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NOTES FROM THE EDITOR-IN-CHIEF



Dear authors,

The JEBR has yet attracted an international readership that is primarily academic.

However, the primary target group of our peer Journal are not only scholars and researchers. We seek also students of Ph.D studies and professional audiences as well.

The concept of the Journal is such that it gives the advantage to multidisciplinary approach to various subjects linked to the globalization and resilience issues. It also emphasizes publishing of the scientific papers, which have an empirical and a research character. Moreover, there is also the place in the Journal for quality theoretical papers as well, reviews of the latest publications of national and international significance and scientific critiques and discussions.

Regarding the actual situation influenced by COVID-19, we especially invite you to write about how the crisis has affected the resilience of businesses globally.

July, 2020

Yours,

Editor-in-Chief

*Acad. Prof. Dr. Mirjana Radović-
Marković*

A handwritten signature in blue ink, reading "prof. dr. Mirjana Radović-Marković".

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ORIGINAL RESEARCH PAPER

**EMPLOYEES' DISSATISFACTION AS A CAUSE
OF FLUCTUATION AND THEIR RETENTION AS THE MAIN TASK OF
HUMAN RESOURCE MANAGEMENT IN MODERN ECONOMY – CASE
STUDY**

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ABSTRACT

Employee retention becomes an important HRM activity when organizations face a lack of knowledge, ability and responsibility. Since fluctuation of labor is a growing problem of modern economy, this work has originated from the desire and need to analyse the causes of labor turnover, show the complexity of the consequences of fluctuations not only on employees, but also on the productivity of companies and, as well as on society as a whole. Considering the fact that the problem of fluctuations in the labor force has not been given proper attention, this paper is an attempt to sublimate the existing relevant scientific findings; the model of the impact of employee dissatisfaction on fluctuation has been researched; formula which should be used in further works has been presented and guidance for direction of the HRM sector activities has been given.

Keywords: *employees, HRM, fluctuation, dissatisfaction, causes, consequences, guidance*

JEL classification: *O15, O33, J54,*

INTRODUCTION

Employee retention becomes an important HRM activity when organizations are faced with a lack of knowledge, ability and responsibility.

The study of employee fluctuation has been an important issue for management scholars for decades and over time has become an issue of growing interest [1].

The majority of the literature on fluctuation consists of various reviews of individual predictors of fluctuation, including employee demographics, job satisfaction, organizational commitment ... [7], [12].

Social scientists have showed interest for the concept of employee value for many years. Values have continuously played a crucial role for researchers in sociology, psychology, anthropology, and related areas [32].

Employee input is an essential strength of any business as employees make their efforts to implement the organization decisions in order to achieve goals. Therefore, motivational factors become part of an organizational strategy to help individuals choose their jobs and work during their term of office.

Most importantly, interest in employee fluctuation is increasing with scholars and managers. In an article aimed at managers and executives, for example, Lee *et al.*, [17] reported that (1) “46% of HR managers consider employee fluctuation a major concern”, (2) replacing departing employees can cost more than 200% of annual actively seeking a new job or pay attention to the opening of new job positions’. So, the academic and manager interest in fluctuation seems pretty strong and is likely to continue in the foreseeable future.

It can be observed that after a long period of outflow of unskilled or low skilled labor, there is a period of increased outflow of highly qualified, skilled labor.

The phenomenon of ‘brain drain’ is not a current trend, but it has been intensifying in recent years due to the global financial crisis. Many countries, and for various reasons, are affected by this “brain mobility” within which their highly qualified individuals generally represent those “working immigrants” who are looking for work elsewhere [19], [8]. Thus, “brain drain” can be described as the migration of highly skilled and talented individuals to a country other than the one in which their knowledge was created [18].

The causes of this emigration are mainly financially related, like the recession of the economy. In this regard, “brain drain” is often associated with economic loss for those countries that have high rates of highly skilled labor mobility. In addition, there is a social loss that relates to the exodus of its most capable and educated ones [30], [31].

RESEARCH METHODOLOGY

The subject of the research is a complex phenomenon of motivation for work, fluctuation, as well as determining the hierarchy of motives and factors that in our social and organizational conditions affect the motivation of workers for occupational safety. The following scientific methods were used as appropriate:

1. Questionnaire Method:

As the main research method, the questionnaire method was used to investigate the subjective attitudes of employees.

A modified scale was used as a research instrument to measure motivation for occupational safety [35], containing 40 questions.

Within question 8 of the scale used, we asked the respondents: “What bothers you most at work?” Unlike the other questions from the questionnaire where the answers were offered, we deliberately omitted the offered answers in the question 8, so that the interviewed respondents could give their personal observations and reasons for dissatisfaction without any external influence.

2. Statistical methods:

The following statistical methods were used to process and present the research:

- Frequency;
- Percentage;
- Cumulative percentage;
- Rank;
- Standard deviation;
- The correlation coefficient;
- Paired sample T test;
- Data intersection;
- ABC diagram.

Statistical data processing was performed using SPSS software package for statistical data analysis for Windows 19.0.

3. Research sample

The survey was conducted in the companies ‘Kontejnerski transport i generalni tereti/Container Transport and General Cargoes (KTGT) AD Bar, ‘Port of Adria’ AD Bar and ‘Luka Bar’ AD, Montenegro. The respondents are from different business units, gender, age, years of service, education [26].

The research was carried out on two occasions. The first survey was conducted at ‘Container Transport and General Freight’ (KTGT) Bar in 2014/2015.

Following the change in ownership and organizational structure, creating of Port of Adria and Luka Bar AD, the second survey was conducted using the same methodology in 2018 in both start-ups to compare the results.

REASONS AND CONSEQUENCES OF EMPLOYEE FLUCTUATION, RESULTS AND DISCUSSION

Reasons and consequences of employee fluctuation

Reasons for fluctuation

In order to successfully manage human resources, it is important to know the causes of both satisfaction and dissatisfaction. Research has shown that all causes can be grouped into two categories: organizational and personal factors of job satisfaction, i.e., internal and external factors [28].

The prevailing attention has been given to the causes of fluctuation and is probably based on the assumption that fluctuation results in substantial and significant consequences for organizations. Since studying the causes of fluctuation is important, it is equally necessary to study the potential consequences that fluctuation can have on an organizational performance, such as effects on profit, revenue, impact on customers, waste rates, and any other company performances [5], [12], [15].

Hausknecht and Trevor conclude that empirical evidence largely points to the detrimental effects of labor fluctuations that can lead to undesirable outcomes as they entail the loss of a reliable worker, social capital, disrupt work and collective function, bring together the remaining members to rethink their residues, create the need for socialization and training of new members and increase the costs of recruitment and selection [9].

The causes of fluctuation can generally be divided into three groups.

- The first group includes social factors concerning economic development (where greater economic development allows more choices and thus the fluctuation is greater); then the situation on the labor market (the fluctuation is higher where there is more demand) and the new jobs (with the creation of new jobs the fluctuation is expected to increase).
- Another group of factors that can cause fluctuation is the factors that affect the firm itself. Those are the economic stability of the company, the level of its technological and other equipment, the way the business is organized, how the roles and responsibilities are defined, and what the working atmosphere is and what the working relationships are like. The more people at work perceive their work and collective as a friendly place where they can realize their potentials, the chances for high fluctuation are less.
- The third group of factors includes job dissatisfaction, i.e., job content dissatisfaction, as well as a vaguely defined job role. Research has also shown that the absence of anatomy and responsibility also contributes to increased fluctuation. Thus, the greatest risk factor for increased fluctuation is the unfulfilled expectations of employees, regardless of whether such expectations were unrealistic from the beginning or things have changed over time. That is why it is advisable to talk openly with your employees about their expectations and do everything possible to create as realistic expectations as possible, because their unreality will sooner or later negatively affect one side or the other (and maybe both).

As everything has been said so far, fluctuation is not something that happens overnight – at least not the one that tells us that something in the company is not working properly, for example, employees are dissatisfied, stressed, want to find other jobs etc. If these are sporadic cases, then there is probably no reason to worry.

However, if employing new workers because the old ones are leaving has become a trend in the company, then it is time to review all potential factors, and that may lead to this, including the leadership style.

Employee dissatisfaction on various issues is one of the most widespread and extremely important psychosocial risks, with dramatic consequences for both the employee and the company itself. Psychosocial risks are all aspects of work that result

from poor planning, organization and management of work, and the poor social climate in which work takes place, resulting in negative psychological, physical and social outcomes for workers [26]. Although some jobs are inherently more stressful than others, in every job the worker may be exposed to negative psychological, social and physical influences from the psychosocial work environment, which can lead to a worker's stress and thus have a long-term negative effect on his or her health and well-being [14].

According to the definition of the International Labor Organization (ILO), psychosocial risks and dangers at work relate to the confrontation between job demands, work environment, job content and work organization on the one hand and work performance, job satisfaction, workers' physical and mental characteristics, knowledge, needs, meeting cultural needs and habits in relation to job demands on the other hand [13]. Exposure to psychosocial risks on a daily basis increases the level of stress that can manifest as physical, psychological and social dysfunction in workers.

Since work stress is the result of the interaction of the worker and his work environment, it arises from an imbalance of work requirements and working conditions and the knowledge, skills, physical and psychological characteristics of the worker. If the demands placed on the worker by the work exceed their capacities and abilities for active coping, the worker will experience a subjective sense of stress [20].

Long-term exposure to elevated levels of stress in the long run can result in impaired mental and/or physical health and well-being of workers, as well as negative organizational outcomes. Workers who experience high levels of workplace stress are more likely to have physical health problems [16]; [4]; [34]; [29] and psychic ones [21]; [22]; [3]; [33], they are less motivated and efficient, and their workplace safety is compromised. Consequently, the number of errors, injuries and accidents a work increases, workers are more often absent from work, the efficiency of a work organization decreases, while its costs increase [36].

Consequences of employee's fluctuation

Fluctuation can also have negative effects on employees who remain in the organization. The negative effects are indirect in its kind:

- great fluctuation demoralizes existing employees;
- there is a rethinking of the value of the organization (for example, the reward system);
- there is a rethinking of one's own views on further staying in the organization;
- one fluctuation can generate others due to disrupted relationships in the organization.

The greater the fluctuation in the short term and the more irreplaceable personnel leave, the greater the dissatisfaction with the employees who remain in the organization. That is why the issue of others after the tumultuous events is sensitive and the managers of the HRM sector in the organization are obliged to take special care. They should constantly speak with employees and monitor their work and behaviour during a critical period so that the organization does not risk its own instability and collapse. Of course, we will not be able to persuade every employee to

stay with the company. In some cases, it may be time to separate the ways, for mutual benefit. Also, employees resign for personal reasons that have nothing to do with their jobs, such as if the spouse has been transferred, for health reasons, for family situations, or if the quality of life is drastically better in another part of the country or in another country.

But constant fluctuation at work is something else entirely, and it results in:

- Loss of knowledge, expertise and productivity. Of course, we can hire new workers to fill the void, but the more specialized the skill, the greater the loss.
- Retraining an existing employee or hiring a replacement. No activity is cheap, and research shows that even replacing employees at the lowest, entry-level can cost about 40 percent of their pay.
- Disruption to the service that customers rely on. That feeling is well-known, and it can be upsetting. Clients want consistency and personalized attention, especially from the employees with whom they have developed a connection, who return loyalty. Disruption of service, especially over a longer period of time or frequently, will result in a loss of trust in most clients which leads to disruption of the cooperation having permanent consequences for the organization.
- Drop in morale with other employees. The loss is usually proportionate with how much a leaving worker was loved and respected among his colleagues, and this is most felt among close and collaborative work teams. Also, many employees are expected to react violently to one very obvious consequence: their workload will increase, at least in the short term.
- The perception that something is wrong in your business. True or not, the constant fluctuation of workers serves as a red flag, not only to existing customers, but also to potential customers, suppliers, the wider community, as well as social networks that partly live of such news.

Understanding the difference between occasional fluctuation and permanent fluctuation of employees can help to stop the overflow of staff and set up models of solid employee management, which is also the overriding role of human resource management.

THE RESULTS AND DISCUSSION

Based on the collected data processed by SPSS analytical software, the following employee ranking results were obtained:

Within the question 8 of the scale used [35], [26], we asked the respondents the question: “What bothers you most at work?” Unlike the other questions in the questionnaire where answers were offered, in the question 8 we deliberately omitted the offered answers, in order to avoid any external influence on their personal observations and reasons for dissatisfaction.

The obtained results, shown in the following tables, represent the answers which pointed out as the most frequently referred to by the subjects:

Table 1. Poor working conditions (Own source)

	A D KT GT B ar 2015	Port of Adria 2018	Port of Bar AD 2018
Yes, listed	25.50%	31,48%	24.00%
No, not listed	74,50%	68,52%	76,00%
Total	100.00	100,0	100.00

Table 2. Injustice (Own Source)

	A D KTGT B ar 2015	Port of Adria 2018	Port of Bar AD 2018
Yes, listed	20,70%	24,07%	32,00%
No, not listed	79,30%	75,93%	68,00%
Total	100.00	100,0	100.00

Table 3. Low Pay (Own Source)

	A D KTGT Bar 2015	Port of Adria 2018	Port of Bar AD 2018
Yes, listed	17.40%	25,93%	20.00%
No, not listed	82,60%	74,07%	80.00%
Total	100.00	100,0	100.00

Table 4. Valuation system (Own source)

	A D KT GT Bar 2015	Port of Adria 2018	Port of Bar AD 2018
Yes, listed	13.60%	20,37%	16.00%
No, not listed	86,40%	79,63%	84,00%
Total	100.00	100,0	100.00

Table 5. Poor Interpersonal Relations (Own Source)

	A D KTGT Bar 2015	Port of Adria 2018	Port of Bar AD 2018
Yes, listed	11.40%	9,26%	12,00%
No, not listed	88,60%	90.74%	88.00%
Total	100.00	100,0	100.00

The answers, which are most often given based on the personal experience of the respondents, are ranked in the following table by percentage representation:

Table 6. Comparison of ranked employee responses (Own source)

	A D KTGT Bar 2015		Port of Adria 2018		Port of Bar AD 2018	
	Percentage based on response	Rank	Percentage based on response	Rank	Percentage based on response	Rank
Poor working conditions	28,83%	1	28,33%	1	23,08%	2
Low pay	19,63%	3	23,33%	2	19,23%	3
Injustice	23,31%	2	21,67%	3	30,77%	1

Valuation system	15,34%	4	18,33%	4	15,38%	4
Poor interpersonal relationships	12,89%	5	8,34%	5	11,54%	5
Total	100, 00 %		100, 00 %		100, 00 %	

Based on the distribution of responses obtained, ranked by relevance for the respondents, shown in Table 6, we formed the *Pyramid Model of Employee Dissatisfaction*, shown in Figure 1:

Based on the distribution of responses obtained, we can clearly conclude:

- The dissatisfaction of employees of all companies with poor interpersonal relations is ranked last, fifth, so that we can unambiguously conclude that the interviewed employees of all companies are satisfied with interpersonal relations in their companies.
- The dissatisfaction with the evaluation system was ranked low by the interviewed employees from all companies, which leads to the conclusion that the employee dissatisfaction with the evaluation system is minimal.

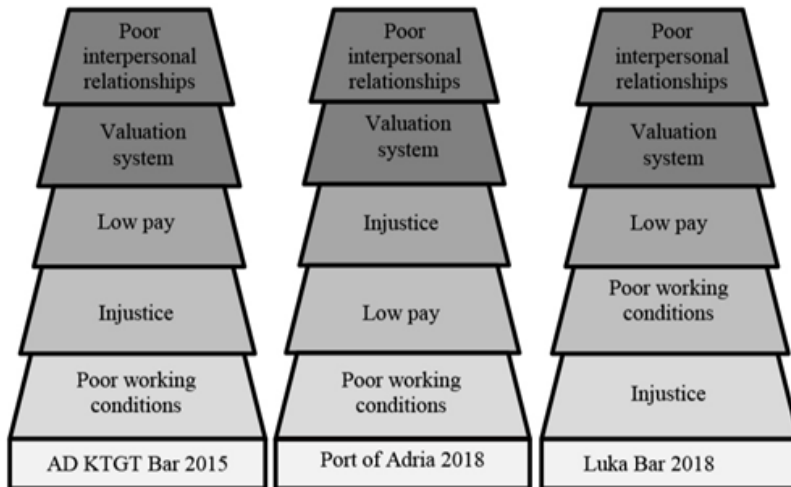


Fig. 1. Pyramid model of employee dissatisfaction (Own source)

- Dissatisfaction with working conditions, dissatisfaction with salary and dissatisfaction with injustice were ranked first, second and third by employees of all companies.

Based on this, we can conclude that the interviewed employees are most dissatisfied with working conditions, pay and injustice.

CONCLUSION

As stated above, employee retention becomes an important activity of HRM when organizations face a lack of knowledge, ability and responsibility. As we still do not pay sufficient attention to the costs arising from the increased staff turnover that hit the company, in Table 7 we present a formula for calculating labor fluctuation costs, which must be applied in order to minimize the negative effects on the company.

Table 7. Labor cost fluctuation cost formula [5]

Enter the number of employees		(a)	
enter the average weekly wage	£	(b)	
multiply (a) x (b)	£	(c)	
multiply (c) x 52	£	(d)	= total cost of wages
enter the current turnover rate	%	(e)	
multiply (s) x (a)		(f)	= loss of workers p.a.
enter the average number of replacement days		(g)	
price for overtime / temporary work		(h)	
multiply (b) x (h)	£	(i)	
multiply (f) x (g) x [(i) / 5]	£	(j)	= instant replacement cost
preparation and time for interview per candidate (days)		(k)	
shortlist of candidates by job position		(l)	
enter the average weekly manager salary	£	(m)	
multiply (f) x (k) x (l) x [(m) / 5]	£	(n)	= cost of interview time
enter the average recruitment cost	%	(about)	
multiply (d) x (e) x (o)	£	(p)	= recruitment costs
length of introduction (days)		(q)	
frequency of this training (pa)		(r)	
multiply [(b) / 5] x (q) x [(f) + (r)]	£	(s)	= training costs initially
length of study (months)		(t)	
enter the unproductive element	%	(u)	
multiply (d) x (e) x [(t) / 12] x (u)	£	(v)	= non-productive costs
multiply (t) x (in) (months)	£	(w)	
multiply (d) x (e) x (h) x [(w) / 12]	£	(x)	= replacement cost below
multiply (g) x [(b) / 5] x (f)	£	(y)	= salary savings
add (j) + (n) + (p) + (s) + (v) + (x) - (y)	£	(z)	= turnover costs p.a.
<i>Potential cost savings</i>			
enter the expected decrease in turnover	%	(1)	
multiply (z) x [(1) / (e)]	£	(2)	= savings in staff turnover
enter a replacement time reduction	%	(3)	
multiply (j) x (3)	£	(4)	= additional savings in exchange
add (2) x (4)	£	(5)	= total savings p.a.
			pa * - per annum; per year

Based on the research and shown data in this study, we can conclude the following: Respondents employed by KTGT and respondents employed by Port of Adria cited poor working conditions as the most significant reason for dissatisfaction, while respondents from Luka Bar cited injustice as the most significant reason for dissatisfaction.

Poor working conditions and injustice have a major impact on the employees' sense of dissatisfaction.

Based on the distribution of responses obtained, we conclude that low earnings have a medium impact on employee dissatisfaction, and we empirically confirmed the views of some other authors that, when making a decision to leave, earnings are less important than some other factors [2], [11].

Earnings therefore affect employee satisfaction and represent the strongest motivator [23], [24], [25], [26], [27], [37], but usually have no effect when other factors put pressure on the employee. Increasing earnings can therefore result in increased motivation, if employees are already satisfied with their job and working conditions, but an increase in earnings will not prevent already dissatisfied workers from leaving the job. It is hereby confirmed and Herzbergov's statement that earning is a rather "clean factor" than a motivational one, which means that salary can be a cause of frustration at work, but not the motive of business satisfaction [10].

The dissatisfaction with the evaluation system was ranked low by the interviewed employees from all companies, which leads to the conclusion that the employee dissatisfaction with the evaluation system is minimal.

The dissatisfaction of employees of all companies with poor interpersonal relations is ranked last, the fifth; so that we can unambiguously conclude that the interviewed employees of all companies are satisfied with interpersonal relations in their companies. The overall conclusion of this paper can be defined that, regardless of the time gap between the two surveys, as well as the change in ownership structure, they did not have an impact on the change in employee attitude, and yet, despite the above changes, they are the most dissatisfied with working conditions, earnings and injustice.

As the costs of job fluctuation can range from 100% to as much as 200% of annual earnings, as well as the increasing problems of recruiting skilled labor due to the dramatically increased outflow of staff to more developed and stable countries, it is quite clear why retaining workforce became a priority of human resource management.

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ORIGINAL RESEARCH PAPER

**DEVELOPING ACTIVE LEARNING TECHNIQUE THROUGH
COMMUNICATION CIRCLE AND MEASURING ITS EFFECT ON
STUDENTS' ACADEMIC PERFORMANCE**

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ABSTRACT

It is proven fact that communication is a significant skill for every modern student to master. The paper exhibits the findings of communication circle technique and measures its effect on active learning of students during MBA Course. The literature depicts that active learning approach help students to learn more effectively than traditional approaches in which teacher of higher education rely on lecturing. The qualitative methods of data collection were used to produce findings that would address how communication circle participation affects communication ability of management students. A survey included the questionnaire and asking student's their personal experiences in communication circles during course. The research design engaged a control group (using the established communication curriculum as per the syllabus) and an intervention group (using repeated exercise with communication circle throughout the duration of the first semester of MBA course at School of Management Studies, KBCNMU). The study compared MBA student perceptions of their own communication abilities before and after initiation of this communication circle activity during course. The analysis of the data revealed that communication circle participation had constructive effects on perceived individual communication. Communication circle appears to be a practicable technique of active learning technique for assisting management students. The findings of this paper would encourage management teacher to use such active learning technique for uplifting the student's communication ability and overall student learning effectiveness.

Keywords: *Active learning, Communication circle, Communication skill, Students performance*

JEL classification: *D83, H11, M1*

INTRODUCTION

Teaching and learning in a modern classroom are no longer an act of disseminating knowledge. The act of teaching has to develop critical thinking, interaction, and collaboration among student's [5]. It is said that active learning means students engage with the material, participate in the class, and collaborate with each other. The active learning techniques cause students to engage with the subjects rather than passively take in information. There are active learning activities which include brainstorming, discussing, teaching, journaling, group work, focused listening, formulating questions, note taking, annotating, and roleplaying. It was observed that delivery of lectures is often inevitable due to large course enrolment, time and resources constraints. But lecturing can be difficult to engage students as it often poses a passive learning environment and experience to students [3]. Existing literatures also reported other pedagogical challenges of lecture teaching, including teacher's inability to attend to student's requirement and difficulties in assessing student's ability and providing immediate feedback. The students with different backgrounds, experiences, and abilities in particular, may find lectures difficult to follow and such problem often lies in a lack of teacher-student interaction in lectures. Lecturing is often characterized by one-way communication which promotes teacher-centred learning, offering students minimum opportunities to express or discuss their opinions in class. VanDeGrift *et al.*, (2002) mentioned that several factors that hinders student-initiated interaction in lectures, including student apprehension, comment verbalization, feedback lag and single-speaker paradigm. The active elements of the activities could bring excitement and stimulation to increase student participation, while the increased interaction between the student and teaching contexts will also encourage a deeper approach to learning and in turn, produce quality learning outcomes. Active learning can enhance student participation and learning by transforming students from being passive receptors of information within a lecture teaching format into active processor of knowledge. It is commonly understood as meaningful learning activities that involves student in doing things and taking the lead to think about what they are doing [6].

ESSENCE OF ACTIVE LEARNING

In the study of Weber (2002) support curriculum changes that will improve more students' learning opportunities at college and university [11]. This pedagogical shift, active learning is recommended to educators as a means to promote a wider and general knowledge base and interpersonal skills such as communication, problem solving and team work [1], [7], [8]. It was observed that interactions of students in team activities enrich the experiences of all students by engaging them in the sharing of personal perspectives. The active learning experiences can benefit traditional and non-traditional students who have different backgrounds and cultures. Mature students often have life experiences related to work, family and cultural changes that younger students may never have considered. Additionally, diverse students with differing background can add cross-national information an essential skill needed for management of different employees [2]. Communication circle technique is based on

the principal of quality circles consist of a basically formal, institutionalized mechanism for productive and participative problem-solving interaction among the students of and a particular course. Communication circle are made of groups of students (normally 6 to 12) who are from same course. The groups meet on a regular basis, usually under the leadership of an instructor and often with teacher, to discuss course content and to offer suggestions and ideas which may be useful for building up the better understanding and improve the performance of the each other.

Communication circle is a unique active learning method of teaching and learning in which students' team together to explore a significant question or create a meaningful understanding about the subject matter. In communication circle learning activity, students work together in small groups on a structured activity. They are individually accountable for their work, and the work of the group as a whole is also assessed. In communication circle groups, students can share strengths and develop their interpersonal skills. They learn to deal with conflict. When communication circle groups are guided by clear objectives, students engage in numerous activities that improve their understanding of subjects explored.

OBJECTIVE

This paper gives the overview of the concept of active learning technique by portraying the unique technique communication circle. The paper also elucidates the effect of this active learning technique on student academic performance of MBA First year students.

METHODOLOGY

The respondents were 60 management graduates who took MBA-First year course during academic year 2018-19. Data was collected from the Student Perception Questionnaire. The present study has adopted quasi-experimental design to study the effect of active learning on academic performance of management's students. The previous researcher has depicted that quasi-experimental design is an experimental research design that does not provide full control of potential confounding variables. In this design, the experimental group (Group A) and the control group (Group B) were selected without random assignment. Only the experimental group received the treatment (X). First group of students represents 30 participants in the treatment group.

The students' participants were taught the course with active learning technique.

Additionally, there were 30 participants in another group as the comparison or control group who did not participate in communication circle activity. The study employed one previously established classroom of first year students pursuing MBA course.

PROCEDURES

All of the students who were enrolled in the MBA program at the KBC North Maharashtra University in the first semester of academic year 2018-19 were asked to

participate in the study. The students were advised of the goals of the study and the fact that the collected data would be confidential. Management students were asked to complete the questionnaire at the end of the semester during academic year 2018-19.

Information on the participants' age, gender, and year in the MBA program was collected. Those students who did not consent to participate were excluded from the study.

PARTICIPANTS

The students were first year MBA course who undertook a mandatory teaching session on communication skills on regular basis during the semester. Students were required to practice their communication skills with another student in their respective communication circle group. The objectives sought to encourage self-reflection on communication skills (both verbal and non-verbal), develop skills of providing feedback to others.

DATA COLLECTION

Students were asked at the end of the session to provide feedback about the session on a questionnaire developed by the researcher which had been piloted successfully the previous year to evaluate their academic performance with the session. The questionnaire consisted closed questions by constructing Likert scale. The questionnaire was distributed and collected by a faculty member.

RESEARCH HYPOTHESES

H₀: There exist no significant difference in the academic performance of the management students exposed with active learning & teaching technique.

H₁: There exist significant difference in the academic performance of the management students exposed with active learning & teaching technique.

DATA SOURCES AND ANALYSIS

Section 1 (General Information): Six demographic items.

Section 3: Twelve items were constructed to measure student perspectives

Table 1. Demographic profile

Participants	Gender		Total
	Boys	Girls	
Experimental Group	16	14	30
Control Group	17	13	30

Source: Statistical output

Table 2. Questionnaire Problem Posing Item by Initial and Final Score

Items	Result of Pre-test	Result of Post-test	Difference
I intent to participate in communication circle activity frequently	82	89	7
I respect to different opinion of group member in communication circle	74	82	8
I provide troubleshooting assistance to group members who ask in communication circle	82	91	7
I was not disappointed when my opinion was not used	82	87	5
I evaluated with members about the discussions and presentations	86	90	4
I felt part of a learning community in my communication circle.	81	86	5
I actively exchanged my ideas with communication circle group members	80	90	10
I was able to develop new skills and knowledge from other members in my communication circle group	77	84	7
I was able to develop problem solving skills through peer collaboration in communication circle	70	81	9
Communication circle group was effective	71	74	3
Learning in communication circle group was not time consuming.	81	86	5
Overall, I am satisfied with my communication circle experience in this course	71	82	9

Source: Statistical output

“Table 2” shows the result of comparison between the test competence before and final behaviour. These scores obtained by management students before and after the communication circle activity conducted during the semester. From these data it can be seen that increase in the average, a maximum and minimum score. These specify that the communication circle activity could enhance communication skill, self-confidence and academic achievement of the management students

Table 3. Sample who has undergone Active learning by Communication circle Activity

	N	Mean	Standard Deviation
Pre-Test	30	51.25	11.03
Post-Test	30	74.53	13.07

Source: Statistical output

Table 4. Sample who has undergone traditional learning

	N	Mean	Standard Deviation
Pre-Test	30	50	13.31
Post-Test	30	54.13	13.16

Source: Statistical output

“Table 3 and 4” specifies that there is a significant difference on management students’ academic performance between the active learning through communication circle activity group (Experimental group) and traditional learning method group (Control group). The hypothesis was tested and the result obtained for the post-test is ($t=6.314$), $p<.001$ mean for the experimental group ($M=74.53$) and the mean for control group is ($M=54.13$), the conclusion and interpretation were as follows:

The null hypothesis was rejected and concluded that the experimental group who received active learning method ($M=74.53$, $SD=13.16$) had significantly higher mean in their academic performance (post-test result) than those in control group who received traditional learning method ($M=54.13$, $SD=13.16$) therefore accepting the alternative hypothesis.

It means that we reject the null hypothesis i.e. there exist no significant difference in the academic performance of the management students exposed with active learning & teaching technique. Hence, we accept the alternative hypothesis i.e., there is significant difference in the academic performance of the management students exposed with active learning & teaching technique. Result from the test concluded that students receiving the active learning method viz. communication circle performed better than students who received traditional method.

CONCLUSION

The result of the study determines that there is an improvement in academic performance and learning effectiveness of management students following their participation in communication circle activity as compared to traditional learning group. It was observed that communication circles provide an opportunity for

management students to be actively engaged. We can conclude that communication circle as an active instructional pedagogy enhances learning particularly in the areas of mastering the content as well as developing critical thinking skills, oral communication skills of the students. It was observed that active learning though such technique can enhance student participation and learning by transforming students from being passive receptors of information within a lecture teaching format into active processor of knowledge.

Based on the result we can conclude that active learning pedagogy viz. communication circle activities are a significant factor in positively influencing students' individual and group learning. This unique method specifies that the entire student participated equally within the class and interacted with other students in order to learn from each other. The communication circle activity helps the student to improve the interpersonal skills and such skills enable management student to pursue their career in corporates with more confidence in the future endeavour. The findings of this paper would encourage teacher of higher education to use such active learning technique for uplifting the student's communication ability and overall student academic performance [12].

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ORIGINAL RESEARCH PAPER

**INVESTIGATING THE EFFECT OF SELF-ORGANIZED LEARNING
ENVIRONMENT IN HIGHER EDUCATION TO IMPROVE STUDENTS'
LEARNING, EDUCATIONAL INSPIRATION, AND COMMITMENT
IN E-COURSE**

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ABSTRACT

Soles (Self Organized Learning Environment) can be performed at any situation whenever the educator inspires the students to work in a group and answer a Big Question using the internet. It is the student driven Collaborative Learning; a widespread research was done among school students which verifies its effectiveness among school learners. Use of SOLEs is seldom in the higher education. The purpose of this study is to investigate the effect of SOLE in terms of learning, motivation and engagement of the Learners. 100, 2nd semester learners of school of Physiotherapy will serve as the subjects for the study, a regular course will be taught by creating SOLE. Create a curiosity in the Learners mind by asking a big question. Or are challenged to think of their own they can make their own group and can change group any time and explore the answer in any direction all the groups expected to present what they have learn in the end of the session. Students will be empowered to take ownership of their learning experience. The academic score, cloud course usage and course feedback will be taken from the students which will be analysed and compared with the previous batches' performance. From these, small sample, studies, we conclude that groups of students, using the Internet, can answer test questions and score good marks in the internal exams. The retention power of the topic is also increased when they work in the group and discuss the problem as it become an event rather than a session or class full of lectures. More research is needed in the higher education and in different domain also to prove the efficiency of SOLE among collegiate Students.

Keywords: Big Question, Collaborative Learning, SOLE

JEL Classification: I23, D83

INTRODUCTION

The concept of Self-Organized Learning Environments (SOLEs) is coined by Dr. Saugata Mitra in which students work in the group in the environment which is completely directed by the students and an educator is just a Guide by the side instead of sage on the stage. The whole concept of the SOLE is based on the Big Question the term coined by Dr. Mitra and it is type of a Research Question with wider scenario and vision which will create the curiosity among the learner to find the relevant answer with the help of interment (Mitra and Dangwal, 2010; Mitra, 2012). Earlier the famous ‘whole in the wall’ experiments were done by Dr. Mitra to conceptualize the concept of SOLE the (Mitra, 2006, carried out in India between 1999 and 2006). The SOLE’s setting is characterized by its unconventional settings students are free to move in any direction and choose to change their respective group at any point of time (Mitra *et al.*, 2005: 3). These sessions offer a background, within which natural and unplanned creativity and learning can occur, since there may not be predefined learning objectives, it is very unlike to traditional teaching and learning methods.

Various research of this models (SOLE) were conducted in the past 2 decades on children of 8-13 years and these experiments cause a spontaneous Learning among these children. Students can able to use computers, Internet (Mitra *et al.*, 2005, De Boer, 2009), pass school examinations of various subjects (Inamdar and Kulkarni 2007), enhance English pronunciation (Mitra *et al.*, 2003) improvement in their school performance (Dangwal and Thounoujam, 2011, Dangwal *et al.*, 2014) and understand some of the advance concept as well (Mitra, 2012, Inamdar 2004). The most fascinating about these researches that is all the settings learning happens with no moderation or instruction by teachers.

The quality of education is a big challenge in India especially in the rural area (Mitra, Dangwal & Thadani, 2008). If SOLE model is possible with the help of some moderation in these rural areas these parts can achieve massive benefit and our mission towards the rural education will accomplish but for this, we needed to develop some research questions that could be answered in different educational environments and which would produce considerable evidence.

The student-centered paradigm emerged as an alternative to the so called “traditional” or “teacher-centered” instruction. Students are often eager with what “the cloud” has to offer, and moderately unresponsive with what the school has programmed for them. There is a social networking explosion happening today.

Students are often learning online with one another, as members of educational communities. “It is not about making learning happen, it is about letting it happen.”

An extensive research was conducted among school learners which prove SOLE model effectiveness, all of this research and activities were majorly performed at the School level and the children are usually between 8 -15 years of age.

Use of SOLEs is seldom in the higher education, as collegiate students are more connected with Web through social media and also some of the sites like Wikipedia, YouTube, Instagram, Facebook and twitter not only entertain them but also deliver an information which is desired and some of the researcher’s named these sites as Social Software.

The purpose of present study was to understand the effect of SOLE environment among the Higher education where the educator will serve as the mediator to design the activities and a Big or Research Question and students can use the internet to find the answer of the question and display their thoughts on the Chart Paper and further Present these in front of the class which will leads to Learning, motivation and engagement of Learners

MATERIALS & METHODS

Participant

100 Students of 2nd semester enrolled in Biokinsiology I course belongs to School of Physiotherapy RK. University participated in this SOLE experiment. No consent form was taken from them, but they were informed in Detail about the concept of SOLE before the starting of the course

Materials

- Mobile Phone with internet
- Canvas LMS
- Chart papers
- Markers
- Sketch colours
- Sticky Notes

METHODS

After the explanation of the concept of SOLE the whole curriculum of the Biokinsiology course was taught in with minimal or no teaching as mentioned in the toolkit of SOLE and students are fully independent while solving the problem. The course curriculum is divided in to two sections (Appendix I)

- (a) Section 1
- (b) Section 2

Each section is also divided in to 5 units each. The Big or Research Question was created according to the unit and based on the depth of the topic 2 or 5 questions were asked in one unit itself.

100 students were divided in to 10 groups so in total we have 10 groups and they cannot make more groups then that but can change their group which is unlike the SOLE Concept but as the number is big, we ought to do such changes for the discipline of the school. The course was already uploaded on the canvas Platform.

The student will get the Big question or questions during 10-minute F2F interaction and during this time if any group has some doubt, they can ask about that. Some of the Big Question is mentioned in Appendix II.

A Big or Research Question Create a curiosity in the Learners mind Or are challenged to think of their own they can make their own group and can change group

any time and explore the answer in any direction all the groups expected to present what they have learn in the end of the session. Students will be empowered to take ownership of their learning experience.



Fig 1.1. 2 different concepts of understanding of same question submitted by the different groups

The Units of Section 1 was taught in SOLE Classroom and the academic score, cloud course usage and course feedback (Appendix III) will be taken from the students which will be analysed and compared with the previous batch's performance

RESULT

The academic score, and course feedback were analysed and compare with the same course of previous batches and cloud course usage were compared with the other courses of the same batch.

ACADEMIC SCORE

After the completion of Section 1 of the course the Learners underwent through Continuous Internal Examination I (CIE I). It is a 20 marks exam which is conducted in a traditional Pen Paper Method. Table 2.1 shows the detail picture of the marks obtained by the learners of different batches in CIE I

Academic Batches	No. of Learners	Average marks (max.20)	No. of Learners above 75%	No. of Learners Below 50%
2018	100	15.25	69	08
2017	96	13.75	49	15
2016	93	14.15	57	11

The mean of all the marks in the experiment Batch of 2018 clearly shows that the learners who underwent through SOLE Session have not drop down in their

academics perhaps they score better than the Traditional methods, even the number of students who score distinction is also more in the experiment Group and the number of students score less than 50 % also decreased.

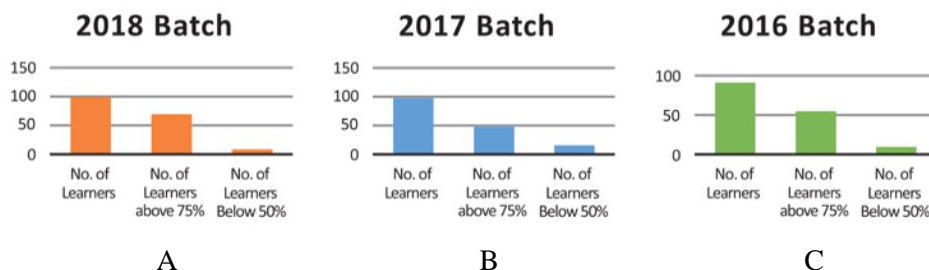


Chart 2.1 (A-C): Showing the Graphical Display of Batch wise Academic Performance in the Biokinsiology I Course

COURSE FEEDBACK

After completion of every course at RK. University students will give the course feedback the question of this feedback is already mentioned in the Appendix III and based on these responses every course will get the points out of 5.

Table 2.2 is giving the batch wise description of Course Feedback

Batch	2018	2017	2016
Course feedback points (Out of 5)	3.98	3.42	3.25

The course feedback points in the experiment batch of 2018 is also well matched with the previous feedback, that shows that students are quite satisfied with this SOLE methodology in the classroom

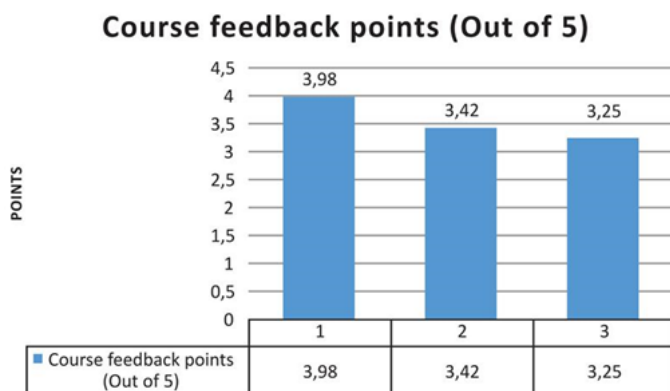


Chart 2.2 Displaying the graphical Display of the course feedback and the course feedback of 2018 is highest among all the three batches

CLOUD COURSE USAGE

As mentioned before that the course was already uploaded on the canvas platform so we can also analyse the use of this cloud course by the learners and comparing it with the others subjects of the same batch.

Table 2.3 demonstrate the average time spent by the whole batch on this canvas course

Subjects	Anatomy II	Physiology II	Biokinisiology I	EVS
Usage	168 Minutes	173 Minutes	220 Minutes	95 Minutes

Students are giving equal importance to the cloud course and the usage is undoubtedly more in the experimental Batch of 2018 one of the resound is the use of study material for solving the given question and also some of the detail of question is mention in the assignment section of the cloud course.

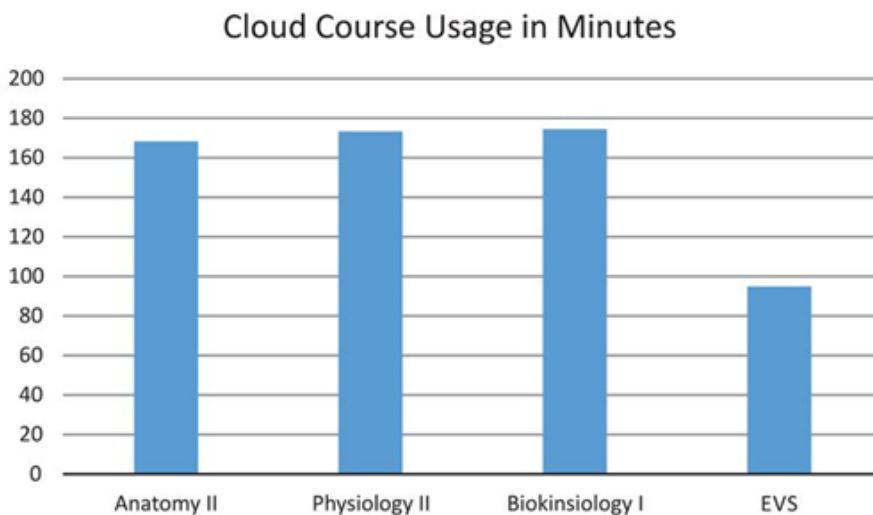


Chart 2.3 Graphical Demonstration of the average usage of the course in minutes by the Learners

DISCUSSION

We decided to conduct these experiments based on several years of research which in done while conducting SOLEs from 2 Decade in which “Hole in the wall” is a major experiment done almost 25 years ago by Dr Saugata Mitra.

Our observations in all these SOLE sessions was that groups of Learners seemed capable of dealing with questions when they worked in unsupervised groups and had access to the Internet. The quantitative results obtained from their Academic Score and Course Feedback from the experiments above seems to support our qualitative observations.

We should mention that these experiments were conducted in one school with small sample size of 100 students. The validity of our conclusions needs considerably more rigorous measurements over larger samples in diverse schools. However, we feel that the suggestive conclusions from these experiments are sufficiently intriguing and require communication to other researchers as early as possible.

Learners seem to enjoy working on a ‘hard’ question, when there is no competition and when they are in groups, using the Internet. There is some indication that the opposite is also true, namely, that children do better individually at easy things than they do in groups. However, this conjecture needs to be carefully researched.

We also notice that individual recall of the answers is consistently good over time.

This seems to indicate that children in a group all learn quite uniformly although different children do different things. Some are good in computers, some will take notes, some will Draw on the charts although some students some time do not take interest in the question they either disturb the group or do not doing anything but these roles are change when the question is change even in the traditional class background you can see that some of the learners are not interested in the class. We also observe lot of moment during the discussion as at one point of time some students are more interested in what other groups are doing and also certain group is more conscious to present the solution in very artistic way and they sometime take more time than other groups. Most of the groups and learners discuss the question even after the session finished and as the result statistics shows that there is no decline in terms of academic score but the average marks of the students is increased in compression to the other batches which show that it’s an intellectual amplification in terms of Learning [26].

CONCLUSIONS

From these, small sample, studies, we conclude that groups of students, using the Internet, can answer test questions and score good marks in the internal exams.

The retention power of the topic is also increased when they work in the group and discuss the problem as it become an event rather than a session or class full of lectures.

More research is needed in the higher education and in different domain also to prove the efficiency of SOLE among collegiate Students

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Appendix 1

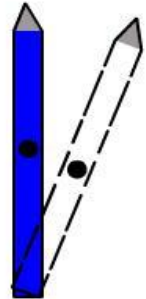
Course Title	BIOKINESIOLOGY I					
Course Code	PT208					
Course Credit	Lecture: 4					
	Practical: 1					
	Clinical Training: 0					
	Total: 5					
Course Objectives						
On completion of unit students should be able to						
1. Understand the fundamentals of Biokinesiology, concept of structural stability and functional mobility related to various diseases and disorders.						
2. Apply knowledge of kinesiology in professional physiotherapy practice.						
3. Demonstrate and practice concepts of biomechanics and pathomechanics of axial & appendicle joints.						
Analyze Normal human posture, gait, other physical & function activities like sitting to standing etc.						
#	Detailed Syllabus			Hours		
Section I			T	P	CT	
1.	INTRODUCTION OF MECHANICS AND HUMAN MECHANICS RELATING TO PHYSICAL THERAPY					
	Basic Concepts in Bio kinesiology:					
	Kinematics and Kinetics.					
	Types of Motion, Location of Motion, Direction of Motion			3	0	
	Magnitude of Motion.					
	Definition of Forces, Force of Gravity, Reaction forces, Moment arm of force, Force components, Force of friction, Concurrent force system, Parallel force systems			2	0	
2.	Joint Axis & Plane			2	0	
	Equilibrium, Objects in Motion, Work, Equilibrium of levers			2	0	
	Joint structure and Function					
2.	Joint design			1	0	
	Materials used in human joints			1	0	

	General properties of connective tissues	2	0	
	Human joint design	2	0	
	Joint function and Joint motion	2	0	
	General effects of disease, injury and immobilization	2	0	
3.	Muscle structure and function			
	Mobility and stability functions of muscles	2	0	
	Elements of muscle structure	3	0	
	Muscle function	2	0	
	Effects of immobilization, injury and aging	1	0	
4.	Goniometry			
	Principles of goniometry	1	2	
	Types of goniometers	2	0	
	Normal range of various Upper limb joints	1	0	
	Measurement of individual joint range using goniometers			
	1. Shoulder Joint		4	
	2. Elbow joint		2	
	3. Radioulnar joint	4	2	
	4. Wrist joint		2	
	5. MCP, PIP, DIP joint		4	
5.	The Shoulder complex:			
	Components of shoulder complex	1	0	
	Scapulo thoracic and gleno humeral contributions	2	2	
	Sterno clavicular and acromioclavicular contributions	2	0	
	Structural dysfunction of shoulder muscles and shoulder pathomechanics.	2	0	
Section II				
6.	The elbow complex			
	Structure of elbow joint, Axis of motion, Muscle of motion	2	0	
	Mobility and stability of elbow complex	2	0	
	Applied pathomechanics	1	0	
7.	The wrist and hand complex:			
	Radio carpal joint structure, Midcarpal joint structure	2	0	
	Function of wrist complex	2	0	
	Flexor mechanism, Extensor mechanism	2	0	
	Structure of thumb	1	0	
	Prehension, Power grip, Precision handling	2	2	
	Functional position of the wrist and hand and applied pathomechanics	2	0	
8.	Biokinesiology of the Thorax and Chest wall:			

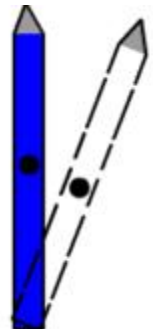
	Structure and Function of rib cage, Coordination and Integration of Ventilatory Motions	2	0	
	Pathomechanics of rib cage	1	0	
	Biomechanics of Respiration	2	2	
9.	Advance Bio kinesiology in physiotherapy practice.	1	2	
	Applied Bio kinesiology in sports and physical performance.	2	0	
	Biokinesiology in functional outcome measures	2	0	
10.	Goniometry			
	Normal range of various Upper limb joints	1	0	
	Measurement of individual joint range using goniometers		0	
	1. Hip joint	3	5	
	2. Knee joint	2		
	3. Ankle joint	3		
	4. Foot Complex	2		
Instruction Method				
<ol style="list-style-type: none"> 1. Teaching and training sessions will be carried out through active learning. Active participation and contribution in group discussion and seminars are mandatory for students 2. Lectures to be conducted with the help of black board and/or audio-visual aids that includes multi-media projector, OHP, etc. 3. Problem based and/or case-based assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval. 4. The course includes a laboratory where the students have an opportunity to build and appreciation for the concepts being taught in lectures. 5. Instruction method will be integrated with clinical training, bedside/class room teaching and tutorials as necessary. 				
Text Books				
<ol style="list-style-type: none"> 1. Joint Structure and Function: A Comprehensive Analysis: 5th edition. Levangie PC; Norkin CC. F. A. Davis Company 				
Reference Books				
<ol style="list-style-type: none"> 2. BASIC BIOMECHANICS OF THE MUSCULOSKELETAL SYSTEM: 4TH EDITION. NORDINS M; FRANKEL VH. LWW 3. Kinesiology: The Mechanics and Pathomechanics of Human Movement: Carol A. Oatis 4. BRUNNSTROM'S CLINICAL KINESIOLOGY: 6TH EDITION. HOUGLUM PA; BERTOTI DB. JP BROS MEDICAL PUBLISHERS, BANGALORE 				

Appendix II

Equilibrium, Objects in Motion, Work, Equilibrium of levers K81. Why the book on a table is able to stay in that position but the pen on the table will fall very easily if it is in vertical position



2. Why pen in Horizontal position is much more stable than the pen in the vertical position



3.What are the factors which are responsible for the stability of every object

4. If LOC is Line of Control what is LOG for human beings.

Appendix III

Course Feedback Form

	Strongly Agree	Agree	Neutral	Disagree
Questions				
Classroom facilities and learning environment was adequate.				
I am satisfied with this course.				
I feel that my learning increased in this course.				
Technology (LMS, Internet, etc.) was used appropriately in the course. *				
The course syllabus clearly defined course objectives.				
The course materials were useful & easy to understand.				
The workload for this course was appropriate.				
To me, the level of difficulty of this course was manageable.				

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ORIGINAL RESEARCH PAPER

**THE ROLE OF ICT BASED HIGHER EDUCATION IN INDIA: ISSUES
AND CHALLENGES FROM TEACHERS PERSPECTIVE**

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ABSTRACT

In the era of knowledge-based society, education has assumed an important role. The significant developments in Information technologies have opened up new perspective in teaching and learning process. We can see the widespread use of ICT in teaching and learning process in Higher educational institutes in India. Higher education in India is witnessing a sea change, thanks to the rapid technological advancement and Innovation. The study is to analyse the perception and the challenges faced by teachers in using ICT tools in their respective classrooms. A quantitative research design was used to collect the data randomly from a sample of 80 teachers from Kavayitri Bahinabai Chaudhary North Maharashtra University, Jalgaon, India. For the purpose of the study data was collected through distribution of modified adopted survey questionnaire. To analyse the collected data, descriptive statistics, and independent sample t-test have been employed. The study concluded that the ICT usage among the faculties of KBC North Maharashtra University, Jalgaon is fairly good but at the same time there are some various challenges in executing part. Further, the faculties from social science face enormous challenges regarding the usage of ICT tools as compare to their counterparts from science and Technology. The teaching staff needs training on ICT in order to integrate ICT effectively in teaching learning, so that they can improve their skills in use of ICT for teaching-learning.

Keywords: *ICT tool, (HEI), Teaching and learning process.*

JEL Classification: *I23, A2*

INTRODUCTION

Information and communication technology (ICT) play a considerable role in most of the organization these days [14]. The world of higher education is no exception to it, thanks to the new technologies which have immense potential to bring about the changes. Dawes elucidated [4] that emerging technologies have the potential to keep pace with the education across the curriculum and deliver opportunities for efficient student-teacher communication which were not possible before. Information and communication Technology (ICT) polled with liberalization, Globalization and Privatization have accelerated the pace of change to jet speed.

As compared to the other countries, India is having relatively low level of ICT efficiency despite being the third largest in the world in higher education. India has been ranked 134th in the 2017 ICT development index out of the total 176 countries.

The Indian policymakers has tried their best for developing ICT's as a vehicle for promoting education since the use of satellite in early 1970's. Since then there has been numerous initiatives undertaken for ICT and its use for educating the students both in public as well as private sector in India. ICT based teaching has provided a platform for instructing the students using simulated models, encouraging interactivity and helping in the transmission of information over distances. Teachers are using the ICT for E-learning, Blended learning and for distance learning in India.

The National Mission on Education through information and communication Technology (NMEICT) nurtures the potential of ICT, in teaching and learning process for the benefit of all the learners.

The launch of SWAYAM (Study Webs of Active – Learning for Young Aspiring Minds programme of Ministry of Human Resource Development, Government of India) platform and Swayam Prabha recently as digital initiatives of the Government of India have transformed Indian higher education to be more cost effective and accessible. Massive open online courses (MOOC) under SWAYAM portal provides online courses that can be accessed by students through digital classrooms thus facilitating Anytime, Anyplace, and Any pace learning.

Currently, the push for adoption of technology has resulted in increased use of ICTs. Learning management systems and MOODLES form the basis of ICT menu.

The resultant increased access to ICTs in the institution and availability of e-learning resources are now pressing to address the need for integration of digital technologies in teaching learning pedagogy too.

ICT has given the students and teachers more methods of expression of the subject such as audio-visual platforms apart from the chalk/blackboard. Gradually, the control of learning is being shifted from teacher into the hands of students to suit this appetite and pace of learning. The teachers can now cater to more students through virtual classrooms, and adjust the teaching methods for micro groups of students based on their needs. India, like other developing countries is still in the initial stages of integrating ICT in teaching learning process.

The purpose of this study is, therefore an attempt to examine the perception and Challenges faced by the teachers towards use of ICT tools in higher educational institutes in an Indian State university Maharashtra University, Jalgaon.

LITERATURE RESEARCH

Various Studies undertaken at global level in Africa, South America and Some European countries have endeavoured their best to foster the procurement of ICT tools and establishment of infrastructures. Albeit, the usage of ICT in the teaching and learning processes is still a major challenge faced by teachers (Voogt & Tondeur, 2015; Agyei & Voogt, 2012; Ajayi. 2008). [13] The teaching approach commonly used by teachers in secondary schools is still conventional method i.e. the talk and chalk approach where the teacher does most of the talking and pedagogic work while the student act as a passive recipient of information. This problem can be understood through the teacher training programs which have a significant impact on teacher use of ICT in teaching (Mishra and Koelher, 2006) [8]. Agyei and Voogt (2012) enumerated that majority of the faculty members in various countries are offered just basic ICT courses at the pre-service training to equip them with the skills of using ICT in their respective classrooms concerning their subject discipline [1]. Consequently, this has placed so numerous doubts whether pre-service teachers are prepared for the new teaching method which focuses on student-centered learning, teacher flexibility and the use of ICT.

Gaido and Carlson (2002) enumerated that that ICT and professional development of teachers can be practiced at congenial ecosystem, where the educational reform embraces a shift from a teacher-centered, lecture-based instruction towards interactive, students-centered and constructivist learning [3].

Voogt (2010) added that additional motivation and incentives can be provided to the teachers who are reluctant to change their teaching styles. [12]

Tamim *et al.*, (2011) observed that digital and online technology can fundamentally redefine the nature of the classroom. If delivered aptly, courses that blend pedagogically-sound learning technologies can be highly effective, and participating students derive high levels of satisfaction and motivation to relearn [11].

In fact, the blended and online learning environments can stimulate, enhance, and amplify interactive and participative learning and if applied well, enhance a sense of community and participation (Stewart *et al.*, 2009; US Report, 2009; Kintu *et al.*, 2017).

Despite the fact that a large body of literature is available on the ICT, the literature is mostly related to High schools, the studies on the usage of ICT in higher education particularly in Indian Universities are seldom therefore, there exist of gap. More importantly, the majority of previous studies were carried out in Western settings.

Objectives of this study:

1. To identify the teachers' perceptions in implementing ICT tools in teaching and learning in classroom.
2. To understand the challenges of using ICT tools in teaching and learning in classroom among University teachers.
3. To understand how do the instructors use the ICT tools in teaching and learning in classroom.

GROWTH OF HIGHER EDUCATION IN INDIA

In all probability, India will emerge by 2030 as the youngest nation in the world with nearly 140 million college going students, setting the record one in every graduate produced globally will be from India. The apex governing body at the Central level is the University Grant Commission (UGC), which enforces its standard, advises the Government, and helps coordinate between the center and state. The UGC comes under the Ministry of Human Resource development (MHRD) Government of India.

The number of Higher educational Institutions has increased from 25 universities and 700 colleges to in 1950-51 to about 903 Universities and 40,760 colleges (UGC report published in 2011, 2012 & 2016). There has been significant increase in the number of teachers from 15000 in 1951 to almost 12 lakhs in 2016. Similarly, the enrolment of students has witnessed many folds increase from merely 0.1 million in 1951 to 26.5 million in 2016. [7]

The Gross enrolment in Higher education has also surged from 0.40% in 1951 to 24.5% in 2016. However, when these figures on GER are compared with the figures on GER of developed countries and even of that of other BRICS nations like Russia (77%), China (34%) and Brazil (34%). The world average GER in higher education is also 29% which is also above the GER in higher education in India. (UGC report published in 2011, 2012 & 2016).

The government of India has set the target of increasing the GER to 30% by 2020.

The Government of India has set the target of increasing the GER to 30% by 2020, which will require enhancement of enrolment capacity of 25 million.

Further, there has been considerable increase in the number of Public and Private Universities and has been a marked expansion of Indian higher education in recent years. These could be broadly divided into six broad groups: Central Universities, State Universities, Private Universities, Institutions deemed to be Universities. [7]

There has been considerable increase in the number of central Universities in recent years. Their number has increased from 18 in 2002 to 47 in 2016. Similarly, State Universities have also witnessed a consistent increase in their numbers. From 178 in 2002, the number of State Universities has increased to 365 in 2016. [7]

An unprecedented growth of Private Universities has been a marked feature of expansion of Indian higher education in recent years. The number of Private

Universities rose from 21 in 2007 to 269 in 2016. [7] Furthermore, the Institutions deemed to be Universities have also consistently increased in their numbers. The number of Institutions deemed to be Universities increased from 52 in 2002 to 122 in 2016. (UGC report published in 2011, 2012 & 2016).

Table 1. Growth of Higher Education

Capacity Indicators	1950	1991	2006	2010	2016
No. of University level Institutions	25	177	367	533	777
No. of colleges	700	7,346	18,064	31,324	40,760
No. of Teachers (In thousands)	15	272	488	934	1261
No. of students Enrolled in (Millions)	0.1	4.9	11.2	20.3	26.5
Gross Enrolment Ratio	0.40%	6.0%	12.39%	17.2%	24.50%

Source: UGC (2011a) UGC (2012) and UGC 2016

Table 2. Growth of University level Institutions in India

Type	2002	2007	2010	2015	2016
Central Universities	18	25	41	46	47
State Universities	178	231	257	329	365
Private Universities	-	21	61	205	269
Institutions deemed to be Universities	52	102	130	128	122
Total	248	379	489	708	803

Source: UGC (2011a) UGC (2012) and UGC 2016

METHODOLOGY

Research Design

In this research, quantitative methodology was adopted to collect and analyse the data obtained from the respondents. A modified adopted survey questionnaire was developed and finalized by the researchers and the same was distributed to the target respondents. The questionnaire was designed to specifically address research objectives with regards to teacher's perception on the usage of ICT tools in KBC North Maharashtra University, Jalgaon in India.

Sampling

The modified cross-sectional survey questionnaire based on 5-point Likert scale (SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree).

The teachers were selected from social sciences and Science and technology courses randomly as the sample for the study.

Data Collection

The questionnaire was distributed to 90 teachers (Permanent and contractual) randomly. They were given one week to fill in the questionnaire and return it. All the participants volunteered themselves in the research. Some questionnaires were returned with missing information and the details could not be used as a contribution for this research. Finally, we decided to work with 80 questionnaires which we found to be complete in every aspect.

Findings

Table 3. Demographic factors of the study

Factors	Category	Frequency	Percentage
Gender	Female	22	27.50%
	Male	58	72.50%
Age	Below 25	1	1.25%
	26-35	28	35.00%
	36-45	32	40.00%
	46-55	18	22.50%
	Above 55	1	1.25%
Educational Qualification	PG	28	35.00%
	Phil/Ph.D.	52	65.00%
Year of Experience	Less than 4	17	21.25%
	5-10	21	26.25%
	10-20	32	40.00%
	More than 20	10	12.50%
Faculties	Science and Technology	50	62.50%
	Social science	30	37.50%

From Table 3, it is clear that the majority of respondents are males, representing over 73 per cent of the sample. A majority of the respondents are doctorate (65 per cent).

The majority of the study sample (63 per cent) belongs to the science and technology. As far as experience is considered 40 per cent of the teachers having experience from 10-20 years.

Table. 4. The Use of ICT in the classroom
(SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree)

Use of ICT	SD	D	N	A	SA	Mean
I use ICT (computer/laptop with internet) to search for information during my lesson planning and preparation	0	1	2	49	28	4.3
	0.00%	1.25%	2.50%	61.25%	35.00%	
I use ICT (Interactive whiteboard/projector) to arouse and direct my learners' attention/make the lesson interesting	5	16	8	30	21	3.58
	6.25%	20.00%	10.00%	37.50%	26.25%	
I motivate my students to learn and solve task collaboratively through the use of the internet	4	6	12	36	22	3.825
	5.00%	7.50%	15.00%	45.00%	27.50%	
I use E-reader (a device to read books and newspapers on screen) during the lesson	6	25	14	31	4	3.025
	7.50%	31.25%	17.50%	38.75%	5.00%	
I only have access to computers in the computer laboratory	6	31	10	21	12	3.025
	7.50%	38.75%	12.50%	26.25%	15.00%	
I prefer using ICT on my own when no- one is around/watching to see me making mistakes	3	25	19	23	10	3.15
	3.75%	31.25%	23.75%	28.75%	12.50%	
I confidently use different ICT devices in teaching	6	13	9	39	13	3.5
	7.50%	16.25%	11.25%	48.75%	16.25%	
The type of ICT tools I use in teaching is largely dependent on the lesson objectives and activities	3	12	21	35	9	3.4375
	3.75%	15.00%	26.25%	43.75%	11.25%	
The type of ICT tools I use in teaching is largely dependent on the availability and accessibility at institute.	0	8	7	46	19	3.95
	0.00%	10.00%	8.75%	57.50%	23.75%	

I choose the type of technology	1	3	11	54	11	3.8875
(ICT devices) that I am familiar with or frequently use	1.25%	3.75%	13.75%	67.50%	13.75%	

From Table No. 4, it is observed that majority of the statements have significance value of less than .05. Therefore, it was statistically significant to say that Majority of the teachers agree that using ICT tools in classroom makes teaching-learning effective in higher institutions of learning. But from statements 4, 5 and 6 it is observed that, approximately more than 60% of teachers are disagree or neutral their responses. i.e., Teachers can use E-reader during the lesson, Teachers can access computer only in the computer laboratory and Teachers are afraid to see anybody during use of ICT tools.

Table 5. Perception of teachers on Usage of ICT tools
(SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree)

Perception	SD	D	N	A	SA	Mean
Using ICT enhances learners' critical thinking.	0	6	12	46	16	3.90
	0.00%	7.50%	15.00%	57.50%	20.00%	
Using ICT enhance collaborative learning among learners and teachers	0	4	6	50	20	4.08
	0.00%	5.00%	7.50%	62.50%	25.00%	
Lack of ICT makes it difficulties for teachers to keep up with the current trends in education	2	6	12	43	17	3.84
	2.50%	7.50%	15.00%	53.75%	21.25%	
Teachers need to be encouraged to use ICT in their teaching and learning activities	0	0	9	49	22	4.16
	0.00%	0.00%	11.25%	61.25%	27.50%	
I find the use of ICT in teaching and learning a time consuming	6	27	21	23	3	2.88
	7.50%	33.75%	26.25%	28.75%	3.75%	

From Table No. 5, it is observed that majority of the statements have significance value of less than .05. Therefore, it was statistically significant to say that perception of teachers of using ICT tools in teaching are good which make teaching-learning effective in higher institutions of learning. But from statements 5, it is observed that, approximately more than 65% of teachers are disagreed or neutral their responses. I.e., the use of ICT in teaching and learning a time consuming.

Table 6. Challenges in using ICT tools in teaching and learning
(SD: Strongly disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly agree)

Challenges in using ICT tools	SD	D	N	A	SA	Mean
Insufficient numbers of internet-connected computers.	1	13	11	47	8	3.6
	1.25%	16.25%	13.75%	58.75%	10.00%	
Insufficient bandwidth or speed	1	19	4	47	9	3.55
	1.25%	23.75%	5.00%	58.75%	11.25%	
Lack of adequate skills of teachers	2	8	12	47	11	3.7125
	2.50%	10.00%	15.00%	58.75%	13.75%	
Insufficient technical support for teachers	6	6	13	38	17	3.675
	7.50%	7.50%	16.25%	47.50%	21.25%	
Pressure to prepare students for exam and tests.	2	16	23	34	5	3.3
	2.50%	20.00%	28.75%	42.50%	6.25%	

Most teachers not in favor of using ICT in higher education.	1	12	21	40	6	3.475
	1.25%	15.00%	26.25%	50.00%	7.50%	
Lack of interest in teachers.	3	11	18	40	8	3.4875
	3.75%	13.75%	22.50%	50.00%	10.00%	

From Table No. 6, it is observed that Majority of the statements have significance value of less than .05. Therefore, it was statistically significant to say that most of teachers are facing a lot of challenges in using ICT tools in teaching and learning. But from statements 5, it is observed that, approximately more than 50% of teachers are disagree or neutral their responses. i.e. Pressure to prepare students for exam and tests.

Hypothesis Testing

Ho1: There is no correlation between the use of ICT in the classroom and the perception of teachers of Science & technology and Art and Social Science on the usage of ICT tools

H1: There is significant correlation between the use of ICT in the classroom and the perception of teachers of Science & technology and Art and Social Science on the usage of ICT tools

Table 7. Group Statistics

	Faculty	N	Mean	Std. Deviation	Std. Error Mean
Usage of ICT tools in the classroom	Science & Technology	50	3.7263	0.41141	0.05818
	Social Science	30	3.2491	0.28858	0.05269

Table 8. Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	5.284	0.024	5.57778	78	0.0001	0.47719	0.08557	0.30680	0.6475

From the independent *t*-test means in above table, the results show that the use of ICT tools in teaching and learning in the classroom of the Science and technology faculties ($M=3.7263$, $SD=0.4114$) is higher than the use of ICT tools in teaching and learning in the classroom learning of the Social Science ($M=3.2491$, $SD=0.28858$) was insignificant, $t=5.577$, $d.f.=78$, $p=0.0001$, however, since the $p<0.05$ so the null hypothesis is rejected and alternate hypothesis is accepted, and the means of the two groups are significantly different from each other. Thus, the data provide sufficient evidence to conclude that teachers of science and technology are far ahead than the teachers of Social Science faculties as far as the usage of ICT in teaching and learning is considered in the classroom.

Challenges in using ICT tools in teaching and learning

Ho2: There is no significant differences as far as the challenges are considered in using ICT tools in teaching and learning among the teachers of Science & technology and Social Science.

H2: There is a significant difference as far as the challenges are considered in using ICT tools in teaching and learning among Science & technology and Social Science.

Table 9. Group Statistics

	Faculty	N	Mean	Std. Deviation	Std. Error Mean
Challenges in using ICT tools in teaching and learning	Science & technology	50	3.3775	0.58602	0.08288
	Social Science	30	3.8000	0.42497	0.07759

Table 10. Independent Samples Test

	Levene's Test for Equality of Variances		test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Difference	
								Lower	Upper
Equal variances assumed	2.144	0.15	3.44	78	0.001	-0.42250	0.12283	-0.667	-0.178

From the independent *t*-test means in above table, the results show that challenges in using ICT tools in teaching and learning of the Social Science ($M=3.80$, $SD=0.42497$) is higher than challenges in using ICT tools in teaching and learning of the Science and technology faculties ($M=3.3775$, $SD=0.58602$) was insignificant, $t=3.44$, $d.f.=78$, $p=0.001$, however, since the $p<0.05$ so the null hypothesis is rejected and alternate hypothesis is accepted, it means the two groups are significantly different from each other. Thus, the data provide sufficient evidence to conclude that there are significant challenges in using ICT tools among the teachers of Science & Technology and Social sciences

DISCUSSION & CONCLUSIONS

The study is related to identify and explore the perceptions of teachers belonging to KBC North Maharashtra University in implementing ICT tools in their class for teaching and learning, further it examines the impediment or challenges of using ICT tools in their respective classes. Based on the study the findings indicate that Majority of the faculty members agree that using ICT tools in

classroom makes teaching-learning effective in higher institutions of learning. The teaching staff have adequate ICT knowledge and are able to integrate it in teaching-learning, further they also encouraged their students to use ICT for learning. As far as perception of teachers is considered Majority of the faculty members believe that Using ICT can enhance collaborative learning among learners and teachers.

They teachers are very positive about using ICT in the classroom. As far as Challenges in using ICT tools in teaching and learning in classroom is considered faculties agreed there are lot of challenges in using ICT classroom like limited number of Internet-connected computers, Insufficient bandwidth, Insufficient technical support and some of the teachers lack in adequate skills. Further the faculties from social science face enormous challenges regarding the usage of ICT tools as compare to their counterparts from science and Technology. The government has promoted the usage of ICT policy in institutions but issues like ICT Security Policy, Bandwidth Management Policy, and ICT standards for all hardware and software affects the execution. The teaching staff needs training on ICT in order to integrate ICT effectively in teaching learning, thus many institutions today provide training to teachers so that they can improve their skills in use of ICT for teaching-learning.

The study concluded that the ICT usage among the faculties of KBC North Maharashtra University, Jalgaon is fairly good but at the same time there are some various challenges in executing part. In fact, the usage of ICT tools depends upon the curriculum & Pedagogy. Keeping in view the decreasing trend of budgetary allocations over the past decades and increasing demand for higher education seats educationists, policymakers and decision makers are facing many dilemmas.

Nonetheless, the initiatives taken by UGC to modernize University Campuses during the last few years need to supplement. Effective and efficient resource mobilization interventions are urgently required. Pathways for private-public partnerships and collaborations with the commercial sector institutions need to be chalked out. As compared to traditional teaching activities adoption of ICTs in teaching activities require teachers to change/enhance their organizing capabilities, deal with a whole new range of professionals for developing their teaching learning material. Building an atmosphere of teamwork and promotion of networking among faculty from multiple disciplines, web designers, instructional and cognitive scientists, academics, project managers etc. is essential to develop e-learning modules and content.

Thus, introduction of ICTs has implications for not only teaching learning but also organizational innovations and knowledge management practices in order to limit conflicting situations.

The study will provide direction to the higher educational Institutes and the policy makers to understand the nature of ICT contribution in Teaching and learning process.

Since the perception and challenges of the faculty members are critical to understand the attitude of teachers towards ICT in Higher education.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

- The data for the study was collected from the teachers of KBC North Maharashtra University, Jalgaon, only. However, a more extended geographical sample may produce different results.
- Due to time constraints, the sample of respondents was just 80; further study can be conducted by taking a larger sample.
- Further, a comparative study of university and college teachers can be conducted to find out the difference in their perception levels.

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ORIGINAL RESEARCH PAPER

**ENTERPRENEURSHIP AND FACEBOOK: ANALYZING THE
NETWORK USAGE ON A DAILY AND WEEKLY BASIS AMONG
SERBIAN AND AMERICAN RESPONDENTS**

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ABSTRACT

The subject of this research paper is the intensity of using the social network Facebook on a daily and weekly basis in the context of two national cultures, a collectivist national culture to which the Republic of Serbia belongs, and an individualistic national culture to which the United States belongs. In this regard the measures that were used are: descriptive statistics and group comparison analysis. Data were collected through an online survey, and empirical research was conducted on respondents from the Republic of Serbia and the USA. The data we have obtained is a valid basis for a better understanding of the intensity of use of Facebook, and therefore improvement of the existing commercial communication space on this social network, which provide entrepreneurs with information on the behaviour of their customers and potential customers in two different cultural milieus. Social networks are profoundly transforming the way customers use the web, thus causing changes in the entrepreneurial business practices. The results show that there are similarities in the intensity of use of Facebook, on a daily and weekly basis, among respondents from both national cultures, and, that entrepreneurs can use the concepts of dynamics of online appearance in the same intensity in both markets. The aim of this paper is to enable entrepreneurs to better manage their activities on the social network Facebook through, both the support of the existing literature and the data obtained from empirical research in order to achieve their entrepreneurial goals in different cultural contexts.

Keywords: Facebook, intensity of use of Facebook, national culture, entrepreneurship

JEL Classification: M13, M31

INTRODUCTION

Today, the activities of the majority, both individuals and entrepreneurs, cannot be imagined without the use of social networks. In the age of the digital economy, social networks are experiencing significant growth [1]. In addition to being a socialization and entertainment service, Facebook is also a significant business tool. It is used by many companies which create communities of users, thanks to Facebook, that gather around their pages through which companies present their products and services. It is also an exceptional source of information potentially relevant for business, business activities and marketing campaigns [2].

The users of social networks are all people on planet Earth, from teenagers, students and millennials to business people and intellectuals [3]. Social networks are profoundly transforming the way customers use the web, thereby causing business changes for entrepreneurs and small and medium-sized enterprises (SMEs).

Although social networks provide favourable marketing channels and thus are suitable tools for resource-constrained firms, some entrepreneurs and SMEs are still questioning their credibility and sustainability [4].

The motive of the research is to provide entrepreneurs, who use the social network Facebook for business and promotional purposes, insights on the intensity of Facebook usage among respondents from individualistic and collectivistic national cultures in order to provide them with a clear indication of whether they need to adapt their business and promotional strategies on Facebook to customers from different markets or not. The subject of this paper is the intensity of using the social network Facebook on a daily and weekly basis in the context of two national cultures, a collectivist national culture to which the Republic of Serbia belongs, and an individualistic national culture to which the United States belongs. This issue is tested through valid set up hypotheses, in line with the previous literature review, which are proven. Methodology for data collection refers to an online survey, as a tool for data collection. Data processing methodology refers to data analysis using Excel and SPSS for Windows 17.0. Data were analysed by the following statistical methods: Descriptive statistics (arithmetic mean, standard deviation) and Group comparison analysis. The social justification of this paper is reflected in the actuality of the research itself, given that we are witnessing an information and communication revolution. The justification of the paper is also reflected in the lack of similar researches on the territory of the Republic of Serbia.

APPROACH TO THE FACEBOOK AS A NEW MARKETING TOOL FOR ENTREPRENEURS

The phenomenon of Facebook is reflected in a growing number of academic articles. This topic has aroused interest among scholars in various disciplines such as law, economics, psychology, sociology, information technology, and the scope of research is growing rapidly [5]. Everyone is on Facebook, from the youngest to the oldest, from the technologically most literate to those without extensive

technological knowledge [6]. The social network Facebook is the most used social network globally, which is accepted by citizens from 180 countries of the world [7]. Social network Facebook, in addition to Instagram, Twitter, LinkedIn, belongs to the category of social network that allows its users to create online profiles and build social relationships with other people, also users and owners of their profiles [2].

Besides serving socialization and entertainment purposes, Facebook is a popular tool in the field of promotion and marketing [2]. It is recognized that social networks can be significantly used as a means of communication on the Internet, but they can also be a great tool for viral marketing. Today, social networks are a special distribution channel in marketing, for spreading all the necessary information to all target markets of companies [8].

Many marketers have started advertising campaigns on social networks, not only because of the large audience, but because social networks allow very specific targeting of selected individuals who fall under predefined characteristics [9]. The average time spent on Facebook is between 60 and 120 minutes with younger users [10].

Raacke and Bonds-Raacke (2008) conducted a survey on 116 students who had accounts on various social networks, including Facebook. They spent an average of 3 hours a day communicating or sending messages [11].

The position of small and medium-sized enterprises (SMEs), or entrepreneurs, is quite interesting from a social media marketing perspective and is worth exploring, especially as social media channels are considered as “affordable” marketing tools [12] for entrepreneurs, SMEs and companies with limited resources. This perspective has given rise to a rich literature devoted to marketing practices in small and medium-sized enterprises. Several characteristics have been identified as influential in SME management and marketing strategies [4]. First, SME size is considered to be a salient and distinctive feature that has an important impact on SME management and marketing strategy development [13]. Second, since SME owners hold great power and a central position in SMEs [14]. Their ability to develop personal contacts is crucial to the firm [15, 16]. In fact, given the informal SME marketing style, networking is considered to be an efficient strategy for environmental scanning activities [17] collaboration [18] cooperation [19, 20].

Networking refers to the use of a variety of networks [20] such as personal contact networks, business networks, and marketing networks. Given these specificities and limitations, SME marketing can indeed be described as “haphazard, informal, loose, unstructured, spontaneous, reactive, built upon and conforming to industry norms” [21].

The efficiency of marketing procedures in SMEs should be understood with respect to a relational marketing view [22]. Entrepreneurial marketing is an “organizational function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit both the organization and its stakeholders, and that is characterized by innovativeness, risk-taking, pro-activeness, and may be performed without resources currently controlled” [22]. Internet social networking offers more

possibilities for SMEs to develop their marketing actions and reinforce their visibility in the market [4].

Marketing has shifted from a transactional conception to a relational one, mass production has been greatly replaced by the customization of products, and interactive marketing has become far more prevalent than direct marketing [23].

The social media are growing rapidly and having a significant impact on business and marketing practices. SMEs and entrepreneurs can now manage customer relationships online [24] which puts great pressure on them to find the best ways of coping with all these new consumer relationships. Publications have also shown interest in investigating the effects of user-generated content on entrepreneurial behaviour [25]. In order to know how to do this, they need to be familiar with some of the patterns of consumer behaviour on social networks.

PREVIOUS RESEARCH ON FREQUENCY OF USING FACEBOOK ON A DAILY AND WEEKLY BASIS IN SOME EU COUNTRIES AND IN THE U.S.

When it comes to the frequency of social networking use, authors who have studied it [26, 27, 28, 29, 30, 31, 32, 33, 34]. argue in their research that social networks are used by younger population on a daily basis. So, in the US, for example, 100% of students were shown to use social networks almost daily [35] which is also related to research conducted through a population-based survey by the US *Pew Research Center*, which has found that young people in the US (18-25) use one of the social networks on a daily basis, at least once or several times a day [36]. In the European continent, a survey on the frequency of social networking use was conducted in Germany in 2012 among 774 German students where more than half of the respondents were found to be accessing their Facebook account on a daily basis [36].

In addition to daily logging in to social network accounts, the frequency of using social networks also includes the number of logins to social networks during the day as well as the average time spent on social network usage. Mazman and Usluel argue that in one European survey involving 606 respondents, mainly younger population (between 18 and 25 years old), more than half of the respondents were found to be accessing their social media accounts several times a day, dozens accessing their account at least once daily while dozens of respondents access their social media accounts several times a month [37, 38, 39]. *Pew Research Center* presents another survey by Princeton University's International Research Center on a sample of 1597 Internet users conducted in 2014 using a combined omnibus survey, which yielded the following data on the frequency of use of social networks, presented in Tab 1.

Table 1. Frequency of usage of certain social networks in the USA [40]

Social network	Daily access	Weekly access	Less frequent
Facebook	70%	17%	12%
Instagram	49%	24%	26%
Twitter	36%	24%	40%
Pinterest	17%	29%	52%
LinkedIn	13%	25%	61%

As shown in Tab. 1, we can see that in terms of frequency of use of social networks in the US, on a daily basis, the social network Facebook is leading, followed by social networks Instagram, Twitter, Pinterest and LinkedIn. On the other hand, when it comes to weekly use of the social network Facebook, the frequency of use is lower (17%) compared to the daily use (70%), and there are also differences in the weekly use of Facebook (17%) compared to the remaining social networks Instagram and Twitter (24%), LinkedIn (25%), and Pinterest (29%). It tells us that the social networking site Facebook is more used on a daily basis in the US while the social networks Instagram, Twitter and LinkedIn are used more on a weekly basis in the US.

When it comes to the age structure of social network Facebook users, one study shows that a predominantly younger population uses network intensively. The intensive use of social network Facebook is reflected in many studies, one of them is a study of Charlene Li. According to Charlene Li (2017), 60% teenagers use social network Facebook daily or more frequently, 17% 2-3 times a week, 13% weekly, 10% monthly. Furthermore, 68% of young adults (18-21) use the social network Facebook daily or more frequently, 16% use 2-3 times a week, 10% weekly and 7% monthly.

For the adults above 21 the research show that 42% use the social network Facebook daily or more frequently, 21% 2-3 times a week, 13% weekly and 24% monthly [41].

METHODOLOGY

Using literature review as a basis and in the absence of similar research in the Republic of Serbia, we explore the following research questions:

- H₁: There are statistically significant differences in the daily intensity of use of the Facebook social network between respondents from Serbia and the USA.
- H₂: There are statistically significant differences in the weekly intensity of use of the Facebook social network between respondents from Serbia and the USA.

Data on social network Facebook was collected through an online survey over a three-week period in December 2019. The social network Facebook was chosen, which according to the existing literature was presented as the most popular or the most used social network in the world. Considering that this is an examination of the views of the respondents, users of social networks, coming from the territories of countries belonging to different national cultures, an appropriate sample was selected in relation to the set goal and hypotheses of the research. Given that previous theoretical research had shown that users of social networks are all people on planet Earth regardless of gender, age, education level, income, and the nature of the work they do, the sample was made random in order to collect the respondents' views as comprehensively as possible.

The planned sample was supposed to include 100 respondents from the territory of the Republic of Serbia and 100 respondents from the US territory, which would have total 200 respondents, but after elimination of the incompletely filled out survey the sample was reduced to 98 respondents from the territory of the Republic of Serbia and 96 respondents from the USA, which finally makes up 194 respondents in the total. The sample was designed numerically to avoid and overcome all limitations in terms of physical distance, availability of technical equipment to conduct the research, required permits to conduct the research, and any other possible research restrictions that were foreseen by the author. The questions in the survey are identical for both groups of respondents. The survey consists of two parts. The first part of the survey includes questions concerning the socio demographic characteristics of the respondents (gender, age and education), and in the second part of the survey consist of questions whose answers would contribute to accepting or rejecting hypotheses H_1 and H_2 .

The data obtained using the tool described above were analysed using Excel and SPSS for Windows 17.0. Data were analysed by the following statistical methods: Descriptive statistics (arithmetic mean, standard deviation) and Group comparison analysis.

RESEARCH RESULTS

The socio demographic data of the respondents are shown below.

Table 2. Respondents' gender structure

		Gender		Total
		Male	Female	
Group	SRB	27	71	98
	USA	36	60	96
Total		63	131	194

Source: Authors' calculation

The sample is not gender balanced, with the majority of respondents in both groups being female respondents.

Table 3. Respondents' age structure

Group	AS	N	SD	Min	Max
SRB	27.88	98	6.113	19	44
USA	32.46	96	9.765	17	69
Total	30.14	194	8.425	17	69

Source: Authors' calculation

The average age of the respondents on the total sample is 30.14 years, SD=8.42.

As shown in Tab. 3, the age range is somewhat different in the two groups – the respondents from Serbia are on average slightly younger AS=27.88, SD=6.11, and the age ranges from 19 to 44 years, while the US' respondents mean age is 32.46 years, SD=9.76, age range from 17 to 69 years.

Table 4. Respondents' education structure

Level of education		Primary school	Secondary school	College and faculty	Total
Group	SRB	0	12	86	98
	USA	1	7	88	96
Total		1	19	174	194

Source: Authors' calculation

The sample in both groups is made up mostly of respondents with higher education. In order to check whether there are statistically significant differences in the number of visits to the social network Facebook on a daily basis between users from Serbia and the USA, a chi-square analysis was performed. The distributions of the respondents from both user groups as well as the results of the analysis are shown in Tab. 5.

Table 5. Number of visits to the social network Facebook on a daily level

		FB-number of visits a day				Pearson's chi-square test	df	p
		0	1 daily	2-5 times daily	More than 5 times daily			
SRB	N	0	29	32	31	23.130	3	.000
	%	0.0%	31.5%	34.8%	33.7%			
USA	N	5	9	55	22			
	%	5.5%	9.9%	60.4%	24.2%			

Source: Authors' calculation

According to the results of the chi-square test, there are significant statistical differences in the number of visits to the Facebook social network between respondents from Serbia and the USA, more than half of the respondents from the USA visit Facebook 2-5 times a day, while users in Serbia are relatively evenly distributed in three groups (once daily, 2-5 times daily and more than 5 times daily).

In order to check whether there are statistically significant differences in the number of weekly visits to the Facebook social network between users from Serbia and the US, a chi-square analysis was conducted. The distributions of the respondents from both user groups as well as the results of the analysis are shown in Tab. 6.

Table 6. Number of visits to social network Facebook on a weekly basis

		FB-number of visits a week				Pearson's chi-square test	df	p
		0 days	1-3 days	3-6 days	daily			
SRB	N	0	7	24	61	6,199	3	.102
	%	0%	7.6%	26.1%	66.3%			
USA	N	4	7	15	65			
	%	4.4%	7.7%	16.5%	71.4%			

Source: Author's calculation

The difference in the intensity of use of the Facebook social network between the respondents from Serbia and the USA, as countries of different cultures, was operationalized for the social network Facebook through two indicators: average number of visits to the social network during one day, thus testing the validity of the hypothesis H₁: There are statistically significant differences in the daily intensity of use of the Facebook social network between respondents from Serbia and the USA and the average number of visits to the Facebook social network on a weekly basis, which tested the validity of the hypothesis H₂: There are statistically significant differences in the weekly intensity of use of the Facebook social network between respondents from Serbia and the USA.

The socio demographic characteristics of the respondents (primarily referring to the age of the respondents) largely coincide with the previously conducted research that we refer to in the paper. More precisely, research shows that the Facebook social network is more widely used among the younger population (up to 30 years of age), as well as among highly educated respondents. The study is dominated by female respondents who use Facebook to a greater extent. However, compared to previous research, users of the social network Facebook are members of both genders alike.

According to the results of the chi-square test, most users from both countries visit this social network on a daily basis, therefore there are no significant statistical differences in the number of weekly visits to the Facebook social network between respondents from Serbia and the USA.

The results of the chi-square test showed that there are significant statistical differences in the number of daily visits to the Facebook social network between respondents from Serbia and the USA. More than half of US respondents visit Facebook 2-5 times a day, while users in Serbia are relatively evenly distributed in three groups (once, 2-5 times and more than 5 times a day).

CONCLUSION

The social network Facebook proved to be the most popular and the most used social network. According to the socio demographic characteristics of the respondents it is more used by female members, younger generations and highly educated respondents. When it comes to the frequency of Facebook use on a daily and weekly basis, the empirical research in this paper coincides with some of the previous studies conducted in the US and some European countries, with an average use of 2-5 times a day to more than 5 times during the day. Further analysing the frequency of Facebook use on a weekly basis, the differences are almost non-existent. In both user groups, we can see that the vast majority of respondents use Facebook all seven days a week, therefore daily.

This data can serve entrepreneurs and SMEs who intend to use social networks in their marketing practices given the high frequency of usage, so entrepreneurs and SMEs are strongly recommended to use Facebook for marketing purposes all seven days a week. Campaigns can be organized several times during the day, given that visibility would be high or equivalent to the daily number of visits to Facebook by users in both cultural patterns.

The lack of research is reflected in the insufficient number of respondents, and the construction of a larger sample is proposed as a direction for further research.

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ORIGINAL RESEARCH PAPER

**CLV MODEL APPLICATION IN BANK CLIENTS' PROFITABILITY
PROJECTION PROCEDURE**

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ABSTRACT

Nowadays, bank clients' profitability analysis represents a new field and modern tendencies in various disciplines such as accounting, finances and especially marketing. Bank clients' actions, methods and measures of value help managers anticipate the future profit level the banks will achieve. Among all available measures, the experts estimate that CLV – customer lifetime value is the most comprehensive and accurate measure of value for customers, thus bank clients, as well as largely future-oriented. The topic of research in this paper is to indicate that customer relationship marketing concept – CRM has proved very useful in banking, and it has become an important factor in competitiveness as well as the achievement of better business results. However, marketing can hardly help any bank achieve long-term profitability without the appropriate financial support. In this context, the research in this paper deals with the advantages in CLV concept application to bank client profitability projection, thus providing long-term profitability feedback for the bank. CLV concept has accelerated necessary marketing and financial activity integration. CLV is the link connecting these two interrelated and mutually dependent business functions, introducing a multidisciplinary approach to bank clients' profitability projection.

Keywords: *banking, finance, marketing, profit, CLV model, customers*

JEL classification: *G21, F65, G32, M31*

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INTRODUCTION

Bank customers, that is, clients' assessment is nowadays a modern and important trend in various disciplines such as accounting, finance and especially marketing. The inefficiency of classic marketing lies in the fact that marketing experts avoid financial responsibility, and pay too much attention to marketing communications.

Contemporary customer profitability analysis introduces financial calculations into the marketing research domain, thus establishing a dialogue between marketing and finance. It does not diminish the significance of traditional marketing activities, but clearly emphasizes that various marketing analyses should be conducted in a multidisciplinary way, with the aim of increasing the role of marketing for business subjects' competitiveness strengthening. Starting from the aforementioned statements, as well as the research topic in this paper, we have established the basic hypothesis that bank profitability can be increased if the choice of the most valuable clients is performed using CLV model, which actually starts from the foregoing statements.

Customer value assessment is not directed towards their past, but current and future value. On the basis of business activities of the banks, we can notice more frequent application of marketing in banking. However, without the appropriate support of finance, i.e., financial sector, marketing can hardly help the bank achieve long-term profitability. In this context, CLV concept illustration indicates interrelations and mutual dependence between marketing and financial dimensions of the banks. The paper is organized in order to point out CLV model definition and application as an indicator of future customer profitability in its first part. The second part of the paper refers to alternative procedures in the CLV measures. The third part is the final and fundamental component of the paper related to future changes in CLV value projections.

RESEARCH METHODOLOGY

There are several approaches to the methods that can be used in customer, i.e., bank clients' value assessment procedure. The analyses indicate that customer lifetime value – CLV is the most accurate and comprehensive measure of bank clients' profitability. One of the models used in profitable segment identification, referring to RFM. "RFM models describe customer behaviour based on three variables of customer past buying behaviour or prior purchases: recency (time since the last transaction), frequency (number of transactions during a time period of calculation) and monetary value (of transactions)". RFM models provide enough statistical rigor to serve as a basis of CLV model [1]. References mention Return on Customer – ROC, most frequently as an indicator enabling a company, that is, bank in the case considered, to realize the aggregate changes in CLV over a time period. As an indicator, ROC involves the current as well as future cash-flow (or profit) for all clients. Considering that CLV model requires a multidisciplinary

approach to research, ROC cannot completely replace various financial measures for bank business success.

Production, as well as service organizations, as in case of the banks, usually choose a comprehensive indicator, as a long-term success indicator. In the past, it referred to the ROI performance measures or return on capital employed – ROCE [2]. Nowadays, companies or banks mainly employ a management criterion based on value, such as EVA – economic value added, CFROI – cash flow return on investment, and discounted cash flow variations [3]. In addition to the calculation of added economic value, market value added is calculated, since there is a correlation between them. In this context, weighted average cost of capital (WACC) calculations are also presented, which also reflect the set financial goals, with an effort to improve the business (profit through WACC), with existing and new customers, i.e., clients. According to the financial theory, the Weighted Average Cost of Capital (WACC) is the method used to discount customer cash flows [4].

DEFINITION OF CLV AS CLIENT PROFITABILITY INDICATOR

During the last ten years there was an expansion in methodological approach to customer research in services, especially in banking. Banks are good examples of service organizations implementing CRM concept, possessing databases on their clients. Client database creation and its regular update is a prerequisite for the application of the methodological approach in client satisfaction and loyalty with the aim of increasing their profitability, as well as bank value increase based on that. The prerequisite is that a bank creates and delivers superior value for its clients, thus increasing the bank's competitiveness. In addition to the bank having a good knowledge of its clients in order to be able to assess the risk when lending or doing any other business, it is also important that the banks notice those elements of service offers representing value source for clients. This is the way the banks have a chance to create and deliver added value for the clients.

A specific trait for all modern corporations, as well as the banks, is that the process of value creation is not set on the basis of the traditional formula starting with input and ending in output. A bank creates value for clients within a two-way interactive process between input and output. The input for output creation comes from the interaction with the bank clients. It indicates that when a bank creates superior value for a client (in terms of its offer package), it also generates simultaneously the knowledge from its output, that is, value created for clients.

Therefore, this approach to value creation enables the increase in the bank's input value at the same time. This value creation perspective is based on the idea of mutual knowledge exchange, leading automatically to higher value creation for both sides. That is why banks based on knowledge pay a lot of attention to customer relationship management – CRM. The aim of customer relationship management is the establishment of long-term and profitable relationships [5].

Thereby, as follows, an important measure of efficient customer relationship management is customer lifetime value (CLV). In reference to that, it is important

to emphasize that an individual customer or client value is not assessed only on the basis of his/her previous contributions to the company. Customer value assessment should apply those measures that are future-oriented, as well as directed to present and future customer value. Therefore, customer value projection is one of the key activities for marketing-oriented companies. Customer value should be based on their contribution to the corporation or bank throughout the complete period of business cooperation with the bank. The above-mentioned statements require the introduction of such a measuring system that will be able to assess the future customer profitability.

There are a number of customer or client lifetime value definitions. Most of them are given in determinants expressed in an implicit form, while a small number of definitions consider customer value in an explicit form. However, a common feature is that they all contain the same or similar components in their final form, so customer or bank client's lifetime value can be defined on that basis, and his future profitability assessed. If we adapt the CLV definition given by Kotler and Keller [6] to the bank activity, i.e., its relationship with clients and individual customers, then it would reflect "future profit flow net present value expected from the long-term transactions with clients during the lifetime of their cooperation with the bank". Kumar [7] provided a more accurate and comprehensive criterion for future client profitability assessment, defining CLV – customer lifetime value as "a sum of cumulative cash flow brought to the corporation by a certain customer, discounted using weighted average cost of capital during customer lifetime cooperation with the corporation". In the case of a bank, CLV considers customer's total financial contribution, i.e., it includes the expected future income and costs, customer retention rate, discount rate.

Starting from this approach and CLV measurement method, "Kumar succeeded in profitability improvement for some pharmaceutical companies up to 35%". CLV application in many companies improved their profitability. Accordingly, we can state that the application of the above-mentioned approach and method in CLV measurement could also improve bank profitability. However, there are other authors' views, such as Peppers and Rogers [8] who think that a better solution is "to look at future cash flow instead of profit when calculating CLV".

With regard to the above-mentioned definitions, according to Chan [9], CLV can simply be understood as current value – CV, potential value – PV and customer loyalty function. If we start from the definition above by CLV calculation, it is necessary to take into account the present, as well as future profitability. Speaking in monetary terms, a certain number of monetary units will not have the same value in the future in relation to the present, which includes monetary time value in the analysis. It can be achieved through the application of the appropriate discount rate, which turns the considered future monetary amount into the present value. CLV calculating procedure also includes a well-known marketing component "individual customers and clients retention rate". This is especially due to the fact that there is a possibility the clients will stop using bank services at some point due to poor quality, high interest rates or more favourable service offer packages provided by competition under the same conditions.

Comparing CLV with some traditional profitability criteria such as past customer value, share of wallet or RFM model, Kumar and Shah [10] think that CLV is a modern way of measuring profitability, considering that it includes a large number of determinants in the analysis. Intuitively, firm managers can apply rules (conventions) based on the RFM amount of past purchases in order to decide whether or not a customer is still active. However, individual bank customer or client past value based on profit is profitability indicator in the past time period. If we consider bank value at any given moment, it is necessary to assess its value on the basis of client current and future profitability. With regard to that, bank client profitability can only be one of the parameters in future profitability projection and bank value anticipation in the long-run. As stated by Keiningham [11], CLV considers past behaviour and extrapolates it into the future in order to assess future profitability. With regard to RFM, CLV is more future-oriented. Kumar [7] conducted some comparative research in this context.

According to the research, “a corporation can increase profitability up to 60% if it makes a choice of 20% most valuable customers using CLV, not some other criteria”.

According to Stahl *et al.*, [12], CLV calculation is based on the following value determinants for corporations:

- basic potential – cash flow the corporation achieves through product or service realization;
- growth potential – cash flow the corporation realizes through cross-selling and increasing individual customer market share;
- relationship development potential – cash flow created as a result of the relationship development between the corporation and new customers;
- learning potential – cash flow created as a result of corporation employee knowledge accumulated through the development of marketing relationship with the customers.

The final component of bank value creation is especially important from the aspect of cash flow created as a result of employee knowledge. A client and individual customer are in the centre of all the activities in the banks based on knowledge. Value creation process is aligned with the clients' requirements.

Therefore, the banks with the business based on knowledge pay a lot of attention to customer relationship management – CRM. The aim of CRM is the establishment of long-term and profitable relationships with clients. The processes in this system of management are defined according to the acquisition stages, customer attraction and their retention.

The assessment of customer retention rate is an important issue because it represents the key parameter in CLV calculation. The other equally important key parameter for accurate CLV calculation is expected profit projection. Customer or client segment formation on the basis of CLV offers the opportunities for a bank to increase its profitability through the direction of the appropriate strategies towards each segment separately [7, 13]. In addition to profit brought to the bank by a client, client retention rate, bank value is determined by two more key factors: discount rate and customer acquisition costs.

It is clear from these statements that the initial profit from bank clients comes from the customer acquisition and retention process. In fact, these two processes predetermine client value. In this context, bank or corporation value is created on the basis of profit, current and future cash flows from its clients. In their paper, Gupta and Lehmann [14] provide a vivid illustration of mutual connections between financial and marketing activities in company value creation.

“Traditionally, future profit assessment is the activity taking place under the sector of finance domain. Financial analysts were in charge of future profitability assessment, cost structure establishment and the appropriate discount rate. On the other hand, marketers’ activities were reflected in customer demand identification as well as the creation of high-quality programs for the increase of their satisfaction and loyalty. While marketers were engaged in customer value creation, financial analysts were dealing with company value assessment”. In this context, CLV concept and methodological approach imposed the necessity of the integration between marketing and financial dimension in value creation for every company, banks included. On the basis of these information acquired through CLV measurements, the impact of marketing strategy on company value can be determined more explicitly and accurately.

CLV MEASUREMENT MODEL

A large number of recognized authors [6, 7, 14] made significant effort to find a model providing opportunities for the most accurate measurement of profitability value for all clients, bank clients included. In time, there have been valuable improvements in CLV measurement procedures. In this context, we can single out aggregate and individual approach to CLV measurement. In aggregate approach, CLV is calculated as an average of all customers’ lifetime values representing the given segment. In that context, CLV is obtained through the division of the sum of all customers’ lifetime values belonging to the same segment by the number of customers in the given segment. If we consider it separately, on the individual level, CLV is calculated for each customer. According to the illustrations in the papers by Kumar [7], as well as Gurau and Ranchhod [15], stages, that is, the course of the procedure for CLV measurement are depicted. They illustrate vividly CLV measurement procedure, typical for the aggregate approach, according to the model of average CLV calculation for an individual customer, i.e., in case of a bank, a client belonging to the specific segment. According to the illustration mentioned, two key initial elements in CLV calculation are average gross contribution margin per client and the amount of average marketing expenses. Two important elements in CLV calculation procedure, as we can see in the illustration, refer to new customer or client acquisition (the cost of their acquisition) and retention of the existing customers, i.e., clients.

The basic parameters illustrated by the aforementioned aggregate approach in individual client average CLV measurement can be calculated using the formula originally provided by Kumar [7]. Estrella *et al.*, [1] also illustrate the given relation in detail:

$$CLV_1 = \sum_{t=0}^T \frac{(GC-M)}{(1+d)^t} \cdot r^t - A \quad (1)$$

where GC – average gross contribution margin; M – marketing costs per customer (client); d – discount rate; A – acquisition costs per customer (client), i.e., new customer (client) acquisition; r – customer (client) retention rate, i.e., the customers will repeat purchase, that is, clients will repeat service in the given entity; t – time period.

According to the model [1, 7], when it comes to individual customer average CLV it is necessary to calculate average gross contribution margin per customer, i.e., client, as well as marketing average amount and acquisition costs per customer, i.e., new bank client acquisition. Discount rate is determined on the basis of the characteristics of each bank, as well as the environment where it operates. It is necessary to include the inflation rate, as well as bank and activity risk [2] for the needs of discount rate determination. Individual customer, i.e., client retention rate can be determined as an average value for the complete segment, and it can be considered as a constant value during specific time period. Therefore, it is necessary to know retention rates from the previous periods in order to use their analysis and future trend prediction for the projection of the rate in the specific future time period.

In the individual approach, CLV is not derived as an average, but calculated according to the model listed above [1, 7] for each client separately. In that context, individual customer value measurement represents the function of the expected profit, client tendency to continue the established relationship with the bank and future marketing resources related to client retention in the bank. The above stated hypotheses can be expressed in the following relation, originally illustrated by Kumar [7]:

$$CLV_i = \sum_{t=0}^T \frac{(FCM - FC)}{(1+d)^t} \cdot r^t \quad (2)$$

FCM – future contribution margin; FC – future costs;

Unlike the previous model, Gupta and Lehmann [16] provide a model for individual client CLV measurement which can also be applied in case of a bank client. This is the case when customer, i.e., client lifetime value is discounted future net cash flow (profit) from customers, that is, bank clients. It is, consequently, most frequently determined according to the well-known formula expressed in the following relation [16]:

$$CLV = \sum_{t=0}^T \frac{(p_t - c_t) r^t}{(1+i)^t} - AC \quad (3)$$

P_t – price paid by the customer in time t ; c_t – direct costs of serving customers, that is, bank clients in time t ; I – discount rate, i.e., entity, i.e., bank capital costs; r_t – probability that the customer or client will “purchase” again in that entity, that is, the client will be “alive” in time t ; AC – acquisition costs, i. e., new client acquisition; T – time horizon for long-term individual customer or client CLV assessment.

The aforementioned model [16] is illustrated in detail by Komnenić and Lukić [5] in the specific example of a company operating on business-to-business principle.

They state the following as important customer lifetime value sources: past consumption level, that is, customer service usage; cross-purchase, that is, service behaviour; purchase or service usage frequency, recent service purchase, past purchase activity and company marketing contacts. “More efficient management of these sources considerably influences the increase of customer lifetime value as a modern key indicator of the company’s total performances. It has a further positive effect not only on income increase, but cost reduction and increase in return on (marketing) investment”. In this context, the authors mentioned [5] illustrate the listed model on the basis of customer lifetime value calculation. The implementation of thus illustrated management process allows it for the bank to approach the building of relationships with its clients in a sensible and systematic manner. Various procedures, techniques and methods for client capital performance measurement are applied in this process, used to monitor the bank’s ability to develop close and long-term relationships with clients, gain their loyalty and increase the level of their satisfaction. The information obtained in such manner serves the bank to determine the contribution that the client’s activities directed towards his own satisfaction have for value creation process, as well as the bank value increase.

David Packard, co-founder of Hewlett-Packard Company, said, according to Kothari and Barone [17]: “Profit is not the true goal and purpose of management – it actually means that it makes all the right goals and purposes achievable”. The true purpose of a company (in this case a bank) is to create value for its individual customers or clients, and make a profit as a result [18]. Considering the process of value creation for customers or clients, and higher value for business entity based on that, the role of accounting in competitive advantage creation in retail, Lukić [19] states: “The system of strategic cost management creates strategic information, financial and non-financial in nature. In the past, performance financial measures were in focus, as well as sale and profit growth, cash flow and stock price. Unlike all that, strategic success measures are in the main focus of company strategic management in modern business environment, many of them

being non-financial measures of successful business”. Furthermore, it is stated that customer lifetime value – CLV is a significant efficiency measure of customer relations management.

THE PROCEDURE OF FUTURE CHANGES IN CLV PROJECTION

Three main types of approach [1] can be singled out, that is, applied in individual bank customer or client profitability projection procedure on the basis of theoretical approach and the results of empirical research. The first one pursues only the analysis of the Customer Profitability – CP [20], the second one pursues the analysis of the Customer Lifetime Value – CLV [21], and the third one pursues the analysis of the Customer Equity – CE [22]. Zeithaml *et al.*, [23] determine, CLV and CE provide good basis to assess the market value of a firm; on that basis, they create value for customers improving their profitability, and therefore the company’s financial performances. Unlike CLV, CE indicator represents the sum of lifetime values of all current and future customers.

When it comes to the comparison between CP and CLV, certain questions arise. In case of Customer Profitability – CP:

Is an arithmetic calculation of revenues minus costs for a specified period of time [24]; This measure is calculated on a single period basis, usually the last economic year [25];

Is an accounting summary of events from the present and the past. Is not forward looking [24; 26].

In case of Customer Lifetime Value – CLV:

Is the present value of future cash flows [24];

This measure needs several time periods of data to be calculated [25];

Is forward looking, for this reason CLV is a more powerful measure than historic CP analysis; CLV looks at the future potential of the customer [24, 26].

CLV application is particularly useful from the bank aspect because the client profitability projection procedure provides the bank with useful information about its most valuable clients. This is the way to identify the segments that will receive special attention in the future. In this context, a bank should not treat its clients in exactly the same way, but depending on the value the clients bring to the bank.

Based on that, the bank can design various strategies for different bank client segments. So called customer, that is, bank client lifetime value is a very good criterion for the implementation of such segmentation.

There are several approaches to the methods used in the procedure of CLV future changes projection. References mention Return on Customer – ROC most frequently as an indicator that makes it possible for a company, therefore a bank as well, to consider CLV aggregate changes in time. As an indicator, ROC includes current as well as future cash-flow (or profit) of all customers, not just specific individual customer. Thereby, current cash-flow increases for the change in discounted future cash-flow during certain period of time. The increase is reported

as a percentage in discounted cash flow value at the beginning of the period observed [8]. On the basis of the statements above referring to ROC, we can ascertain that it is similar to customer equity indicator – CE. As stated by Marinković [27], who conducts CLV research in detail and certain parts are used in this paper, the basic difference between ROC and CE is that ROC does not show the total discounted future cash flow over time, but it is directed towards measurement changes in future cash flow in consecutive time intervals. In order to follow these changes, a bank should predict its clients' future behaviour on the basis of the currently available information. Therefore, it is necessary to be familiar with key factors with affecting CLV formation and change. Adjusted to Peppers and Rogers [8], all factors affecting CLV changes can be classified into four categories:

- CLV initiators (customer retention rate, acquisition costs, profit, discount rate);
- the changes in customer, that is, client lifestyle according to the data on their demographic characteristics (education level, jobs, family changes, etc);
- customer or client behaviour (the analysis of transactions with banks, bank website visits, number of calls to call centers, filed complaints);
- customer or client attitudes. It is important to determine the satisfaction level, willingness to recommend bank services to others, as well as their intention to continue using these services in the future through the examination of bank customer or client attitudes. Customer satisfaction and loyalty measurement, as a bank brand, is an important activity in modern approach to customer research.

As we have already mentioned in the methodological part of this paper, ROC cannot completely replace various business success financial criteria. Nowadays banks, as well as other companies, usually choose one comprehensive indicator as a long-term success indicator. It refers especially to economic value added (EVA).

In addition to economic value-added calculation, market value added is also calculated, since there is a correlation, (logical) connection between them [3].

WACC – weighted average cost calculation is also presented within this context, reflecting set financial goals with the tendency to improve business (profit through WACC), using the existing and new customers, that is, and bank clients.

The perspective of creating this connection relationship between financial and non-financial dimension in bank added value creation can be achieved through client demand identification and high-quality marketing program creation in order to increase their satisfaction and loyalty [28].

Since ROC indicates the need for CLV monitoring in consecutive time intervals, it enables value assessment in future marketing actions implementation. ROC helps the bank identify profitable clients and form various strategies for various segments. This is the way that ROC implementation distinguishes segments with higher profit potential more clearly. The bank will concentrate its

resources on the segments with the highest ROC values. It is very important from the aspect of the bank's financial perspective. Its implementation enables the bank not only to project its future profit, but acquire more accurate insight into the confidence level of its clients. This is the way that ROC stands for a criterion providing, among other things, the opportunity for a bank to analyse marketing actions effects on business results. Marketing managers will be directed towards value creation for customers that contributes to their profitability and future.

Customer profitability measurement and projection is an activity giving customer or service user perspective an additional and new dimension.

In the specific case of a bank, this is the way to establish a mutual connection between marketing and financial dimension in the function of the creation of the superior value for a client, thus increasing bank profitability in the long-run [29].

Bauer and Hammerschmidt [30] give a key statement, despite the fact that the assessment of customer is an important trend in various disciplines such as accounting, finance and especially in marketing, multidisciplinary approach is needed to complement the models developed to date, establishing a dialogue between marketing and finance.

CONCLUSION

CLV implementation is especially useful from the bank aspect because it provides useful information on who are the most valuable clients in the bank client profitability projection procedure. This is the way to identify those client segments that will receive special attention in the future. In this context, the bank should not treat all its clients in the same way, but it should do it depending on the value the clients bring. More valuable clients should be treated in special ways in order to retain them, thus enhancing profit production and increase the profitability of a bank. However, less valuable clients should be offered a product or service that is less costly to provide.

This is the way the bank will concentrate its resources on the segments that possess the highest ROC value. The aforementioned data result in an important statement that the predictions about CLV are an important input to target clients for special treatment, which is a central operational tactics of relationship marketing.

Therefore, on the basis of the research presented in the paper, we have two important suggestions: first, the present value of future cash flows over time is the most suitable technique to calculate the numerator of the CLV formula (i.e., monetary value that each customer or client brings to the bank) and second, WACC is also the most appropriate method to get the client cash flow discount rate. On the other hand, despite the fact that the assessment and bank client profitability projection is an important and modern trend in various disciplines such as accounting, finance and especially marketing, multidisciplinary approach is needed to complement the CLV models developed to date, establishing a dialogue between marketing and finance. On the basis of the foregoing statements and presentations in this paper, we have confirmed the hypothesis that CLV is the most comprehensive and accurate value and bank client profitability projection criteria

among all available. According to that, bank profitability can increase if CLV model is implemented in the choice of the most valuable clients.

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SCIENTIFIC REVIEW

ANALYSIS OF FINANCIAL PRINCIPLES OF AN INSURANCE COMPANY'S OPERATIONS

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ABSTRACT

One of the most important conditions for an insurance company's operation is to secure and utilize the necessary monetary and other funds in the required amount in order to settle all liabilities properly - first and foremost to policyholders, then to suppliers, employees and the state. Insurance companies, as one of the most important links in the chain of social reproduction of financial flows, largely establish their success and development on the financial principles of operations. They rely on a multitude of factors, but are nevertheless based on the number, scope and extent of concluded insurance contracts, i.e. on the insurer's insurance portfolio.

In their operations, insurance companies must comply with several indispensable financial and economic principles: security, liquidity, productivity, cost- effectiveness and profitability. It is important to emphasize that the implementation of the stated principles in insurance companies is characterized by both the distinctiveness arising from the peculiarities of the insurance business itself and the lack of general agreement on the manner of its expression.

The subject of the research in this paper will be precisely the principles that characterize the financial side of insurance companies' operations, regardless whether they are engaged in life or non-life insurance operations.

Keywords: *Business and Financial Analysis, Insurance, Audit, Liquidity*

JEL Classification: *I21, G10, G22, G33, M42*

INTRODUCTION

The safety or security of conducting business with numerous policyholders is one of the essential financial principles of an insurance company. In order to gain full security in the insurer's work, insurance conditions and premium price lists are fully built on the scientific grounds from theoretical assumptions – the laws of large numbers, probability calculus and numerous statistical and mathematical models.

When looking at a large number of cases, certain regularity in the occurrence of an event is developed. For instance, the number of fires in a country observed over a number of years indicates that it is approximately the same size: sometimes this number is larger, sometimes smaller, but one can determine some regularity in its recurrence. In this case, with a certain insurance company, if the number of observed cases is higher, it will indicate that the results are more accurate – it cannot be the same whether we have data on one or two portfolio insurances or fifteen thousand of them. This is the essence of the law of large numbers. [2]

By means of the law of large numbers, one arrives at the average i.e. the most expected value of the observed size. Its importance for the safe operation of an insurance company is extraordinarily high, as the uncertainty and coincidence of an insurer are transformed into regularity and legality. The law of large numbers is the basis of the probability calculus as the average occurrence, which is fortunately calculated by it, enables the perception of the number of such future occurrences.

The probability of occurrence of an event is defined as the ratio between the number of favourable prospects and the number of total prospects that exist with respect to its occurrence. Thus, the probability of getting the number 6 on one role of a dice is $1:6$. The probability calculus, along with the law of large numbers, represents the scientific basis of the insurance technique. It determines the likelihood of a certain danger, i.e., the degree of possibility of an insured event.

It is always necessary to consider that the results are of approximate size, however large the insurance portfolio might be. Only if the number of insurance contracts were infinitely large would the calculation provide the exact, mathematical value of the required size. Deviations from the calculated degree of probability also indicate some regularity in large series. Therefore, the defined percentages of favourable probability are subsequently modified by this legality with the assistance of this law. [11]

For an insurer to conduct business safely, creating a community of risks based on statistical and mathematical settings is not enough. One must also take into account that the excess risk, which the insurer cannot bear on its own, is transferred to other insurers, i.e., to reinsurers through co-insurance and reinsurance. In this way, the insurer's risk community is connected with the risk communities of other insurance or reinsurance providers. This can be defined as the external linking of danger communities. [14]

When considering security in insurance, spatial and temporal side of risk has to be taken into account persistently. The occurrence of individually large or devastating claims, as well as a considerable number of small claims, can put

insurers in such a position that they cannot fulfil the policyholders' liabilities. This notifies the insurer that they should keep only those risks which allow them the compensation for the caused damage by their own funds (or the secured ones).

In particular, the insurers have to ensure that their capacity – self-retention, is properly and expertly evaluated, and that everything which cannot be covered at a given moment is handed over to co-insurance or reinsurance. Thus, as the insured transfers the risks to the insurer, the insurer should also transfer the excess risk to other carriers. By properly determining their own risk-bearing capacity and transferring excess risk beyond their own self-retention to co-insurance and reinsurance, the insurer achieves the desired safety at work. In this way, the insureds are also fully protected. [3]

The development of science and technology has created vast material assets of great value, often centered in one place. Insurers are increasingly unable to cover such severe risks with their own funds, especially in insuring the industry. [17]

Frequently, reinsurance is the last solution in risk mitigation. The risk is distributed over a large number of people, sometimes over a very wide area – across multiple continents. Thus, severe risks that the insurer could not offset through indirect insurers, i.e., the reinsurers, become uniform and acceptable to all parties in the business.

Spatial risk mitigation is achieved through reinsurance by the reinsurer transferring the taken part to other reinsurers in the country and the remaining surplus is “exported” abroad. Hence, reinsurance is a real international business, which, as a rule, goes beyond national borders. It is said to be “without a doubt the world's largest sector of the insurance market”. [4]

Due to the particularities of the reinsurance business, there are certain expressions which are used infrequently, so it is necessary to explain them in more detail. Self-retention is one of the basic factors in determining which risk will reinsurance entail.

In case of large partial or total damage, self-retention represents that part of the risk which the insurer may cover from his/her own funds, as long as s/he does not become insolvent once the payment has been made.

The amount of self-retention depends on a number of factors and its calculation is the result of the actuarial services, but also the additional effect of a number of factors, such as: technical premium, security reserves, sum insured, probable maximum loss, etc.

Unlike large, well-developed insurance companies, small insurers, whose portfolio is still unbalanced, have to carefully determine self-retention for their own safety.

These insurance companies may be forced to put a much larger share of their capital at risk than more established companies do.

Properly calculated height of self-retention is of high importance. Very low self-retention for the insurance company means a large and unnecessary outflow of premiums into reinsurance, while very high self-retention carries the danger that by paying large damages, the company will fall into financial difficulties and become unable to meet liabilities. Self-retention is the name used for the part of the risk that

the insurer bears in proportional forms of reinsurance. On the other hand, in disproportionate contracts, the part borne by the cedant, i.e., the insurer, is called the priority. [10]

Probable maximum loss is the second factor, highly important to select when placing risks into reinsurance. In the professional world, this term is popularly called “PML” (Probable Maximum Loss). Namely, during a damaging event, the material good is almost never completely destroyed. In the worst-case scenario, there is usually at least some residual waste material left behind. The probable maximum loss is the upper amount of full damage that can be expected with almost 100% probability on one insured risk. Therefore, it is an economic determinant, representing the greatest damage to a particular insured facility or group of risk-bearing facilities that can be expected from certain experiences, expertise and knowledge of the technical and technological specifics of particular risks.

The assessment of the probable maximum loss determines the extent to which the reinsurer’s liability extends, thereby creating the conditions for the risk to be fully distributed. The first insurer (cedant) determines the share of his/her self-retention within the probable maximum loss and the remaining part is split between the reinsurers within the reinsurance plane.

Probable maximum loss is one of the basic determinants of reinsurance.

Therefore, its assessment is a very complex and professional task, especially in the case of expensive and complex imported equipment, equipment manufactured in several countries or obsolete equipment that is no longer manufactured. The assessment of probable maximum loss should be done by professional institutions or teams of various experts (engineers, economists, technologists, etc.), which are usually employed by the insurer.

As with self-retention, a proper estimation of the probable maximum loss is extremely important, as underestimating or overestimating the damage can have the same consequences as an error in self-retention assessment. Probable maximum loss is most often expressed in absolute numbers, but it can also be determined by percentages.

In order to prevent malpractice of insurers, reinsurers usually incorporate a provision for the wrong estimation of the probable maximum loss in the contract, since for a low estimation of the probable maximum loss, fairly small reinsurance premiums are paid, and with the occurrence of the damages a far greater amount is charged than the estimated value itself. Based on the contract provision, only a certain percentage of the estimation error can be recognized. [12]

Therefore, the safety of the insurer, i.e., the insurance company, represents the ability to compensate the insured for all the damages in number and amount, regardless of their individual and total amount. The principle of safety enables the insurer to successfully operate throughout a year even in the event of a very unfavourable movement of claims. It is particularly important for operations with very different amounts of insurance, as well as circumstances where excess amount of risk occurs, for example, in the insurance of ships, aeroplanes, large industrial and non-production facilities, etc. [1]

LIQUIDITY

Liquidity or solvency in insurance is the product of a well-designed market policy of an insurer, which is first of all reflected in the collection of insurance premiums.

But collecting a premium is just one of the solvency factors; this can also include co-insurance and reinsurance claims, and investment and improvement of quality insurance.

As a rule, the insurance premium is charged in advance for a specific insurance period, and damages for a large number of contracts occur from the first to the last day of the period for which the premium is charged. While it is not difficult to plan and determine the size of insurance premiums, it is very difficult and ungrateful to plan damages.

In market and stable economies, with a properly designed economic policy, the total as well as the insurer's payments should not be questioned. But when it comes to insurance companies in underdeveloped or developing countries, this often becomes a problem. One of the biggest opponents to the payment of insurance companies in developing countries, and therefore in our country, is undoubtedly inflation.

Price growth in itself represents a problem for every economy, and especially for the insurance industry. One can freely say that inflation has been present in our economic life for a number of recent years. It produces a devastating effect on insurance, directly affecting the solvency of each insurance company. To counter this, insurance companies utilize a variety of solutions, such as price adjustments or total liability limits.

With reference to inflation, it directly and indirectly affects many insurance businesses, such as: resolving claims, calculating insurance premium, generating income from insurance fund investment, providing the necessary amount of company reserves and shareholder dividend payments.

Given the impact of price rises, the financial position of insurance companies can very quickly shift from successful (profitable) to unsuccessful, putting the insurance company in a position to operate at a loss.

By the nature of its business and the principles of the insurance industry, the insurance company is obliged to maintain the payment and to timely settle the insurance benefits and all other liabilities it has. As a rule, it can deposit and invest its own funds, but on the condition that it provides solvency.

Illiquidity, which can be especially prevalent in developing countries, leads to bankruptcy in the worst case. To prevent this from happening, solvency can also be monitored using specially developed forms, the findings which provide sufficient advance notice to management to take appropriate action. [6]

The Law on Insurance and by-laws regulate the duty of an insurance company to take the necessary measures to preserve security i.e., investments with the aim not to jeopardize their real value and development of the company in fulfilling its obligations under the insurance contract and other liabilities, and to inform the supervisory authority thereof. [16]

The liquidity of the insurance company is determined and monitored starting from [10]

- cash flows and
- playability indicators.

Cash flow represents a relationship between two parties: the first one maintains all cash inflows from insurance, investment and other cash transactions (such as capital inflows or long-term and short-term loans). The second party maintains all cash outflows from insurance, investment and other monetary affairs (such as outflows on repurchasing the company's own shares, long-term and short-term loans, dividends paid, etc).

The solvency indicator implies the relationship between the solvency margin and the liabilities of the insurance company.

Within this framework, the following means of payment are considered:

1. Monetary resources, as follows:
 - cash in hand;
 - money in the official currency of the country in current business accounts that does not serve as security for the settlement of other liabilities;
 - foreign currency funds on current business accounts that do not serve as security for the settlement of other liabilities;
 - accounts receivable from a cashless payment account created through mutual debts and receivables;
2. Securities, as follows:
 - government securities;
 - other securities traded on the regulated market;
 - other securities;
3. Claims due within the next fourteen days from the date of determining the payment capacity of the insurance company, which are covered by the means of security of payment (check, backed bill, bank guarantee);
4. Unused portion of the indicative bank loans granted to the insurance company;
5. Certain expected inflows in the next fourteen days on the basis of insurance premiums and reinsurers' share of the insurer's claims.

Liabilities of an insurance company are considered to be due liabilities and liabilities that mature within fourteen days from the date of determining the payment indicator and which are determined on the basis of regulations, insurance contracts, actuarial calculations, etc. Liabilities include:

- liability for damages;
- liabilities arising from coinsurance and reinsurance premiums;
- liabilities arising from investments, long-term and short-term loans and other financial liabilities;
- payroll liabilities;
- tax and contribution liabilities;

- lease liabilities and
- other liabilities from the company's operations.

An insurance company has an acceptable solvency if the cash flows are positive, i.e., if the cash balance is greater than zero and the solvency indicator (means of payment/liabilities) is at least one at the end of the day.

Insurance companies are not permitted to become insolvent. Not only do they have to be able to pay their current liabilities on a regular basis, they are always obliged to have funds at their disposal that are not less than the statutory payment cap. As in Serbia, there is also a rule in the world that this stock is calculated in different ways, expressed separately for life or non-life insurance. [7]

Also, the insurance company is obliged to calculate the solvency margin on the last day of the current accounting period, using specially prescribed forms, as follows: [16]

- 31st December of the current year (calculation for the current year as a whole);
- 31st March of the current year (the calculation refers to the period from 1st April of the previous year to 31st March of the current year);
- 30th June of the current year (the calculation is for the period from 1st July of the previous year to 30th June of the current year) and
- 30th September of the current year (the calculation is for the period from 1st October of the previous year to 30th September of the current year).

PRODUCTIVITY

Productivity, i.e., efficiency as a general economic term, involves the creative power of labor to produce a certain number of products or services in a unit of working time. Productivity will be higher if more goods are made with the same labor cost, or the same quantity at the same cost. It is expressed by the number of goods produced per unit of time, that is, the consumption of labor per unit of product. The quantity of goods produced or services rendered is precisely proportional to changes in labor productivity and inversely proportional to the consumption of labor per unit of product. [5]

The principle of productivity in the insurance industry implies the pursuit of a certain amount of calculated premium or income with the least use of labor. It can be expressed and monitored over a period of time for parts of the enterprise, for society as a whole, or for several insurers (or all of them) in the country. The average amount of premium or income per employee is used as an indicator. Improving productivity is achieved by increasing the premium as a key revenue item, that is, revenue as a whole, by reducing the number of employees or, most often, by the simultaneous effect of these factors.

The level of productivity can be expressed as follows:

$$P = \frac{TR}{E}$$

P – productivity; TR – total revenues; E – number of employees.

Every insurer should consider measures to increase productivity in the workplace.

These measures can be divided into two groups: [8]

- internal regulation measures and
- technical rationalization measures

Internal regulation measures include: 1. procedures for ensuring the best educational structure of employees. They are aimed at selecting and further improving employees for a particular type of expertise. If a workplace is covered by a worker with appropriate education and knowledge, a very important prerequisite for achieving high productivity is provided. 2. Workflow measures. These measures include: assigning workers to appropriate jobs in accordance with their level of expertise and abilities, choosing appropriate working hours and upgrading the performance of their jobs. 3. measures of remuneration and/or employee rewarding; and 4. measures relating to the protection of the health of workers and the prevention of occupational diseases.

In order to contribute to increased productivity, technical rationalization measures aim at improving the working conditions of all parts of the insurance company – insurance acquisition, damage assessment, office work, etc. These measures include: provision and arrangement of adequate workplace premises, maintenance of vehicle fleet, full implementation of information technology, improvement of technical prospects of flow between individual parts, i.e. company services, etc.

COST-EFFECTIVENESS

Cost-effectiveness is one of the basic indicators of business efficiency.

Indisputably, it is one of the most important indicators of the success of each company. As a rule, the monetary values are used to indicate the performance of the business on the one hand, and the resources spent on the other, although they can be expressed in both natural and financial indicators. [18]

Cost-effectiveness is usually expressed in terms of the ratio between the value produced and the value spent, which in practice generally means the relationship between total revenue and costs incurred. [5]

Cost-effectiveness in insurance is expressed by the tendency to achieve the highest possible volume of income (or premium) with the lowest insurance costs (material and intangible costs). Cost-effectiveness, in fact, shows the cost of insurance services provided: [19]

$$CE = \frac{IC}{TR} \cdot 100$$

CE – cost-effectiveness; IC – insurance costs; TR – total revenue.

If the cost-effective indicator of, say, 22.70 is calculated for an insurer, that would mean that out of RSD 100 in total revenue generated RSD 22.70 would be spent on insurance costs.

In pursuit of the principle of cost-effectiveness, as one of the most widely used indicators in the business reports of insurance companies and business research, each insurer's business unit should strive to increase the volume of services provided while reducing costs. This will also make the company more economical, i.e., cheaper as a whole.

PROFITABILITY

Profitability does not only represent the principle of work, but also one of the indicators of the insurance company's business success. Profitable business indicates that the insurer used the funds as a good entrepreneur and earned income that provided coverage for all liabilities: payment of claims, reserved claims, unearned premiums, risk equalization reserves, mathematical reserve in life insurance, contribution for prevention, premium tax, fire contribution, overhead (cost) allowance. At that point, the insurance company accomplished a favourable cash effect – profit.

Hence, profitability as an economic principle is reflected in the endeavour of companies to achieve the highest possible income and profit with as few employees as possible. With this principle, the focus is, much more on the monetary side of business compared to the principle of cost-effectiveness, and especially productivity.

There are several approaches to determining profitability, similar to other economic rules in the field of insurance, here is presented a combined indicator that is determined by comparing the sum of calculated claims and insurance costs with total income, i.e. with the insurance premium: [15]

$$P = \frac{CD+IC}{TR}$$

P – profitability; CD – calculated damage; IC – insurance costs; TR – total revenue.

The profitability of the insurance company's business, for example, of 62.3, which was determined in the above-mentioned manner, indicates that damages and

costs have a joint share of 62.3% in total revenues, which can be considered very favourable.

CONCLUSION

This paper analyses the key principles that must be esteemed by all insurance companies throughout the business process. The most important characteristics of the following financial and economic principles have been pointed out, namely: security, liquidity, productivity, cost-effectiveness and profitability, as well as the characteristics that arise from their application, and are related to the insurance business.

Namely, managing the risks from numerous policyholders from the economy and the population, insurance companies must ensure that their insurance conditions and risk prices, i.e., premium rates are entirely based on appropriate financial principles, with the initial assumption of using basic scientific postulates and relevant statistical and mathematical factors. Fundamentally, the achievement of the investigated indicators is based on the achieved and maintained broad range of insurance and the proper collection of premiums, as well as on the collection of parts of reinsurance and coinsurance indemnities.

The consistent implementation of all the principles discussed has been monitored by the insurance companies themselves, but also supervised by the supervisory authority of the state, the National Bank of Serbia, since the beginning of the 2004 Law on Insurance implementation. By enacting by-laws regulating security, liquidity and other principles, the National Bank of Serbia assists insurance companies to operate in the general interest.

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SCIENTIFIC REPORT

ASSESSING THE CONTRIBUTION OF WOMEN ENTREPRENEURS TOWARDS UNEMPLOYMENT CHALLENGES IN NIGERIA

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ABSTRACT

Women entrepreneurs have played important roles for supporting economic development and social progress. Regardless of all the issues, women have been praised for their achievements in their relevant fields. In this context the current study was taken up to (1) the contribution of women entrepreneurs in solving unemployment challenges among the youths, (2) assess the e persons that, have benefited from economic opportunities created by women entrepreneurs (3) explore the role played by the women entrepreneurs' in economic development. The main objective of this paper is to assess the contribution of women entrepreneurs in solving unemployment challenges in Nigeria. The specific objective is to assess the extent of employed persons that benefited from economic opportunities created by women entrepreneurs. To assess how women entrepreneurship skills contributed to reduction in unemployment in Nigeria.

Keywords: *women entrepreneurship, empowerment, opportunities, development, contribution, regional development, challenges, youth, economic growth*

JEL classification: *L26, I25, O1, R58, J13, F43*

INTRODUCTION

Women in Nigeria constitutes a large number of people that are engaged in entrepreneurship skills knowing well that entrepreneurship business is a catalyst to solving mirage of economic challenges in Nigeria that includes job creations, poverty reduction, wealth generation and enhanced revenue in any economy (Josiane, 1998, Galbraith, 2008). Despite the huge contributions of women entrepreneurs in economic enhancement opportunities they create in the economy, the role of women in tackling unemployment among the teaming youths in the

country has been unappreciated. Women are easily adaptable to the dynamics of changing environment and are born creative in ensuring that they turn opportunities to wealth creations realizing that entrepreneurship plays a key and functional role in supporting small scale and medium businesses since it involved creativity and risk averse by women operators (United nations 2006). Entrepreneurship by extension involves experimenting new products, trying new economic opportunities and taking measurable risks and experimenting with new products in the market (Wikulnd and Shephers, 2005).

With the involvement of women entrepreneurs that are scattered in all the crannies of Nigeria, it is evident that they contribute greatly to the development of ruler economies and to an extent curbed the rural urban migration in most villages in Nigeria as they provide economic opportunities in areas of trade and skill acquisitions (Kjeldsen and Nielson 2000).

Women entrepreneurs contribute substantially to employment of youths through the establishment of shops, sales points, cooperative unions and artisan opportunities like drivers, hairstylist and bicycle riders or operators among other things (Achakpa, and Radović-Marković, (2019). These contributions have been so pronounced that it attracted the attention of Global Entrepreneurship Monitor (GEM) who acknowledges that women's activities through entrepreneurship have increased job and wealth creation.

STATEMENT OF THE PROBLEM

Women constitute about fifty percent of Nigeria's population and about 35 percent are women entrepreneurs who are in micro, medium and large enterprises (Odoemene, 2003). This is a demonstration that women entrepreneurs are central in employment generation in Nigeria and their economic contribution through these micro enterprises has greatly supported the job creation programs of the present federal government policies on youth employment and empowerment (Achakpa, Radović-Marković, 2018). Despite all these contribution towards job creation opportunities, women entrepreneurs are not given the much-desired support to sustain job creation opportunities in Nigeria. This paper assesses the contribution of women entrepreneurs in solving unemployment challenges among the youths. This is done essentially through employment of these youths in shops, cottage industries and other related artisan and crafts works like fashion houses, film productions, skill acquisition among others. The economic contribution of women to development is possible because the traditional roles of women has changed substantially since the male folks have seen the female potentials beyond household or domestic obligations, changes that occur in a family configurations has created opportunities for women to be more practical and supportive in modern society (Mordi *et al.*, 2010). Despite all these, little is done to propagate women contributions through entrepreneurship to solving unemployment challenges in Nigeria.

OBJECTIVE OF THE STUDY

Since women are half of Nigeria's population, exploring the huge potentials of this community in the areas of encouraging them to go into entrepreneurship will generate huge potentials at multiple levels both for the individual gains, family benefits and at national levels too. The main objective of this paper is to assess the contribution of women entrepreneurs in solving unemployment challenges in Nigeria. The specific objective is to assess the extent of employed persons that benefited from economic opportunities created by women entrepreneurs. To assess how women entrepreneurship skills contributed to reduction in unemployment in Nigeria.

RESEARCH QUESTIONS

This work is aimed at assessing the contributions of women entrepreneurs to reducing unemployment in Nigeria. To test this veracity, this research will attempt to answer these research questions;

1. Women entrepreneurs don't contribute to employment opportunities in Nigeria?
2. Women entrepreneurs don't contribute to economic development of Nigeria?

LIMITATIONS OF THE STUDY

This research work has been limited by the amount of time available to me and also some respondents that I sent online questioners did not respond to my enquiries. Secondly some women entrepreneurs were not accessible as they are living far from the study areas so they could not be reached to interview them and get their contributions. Financial resources were a huge constraint as I have to allocate finances between domestic needs and this work in terms of data collection and electric power alternation.

RESEARCH METHODOLOGY

This research will be conducted using structured questioners and interviews.

The research will be conducted from Benue state and Nassarawa states respectively. Each of these states is located in North Central Nigeria where women entrepreneur skills are higher. Each state has three senatorial districts so one local government will be selected randomly in each senatorial district. A total of two hundred questioners will be distributed in each of the local government giving the sampled population of six hundred respondents. Simple percentages will be used to analyse the data collected and interview responses.

Data collection will be both primary and secondary sources, the research will use some existing works that are similar to this for literature review and the data collected from the field too.

CONCEPTUAL FRAMEWORK

The participation of women in creating avenues for economic development in Nigeria is recognized mostly in their entrepreneur skills since this is considered as central to economic change in the areas of empowerment, employment and social security.

Entrepreneur women are those that take part in entrepreneurial schemes and who are quick to mobilizes resources that can support them take control of economic environment of where they live such that they can produce and supply goods and services within their areas under the Medium and small scale enterprises Mayoux (2001). According to Lewis (2006), Singh *et al.*, (2010) and Mordi *et al.*, (2010), these enterprises usually tends to be associated with some common traits such as innovation, creativity, imagination and foresight. Women entrepreneurs have substantially contributed to the socioeconomic growth of the employment levels of the Nigerian economy as they are capable of transforming little economic ventures to flourishing ones hence, they create a sustainable economy that will sustain them and at the same time create jobs for others.

Nigeria with a population of approximately 180 million people is facing youth bulge with about 6 million people that are entraining the labor market yearly. This result in increased demand for employment opportunities annually that government cannot provide. These huge population of unemployed youths are supposed to be a reserve that can guarantee power, creativity and energy that political leaders are expected to deploy for gainful employment that can have lasting benefits to this country but is not feasible due to high unemployment rate as a result of limited opportunities in government ministries and parastates.

Women entrepreneurs decided to take up this mantle by creating opportunities that can take part of these unemployed youths off the labor market through programs and policies that covered agriculture, trading, artisan, skill acquisition and other forms of economic ventures that can support government in alleviating the scourge of unemployment. Women entrepreneurs are females that played captivating roles that makes her interact and adjust financially with socio economic support sphere. (Pareek 1992) Women entrepreneurs have been regarded as new growth engines and economic development stars of a country that are capable of bringing prosperity. (Minniti and Naude, 2010) Women entrepreneurs are regarded as the heart of any development since most of the economic non-monetary policies is anchored by them. They played vital roles in monetary economy such as trading, employment and wage labor (Yawa, 1995). This assertion makes women entrepreneurs perform beyond mere complementary roles in economic production (Jeminiwa, 1995).

The attention of donor agencies have been drawn to the growing influence of women Entrepreneurs and they initiated support policies and programs that can enhance capacity building and policies that can encourage and support start-up capital for women entrepreneurs as it is argued that women entrepreneurs contribute more to employment opportunities in an economy than their male counterparts (Minniti, 2010). Unemployment rate on the other hand is perceived by

National Bureau of Statistics (NBS) as a measurement of the total number of persons seeking for jobs that is regarded as the percentage of labor force while unemployment can rightly be considered as a state of joblessness that is experienced by some people that are within the productive labor force age group that consider themselves as capable of being employed and are rightly perceived by others too (Fajana, 2000).

Nigeria's economy has been unable to create jobs to accommodate its growing population and this has increased the inequality and unemployment that has made the country's estimated poverty rate to be 54.4% in 2012 which is twice more than where it was in 1980; the number of poor people rose to 22 million between 2004 and 2013. This has increased the pressure on women entrepreneurs in Nigeria to work harder and explore new opportunities that can employ the youths hoping that, this can improve the country's ranking in both human and gender development indices where the country is ranked as 158 positions out of the 182 countries (DFID Nigeria 2013).

Nigeria had poor employment rate in the past that the unemployment rate was 23.9% in 2011 which rose to 27.4% in 2012 (NBS, 2011 and 2012). According to DFID FEPAR studies on causes of unemployment in Nigeria, the report concluded that lack of proper planning, poor policy implementation, poor education standard and improper environment for business operations are the identifiable causes of unemployment in Nigeria. these factors discourage unemployed youths to look for work in informal sector leaving bulk of this to women who take to trading, sales, agriculture and farming that in most cases employ the young men and women who have little education since most of the appointments are based on physical strength and creative ideas that can be obtained from the skill acquisition programs organized by entrepreneurs (World bank 2013; Banfield 2014).

Women entrepreneurs are therefore persons that can take risk, creative and have foresight (Lewis 2006). They are involved in micro, small and medium (MSME) business enterprises that has contributed more than 97% of total enterprises in Nigeria. They have also contributed about 60% of the country's gross domestic products (GDP) and about 94% of the nation's total share of employment (Mayoux, 2001, Ndubusi, 2004).

Despite these huge economic contributions to the nation's employment challenges, women entrepreneurs have not reached their full potentials due to a number of challenges. These challenges are both political, cultural, gender and social based issues .the women entrepreneurs are sometimes constrained to having loans due to gender and cultural demands that tends to limit their rights to decision making and access to finance becomes difficult .the women control by different social norms also are a limitation to the rights and powers of women entrepreneurs to access finances and realize their full investment potentials (Ekpe, 2011, Omboi and Priscilla, 2011; Akanji, 2006).

Women entrepreneurs lacked access to credit to expand and employ more people especially in rural areas where agriculture produce is the main trading produce that are also traded on seasonal basis. This has resulted in reduction of a number of rural based entrepreneurs and also to the closure of many shops once the

season for farming and harvesting is over hence income is not enough to save (Kabir, Radović Marković, Radulović, 2019; Ekpe, 2006).

Since finance is limited to women entrepreneurs, savings is also limited to enable them access loans from micro finance banks or other micro credit finance houses since savings is considered both as insurance and liquidity that will be a guarantor to the depositor (Robinson 1994). Lack of access to exiting markets and inadequate trainings also limit the employment potentials of some women entrepreneurs as this limit their management and marketing of their businesses in strategic ways. Women entrepreneurs are in most times unable to combine production and also marketing of their produce where they are expected to monitor sales and customer feedback (Suliyanto and Rahab 2012).

Inadequate data on the employment by women entrepreneurs and the number of women entrepreneurs in the country has made it impossible to know the exact number of men or women entrepreneurs and also the number of persons employed by women entrepreneurs in their respective shops or firms. This problem is due largely to lack of education by most of these women and untrained in their chosen lines of business hence the essential skills needed are lacking. (Khan 2014) This singular factor is responsible for non-survival of some of the business ventures owned by these women (Fasoranti *et al.*, 2006).

The government in Nigeria has since realized the vital role of women entrepreneurs in providing job opportunities to thru teaming unemployed youths and has a policy that is aimed at supporting, promoting developing women entrepreneurs. This is done through the provision of infrastructures, finances, training and marketing through some of the following programs.

The establishment of Nigeria Industrial Development Bank (NIDB) in 1964 has assisted in identifying local, foreign, skilful individuals, private, domestic and foreign capital that will assist in the development and expansion of new ventures.

The Nigerian government also addressed the gap of access to credit by establishing small scale credit scheme in 1971 and the introduction of banking in rural areas from 1977 to 1989 where the total number of rural branches rose to 765 in 1992 (Yousuf *et al.*) and the Agricultural credit guarantee scheme in 1977, peoples bank of Nigeria was the brain child of Gen. Babangida to support rural women in 1988 and community banks in 1990. All these institutions and others were to breach the gap for financing of small and medium scale enterprises for women entrepreneurs realizing their potentials to economic progress of the country through employment of human and capital resources.

FINDINGS AND RESULT INTERPRETATION

This research is a case study of six local government areas in Benue and Nssarawa states. A total of three hundred respondents were sampled in each of the six local governments of Kwande, gboko and Oju in Benue state and three hundred respondents in Lafia, keffi and Awe local government of Nssarawa states respectively.

Most of the women entrepreneurs are based in rural areas and few in semi urban towns that are the local government headquarters of these local governments.

Over 80 percent of these women have shops or mini stores where they employ not less than two sales girls or boys depending on what they sell. About 10 percent of the women are school proprietors that run kindergarten to primary schools with about 4 to 12 teachers employed. 60 percent of the women are into buying and selling of goods at retail outlets close to where they reside.

On the number of employees by these women, about 60 percent are working in shops, stores, bars and food restaurants owned by women. On the question of who employed more work forces in these selected local governments, about 75 percent of respondents agreed that women owned more retail outlets than men, so they employ more workers than men. On the contribution to solving unemployment challenges in Nigeria, 60 percent agreed that women contribute significantly to job creations opportunities in rural areas than government agencies. The pay package offered the employees 90 percent of the respondents agreed that the salary is not satisfactory but it is better to do the work than to stay unemployed.

Another area was the challenges faced by them in recruiting staff, about 90 percent of the women agreed that they people employ were more of their relations than none relatives and this according to them was due to high tendency by non-relatives to swindle them and disappear.

On the issue of access to loans, 70 percent said they have not accessed any loans and have not been trained but they are determined to survive, it is that fear they took to trading. From this result it is evident that women contribute greatly to solving unemployment challenges in Nigeria mostly in rural areas.

This has been the reason why government established the Women Affairs Ministry and the National Women Centre of Nigeria to periodically draw programs that will support women who and programs that can make women be more involved in productive economic ventures.

According to Central Bank of Nigeria (CBN) annual report of 2017, the labor statistics of 2013 to 2017 showed that, the total population of Nigeria was 173.6 million in 2013 and labor force was 71.1 million and 10.0 percent were unemployed. This rose to 18.8 percent in third quarter of 2018 with an unemployment population of 85.1 million and total population of 184.2 million.

Government realized the vital role played by small scale and medium enterprises towards economic development that the central bank of Nigeria launched CBN Entrepreneurship Development centre (CBN-EDCs). This centre trained 13,564 individuals including women, they created 9334 jobs and 4,803 persons were assisted to access bank finances in 2017 according to CBN annual report of 2017. Entrepreneurs who are mostly small-scale business have demonstrated in Nigeria that they create wealth and employment particularly people with low skills. 98 percent of manufacturing enterprises were small and medium scale business in 2002, and 74 percent of the labor force was provided by them and 87 percent of employees in private sector were employed by entrepreneurs (Eniola *et al.*, 2014) and 80% of the work force in agricultural sector is employed by enterprises that are small scale and medium enterprise where

majority of women entrepreneurs operate in rural areas where they trade on agriculture inputs and commodities.(Russell *et al.*, 2013).

RECOMMENDATIONS AND CONCLUSIONS

From the research and other existing topics related to this work, it is obvious that women entrepreneurs play an important role in unemployment reduction in Nigeria. They are more into small and medium scale businesses that are prone to inflationary trend looking at the size of their business and the limited capital they have as start up. Women are determined to be actively involved in business ventures but they are faced with challenges of poor knowledge of the business they operate due to inadequate information and training relative to the business.

Traditional limitations such as religions and marriages and family size also limits the scope of the business they operate and the number of employees they can hire most of the workers are not literate enough to bring new ideas into the business so the burden of innovative thoughts on expanding the business rest solely on the employer. Generally, women have a lot of positive influence in the labor market most especially in the areas of small and medium scale enterprises.

The following recommendations are suggested to augment women entrepreneurs in their business operations

- ✓ Training in the business they want to start
- ✓ Information to loan funds at single digit interest rate should be availed to women
- ✓ Flexible process to securing the loan should be encouraged
- ✓ More loanable funds should be given to rural women to engage more in farm produce. This will encourage more unemployed to embrace farming
- ✓ Insurance policies should be made to cover these types of businesses against theft and loss of their shops to fire or flooding or accidents.

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INSTRUCTION TO AUTHORS FOR WRITING AND PREPARATION OF MANUSCRIPTS

Entrepreneurship and economic resilience are two seemingly different issues which are inherently connected. Economic resilience is an emerging field which has been applied to study economic performance and responsiveness to external shocks in different regions. Shocks such as financial crisis which have been faced by entrepreneurial actions in the economic history of the regions; however, the entrepreneurship-economic resilience nexus is recently drawing the attention of scholars and policy makers. This approach, more specifically, could pave the way for those societies which are following economic resilience policies to handle their economic issues.

The main objective of the journal is to fill the existing knowledge gap within the fields of entrepreneurship and economic resilience. In spite of the raising interest in this field, there are very few sources of research for this subject, especially in the field of entrepreneurship-economic resilience nexus.

MANUSCRIPT SUBMISSION

Authors can submit manuscript, necessarily in electronic form, to e-mail: jebroffice@gmail.com. In version of the paper at the address: Faculty of Economics and Engineering in Novi Sad, 21000 Novi Sad, Cvečarska 2, Serbia, with the directory "For the editorial staff of the journal Journal of Entrepreneurship and Business Resilience (JEBR)

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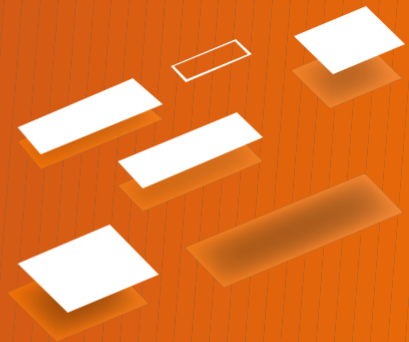
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