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TESTING CORPORATE ENTREPRENEURSHIP ASSESSMENT INSTRUMENT IN TRANSITION ENVIRONMENT¹

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Abstract

The key issue in contemporary business environment is how to acquire and maintain the competitive advantage in the long term. In that sense, the organizations must seek for something new in their functioning, new products, services, suppliers, customers, distribution channels, markets, new marketing, organizational and other technical and non-technical solutions. Corporate entrepreneurship (CE) is critical to a firm's success, particularly in today's dynamic environment. The main aim of this study was to investigate the construct validity of Corporate Entrepreneurship Assessment Instrument (CEAI) in the case of Serbia. Data analysis was conducted using SPSS Statistics 19.0. The research findings revealed possible practical implementation of CEAI in Serbian organizations. The results showed that the employees' attitudes toward the recognized CE dimensions have depended on their age, education, years of work experience, and position in the organization.

Keywords: corporate entrepreneurship, corporate entrepreneurship assessment instrument, transition economy

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1. INTRODUCTION

Many authors stated that the corporate entrepreneurship had important role in implementing the growth strategy and the way of gaining and sustaining competitiveness (Dess et al., 1999; Kuratko, 1993; Merrifield, 1993). The concept of corporate entrepreneurship has introduced during the last 35 years. The concept of corporate entrepreneurship has not universally accepted term. Therefore, there are different terms in the literature such as an investment and intrapreneurship (Hornsby et al., 2002, p. 254). Corporate entrepreneurship encompasses situations that arise when embarking into new forms of business, while introducing new ideas into the organization and the basic idea that covers the entire business (Covin and Miles, 1999).

This entrepreneurship emphasizes the increasing ability of organizations to adopt and develop innovative and creative abilities. Organizational culture is accelerator of innovation as well as promoter of an entrepreneurial spirit.

Corporate entrepreneurship (CE) is critical to a firm's success, particularly in today's dynamic environment (Sebora et al., 2010). Hence, the main contribution of this paper is expanded existing literature by empirical testing of the research instrument for measuring corporate entrepreneurship in selected public organizations in transition environment. Investigating entrepreneurship is a complex task, therefore, many authors focused on conceptual schemas that were not tested or tested in single case study. In this paper, we present the results of the study in which 167 managers were interviewed from four Serbian organizations.

Management theory and practice reflect culture values of the society in which they created, therefore, they have limited practical value in case of different culture ambient (Janićijević, 2003, p. 45). Implementation of a research methodology develop in a national culture on respondent from different cultures can lead to misinterpretation of the results. This is also important to assess factorial structure of the questionnaire when respondents have different socio demographic characteristics (Ehrhart et al., 2008).

Hence, the subject of the research is the attitudes of employees from four public companies regarding the corporate entrepreneurship as a necessity of functioning in contemporary business environment. The main aim of this study is to examine how the employees in Serbian organizations look at the corporate entrepreneurship, that is if there are CE elements or not at all. The main hypothesis is following:

H_0 There is significant differences between employees' attitudes toward the corporate entrepreneurship and recognized CE factors regarding their age, education, years of work experience, and position in the organization.

A_0 There is not significant differences between employees' attitudes toward the corporate entrepreneurship and recognized CE factors regarding their age, education, years of work experience, and position in the organization.

Besides introduction and conclusion, the paper is structured into three sections. The next section is devoted to theoretical background in relation to the mere concept of corporate entrepreneurship, followed by the review of past research. The fourth section is devoted to research methodology. In the fifth section, we presented the results and discuss them.

2. THEORETICAL BACKGROUND

There is no single or unique approach that is accurately and incorporating different forms of the corporate entrepreneurship. Any research of corporate entrepreneurship should include conceptual definition of corporate entrepreneurship (Holt et al., 2007, p. 41). There is no consensus on the definition of the concept or the methods of measurement.

Corporate entrepreneurship represents the organizational behaviour that requires resources and management support for the development of different types of innovations that contribute to the creation of new value (Kuratko et al., 2005, p. 700).

Corporate entrepreneurship involves activities that incorporate innovation, new resources, customers, markets or new combination of resources, consumers and markets (Ireland et al., 2009). The corporate entrepreneurial activities can be conducted within companies' boundaries (internal activities) or as a joint venture (external activities). From the perspective of organizational culture and entrepreneurship, creative organizational ambient has important influence on entrepreneurship spirit (Morris et al., 1994; Zahra et al., 2004; Chandler et al., 2000). The results of the study confirmed influence of management support as well as reward system on innovation (Chandler et al., 2000).

3. REVIEW OF PAST RESEARCH

Based on analysis of amount literature of corporate entrepreneurship, Hornsby et al. (2002) attempted to identify the key internal organizational factors that influence corporate entrepreneurship. Therefore, they presented the Corporate Entrepreneurship Assessment Instrument (CEAI) a survey instrument designed to help managers and leaders measure each of these internal environmental factors. The CEAI is promising for several reasons. First, the CEAI measures antecedents in a way that provides those that use it with a guide to improve corporate entrepreneurship activities.

Second, the CEAI measures entrepreneurship at the individual level. As noted, this is important because corporate entrepreneurship requires individual innovative behaviours. Third, the CEAI is relatively brief, which may encourage more managers and leaders to use it. The CEAI questionnaire focuses on the individual perception of corporate entrepreneurship. This questionnaire was applied to a sample of local managers consists of 48 items and five factors, namely: *Management support, Rewards/reinforcement, Work discretion/autonomy, Time availability, and Organizational boundaries.*

The promising results of the preliminary testing encourage other researchers to use the CEAI. (Adonisi, 2003; Brizek, 2003; Wood, 2004; Rhoads, 2005; Davis, 2006). Using the CEAI could also help improve the entrepreneurial skills of individual employees, who are regarded as more important than other resources when entrepreneurial activities need to be pioneered (Van Wyk and Adonisi, 2012). Kuratko et al. (2014) highlighted eight studies that have confirmed the validity of the CEAI such as Rutherford and Holt (2007), Goodale et al. (2011), van Wyk and Adonisi (2012) and five studies of their own. The results of the pilot research revealed that CEAI can be used in a Serbian context (Kontic, 2011).

4. RESEARCH METHODOLOGY

The total of 167 managers and employees from four Serbian companies participated in the survey. Respondents from particular company differed in their hierarchical and functional positions. The choice of the company determinates by willingness of senior management to participate in this study. The survey was conducted directly, i.e. the participants were aware they were participating in a survey, but the questions were not known ahead of time.

We attribute this high response rate (83.5% response rate) to the survey insiders who used their business contacts successfully and to the intensive communications regarding the survey materials. Respondent's profile in the observed companies consisted of gender, age; education level, work experience, and managerial position. The research instrument was the original CEAI. Respondents are asked to indicate their current views of their organizations on a degree from 1 - disagree strongly to 5- agree strongly. We got written permission from authors (see Appendix 1). The research took place from May 2016 to June 2016. For the purpose of data analysis, descriptive statistics, Pearson correlation, t test, ANOVA, factor analysis and regression were computed. Data analysis was conducted using SPSS Statistics 19.0.

5. RESULTS AND DISCUSSION

The results of the reliability statistics pointed that CEAI can be used in Serbian environment (Cronbach's Alpha for all scale was 0.927). Cronbach alpha for five aforementioned factors were 0.918; 0.782; 0.743; 0.465, and 0.696 respectively. The results of ANOVA showed significant differences between respondents from observed organization in anticipation of five factors (see Table 1).

Table 1

Post Hoc Tests - Multiple Comparisons

Dependent Variable	(I) Org	(J) Org	Mean Diff. (I-J)	Std. Error	Sig.
Management support	A	B	0.483	3.074	0.875
		C	-1.993	3.015	0.510
		D	-7.307(*)	2.984	0.015
	B	C	-2.475	2.566	0.336
		D	-7.790(*)	2.530	0.002
		D	-5.315(*)	2,458	0.032
Work discretion	A	B	1.366	1,402	0.332
		C	5.102(*)	1,375	0.000
		D	0.824	1,361	0.546
	B	C	3.737(*)	1,171	0.002
		D	-0.541	1,154	0.640
		D	-4.278(*)	1,121	0.000
Rewards	A	B	0.420	1,118	0.707
		C	0.247	1,096	0.822
		D	-1.773	1,085	0.104
	B	C	-0.173	0,933	0.853
		D	-2.194(*)	0,920	0.018
		D	-2.021(*)	0,894	0.025
Time Availability	A	B	0.818	0,803	0.310
		C	2.662(*)	0,788	0.001
		D	0.355	0,780	0.649
	B	C	1.844(*)	0,671	0.007
		D	-0.462	0,661	0.485
		D	-2.306(*)	0.642	0.000
Organizational boundaries	A	B	-0.238	1,042	0.820
		C	2.862(*)	1,022	0.006
		D	-0.111	1,012	0.913
	B	C	3.100(*)	0.870	0.000
		D	0.127	0.858	0.883
		D	-2.973(*)	0.834	0.000
CE_SUM	A	B	2.848	5.838	0.626
		C	8.881	5.725	0.123
		D	-8.013	5.667	0.159
	B	C	6.032	4.874	0.218
		D	-10.861(*)	4.806	0.025
		D	-16.893(*)	4.668	0.000

*. The mean difference is significant at the .05 level.

Source: Authors' calculations

Regarding the management support, the respondents from organization D had different attitudes from other three groups. Regarding the work discretion, the respondents from organization C had different attitudes from other three

groups. Regarding the rewards, the the respodents from organization D had different attitudes from other three groups. Regarding the time availability, the the respodents from organization C had different attitudes from other three groups. Regarding the organizational boundaries, the the respodents from organization C had different attitudes from other three groups. Analysis of the attitudes of the respondents of different socio-demographic variables showed that there was a different perception of the internal factors of corporate entrepreneurship.

The differences in the assessment of internal factors were recorded within a factor of work discretion between managers middle and senior levels (see Table 2). Higher levels of management to consider that factor significantly accelerates innovation in the analyzed organizations. There is a difference in perception of organizational boundaries from respondents who belong to the age group of 41 to 50 years. With regard to education, the respondents who have a College degree consider that rewards are important for the development and implementation of new ideas then other respondents.

Respondents who have 5 or less years of work experience are considered to have significant organizational boundaries to develop corporate entrepreneurship then those who have a longer tenure (see Table 2).

Table 2

Post Hoc Tests - Multiple Comparisons

Dependent Variable: Work discretion				
(I) Manager	(J) Manager	Mean Diff. (I-J)	Std. Error	Sig.
not	Middle	-2.746(*)	1,251	0,030
	Senior	-4.857(*)	1,972	0,015
Dependent Variable: Organizational boundaries				
(I) Age	(J) Age	Mean Diff. (I-J)	Std. Error	Sig.
21 - 30	31 - 40	0,454	1,121	0,686
	41 - 50	2.330(*)	1,132	0,041
	Over 51	0,063	1,169	0,957
Dependent Variable: Rewards				
(I) Education	(J) Education	Mean Diff. (I-J)	Std. Error	Sig.
High school	College	-3.301(*)	1,303	0,012
	Undergrad	-0,179	0,818	0,827
	Postgrad.	-1,537	1,409	0,277
Dependent Variable: Organizational boundaries				
(I) Work experience	(J) Work experience	Mean Diff. (I-J)	Std. Error	Sig.
5 or less	6 - 10	3.422(*)	1,135	0,003
	11 - 20	2.030(*)	0,930	0,030
	over 20	0,655	0,917	0,476

*. The mean difference is significant at the .05 level.

Source: Authors' calculations

The results of t test have showed that there was statistically significant differences between female and male respondents (see Table 3). Therefore, following analysis have been conducted with the results of statistics: independent samples test ($t = -2.88$; $df = 149$; $Sig. = 0.00$; $mean\ diff. = -2.45$; $Std.\ Err.\ Diff. = 0.85$), and t test independent samples ($t = 2.43$; $df = 149$; $Sig. = 0.02$; $mean\ diff. = 0.46$; $Std.\ Err.\ Diff. = 0.19$).

Table 3

Results of t test

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Err. Mean
Management support	F	115	50,03	12,66	1,18
	M	36	52,53	12,20	2,03
Work discretion	F	115	31,97	5,56	0,52
	M	36	31,44	6,72	1,12
Rewards	F	115	16,22	4,42	0,41
	M	36	18,67	4,52	0,75
Time availability	F	115	19,21	3,38	0,31
	M	36	18,36	3,53	0,59
Organizational boundaries	F	115	23,98	4,21	0,39
	M	36	22,83	4,72	0,79
CE_TOTAL	F	115	141,40	23,47	2,19
	M	36	143,83	25,85	4,31

Source: Authors' calculations

Statistically significant differences were identified within the factor named rewards. The female respondents assess that the rewards are much more important for the development of entrepreneurial organizational culture but male counterparts.

6. CONCLUSIONS

The main contribution of this paper is expanded existing literature by empirical testing of the research instrument for measuring corporate entrepreneurship in selected public organizations in transition environment. The total of 167 managers and employees from four Serbian companies participated in the survey.

The results of ANOVA showed significant differences between respondents from observed organization in anticipation of five factors: management support, rewards/reinforcement, work discretion, time availability and organizational boundaries. The research results confirmed the starting hypothesis. Analysis of the attitudes of the respondents of different socio-demographic variables showed that there was a different perception of the internal factors of corporate entrepreneurship. The differences in the assessment

of internal factors were recorded within a factor of work discretion between managers middle and senior levels. Higher levels of management to consider that factor significantly accelerates innovation in the analyzed organizations. Respondents who belong to the age group of 41 to 50 years had different perception of organizational boundaries then other age groups. With regard to education, the respondents who have a college degree considered that rewards were more important for the development and implementation of new ideas than other respondents. Respondents who have 5 or less years of work experience are considered organizational boundaries as important factor for development of the corporate entrepreneurship than those who have a longer tenure.

The study is the first step in exploring corporate entrepreneurship in one transition environment. Future study will include more organizations to further confirm validity of the CEAI in Serbian context.

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APPENDIX 1. THE CORPORATE ENTREPRENEURSHIP ASSESSMENT INSTRUMENT (CEAI)

We are interested in learning about how you perceive your workplace and organization. Please read the following items. Using the scale below please indicate how much you agree or disagree with each of the statements. If you strongly agree, write “5.” If you strongly disagree write “1.” There are no right or wrong answers to these questions so please be as honest and thoughtful as possible in your responses. All responses will be kept strictly confidential. Thank you for your cooperation!

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

Section 1: Management support for corporate entrepreneurship

1. My organization is quick to use improved work methods.
2. My organization is quick to use improved work methods that are developed by workers.
3. In my organization, developing one’s own ideas is encouraged for the improvement of the corporation.
4. Upper management is aware and very receptive to my ideas and suggestions.
5. A promotion usually follows from the development of new and innovative ideas.
6. Those employees who come up with innovative ideas on their own often receive management encouragement for their activities.
7. The “doers on projects” are allowed to make decisions without going through elaborate justification and approval procedures.
8. Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track.
9. Many top managers have been known for their experience with the innovation process.
10. Money is often available to get new project ideas off the ground.
11. Individuals with successful innovative projects receive additional rewards and compensation beyond the standard reward system for their ideas and efforts.

12. There are several options within the organization for individuals to get financial support for their innovative projects and ideas.

13. People are often encouraged to take calculated risks with ideas around here.

14. Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not.

15. The term “risk taker” is considered a positive attribute for people in my work area.

16. This organization supports many small and experimental projects, realizing that some will undoubtedly fail.

17. An employee with a good idea is often given free time to develop that idea.

18. There is considerable desire among people in the organization for generating new ideas without regard for crossing departmental or functional boundaries.

19. People are encouraged to talk to employees in other departments of this organization about ideas for new projects.

Section 2: Work discretion

20. I feel that I am my own boss and do not have to double check all of my decisions with someone else.

21. Harsh criticism and punishment result from mistakes made on the job.

22. This organization provides the chance to be creative and try my own methods of doing the job.

23. This organization provides the freedom to use my own judgment.

24. This organization provides the chance to do something that makes use of my abilities.

25. I have the freedom to decide what I do on my job.

26. It is basically my own responsibility to decide how my job gets done.

27. I almost always get to decide what I do on my job.

28. I have much autonomy on my job and am left on my own to do my own work.

29. I seldom have to follow the same work methods or steps for doing my major tasks from day to day.

Section 3: Rewards/Reinforcement

30. My manager helps me get my work done by removing obstacles and roadblocks.

31. The rewards I receive are dependent upon my innovation on the job.

32. My supervisor will increase my job responsibilities if I am performing well in my job.

33. My supervisor will give me special recognition if my work performance is especially good.

34. My manager would tell his/her boss if my work was outstanding.

35. There is a lot of challenge in my job.

Section 4: Time availability

36. During the past three months, my workload kept me from spending time on developing new ideas.

37. I always seem to have plenty of time to get everything done.

38. I have just the right amount of time and workload to do everything well.

39. My job is structured so that I have very little time to think about wider organizational problems.

40. I feel that I am always working with time constraints on my job.

41. My co-workers and I always find time for long-term problem solving.

Section 5: Organizational boundaries

42. In the past three months, I have always followed standard operating procedures or practices to do my major tasks.

43. There are many written rules and procedures that exist for doing my major tasks.

44. On my job I have no doubt of what is expected of me.

45. There is little uncertainty in my job.

46. During the past year, my immediate supervisor discussed my work performance with me frequently.

47. My job description clearly specifies the standards of performance on which my job is evaluated.

48. I clearly know what level of work performance is expected from me in terms of amount, quality, and timelines of output.