 years of age) comes 1.64 new registered companies, i.e. around 8021 new enterprises in Serbia in total. (The World Bank, n.d.)

Owning managerial skills is of vital importance for the success of innovative entrepreneurs due to dynamic environment and risk present in their line of work. Even though the majority of entrepreneurs owns satisfactory skills, knowledge and experience in specific scientific fields, they often don't have managerial knowledge and competences. Lack of these skills is the main obstacle to company's growth and development, so it often happens that excellent scientific and technological ideas cannot be commercialized on the market, even though the need for them exists.

Research of the National Agency for Regional Development that included 2500 owners of micro, small and medium enterprises and entrepreneurs shows that the largest number of interviewees finished secondary education and behind them are the ones who graduated from some faculty. Likewise, generally speaking, men are more educated than women. Owners of small and medium enterprises most often finished faculties. On the other hand, entrepreneurs and owners of micro companies most often finished just the secondary education. Research results are shown in the following table.

Table 1. Education level of enterprise owners by types of enterprises

	Micro	Small	Medium	Entrepreneur	Number of MSMEs
VIII PhD	0.4%	0.8%	0.7%	0.1%	0.4%
VII-2 Master studies	2.0%	3.1%	6.7%	0.6%	2.0%
VII-1 Academic studies	29.3%	36.4%	62.7%	12.7%	26.7%
VI College	20.3%	22.6%	20.7%	13.4%	18.2%
V Highly-skilled worker	5.5%	4.5%	0.7%	5.7%	5.0%
IV 4- 4-year secondary ed.	38.9%	32.1%	8.0%	55.2%	41.6%
III 3- 3-year secondary ed.	2.9%	0.5%		10.9%	5.2%
Other	0.8%		0.7%	1.4%	0.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: National Agency for Regional Development, 2013

Highly educated owners are mostly in the business of providing health care services (68%), intellectual services (63%) and information technologies (56%). Jobs of a smaller range and lower complexity level are reserved for the owners without the faculty diploma, who most often have secondary education.

One third of interviewees are involved in jobs completely unrelated to their formal education. Owners of stores and small enterprises carry out jobs not in accordance with their formal education in a much larger percent than other economic entities. Basic activity of these economic entities is most often catering/hospitality and retailing.

Massive problem in the attempts to promote education system in Serbia is the fact that the transition process is still not over, and in addition, our country has been significantly affected by the global economic crisis, so these circumstances are creating problems in the functioning and financing of the education system. According to data from the World Economic Forum, position of Serbia by the indicators of high education hasn't been satisfying for years. By the quality of education system, Serbia took 93rd place out of 124 ranked countries in 2015, while in 2016 it took 99th place out of 130 countries according to the same criterion. In regards to faculty enrolment for persons between 15 and 24 years of age, data are also discouraging. By these criteria, Serbia took 42nd place in 2015 (out of 124 countries), while in 2016 it took 43rd place (out of 130). (Schwab, 2015; 2016)

Quality of scientific-research institutions is a very important factor of scientific-technological development and country's development in general. However, according to data from the World Economic Forum, Serbia doesn't take an envious place. What affect Serbia's poor position in regards to scientific-research institutions and education is the fact it doesn't allocate enough resources to this field. In 2015, Serbia allocated 4.82% of GDP, and in 2016 only 4.4%. (Schwab, 2015; 2016)

Serbia has never allocated enough resources to the system of education. According to UNdata (a data access system to UN databases), budgetary allocations in the period from 2007 to 2012 are slightly lower in percent than in 2015 and 2016, and all along go from 4% to 5% which is insufficient, especially in the period when it is necessary to take a series of measures to make our education system more efficient and effective than ever.

Table 2. Allocations for education as a percent of GDP

Year	Percent of GDP for education
2007	4.51
2008	4.71
2009	4.75
2010	4.59
2011	4.49
2012	4.43

Source: Department of Economic and Social Affairs, 2016

Creation of a favourable ambience for the development of small entrepreneurs in Serbia is of vital significance due to its high rate of unemployment and due to the strengthening of private sector that represents a backbone of development after a difficult transition period. However, alongside with a low rate of employment, i.e. high rate of unemployment, Serbia has a big problem in regards to poor activity of young people and the fact young people don't work while studying. Likewise, rate of self-employment is very low, only 6%, in comparison to 12% which is the rate in other European countries. Consequence of a situation like this is an increasing poverty of our society, and young people are just one group affected by poverty. According to the last research carried out by the Keito Institute from Washington that included 90 countries in the world, Serbia is according to the poverty index at a high 3rd place (one criterion was the unemployment rate). (Business Innovation Programs, 2014) Strengthening of entrepreneurial initiative through the promotion of education and training in the field of entrepreneurship would have a positive effect on self-employment, reduction of unemployment and consequently on the improvement of the standard of living.

Advanced model of entrepreneurship education should include:

1. Changes in how we approach entrepreneurship education and transfer from "how to lead a business" to the development of crucial competences for successful entrepreneurial business. Likewise, it is very important not to make entrepreneurship just an addition to teaching plans and programs of education institutions, but to make it an integral part of students' and pupils' education.

2. Create an approach according to which main role in the promotion entrepreneurship education belongs to faculties, schools and enterprises, with the support of certain organizations that should help in preparing and training the teaching personnel, in promoting examples of good practice and creating partnerships among faculties and enterprises (European Commission/EACEA/Eurydice, 2016. Entrepreneurship education in European schools. Report of the Eurydice network. Luxemburg: Bureau for European Union Publications). (European Commission, Eurydice, 2012)

These measures would most definitely improve the system of formal entrepreneurship education in Serbia, but in order to achieve the right effects, it is necessary to develop the system of informal entrepreneurship education. Entrepreneurs should be enabled to take good-quality courses, seminars, interactive

workshops and other types of informal education. Informal education enables the acquisition of a narrower professional and specialized knowledge through empirical learning that complements knowledge acquired in formal education. Entrepreneurs need to realize that they will strengthen their competitiveness and increase chances for survival in a turbulent environment and in conditions of fierce competition only by investing in their knowledge and development of personal competences. (Popović-Pantić, 2011)

CONCLUSION

In modern business conditions based on knowledge-based economy and dynamic changes, it is necessary to create entrepreneurial culture and nurture entrepreneurial spirit for the development of innovations in enterprises. In times of speedy changes, small enterprises and entrepreneurs with flexibility as their primary characteristic, contribute to the increase of competitiveness and development of economy. Small economic subjects are highly significant in the transition economies that go from centralized and controlled economy to an open market-oriented economy.

Many countries of the world, including the European Union, have recognized the importance of entrepreneurship as the driver of employment and innovations. For this reason, several laws and strategies have been adopted in the last few years whose purpose is to improve entrepreneurship education and increase competences of today's and future entrepreneurs. In this sense, it is necessary to promote entrepreneurship education starting from school and student programs, to quality and availability of informal types of education through life-long learning.

Entrepreneurship education in Serbia is not at an enviable level, and there are several reasons for that. Firstly, Serbia is still in the transition process, which negatively affects dedication to education. Secondly, Serbia has never allocated enough resources to education, and that has an impact on the poor quality of scientific-research institutions and insufficient quality of young entrepreneurs' education. Thirdly, entrepreneurs don't have an adequate level of formal education, and informal education is not sufficiently represented. Likewise, a large number of employees are doing business in different fields than what they were schooled for. Finally, Serbia cannot be characterized as a country having sufficient entrepreneurial initiative because, if we observe in percentages, a small number of people decide to take on entrepreneurial endeavours. Step towards solving previous problems and raising level of entrepreneurship education in Serbia is the making of the Education Strategy until 2020, but also other initiatives and programs that Serbia has started implementing independently or in cooperation with EU.

In order to achieve an appropriate level of entrepreneurship education and innovativeness it is necessary to carry out a series of measures and activities. Firstly, it is necessary to start from formal education system, i.e. we should try and apply trainings in the field of entrepreneurship at higher education institutions (but also in the earlier stages), where the emphasis would be on interactive learning

methods that imply practical experience and networking at the level of students and with different developmental organizations. To encourage development of entrepreneurial thinking in the school period, it is necessary to have an appropriate training of the teaching personnel and material in the field of entrepreneurship. Likewise, in addition to formal education, emphasis should be put on the training of personnel and entrepreneurs, as well as on the importance of life-long learning in the aim of strengthening entrepreneurial spirit. And finally, it is necessary to promote greater involvement of owners, employees and syndicates of small and medium enterprises in the training programs, but also to try and connect students with enterprises and train them for practical situations and teach them how to combine theoretical and practical knowledge.

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Part II

INNOVATIVE EDUCATION

ADAPTIVE SYSTEMS AS THE BASIS OF SUCCESSFUL E-EDUCATION

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ABSTRACT

Speedy development of information and communication technologies affects the development of educative processes that impose a new way of creating education strategies that can make a significant contribution to the improvement of the quality of education processes. The concept of adaptive e-learning is suggested as a method for improving the quality of the teaching process with the consideration it is the method that could increase the efficiency of learning, and by that performances of the education system. Solution discussed in this paper is based on the integration of the adaptive e-education model through the application of the business intelligence system and learning styles. Objective of this paper is to, by using business intelligence tools, clarify if adaptive e-education alongside appropriate learning styles can be a motivational factor leading to better student accomplishments. Objective of this paper is to define and analyse the effects of applying adaptive e-learning which will be used to design teaching material in a pedagogical and methodical way and adjust it to students who have completely different characteristics, knowledge and learning styles. Research that was carried out during 2013 in Serbia, at which 120 students took part, was used in this paper for estimating effects of the suggested system. Results of adaptive course that refer to the analysis of the knowledge test results and analysis of marks were here analysed. Research results have showed that students are comfortable with adaptive e-learning, that they have better pass rate on exams and that a large percent of students achieve the highest mark (10). Consequently, scientific contribution of this paper is a synthesis of scientific research in the field of e-learning based on which authors of this paper designed and offered one possible solution of applying adaptive e-learning on e-platforms by using the potential of psychological theories about learning styles.

Key words: *Adaptive E-Learning, Learning Styles, Psychological Process*

JEL Classification: *I21, I23*

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INTRODUCTION

In today's business conditions, education represents a service activity and the most important factor of success would be satisfaction of students in educational institutions. Development of information and communication technologies (ICT) has most definitely conditioned the need to improve the learning process. They have enabled educational institutions to reform the existing relations with students by focusing them on experience, interests and expectations of each student. (Medic, Zivadinovic, 2016).

Improvement of information and communication technologies at the beginning of this century has caused changes in the educational process. New demands placed before education can be met by reviewing educational programs and applying new pedagogical methods with the use of advantages of IT and the Internet. In that way new technologies and their application have set standards for a new way of learning – e-education. It can be said that methods and types of e-learning based on information and communication technologies are relatively known, but they are still not sufficiently applied in our country and in our conditions.

New technologies in classroom rely on innovations in the field of technological and software achievements that are used in the educational processes, and the use of technologies in a pedagogical sense increases the efficiency of educational process in an organizational, structural and material-didactical manner.

Considering that students use different methods of learning, we started from the fact that systems for e-learning (e.g. Moodle) most often don't have a built-in possibility of adapting the teaching material. Research show that a large number of e-courses ends in failure as a consequence of applying the "common concept" because the same statistical context is presented to all students.

That is why the subject of this paper is adaptive e-education that offers the possibility of adjusting educational process to students' learning styles in order to improve performances of the educational system and increase efficiency of learning.

PREVIOUS RESEARCH

Considering the actuality and significance of this topic, a large number of research have been done in the past few years in the field of e-education, distance learning system and adaptive education.

Basic information from the research papers that served as an incentive and an idea for writing this paper will here be used.

Role of e-education at certain Universities was studied on in 2008 (Xiao and Yansong, 2008, pp. 169-173). Results of this research emphasized four basic factors of e-education in the informing period, and these are:

- Being a form of education, research and practice in e-education are involved in the use of educational methods, in the development of teaching technologies, as well as in the development and management of educational processes and resources.
- E-education forms its own theory and technological base depending on the theory of modern education and information technologies. Modern education theory represents the essence of e-education, while information technologies represent characteristics of e-education. If e-education loses these two pillars, it also loses its functional advantages, furthermore e-education can become no more than a simple learning method or learning technology, but not an educational method.
- The essence of e-education is the process of developing and promoting educational resources within the two pillars of e-education in the informing period. Goal of education improvement is the development of educational resources, while the development of educational resources is the method and process of realizing the promotion of educational resources. Period of informing educational process in e-education includes two segments and these are: teaching process monitored by the teachers and students' learning process.
- Educational resources include: factors, personnel, information, media and environment. Hence, e-education in the information period is the technical harmonization of education.

Research from 2011 (Vaughan et al. 2011, pp 113-127) on the topic of how students use Web 2.0 technologies for group work outside the classroom gave the following student recommendations:

- What Web 2.0 apps should be used for group work outside the classroom since there is a large number of apps in offer and more time will be spent on mastering certain apps than on completing school assignments.
- They especially emphasized the support and training for using Web 2.0 apps. Students believe that the greatest mistake is that teachers think their students know how to use Web 2.0 apps and that no further training is necessary.

DEFINITION

Modern literature offers several definitions in regards to e-education and distance learning. In accordance with the topic being considered in this paper, three definitions will be used here:

- "Distance learning is defined as a planned learning going on in different places than where the classes are happening and it demands special course planning techniques, special teaching methods and special ways of communicating via electronics and other technologies, as well as special organizational and administrative solutions" (Pain et Heron, 2003, pp. 62-71).

- E-education is a complex system that includes the following elements (Despotović et Radenković, 2005, pp 13-14):
- Distance learning and distance teaching which are set apart in space and time,
- Teaching materials that can be in different forms (printed material, audio, visual…),
- Learning process that can be individual or group,
- Working with tutors by combining different forms of *"face to face" communications by using the media*,
- Interactive work and the achievement of a synergetic effect of a group of students.

Distance learning theory is based on seven principles conditioned by didactic characteristics (Jevremovic, 2008):

- Feeling there is a personal relationship between teachers and students enables learning satisfaction and extra motivation;
- Such feelings should be encouraged by educational materials and two-way communication;
- Learning motivation is very important for the achievement of learning objectives;
- Friendly atmosphere is more suitable than the feeling related to the first principle;
- Communication has to be comprehensible;
- Communication is accomplished through different media types;
- Due to all of the abovementioned, distance learning has to be well-organized.

RESEARCH METHODS

Theoretical part of this paper is based on browsing through modern, expert and scientific literature. It is about the literature which represents secondary information, i.e. the existing data from different sources. We shall use the following methods of scientific-research work which are adjusted according to the theoretical framework:

- *Inductive-deductive method* which refers to the way of making conclusions, it starts from general assumptions and ends with concrete individual conclusions, and making conclusions about general statements based on individual or specific facts,
- *Methods of analysis and synthesis* which are there to simplify complex notions, views and conclusions to more simple constituent parts, hence the studying of each part for itself but also in relation to other parts or elements,

- *Method of abstraction and concretization* is a cognitive procedure used to deliberately separate unimportant, and emphasize important elements and characteristics. Together with abstraction, the most common method is concretization – it is opposite to abstraction,
- *Method of proving and refuting,* used to determine truthfulness of certain knowledge by incorporating almost all methods, but also the opposite
- *Descriptive method,* i.e. this procedure gives a simple description or the readings of indicators, hence the empirical confirmation of their connections and relations,
- *Comparative method* represent a procedure for forming personal opinions and conclusions, we used comparative method in the process of mutual comparison of gaining information by classical processing and processing with the use of Big Data and business intelligence.

EDUCATIONAL TECHNOLOGY AND THE TEACHING PROCESS

Educational technology is an interdisciplinary scientific field studying the use of modern technologies in educational institutions. Its interdisciplinarity involves information and communication technologies (ICT) as the key segment of modern technology, organizational sciences, pedagogy, psychology, communication, media, electrical engineering…

Application of multimedia technologies and the Internet focused on the needs of students in the aim of promoting quality of the learning process and an easier access to teaching materials and cooperation and exchange of materials at a distance is called electronic learning.

On the other hand, online learning is a term used for Internet-based learning. Online learning environment can be used for carrying out educational-administrative tasks, realization of certain class segments or the overall teaching process.

Electronic learning is a wider term than online learning since it can be realized even when there is no Internet connection – it is realized on computers not connected to any network or using local network but without the Internet (Šćepanović, 2010).

Distance learning is a teaching process organized in the aim of acquiring knowledge and skills, whereas the communication between the participants is realized with the help of different media and technologies (printed media, radio, telephone, television, ICT).

Distance learning and online learning are terms more and more often identified as the same, but they are not the same. The difference is that distance learning can be organized via different media, as previously mentioned, while online learning is a form of distance learning organized exclusively via information and communication technologies.

Information literacy is the ability to efficiently use information available via wide range of media, which is happening in a complex information environment. This term is wider than terms informatics and digital literacy which are its constituent parts and are a precondition for a successful use of services and tools available via ICT.

Informatics literacy implies that an individual is in possession of basic knowledge and skills necessary for using computers (computer systems, networks and programs) in the aim of finding placing/storing, evaluating, creating, presenting and exchanging information, as well as communicating and cooperating in an online environment.

Digital literacy is directly dependant on the level of informatics literacy. It implies good-quality use and management of information arriving via wide range of available electronic media.

CATEGORIES OF PSYCHOLOGICAL PROCESSES IN THE DEVELOPING ENVIRONMENT OF E-LEARNING

When we talk about the analysis of psychological processes, each form of e-learning is of indirect character, because it is carried out in specially designed environments (Virtual Learning Environment) called e-learning systems where principles of asynchronous learning and teaching are applied. Digitalization represents a new challenge both in the business world and in educational institutions and it has dramatically changed the educational process itself.

Main objective is to create a favourable environment in which learning is possible by applying pedagogical principles that would be used to establish a system of e-education, e-learning and e-teaching.

Specific psychological categories which are in the core of psychological process in the development of environment for e-learning are (Keller et Suzuki, 2004):

- Application of motivational factors that would lead to better results in the classroom;
- Application of appropriate learning styles in the classroom;
- Planning and implementing principles that contribute to the development of self-regulated learning;
- Adequately taking into consideration the problem of memorizing and forgetting.

These are some of the categories of psychological processes that necessarily occur in e-learning environment and that are research subjects of this paper.

Level of interactivity in the educational process determines the quality of developed teaching programs that are being realized electronically. Interactivity in that sense demands knowing of and application of ICT as well as other scientific disciplines. In this regard, application of simulation processes is very important (Payne et al, 2009). Interactivity in the classroom includes all necessary psychological modalities from cognitive, affective and psychomotor area. Cognitive psychology of learning considers the mental process that includes memorizing, thinking, abstraction, motivation and metacognition (Merriënboer, Ayres, 2005).

ADAPTIVE SYSTEMS OF ELECTRONIC EDUCATION

Adaptive system of electronic education can be described as a personalized system which, in addition to creating personal contents, is capable of ensuring adaptive "delivery" of the course, interaction, cooperation and support in mastering educational contents. It offers a vision of dynamically created courses adjusted to specific needs of individuals, previous knowledge, computer environment, connectedness and communicational advantages. Adaptiveness of the environment based on user modelling offered by the technology of adaptive hypermedia.

ADAPTIVE EDUCATIONAL HYPERMEDIA SYSTEMS (AEHS)

Adaptive hypermedia is designed to increase the functionality of hypermedia apps by introducing personalization, i.e. by adjusting applications to individual characteristics of users. The most popular research field of adaptive hypermedia are educational hypermedia applications that give us a relatively small hyperspace of learning content in regards to certain topic (Brusilovsky & Millán, 2007, pp 3- 53 (Burgos & Specht, 2006, pp.1192 -1193)).

Hypertext is a non-sequential text connected with hyperlinks. Hypermedia broadens the notion of hypertext by using objects such are: pictures, audio, video recordings, animations etc.

When it comes to adaptation methods and techniques, most common is the classification covering four types of adaptive techniques:

- *Adaptive content aggregation:* Depending on previous knowledge and learning styles, the system can enable students to use different types of content, starting from statistical unit of information to completely interactive elements such as various types of simulation, games or surveys. Content can also be made of multimedia formats.
- *Adaptive presentation:* Main goal of this group of adaptation techniques is to adjust page content to a certain user according to his current knowledge, objectives and other characteristics. Text disposition, resource hypermedia and their combination can be adjusted.
- *Adaptive navigation:* Adaptive navigation helps adaptive processes through management of personalized overviews of page content. It is based on intelligent agents with the purpose of ensuring active learning. Navigation can be adjusted to conditions of global or local orientation. Hence, e-learning environment can enable (Brusilovsky, 1998)
- *Direct guidance,* which represents basic techniques for adaptive navigation support and is implemented through direct representation of all recommended

links to students with reference to their level of knowledge. In this way, it directly shows students in what order they should study certain materials.
- *Sorting links of all courses in alphabetical order.* Links are sorted according to the significance of the current part of the nod and level of knowledge acquired based on the student model. The result is that different students can see different sequence of links depending on their level of knowledge.
- *Adaptive collaborative support,* enables communication between users by using an additional collaboration app. Technique offered by the system for education uses systematic knowledge on students to create collaborative groups and enables or suggests communication between them with the help of collaboration software (Brusilovsky, 1998, 2007).

Adaptive collaborative support refers to:

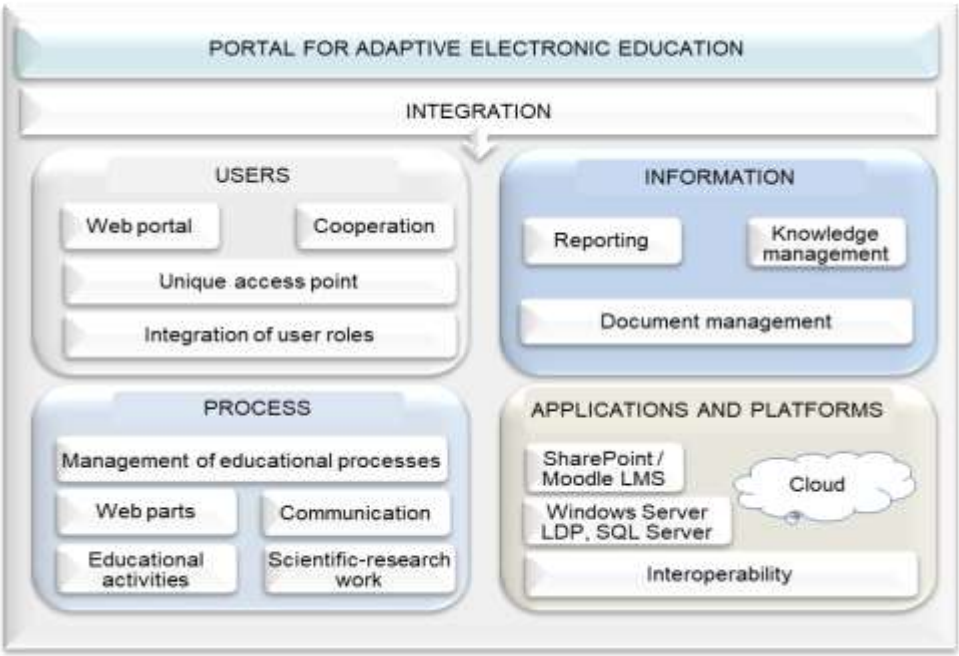
- *Sustaining group models,* including the collective characteristics of the group members, automatic collecting of information for these models and access for the adaptation of algorithms.
- *Sustaining group activities models,* including the roles of participants, used services, produced artefacts, etc.
- *Sustaining cooperation process* by using the abovementioned models of group activities.
- *Pattern identification,* group activities in a semantically meaningful way.
- *Possibility of presenting and using algorithm/strategies,* that manage collaborative information.
- *Support for enabling algorithm adaptation,* for a change in any aspect of collaborative process.

INTEGRATION OF ADAPTIVE EDUCATIONAL SYSTEM WITHIN THE WEB PORTAL

Implementation of e-education system covers (Barac 2011*)*:

- LMS implementation,
- Integration of Internet services in the computer network of the educational institution, business information system and a developed LMS.

Integration of components of the e-education system and business information system within the e-education portal is showed in picture 1.



Picture 1. Integration of the adaptive e-education system components
Source: Barac, 2011 – abridged

Levels of realized integration are:

- *Integration of human resources* – students, teachers and others participating in the educational process can access the system or communicate amongst themselves from any location. Every user accesses their own personalize collection of services that suit their role on the system. User data are saved in a unique LDAP (Lightweight Directory Access Protocol) base with a possible integration with other data bases containing data on user accounts.
- *Information integration* – it enables the collecting of different, unstructured data, while the users are given the possibility through the portal to look at the structured information. This is achieved by using *"content management"* service and the concept of business intelligence. Users can get different types of reports, analysis, data interpretation, etc.
- *Process integration* – existing processes in adaptive e-education are integrated by using the XML (Extensible Markup Language) web service. By using this web portal, every user can access tools for supporting business processes the user is in charge of.
- *Application platform* – applications of the e-education system are realized by using different technologies, so the application is carried out at an applicative level as well.

For the sake of a more efficient management of data sources and information integration sources in the system of adaptive e-learning within the Web portal, it is advisable to create a special module for storing data connections. The module contains definitions related to data sources as well as necessary metadata.

Connections can be updated in a centralized way and all client will automatically use the current version. It is possible to define access right within the data connection module so only authorized users can use certain data connection. Connections can be used in the web portal and represent the basis for working with data sources. Users can use the search option to find appropriate connections. Thanks to metadata, connections can be searched by business terms and descriptions ignoring the technical details. Results being displayed are filtered depending on the access rights to certain connections.

Main advantages of this form of data integration are:

- *Availability* – in this way, data are available to all authorized users.
- *Management* – there is a possibility of updating several reports simultaneously. This process is realized automatically.
- *Safety* – access rights can be defined in regards to using or changing it.

BUSINESS INTELLIGENCE AND EXPERT SYSTEMS IN ADAPTIVE SYSTEMS OF E-EDUCATION

Basic concept of the application of the business intelligence system in the process of promoting education and learning performances refers to the creation of user profiles and intelligent student data analysis, whereas we integrate data collected in the business information system, system for the management of the learning process, on social networks. Data can be used for creating user models, controlling educational processes, examining and analysing educational processes, ad hoc reports, trend analysis, planning and forecasting in educational processes.

Quality of education imposes the need for this kind of reports and analyses at the end of each exam term, semester and academic year. There are just a few educational institutions or software solutions that, for the defined problem, use Data mining or other techniques of business intelligence. By using OLAP and Data mining tools and techniques, we can carry out intelligent analyses of large quantities of data stored in data bases of the suggested platform of the adaptive learning system.

Suggestion of an example of applying data mining for the improvement of classes (Medic & Zivadinovic, 2016):

- *Monitoring and analytics of student achievements* – analytics applications can be used to signalize problems in student work (e.g. bad successive test results, what students failed the exam, in what term). Teachers are automatically given a suggestion what type of individual learning plan would lead to better results.
- *Predicting and improving student success through motivation techniques* – by using data analysis on previous generations of students it is possible to identify different risk groups of students who will most likely have difficulties in mastering certain materials.

- *Determining the dependence of student success on teaching activities and activities for class support* – based on the analysis of data collected from student services, online learning systems and support services we can estimate the degree of risk that students will leave school.
- *Identifying problems in using the system for the learning process management* – it is possible to estimate the effort students put in certain activities on their courses and to analyse dependence of the final success on individual activities during the learning process.

EXPERT SYSTEMS IN ADAPTIVE ELECTRONIC EDUCATION

Expert systems (ES) are defined as "intelligent" programs in which large amount of high quality knowledge in some domain of human activity was implemented. ESs can process knowledge in order to successfully solve a certain problem in an intelligent way, as if those problems were solved by a man.

Its ability of intelligent problem-solving, ES will show through knowledge implemented in it. It is though that the greatest and best quality knowledge in a certain field belongs to people who are experts in that field. Therefore, there is a tendency to make the knowledge, which is implemented in ES during its development, as similar by its quality and quantity to the knowledge of experts in that field.

Work method of today's expert systems is based on symbolic representation and processing of implemented knowledge. Knowledge is displayed through formal symbols and suitable data structures presented in a certain program language, and problems are solved by making inductive conclusions.

ES data base is specialized and unique for a specific ES and contains expert knowledge in a certain field. It is inserted into the ES through the system of data collecting and it doesn't change while the system is working. Working memory contains current data on the problem ES is solving. These data are changeable and their values reflect the current state in the problem-solving process. Concluding mechanism is a program that solves problems based on these changeable data and fixed knowledge implemented in the knowledge base, i.e. it carries out a task given to ES. Communication between the system and users and result presentation is carried out through the interface towards the user.

In term of education, large number of expert system apps are implemented into the *Intelligent Tutoring System* by using techniques of adaptable hypertext and hypermedia.

Technologies for the development of expert systems in education are rapidly expanding, starting from microcomputers through expert systems based on the Internet to those based on agents. Web expert systems are an excellent replacement for private tutoring in any given moment, at any given place where there is Internet access. Likewise, expert systems based on agents will definitely help users in finding Internet materials based on their profiles.

In addition to using technologies, expert systems have had huge changes in the application of methods and techniques. Starting from simple ones based on simple rules, techniques of today's systems are adjusted to the application of fuzzy logic and hybrid systems.

Expert systems are useful as a teaching tool since they are equipped with unique characteristics enabling users to ask questions how, why, what. When used in the classroom or teaching environment, it sure brings benefits to many students by not having to call for their teachers when preparing their answers. Additionally, expert system can provide reasons for the given answer, which is a very important function that is there to make sure that students understand and accept the given answer.

Ability of the expert system to adaptively design trainings for every individual student, and based on their own learning style, is yet another function that makes these systems more demanding for students. Expert systems can monitor students' progress and make decisions about the next step in the learning process (Barać 2011*)*.

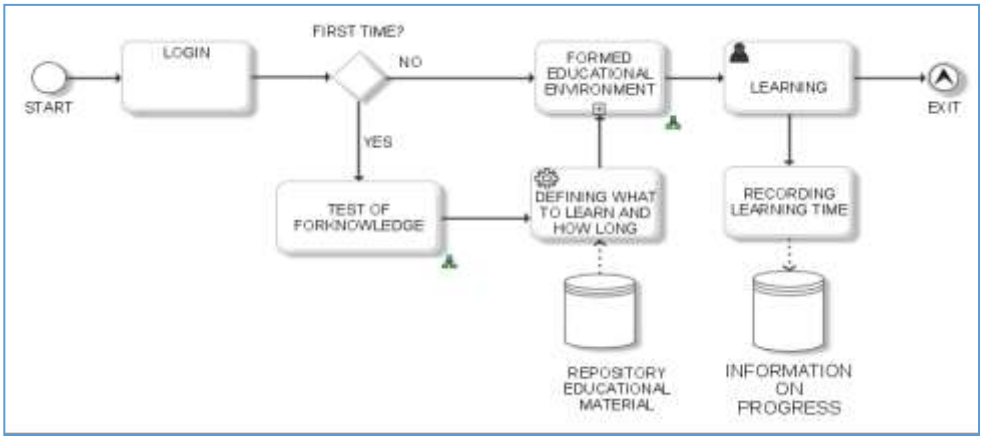
ADAPTIVE E-LEARNING CONCEPT

Adaptive approach in learning suggests psychological functioning of a person that is manifested through their adaptive abilities. Ego psychologists (Freud et al, 1976) are responsible for this approach in psychology.

We should start from the fact the students mostly have different levels of knowledge, abilities and different characteristics. Problem of e-learning courses is that the same teaching material is presented to all students (Brusilovsky, 2001). One course can meet one student's needs completely and at the same time be inadequate and difficult for some other student. Research have showed that e-learning system doesn't make good results if all student are presented with the same teaching material (Hauger, K'ock, 2007).

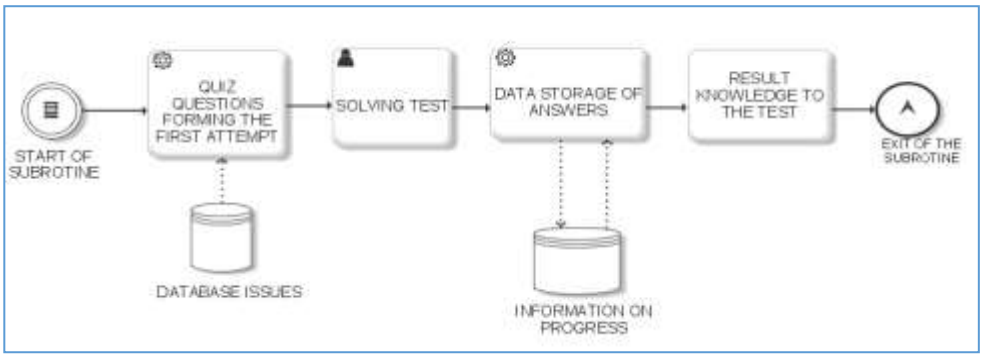
Modern research in the field of electronic learning have shown that what should be placed in the focus of interests is an e-learning platform oriented towards students and their expectations, motivation, learning styles, habits, needs, etc. (Burgos, Specht, 2006). Adaptive learning system is defined as adaptive if it can keep up with: activities of its participants; interprets them based on field-specific models; revels demands and preferences in accordance with the previously perceived activities; precisely represents them in related models (Paramythis, Loidl-Reisinger, 2004).

One of the possible solutions for applying adaptive learning on electronic platforms is given on pictures 2, 3 and 4.

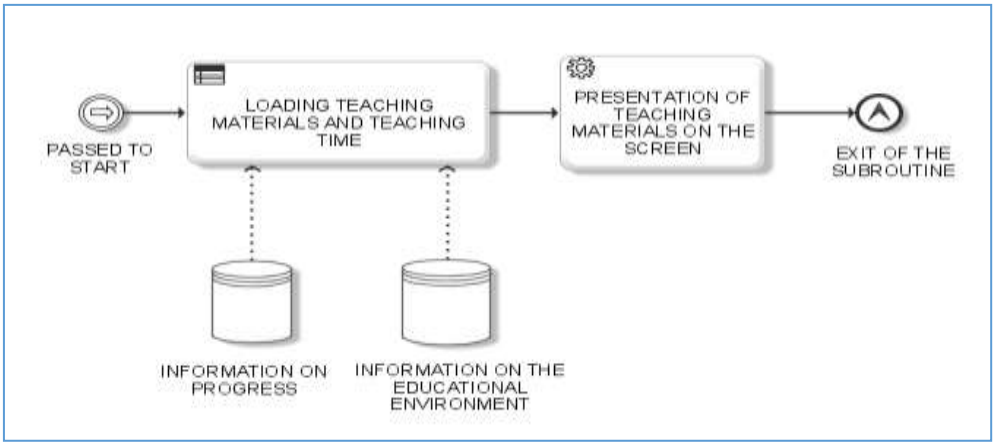


Picture 2. Processual model of students' approach to adaptive e-learning
Source: Authors

During each first-time access to electronic learning in the framework of the process of first-time testing, students' level of knowledge is checked, where based on the results obtained we determine duration of the learning process. From a list of offered e-material, student chooses what best suits him and forms an adjustable educative environment that will constantly keep track of the student's activities during the educative process. Abiding to a given time of learning on certain courses will enable final testing of student's knowledge.



Picture 3. Process of student preliminary knowledge testing
Source: Authors



Picture 4. Process of activating adaptive educative environment
Source: Authors

E-learning system adaptability analyses have shown that cognitive characteristics, such as learning styles, are important for successful adaptation (Alfonseca et al, 2005). Cognitive learning styles are used to create and form e-material for learning. Classification of teaching methods and activities is then made based on learning styles. Researchers suggest learning styles should represent strategies or regular mental behaviour that individuals, out of habit, apply in the learning process.

INFLUENCE OF LEARNING STYLES ON ADAPTIVE MODEL

Studies that deal with the examination of learning styles in the context of electronic learning are becoming increasingly common (Wang, Huang, 2006), The way in which students observe, process information and learn the most, while achieving the best results is called learning style. A large number of so-called theories and learning styles have been developed.

By developing a learning strategy based on learning styles, we can maximize learning capacity and make learning more pleasing and efficient because we choose information sources that are easy to use and activities that are most helpful during learning.

Learning styles rely on learning models and are followed by questionnaires which are used to identify learning style of each individual.

Learning models:

1. Model of Learning Styles (Felder-Silverman model) - Index of Learning Styles
2. Fleming's VARK model - VARK Learning Style Test
3. Kolb Learning Style model - Learning Style Inventory (LSI)
4. Theory of multiple intelligences
5. Personal style inventory

Theoreticians and researchers studying e-education are considering learning styles to be an important factor in the learning process and that they should be implemented during the projection of educational process so as to make learning as efficient as possible and students' results better (Mason, Ellis, 2009).

Students that clearly belong to just one learning style cannot achieve good results if the educative process is adjusted to some other learning style or if it isn't adjusted to learning styles (Felder, Soloman, 2004).

Each approach should be chosen based on the matter being studied, experience of students, motivation, learning objectives, etc. Research show that students with a specific dimension of learning style, have difficulties mastering the learning material if the learning environment is not in accordance with their learning style.

The following things affect the efficiency of e-learning:

- cognitive styles that students use during e-learning,
- available organizational and technical possibilities,
- available resources during e-learning and
- students' workload during e-learning.

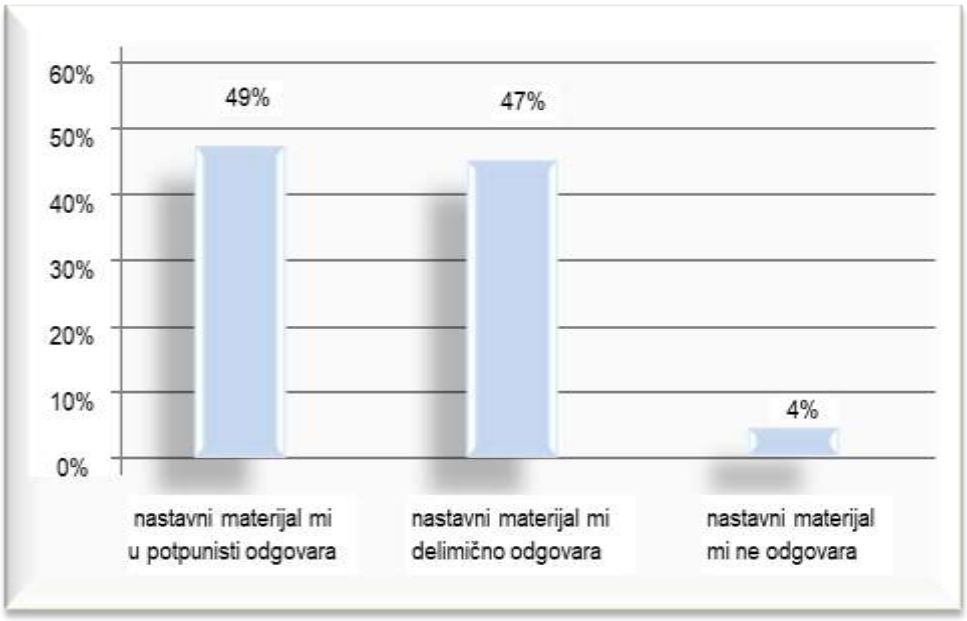
DATA ANALYSIS – EVALUATION OF OPINIONS

Data analyses in this paper included practical research that point out to pedagogical and social components (Seters, et all 2012) and research carried out during 2013 in Serbia served as the base for this analysis.

In this research 120 students took part and they were divided into an experimental group (50 students) and control group (70 students). (Jevremovic, 2013). Comparison parameters were adaptive and non-adaptive courses (learning). Research was carried out by monitoring parallel groups that were taught by the same course teacher which enabled a precondition for equality of experimental and control group (Despotovic et al, 2009).

LEARNING STYLE ANALYSIS

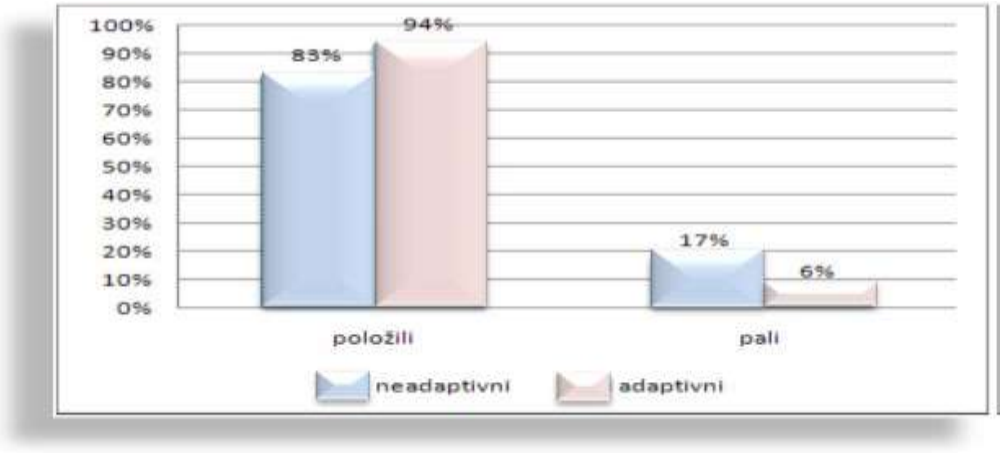
When asked if the adapted course suited their learning style, 50% of students said that the adapted course completely suited their learning style, 45% said that the adapted course suited their learning style partially, while 5% of students said that the adapted course didn't suit their learning style at all (picture 5).



Picture 5. Suitability of the adapted course in its entirety
Source: abridged (Jevremovic, S., 2013)

ANALYSIS OF THE KNOWLEDGE TEST RESULTS

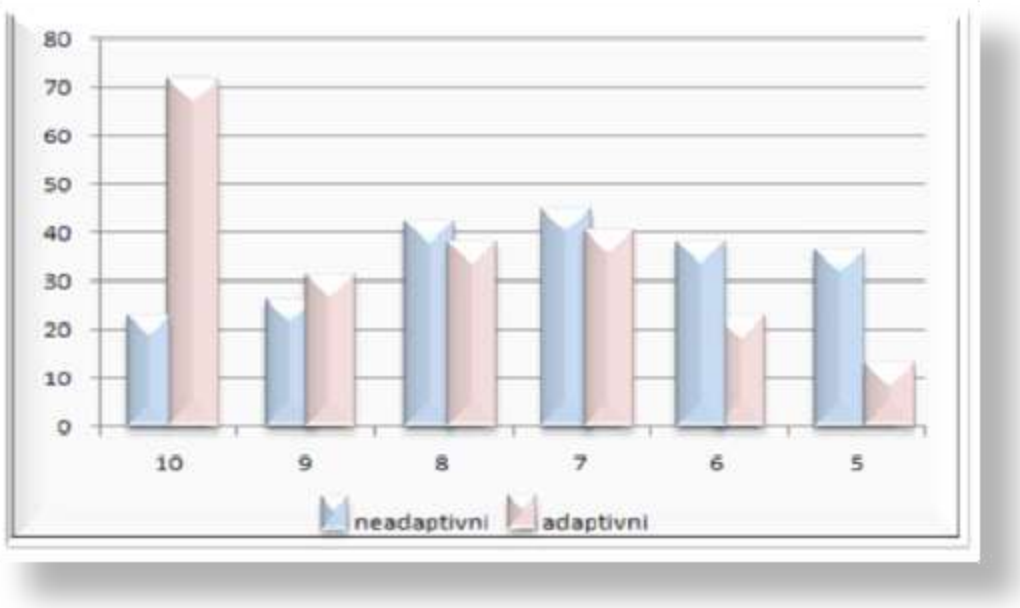
Students that took the adaptive course had an 11% better exam pass rate than the students who took non-adaptive course (picture 6) .



Picture 6. Comparative analysis of students' exam pass rate – adaptive and non-adaptive course Source: abridged (Jevremovic, S., 2013)

ANALYSIS OF GRADES

Comparative analysis of students' grades on adaptive and non-adaptive course is showed here. It can be seen that 70% of students on adaptive course got the highest mark (10) and only 20% on non-adaptive course (picture 7).



Picture 7. Comparison of grades on adaptive and non-adaptive courses
Source: abridged (Jevremovic, S., 2013)

POSITIVE EFFECTS OF ADAPTIVE EDUCATION

Learning process can be characterized as a process of knowledge acquisition, but also as a very complex psychological process containing emotions and will. Therefore, teaching materials presented in adaptive electronic education are very attractive and support the abovementioned elements. Students learn in a simpler and better way since the teaching methods are flexible and they feel relaxed. In that way, we reduce workload placed on students and improve both physical and mental health of students. It also:

- Encourages analytical thinking,
- Can organize learning in accordance with their own time.

- Enhances the efficiency of classes in a way that students gain perceptive knowledge that could focus their attention, provoke interest and awaken learning enthusiasm,
- expands the range of learning by using modern multimedia for sharing information whereas the teaching material is enriched and expanded and modernization of education promoted,
- Individually approaches students and accepts different learning styles,
- Encourages analytical thinking,
- Can organize learning in accordance with their own time.

CONCLUSION

Knowledge, intelligent use of information and skills with new technologies have become an imperative on the job market and a basic business request. This is why it is important to include ICT in the process of educating young people who will spend their lifetime in a direct contact with information and communication technologies, and preparation for that is necessary during their education.

Basic idea of this paper was to establish if the concept of adaptive e-learning had a positive psychological effect in the teaching process, if the successfulness of students attending courses adjusted to their learning styles was better and if the students manifested a positive attitude towards adaptive learning.

The abovementioned results show that adjustment of teaching resources and activities of electronic learning to students' learning styles has a significant influence on the final result of the learning process (picture 4).

Results presented in this paper show that students achieve better results by applying adaptive e-learning concept and that it increases their exam pass rate (picture 5), more students achieve highest marks (picture 6), and like that students' satisfaction with the teaching process increases. Students' motivation increases, creativity is being developed and knowledge is more efficiently adopted when the teaching material is simplified, important elements emphasized and teaching material rationalized.

Therefore, scientific contribution of this paper is the synthesis of scientific research papers in the field of e-learning and the concept of adaptive e-learning based on which authors of this paper designed and offered one possible solution of applying adaptive e-learning on e-platforms (picture 2, 3 and 4) by using the potential of psychological theories and learning styles.

Adaptation as a characteristic of e-learning system enables "special privileges" when learning: instead of in advance defined plans and programs of studies, adaptive system is able to recognize students' needs and adjust itself. On the other hand, advanced adaptive systems are able to develop adaptability characteristic in students which then enables students to adapt to the system.

If we want students to learn faster and in the right way it is very important for the teacher creating e-material to know cognitive styles of learning and to be able to recognize them in students because in that way we achieve compatibility between student's cognitive learning style and e-teaching.

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THE IMPROVEMENT OF HIGHER EDUCATION THROUGH THE IMPLEMENTATION OF LEAN CONCEPT

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ABSTRACT

It is well known that education plays a very important role in every segment of human life and work, so educational institutions are under constant influence of complex changes occurring in the local and global environment. Higher education institutions are increasingly operating as enterprises, trying to improve the effectiveness and efficiency of their processes, increase competitiveness and profitability, and rationally use material and human resources.

In given situation, Higher education will have to do more with less, to develop new learning and teaching strategies, to differentiate by offering different products and services, to add more value to the student and teaching, and to focus more on the user. To achieve these goals, Higher education institutions should adopt improvement strategies such as Lean. Lean philosophy has the potential to significantly improve the quality of Higher education, as it provides opportunities and tools for a comprehensive process of improvement and cost reduction. The application of this concept is contributing to increasing of students' satisfaction, reducing costs, changing institutional culture, solving problems of process efficiency, and providing significant achievements in learning and desired workplace competencies.

This paper will be based on a comprehensive analysis of relevant literature in order to explain the interdependence of Lean Philosophy and Higher Education, with the aim to demonstrate how Lean concept implementation can improve the educational system. In addition to literature review, the authors will present the most significant Lean Universities and Associations, the current status of Lean Education in Serbia, and compare the application of this concept in higher education and other sectors. Attention will also be given to the influence of Lean on the processes, activities and losses in education, as well as factors for the successful implementation of Lean concept in the field of higher education.

Key words: *Lean, Higher Education, Implementation*

JEL Classification: *I29*

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INTRODUCTION

It is well known that education plays a very important role in every segment of human life and work, so educational institutions are under the constant influence of complex changes occurring in the local and global environment. Higher education institutions (HEIs) are expected to play a central role in resolving the challenges of the 21st century because they are crucial for the development of a knowledge-based economy. Unfortunately, the challenge faced by today's educators seems to be somewhat impossible. They must provide educational services that meet growing global social and business requirements, with a reduction in funding and support.

Over the past three decades, the environment of Higher education institutions has changed from the groundwork due to a constant increase in the number of students (which has transformed Higher education from an exclusive offer for an elite to a mass product), a change in the structure of HEIs funding and the globalization of Higher education and research (Langer, 2011). These external pressures have forced HEIs to consider new ways of operating.

Higher education will have to do more with less, to develop new learning and teaching strategies, to differentiate by offering different products and services, to add more value to the student and teaching, and to focus more on the user. To achieve these goals, HEIs should adopt improvement strategies such as Lean. Lean is often defined as management concept focused on reducing waste and continuous process improvement, by either increasing customer value or reducing non-value adding activities (Muda), process variation (Mura), and poor work conditions (Muri). Lean is one of the most widely used philosophies, as organizations come under increased pressure to compete on product cost, quality, and services. The Lean concept is also one of the possible solutions for improving education, especially Higher education, as it provides the opportunity for education as a service to become profitable.

The application of Lean principles and practices to improve the efficiency and effectiveness of faculty and university processes, or Lean Higher Education, offers the potential to realize dramatic improvements in the way in which Higher education provides its services (Balzer et al., 2015).

HEIs are increasingly operating as enterprises, trying to improve the effectiveness and efficiency of their processes, increase competitiveness and profitability, and rationally use material and human resources. They are actually trying to provide education and services whose quality is above, and costs below competitors (Comm and Mathaisel, 2005). Lean philosophy imposes as logical solution, as it provided foundations and tools for operationalization and participation in continuous improvement with the aim to maintain and improve quality from the current to the future state (Flumerfelt and Banachowski, 2011). Antony (2014) has highlighted the benefits that HEIs achieved by applying this philosophy, including increased level of students' satisfaction, providing problem-solving templates, changing the institution’s culture, identification, and reduction of hidden costs, tackling the process efficiency problems, establishing measures

and so on. However, it is clear that the desire, potential, and opportunity for Lean are enormous, with a large number of individuals who are aware that the need to provide effective and efficient services is crucial for both students and the academic community (Radnor and Bucci, 2011).

LITERATURE REVIEW

Some of the significant papers on the application of Lean in the educational sector are Comm and Mathaisel (2003, 2005), Emiliani (2004, 2005), Moore et al. (2007), Hines and Lethbridge (2008), Doman (2011), Flumerfelt and Green (2013), Sinha and Mishra (2013), Antony (2014), Flumerfelt et al. (2015), Thomas et al. (2015), Waterbury (2015), Emiliani (2016), etc.

Comm and Mathaisel (2003) have provided a framework for development and implementation of Lean initiative at universities and identification of the best Lean practice at the institutional level, which can contribute to the sustainability of universities (2005). Emiliani (2004) have described the application of Lean principles and practices for improvement of business leadership course, taken by part-time working professional students. He (2005) concluded that Kaizen (Lean tool) is an effective way to improve business courses and values for students. Moore et al. (2007) have dealt with the application of Lean methodology in the administration area of university to overcome the significant financial issues. Hines and Lethbridge (2008) argued that academic environment is more difficult to change than many other conventional environments and have presented the steps necessary for the development of effective Lean enterprise in such environment. Doman (2011) has put accent on the administrative activities and used Lean principles and practices to improve university administrative processes through an innovative and engaging learning experience.

Flumerfelt and Green (2013) have emphasized that Lean wakes up growing interest in the education sector as a useful organizational philosophy and an administrative toolkit. For Sinha and Mishra (2013) Lean's influence in Higher education is very encouraging and achieved benefits include cost reductions, shorter cycle times, and increased satisfaction level for students and faculty, etc. Antony (2014) views Lean as a powerful methodology, which reduces waste and non-value added activities in business processes, and resolves identified problems in a cost-effective way. Flumerfelt et al. (2015) have concluded that Lean education provides a knowledge base and practice for students, using serious learning achievements and desired competencies in the workplace. Thomas et al. (2015) sought to identify the key management strategies applied by institutions of Higher and further education to determine the effective implementation of Lean.

Waterbury (2015) have focused on key success factors (training, leader support, skilled executives, project selection, staff dedication, IT resources) and challenges (time limit, financial capabilities, different understandings) faced by HEIs during the application of Lean concept. Flumerfelt et al. (2016) highlight the

new approach to Lean education, education of Lean leaders, where the focus is on the holistic preparation of graduate students for leadership, using the philosophy, culture, basics and tools of Lean production to help the company to achieve success. Finally, in his recent work Emiliani (2016) states that some leaders of HEIs, seeking answers to basic problems of costs, quality and service delivery, have adopted Lean management to improve processes, although this was largely limited to administrative processes, while basic academic processes remained largely untouched.

LEAN UNIVERSITIES AND ASSOCIATIONS

The implementation of Lean in Higher education is a raising trend, which has started at universities in the United States (Michigan Technological University, University of Central Oklahoma, and Winona State University). University of Nottingham (England), Cardiff University (Wales), Edinburgh Napier University (Scotland), University of Aberdeen (Scotland), St. Andrews University (Scotland) and others are also considered pioneers in this field. A group of universities from the United Kingdom formed the Lean Center for Higher Education (LeanHEHub), while in Scotland a collaborative network of Higher education professionals working in the field of continuous improvement (SHEIN - Scottish Higher Education Improvement Network) was established to encourage sharing resources and best practices, online and face-to-face. It is also important to point out the Chalmers University of Technology (Sweden), the University of Ljubljana (Slovenia), as well as universities in Belgrade, Novi Sad and Kragujevac (Serbia). By applying the Lean philosophy, all these universities have succeeded in improving their processes and significantly reducing costs of doing business. Antony (2014) agrees there are many educational institutions that have begun with Lean to improve the efficiency of processes, including the previously mentioned St. Andrews and Cardiff universities, as well as the Central Connecticut State University, the famous Massachusetts Institute of Technology - MIT and others.

Apart from the aforementioned universities and faculties, different organizations, associations and networks share the best practices in Lean implementation, exchange knowledge and teaching materials and, throughout cooperation, support improvement of Lean education. Lean Education Academic Network (LEAN) is a group of university educators dedicated to implementation of Lean education in high academic circles in the United States, as well as the continuous improvement of Lean education through the exchange of knowledge and teaching materials, cooperation and networking among colleagues. LEAN insists that industry and academia leaders engage in the development of new approaches to teaching Lean philosophy to university students.

Lean Enterprise Institute - LEI is a nonprofit training, publishing and research center founded by James P. Womack in 1997 to provide people with simple but powerful tools that will enable them to apply Lean's philosophy. The global

mission of the institute is to be a leading educator in maximizing value and minimizing waste.

Very important is also Lean Aerospace Initiative (LAI) Educational Network (EdNet), i.e. network of universities that systematically study the Lean concept, where the dominant role still belongs to institutions from the USA. LAI EdNet was founded in 2002 and consists 32 universities (from the United States and the UK) sharing interest in collaborating on the development and introduction of the curriculum for Lean and Lean Six Sigma learning.

LEAN website (www.teachingLean.org) and databases are set up to point out the professors at teaching materials (articles, books, simulations, games, videos) proved to be useful, while papers, books and monographs are also available for those who want to learn more about Lean than the standard courses offer.

Lean Enterprise Research Center - LERC offers various postgraduate courses, including executive courses, custom courses and conventional master courses, focused on Lean philosophy and developed mainly at the request of the industrial community. They insist on transforming the academic knowledge into practical application.

The companies in the field of Lean education have formed the ***Le2™***, Lean program specially designed by licensed educators with expertise in this field and certified Lean masters, to meet the unique needs of education, but also to take advantage of this methodology in other industries.

LEAN EDUCATION IN SERBIA

Lean development and implementation in the field of Higher education is still at the beginning. There are much more opportunities for development and much to learn from the experiences of other public service organizations. Education significantly lagged behind in the introduction of the Lean concept, even in relation to public administration. Lean courses are present only in a small number of universities. This is particularly worrying in Serbia, which is in a difficult economic situation from which it cannot get out without the application of Lean thinking. Unfortunately, there is not nearly enough graduated students leaving the universities with knowledge of Lean concepts and tools. Given the low productivity of enterprises in Serbia and the weak links between universities and businesses, the goal is to establish better cooperation by developing the ability to solve the practical problems of Lean implementation and to educate students and employees in the field of Lean thinking in order to improve productivity, efficiency and product quality. The partnership between businesses and universities will also contribute to the practical integration of knowledge in existing curricula and enable students to take practical training in enterprises during their studies. Acceptation of Lean philosophy opens the possibility of better HEIs positioning at the national and global level, simplifies the process of university integration, increase the visibility of universities and the level of competitiveness of our Higher education.

When it comes to Lean in Serbia, it is important to point out that PhD professor Vojislav Stoiljković at the Faculty of Mechanical Engineering in Niš has introduced the subjects: Lean organization, Value stream mapping, Quality tools, etc. more than 10 years ago. These subjects are still present at bachelor and master studies. It is also significant to mention that the Faculty of Technical Sciences from Novi Sad, the Faculty of Organizational Sciences from Belgrade and the Faculty of Engineering from Kragujevac have participated in the realization of TEMPUS project named "LeanEA - Production and Profitability improvement in Serbia Enterprises by adopting Lean View definition in a new window Thinking Philosophy and strengthening Enterprise - Academia connections". TEMPUS is a European Union program that supports the modernization of Higher education in partner countries from Eastern Europe, Central Asia, the Western Balkans and the Mediterranean, mainly through university cooperation projects.

LeanEA was a three-year project coordinated by the University of Novi Sad. The main goal of the project was to improve the quality and relevance of Higher education and to build the capacity of HEIs in Serbia, especially for international cooperation, continuous process improvement, orientation at practical knowledge and skills, and connection with the society in general. One of the important common conclusions of the project was the need for Lean to be introduced into every organization, as it has become the main precondition for survival in the global market for any organization. Some of the project goals were: capacity building for enterprises to resolve Lean implementation practical problems and education; educating and training the university staff, students and enterprise employees in Lean; improvement of existing curricula with Lean elements to fulfil Bologna process requirements for more practical knowledge and to enable better preparation of students for work requirements, etc

Researches conducted at the Faculty of Technical Sciences in Novi Sad have demonstrated that implementation of Lean concept in Higher education processes leads to significant effects, which are primarily reflected in the reduction of passive times (up to 90%), reduction in the number of flow activities (up to 50%), reduction in the number of required system elements (up to 40%), increase in the utilization of equipment and human resources (up to 20%), and increase of the overall effectiveness of educational systems (Radošević, 2013).

LEAN IN HIGHER EDUCATION VS. LEAN IN OTHER SECTORS

Although its roots are in production, Lean is being increasingly used in various fields, including the Higher education, with the exceptional success. This opinion is shared by Doman (2011), claiming that Lean principles and practices used in industry can be successfully applied to improve Higher education processes through an innovative and interesting learning experience involving students. Langer (2011) concludes that Lean can be applied to education, but with results

that are less spectacular than those in manufacturing. According to him, Lean in education is very different from Lean in production, because the education sector is particularly difficult to carry out any major change initiative, and because the conceptual foundation of educational Lean is less sophisticated and powerful than the production Lean.

Radnor et al. (2006) claim that although Lean in Higher education follows the same principles and practices of Lean management applied in services, manufacturing or the public sector, it must take into account the unique management structures of Higher education institutions. The following table shows the comparison between the production and educational institutions. The degree-seeking students are the products in process. They are the raw materials when admitted and by going through the different courses, students move across successive stages to get a degree. The graduates are the finished product carrying a brand name (HEI name) like a label of manufacturer. The employers are the customers for the HEIs, graduates employed are the sales, and graduates unemployed are the unsold products. Starting salary of employed graduate is the cost of the product.

Table 1. Analogy Comparison for Industry and Education institutions

INPUT COMPONENTS	EDUCATION INSTITUTION
Secondary schools	Suppliers
Admitted Secondary Graduates	Raw materials
Student	Product in process
Courses	Process stages
Graduates	Finished products
Employers	Customers
Number of Graduates Employed	Sales
Number of Graduates Unemployed	Unsold product (Inventory)
Starting Salary	Price or cost of the product

Source: Sirvanci, 2004.

Although Higher education can learn from successes and failures in production organizations and adopt approaches that ensure the successful implementation of Lean practice, there is no doubt there are differences between products on the production grid and those in education. However, a huge similarity still exists in the delivery systems of these organizations, which comprise thousands of complex processes. As such, many aspects of process improvement and other Lean tools can be applied and are applied to improve the delivery of education process. Thus, Lean in education can be implemented in a similar way to Lean in other sectors. This is because teaching and administration consist, partly or completely, repetitive processes (Sinha and Mishra, 2013).

Whether it is a teaching or back-office administration, the task of HEIs is similar to Lean management practiced in other service activities, because both teaching and administration consist of unique transaction processes, completely or in part. The influence of Lean in academic activities has also been tested and found to be potentially useful. Benefits include reducing introductory times, increasing transit, lowering costs, increasing student satisfaction, and so on. Radnor and Bucci (2011) have identified a number of positive facts that derive from Lean application. This includes positive changes in the culture of Higher education where staff understands the Lean concept. In addition, Lean gives to personnel the opportunity to come up with effective solutions. Likewise, Lean is empowering staff, enabling them to make key decisions and implement changes in their business processes. Lean is also enabling Higher education to achieve quick wins and immediate impacts, which frees up capacities and enables staff to engage in the improvement of other processes. Finally, Lean is providing opportunities for staff to be involved in internal processes improvement activities.

LEAN AND PROCESSES/ACTIVITIES IN EDUCATION

Education is an expression that is used to comprehensively describe the system of processes involved in providing and supporting the development of knowledge, skills and conclusions by a student or a group of students. In fact, the processes for which an individual is responsible define each position in education from a student to a manager.

Educational processes include teaching and learning, research and development, curriculum design, training and scheduling, program and administration courses, examination and results, rewarding and awarding diplomas, etc. Education administrators, faculties and staff are challenged to accept the need to improve the processes and arising benefits. Their goals are: to better understand the Lean principles of continuous improvement and respect for people; to understand and practice management without zero-sum; to get involved in daily improvement (as opposed to periodic improvement efforts); and to shift focus from "results" to "process and results".

HEIs have become a significant area for Lean researchers to estimate the applicability of Lean principles. Traditionally, their purpose is to teach, conduct researches, and build students as workforce for industry. In order to educate students, universities develop curricula, engage in knowledge generation activities, accelerate the activities of professional development of students and establish academic administrative processes to support their mission.

The experts believe that, although Higher education has unique characteristics and sometimes poorly defined processes, Lean principles can and need to be applied through HEIs. Although these principles should be suitable for all processes, some characteristics such as bureaucratization in Higher education make them difficult to achieve. The fact is that all universities have obstacles in

developing new programs, i.e. curricula constraints and obstacles to accreditation. Lean programs also face limited availability and access to quality teaching materials. That's exactly the reason why universities can achieve greater success by integrating Lean principles into existing subjects, rather than trying to modify the curricula and face the inevitable problem of capacity, accreditation, and faculty policy.

Doman (2011) claims that students play a very important role in advancing university processes, while at the same time adopting new knowledge and skills highly valued in industry. He proved that students quickly learn basic Lean principles, tools and practices. Afterwards, they increase this knowledge by applying it in a joint effort to improve significantly university administrative processes. It is evident that many authors in the field of Lean education have dealt with administrative activities, such as the process of changing grades and designing courses, disregarding the core processes such as learning (teaching, assessment), research, etc. One of them are Svenson et al. (2015), claiming that auxiliary processes at the university (such as administration, finance, procurement and IT) must be effectively organized to provide students, researchers and faculty with necessary support to become outstanding.

Balzer et al. (2015) call for the creation of culture that challenges all employees to continuously improve university processes and empower them to find and repair bad processes wherever encounter them. Nevertheless, despite such examples of success, it is important to point out that for successful implementation of Lean principles in educational processes main challenge is lying in managing change. This applies to both students and faculty staff because they accept the need and benefits of continuous processes improvement and respect for people. Additionally, Sinha and Mishra (2013) proved that Lean principles used in educational institutions have led to improved teaching and learning, as basic academic processes, but also enabled cost savings, better employee performances, job satisfaction, and overall improvement in the organizational processes.

LEAN AND EDUCATIONAL LOSSES

Lean is a powerful methodology for reducing waste and non-value adding activities in business processes, which solves visible problems in an economical manner (Antony, 2014). The basic goal of Lean philosophy in Higher education is the overall elimination of waste. Waste is any activity that absorbs resources but creates no value. Resources saved through waste elimination can be reinvested by the HEIs to other priority processes to achieve expected performances. Elimination of waste in Higher education processes ensures the strategic competitive advantage of HEIs. Besides, elimination of non-value added processes and activities would enhance the quality of teaching, attract high-achieving students, improve university reputation, etc.

Lean needs to be applied to identify waste in educational processes and then to eliminate that waste. Before HEIs begin with waste elimination, people working in those institutions must recognize it. Although there is a lot of potentials to improve customer value and eliminate waste at universities, leaders of HEIs, as well as the majority of other leaders, do not take into account waste and losses in their operations, and therefore they are not efficient in cost reduction (Emiliani, 2005). Objectively observing, each faculty and university can be a good candidate for Lean practice and there are numerous opportunities for eliminating waste and redundancy and focusing on the core competencies of the institution, which are teaching and doing research (Comm and Mathaisel, 2005). Nevertheless, in order to achieve this, different categories of losses and waste must be identified. The following table gives few examples of losses identified in education compared to losses in industry.

Table 2. Comparison of Losses between Industry and Education

INDUSTRY LOSSES	EDUCATION LOSSES
Interruption losses	Cancellation of classes due to strikes, student miss the class due to emergency, etc.
Initial arrangement and fine-tuning losses	Newly enrolled students get admission into some other courses leave the present course.
Minor idling stoppage losses	Infrastructure is not adequate and strengthened to ensure that the classes and the practice sessions are held without interruption
Disturbed speed losses	The coverage of syllabus and technical sessions are not at the pace planned.
Defect/rework	Conduct of extra and special classes for the students who have failed in theory and practice tests and examination.
Initial Start-up losses	Students not exposed to fundamental principles and language skills fail to perform in written tests and examinations.

Source: Korgal and Badiger, 2016.

Jahan and Doggett (2015) have focused in their study on the various categories of waste (muda) and unevenness (mura) in HEIs. Some of the wastes identified by the students involve poor campus layouts, uneven scheduling of classes, poor understanding of curriculum, inadequate communication between faculty and students, and improper management of facilities, resources and inventory. The students opined that HEIs could implement Lean principles by being customer focused, applying continuous improvement and involving students and staff, and constantly reducing muda and mura.

In the end, it is important to mention eight categories of wastes (with examples), presented by Douglas et al. (2015). After identification of each category of waste in HEIs, attention needs to be focused on finding an adequate Lean solution to eliminate this waste.

Table 3. Wastes in Lean HEIs

WASTE	WASTE FOR HEIs	EXAMPLES FROM HEIs
Excess motion	The unnecessary movement of staff and students. Departments scattered across various sites/campuses.	Moving staff and students between classrooms or from one campus site to another.
Excess transportation	The movement of materials such as paper, multiple approvals, multiple handovers. Excessive e-mail attachments.	Multiple approvals for conference attendance, moving paper, parts and materials around buildings and between different campuses.
Underutilized people	Not using people's full abilities. Not giving people the right work.	Staff not teaching their specialist subject area, not teaching post graduate courses, no research or scholarly activity time.
Inventory	More supplies or items than required. Records and documents held longer than usually required.	Too many marketing brochures, too much stationery and other documents. Too many photocopies of class notes, storage for all the above in offices or stockrooms.
Defects	Errors in inputting data, underutilized classrooms.	Wrong grades input into system, correcting and checking data. Timetabling errors.
Over production	Producing more than what is needed for immediate use. Unbalanced workload across semesters and uneven scheduling.	Too many teaching handouts made in advance and then stored. Staff workload is uneven across semesters and timetabling of students is not level across days or weeks.
Waiting	Queuing for anything, waiting for documents to be approved, IT systems downtime, looking for files, books and documents. Time taken to respond to student queries.	Waiting for multimedia systems to start up or classrooms to empty of previous occupants, waiting for maintenance engineers, waiting for permission or approval, searching for books, papers, handouts etc.
Over processing	Overdesigning a product or a service for a customer. Multiple approvals or handovers. Multiple checks. New course or programe launch without having the processes ready to deliver.	Too much information via e-mail, too many signatures required, and too many people involved. Too many student surveys and too many meetings.

Source: Douglas et al., 2015.

FACTORS OF SUCCESSFUL LEAN IMPLEMENTATION IN HEIs

Higher education institutions have been experimenting with Lean since mid-2000 and soon has become obvious that Lean implementation in education is similar to Lean implementation in other business sectors, when it comes to factors that contribute Lean success. It has proven that successful implementation of Lean, even in the traditional areas such as manufacturing and engineering, requires changes in the technical and cultural aspects of the organization.

Balzer et al. (2015) believe that the success of any significant organizational change effort, including implementation of Lean in HEIs, will depend on whether the university is adequately prepared to implement system-wide change. Two factors related to institutional readiness are workplace climate and leadership practices. The climate refers to the common perception of employees and attitudes about their work environment. A healthy climate provides a high level of motivation, dedication and job performances.

Furthermore, it does not come into question that Higher education also requires a clear direction and guidance to ensure that planned goals are achieved and expected level of performances is reached. Exactly the failure of leadership to embrace Lean is the most likely reason if it has not caught on within and across Higher education (Byrne, 2013). Emiliani (2016) adds that words and actions of leaders, including their control over the allocation of resources, strategy, and organizational obligations, affect whether working environments will support or condemn the implementation of any Lean initiative in HEIs. Better leadership practice is particularly needed in situations where the application of Lean initiative in Higher education is crucial to the institution, when it affects a large number of individuals in and outside the university, and when the climate is neutral or hostile to change.

Moreover, the level of leadership support will depend on a number of factors, including their power and influence, personal commitment to Lean implementation and the availability of their time for resolving conflicting interests. Without uncompromised leadership commitment, support and dedication any Lean effort will be absolutely futile, so lack of visionary leadership has been widely reported as a fundamental barrier to the successful implementation of Lean.

Over all, it would be wise to consider jointly the workplace climate and leadership practice, when reviewing the readiness of HEIs for implementation of Lean principles and practices. Strong working climate and strong leadership practice may signal the willingness for Lean initiative throughout the university, whilst less supportive climate and limited leadership practice may restrict the scope of Lean (Byrne, 2013). Where working climate and leadership practice are very variable or constantly not supportive, it may be best to postpone the implementation of Lean in Higher education or even to abandon it (Balzer et al., 2015).

Antony et al. (2012) point out that Lean implementation is not favour to many leaders, mainly due to the lack of awareness of Lean's benefits outside the manufacturing, lack of commitment and support of executives (which makes it difficult to cultivate the culture of continuous improvement), and lack of process thinking and process ownership (because process thinking is not dominant in many HEIs and the establishment of processes requires a mindset change). They have identified critical success factors for the implementation of Lean in HEIs as strategic and visionary leadership and organizational culture. The same authors state the lack of communication at various levels, along with the lack of resources (time, budget) and weak link between projects of continuous improvement and strategic goals of Higher education, as obstacles in Lean implementation. Similarly, Radnor and Bucci (2011) cited the lack of responsibility, change ownership, personnel dedication, inadequate resources and training, and resistance of academic managers as the main challenges faced by Higher education when implementing Lean. Nevertheless, the most institutions of Higher education believe that leadership commitment is the most important aspect in the successful implementation of Lean. Therefore, Byrne (2013) advises that Lean cannot be just one of the 10 elements of business strategy, but foundation for everything that needs to be done in order to become the part of organizational culture. He points out - Don’t just do Lean, be Lean.

CONCLUSION

The main purpose of this paper was to present the possible ways to improve Higher education throughout the implementation of Lean concept and to identify positive effects of Lean on educational processes.

It is well known that external pressures have forced HEIs to consider new ways of operating in order to improve their academic and administrative processes and achieve higher level of performances. As a solution, they have turned to the implementation of Lean practices in order to upgrade the efficiency and effectiveness of university processes.

Lean is often defined as management concept focused on reducing waste and continuous process improvement, by either increasing customer value or reducing non-value adding activities. Lean provides tools, principles and methods that could be used to gain numerous benefits to educational system. Among those benefits are cost reduction, lesser cycle times, increased students' satisfaction and significant achievements in learning, provision of desired workplace competencies, better employee performances and job satisfaction, changed institutional culture, and overall process improvement. Lean has the potential for the significant quality improvement of Higher education, as it provides opportunities and tools for a comprehensive process renovation and cost reduction. Unfortunately, Lean efforts are mainly focused on administrative activities, neglecting the core academic processes of teaching, learning and research.

The essence of Lean is to eliminate all types of wastes, losses and non-value adding activities in business processes, and to solve visible problems in an economical manner. The application of Lean initiatives at HEIs leads to creation of optimal educational system, free from all forms of wastes and losses. Some of the wastes, identified by the students, involve poor campus layouts, uneven scheduling of classes, poor understanding of curriculum, inadequate communication between faculty and students, and improper management of facilities resources and inventory. After identification of each category of waste in HEIs, attention is focused on finding adequate Lean solution to eliminate this waste.

The success of any significant organizational change, including the application of Lean in Higher education, will depend on whether HEIs are adequately prepared to implement the change throughout the system. In that context, main challenges in Lean implementation are incorrect understandings of its tools and practices, resistance to changing organizational culture and lack of leadership support. To overcome those challenges, HEIs need to be user-oriented, to apply continuous improvement on a regular basis and to constantly involve students and their employees in Lean initiatives. To conclude, is clear that the desire, potential and opportunity for Lean are enormous, with a growing number of HEIs aware that Lean needs to be introduced into every organization, as it has become the main precondition for survival in the global market.

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Part III

ENTREPRENEURIAL INITIATIVES AS A FACTOR OF EMPLOYMENT

THE ROLE OF HRM PRACTICES FOR INCREASING EMPLOYEE PARTICIPATION

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APSTRACT

This research paper aims to make a short theoretical overview of the human resource management practices and employee participation and to empirically measure their practical aspects. 359 employed professionals from different companies in Bulgaria took part in the study. HRM practices were explored by two questionnaires. The first one followed David Guest (1987) theory for personnel and human resource management and by creating 11 doubled items analysed the employee perceptions. Almost all of them influence participation as the aspects that are more HRM oriented have the higher mean values. The other perspective of analysing the HRM practices is based on four aspects. Work characteristics have the highest mean value, followed by managerial styles and values and remuneration and social benefits and the lowest is the perception of the recruitment systems and performance appraisal. Participation is explored within the organizational citizenship behavior perspective and correlates positively with all 4 HRM aspects (correlation coefficients vary between 0,377 and 0,590). 37% of the variation within employee participation is explained by almost all of HRM aspects. The strongest predictor turned out to be the managerial styles and values, followed by recruitment systems and performance appraisal and work characteristics which have reverse effect on participation. As a whole, the results show that the right approach to people management in the organization increases their attitude to participate in extraordinary work activities and contributes to their citizenship behavior and work performance.

Key words: *HRM Practices, Employee Participation, Organizational Citizenship Behavior*

JEL Classification: *O15, M12, J24*

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INTRODUCTION

The success of every organization is measured to a great extent by the whole performance of its employees. Those professionals are selected, recruited, hired, trained, motivated, developed, challenged, further qualified, etc. The organization expects from them to strictly follow the requirements in their job description, to be fully involved, to produce more and more, and to increase their effectiveness. On the other side, employees also have their expectations. In the very beginning of their mutual professional life, employees and organization sign the so called "psychological contract" that defines all the informal aspects of their interrelations. Both sides quickly understand that it is not only about what one should do but also about satisfaction, identification, extra-role behavior, involvement and participation. One of the factors that strongly influence those aspects are the HRM practices.

HUMAN RESOURCE MANAGEMENT CONCEPT

Human resource management can be defined as a strategic, integrated and coherent approach to the employment, development and well-being of the people working in organizations (Armstrong & Taylor, 2014). It was defined by Boxall and Purcell (2003, p.1) as "all those activities associated with the management of employment relationships in the firm". This includes: personnel selection, recruitment, on boarding, training, development, compensations and benefits, retention, definition of employment needs, competency mapping, appraisals, career paths, performance management, turnover, health and safety, motivation and many others. As a whole, HRM is a broad scientific field and every scholar is analysing it from his/her own perspective. It also has some main goals (Armstrong & Taylor, 2014, p.5):

- support the organization in achieving its objectives by developing and implementing human resource (HR) strategies that are integrated with the business strategy(strategic HRM);
- contribute to the development of a high-performance culture;
- ensure that the organization has the talented, skilled and engaged people it needs;
- create a positive employment relationship between management and employees and a climate of mutual trust;
- encourage the application of an ethical approach to people management.

The idea of human resource management is relatively new, compared to other spheres of business, economics and psychology. The concept started to develop at the end of the 18th century with the industrial revolution boom and labour organization. Frederick Taylor's "scientific management" develops the idea of work specialization and educating the workforce in very specific skills which leads to the emergence of the so called "assembly lines" (Henderson, 2011). However, the human factor is neglected and people start losing motivation and interest in

their work. Later, in the 1930s, Elton Meyo conducts the well known Hawthorne studies. It turned out that performance is interrelated not with the work itself (only) but with motivation, satisfaction, personal needs of the employees (Armstrong & Taylor, 2014). This put an accent on the behavioral aspects of the human resource management and the key factor for successful management – the human one.

A new perspective in the human resource management starts to develop in the 1980s and 1990s when the organization is treated as a key competitive advantage that should be managed and developed effectively. Strategic planning becomes crucial management element (Reidy, 2015). The Chartered Institute of Personnel and Development (CIPD, http://www.cipd.co.uk/) has even developed a holistic concept that includes terms like „strategic", „added value", „client advantage" and the idea for „cheaper, faster, easier" production of goods and services (Francis & Keegan, 2006). The market economics and the „spirit of capitalism" define the temps and direction of the development of the organizations. The human resource management is part of the whole strategic policy of the company and human capital is the main production force and source of customer satisfaction and profitability. Selection, recruitment, talent acquisition, management and retention are the basics of outdstanding results of the business process. Those, who know how to manage this talent and workforce, are actually the one leading the company to success.

The Society for Human Resource Management (SHRM) and its affiliated Certification Institute (https://www.hrci.org/) have identified six broad functional areas of human resource management (Steward & Brown, 2011, p.13):

- Strategic Management - Working with other parts of the organization to establish goals and provide quality goods and services;
- Workforce Planning and Employment - Identifying jobs that capture employee tasks; recruiting and selecting desirable employees;
- Human Resource Development - Measuring employee performance; teaching employees new knowledge, skills, and abilities;
- Total Rewards - Paying employees fairly; administering benefits such as insurance;
- Employee and Labor Relations - Establishing and managing relationships between the company and employees; working with labor unions;
- Risk Management - Establishing procedures to provide a safe and secure working environment.

HRM MODELS

One of the basic separations of the human resources is based on the model proposed by Guest (1987) for personnel management and human resource management. The main differentiation is in the understanding of several crucial characteristics which divide the two concepts generally as administrative and bureaucratically vs. strategically oriented. Those aspects are related to the nature of the human resources approach – either short-term or long-term; psychological

contract (based on compliance or willing commitment); job design; hierarchical or flexible organizational structure; remuneration; recruitment; training and development opportunities; trust in employee relations; acceptance of the HR function and criteria for effectiveness of it, etc. (Guest, 1987; Henderson, 2011; Alexandrova, 2016).

Some other authors use similar classifications. Armstrong (2006) speaks about 4 types of management – people management, personnel management, human resource management, human capital management. Linda Reidy (2015) makes a parallel between personnel and human resource management on the basis of 4 factors – integration, strategy, employees-managers relations and organizational design. The workforce becomes more flexible and multi-functional. The recruitment processes focus on the professional and educational background but together with that – on the adaptability and fit to the existing teams (DukeII & Udono, 2012; Francis & Keegan, 2006). So the main goal of the HR experts is to meet the best company with the best employees.

Another very popular classification of the HRM models is the one of the "hard" and the "soft". This differentiation is quite popular in the business but it also has quite a solid theoretical background. Usually, the hard models treat the human resource as equal to all the other resources in the company. The focus is on the organization itself, its goals and functional needs. The soft models, on the other side, are built on the personality traits, emotions and behaviors of the employees. This somehow reflects the "X and Y" theories of McGregor where the first emphasis the production processes and the final result and the second one – people's satisfaction and personal value for reaching the goals (Truss, et al., 1997; Reidy, 2015; Armstrong, 2006).

One more well known model is the "7-s model" of the McKinsey Consulting Group (http://www.mckinsey.com/). It also divides the "hard" and the "soft" in the HR. The hard part includes the structure, systems and strategy and the soft one – style (of the management), staff, skills and shared values. This somehow is a continuation of what was previously said. When the focus is on the personnel management, the important thing is understanding the organization as a structure that functions due to different systems and long-term strategy. Employees are valued as a means for reaching the goals. When you want satisfied, motivated and involved people, you choose inspiring leaders that appreciate and develop skilled and talented professionals, share values and everyone is involved in the strategic planning and forecasting. This is actually the next step to strategic HRM where the HRM is part of the whole organizational strategy (Wright & McMahan, 1992).

EMPLOYEE PARTICIPATION AND HRM

One of the main criteria for HRM effectiveness is the employee performance. High-performance working was defined by Combs et. al. (2006) as the sum of the processes, practices and policies put in place by employers to enable employees to perform to their full potential. They referred to employee participation and flexible working arrangements as examples of such systems that have a direct impact on ways of working and therefore flow through to job design. Sung & Ashton (2005) defined high performance work practices as a set or 'bundle' of 35 complementary work practices covering three broad areas:

- High employee involvement work practices – e.g. self-directed teams, quality circles and sharing/access to company information;
- Human resource practices – e.g. sophisticated recruitment processes, performance appraisals, mentoring and work redesign;
- Reward and commitment practices – e.g. various financial rewards, family-friendly policies, job rotation and flexible hours.

One of the key aspects of productivity is the employee participation. This is "a process which allows employees to exert some influence over their work and the conditions under which they work" (Heller, et al., 1998, p. 15). It is related to the will of the person to do something voluntarily without any pressure to do so. Participation also means active involvement and dedication in a certain process – decision making, intensive internal communication, team work, etc. (Hiltrop, 1996). In the current paper participation will be analyzed as a dimension of the organizational citizenship behavior concept.

The idea of organizational citizenship behavior starts to develop at the beginning of 20th century but it gains a solid research base in the 1980s and 1990s, mainly with the researches of Dennis Organ who defines the concept as individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization. By discretionary, he means that the behavior is not an enforceable requirement of the role or the job description, that is, the clearly specifiable terms of the person's employment contract with the organization; the behavior is rather a matter of personal choice, such that its omission is not generally understood as punishable (Organ, 1988). That's why it is usually associated with extra-role or prosocial behavior, organizational spontaneity and other similar (Van Dyne, et al., 1994; Smith, et al., 1983). It was established that satisfaction, fairness and organizational commitment correlated with such behaviors (Organ & Ryan, 1995). Personal factors such as positive job attitudes, situational factors as the organizational values, job characteristics also influence the "out of the role behavior" (Van Dyne et al., 1994).

One of the research tendencies in organizational citizenship behavior describe it as an "active citizenship syndrome". There are three interrelated substantive categories of civic citizen responsibilities that make up this syndrome. The first

category is obedience and involves respect for structures and processes. Responsible citizens recognize rational-legal authority and obey the law. They strictly follow and support the established rules. The second category, loyalty, expands welfare functions to include serving the interests of the community as a whole and the values it embodies. Loyal citizens promote and protect their communities to outsiders and volunteer extra effort for the common good. They actively participate in creating the positive and socially responsible image of the company. The third category, participation, entails active and responsible involvement in community self-governance in whatever ways are possible under the law. Responsible citizens keep themselves well informed about issues affecting the community, exchange information and ideas with other citizens, contribute to the community and encourage others to do likewise. Organizational participation is interest in organizational affairs guided by ideal standards of virtue, validated by an individual's keeping informed, and expressed through full and responsible involvement in organizational governance. (Van Dyne et al., 1994).

Different researchers have found out that some organizational aspects influence employee participation. Trainings and development programs influence the occurrence of civic virtues, proactivity and participation in different events organized by the company, courtesy and willingness for common understanding and cooperation (Ahmad, 2011). Researches also show that transformational leadership is a predictor of altruism and participation within the organization while transactional leadership is based on the economic exchange between the leader and his followers (Podsakoff, et al., 1990). There are also other aspects like work characteristics, personal predispositions and organizational climate that have a significant impact on the performance of employees.

EMPIRICAL RESEARCH ON HRM PRACTICES AND EMPLOEE PARTICIPATION

RESEARCH METHODOLOGY AND SAMPLE

HRM practices are measured by two different questionnaires. The first one is based on the model of David Guest for personnel and human resource management (Guest, 1987; Henderson, 2011). Using the 11 dimensions of comparison between the 2 models, 11 double items were created (Alexandrova, 2016). The participants should pick one of them. Each item is taken into consideration individually and they are not grouped in 2 subscales as every item reflects different perspective. The internal consistency of the whole questionnaire is α=0,67, which is a good statistical value.

The second questionnaire examines the HRM approaches. It contains 38 items measured by 5-degree Likert scale from 1 – Fully disagree to 5 – Fully agree. Participants should have in mind their current organization. After the principal components factorial analysis with Varimax rotation, 4 scales have been created:

"Managerial styles and values" (18 items, α=0,95), "Recruitment systems and performance appraisal" (11 items, α=0,92), "Work characteristics" (6 items, α=0,82), "Remuneration and social benefits" (3 items, α=0,72). The internal consistency of the whole questionnaire is 0,97, which is very high statistical result.

Participation is measured within the concept of organizational citizenship behavior. The questionnaire used presents the construct of organizational citizenship behavior as multidimensional (Van Dyne, et al., 1994). It includes obedience, loyalty and participation. After an exploratory factor analysis (made by Van Dyne and colleagues) 34 (out of 54) items are proposed. Initially, they form 5 factors but after additional statistical operations the final solution includes 3. Participation includes 11 items and has internal consistency of α=0,84. Some of the items are: Most of the people in the organization: "Encourage other to speak up at meetings"; "Have difficulty cooperating with others on projects" (reversed item), etc.

359 participants took part in this study – all of them employed in companies from different sectors in Bulgaria. 176 of those (49%) are men and 179 (49,9%) – women. Based on age, most of the people are between 26 and 35 years old (181 people, 50,4%), followed by those between 36 and 45 years (103 people, 28,7%), 46-55 years (37 people, 10,3%), under 25 years (20 people, 5,6%) and over 55 years (12 people, 3,3%). 79,1 % of the respondents (284 people) have university degree. Total work experience is divided in 7 groups: 94 of the participants (26,2%) have total work experience between 11 and 15 years, followed by those between 6 and 10 years (93 people, 25,9%), 3-5 years (57 people, 15,9%), over 20 years (50 people, 13,9%), 16-20 years (44 people, 12,3%), 1-2 years (12 people, 3,3%), under 1 year (3 people, 0,8%). The work experience within the current organization varies between 0 and 35 years with mean value M=4,64. Based on the industry, most represented are the professionals from "Information Technology" – 104 (29%), followed by "Construction, Architecture and Installing Activities" (64 people, 17,8%), "Human Resources" (41 people, 11,4%), "Financial, Banking and Insurance Institutions" (30 people, 8,4%), etc. Hierarchy level as a demographic factor is applied to 295 respondents (except for those from "Construction, Architecture and Installing Activities" sector): 90 "Senior Specialists" (25,1%), 82 "Specialists" (22,8%), 46 representatives of mid-level management (12,8%), 26 (7,2%) "Senior Management" and "Junior Specialists", and 25 "Team Leaders" (7%).

295 of the participants completed all of the questionnaires. The representatives of "Construction, Architecture and Installing Activities" sector did not fill in the Guest model questionnaire.

HRM PRACTICES

The first perspective of HRM practices analysis follows the Guest model (Guest, 1987) for the personnel and human resource management (Table 1).

Table 1. Aspects of the HRM practices, N=295

Human resources development perspective is:			
Short-term	27,12%	***72,88%***	***Long-term***
The "Psychological contract" (informal psychological relations between the employee and the organization) is based on:			
Employee compliance	26,1%	***73,9%***	***Voluntary engagement of the employee***
Work processes are structured in a way that the focus is put on:			
Serial production (Quantity based)	42,03%	57,97%	Team work
Organizational structure is:			
Hierarchical	***64,41%***	35,59%	Flexible
Defining remuneration is based on:			
The role occupied	44,41%	55,59%	The personal input
Personnel recruitment uses mainly:			
External channels	45,42%	54,58%	Internal channels
Training and development opportunities are:			
Limited; strictly related to work	***63,05%***	36,95%	Various and open for everyone

In the relations between the employee and the organization there is:			
Low trust	47,12%	52,88%	High trust
The HR function is:			
Specialist one; bureaucratic; separated from the line manager	51,53%	48,47%	Consultant one; deeply integrated in line management and flexible
The HR Specialist role is related to the employees' well-being:			
Yes and this leads to wrong expectations	42,03%	57,97%	No – they are not related
Success criteria for the HR Specialists activity is:			
Minimizing costs	21,69%	***78,31%***	***Costs control and maximizing the benefits***

The results show that some of the items (those that are related with the long or short-term perspective for human resources development; reasons for "psychological contract" signing; organizational structure; training and development opportunities; success factor for HR specialists activities) have greater difference between the 2 aspects while others are almost balanced (recruitment and work processes; trust between employees and organization, etc.) .

It is important to note that these results reflect the employee perception of the HRM practices. Having a long-term orientation (for 72,88% of the people) gives stability and security of the work place. Together with that, employees become more open to plan future activities and participate in the strategic picture of the company.

Working in a dynamic, sharing, tolerant organization, makes employees more oriented towards others, more cooperative and supporting which leads to citizenship behaviors. That is supported by the fact that people accept the work processes like more team oriented (57,97% of the people) than just focused on completing the tasks. They also have high trust (52,88% of the people) in their relations with the organization. Remuneration is formed on the basis of a combination of the standards and ranges for the role together with the personal input by the employee himself. Recruitment channels go in parallel internally (referrals, promotions, transfers, etc.) and externally (through vendors, outsourcing, etc.).

The perception of the organizational structure more like a hierarchical (64,41% of the people) than flexible one shows that employees need clear and understandable work models and straightforward management style. They accept the role of the HR specialist more like an administrative one and quite separate from the one of the line manager. It's not clearly defined how and whether (maybe not) this affects the employees' well-being (which is a wrong understanding of the role). Together with that, people need more and various trainings, not only related to their specific job role. The positive thing is that the HR activities are not only measured by cost reductions but with maximizing benefits for the company as a whole (78,31% of the people).

The other perspective of analyzing the HRM practices is based on four aspects. "Work characteristics" have the highest mean value of M=3,78, SD=0,81, followed by "Managerial styles and values" with M=3,40, SD=0,86, "Remuneration and social benefits" with M=3,39, SD=1,00 and the lowest is the perception of the "Recruitment systems and performance appraisal" - M=3,11, SD=0,91.

In the recent years employees have become more "picky" when they choose their next work place. It is not only about the good name of the company, the positive feedback and the excellent social image. Basic things like work conditions, flexible working hours, location of the office become essential. Working people are also family people and they need the freedom to organize their personal and professional tasks. Work-life balance is crucial for the whole employee satisfaction and effectiveness of the organization. Together with that, people want to be challenged at their work. They want to participate in new and exciting projects that will give them the chance to prove themselves, to learn new things, to climb the career ladder. The essence of the work is also a stimulator for greater involvement and personal input when it is interesting, dynamic and innovative.

Another very important part of the human resource management is the perception of the managerial styles and values orientation. The stronger the organizational culture of one company is, the more committed its employees are. Every organization is unique. It has built recognizable mission, vision, strategic orientation that position it on the market. All that is incorporated in the established internal norms and regulations, behavioral models, good practices, etc. Employees should follow the order created by the examples of their managers and colleagues. They believe that engaging in initiatives that support and promote the corporate identity will increase the benefits that they will gain personally and for the team and the organization.

Remuneration has always been an important part of the employee-organization relationship. What one is paid matter, no matter where it is placed in the hierarchy. Here it is taken into consideration not only the basic salary but the full package of social benefits – sport cards, food vouchers, additional health insurance, bonuses, etc. Employees value the justified distribution of the payment based not only of the ranges for the role but on the personal input as well.

Recruitment systems and performance appraisal is rated the lowest within the sample. This somehow might be accepted by the subjective understanding of those processes. This is the aspect of the HRM that might be influenced by the employees to the greatest extend. Selection and recruitment is the first process within an organization that a new joiner encounters. Based on the initial impressions and shared expectations further relations are established. That's why it is very important those to be clear, understood by the both sides. There should have direct and measurable performance criteria, steps for reaching and evaluating them. And this processes should be open and not subjected to personal and unprofessional motives because this will cause decrease in employee motivation, satisfaction and effectiveness.

THE ROLE OF THE HRM PRACTICES FOR INCREASING EMPLOYEE PARTICIPATION

Employee participation is crucial for the effectiveness of the HRM practices. Vice versa, the way human capital in organizations is managed and evaluated, the greater will be the involvement of its employees. Based on several aspects in the HRM practices, some statistically significant differences were discovered (Table 2).

Table 2. Differences in employee participation based on aspects of the HRM, N=295

EMPLOYEE PARTICIPATION	Aspect of the HRM	N	Mean Value (M)
p<0,01, t= -3,124, F=0,155	**Human resources development perspective is:**		
	Short-term	80	2,92
	Long-term	215	3,20
p<0,00, t= -4,282, F=0,013	**Work processes are structured in a way that the focus is put on:**		
	Serial production (Quantity based)	124	2,93
	Team work	171	3,27
p<0,00, t= -6,872, F=1,248	**Organizational structure is:**		
	Hierarchical	190	2,94
	Flexible	105	3,47
p<0,00, t= -3,636, F=0,717	**Defining remuneration is based on:**		
	The role occupied	131	2,97
	The personal input	164	3,26
p<0,00, t= -6,121, F=0,582	**Training and development opportunities are:**		
	Limited; strictly related to work	186	2,95
	Various and open for everyone	109	3,43
p<0,00, t= -7,227, F=1,561	**In the relations between the employee and the organization there is:**		
	Low trust	139	2,84
	High trust	156	3,38
p<0,00, t= -5,201,	**The HR function is:**		

F=0,695	Specialist one; bureaucratic; separated from the line manager	152	2,93
	Consultant one; deeply integrated in line management and flexible	143	3,34
p<0,00, t= -3,527, F=0,460	**Success criteria for the HR Specialists activity is:**		
	Minimizing costs	64	2,86
	Costs control and maximizing the benefits	231	3,20

Employee participation is higher when there is a long-term perspective for the development of the human capital within the organization. Clear vision and detailed plan of what is going to happen and how the people will be developed provokes engagement in those processes. People feel that they are valued and are more eager to participate in the organizational activities. As an addition to that, they perceive the work processes focused more on the team work than just getting the results done. This increases the cooperation, mutual support, knowledge sharing. People are open to learn new things. Each team member contributes with his/her personal skills, experience, etc. This leads to a positive spirit, more productivity and effectiveness.

Another factor that influences employee participation is the organizational structure. 64,41% of the employees in this study defined it more like an hierarchical one. However, the more flexible it is, the higher employee participation is. Strong structure and order help tracking the processes, taking responsibilities consciously, accounting for the results. It gives stability and security, everything is clearly documented. However, people need freedom in their work which is one of the main characteristics of the job. The business changes and each employee should adapt to its dynamics. No matter how stable one structure is, it should be modified in order to fit the new market requirements. Job roles become complex and multi-functional. People change positions within the organization, get promoted, etc. When employees see these opportunities and the support of the company to handle together the changes that occur, they are more eager to actively participate in organizational events. This is also based on high mutual trust between the two parties. Both the organization and the employee are open in the communication, sharing information, ideas, and good practices. This strengthens the bonds between them and increases the interdependencies which leads to the whole structure acting as one.

The active employee participation is influenced by the training and development opportunities as well. Many organizations offer such learning programs but most of them are limited to the specific job role (63,05%). However, this is not enough. The employee of today is very open to multi-tasking and gaining a wide range of personal and professional skills. It might not be related to what he or she is doing but this might help from a different perspective. Being enrolled in various courses and certification programs makes an employee more connected to its organization. This creates the feeling that he/she must give something in return to the organization and usually this is the effectiveness of reaching the goals. The new knowledge also increases the capabilities to fulfill a certain job and thus production time decreases and results are maximized. This also leads to the perception of remuneration based on personal input more that the ranges for the role. Not everyone involved in such training programs shows initiative and improve his/her performance. People who do so want to see that they are evaluated in a way that will distinguish the better performers.

Accepting the HR function is very important for the overall success of the organization. How the most valued resources (namely the human ones) are managed is essential for defining the strategic business goals in general. When this function is strongly presented and respected, employees feel comfortable, understood and supported. Employee participation increases when the HR Specialist is more than a personnel administrator. When the approach is a consultative one, integrated with line management, this helps the communication between team members and their managers. The relationship is not only related to service and knowledge exchange but to emotional bonds, sharing and stimulating development as well. This leads to the perception of the HR function as maximizing the benefits for all and parallel to that - controlling the costs.

Employee participation is explored within the organizational citizenship behavior perspective and correlates positively with all 4 HRM aspects (correlation coefficients vary between 0,377 and 0,590). 37% of the variation within employee participation is explained by 3 of the HRM aspects. The strongest predictor are the managerial styles and values (B=0,513, p<0,001), followed by recruitment systems and performance appraisal (B=0,154, p<0,05) and work characteristics which have reverse effect on participation (B= -0,146, p<,0,05).

Table 3. Influence of HRM practices on employee participation, N=395

	Participation – correlation coefficients (r)	**Participation – regression coefficients (β); R^2 = 0,367**
Recruitment systems and performance appraisal	0,533**	0,154*
Managerial styles and values	0,590**	0,513***
Remuneration and social benefits	0,422**	-
Work characteristics	0,377**	-0,146*
Correlation is significant as follows: ***p<0,001; **p<0,01; *p<0,05		

These results confirm the hypothesized influence of the HRM practices on employee participation. Managerial styles and values have the greatest impact. One of the most important thing in every organization is its culture and management approach. This is the basis of building a strong company that has a grounded mission, inspiring vision and challenging goals. The model that leaders give shapes the behavior of his/her direct subordinates. Being charismatic, transformational, supporting, empathic provokes more participation of the employees. Clear goals, performance criteria, and basic beliefs of what is right and what is wrong increase engagement, as well. People prefer structured working environment. Too dynamic and ambiguous situation provokes fear and uncertainty. If the organization has established mechanisms for change perception and management, this reduces the anxiety and balances the situation. The role of the managers is to exemplify the organizational values, to present them in a way that will cause understanding and identification with them.

Recruitment systems and performance appraisal as an HRM practice also predict employee participation. This is an aspect of the human resource management that employees have greatest contact with. Everyone undergoes the selection process. In the application for a job within a certain organization people have the chance to deeply explore the desired company from the outside (social image) and from inside (by referral and feedback from current employees). Taking part in the recruitment is the first step of direct interaction with that organization. This creates impressions and expectations for potential future relations. That is why both the candidate and the company should be open, sincere, sharing information, ready to engage in the process. The results also confirm this as more clear steps and criteria of recruitment, detailed job descriptions, documented work process provoke more involvement and commitment on behalf of the employee. Participation increases as well when the performance is appraised objectively, adequately and very concretely. In this regard, remuneration is not a direct predictor but it correlates positively with participation. When salary and social benefits are perceived as deserved, satisfactory and justified, people are more positive. Anything additional like food vouchers, additional health insurance, sport cards, rest zones in the offices, etc., also increases the eagerness of people to take part in different initiatives within the company. Those supplementary bonuses motivate employees to produce more and add value to the customer services, organization and their personal benefits.

Work characteristics is the other HRM practice that reflects on employee participation. Initially the correlation was positive but this was due to the interference of the other HRM practices. After additional statistical analyses, it turned out that work characteristics have reverse effect. Having in mind the items that comprise it, the result is not strange. On the one hand, by work characteristics we mean good working conditions, flexible working hours, and convenient office location. Nowadays, those aspects of the job become crucial when choosing the next career step. Work-life balance has turned very significant. People strive to find the optimum between being good professionals in what they do and good family members and friends. They need to have the freedom of planning their time and being able to distribute it between the work tasks and taking care of the kids, staying at home with the beloved ones, having fun with friends. If all those conditions are present, employees do not have much extra time left for taking over more work activities. They perform well their job requirements but do not engage actively in additional tasks. Extra participation is limited to company gatherings, corporate events and “obligatory” team initiatives. Thus those employees keep up with the performance standards.

On the other hand, job characteristics also mean challenging job that provokes learning, gaining new skills, career growth. This somehow shifts the focus to self-development. People become straightforward in mastering themselves and this leads to decreased communication and cooperation with others. It doesn’t mean that those people are not team players. They are. However, instead of participating in common activities that are for all, career driven people strive to select the events they attend. They prefer thematic conferences and seminars for example that will enrich them as professionals in a certain area. This somehow shifts the focus.

CONCLUSION

Organizational success is a complex criteria that incorporates different aspects – production processes and methodology, technology, innovation, human capital, etc. There are different types of resources that are needed to reach the goals – material, financial, human, etc. For sure, one of the main (if not the most valuable) factors is the human one. No matter of the industry, organization type, production process, etc. the one who actually generate products and/or services is the employee. His/her capabilities, motivation, satisfaction, engagement, commitment, participation have a principal role when it comes to the benefits that all take.

Based on the current research we have seen some tendencies in the HRM practices that influence employee participation. Long-term perspective for HRM development, combined with flexible organizational structure, team work based processes and high trust in the relations increase the positive organizational climate and lead to pro-activeness. The HR Specialist as a consultant helps line managers to easily communicate with their subordinates, to use transformational leadership style and transmit the organizational values in an understandable way to the others. Maximizing the final results becomes more important than just controlling the HR costs. After all, some results are not immediate and need time to develop and grow. Employees need the support and good examples to follow so that they have a drive to succeed.

Recruitment systems and performance appraisal also predict employee participation. Being justified and accepted as deserved, they enhance the positive attitude to the organization. People invest time, skills, and competencies and expect in return the respective salary and additional benefits. This is a simple exchange processes of giving and receiving.

And finally, the job essence itself is important as well. Participation will decrease when work provides flexibility. This is not bad because employees are happy that they may balance their professional and personal arrangements. They may also focus in mastering in a specific area which will turn them into high quality professionals. If, however, the organization wants to reactivate them in the broader organizational life, some measures should be taken.

RECOMMENDATIONS FOR IMPROVEMENT OF EMPLOYEE PARTICIPATION THROUGH HRM PRACTICES

- People from different levels and departments within the organization should be involved in more activities like decision-making, strategic planning, financial analyses;
- Organizational structure should be reconsidered and modified to more flexible and open one that will give freedom of the employees to experiment with innovations;
- Learning and development programs have to become more accessible for all employees. They need to go beyond the role-based training and enrich the social skills of the employees for example;
- Organizations should engage themselves in initiatives that will increase the trust of employees in them and will help improve their socially responsible image. Change management is crucial and giving as much information as possible in a structured and balanced way will predispose people to adapt easily to the changes;
- The HR Specialist role should be promoted more like the role of a consultant who supports the adaptation of employees within the organization; takes care of their professional growth and development; plays the role of a mediator between high management and regular performance;
- Organizations should crystalize their concept for being a “great place to work”. Sometimes, meeting the employee requirements for more flexibility (in terms of work conditions) lowers aspects of organizational behavior like participation. Programs of hiring partners (wife/husband), taking care of the kids during working hours, etc. may increase the involvement of employees in more organizational activities.

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STRENGTHENING WOMEN'S ECONOMIC EMPOWERMENT: A STUDY OF GROWING WOMEN AND GIRLS (G-WIN) IN NIGERIA, WEST AFRICA

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ABSTRACT

The term women empowerment has become popular; however, many scholars view the term and how to implement it differently. Women empowerment involves the transformation of economic, social, psychology, political and legal circumstances of women. However, there is perceived lack of women empowerment in the present society especially developing countries Nigeria. This pervasive lack of women empowerment emanating from socio-economic, political, and cultural discrimination calls for research by academics, community development practitioners and policy makers since disempowerment of women affects the plight of families, communities, nations and governments. This study was therefore, aimed at examine the impact of GWIN project to strengthening women economic empowerment in Nigeria. A total population of 2,400 participants took part in the study. For effective selection of respondents for the study, simple random sampling and purposive sampling techniques were used to select the local governments and participants respectively. Questionnaire, interview, internet surveys, and direct observation were utilized in collecting data. In analyzing the data, descriptive statistical was used. Findings of the study revealed that education, lack of political and economic power plays a key role in the marginalization of women and girls especially those in rural Nigeria. Based on the findings, it was concluded that GWiN Project plays a significant role in the economic development of women in Nigeria through the provision of various supports to women, particularly to the poor. The study therefore recommends that more women development programs should be formulated and implemented and such programs should enable to reach rural women and girls.

Key words: *Economic, Empowerment, Education, Strengthens, Women*

JEL Classification: *A20*

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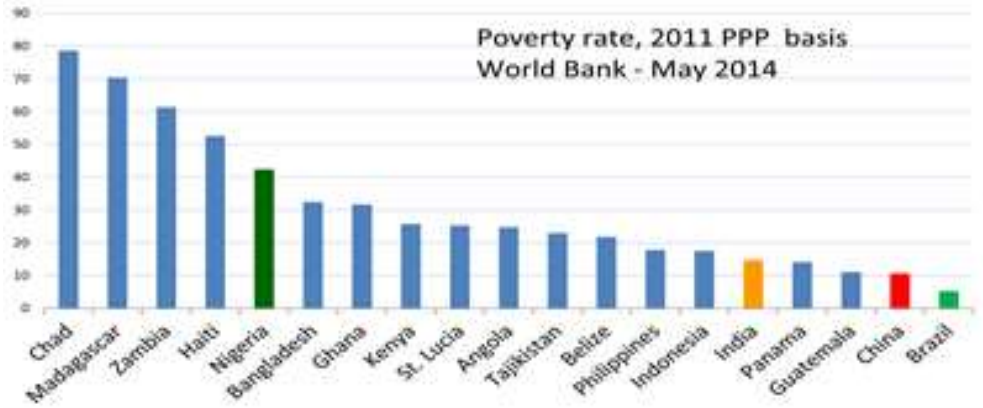
INTRODUCTION

Poverty is a common feature of the Nigerian society. In other words, Nigerians live below the poverty line without any access to basic goods, services and commodities (National Bureau for Statistics, 2012, pp. 23). Namely, Nigeria is among the poorest countries in the world (Picture 1) The World Bank noted that "poverty in Nigeria has increased considerably with 112m people, which is about 67% of the population in abject poverty" (Alao, 2015, pp.16)



Picture 1. Poverty rate among countries Source: The World Bank, 2014

However, the country has increasing rate of poverty both at the states, regions and at the national level. Poverty in the country has a gender dimension. Among the hapless, women are viewed as the poorest. With the appearance of Auxiliary Conformity Program (SAP) in Nigeria in the mid 1980s, the poverty rate of women in Nigeria expanded immensely. This was on account of the number of women amid the privatization of open partnerships was higher than that of the men. Greater part of the women got occupied with the informal sector which gives alleviation to them subsequent to leaving the public sector. Individuals in the private part are more defenseless against poverty and poverty is high in the shadow economy (Awojobi, 2014, pp. 27). Poverty is dominating in the informal economy in least developed countries (Khalex, 2005, pp. 50).

The number of women in Nigeria which is 68.3 million constitutes almost half of the whole nation's population of 140 million (National Population Commission, 2006, pp. 34). This quality in the quantity of women has not been translated to equal treatment in the society. Aside from numerical strength of women in Nigeria, women additionally have awesome potentials to advance another financial request, in this manner helping in quickening social and political development thereby changing the society into a better one.

Nigerian women are an important factor in production (Olawoye, 1995, pp. 73). These women are to a great extent in charge of the agro-based food processing, preparing, conservation of harvests, mass production of crops and conveyance of yields from homestead focuses to market in both rustic and urban areas. These women have been contributing their portion to the advancement of the country, yet their potentials appear not to have been completely tapped because of a few imperatives. There are still disparities amongst men and women in education, employment and income, business and salary openings, individual security, control over resources and participation in the development process (Rahman & Naoroze, 2007, pp 13). These differences might maybe as a result of lingering constraints such as, absence of satisfactory enactment and policies to bolster the rights of women, poor financial state of Nigerian women, unequal access to education, absence of confidence among women, constrained access to land, and so forth. Level of education, income level, and men's perception on the need for women participation in development have been seen as deciding factor in women's participation in the development process. Under-representation of Nigerian women in economic, political and educational programmes particularly in the rural and difficult to reach territories has prompt a genuine setback in development, thus, the need for women empowerment.

The term "empowerment of women" alludes to the way toward giving power to women to resist the control of others and help them to lead a prosperous and successful life. It also includes the change of economic, social, psychology, political and lawful conditions of women (Awojobi, 2013, pp. 30).

Various contentions have been advanced concerning why an attention on women's economic empowerment is imperative. Among such contention is that gender disparities is the division of labour amongst paid and unpaid work, women's essential obligation is unpaid care work inside the home, and the related imbalances in access to esteemed assets and openings are at the center of women' subordinate status in the public eye. They leave women reliant on male provision for themselves and their children, or else compelled to contend in business sectors for their labour, goods and services on profoundly hindered terms. Their distraught status in the commercial center thusly strengthens women's absence of key office, both in connection to their own lives and in addition in the wider society. The economic empowerment of women is in this way a matter of human rights and social equity.

Nigerian women's effort to leave the hover of poverty and increment their empowerment has made them initiated traditional financial services administrations (Awojobi, 2014, pp. 27). Additionally, a series of empowerment programmes have been initiated by several governments in Nigeria so as to bolster women in their efforts to vanquish poverty. Among the empowerment programs that several governments in Nigeria have initiated include; Family Economic Advancement Programme (FEAP), Peoples' Bank, Better Life for Rural Women and Poverty Alleviation Program (PAP) and Growing Women and Girls in Nigeria (G-WiN). In spite of these excellent programmes started by a several governments in Nigeria, women empowerment and poverty deduction have not been completely addressed among the Nigerian women (Awojobi, 2013, pp. 12). It is in this regard that this study focuses on the Growing Women and Girls in Nigeria (G-WiN).empowerment programme in Nigeria.

The Federal Government of Nigeria in 2014 approved the implementation of the Girls and Women Initiative in Nigeria (G–WIN) project, a programme that is particularly meant to empower women in Nigeria. The main objective of the G–WIN project is to improve livelihoods, economic wellbeing and health of poorest girls and women in Nigeria by re-directing government funds to delivering concrete results for girls and women. The GWiN initiative is structured to tackle feminized poverty and ultimately to ensure Nigeria's economic growth, material prosperity, sustainable human development, peace and social progress.

For any programme aimed at empowering women to be successful, it is important that such programme engage women in entrepreneurship. Achakpa (2015, pp. 47) perceived entrepreneurship as a vital part of organisation and economies. It contributes in a tremendous way toward making new employment, riches creation, poverty reduction, and wage era for both government and people. Female entrepreneurship in developing nations like Nigeria can assume a vital part in the battle against poverty, women empowerment and gender equity (Achakpa, 2015, pp. 47). Also, for a successful G-WiN programme, women empowerment through entrepreneurship is paramount. It is, however, not clear to what extent the G-WiN programme has achieved its deserved objectives. Against this background, this research sought to examine strengthening women economic empowerment in Nigeria with respect to the implementation of the G–WIN project.

AIM AND OBJECTIVES

The aim of this study was to examine the methodological impact of G-WIN project to strengthening women economic empowerment in Nigeria.

To this end, the study focused on the following specific objectives;

1. evaluate the extent of awareness of the G–WIN project in Nigeria;
2. examine the G–WIN projects implementation as a basis for strengthening women economic empowerment in Nigeria; and
3. investigate the constraints on the implementation of the G–WIN project to strengthen women economic empowerment in Nigeria.
4. investigate the constraint or hindrances that might pose a threat to replicating the G-WIN to other parts of the world.
5. examine the extent to which institutional framework plays out in strengthening women economic empowerment in Nigeria and in other countries.

METHOD

Sampling Technique/Method

In order to obtain participants for the study, simple random sampling technique and purposive sampling technique were used to select the local governments and participants respectively.

Data Collection and Instruments

Personal observation, direct observation and self administered questionnaire approaches were employed to collect data in the study area. To collect data for the study, two research assistants who were recruited and trained adequately to assist in the distribution of the questionnaires. The researchers, together with the two research assistants, visited the local government areas where the copies of the questionnaire were beneficiaries of the GWiN programme.

Questionnaire Design

Two sets of questionnaire were prepared for the purpose of this study. One was administered on the pioneer ministries (Health, Water, Women Affairs and Social development, works and communications) and the beneficiaries of G-WIN Project in selected area. The questionnaire was a combination of structured and open ended question.

Techniques of Data Analysis and Presentation

Descriptive statistics was used for the data analysis and presentation.

RESULTS

Objective 1: Awareness of G-WIN Project

This section addresses the first objective which was to evaluate the extent of awareness of G-WIN project in Nigeria. The result is presented in Table 1.1 which provided response on the beneficiaries and Table 1.2 which provided response on the Pioneer Ministries.

Table 1.1. Awareness from View Point of Beneficiaries

Geo-Political Zones	Awareness	Response Frequency	Percentage Responses
North Central	Television and Radio Stations	73	3.775
	Local government support	132	6.825
	Social Media	44	2.275
	Local association	122	6.308
North East	Television and Radio Stations	53	2.740
	Local government support	135	6.980
	Social Media	31	1.603
	Local association	127	6.567

Geo-Political Zones	Awareness	Response Frequency	Percentage Responses
North West	Television and Radio Stations	30	1.551
	Local government support	112	5.791
	Social Media	30	1.551
	Local association	126	6.515
South East	Television and Radio Stations	72	3.722
	Local government support	122	6.308
	Social Media	20	1.034
	Local association	104	5.377
South South	Television and Radio Stations	74	3.826
	Local government support	104	5.377
	Social Media	29	1.499
	Local association	89	4.602
South West	Television and Radio Stations	79	4.085
	Local government support	129	6.670
	Social Media	24	1.210
	Local association	73	3.775
Total		**1934**	**100**

Source: Field Work, 2016

Table 1.2. Awareness from View Point of Pioneer Ministries

Geo-Political Zones	Awareness	Response Frequency	Percentage Responses
North Central	Television and Radio Stations	4	3.509
	Local government support	9	7.894
	Social Media	0	0
	Local association	6	5.263
North East	Television and Radio Stations	5	4.386
	Local government support	6	5.263
	Social Media	1	0.877
	Local association	5	4.386
North West	Television and Radio Stations	4	3.509
	Local government support	9	7.894
	Social Media	0	0
	Local association	6	5.263
South East	Television and Radio Stations	7	6.140
	Local government support	8	7.018
	Social Media	0	0
	Local association	7	6.140
South South	Television and Radio Stations	7	6.140
	Local government support	9	7.895
	Social Media	0	0
	Local association	5	4.386
South West	Television and Radio Stations	7	6.140
	Local government support	8	7.018
	Social Media	1	0.877
	Local association	3	2.632
Total		**114**	**100**

Source: Field Work, 2016

Table 1.1 and 1.2 reveals how G-WIN Project gets to the ears of the public. Responses were dominantly through the use of local government support, television and radio and through local association while few respondents admitted to social means. This finding entails that individuals who benefited from the G-WiN project got the information about the program via local government support, television and radio and through local association. This shows the important of these means in spreading information regarding programs meant for women empowerment in the local communities.

Objective 2: Basis for Strengthening Women Economic Empowerment

This section addresses the second objective which was to examine G-WIN Project implementation as a basis for strengthening women economic empowerment in Nigeria. The result is represented into Table 2.1 which provided response on the beneficiaries and Table 2.2 which provided response on the Pioneer Ministries.

Table 2.1. Basis for Strengthening Women Economic Empowerment from View Point of Beneficiaries

Geo-Political Zones	**Basis**	**Response Frequency**	**Percentage Responses**
North Central	Small Scale Business	73	3.775
	Skills Acquisition	132	6.825
	Financial grants/support	44	2.275
	Access to Loan	122	6.308
North East	Small Scale Business	53	2.740
	Skills Acquisition	135	6.980
	Financial grants/support	31	1.603
	Access to Loan	127	6.567
North West	Small Scale Business	30	1.551
	Skills Acquisition	112	5.791
	Financial grants/support	30	1.551
	Access to Loan	126	6.515
South East	Small Scale Business	72	3.722
	Skills Acquisition	122	6.308
	Financial grants/support	20	1.034
	Access to Loan	104	5.377
South South	Small Scale Business	74	3.826
	Skills Acquisition	104	5.377
	Financial grants/support	29	1.499
	Access to Loan	89	4.602
South West	Small Scale Business	79	4.085
	Skills Acquisition	129	6.670
	Financial grants/support	24	1.210
	Access to Loan	73	3.775
Total		**1934**	**100**

Source: Field Work, 2016

Table 2.2. Basis for Strengthening Women Economic Empowerment from View Point of Pioneer Ministries

Geo-Political Zones	Basis	Response Frequency	Percentage Responses
North Central	Small Scale Business	4	3.509
	Skills Acquisition	9	7.894
	Financial grants/support	0	0
	Access to Loan	6	5.263
North East	Small Scale Business	5	4.386
	Skills Acquisition	6	5.263
	Financial grants/support	1	0.877
	Access to Loan	5	4.386
North West	Small Scale Business	4	3.509
	Skills Acquisition	9	7.894
	Financial grants/support	0	0
	Access to Loan	6	5.263
South East	Small Scale Business	7	6.140
	Skills Acquisition	8	7.018
	Financial grants/support	0	0
	Access to Loan	7	6.140
South South	Small Scale Business	7	6.140
	Skills Acquisition	9	7.895
	Financial grants/support	0	0
	Access to Loan	5	4.386
South West	Small Scale Business	7	6.140
	Skills Acquisition	8	7.018
	Financial grants/support	1	0.877
	Access to Loan	3	2.632
Total		**114**	**100**

Source: Field Work, 2016

Comparing the tables above (2.1 and 2.2) shows the basis which G-WIN Project engaged to strengthening women economic empowerment in the study area. Findings confirmed that most of the basis which the project has emulated to touch the lives of women in the study area was majorly through skills acquisition followed by access to loan, small scale business and financial grants/support. The main objective of G-WIN Project is to eradicate poverty. According to findings, the project is living up to expectations. This means that the G-WiN project has empowered women through skills acquisition, access to loan, small scale business and financial grants/support.

Objective 3: Limitations in Executing GWIN Project

This objective investigates the constraints in implementing GWIN Project to strengthen women economic empowerment in the study area. The result is presented in Table 3.

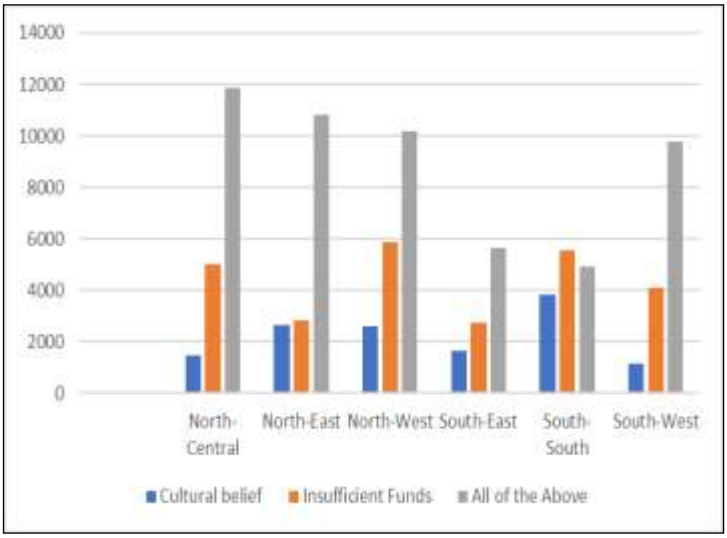
Table 3. Constraints of GWIN Project

Geo-Political Zones	Challenges	Response Frequency	Percentage Responses
North Central	Low turnout	17	0.879
	Cultural belief	28	1.478
	Insufficient Funds	97	5.016
	All of the Above	229	11.841
North East	Low turnout	31	1.603
	Cultural belief	51	2.637
	Insufficient Funds	55	2.844
	All of the above	209	10.807
North West	Low turnout	19	0.982
	Cultural belief	50	2.585
	Insufficient Funds	113	5.843
	All of the above	197	10.186
South East	Low turnout	16	0.827
	Cultural belief	32	1.655
	Insufficient Funds	53	2.740
	All of the above	109	5.636
South South	Low turnout	20	1.034
	Cultural belief	74	3.826
	Insufficient Funds	107	5.533
	All of the above	95	4.912
South West	Low turnout	15	0.776
	Cultural belief	22	1.137
	Insufficient Funds	79	4.085
	All of the above	189	9.772
Total		**1934**	**100**

Source: Field Work, 2016

Table 3 above, reveals the challenges of GWIN Project encountered as a result of strengthening women empowerment in the study area. Challenges examined are insufficient fund, cultural belief, low turnout and all of the above. Many respondents confirmed that all these challenges are the limitations to GWIN Project. This entails that for strengthening of women empowerment, challenges such as insufficient fund, cultural belief and low turnout should be tackled.

Picture 2. What are constraints of GWIN Project



Source: Authors

Objective 4: Impediment of GWIN Project to other Parts of the World

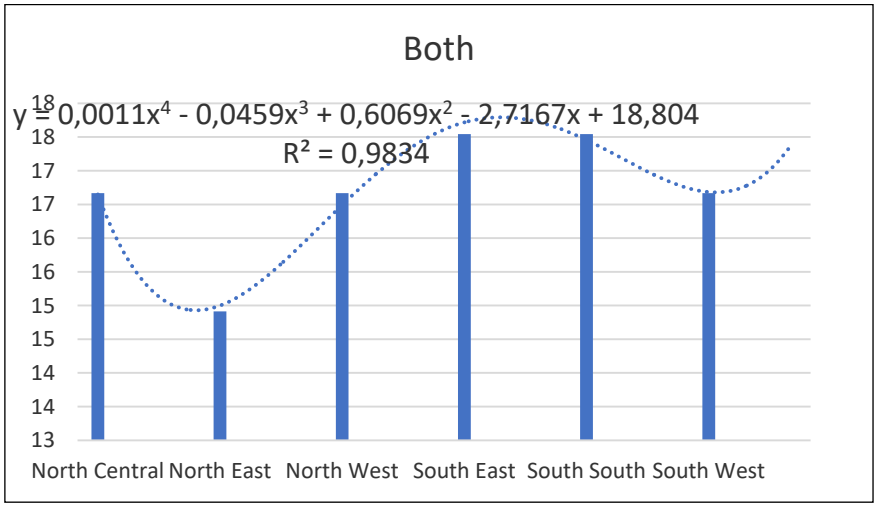
The fourth objective of the study investigates hindrances that might pose a threat to imitate GWIN Project to other parts of the world. This section comprise of Table 4 which addresses means to convey GWIN Project to other parts of the world.

Table 4. Replication of GWIN Project to other Parts of the World

Geo-Political Zones	Means	Response Frequency	Percentage Responses
North Central	United Nation Non-Governmental Organization Both	0 0 19	0 0 16.667
North East	United Nation Non-Governmental Organization Both	0 0 17	0 0 14.912
North West	United Nation Non-Governmental Organization Both	0 0 19	0 0 16.667
South East	United Nation Non-Governmental Organization Both	0 0 20	0 0 17.543
South South	United Nation Non-Governmental Organization Both	0 0 20	0 0 17.543
South West	United Nation Non-Governmental Organization Both	0 0 19	0 0 16.667
Total		**114**	**100**

Source: Field Work, 2016

Picture 3. Replication of GWIN Project to other Parts of the World



Source: Authors

All (100%) responded that both United Nation and Non-Government Organizations are fundamental means in which GWIN project can be replicated to other parts of the world. Most of the respondents thought that most of the challenges that GWIN Project is likely to face if replicated to other parts of the world are insecurity, insufficient funds, corruption, gender disparity and non-governmental acceptance. Especially, corruption reduces the efficiency of Project implementation. Therefore, the most of respondents consider anti-corruption strategies. They should work to greatly enhance participation in the design, implementation and evaluation of GWIN Project.

Objective 5: Institutional Framework to Strengthening Women Economic Empowerment

This section addresses the last objective which was to examine the extent to which institutional framework plays out in strengthening women economic empowerment in Nigeria and in other countries. This result is presented in Table 5.

Table 5. Institutional Framework to Strengthening Women Economic Empowerment

Geo-Political Zones	Institutional Framework	Response Frequency	Percentage Responses
North Central	Enlighten the populace	1	0.877
	Socio-cultural re-orientation	2	1.754
	Genial climate	0	0
	Participation and partnering by governmental and non-governmental stakeholders	0	0
		1	0.877
	Women Political Will	0	0
	None of the Above	15	13.158
	All of the Above		
North East	Enlighten the populace	1	0.877
	Socio-cultural re-orientation	0	0
	Genial climate	0	0
	Participation and partnering by governmental and non-governmental stakeholders	0	0
		2	1.175
	Women Political Will	0	0
	None of the Above	14	12.281
	All of the Above		
North West	Enlighten the populace	3	2.632
	Socio-cultural re-orientation	0	0
	Genial climate	0	0
	Participation and partnering by governmental and non-governmental stakeholders	1	0.877
		1	0.877
	Women Political Will	0	0.877
	None of the Above	14	12.281
	All of the Above		
South East	Enlighten the populace	4	3.509
	Socio-cultural re-orientation	2	1.754
	Genial climate	0	0
	Participation and partnering by governmental and non-governmental stakeholders	0	0
		4	3.509
	Women Political Will	0	0
	None of the Above	9	7.895
	All of the Above		
South South	Enlighten the populace	1	1.754
	Socio-cultural re-orientation	0	0
	Genial climate	0	0
	Participation and partnering by governmental and non-governmental stakeholders	0	0
		6	5.263
	Women Political Will	0	0
	None of the Above	13	11.404
	All of the Above		
South West	Enlighten the populace	3	2.632
	Socio-cultural re-orientation	3	2.632
	Genial climate	0	0
	Participation and partnering by governmental and non-governmental stakeholders	0	0
		3	2.632
	Women Political Will	0	0
	None of the Above	10	8.772
	All of the Above		
Total		**114**	**100**

Source: Field Work, 2016

Table 5 reveals respondents point of view on the extent to which institutional framework plays out in strengthening women economic empowerment in the study and other part of the world. Most respondents admitted that mostly all the institutional framework (enlighten the populace, socio-cultural re-orientation, genial climate, participation and partnering by governmental and non-governmental stakeholders and women political will) plays out in strengthening women economic empowerment in the study area.

DISCUSSION

This research was conducted within the six-political zones in Nigeria. The aim of this study was to examine impact of G–WIN project for strengthening women economic empowerment in Nigeria. This research was limited to five objectives. The study was justified by the gap it fills in literature. Most studies in this area have been offshore. Past researchers both within the country and various part of the world had undergone research on this study, but none has undergone such on Growing Women and Girls in Nigeria (GWIN).

Findings of the study from objective 1 indicate that G-WIN Project has gotten to the ears of the public which was dominantly through local government support, television and radio and through local association while few respondents admitted to social means. This finding entails that individuals who benefited from the G-WiN project got the information about the program via local government support, television and radio and through local association. This shows the important of these means in spreading information regarding programs meant for women empowerment in the local communities. This finding is in line with the work of Awojobi (2014) whom in his separate studies found that local government support and media as a source through which government programmes get to the knowledge of the masses at the grassroots.

Objective 2 of the study found that most of the basis which the G-WiN project has emulated to touch the lives of women in the study area was majorly through skills acquisition followed by access to loan, small scale business and financial grants/support. According this finding, the project is living up to expectations as the main objective of G-WIN Project is to eradicate poverty. This means that the G-WiN project has empowered women through skills acquisition, access to loan, small scale business and financial grants/support. This finding collaborates with those of Fohtung (2008) who found that programmes focusing on women and empowering them have turned out to be amazingly well known among benefactors and NGOs in eradicating poverty.

Furthermore, findings from objectives 3 of the study reveals the challenges of GWIN Project encountered as a result of strengthening women empowerment in the study area. Challenges examined are insufficient fund, cultural belief and low turnout. Findings from the study confirmed that all these challenges are the limitations to GWIN Project. This entails that for strengthening of women

empowerment, challenges such as insufficient fund, cultural belief and low turnout should be tackled. This is in line with the work of Yahaya (1999) who highlighted illiteracy, sex stereotype, insufficient need for power, religious beliefs, discriminatory attitude of males and low political participation as challenges limiting women empowerment progrommmes.

Objective 4 of the study addresses the hindrances that might pose a threat to imitate GWIN Project to other parts of the world. Findings showed that insecurity which continue to blight Africa, contribute to human suffering and obstructing poverty alleviation across much of the continent. Preventing and reducing violent conflict has become a key priority for people in Nigeria. Therefore, attention and resources have rightly been devoted to efforts to manage, reduce and end wars, and to promote peace-building. It is of key importance for GWIN Project success as well as implementing to other parts of Africa. Also, insufficient funds, corruption, gender disparity and non-governmental acceptance may hinder implementation of G-WiN to other part of the world. Especially, corruption reduces the efficiency of Project implementation.

Finally, findings in objective 5 which examine the extent to which institutional framework plays out in strengthening women economic empowerment in Nigeria and in other countries showed that mostly all the institutional framework (enlighten the populace, socio-cultural re-orientation, genial climate, participation and partnering by governmental and non-governmental stakeholders and women political will) plays out in strengthening women economic empowerment in the study area.

CONCLUSION

This study examine women economic empowerment in Nigeria with particular focus on the G-WiN program in Nigeria. This study has viewed Nigerian women as contributors to the development of the nation; however, their potentials seem not to have been fully tapped due to some constraints. Disparities still exist between men and women in education, employment and income opportunities, control over assets, personal security and participation in the development process.

The G-WiN Project has significantly helped to empower women who participated in Nigeria. The incidence of poverty especially among the women could be reduced through effective participation in the G-WiN empowerment programme which are associated with gender equality, increased income and productivity. The GWiN initiative is structured to tackle feminized poverty and ultimately to ensure Nigeria's economic growth, sustainable human development, material prosperity, peace and social progress. Consequently, this study has concluded that:

- G-WiN Project gets to the ears of the public through local government support, television and radio and through local association while few respondents got the awareness of G-WiN via social means. Also, based on

the selection process, it means the G-WiN is targeted at empowering poor women in Nigeria, and also selection of beneficiaries is done by local government authority.

- skills acquisition was the basis in which the project touched the lives of women
- insufficient fund, cultural belief and low turnout are challenges that limits the implementation of GWIN Project.
- most of the challenges that GWIN Project is likely to face if replicated to other parts of the world are insecurity, insufficient funds, corruption, gender disparity and non-governmental acceptance.

RECOMMENDATIONS

Based on the findings and conclusion of the study, it is recommended that: conferences, seminars and workshops should be organized for women in the study area so as to give them an in-depth knowledge about what participation economic development entails current trade in Computer Technology, such as computer appreciation should be introduced, while active participation in politics by women should be promoted.

The women in the area should be given the necessary education (they deserve) in order to enhance their effectiveness in economic development projects. It will also promote the empowering of women towards achieving one of the Growing Women and Girls in Initiative Nigeria (GWIN) 2014.

Women should be selected from the various communities for training as trainee trainers. These women should be appointed later as extension officers or community development officers so that they can as well train others and help them to solve their communal problems.

Women should be properly motivated through concerted encouragement, moral and material support because in the absence of these supports, any programmes embarked upon will be partially successful or would collapse.

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CREATION OF JOB OPPORTUNITIES FOR MARGINALIZED HEARING IMPAIRED PEOPLE IN A DEVELOPING NATION- A CASE OF SOCIAL ENTREPRENEURSHIP IN INDIA

Reena Agrawal[20]

ABSTRACT

This case study showcases the vision and initiative of a young entrepreneur from India having profound compassion towards people having hearing impairment. He wanted to sensitize the society towards the problem and create employment opportunities for such people. The purpose of this study was to: (i) explore and understand the mindset of a young entrepreneur who decided to create employment for people who were considered unfit for employment, (ii) to identify his entrepreneurial traits that helped him to bring his dream to reality, (iii) understand his entrepreneurial vision and business model and analyze (iv) the impact created by this venture on the society and the economy and understand whether this model can be replicated in the other parts of the world as well. This study was based on primary research. It included visiting the project site, conducting series of interviews of the entrepreneur and interacting with the other stakeholders. The findings of the study show that sincere efforts on part of the entrepreneur made marginalized hearing impaired people employable and helped them to earn their livelihood and join the main stream economy. This initiative helped the deprived group to gain social and economic recognition and thus created huge impact by way of enhancing social wellbeing and promoting inclusive growth in the society.

Key words: *Social Entrepreneurship, Entrepreneurial Vision, Organizational Structure, Business Operations*

JEL Classification: *L26*

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INTRODUCTION

Just as business entrepreneurs create and transform the industries and economies, social entrepreneurs act as the change agents for society. Rather than waiting for government and private institutions to find solutions to the prevailing social problems, they prefer to take initiative to address such issues. They seize opportunities which others might have missed in order to improve the system. They design, create and develop innovative products, services, technologies and processes to achieve large scale sustainable social change. Thus whereas a business entrepreneur usually measures the performance in terms of financial returns, a social entrepreneur majorly focuses on fostering and accomplishing social goals. And while working towards these social goals at times profits can also be an inconsequential consideration. Thus we may say that social entrepreneurship means identifying or recognizing a social problem and using entrepreneurial principles to organize, create, and manage a social venture to achieve a desired social change.

OBJECTIVE OF THE STUDY

The purpose of this study was to: (i) explore and understand the mindset of a young entrepreneur who decided to create employment for people who were considered unfit for employment, (ii) to identify his entrepreneurial traits that helped him to bring his dream to reality, (iii) understand his entrepreneurial vision and business model and analyze (iv) the impact created by this venture on the society and the economy and understand whether this model can be replicated in the other parts of the world as well. The effort was made to find answers to the following questions:

- What is social entrepreneurship?
- What are the essential traits to become a successful entrepreneur?
- What was the route to entrepreneurship adopted by this social entrepreneur?
- How did this social entrepreneur identify and select a business idea?
- What is the business model adopted by this social entrepreneur?
- What socio-economic impact did this social enterprise create?

RESEARCH IMPLICATIONS

It is most likely that findings of the current study will stimulate many others to look into issues and problem prevailing in the society and design business prepositions to resolve them. It would help them realize that they can create business ventures whose main aim could be to solve a critical problem and in

addition to that they can earn their share of profits as well. Because if we need to create a sustainable society then we need to promote inclusiveness. This would also provide insights to the various stakeholders in the society including the policymaker to create an entrepreneurial environment, facilitate such initiatives and provide handholding support to such projects. This would inspire the academician and researchers to investigate such commendable cases and showcase them across the world.

RESEARCH METHODOLOGY

This study was based on primary research. The methodology adopted includes the following steps: visiting the project site, conducting series of interviews of the entrepreneur and interacting with the other stakeholders. A questionnaire was drafted and then those questions were administered on the entrepreneur and the other stakeholders. A rough draft was prepared and then it was edited and refined a number of times. The entrepreneur`s endeavours, experiences, hardships, success and other nuances of business and the vital learning's drawn have been developed by way of a case study and have being illustrated by way of several figures and diagrams.

THEORETICAL FRAMEWORK

Social Entrepreneurship commonly defined as "entrepreneurial activity with an embedded social purpose" (Austin, Stevenson, Wei Skillern, 2006) .According to Alvord, Brown & Letts (2004) "Social entrepreneurship creates innovative solutions to immediate social problems and mobilizes the ideas, capacities, resources, and social arrangements required for sustainable social transformation". These days social entrepreneurship has become a significant phenomenon across the globe (Mair & Marti, 2006; Zahra, Rawhouser, Bhawe, Neubaum, & Hayton, 2008).Some of the most outstanding social entrepreneurship initiatives originate from developing countries. These ventures involve the deployment of innovative business models to address fundamental needs of mankind (Seelos & Mair, 2005). Such ventures includes providing micro credit facilities to women Self Help Groups to eradicate poverty and empower women (http://www.grameen-info.org); generating electricity from agricultural waste and providing electricity to rural areas (http://saranrenew.in); provision of low-cost cataract surgeries to people living at grass root level and creation of appropriate sanitation arrangement in rural areas (Elkington & Hartigan, 2008) and many others such initiatives.

Usually social entrepreneurs initiate a venture on a micro level / small scale .Their intention is find solution to an existing local problem which may be unavailability of clean drinking water ; acute shortage of power supply; improper sanitation facility, illiteracy and poverty etc. Though these problems may be local

in nature, but they have great relevance across the global. The innovative solutions that social entrepreneurs design and deploy in their local context often get replicated in the other parts of the world and this gives rise to new-fangled global industry (Zahra, et. al., 2008). An example is the growth of microfinance industry throughout the world (Seelos, et al., 2005).

Social entrepreneurship thus creates an everlasting impact on the whole economic system: addresses social, environmental and economic problems; organizes resources to resolve such problems; designs innovative products and /or services; initiates new business models and experiment new strategies. These developments have started to catch the attention of academicians. Practitioner oriented research and several books focused on social entrepreneurship have been published in the last few years (Dees, Emerson, & Economy, 2001; Elkington, et. al., 2008; Nichols, 2006) but there is still mammoth scope of theoretical and empirical research in social entrepreneurship which would have enormous relevance to the practitioners and academicians.

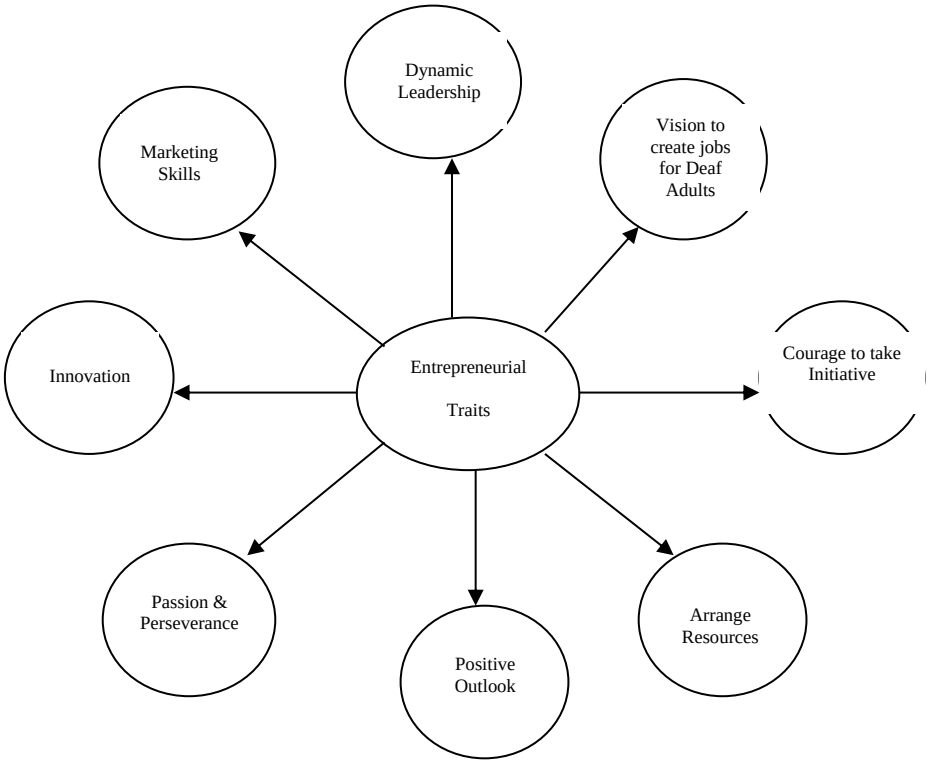
It was thought appropriate to showcase the endeavours of one such social entrepreneur. Here an effort has been made to discuss in detail the story of a social entrepreneur named Dhruv Lakra who created an organization to render courier services. This organization was initiated with an aim to create employment opportunities for the deaf adults in India, so the primary objective was to meet social responsibility and earning monetary returns was only secondary to it.

FINDINGS OF THE STUDY

ABOUT THE ENTREPRENEUR

Dhruv Lakra was born in Jammu and Kashmir (India). He moved to Mumbai for his higher education and earned his Bachelors in Commerce from HR College of Commerce and Economics, Mumbai University. He began his career as an investment banker and worked in the Mergers and Acquisitions Department with Merrill Lynch, Mumbai. After two years, he moved to Dasra, a small non-profit start-up, in rural Tamil Nadu for a few years. He wanted was to use his management education to develop and instate professional systems and procedure in the non-profit organization. Dhruv`s work experience with investment banking and NGO, helped him to realize the power of business can be instrumental in bringing about a social change. He decided to initiate a business enterprise which would strive hard to achieve social as well as financial objectives.

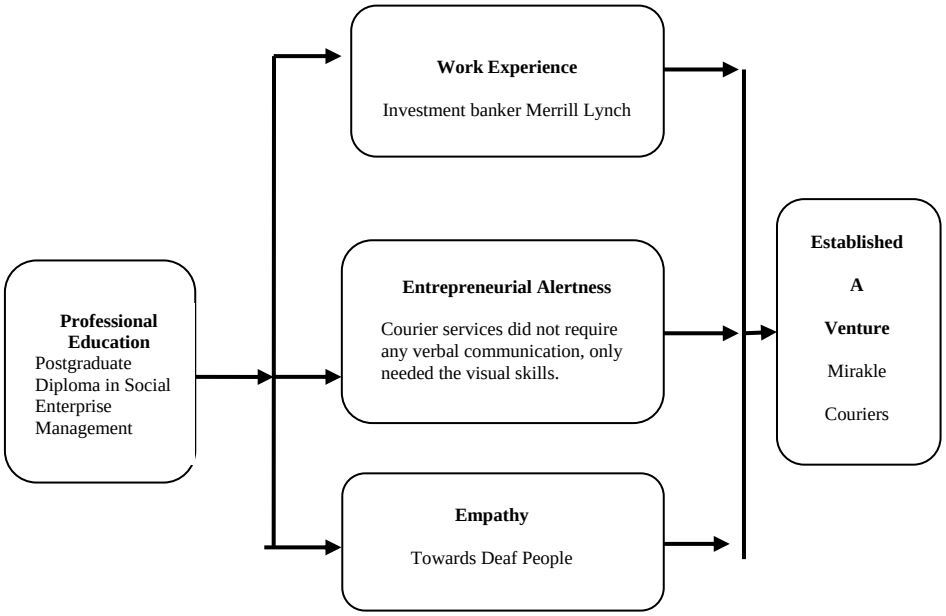
Picture 1. Entrepreneurial Traits in Dhruv



ENTREPRENEURIAL VISION

According to Dhruv " India has one of the highest deaf populations in the world with approximately 6% of the population suffering some kind of hearing impairment and 66% of such individuals are unemployed. Unlike blindness or any other physically disability, which is visible, deafness is an invisible disability, and has been largely ignored". Society has always been very harsh to deaf people in general. Inhuman treatment by fellow beings and sense of un-employability make such people feel demoralized, vulnerable and incapable of making any fruitful contribution to their family in specific and society at large.

Picture 2. Route to Entrepreneurship Adopted by Dhruv



Dhruv narrated an incident which changed his whole life "one day when he was commuting in bus I came across a co-passenger, who was deaf. I observed that the person had a tough time in stopping by his desired destination as he could not hear the instructions given by the bus-conductor and when he complained, the bus conductor ill-treated him. This incident touched my heart and the thought of starting a venture got germinated in my mind. I decided to establish a business enterprise, with deaf people as his employees. So that I could generate employment opportunities for deaf adults in the country and assist them in leading a financially secure and respectable life". Soon Dhruv moved out of the thriving corporate career to start his own exceptional venture. As he did not hail from a business family there was no precedent of any kind, and he had to start from scratch. He decided to pursue Postgraduate Diploma in Social Enterprise Management from Said Business School at entrepreneurship and it also provided hand holding support to its scholars who wanted to establish a social enterprises.

CHOICE OF PRODUCT / SERVICE

Dhruv examined numerous business prepositions, but then he reached a conclusion that in amongst the available business opportunities, the courier business was such that did not require any oral communication and only needed the visual ability. He remembered that whenever a courier-man came to deliver a packet at any office or residence, hardly any conversation took place between the delivery boy and the recipient. Dhruv also analyzed that usually the deaf people are efficient in using their visual skills, they are often good in reading maps and

locating destinations, remembering roads and buildings. So eventually Dhruv decided to establish a courier company in the name of 'Mirakle Couriers'. He decided that his company would employ only deaf adults and would offer delivery services to the corporate houses in Mumbai.

Dhruv chose to name the company 'Mirakle' because he thought that it would truly echo the wonders done by deaf people. To make people aware of how deaf people talk to each other, the 'I' in Mirakle has been shown in the Indian Sign Language. The dot on the 'I' implies reaching higher goals in life. The 'K' in Mirakle stands for 'Karmic' account of a person. And the tagline 'Delivering Possibilities' besides having a literal meaning also holds a symbolic significance, that small initiatives can often add meaning to the lives of physically challenged people and help them join the mainstream and contribute in the growth of their nation.

BUSINESS MODEL

He initiated the venture with his past savings and some borrowed funds from an Angel Capital. He made a humble beginning in his out-house with a single employee.

According to Dhruv "Mirakle Courier is not a charitable organization instead it is a business enterprise, in which the social element is firmly embedded with the commercial operations". The business provides delivery and tracking services to the corporate clients. Mirakle courier started its operations in the financial capital of India, that is, Mumbai. Dhruv personally visited big corporate houses, which were his potential client, explained to them his ideology and business model. The corporate houses were deeply moved by his concern, and were greatly impressed by his initiative. They offered him their best wishes and promised to avail the services offered by the Mirakle Couriers. Dhruv got his first breakthrough with the auto giant Mahindra & Mahindra.

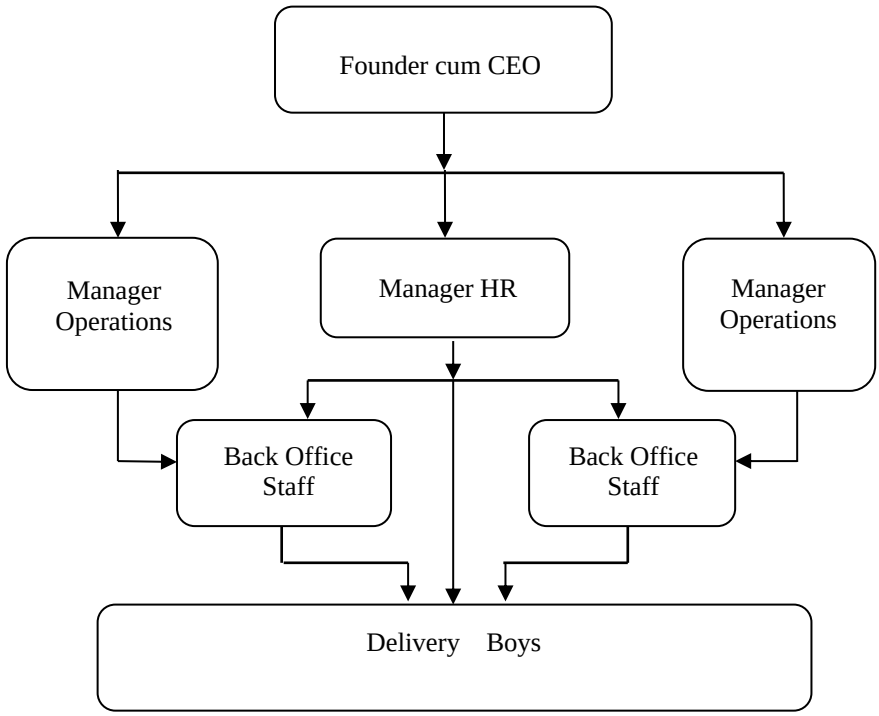
According to Dhruv recruitments have always been the most difficult aspect. Human resource consultancies are of little use for him. Initially Dhruv personally visited several NGOs in search of deaf adults, now people themselves approach him for job. A thorough check of the candidates' family background is done and feedback is also taken from their previous employers. After initial screening the candidate is interviewed, special emphasis is given on a candidate's physical appearance, level of confidence and the overall personality. Once the candidate passes the process, he is offered the job. While the men are given the field work- to pick-up and deliver the packages, the women are expected to provide back-office support and they do the sorting of the packages.

Dhruv pays respectable wages to the employees, continuously interacts with the employees, gives them feedback about the quality of their work, indicates to them the areas where improvement is required and keeps them satisfied. Increment in the employees` wages are based on several parameters, such as, speed of delivery, timely submission of delivery reports, number of packages delivered in a given time-frame .Dhruv understand very well that an employee satisfaction is a vital pre-requisite for good performance.

Dhruv realizes very well that his company has to compete with the courier giants who rule the market and enjoy the huge market share, and hence, the company should continuously innovate and upgrade its services . The company uses speedy deliveries, customized courier service solutions and excellence in ferrying fragile packages which require special care as it`s USP to woo the clients. Training is an ongoing activity at Mirakle Couriers, as opposed to being annual ritual in most of the business enterprises. Training is conducted on aspects such as proper grooming, positive body language, punctuality, speed of delivery, day to day reporting, operating an elevator etc.

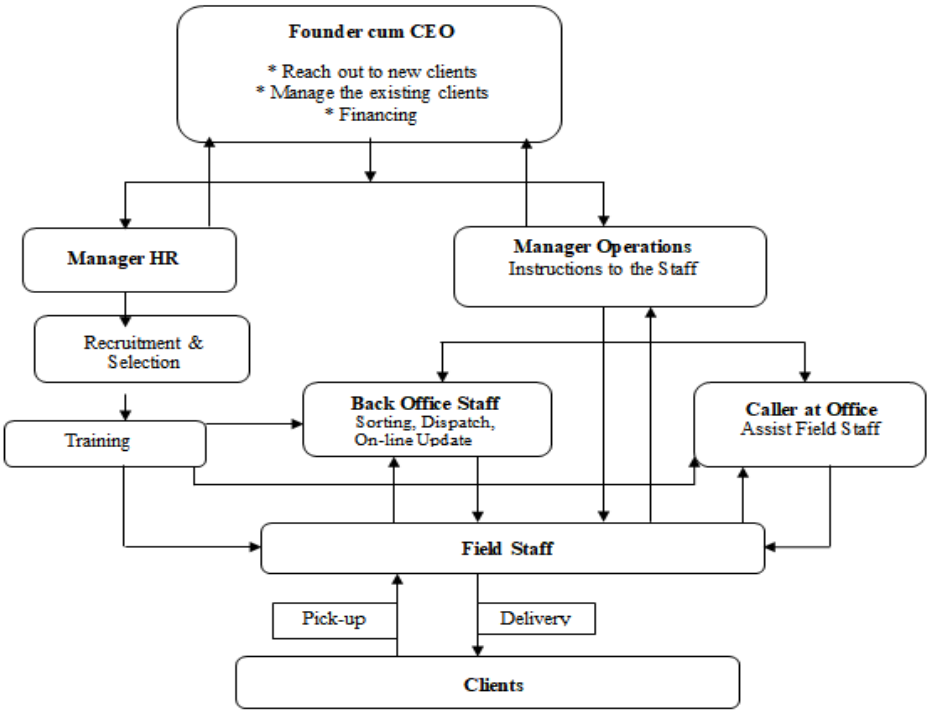
In order to have operational efficiency Dhruv has created a well defined organization structure, where the role and responsibilities have been are clearly streamlined. Dhruv is the Founder and Chief Executive Officer and is the first face of the company .His job responsibility includes reaching out to new clients and managing the existing ones, arranging necessary funds and leading the company towards growth. He has hired two Manager Operations each manages his respective branch. These are extremely versatile people who have worked with reputed courier companies such as Blue Dart, Velocity Couriers and Elbee Express etc. and bring several years of experience and valuable insights with them. Manager operations plan, strategize, organize and manage their team. The Manager Human Resource does recruitments, training and also manages the staff.

Picture 3. Organizational Structure at Mirakle Couriers



At ‘Mirakle Couriers’ each employee is well trained in Indian Sign Language (ISL). The Manager Operations are also equally proficient in communicating in ISL, so that they can impart necessary instructions to their team members. Every activity from pick-up to the delivery process is carefully planned and handled by the branch staff using Indian Sign Language. The field staff goes to the client’s address at a predetermined time for the pick-up. The company has also appointed a caller to provide assistance to the field staff. The caller`s job is to keep a track of the new addresses and change in addresses. Whenever the delivery boys find problem in locating the destination, they have to contact the caller for help. The caller then navigates them to the new/changed address through text messaging. The shipments are handed over to the back office staff, which does the counting ,sorting and simultaneously the data is uploaded into the tracking system and an SMS indicating the quantity is sent to the branch supervisor. A day after the delivery a Proof of Delivery (POD) or Air Way Bill (AWB) is sent to the client’s dispatch office by the field agents. The boys are entrusted with the responsibility of delivering the courier packets while the girls work at the office and do the sorting of those. Branch uses emails to pass important information to all its agents while they are out for delivery or are at their residence. Staff member are well trained in sending text through mobiles and emails. Such excellence allows the team unprecedented ability to communicate and ensures company’s high productivity.

Picture 4. Business Operations at ‘Mirakle Couriers’



Punctuality, speed and concentration on work are some of the prime attributes, which Dhruv expects in his staff. “They have to report on time for work and that means they would report to their destinations too on time,” says Lakra. Speed is a key factor for the success of a courier company. As in India deaf people are prohibited from driving, the field staff uses public transport facility for commuting. Mumbai has efficient public transport system and minimum traffic delays; this facilitates the delivery boys to do their work speedily. Speedy deliveries have bagged lucrative orders from big corporates houses. While the men have to work with utmost speed on the field, the women have to keep up with the pace at the office in sorting the packages and up-dating the online status. Delivery reports are generated and cross-checked on daily basis and if there are any discrepancies they are dealt with immediately. Initially, the company had to conduct meeting on daily basis to keep a stock of things; but now that there is a well developed on-line system, need for such meetings has reduced.

Dhruv strives hard to make sure that the people appreciate the potential of hearing-disabled people and the delivery boys are treated like any normal human being. He ensures that his staff has a pleasing personality and looks very presentable and provides good quality service, so that their disability goes unnoticed.

Even in these testing times, when there is cut throat competition in the business world, Mirakle Couriers, under the excellent stewardship of, the Founder CEO Dhruv Lakra have covered several milestones. The courier company has grown in size and now operates two branches in Mumbai, have approximately hundred employees which include seventy deaf men and twenty deaf girls and delivers over sixth five thousand shipments per month. The company ships parcels across one hundred and seventy eight countries. In India the list of it`s clients includes names of big corporate houses like Mahindra & Mahindra, Aditya Birla Group, Victory Art Foundation, Jindal Steel Works Group, Indian Hotels Company, Godrej & Boyce, Essel Propack, and Vodafone etc.

Dhruv has won several awards for his exemplary work. In 2010 he won National Award for the Empowerment of People with Disabilities: an award announced by Ministry of Social Justice and Empowerment given by the President of India, Smt. Pratibha Devi Singh Patil, for the commendable efforts made to empower the deaf through meaningful employment. In 2009 he got Hellen Keller Award: an award given to Role Model Supporter of Increased Employment Opportunities for Disabled People. In 2009 he got Echoing Green Fellowship : Echoing Green supports outstanding upcoming social entrepreneurs. It provides investment to launch new organizations that promise to deliver bold, high-impact solutions to existing social problem and bring about a social change. Two-year fellowship program helps visionaries who develop new solutions to society’s most difficult problems.

While the services are currently been offered to corporate clients located at Mumbai. Dhruv plans to extend the business operations all over the country. Simultaneously he intends to consolidate and improvise his overseas operations as well. His vision is to make ‘Mirakle Courier’ the biggest employer of deaf adults in India. The target is to generate employment for over ten thousand deaf adults and thus facilitate them and their families to lead a financial secure and respectable life.

DISCUSSION

'Mirakle Courier' brought new ray of hope in their lives of the deaf adults, who suffered bitter experiences in their day-to-day lives; were neglected and ill-treated by family members; exploited by people at work places; avoided socializing and preferred seclusion; had no self-respect and confidence. The job at 'Mirakle Couriers' added new meaning to their lives and made them financially independent. They re-gained self-confidence and self-respect. Today they are the earning members of their families and are loved and respected by the family members and the society. Dhruv`s initiative has proved that the deaf adults in the society are very much employable and they should be given a chance to earn a livelihood for themselves. By initiating a venture to employ such people Dhruv has helped them to join the main stream of the economy. Dhruv has made a commendable contribution in enhancing social well being and promoting inclusive growth in our country.

Dhruv Lakra`s venture is an ideal example of social entrepreneurship, it strives to serve a social cause at the same time simultaneously achieves professional excellence. Vital take away for potential entrepreneurs can be that, if people have passion to solve any existing socio-economic problem prevailing in his society then they can create 'Social For Profit Ventures' to address such issues. 'Social For Profit Ventures', unlike NGOs and Charitable Organizations, have social mission and also generate rational profit margins for themselves. It is important to note that if we wish to create sustainable society across the world, we must make efforts to help the deprived groups to join the mainstream economy by creating new job opportunities for them or by offering them the products and services needed by them. It is equally important to come up with innovative business prepositions to solve critical environmental issues as well. 'Social For Profit Ventures' have a vital role to play across the world economies to ensure sustainability and growth.

CONCLUSION

Unlike charity organizations, social activists and philanthropic organizations who mainly work for social causes such as human rights, women abuse, right to information, environmental protection, consumer rights, etc., social entrepreneurship identifies a social problem/issue and uses entrepreneurial principle and acumen to organize, create, and manage a venture to achieve a desired social change and also derive some reasonable economic benefit. Thus such organizations result in social value creation as well as economic value creation and make valuable contribution in the inclusive growth.

LIMITATIONS AND FUTURE RESEARCH AGENDA

This study is restricted to investigating a specific business in India. A similar study can be replicated in the other developing countries across the world of the country find out other such social initiatives which have brought a sea changes in the lives of people some deprived groups in the society, to get a broader and better perspective. Further research can be taken up to understand how aspects culture, technological disruption, globalization, increased competition etc. affect such businesses and also what are the challenges faced by them to manage the survival and growth in today`s era uncertainty and economic slowdown across the globe. A mix of qualitative and quantitative and techniques to would be much helpful in deriving realistic conclusions.

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PUBLIC PRIVATE JOB SATISFACTION DIFFERENTIAL IN SERBIA: EVIDENCE FROM SILC DATA

Marko Vladisavljevic[21]

ABSTRACT

Although the wage differences between the public and private sectors in Serbia are well researched, little is known on the differences in the overall quality of work between the sectors. In this paper we aim to fill this gap, by analysing the differences in job satisfaction between the public and private sector workers in Serbia, starting from a theoretical framework which views job satisfaction as an operationalization of total utility from work. To analyse the differences in job satisfaction we use nationally representative Survey on Income and Living Conditions (the SILC) data from 2013 and Blinder-Oaxaca decomposition method. The results show that public sector workers in Serbia, beside high public sector wage premium, also work in better working conditions, and have higher levels of job satisfaction. Although higher levels of job satisfaction can partially be accounted for by higher wages and better job characteristics of the public sector workers, a part of the gap in job satisfaction remains unexplained by the variables available in the SILC data. According to recent literature on job satisfaction these unexplained differences could be contributed to lower stress, higher job security and higher levels of intrinsic motivation of public sector workers. The results further support the notion of strong labour market duality in Serbia, which causes micro level labour market distortions.

Key words: *job Satisfaction, Public and Private Sector, Working Conditions, The Silc, Serbia*

JEL Classification*: J28, J45, J81*

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INTRODUCTION

Public private sector division is one of the most important bases of the labour market duality in Serbia (Arandarenko, 2011). The primary labour market, which majorly consists of the public sector workers, is characterized by higher job security, good working conditions and higher wages. On the other hand, the secondary labour market, majorly composed of private sector employees, is characterized by lower job security and lower wages, but also by difficult transition to the primary labour market (Arandarenko, 2011).

The more favourable position of the public sector workers is not a special feature of Serbia, but is often found in many European countries. One of the advantages of working in the public sector is that employees in this sector have, on average, a higher level of earnings than private sector workers. However, when the differences in labour market characteristics, such as the level of education, work experience or work on managerial positions, are statistically kept constant, the public sector wage premium is sometimes positive and sometimes negative (European Commission, 2014).

In Serbia, at the beginning of the transition the public sector wages were, ceteris paribus, lower than the wages in the private sector (of about 28% in 1995, Krstić et al, 2007). As the transition progressed the wages in the public sector firstly became equal to the wages in private sector (in 2004; according to Lausev, 2012) and then significantly higher than the wages for the comparable jobs in the private sector (about 17%, according to Vladisavljević and Jovančević, 2016). Although the number of papers dealing with the public private wage differentials in Serbia is now substantial, not many of them deal with the other differences in the workers' position.

This paper aims to analyze the differences in job satisfaction between public and private sector in Serbia, using nationally representative micro data from the 2013 Survey on Income and Living Conditions (the SILC) and the Blinder and Oaxaca decomposition (Blinder, 1974; Oaxaca, 1974). In this paper, job satisfaction is viewed as an operationalisation of the overal utility of work, a framework of the job satisfaction analysis established by Clark (1996).

The contribution of this paper is twofold. Firstly, to the best of our knowledge, the differences between the public and private workers in job satisfaction have not been previously investigated in the case of Serbia, due to unavailability of nationally representative data. The methodology applied in this paper is similar to the one which is usually applied in the investigations of public private wage differentials, although adopted to study the differences in job satisfaction according to the framework of Clark. Secondly, the investigation of the public private job satisfaction differential is important as it underlines the differences between the public and private sector, other than wages and working conditions. High level of differences in job satisfaction between the public and private sector workers, in the situation where there are no differences in wages, could indicate that workers of one sector are in more favourable position, which can cause labour market inefficiencies, as the workers "wait in line" for the job in one sector and less skilled workers are left to the other.

This paper is structured as followed. After this introduction, the second part of the paper defines the concept of job satisfaction and underlines its significance, while the third part discusses the sources of the job satisfaction differences between the public and private sector. Fourth part of the paper discusses the data and the methodology that is going to be used to analyse the public private job satisfaction differential, while the fifth presents the results of the analysis. Finally the sixth part concludes.

JOB SATISFACTON: DEFINITION AND DETERMINANTS

One of the most commonly used definitions of job satisfaction is given by Locke (Locke, 1970, according to Clark, 1996), who defines job satisfaction as "a pleasant or positive emotional state that is the result of an evaluation of someone's work or experience of work". Within the concept of job satisfaction different domains can be distinguished, such as satisfaction with pay, with co-workers, working conditions, job importance etc. (Ghinetti, 2007). According to this approach, job satisfaction components which relate to satisfaction with different aspects of work, combined together, make the overall measure of job satisfaction, which is calculated as an (weighted) average score of specific job satisfaction aspects (Linz & Semykina, 2012).

According to one of the most prominent authors in the field of job satisfacton Andrew E. Clark, job satisfaction is important because: 1) it direclty measures the overall ustility of work, the and the (workers) overall well-being which is one of the core topic in economics which cannot be investigated otherwise; and 2) because job satisfaction indicators are strongly linked with job perfromance indicators such as quits, abseentiesm and productivity (Clark 1996).

The concept of job satisfaction is closely related to the notion of motivation for work. In job motivation research, typically to two groups of factors are mentioned: so-called *extrinsic* (external) factors of motivation that include cash rewards for success, working conditions, etc. and *intrinsic* (internal) which encompass the sense of accomplishment, self-development, etc. (Buelens & Van den Broeck, 2007). While extrinsic factors of job satisfaction are more in the research focus of economists, intrinsic factors are more investigated by psychologists (Linz & Semykina, 2012).

Authors in the field of psychology and management (e.g. Hulin and Judge, 2003) emphasize that job satisfaction is a multi-dimensional concept that includes a cognitive (evaluative) and affective component. The cognitive component refers to a cognitive assessment of the difference between the expected and achieved working conditions and other aspects of the job. On the other hand, the affective component reflects the level of happiness and positive emotions related to the job. These two components are said to have different determinants and are not necessarily directly related, although cognitive job satisfaction can contribute to greater emotional satisfaction with ones work.

On the other hand, economists view job satisfaction as an operationalization of the total work utility (Clark, 1996). This line of research usullly focuses on global utility of work, measured on the basis of one item, which refers to general job satisfaction, typically a cognitive one. This approach is more appropriate in the surveys with a large number of respondents (nationally representative samples) and has been implemented in the SILC module on subjective well being, which is used in this paper.

JOB SATISFACTION DETERMINANTS

In economics, as already mentioned, job satisfaction is viewed as an operationalization of total utility from work. In accordance with this theoretical framework, the economic model of job satisfaction, focuses on the so-called extrinsic (external) determinants. Within this approach, job satisfaction is viewed as a function of earnings (y), hours of work (h) and a set of other job characteristics (j) (Clark, 1996):

$$JS = U = U(y, h, j) \quad (1)$$

assuming positive preferences for higher income and fewer hours of work, which have been well estblished in the previous research (e.g. Clark, 1997).

According to Ghinetti (2007), the set of job satisfaction determinants is identical to one used in Mincer earnings equations, and within the set two groups of factors are often separately considered: personal and job characteristics. Among the personal characteristis a large number of studies indicated that women show higher levels of job satisfaction, despite being lower paid than men, primarily due to lower initial work expectations (Clark, 1997). On the other hand, the relationship of job satisfaction and age is U-shaped, with country specific age for minimum values of job satisfaction (Clark et al., 1996). Finally, marriage and parenting, as well as health, have a beneficial effect on job satisfaction, probably thorught an indirect relationships with higher levels of overall life satisfaction.

On the other hand, although it has been unequivocally established that people with a higher education are earning more and have better working conditions, their job satisfaction is often lower than the one of less educated workers. This unexpected result is explained by the fact that more educated workers have significantly higher expectations from work, and therefore, more often than workers with lower education, they have a greater discrepancy between expected and actual conditions at work (Clark and Oswald, 1996). The effects of occupation are similar to the effects of education: jobs that involve more qualified work (managers, professionals, technicians) show on average higher levels of job satisfaction, but when other variables are controlled for they can be lower then for less skilled workers.

In addition to the described effects of earnings and hours of work, other job characteristics have also been demonstrated to affect job satisfaction (Clark and Oswald, 1996). Job satisfaction is generally higher in larger companies, because, as a rule, they provide a higher level of earnings. On the other hand, when the effects of wages and working hours are controlled for, it is shown that workers in smaller enterprises are more satisfied with their work, which is often explained by their higher intrinsic work motivation (Clark, 1996). Additionally, workers working on permanent contracts typically have higher levels of job satisfaction due to higher job security. Finally, more work experience is also associated with higher levels of job satisfaction (Ghinetti, 2007), but these effects are not uniform, especially in countries in transition (Linz & Semykina, 2012).

JOB SATISFACTION IN PRIVATE AND PUBLIC SECTOR

PUBLIC SECTOR WAGE PREMIUM AND JOB SATISFACTION

One of the main reasons behind the differences in job satisfaction between the private and public sector is the difference in the level of earnings. Although in a long period of years public sector wages were higher than in the private sector, a recent European Commission research suggests that in 2010, roughly divided, in the countries of southern and western Europe there was a positive premium for public sector work, while in the countries of central, eastern and northern Europe, wages for the same job were higher in the private sector (European Commission, 2014).

The size and the sign of the public sector wage premium is affected by numerous factors such as political factors in decision making, wage setting in the public sector, institutional mechanisms of wage setting in general (e.g. minimum wages), the monopsonistic role of the state, and the strength of the trade unions in the wage negotiating process (Vladisavljević et al, 2017).

On the other hand, research on the pay gap in transition countries suggests that wages for "the same job" in the public sector were significantly lower than in the private sector at the beginning of the transition. However, this advantage of the public sector disappears when the economic transition reaches its maturity. In addition, for some countries at the end of the transition, the public sector premium becomes positive, suggesting a convergence between the trends of developed and transition countries (Lausev, 2014).

The public sector premium in Serbia has evolved exactly as the transition literature suggest: at the beginning of the transition the premium was negative, and as the transition unfolded the wages in the sectors firstly became equal, around the turn of the century and then became ceteris paribus higher in the public sector. In one of the papers dealing with the topic for Serbia, Jovanovic and Lokshin (2003)

found a negative public sector premium of 9.4% for men and 4% for women using the 2000 Labour Force Survey data. Krstić, Litchfield and Reilly (2007) also use the Labour Force Survey data and show that between 1995 and 2003, the negative public sector premium for men decreased from 28.5% to 8%. Laušev (2012) shows that in 2004 the wages for the public sector workers were equal to the ones in the private sector for low skilled workers, while for the high-skilled workers the wages were ceteris paribus still higher in the private sector. The same study shows that in 2008, public sector premiums became positive for both low-skilled and high-skilled workers (Laušev, 2012). Finally, in 2010s, research based on both data from the 2013 Survey on Income and Living Conditions in 2013 (the SILC) and 2014 Labour Force Survey (LFS) indicate that the public sector wage premium is very high and is estimated at about 17% (Vladisavljević and Jovančević, 2016, Vladisavljević, 2017).

OTHER FACTORS DETERMINING THE GAP IN JOB SATISFACTION BETWEEN THE SECTORS

A large number of research suggest that public sector workers feel that their jobs are more secure and stable than the workers in the private sector (Buelens & Van den Broeck, 2007). Therefore, the public sector jobs are often more attractive, even if there are no differences in the wages between sectors (Ghinetti, 2007). This result is partly due to the fact that, in most countries, as well as in Serbia, trade unions are more strong in the public sector than in the private sector (Arandarenko, 2011). According to Arandarenko (2011), data from 2010 CESID survey suggest that in Serbia the share of union workers is almost four times higher in the public than in the private sector (46% in public vs. 12% in the private sector). In this way, public sector workers are in a better position to negotiate their wages and working conditions in general.

Luechinger, Meier and Stutzer (2010) found that the effects of changes in the unemployment rates and the deterioration of economic conditions on the lowering of subjective welfare of workers are much higher in private workers than in public sector workers. They conclude that work in the public sector is, as a rule, more protected, not only because it is less likely to get fired, but also because the organization in which public sector workers are employed is less likely to bankrupt (Luechinger, Meier and Stutzer, 2010). Additionally, public sector work is more attractive than work in the private sector, due to well-defined working time and a social (versus competitive) work environment (Linz & Semykina, 2012).

Differences in job satisfaction between the private and public sectors can also be the result of different sources of motivation. Research shows that, while private sector workers are more motivated by "external" (extrinsic) factors, such as money and job rewards, public sector workers are more motivated by "internal" (intrinsic) factors such as job content, responsibility, and self-development (Buelens & Van den Broeck, 2007).

Ghinetti states that personal characteristics such as age or education are more likely to determine jobs satisfaction in public sector, while job characteristics, such as the ability to progress, occupation, and place in the job hierarchy, are more likely to determine job satisfaction in the private sector (Ghinetti, 2007). These differences are probably the result of the fact that job and career expectations in the private sector are more volatile, and the career progress has a higher impact on job satisfaction than in the public sector (Ghinetti, 2007).

THE GAP IN JOB SATISFACTION BETWEEN THE PUBLIC AND THE PRIVATE SECTOR – PREVIOUS RESEARCH

Due to the low data availability, there is a low number of research which investigate the differences in job satisfaction between the public and private. Heywood et al. (2002) directly estimate the sectoral gap in job satisfaction in the UK. They find that, although the cross section data indicate a higher job satisfaction in the public sector, these differences stem from selection effects, due to the fact that public sector workers need less to be satisfied with their work (Heywood et al, 2002). On the other hand, Artz (2008) who also investigated the gap in the UK, found that satisfaction is higher in the private sector, and attributed the difference to fact in the private sector workers are more likely to be paid in accordance with their performance at work.

In Italy, public sector employees are, ceteris paribus, more satisfied with thier job security, respect by colleagues, safety and health at work, while there are no differences between satisfaction with job interest and work efforts (Ghinetti, 2007). In this way, it has been shown that public sector employees, besides the wage premium, also make premiums in the form of better working conditions (Ghinetti, 2007).

In one of the rare studies on job satisfaction in transitin countries, Linz & Semykina (2012) have investigated job satisfaction determinants in five countries: Armenia, Kazakhstan, Kyrgyzstan, Russia and Serbia. Although not focusing exlcusively on the effects of the type of ownership, one of the control variables used in the research was the dummy variable for public sector. The authors find that, in Serbia, working in public sector, ceteris paribus, lowers the job satisfaction, while in other countries, the type of ownership had no statistically significant effects on job satisfaction.

DATA AND METHODOLOGY

DATA AND SAMPLE

We use Survey on Income and Living Conditions (the SILC) data for Serbia from 2013. The survey, conducted by the Statistical Office of the Republic of Serbia (SORS), provides nationally and regionally representative data on income, poverty and living conditions for Serbia and is a basic instrument for comparative poverty assessment in Serbia and the European Union (according to Eurostat methodology).

The sample includes 6,501 households, and the data were collected at both household and individual level. The data include weights, calculated by SORS, which are used to correct estimates of descriptive statistics and econometric estimates for the probability that the household will be selected as a sample from the population of the households of Serbia.

The regression analysis sample consists of 3,304 employees (1,605 employees in the public and 1,699 private sector employees) who answered the question on job satisfaction. The analysis excludes self-employed and unpaid family members, as well as persons working in the informal employment, to enable greater comparability of the public and private sector. In accordance with the recommendations in the literature, we also exclude employees in the agriculture sector, as well as military personnel, as well as persons working less than full-time and as well as employees who do not receive salaries at work. In addition to the missing data, persons who cannot be determined whether they are employed in the public or private sector are also excluded.

DEFINITIONS OF JOB SATISFACTION, PUBLIC SECTOR AND OTHER COVARIATES

Job satisfaction measure was included in the 2013 the SILC data as a part of the special (ad-hoc) module on subjective well-being. Job satisfaction was measured via one question within a group of nine questions that measure general life satisfaction and satisfaction related to eight different aspects of life. Job satisfaction was operationalized through the question "How do you evaluate your current job?", (Eurostat, 2015). From the perspective of the previous discussion, the measure of job satisfaction is designed to measure one, general, cognitive component of job satisfaction via comprehensive job evaluation. Respondents respond to this question (and all other life satisfaction questions) on a Likert type scale from 0 to 10, where 0 represents the answer "I'm not at all satisfied", 10 represents "I'm completely satisfied", and the middle digits are answers between these two extremes.

The main independent variable, sector of ownership, was based on the question "What is the form of property at which you work:?", which had four possible answers: "Private Registered", "Private Unregistered", "Public / State" and "Other (Social, mixed, etc.)". To analyse the differences we include only respondents who answered "Private Registered" and "Public / State", therefore excluding informal employment (“Private unregistered”) and mixed ownership types ("Other (Social, mixed, etc.)"), to increase the comparablity between the public and private sector.

List of remaining independent variables which will be used in the job satisfaction model and their precise definitions can be found in Table 1. The list is composed having in mind the discussion in the section 2, and the availability of the data from the SILC.

Table 1. Independent variables that will be used in the job satisfaction model and their definition

Variable	*Question in the SILC*	*Variables in a job satisfaction model*
Education	The highest level of education, (recategorized into three categories: primary, secondary and tertiary education)	Dummy variables - secondary education = 1 - tertiary education = 1
Working experience	How many years did you work on all paid jobs?	Numerical variable
Region	Registered category variables with four regions: Belgrade, Vojvodina, Western Serbia, Eastern Serbia	Dummy variables - Vojvodina = 1 - Western Serbia = 1 - Eastern Serbia = 1
Sex	Category variables with two levels: male and female	Dummy variable: women = 1
Age	Completed years of life (as of December 31, 2012)	Numerical variable (level and square)
Marital status	What is your marital status?	Dummy variable: Married = 1
Occupation	What is your occupation at the main job? (ISCO categories)	Dummy variables - Managers = 1 - Experts and artists = 1 - Engineers, professional associates = 1 - Administrative workers = 1 - Service and trade interests = 1 - Crafty and related occupations = 1 - Machine managers = 1 - Elementary occupations (base)
Activity sector	Activity (local units) in which you work (what is produced or which services are rendered at your enterprise, company, organization, etc.) (collected as NACE Rev 2, recategorized)	Dummy variable: Service sector = 1 Industry (base) Agriculture (excluded)
Type of contract	Do you do the job: for an indefinite period of time, for definite period of time, on seasonal basis, occasionally (recategorized)	Dummy variable: Temporary contract = 1 (definite, seasonal or occasional work)
Monthly earnings	What were your net earnings in the previous month?	Numerical variable: Logarithm of monthly earnings
Working hours	How many hours during a week do you usually work at your main job?	Numerical variable

MODEL SPECIFICATION AND ESTIMATES

The basic form of the job satisfaction model in this study is given by the following equation:

$$\mathrm{JS_i} = \alpha + \beta Pub_i + \boldsymbol{X}_i'\boldsymbol{\theta}_k + \varepsilon_i, \quad (2).$$

Model is used to assess the relationship between job satisfaction and the set of the independent variables X (the list of variables and the definitions given in Table 1) on job satisfaction, with ε_i denoting the error term. As the focus of the paper is the assessment of whether the public sector, ceteris paribus, increases or decreases job satisfaction, a variable that indicates the sector of ownership was singled out and presented a separate dummy variable Pub, in the equation (2). After the model is estimated by using the simple ordinary least squares (OLS) estimators, the coefficient β presents an estimate of the adjusted gap in job satisfaction between the private and public sectors.

Blinder-Oaxaca decomposition analyses the unadjusted gap in the job satisfaction between the public and private sectors by dividing it to its so-called explained and unexplained part (Blinder, 1973; Oaxaca, 1973). The decomposing is based on the separate models of job satisfaction in the public and the private sector

$$JS_i^{Pri} = \boldsymbol{X}_i^{Pri\prime}\boldsymbol{\theta}_k^{Pri} + \varepsilon_i^{Pri}, \text{ for the private sector} \quad (2a)$$

$$JS_i^{Pub} = \boldsymbol{X}_i^{Pub\prime}\boldsymbol{\theta}_k^{Pub} + \varepsilon_i^{Pub}, \text{ for the public sector} \quad (2b)$$

where $\mathrm{X_i^{Pri\prime}}$ and $\mathrm{X_i^{Pub\prime}}$denote the vector of individual and job characteristics (wages, education level, work experience, etc.), $\boldsymbol{\theta}_k^{Pri}$ and $\boldsymbol{\theta}_k^{Pub}$ are the coefficients from private and public sectors job satisfaction models respectively, while ε_i^P and ε_i^J are the error terms. If we assume that the expected values of the errors in the model are equal to zero, the difference in the expected value of job satisfaction in the private and public sector can be written as

$$E\left(JS_i^{Pub}\right) - E\left(JS_i^{Pri}\right) = E(\boldsymbol{X}_i^{Pub\prime})\boldsymbol{\theta}_k^{Pub} - E(\boldsymbol{X}_i^{Pri\prime})\boldsymbol{\theta}_k^{Pri} \quad (3).$$

After estimating the equations (2a) and (2b) with the ordinary least squares (OLS) estimators, the difference in average job satisfaction between the public and private sectors (the unadjusted job satisfaction gap), can be written as

$$\overline{\mathrm{JS}}^{\mathrm{Pub}} - \overline{\mathrm{JS}}^{\mathrm{Pri}} = \overline{\boldsymbol{X}}^{Pub\prime}\widehat{\boldsymbol{\theta}}_k^{Pub} - \overline{\boldsymbol{X}}^{Pri\prime}\widehat{\boldsymbol{\theta}}_k^{Pri}. \quad (3a).$$

The last equation, after some transformations can be written as:

$$\overline{JS}^{Pub} - \overline{JS}^{Pri} = \left(\overline{X}^{Pub} - \overline{X}^{Pri}\right)'\hat{\theta}^{*} + (\overline{X}^{Pub'}\left(\hat{\theta}^{Pub} - \hat{\theta}^{*}\right) + \overline{X}^{Pri'}\left(\hat{\theta}^{*} - \hat{\theta}^{Pri}\right)) \quad (4)$$

The last equation presents the basic division of the unadjusted gap in the Blinder-Oaxaca decomposition as the sum of the explained and unexplained part of the gap. Estimation of the explained part of the gap is based on the difference between the average labour market characteristics of the workers from the public and private sectors ($\overline{X}^{Pub} - \overline{X}^{Pri}$), weighted by the regression coefficients from the reference equation $\hat{\theta}^{*}$. On the other hand, the unexplained part of the gap ($\overline{X}^{Pub'}\left(\hat{\theta}^{Pub} - \hat{\theta}^{*}\right) + \overline{X}^{Pri'}\left(\hat{\theta}^{*} - \hat{\theta}^{Pri}\right)$ is based on the difference between the slope coefficients in the public and private regressions, which are weighted by the average values of the characteristics of the labour market of persons in the public and the private sector (Jann, 2008).

It can be shown that if for the reference coefficients $\hat{\theta}^{*}$ we take the coefficients from the pooled model which includes both public and private sector workers, (equation 2) the estimation of the unexplained part of the gap is equal to the value of the coefficient from equation 2, i.e. the adjusted gap in job satisfaction. Threfore, th true value of the Blinder-Oaxaca decomposition is in that it enables to isolate the contribution of each variable to the explained and unexplained part of the gap. Therefore, it is possible, for example, to assess which part of the gap in job satisfaction between the public and the private sector is due to the differences in wages, which part is due to the differences in education, etc. (Jann, 2008).

RESULTS

Differences in personal and job characteristics and job satisfaction between the public and private sector workers

The results indicate that the public sector workers on average have higher wages, work shorter working hours, and have higher levels of job satisfaction (Table 2). According to the data from EU the SILC, the average monthly salary in the public sector was 18.9% higher than in the private sector, while at the same time private sector workers worked on average 3 hours per week longer. Higher monthly earnings and lower working hours in the public sector have led to the difference in average hourly wages of 24%. On the other hand, the average job satisfaction (on a scale of 0 to 10) was 7.12 in the public and 5.96 in the private sector.

Table 2. The difference in the average monthly salary, average hours of work and satisfaction with the work in the public and private sector

	Average monthly wages	Average weekly working hours	Average hourly wages	Job satisfaction
Private sector	35,145	44.7	174.3	5.96
Public sector	43,337	41.3	229.2	7.12
Difference (%)	18.9%	-8.2%	24.0%	15.6%
Standardized difference	0.366	-0.558	0.474	0.468

Note: Standardized difference is a difference in the average values of standardized variables. Standardized variables represent the transformation of the original variables according to the formula: (Original variable- Mean) / Standard deviation. Source: Author's calculation based on data from the SILC (2013).

In order to be able to compare the difference in earnings and job satisfaction between the sectors, given that the measurement unit and the nature of scale for the two variables are different, a comparison of standardized differences in variables must be used. According to data from the SILC, the difference between the sectors in job satisfaction is 0.468 standard deviations, which is higher than the differences in the average monthly salaries (0.366), and at the level with the difference in the average hourly earnings (0.474). In other words, the differences in job satisfaction between the sectors are more pronounced than the differences in monthly earnings, but are approximately equal to the differences in average hourly earnings.

In addition to these differences, there are a number of other differences in the characteristics of public and private sector jobs (Table A1 attached). Firstly, public sector workers work more often in occupations requiring a higher level of skills: professionals make 28.4%, while engineers and associate professionals account for 22.4% of employees in the public, as opposed to 8.1%, or 14.7% of employees in the private sector. On the other hand, the private sector workers work more frequently in services (25.2% of employees compared to 9.8% of employees in the public sector), crafts (20.5% compared to 8.1%) and as machine managers (12.9% compared to 6.3%). Additionally, almost four fifths (79.8%) of public sector workers work in the service sector, while this number in the private sector is slightly lower than two-thirds (65.7%). Furthermore, private sector workers are more likely to work on some form of temporary contract (18.3% compared to 7.7% in the public sector), they perform less frequently on managerial functions (17.3% compared to 20.7%), have less work experience and work in enterprises with fewer workers (Table A1 in the Appendix).

On the other hand, workers in the private and public sectors also differ from the perspective of socio-demographic characteristics. Public sector workers are on average five years older, more likely to be married, and more likely to live in urban settlements. The share of women is higher in the public than in the private sector, as women

account for 51% of workers in public and only 43% of private sector workers. Finally, public sector employees are on average better educated, as 40.9% has tertiary education, compared to 21.4% in the private sector (Table A1 in the Appendix).

Determinants of job satisfaction in the public and private sector

Table A2 in the Appendix shows the results of job satisfaction model estimates for all workers, as well as a separate model for workers in the public and private sectors. In all three models, as well as in the later specifications for the Blinder-Oaxaca decomposition, the set of determinants includes: education, work experience, region, gender, age (and age square), marital status, occupation (eight ISCO 1 categories from Table 1), activity sector (industry vs. services) and contract type (temporary vs. permanent contract). Additionally, the model for all workers includes an the main independent variable of interest - sector of ownership: public or private.

Below, we first discuss the results of the above mentioned set of job satisfaction determinants, and then we will focus on the differences between the public and private sector.

The coefficients in Table A2 are in line with expectations of the basic model of job satisfaction as an operationalization of total utility of work (Clark, 1996), which suggests that job satisfaction is higher for workers with higher wages and lower hours worked. However, while the coefficient with logarithmic earnings is significant and roughly the same in all three models (all workers, public and private sector workers), the coefficient for working hours is significant only for the private sector, probably due to the lower variability in public sector work hours in general.

In line with the previous research (Clark and Oswald, 1996), education, when income is controlled for, reduces job satisfaction, probably either due to increased demands for workers with this level of education or due to a greater difference between job expectations and working conditions. In addition, education does not represent a significant determinant in the sample of public sector workers. On the other hand, working experience does not affect job satisfaction in any of the three models.

Other job characteristics also have a pronounced effect on job satisfaction. Occupations which require a higher degree of skills: managers, professionals, engineers and associate professionals, as well as the clerks in both sectors have significantly higher levels of job satisfaction when compared to elementary occupations. At the same time, the effects of working as managers or professionals are higher in the private than in the public sector, which having in mind that the wages are controlled for, suggests higher intrinsic awards for these occupation in the private sector. On the other hand, working in service activities (vs. working in industry) yields higher level of job satisfaction in public sector, but not in private sector. Finally, temporary forms of contract, due to greater uncertainty in terms of job stability, reduces job satisfaction in both sectors.

Finally, among the personal characteristics, in accordance with the previous research (Clark, 1997; Clark et al., 1996), women have, ceteris paribus, higher level of job satisfaction than men, while age and job satisfaction have a characteristic non-linear (U-shaped) relationship, in all three models. Job satisfaction with work is higher, ceteris paribus, in Vojvodina, Western and Eastern

Serbia, than in Belgrade, and regional effects are more pronounced in the public than in the private sector. Finally, marriage, ceteris paribus, has no effect on job satisfaction, which is inconsistent with the results of some previous research.

Job satisfaction in public and private sector

Now we return to the central topic of this paper, which is a gap in job satisfaction between the public and the private sector. In the model for all the workers in table A2, the coefficient next to public sector indicator variable shows that public sector workers have a statistically higher job satisfaction than the workers in the private sector, even when we control for all other job satisfaction determinants. This value represents the so-called adjusted gap in job satisfaction, and its value of 0.479 is lower than the value of the unadjusted job satisfaction gap, which is 1.116 (i.e. the difference between the average values of satisfaction with public and private sector jobs from Table 2).

The previous discussion can be summarized within the framework of the Blinder-Oaxaca decomposition (Table 3). The difference in the average values of job satisfaction in the public and the private sector is 1.116 scale points. As workers in the public sector, compared to private sector workers, are more likely to have personal or job characteristics that overall, ceteris paribus, lead to increased job satisfaction, more than half of the difference between the sectors can be explained by the differences in these characteristics (57.1%; 0.637 of 1.116, explained part, Table 3). The remaining part of the difference - 0.479 scale points cannot be explained by differences in job or personal characteristics. This part of the gap, called the adjusted gap (or the unexplained part of the gap in the terms of Blinder-Oaxaca decomposition) represents a difference that can be attributed to the fact that workers work in the public or private sector. The analysis in the Table A3 (in Appendix) suggest this part of the gap cannot be explained by differences in the coefficients from public and private sector models of job satisfaction.

Table 3. Blinder-Oaxaca decomposition of job satisfaction differences between the sectors

	Job satisfaction
Private sector (average)	5.961
Public sector (average)	7.077
Difference in job satisfaction (unadjusted gap)	-1.116
Explained part of the difference	-0.637
Unexplained part of the difference (adjusted gap)	-0.479

Source: Authors calculation based on data from the SILC (2013)

As noted earlier, public sector workers are more likely to have characteristics that increase job satisfaction then the private sector workers, and these differences explain more than half the differences among sectors. Table 4 presents the results of the detailed Blinder-Oaxaca decomposition which shows what characteristics contribute to the explained part of the gap the most.

Table 4. Summarized results of detailed Blinder-Oaxaca decomposition

Variable	Coefficient	Percentage of explained variability
Monthly earnings	0,396 ***	35.5%
Working hours	0,083 ***	7.4%
Education	-0.032	-
Work experience	0,073	-
Region	-0.002	-
Sex	0,017 **	1.5%
Age	-0.170 ***	-15.2%
Marital status	-0.002	-
Occupation	0,194 ***	17.4%
Activity sector	0,032 **	2.9%
Type of contract	0,050 ***	4.5%
Total explained part	*-0.637 ****	*57.1%*

*Source: Authors calculation based on data from SILC (2013). *** p <0.01, ** p <0.05, * p <0.1. Note: A table with estimated coefficients and standard errors is attached in Table A3.*

The largest part of the difference in job satisfaction between the sectors can be explained by differences in job characteristics, primarily in differences in earnings and occupations (Table 4). In accordance with the job satisfaction model (Clark, 1996), higher wages in the public sector account for 35.5% of total job satisfaction differential (0.396 of 1,116), while longer working hours in the private sector explain an additional 7.4% difference (0.083 from 1,116). Effects of occupation are also prominent: higher participation of professionals, engineers, associate professionals and technicians in the public than in the private sector, accounts for additional 17.4% difference (0.194 from 1.116) between the sectors, as these professions are, ceteris paribus, associated with higher levels of job satisfaction. Higher public sector job satisfaction is also due to lower share of the temporary contracts (4.5% of the difference: 0.05 from 1.116), and higher share of employees in services (3.2% difference: 0.032 from 1.116), where job satisfaction is higher.

On the other hand, personal characteristics of workers contribute very little to the public private job satisfaction differential. While higher share of women in the public sector, due to the higher female job satisfaction additionally explains 1.5% of job satisfaction differences, other personal characteristics: education, working experience, region and marital status have no effect on the gap between the sectors. Finally, the effects of age work in the opposite direction than the effects of the job characteristic and gender. Due to higher average age of public sector workers and the fact that there is a negative correlation between age and job satisfaction, the difference in age attenuates the unadjusted gap, which would be higher (by 0.170) if the public and private sector workers were on average of the same age.

SUMMARY OF RESULTS, DISCUSSION AND CONCLUSION

This paper aimed at estimating the gap in job satisfaction between the public and the private sector in Serbia using the Blinder-Oaxaca decomposition methods. The method, originally applied to the difference in earnings, is modified here to investigate the problem of job satisfaction differential. The paper uses nationally representative data from the Survey on Income and Living Conditions (SILC) from 2013. To the best of our knowledge, this is the first study which uses the nationally representative data from Serbia to estimate the public private job satisfaction differential, while the evidence from other countries is also limited due to the low data avialbility (Ghinetti, 2007, Heywood et al, 2002, Linz & Semykina, 2012).

The estimated model of job satisfaction in this paper is consistent with the findings of previous research: job satisfaction is higher for workers with higher wages and lower for workers who work longer working hours; higher for occupations that require a higher degree of skills (managers, professionals, etc.), as well as for workers in the service sector and under an permanent contracts. Furthermore, job satisfaction is, ceteris paribus, higher for women, workers with lower levels of education, while the correlation of job satisfaction and age is U-shaped, which is also consistent with previous research.

Workers in the public sector in Serbia have higher job satisfaction than private sector workers. On a scale from 0 to 10, where 0 represents "I'm not at all satisfied", and 10 "I am completely satisfied", private sector employees estimate their jobs by an average of 5.9, compared to the 7.1 estimate of public sector workers, resulting in unadjusted gap in job satisfaction between the sectors of 1.2 scale points. This difference, observed in standardized scores, is higher than the difference in monthly wages earned by workers in these sectors, and at the level with the difference in their hourly earnings. In addition to higher wages, public sector employees also enjoy shorter working hours, more frequent employment in better-paid occupations and in the service sector, and higher share of permanent contract. From the perspective of individual characteristics, public sector workers are, on average, better educated, older, more likely to live in urban settlements, and among them there are more women than in the private sector.

The application of regression analysis and Blinder-Oaxaca decomposition method suggests that more than half (57.1%) of the differences in job satisfaction between the sectors can be explained by the differences in characteristics described above. Most importantly, public private job satisfaction differential can be explained by higher monthly wages (35.5% of the unadjusted gap), more frequent work in better-paid occupations (15.2%), shorter working time (7.4%), higher share of permanent contracts (4.5%), and higher share of workers in the service sector of (2.9%) and women (1.5%) of the public sector workers. On the other hand, the gap would be even larger (by about 15%) if the public sector share of older workers is the same as in the private sector, since job satisfaction of older workers is lower.

However, even after controlling for all the factors described, public sector workers still have a higher job satisfaction of 0.479 scale points. Detailed Blinder-Oaxaca decomposition has not suggested that difference is due to the differences in the coefficients for the public and private job satisfaction model.

The literature suggests that the main reasons for higher job satisfaction in the public sector, beside the wages which are controlled for in the model, is in the higher job security in the public sector. Although this component of the public sector benefits is partially accounted by a temporary contracts variable, it is possible that there other components of higher job security and stability, such as lower possibility of bankruptcy of a public company or higher share of union members (Luechinger, Meier and Stutzer, 2010), which could are not measured in the SILC. Additionally, higher levels of job satisfaction in the public sector could be explained by lower levels of stress at work, due to a less competitive work environment, and well-defined working conditions (Linz & Semykina, 2012). Finally, public sector workers, especially those working in education or health, more frequently state intrinsic motivation a source of their work, which probably contributes to their higher overall jobs satisfaction (Buelens & Van den Broeck, 2007).

To summarize, in this research, it has been shown that besides the premium in wages, public sector workers also enjoy a premium in terms of better working conditions: they work shorter hours, have more secure jobs, etc. Furthermore, public sector workers have additional premium in the terms of job satisfaction that cannot be accounted by differences in variables which are available in the SILC. Previous research suggest that these advantages are due to higher job security, lower stress and higher intrinsic job motivation in the public sector.

All these results taken together further corraborate the argument of prominent labour market duality between the public and private sector in the Serbian labour market (Arandarenko, 2011), which causes significant distortions on the labour market. Public sector workers, beside higher wages, have higher working hours, better working conditions and more favourable working enviourment. The strong duality results in “waiting in line” for the public sector jobs which creates the labour supply gaps for the private sector.

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APPENDIX

Table A1. Descriptive statistics of job satisfaction determinants in private and public sector

	Average (private sector)	Average (public sector)	St. dev (private sector)	St. dev (public sector)	T test	P value
Ln wages (monthly)	10.303	10.561	0.466	0.422	-16.677	0
Weekly working hours	44.633	41.291	6.928	4.116	16.737	0
Education – Primary	0.089	0.087	0.285	0.281	0.231	0.818
Education – Secondary	0.697	0.505	0.459	0.5	11.547	0
Education – Tertiary	0.214	0.409	0.41	0.492	-12.41	0
Work experience	15.109	19.611	10.333	10.071	-12.674	0
Region – Belgrade	0.28	0.278	0.449	0.448	0.109	0.914
Region – Vojvodina	0.248	0.206	0.432	0.405	2.85	0.004
Region - Western Serbia	0.246	0.254	0.431	0.435	-0.501	0.616
Region - Eastern Serbia	0.227	0.262	0.419	0.44	-2.39	0.017
Women	0.433	0.51	0.496	0.5	-4.447	0
Age	39.194	44.088	10.308	9.91	-13.901	0
Married	0.646	0.7	0.478	0.458	-3.313	0.001
Senior officials and managers	0.036	0.044	0.186	0.204	-1.135	0.256
Professionals	0.081	0.284	0.272	0.451	-15.793	0
Technicians and associate professionals	0.147	0.224	0.354	0.417	-5.739	0
Clerks	0.09	0.102	0.286	0.303	-1.183	0.237
Service and sales workers	0.252	0.098	0.434	0.298	11.779	0
Craft and trades workers	0.205	0.081	0.404	0.273	10.27	0
Plant and machine operators	0.129	0.063	0.336	0.243	6.495	0
Elementry occupations	0.06	0.103	0.238	0.305	-4.579	0
Service sector	0.657	0.798	0.475	0.402	-9.127	0
Temporary contract	0.183	0.077	0.387	0.267	9.098	0
Supervises the workers	0.173	0.207	0.375	0.407	-2.47	0.014
Number of workers	10.79	13.59	7.802	9.333	-17.525	0
Sample	1.699	1.605				

Source: Author's calculation based on data from the SILC (2013)

Table A2. Estimates of the job satisfaction model

	Pooled model		Public sector		Private sector	
Variables	Coef.	St. error	Coef.	St. error	Coef.	St. error
Public sector	0.479 ***	(0.086)				
Monthly wages (ln)	1.532 ***	(0.107)	1.660 ***	(0.170)	1.428 ***	(0.143)
Weekly working hours	-0.025 ***	(0.007)	-0.006	(0.013)	-0.033 ***	(0.008)
Education – Primary	(ommit.)					
Education – Secondary	-0.372 **	(0.146)	-0.238	(0.216)	-0.433 **	(0.203)
Education – Tertiary	-0.533 ***	(0.188)	-0.293	(0.277)	-0.675 ***	(0.261)
Work experience	0.016 *	(0.009)	0.015	(0.012)	0.020	(0.013)
Region – Belgrade	(ommit.)					
Region – Vojvodina	0.445 ***	(0.106)	0.432 ***	(0.148)	0.422 ***	(0.154)
Region - Western Serbia	0.227 **	(0.106)	0.398 ***	(0.144)	0.105	(0.158)
Region - Eastern Serbia	0.424 ***	(0.108)	0.530 ***	(0.142)	0.324 **	(0.163)
Women	0.220 ***	(0.082)	0.208 *	(0.117)	0.270 **	(0.120)
Age	-0.149 ***	(0.028)	-0.198 ***	(0.043)	-0.141 ***	(0.041)

Age square	0.001 ***	(0.000)	0.002 ***	(0.000)	0.001 ***	(0.000)
Married	-0.043	(0.085)	-0.154	(0.116)	0.062	(0.126)
Senior officials and managers	1.284 ***	(0.269)	0.944 **	(0.368)	1.414 ***	(0.404)
Professionals	1.284 ***	(0.212)	0.982 ***	(0.281)	1.533 ***	(0.348)
Technicians and associate professionals	0.916 ***	(0.176)	0.804 ***	(0.233)	0.856 ***	(0.279)
Clerks	0.913 ***	(0.191)	0.828 ***	(0.251)	0.875 ***	(0.300)
Service and sales workers	0.481 ***	(0.171)	0.681 ***	(0.247)	0.334	(0.259)
Craft and trades workers	0.462 ***	(0.178)	0.186	(0.274)	0.484 *	(0.260)
Plant and machine operators	0.417 **	(0.189)	0.549 **	(0.276)	0.299	(0.277)
Elementary occupations	(ommit.)					
Service sector	0.227 **	(0.097)	0.410 ***	(0.144)	0.135	(0.136)
Temporary contract	-0.469 ***	(0.116)	-0.518 **	(0.203)	-0.440 ***	(0.146)
Constant	-6.085 ***	(1,239)	-6.772 ***	(1,947)	-4.722 ***	(1,704)
Sample	3,304		1,605		1,699	
R square	0.207		0.181		0.156	
P value	0		0		0	
Adjusted R square	0.20		0.17		0.15	

*Source: Author's calculation based on data from SILC (2013). *** p <0.01, ** p <0.05, * p <0.1*

Table A3. Detailed Blinder-Oaxaca decomposition

	Explained part		Unexplained part	
Variables	Coefficient	St. error	Coefficient	St. error
Monthly wages (ln)	-0.396 ***	(0.037)	-2.425	(2,334)
Weekly working hours	-0.083 ***	(0.025)	-1.110	(0,721)
Education – Primary	(ommit.)			
Education – Secondary	-0.072 **	(0.030)	-0.110	(0.183)
Education – Tertiary	0.104 ***	(0.038)	-0.128	(0.127)
Work experience	-0.073 *	(0.042)	0.074	(0.322)
Region – Belgrade	(ommit.)			
Region – Vojvodina	0.018 **	(0.008)	-0.003	(0.050)
Region - Western Serbia	-0.002	(0.004)	-0.073	(0.053)
Region - Eastern Serbia	-0.015 **	(0.007)	-0.051	(0.051)
Women	-0.017 **	(0.007)	0.028	(0.078)
Age	0.728 ***	(0.151)	2.490	(2,500)
Age square	-0.558 ***	(0.142)	-1.262	(1,299)
Married	0.002	(0.005)	0.145	(0.116)
Senior officials and managers	(ommit.)			
Professionals	-0.010	(0.009)	0.020	(0.021)
Technicians and associate professionals	-0.261 ***	(0.047)	0.106	(0.076)
Clerks	-0.071 ***	(0.019)	0.016	(0.069)
Service and sales workers	-0.011	(0.010)	0.005	(0.038)
Craft and trades workers	0.074 **	(0.029)	-0.057	(0.064)
Plant and machine operators	0.057 **	(0.024)	0.027	(0.053)
Elementary occupations	0.028 **	(0.014)	-0.024	(0.038)
Service sector	-0.032 **	(0.014)	-0.206	(0.143)
Temporary contract	-0.050 ***	(0.014)	0.009	(0.029)
Constant			2.050	(2,642)
Sample	3,304		3,304	

*Source: Author's calculation based on data from SILC (2013). *** p <0.01, ** p <0.05, * p <0.1*

INNOVATIVE CITIES – A CONCEPT FORKNOWLEDGE DRIVEN DEVELOPMENT

Rossitsa Chonbanova[22]

ABSTRACT

The current process of globalization and accompanying urbanization concentrate the most new problems and opportunities before entrepreneurship and development in the cities. The paper attempts to contribute to a better understanding of the concept for innovative cities as a concept for knowledge driven development, which is solving social problems, among which employment and education, mobilizing existing resources of knowledge and governing entrepreneurship. In this respect it characterizes innovativeness as a function of a city, trying to identify its grassroots and specifics. Along with this, conditions for innovative cities creation and development are summarized. Four visions for innovative development of cities are presented as well as stages of such development. At the end the main conclusions are summarized and recommendations for modern innovative city management are drown.

Key words: *City, Innovation, Knowledge Driven Development, Entrepreneurship*

JEL Classification: *L26*

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CONTEXT OF THE PROBLEM

Today employment, education and entrepreneurship are strongly affected by globalization, and accompanying *urbanization*, defined by UN as a leading problem of the 21st century (Habitat III - United Nations Conference on Housing and Sustainable Urban Development. 17 Oct 2016 - 20 Oct 2016. Quito, Ecuador Declaration for approving New Agenda for the cities). According to UN data, 50.5% of the population of Europe lives in city regions in 1950. In 2014 this share increases to 72%, and in 2030 it is expected to reach 78%. Globally, the city population is expected to double – from 29% in 1950 to 59.9% in 2030, and in 2050 it is expected to reach 80% (UN,.2005.World urbanization prospects. The 2005 Revision Working Paper NO ESA/P/WP/200).

The 21st century urbanization leads to deepening of many problems, inherited from the previous century. One of the most alarming of them is the *increased consumption of resources*. The expectations are that by 2030 the world's demand for energy and water will increase by 40-50%. The emerging of new city regions and city enlargements due to the demographic growth leads to more *noxious emissions* compared with the previous century. The *climate* change increases the risk of disasters.

An important characteristics of the modern urbanization is that it accelerates through the formation of global "technology frontier areas" (Chobanova, 2012), which main specifics is the concentration of population with high level of education and qualification in certain cities and regions. This is a result of the so-called brain drain from other less developed cities and regions. The problem of the latter areas is not anymore "catching up" but overcoming their fast social and economic lagging.

In the last years, qualitatively new approaches and solutions concerning the application of information and communication technologies are sought for solving the new global and specific local problems in the development of the cities. The 2016 joint report of the World Economic Forum and INSEAD "Innovating in the Digital Economy" is indicative on the matter (World Economic Forum and INSEAD. (2016). The Global Information Technology Report. Innovating in the digital economy. Geneva, www.weforum.org/gitr.).

However, the necessity of managing these increasing by volume and complexity problems becomes a reason for the cities to undertake ineffective or unfeasible legal reforms, reflecting the domination of "universal" technical problems and replicating foreign "best practices", without considering the local circumstances (UN. (2016). World cities report 2016, http://wcr.unhabitat.org/main-report/). The solutions to the problems in the cities in this situation suggest innovativeness.

Innovativeness is a characteristics of the ability to self-develop through mobilizing specific own and attracted resources, mostly knowledge for solving new problems. Its significance is determined by turning the knowledge into main resource for contemporary development of the economy. It is the knowledge of those occupied with economic (including research) activities in all its forms, and its mobilization for formulating and solving new challenges to the development.

Social innovations, for which generation and execution the scientific knowledge in social and humanitarian sciences has a special contribution, have most substantial significance for solving social problems of the modern development of technologies.

According to a definition of the Stanford University (https://www.gsb.stanford.edu/faculty-research/centers-initiatives/csi/defining-social-innovation), social innovation is a new solution to a social problem, which is more effective, efficient, sustainable or simpler than the existing solutions. The created value or result is accumulated mostly for the society and not for private persons.

Moving engines of the social innovations are:

- Exchange of ideas and values;
- Changes of the roles and interrelations;
- Integration of private capital with social and philanthropic support.

Since the innovation is a category specifying a process, activities and result of a realization of an idea for solving important social problems, the city is the territory where this idea is most often realized. In this sense, the creation of innovative cities is an objective regularity, i.e. where the concentration and interactions between people are more intensive, there are more problems, but also ideas are faster formulated for their solution (Chobanova, 2013). As a result of the accelerated introduction of new technologies, the new problems and their solving become so significant that modern cities already are cities, which ensure and realize opportunities for renovation. Practically it is revealed through the policies for innovative city development.

REASONS FOR CREATING INNOVATIVE CITIES

The concrete reasons for creating innovative cities can be summarized in three groups: ***social*** (concerning demographic changes); economic (determined by the necessity of forming competitive advantages in the conditions of globalization); technological (concerning expected changes from the fast development of the technologies, mostly information and communication).

- *Demographic problems*

Innovative cities are created as a solution to the problem of the development of the cities in the modern fast increase of the population on Earth, together with acceleration of its concentration in the large cities. The expectations for population increase from almost 7.4 billion in 2015 to 9.5 billion people in 2075 are indicative (World Health Organization, 2013, http://www.nato.int/docu/review/2011/Climate-Action/Population_growth_challenge/BG/index.htm, last accessed on 10.06.2015.). At the same time, each year the number of people in the cities increases by almost 60 million. This problem has particular specifics in the light of the migration with focus on the so-called brain drain.

The tendency, observed in the last years, towards increase of the number and size of the cities leads to a change of their functions, as well as their significance for the development of the society. The population concentration, particularly increased by the accelerated nowadays migration, leads to many problems – social, communication, environmental, etc.

Solving these problems requires the focus to turn to new concepts and programmes. "Europe 2020" strategy has an important place for the development of the cities concerning achieving the long-term goals for growth and work places. However, in Bulgaria there are still not enough theoretical studies in this field, although Sofia Municipality develops a project for intelligent specialization of the city.

- *Globalization and competition*

The accelerated globalization and the opportunities for free movement of people, goods and capitals raise strongly the problem of competitiveness of the different settlements. The creation and realization of new ideas becomes crucial for their survival and prosperity. According to Richard Florida, the success of the cities in the competitive battle is due to the anticipating development of the infrastructure – most of all social, cultural and sport-recreational, which ensures and maintains the high requirements of the workers from the creative class about the quality of the city environment and the comfort and safety of the inhabited territories (Florida, 2002).

- *Technological changes*

The accelerated expansion of technologies, mostly information and communication ones, contributes to the development of the innovative cities concept. This provides opportunities for new solutions to the new problems in the cities. In this regard, Cambridge professors Douglas Crawford-Brown (Department of Land Economy), Lord Robert Mair (Department of Engineering) and Koen Steemers (Department of Architecture) (the so-called Cambridge group) (Innovation for the future of cities, https://www.cam.ac.uk/research/discussion/innovating-for-the-future-of-cities#sthash.ttohjOdt.dpuf.) focus on the fact that the future of the cities depends on the challenges and innovations we create to deal with them. Their specifics will influence the quality of life of the citizens and the perception to living in such cities.

In the literature more and more often the city is associated with the generation and use of new scientifically grounded ideas for solving the problems to its development. Main aspects of the study of the innovative cities are: city innovation resources and the way of their use (Isaksen & Aslesen, 2001); changes in the art and its impact on the cultural industry (Leslie & Rantisi, 2011); creation of innovative areas (Iskander, Lowe & Riordan, 2010; Campbell, 2006); stimulation of innovative environment (Fitjar & Rodriguez-Pose, 2011); provision of innovative services (Johnston, 2011); R&D and innovation channels (Lin, 2014; Wei, Liefner & Miao, 2011).

Table 1 generalizes results of a study of literature sources on formulating different aspects of the challenges to the development of the cities and the possible solutions.

In conclusion, the common in the solutions to the modern city challenges is the creation and use of knowledge, most of all scientific and technological. As G. Hall determines it, "innovative" is a city, which development is moved by science and technology, it is dominated by separate innovations based on innovation culture, which relies on innovative elements like technology, knowledge, intelligence, culture, as well as system to develop (Hall, 1998).

The contents of the innovative city concept can be considered through studying its genesis.

Table 1. Main challenges to the cities and their solutions

Source	Challenges	Solutions
Douglas Crawford-Brown and Lord Robert Mair – Cambridge, 2016	Demographic, environmental, technological changes and innovations	• Innovations created for the city to manage the new challenges
Richard Florida – USA, 2002 World Bank (Ren et al.), 2009	Globalization and necessity of global competitiveness Creating conditions for localization choice of the companies	• Anticipating development of infrastructure (social, cultural and sport-recreational) • Formation of a specific quality of the cities – infrastructure and social life, which makes it pleasant, beautiful and safe, with access to all services and connections with the work place, creating a place for leisure
Y. M. Moiseev, 2013	Global problems of uncertainty, when the instruments for managing the area development becomes less and less effective	• Management of the innovation development towards using the positive sides of the globalization
Douglas Crawford-Brown and Lord Robert Mair – Cambridge 2016	Intelligent management of the resources limitation, which usage is excessive in the existing prospects	• Finding a management structure, which provides opportunity for: a) unified approach for distribution, rationalization and adaptation of the resources; b) development of the city as a science laboratory for a specific solution to each problem and finding a balance between growth planning downward and solution seeking upward c) control of planning and development, and freedom and observation of the civil initiatives • Opportunity of the people to influence on the development of the city individually; use of materials, energy and services
European Economic and Social Committee "Metropolitan Areas and City Regions in "Europe 2020" strategy"	Opposing the rural regions with the cities Creating Europe as more competitive to third countries	• Cooperation on the chain of added value in combination with the superstructure of the traditional cooperation in culture, education, administration, etc. • Creating an European platform for metropolitan areas

GENESIS OF THE INNOVATIVE CITY CONCEPT

The concept of the innovative city has its roots in the works of a few generations of economists, sociologists, etc. It is based on the term "economic innovations", first introduced by the Austrian-born American economist Joseph Alois Schumpeter (see the second edition of his book "Theory of Economic Development" (Schumpeter, 1934)). The term refers mostly to the entrepreneurial activity in the corporations and their micro and macro consequences. According to Schumpeter, the "radical" innovations form the large changes in the world, and the "gradual" ones constantly add up to the process of change (Schumpeter, 1934, p. 66). The main reason, which provokes innovations, is the striving of the firms towards economic rents from the created and introduced inventions. According to Schumpeter, another reason for renovating the enterprises is its significance to the competitive position (Schumpeter states that the technical change does not at all run smoothly. The new technologies compete with the already existing ones and in many cases replace them. These processes of technological distribution are often continuous and usually include gradual improvements of the new, as well as the existing technologies. In the created "turmoil" the new firms replace the old ones, which have more and more difficulties to adapt. The technical change generates redistribution of resources, including labour ones, between the branches and between the firms. The technical change can mean also destruction. It can also include mutual advantages and support between the competitors or between the suppliers, manufacturers and clients.).

Schumpeter's views reflect in the innovative city concept as a city with environment for innovations, including on certain sectors, and for demand for a specific competitive advantage in the global competition.

The concept of knowledge society as post-industrial society, formulated in 1973 by the American sociologist Daniel Bell, contributes extremely a lot to the formation of the modern view of the development of the innovative cities (Bell, 1973). According to Bell, the theoretical knowledge and its codifying play a central role, the availability and access to information are decisive. In this connection, the predominant volume of economic activities is redirected from manufacturing to services. The investment in creation and use of new knowledge, on one hand, and appropriation of the economic results, on the other, become a main problem of the interrelations between public and private sector. According to Bell, the main institutions, which contribute to the development of such society, are universities, academic institutions and research organizations, and the industries, most intensively using modern knowledge, are the economic base. He formulates the thesis that the human capital becomes most important for the development and foresees the establishment of a new type of technical elite, which will lead to a new stratification, based not only on the differences in the skills and opportunities, but also in the access to education. Bell foresees that overcoming the social differences in this area will become a main political problem, which will be overcome through the mechanisms and instruments of forming and executing a scientific and

educational programme. The dynamic changes at the end of the 20th century and the beginning of 21st century confirm the projections of Daniel Bell about the new type of society. The territorial concept of the scientific and technical elites is another confirmation of the correctness of his projections. They are further developed and applied in determining concrete national immigrant policies, policies of developing city industries, which most intensively use new knowledge, of the demand for less conflict forms of public-private partnership.

Peter Drucker, the author of the term "knowledge economy", has a significant contribution to the creation of the concept of the innovative cities (Drucker, 1969). He defines the new role of knowledge and innovations for the economic development, like: "already neither the labour, nor the nature resources (the holy grail for the economists), nor the capital, will be main source, "mean of production"… It is and will be the knowledge… and… the practical application of the knowledge in the work." (Drucker, 2000, p. 13-14). Drucker determines the significance of the scientific research as leading for the development of the economy, and not vice versa. Such approach to managing the cities gives a chance to find, stop and overcome the expansion of the technological gap between certain territories.

Focusing on the area aspects of the concepts of innovations, later Peter Hall defines the innovative city as a city with a new social form, which is a result of the integration of the social and economic changes with the availability of innovations (Hall, 1998, p. 22-23). Charles Landry, founder of a respected institution for studies of the innovative city in Great Britain, makes an alternative list of factors, suggesting seven elements, which make a city innovative:

- innovative people;
- will and leadership;
- variety of wise people;
- open organization culture;
- strong positive feeling of local identity;
- city area and infrastructure;
- access to internet (Landry, 2000).

Keeping the leading positions in the global economy is achieved when products and services with high added value predominate and there is innovativeness, without which these positions cannot be maintained (Porter, 2003).

SPECIFICS OF THE INNOVATIVENESS OF THE CITIES

The common between innovative cities is that the renovation policy is subordinate to their development strategies. But this policy is different in the different cities. This means that the innovativeness of the different cities has different characteristics, determined by the specifics of their development, as well as the strategies for future development. The arguments for this statement are based on a generalization of the further presented studies of cases of successful innovative cities.

Analyzing the "innovative spirit" as an engine of the development of the Silicon Valley, a team of scientists, led by Prof. Henry Rowen from Stanford University, states that in the strategies for creating innovative cities the GDP admiration must be overcome (Chong-Moon Lee et al., 2000). He claims that what distinguish the valley are not the scientific achievements or technological breakthroughs. Main is the "habitation", or the environment, which cooperates for turning the ideas into products and their fast realization on the market through creating new firms. This habitation includes supporting government regulations for creating new firm, leading research universities, which interact with the industry, incredibly talented and very mobile labour force, as well as competent services for support in fields like finances, law, accounting, head hunting and marketing – everything specialized to help the new companies to form and grow. Last but not least, the authors place the adventure spirit and the desire to take risks.

The genesis of the current success of the Silicon Valley is in the sectors, developed there. Industry and electronics enter first, followed by semi-conductors, computers, software, and in 1990 – biotechnologies, networks and internet. The ability to maintain the adding of new industrial sectors determines the future of the Silicon Valley. An important challenge to the realization of this future is the formation of a new generation of entrepreneurs, which can manage the increasing digital division and the maintaining of quality of life, as well as to reconsider its global role concerning other innovative regions around the world. Because of the proven ability of its high effective inhabitancy, the Silicon Valley most probably will keep its leading place in the world in the field of innovations and entrepreneurship.

The specifics of the innovative development of the cities concern also internal impacts on the scales, localization and globalization effects (Simmie, 2001, p. 44-49). They are outlined from an empirical study of five European cities – Stuttgart, Milan, Amsterdam, Paris and London. The study is carried out by a team, led by James Simmie from Oxford University, and supported by the European Economic and Social Committee. The comparison of the behaviour of the innovative high technological industries in these cities is in the base of a study of the innovations in London City.

The general analytical frame of this study is developed by all participants in the research teams but the theoretical context is based mainly on the evolutionary theory of Schumpeter and its development. The behaviour of the small firms is determined by the "pressure" of the new technologies contrary to their "withdrawal" from the demand. Empirical evidences, presented in the cited book, refer more to comparison of innovations in international systems and activity networks. The last work of

Schumpeter on oligopolies and the system research acknowledges the significance of the public institutions for the execution of this activity. Although he defines them as particularly bureaucratic for innovations and even for inventions, he considers their role for turning the oligopolies into primary innovative generators.

Another specific of the innovativeness of the cities is its connection with GREMI (groupement europeen des milieux innovateurs). According to GREMI, the innovative environment will decrease the uncertainty, especially for start-ups, which is due also to the mutual learning as a result of the mobility of the employees, mutual commitment between regional suppliers and buyers, as well as face-to-face contact.

The level of mutual dependency between the development of the industrial capitalism and the social relations can also be considered specifics of the innovative development, tested in the mentioned empirical studies. It explains the regional social-economic capacity and characteristics of the collective actions, i.e. the relation between agglomeration economies (sometimes interpreted as clusters) and innovations as main engine for competitive economic growth.

The next characteristic of the innovativeness is its focus on manufacturing new technologies and the relation between innovative firms and their markets. In the cited project Simmie specifies this relation through the inclination towards innovations based on a study of five cities. The empirical part consists of interviews with firms, taken from the database of the BRITE programme (Basic Research in Industrial Technologies for Europe), as well as considerably small excerpt of local companies (35, of which 37% have answered), chosen for their cooperation with universities. The variety of the selected cities by size, type and industrial profile is so vast that it is difficult to say the comparison can be meaningful. Probably that is why there are no comparative tables and the conclusions are drawn separately for each city.

Stuttgart is the first industrial city in Germany – main sectors are automobile manufacturing and engineering. Milan is the economic capital of Italy with the largest business-financial sector and high-intensive industrial sector with more employed people in high technologies. There is also the highest concentration of high tech industry. Amsterdam, which de facto is the capital of The Netherlands, is part of agglomeration with largest concentration of population in the country – Randstad, which aims to become an international sea gate to Europe. Together with Brussels, Île-de-France ("little Paris") and South East England, Randstad is among the cities in the first division by profitability and growth of international positioning of factories. Milan is in the second division.

Paris – the capital and its agglomeration, is the biggest city in France. The capital has an industrial tradition. The high technological share is specified by the concentration of universities and science laboratories. This determines the fact that Paris has the biggest share of executives, as well as specialists and mid-level managers among the French cities.

According to the results of the Simmie's project, what makes a city attracting or generating innovations (i.e. the main determinants of the innovative activity) is, on one hand, the location aspects of its development concerning suppliers, clients

and competitors, and the presence of channels of information, knowledge and contacts. This turns the cities into places of exchange, like knots in international networks offering international opportunities for production.

Second, the innovativeness of the cities is determined by their physical assets. They are bound to both the opportunities for business and the quality of life. The good access to international air, railway and automobile transport at national level, the presence of good homes, buildings, opportunities for cultural activities and pleasant relaxation, are almost as important as the access to qualified work force, clients, suppliers, study of the financial capital.

The specific city assets are based on exchange (moving, merging) of knowledge, coming from the specific local sectors (localization or environment for economy) or the city activities as a whole (urbanization, city economy). The innovative resources of large local companies and their corporate strategies have significant city and regional effects, since they have an influence on the location in the choice of investments. Assets from knowledge as a result of the global role of the cities are determining factor for attracting innovations, and not just for global cities like London and Paris but for other like Amsterdam and Milan. The study concludes that the smaller settlements can still create innovative niches for themselves (for example Stuttgart), but only the big cities can benefit from their traditional agglomeration advantages, strengthened by the globalization and increasing volume and quality of information exchange. The adaptive skills and mobile work force in the frames of the culture of taking risk are additional characteristics of the modern innovative cities.

Therefore, we can state that the innovativeness of the cities influences not only the location choice of the companies. It concerns also the valuable human resources, which the city can use with even bigger flexibility than the firms, and the people, for whom the quality of life and environment are critical factors. Cities that can change their climate but are responsible for the quality of the infrastructure, built-up area and public life in them, are not many. In other words, when choosing location for work, more and more often the criteria will include the city to be pleasant, possibly beautiful and safe, with access to all services and good links with the work place, creating conditions for free time and leisure. The report of The World Bank on the South East Asia and innovative cities has the same conclusions (Ren et al., 2009).

THE FUTURE OF INNOVATIVE CITIES

Innovative cities are a place, where through innovations are solved the challenges to the society, mostly demographic, environmental and technological. According to the Cambridge group, these cities will be big and more than half of the increasing population in the world will live in them. They will shelter the aging people and this requires placing the focus on the services for the elderly. One of the ways is to increase the tax burden on the young workers, whose taxes pay for these

services. In the cities there are more environmental limitations, the requirements will be for smaller impact on the environment, which suggests sustainable infrastructure, buildings and economy due to the climate change. The inventions created and introduced will lead to changes in the physical environment of the city, in the city governance and the different types of choices made by their citizens.

In the least developing countries the future of the cities concerns the megapolicies, which are a complex mix of formal and informal settlements, without clear structure of governing. The inventions, which look for an answer to the new problems, are in the changes they will make in projecting, exploiting and governing of the cities. This, on the other hand, will influence the quality of life of the citizens and will help them feel what it means to live in such cities. The Cambridge group generalizes the problems, to which new solutions should be sought, into three groups – concerning physical environment, governance and people.

- *Physical environment*

Modern cities are built on the basis of expectations for long-term needs, with infrastructure meeting those needs, with big reserve for safety, so they are resistant to different potential negative developments. All this concerns spending materials and energy, which in the future will decrease more and more. There is the need for "intelligent" managing of the resources limitation. For this purpose the buildings and infrastructure of the future are foreseen to be equipped with sensors for monitoring each stage of the operations – from changing the energy characteristics to material safety and service provision. The energy will run in real time to the place it is most needed. The transport will be directed in a way that it will avoid high air pollution, which will help strengthen the human health. The buildings will be monitored for loadings, including decreasing the over-engineering of buildings with more concrete and steel.

The same sensors will monitor the climate, which will allow minimization of the damages from extreme meteorological phenomena to the buildings and infrastructure. Technologies for adapting to the climate changes are well known. The problem is how to distribute the limited technological and financial resources so that the total impact of the changing climate on a certain city will be reduced to minimum. This requires recognizing the role of the different parts of the physical city in the economy and services. There is a need for a unified approach for rationalization of the adapting of the resources so that they can be used wisely, so the economy and services in the city, providing the livelihood and prosperity of the people, can be preserved. In this connection, the macroeconomic models can help the decision-makers to recognize where is most suitable to direct the efforts for adapting and restoring the resources, in order to restore a city after extreme climate events.

- *Governance*

Creating the city of the future imposes changes in the governance. Since the cities are heterogeneous combination of planned and not planned buildings, formal and informal events, there is no unified set of solutions for providing services, for fighting crime, for health care or education, which would work everywhere in the city. The systems of governance will give opportunity to experiment, test the solutions in

different parts of the city, with planning of the design of these experiments. This would allow establishing what works, where and in what conditions. The city will become a laboratory of the scientific thought. The complex character of the cities will be an advantage, thanks to which it would be possible to make also physical experiments. This, on the other hand, will require systems of governance, which would apprehend the experiments; politicians who are able and ready to admit that certain experiment had not succeeded; public opinion, tolerant to those who are brave enough to risk in the conditions of great uncertainty and to correct their decisions when reasonable. Also, the cities should find balance between planning a growth downward and seeking for solutions upward, counting the differences in the local specifics of the economies, the architecture style, the materials and consumption of energy. The challenge is to develop a structure of governance, which gives opportunity to ensure an effective technocratic, system control of planning and developing, at the same time allowing the citizens to participate in the development of those working in their local conditions.

- *People*

The people in the innovative cities acquire new skills and intelligence in regards to the use of the new technologies. These technologies will not just provide but also analyze data turning them into information, which is in easily comprehensive form for making decisions. People would be able to see, on one hand, how their personal actions influence on the development of their city, and on the other – how the provided information influences on their own decisions for using materials, energy and services.

The quality of life will improve in many directions. The transport system, for example, will be dominated by much quieter electric vehicles, which would lead to solving the noise problem, health and prosperity will improve with more and renewed pedestrian and bicycle allies, etc. In this sense, an example can be the German project, where the city of future is CO_2-neutral, with high energy efficiency and climate adaptation.

CREATING INNOVATIVE CITIES

The summary of the historical experience shows that there are *two main approaches to the creation of innovative cities* – evolutionary and political (See: Table 2).

The first concerns a gradual geographic concentration of innovative potential and an adequate policy for its effective use. Main example is the Silicon Valley in USA.

The second approach, applied in the Far East Federal University in Russia, is a result of a target political decision and is carried out with a guaranteed financial resource.

According to Kuleshova, the target creation of innovative cities goes through two stages: infrastructural and institutional (The ratio between financing the first

and second stage (ensuring base and target resources) is 50 to 25-30%. The other 20-25% are the share of the means for nature-recreational and park territories (Kuleshova, 2015).).

The infrastructural stage includes building the infrastructure, considered a condition (basic resource) for ensuring the development. The institutional stage ensures the target core of the development concerning the innovation specialization of the territory. The predominant volume of financing is directed to the formation of a base infrastructure for the territories with anticipating scientific-innovative development (technopolises, technoparks, etc.) as one of the instruments for the formation of city planning conditions for ensuring an effective innovation development of the city and/or region. The second approach is implemented on the basis of a guaranteed financing, usually in the frames of large international events (international political and economic forums, sport Olympic Games, university games, world championships, etc.).

Examples of creation and realization of plans for innovative cities as a result of organizing Olympic Games are Barcelona, Vancouver, London, Sochi, etc., and of innovative development as a result of a political event – the project for the campus of the Far East Federal University (FEFU) at Russky Island in Vladivostok. FEFU is established as a centre of competence and high technological clusters, ensuring sustainable development of the region through innovations for solving large technological tasks (This project started from "scratch" with the Decree of the President D. Medvedev concerning projecting and constructing a new Far East Federal University for a meeting (SUMMIT) of the Atlantic region countries in 2012. Traditionally it is carried out in one of the university centres of the host country. The term of realization is 4 years.) for demonstrating a potential for development.

In theory and practice there are no standard approaches and models for development of the territories and area structures of the cities. The creation from "scratch" of scientific-innovative cities is a complex process, requiring guaranteed financing.

In the process of creating and developing innovative cities their governance more and more often faces the global problems of uncertainty as well. Moiseev generalizes that the "instruments for managing the area development, which obviously are lacking in the risky and unstable world, become more and more ineffective" (Moiseev, 2013, p. 3). Contrary to the pessimism concerning the ability of the city governance to manage the instability, the Organization for Economic Cooperation and Development (OECD) directs the management of the innovative development of the cities towards the positive characteristics of the globalization.

Table 2. Approaches to development of innovative cities

Source	Approaches	Factors and conditions for developing
Evolution		
Henry Owen – Stanford	Evolutionary "innovative spirit" (example – Silicon Valley)	• State regulations for establishing new firms; leading research universities interacting with the industry; talented work force; competent services (financial, legal, accounting, etc.) • Developing sectors
James Simmie – Oxford and European Social Economic Committee	• Internal impacts on the scales, localization of high technological industries and globalization effects • Available specific city assets – sectors with local competences and knowledge	• Innovative environment • Agglomerations (often as clusters) • Manufacturing new technologies and relation between the innovative firms and their markets • Concentration of research universities • Localization aspects concerning suppliers, clients and competitors • Available channels of information, knowledge and contacts • Physical assets
Political decision		
G. I. Kuleshova, 2015	Political	• Available financial resource • Two stages: infrastructural and institutional

FOUR PERSPECTIVES (VISIONS) OF INNOVATIVE DEVELOPMENT OF THE CITIES

The perspective (vision) of city investments in innovations, as mentioned, depends on the specifics of the city. In 2016 "Harvard Business Review" published the conclusions of Macomber. He outlines four types of visions of innovative development of the cities. They depend on the segments, in which each city falls, determined by the ratios inheritance/new cities and developed/fast developing economies (Macomber, 2016). The opportunities for innovations differ significantly for each segment. The main characteristics of the innovative development of the city depending on the mentioned ratios are the following:

- ***Segment 1: developed economy, city of inheritance***

Examples: London, Detroit, Tokyo, Singapore

Characteristics: Each interference in the inheritance of the city means to remove something that existed before – road or building, or even regulatory organ or established business services. The slow demographic growth is specific of the developed economies. In these cities live the elites so the problems concern the development of the consumption, for which there are free financial means. Innovation examples are Yelp, Zillow and Trip Advisor.

Recommendations to city leaders: They should try to establish an environment, where entrepreneurs can form solutions for improving quality of life without costs by the government.

Recommendations to entrepreneurs: The citizens in the developed and established cities have excessive means. This means that the entrepreneurs should focus on target solutions, which work for certain groups of the population. The solutions are in the area of entertainment, education and social networks.

- ***Segment 2: developing economy, city of inheritance***

Examples: Bombay (Mumbai), Sao Paulo (Brazil), Jakarta (Indonesia)

Characteristics: Megapolises, where most physical and institutional structures are already established; fast growing population and heavy traffics. There is opportunity to create value by improving the effectiveness and suitability of the city for life, there is a market for consumers for such type of improvements with cash money.

Recommendations to city leaders: The limitations should be reduced so it will be profitable for the private financing to direct to improving the physical infrastructure; better use of what already exists. Also, the sources for such investments should be encouraged. The large examples in this relation are the historic subsidy of real estate in Hong Kong and for MTR railway transport from the airport to the city centre; subsidies per litter for private water supply and sewerage by suppliers of the city of Algeria, etc.

Recommendations to entrepreneurs: To pay paramount attention to the public-private partnerships (PPP). Convincing solutions focused on the usefulness of the existing infrastructure (for example for optimizing the traffic on the route or for shared travelling), can also be separately financed, when there are no subsidies. To find opportunities for financing studies for careful use of new sensor technologies for processing large volumes of data, which would help the creation of projects, contributing to the creation of sustainable cities.

- ***Segment 3: developing economy, new city***

Examples: Phu My Hung (Vietnam); Suzhou (China); Astana (Kazakhstan); Singapore (historic)

Characteristics: High increase of population and high GDP growth rates per capita, which cooperates to an increase of the return of the investments. In the city regions actually exist several physical or social structures, which grow and therefore are not obstacles. There are chances to build new (without destroying old) roads, bridges, water supply, which will determine the economic competitiveness

and quality of life for decades. *What are the problems?* If the current opportunity for carrying out such investment policy is missed, the new city agglomerations will start growing informally, new settlements will appear, which will impede the building of new roads and sewerage.

Recommendations to city leaders: First they should focus on building the hard infrastructure – schools, hospitals and parks, which maintains the provision of services like education, health care, recreation. This can happen through contracts for public-private partnership. Also, they can encourage the creation of trade platforms (networks) for the entrepreneurs dealing with services.

Recommendations to entrepreneurs: It is too early in these cities to think about optimization of the existing infrastructure or creation of conditions for the rich people to spend their available income. The entrepreneurs should focus on applications and services directed to filling up "institutional gaps". This would ease the trade between trusted people in a situation when some institutions and business norms, for example courts and contracts, are not fully developed and according to expectations.

- ***Segment 4: developed economy, new city***

Examples: New Songdo City (South Korea); Masdar City in Abu Dhabi (Saudi Arabia); Hafen City in Hamburg (Germany)

Characteristics: Such cities are very rare. Almost all self-proclaimed "new cities" in the developed world, which are actually large cities, integrate the development of real estate with the city theme, usually close to a big municipality. These are satellites of the existing metropolises, competing for work places and for attracting talented participants in the creative economy.

Recommendations to city leaders: To focus on the hard infrastructure, which decreases the costs for the enterprises, and on the soft infrastructure, which improves the significances of the indicators of quality of life, thus creating attractive conditions for development of creative economy in the city. It includes easy mobility, clean air and water, green areas, as well as support for arts and recreation.

Recommendations to entrepreneurs: To put in accordance with the city leaders the provision of services, which are important for the knowledge of the workers and contribute to the creation of a "trade mark" of the cities. An example in this connection is "Cisco", which has TelePresence technologies (high quality, in real time, video interactions) in New Songdo City (Korea) and in Lavasa (India). This way the company makes changes, which improve the provision of services to the citizens and attracts the employers. The priority of the innovations sets the start of initiating world and regional listings.

Stages in the development of the innovative cities

The development of the innovative cities goes through four stages:

- resource-based city;
- capital-based city;
- innovation-based city;
- intelligence-based city (Fang Chuanglin, 2013).

Passing from one stage to another is determined by the progress of the creation of the national innovation system (Chen & Karwan K, 2008). It is based on the concept that the innovative city forms the base, on which a national innovation activity can develop and innovative state can be constructed (Johnson, 2008). As main engine for accelerating the economic transformation (Lee & Drever E, 2013), innovative cities encourage the processes of urbanization and development of rural regions. The problems concerning creation of new models of city development, which support the sustainable development of the competitive cities with their specific problems, outline as a particularly significant area of studies at national level (Liu, Zhou, Wennersten et al., 2014; Evans & Jones, 2008).

CONCLUSION

The current process of globalization and accompanying urbanization concentrate the most new problems and opportunities before entrepreneurship and development in the cities, which impose changes in the model of their 20th century governance. The new problems are most clearly manifested in the city where the interactions between people are much more often and revealed. Therefore, the new solutions should be sought there, since the bigger opportunities for communication respectively allow the citizens to exchange ideas more often and to generate solutions and statements on important problems. The need for policy concerning the renovation provokes the necessity for monitoring this process, developing respective instruments, creation of concepts and strategies. The immediate reporting of good world practices in the mentioned directions and their adapting to the national identity are a premise for the prosperity of the innovative cities and the development of metropolis areas.

Developing and applying the concept of prioritizing the problems, as well as the finding of new ideas for their solving, are necessary condition for success of the carried out policies. The timely fast development of the knowledge imposes a constant wise renovation of the cities and metropolis areas, subjected to the goal of achieving the human strivings for better life in a beautiful environment.

We can generalize that the innovativeness of the cities is determined by their ability to ensure opportunities also for the realization of new ideas for solving the problems of their development. This ability is determined by the presence, volume and quality of the available knowledge and by the conditions of the city for communication for generating and realizing ideas of renovation. The innovativeness of the cities is vital to their competitive development in the conditions of accelerated change of technologies and its accompanying globalization of the economic and social life.

The increasing volume of demographic, technological and environmental problems of the cities make their governance to face the necessity to increase the quantity and complexity of the city functions, and the challenge to find qualitatively new solutions for realizing these changes. The new solutions to

achieving the goals with available resources concern the mobilization and use of the available and attracted scientific knowledge, traditionally neglected in countries like Bulgaria. This resource is necessary for identifying and prioritizing the problems of the city development, as well as for generating and realizing ideas for their solving.

There is a necessity for creating a new concept of governing the development of the cities –those of innovative cities. It refers not only to the possible trajectory of development of the cities, but also to the way of governing this development.

In this connection, the ability of the innovative cities to generate and realize scientifically reasoned ideas for achieving the development goals is main characteristics of theirs. The innovativeness is determined as a specific sign of vitality, i.e. the ability of the cities to self-develop by mobilizing own and attracted knowledge through the respective communication environment.

The opportunities for innovative development of the cities are limited by the objective tendencies of territorial concentration of knowledge and environment for communication, as a result of the globalization. Innovative cities most often develop in world areas at the technological border. Usually they are large by population and territory. At the same time, the arguments for developing networks of cities with population up to 500 000 citizens should not be neglected.

The successful innovative cities have clear strategies and relevant priorities of development, which show that each city is different and the problems it has to solve are different. The future of the city depends on the right identification of the challenges it has to face and the innovations it makes to overcome them. The common is that the main characteristics of the city governance are subjected to the strategies of innovative development of the common goals concerning the public choice of dynamics and prosperity of the city.

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