

REGIONAL DIFFERENCES IN ASSESSING THE KEY CORPORATE ENTREPRENEURSHIP FACTORS: STUDY FROM SERBIA, CROATIA AND B&H

Ljiljana Kantić*

University MB, Faculty of Business and Law, Belgrade, Serbia, ljiljana.kontic@yahoo.com,
ORCID number 0000-0002-5117-0419

Nebojsa Janićijević

University of Belgrade, Faculty of Economics and Business, Belgrade, Serbia, jnebojsa@eunet.rs,
ORCID number 0000-0003-3919-0086

Mirta Benšić

University of Osijek, School of Applied Mathematics and Informatics, Osijek, Croatia,
mirta@mathos.hr, ORCID number 0000-0001-9063-0310

Abstract: *The main aim of this study was to investigate similarities and differences in the key corporate entrepreneurship factors in selected regions from Serbia, Croatia and Bosnia and Herzegovina. The key corporate entrepreneurship factors were Management Support, Work discretion, Rewards, Time availability, and Organizational Boundaries. Methodological tool has been Corporate Entrepreneurship Assessment Instrument (CEAI). The written permission to use the CEAI questionnaire was provided by the authors. Mainly, CEAI model has been used in developed economies i.e. United States of America and Canada. This was the first used of CEAI in the regional context in emerging economies. Previous researches has been conducted in Serbia. This study filled the gap between developed and emerging economies in the context of the corporate entrepreneurship. The respondents were 240 managers from the region. In the selection process of companies main criteria have been economic and financial standing, and regional importance. The correspondent analysis has been used. The findings revealed similar assessment of Management support and Work discretion by managers in Croatia and Bosnia and Herzegovina. The Time availability factor has been different assessed by managers from region. Managers from Bosnia and Herzegovina were differed from the rest of the region in assessment Organizational Boundaries. The higher rating of Organizational boundaries had observed managers from Croatia.*

Keywords: *Corporate entrepreneurship, Management, CEAI model, Organizational culture, Correspondence analysis*

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* Corresponding author

1. INTRODUCTION

Regions are recognized as important engines of economic development (Hollanders & Es-Sadki, 2023). Economic growth grounds on the capacity of regional economies to change and innovate. Regions and cities have become the primary spatial units where knowledge is transferred, innovation systems are built and competition to attract investments and talents takes place. The regions stimulate the innovation because innovation tends to be spatially concentrated over time. The corporate entrepreneurship implies two essential components: innovations and changes at the level of the entire organization (Janicijevic & Kontic, 2023). Therefore, investigating the key factors of corporate entrepreneurship may stimulate innovation at regional level.

The main aim of this paper is to identify similarities in assessment the key corporate entrepreneurship factors in the selected regions from Serbia, Croatia, and Bosnia and Hercegovina. According to Regional Innovation Scoreboard (Hollanders & Es-Sadki, 2023), in Serbia the most innovative regions are Belgrade and Vojvodina; in Croatia Zagreb city; in Bosnia and Hercegovina there is not reliable data. Therefore, we selected a company from Belgrade, and one from Vojvodina, one from Zagreb city, and one from Banja Luka. Along with data from Regional Innovation Scoreboard (Hollanders & Es-Sadki, 2023), statistical data have been revealed the companies with the best financial status.

Previous studies revealed reliability of using Corporate Entrepreneurship Assessment Instrument (CEAI) in emerging economies (Kontic *et al.*, 2016; Janicijevic & Kontic, 2023). This methodological tool has been first used in Bosnia and Hercegovina in our study.

All three countries was former Yugoslav republics, have similar social-economic conditions, and similar cultural heritage. It could be supposed that senior management similarly assess management support, rewards, time availability, work discretion, and organizational boundaries. This paper will contribute to better understanding of the corporate entrepreneurship in emerging economies.

The paper is structured in three main parts. The introduction is followed by a review of literature and then a description of the research methodology. After that, the research results will be presented and discussed. At the end, the conclusion and recommendations are given.

2. LITERATURE REVIEW

The concept of the corporate entrepreneurship is a somewhat problematic but therefore also a challenging topic. The problem lies in the lack of consensus among authors on what constitutes it and how to measure it. Four types of corporate entrepreneurship have been identified: sustainable regeneration, organizational rejuvenation, strategic recovery and strategic turnaround, and the authors believe that these four forms include most of the ways in which corporate entrepreneurship appears in organizations (Dess *et al.*, 2003). Which elements are the most important in this construct? Some authors emphasize innovation, investment and strategy renewal (Zahra, 1993) while others emphasize proactivity, innovation and willingness to take risks (Miller, 2011; Morris & Paul, 1987; Covin & Slevin, 1990; Dean *et al.*, 1993). The second view finds support and foundation in empirical studies (Covin & Slevin, 1989; Zahra *et al.*, 1999).

Corporate entrepreneurship includes activities that contain novelty, new resources, consumers, markets or a new combination of resources, consumers and markets (Ireland *et al.*, 2009) and also includes efforts aimed at innovation, recovery and investments of the organization (Zahra, 1995; Hisrich, 2006; Sharma & Chrisman, 1999). Corporate entrepreneurship has many advantages and it leads to gaining and maintaining competitive advantages regardless of the industry and size of the organization (Covin & Miles, 1999; Bhardwaj *et al.*, 2011). It also ensures increased profitability, long-term survival, growth and financial stability (Hitt *et al.*, 2001).

Corporate entrepreneurship can have multiple positive impacts on a company. Within the organization, this type of entrepreneurship leads to increased productivity and greater employee satisfaction. When managers promote workers, empower them and give them greater creative freedom, they work harder and their work fulfills them more (Yukl, 2008).

Corporate entrepreneurship can also act outside the organization, that is, influence how others perceive it. A company that has a reputation as a place where employees have management support, creative freedom and an innovative spirit will have a good reputation and will have more prestige in the eyes of others. Furthermore, it affects the recruitment of future personnel, where there will be a greater chance of attracting good experts and motivated workers.

To achieve results better than the competition and progress in to its branch of business, it is necessary that, as an integral part of corporate entrepreneurship, in addition to innovations in business and products, be ready for changes, but also to accept the potential risks.

Five factors that indicate the existence of corporate entrepreneurship in the organization are (Kuratko *et al.*, 2014):

- *Management Support* representing the highest level of readiness of managers to facilitate and promote entrepreneurial behaviour and includes encouraging ideas and providing resources for entrepreneurial activities. An organization's ability to increase entrepreneurial efforts is conditional on compatibility of managerial experience and their entrepreneurial initiatives.
- *Work Discretion/autonomy*, which includes tolerance of failure, delegation of authority and responsibility to managers of medium level. It is important that employees are creative in the execution of their tasks. Participation in decisions that affect the business is perceived as challenging and significant.
- *Rewards/empowerment*, which is the development and use of the reward system based on performance and highlighting significant achievements and praise. Reward systems are the main source of individual motivation.
- *Time availability* is a time for the initiation of innovation by individuals and groups, as well as the structuring their affairs so as to implement short and long term goals of the organization. To encourage innovation, it is important to provide employees the time to devote to solving long-term problems.
- *Organizational boundaries* specify the expected results and developing mechanisms for evaluation, selection and implementation of innovations. Corporate entrepreneurship encourage vertical and lateral communication, multidisciplinary work teams, empowerment of supervisors and the creation of small organizational units.

Majority of study have been conducted in developed economies i.e. USA and Canada (Hornsby *et al.*, 1999; Hornsby *et al.*, 2002; Rutherford & Holt, 2007; Holt *et al.*, 2007;

Hornsby *et al.*, 2009; Goodale *et al.*, 2011). Few studies have been conducted in emerging economies (De Araújo Castro *et al.*, 2020; Vela *et al.*, 2023; Agapie *et al.*, 2018). Regarding our focus region, Serbia has been well investigated (Kontic, 2012; Kontic & Vidicki, 2016; Kontic *et al.*, 2017; Janicijevic & Kontic, 2023). There is a little evidence about corporate entrepreneurship in Croatia (Kolakovic *et al.*, 2008; Sucic Funko, 2023; Singer *et al.*, 2009). The same situation is in Bosnia and Herzegovina (Smajlovic *et al.*, 2024; Macura & Tanjga, 2013; Umihanic & Delic, 2013).

The main research question is: Do managers in Serbia, Croatia, Bosnia and Hercegovina similarly assess key factors of the corporate entrepreneurship?

3. METHODOLOGY

In order to test our research question, we used a sample of 240 managers from Serbian regions, Croatia, and Bosnia and Herzegovina (B&H).

The sample consists of managers of the most successful companies in the field of oil production and refining from aforementioned countries (120 from Serbia, 60 from Croatia, and 60 from B&H).

In 2022, oil industry in Serbia achieved high business results. The oil companies' revenue in 2022 raised by 74 percent, primarily due to a rise in the average price of Brent crude oil in that period by 43 percent. The key indicator of profitability, EBITDA, increased 1.6 times, to 136.2 billion dinars (Statistical Office of the Republic of Serbia, 2023).

The same situation was in Croatia as well as Bosnia and Hercegovina (Croatian Bureau of Statistics, 2023; Agency for statistics of Bosnia and Hercegovina, 2023).

Data was collected by a CEAI questionnaire containing 48-item Likert scale questions. The Corporate Entrepreneurship Assessment Instrument (CEAI) measures key internal organizational factors that influence a firm's entrepreneurial activities and outcomes, such as top management support, work discretion, rewards/reinforcement, time availability and organizational boundaries.

Correspondence analysis is a statistical method that is particularly helpful in analysing crosstabular data in the form of numerical frequencies, and results in an elegant but simple graphical display which permits more rapid interpretation and understanding of the data (Greenacre, 2017). Correspondence analysis is a generalization of a simple graphical concept with which we are all familiar, namely the scatterplot.

4. RESULTS AND DISCUSSION

The results of the correspondence analysis will be presented by the key corporate entrepreneurship factors i.e. Management support, Work discretion, Rewards, Time availability and Organizational boundaries.

First, the average score for the Management support has been calculated across all questions for each region separately. The share of individual grades in a given region, total for all questions that appear in Management support.

Table 1 contains those average profiles for the Management support factor by region, expressed as a percentage.

Table 1. *The average profiles for the Management support factor by region*

Region	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
B&H	1.58%	6.68%	30.76%	48.51%	12.48%
Croatia	4.23%	16.9%	33.1%	37.32%	8.45%
Belgrade	26.99%	21.84%	26.87%	21.23%	3.07%
Vojvodina	20.93%	27.06%	32.77%	15.43%	3.81%

Source: Authors' calculation

The Chi-square test confirmed the heterogeneity of the factor by regions (p value is of the order of magnitude 10^{-16}). The appearance of a large share of grade 4 in B&H and Croatia, in contrast to Belgrade and Vojvodina, is quite clearly expressed. The question is to what extent are these profiles different from each other? The Chi/square distance between the profiles showed the large distances between B&H and Belgrade as well as B&H and Vojvodina, also between Croatia and the same two regions, while the distance between B&H and Croatia, as well as between Vojvodina and Belgrade, is significantly smaller.

In order to get a better insight, the correspondence analysis has been used. In this procedure, the total inertia (which is the overall measure of dispersion among the profiles) is broken down in a way that enables the recognition of the main components (principal components) composed of these profiles and the calculation of the share of variability described by each component. Principal component coefficients can be used to see similarities and differences between profiles. Therefore, the first main component accounts for 93.15% of the total inertia, i.e. it accounts for most of the dispersion among these profiles.

The similarity of the profiles of Croatia and B&H was clearly recognized, with the dominant representation of higher ratings in those profiles. Unlike them, the Belgrade and Vojvodina grade profiles were also similar and were dominated by the presence of smaller grades.

Second, the average score for the Work discretion has been calculated across all questions for each region separately. The share of individual grades in a given region, total for all questions that appear in Work discretion.

The Chi-square test confirmed the heterogeneity of the profile by region (p value is of the order of magnitude 10^{-12}). However, the largest share of grade 4 was noticeable in all regions, followed by grade 3. The third position, in terms of share has been occupied by grades 2 or 5, depending on the region, and this is probably where the difference in profiles is recognized. To what extent were these profiles different from each other? The significantly smaller distance between the profiles than with the Management support factor has been observed.

The closeness of Croatia and B&H grades, on one side, and Belgrade and Vojvodina grades, on another side has been evidenced again. At the same time, a very small share of the grade 1 has been recognized, especially in the Croatia and B&H profiles, while it can be said that the Belgrade and Vojvodina profiles were more prone to extreme evaluations than managers from B&H and Croatia.

The results of the factor Rewards has been very similar as Management support. The similarity assessment by managers from Croatia and B&H was clearly recognized, with the dominant representation of higher ratings in those regions. Unlike them, managers from Belgrade and Vojvodina have given smaller grades to the factor Rewards.

The results of the correspondence analysis for Time availability factor is presented in Figure 1.

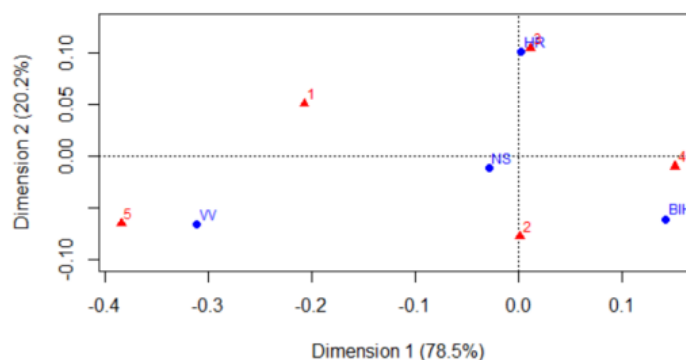


Figure 1. *Different assessment of Time availability by managers in the regions*
Source: Authors' calculation

Factor Time availability got the lowest grades from all managers with significant differences between regions (See Figure 1). The Chi-square test confirmed the heterogeneity of the profile by region (p value was 0.004782). Total inertia was 0.02491788 that has been considered as quite small. This goes in line with other studies (Janicijevic and Kontic, 2023).

Regarding the Organizational boundaries factor, the results showed that assessment of managers from Bosnia and Herzegovina has been differed from the others by this factor, which is the furthest from the extreme ratings. In general, the grade one is very poorly represented in all regions. Grade 5 has been frequently used by Croatian managers than in other regions.

5. CONCLUSIONS AND RECOMMENDATIONS

Investigating the key factors of corporate entrepreneurship may stimulate innovation at regional level. The main aim of this paper is to identify similarities in assessment the key corporate entrepreneurship factors in the selected regions from Serbia, Croatia, and Bosnia and Hercegovina.

Five factors that indicate the existence of corporate entrepreneurship in the organization are: management support, work discretion, rewards, time availability, and organizational boundaries.

The main research question was: Do managers in Serbia, Croatia, Bosnia and Hercegovina similarly assess key factors of the corporate entrepreneurship?

The sample consists of 240 managers of the most successful companies in the field of oil production and refining from Serbian regions, Croatia, and Bosnia and Herzegovina (B&H). The research instrument was CEAI. Data have been processed by correspondence analysis.

The findings showed that in terms of the Management support and Work discretion rating, two groups of managers stand out. On the one hand, managers from Croatia and B&H gave similar and higher ratings to these factors than managers from Belgrade and Vojvodina, who gave these factors similar but lower ratings. The Time availability factor has been differently assessed by managers from region. Managers from Bosnia and Herzegovina were different from the rest of the region in assessment Organizational Boundaries. The higher rating of the Organizational boundaries had observed managers from Croatia.

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