THE DRIVERS OF **ENTREPRENEURIAL UNIVERSITY**: EVIDENCE FROM SERBIA

Prepared for the purpose of FINHED project

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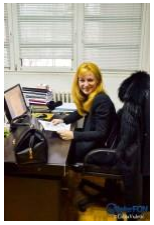

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INTRODUCTION

ENTREPRENEURIAL UNIVERSITY

- The economy of knowledge, turbulences in economy and unprecedented societal changes have refocused the role of universities and research institutions from teaching towards the contribution to the society and economic development in more direct manner
- Universities have an important role in economic and cultural growth

Ongoing debate

PROS

- An important role in economic and cultural growth (Etzkowitz, et al., 2000)
- Universities must train future entrepreneurs and act in the entrepreneurial manner (Schulte, 2007)

CONS

- Univeristies are not the most entrepreneurial of institutions (Kirby, 2006)
- "…an image of a shady villainy, a fifth column gnawing away at the basic value that define university, a wolf masquerading as a milch-cow" (McNay, 2002)

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OBJECTIVES OF THE STUDY

- The main objective of this paper is to examine and explore the relationship between various determinants of entrepreneurial universities on one side, and entrepreneurial success on the other.
- Academic entrepreneurial activity is very important as it generates knowledge spill-over (Di Gregorio & Shane, 2003) and drives local economic development as the technology transfer tends to be geographically close to the university (Audretsch, Lehmann & Warning, 2004).

THEORETICAL DRIVERS OF ENTREPRENEURIAL UNIVERSITY

ENTREPRENEURIAL SUCCESS OF UNIVERSITY

- Guerrero, Cunningham & Urbano (2014): entrepreneurial universities "provide adequate environments for their students, academics and staff to explore/exploit the entrepreneurial activities."
- Creation or involvement in operations of technology parks or **business incubators** is the most complex entrepreneurial activity of a university (Milosavljević, Žarkić Joksimović & Okanović, 2012). A rudimental entrepreneurial activity of universities is creation of new organizations – high-tech **spin-offs** (Kofsten & Jones-Evans, 2000). The spin-off company is an alternative form of commercialization since it requires a long term and risk-taking commitment of a university (Gurba, 2014). Kofsten and Jones-Evans (2000) indicate that **specific contracts** with external business organizations are also an important entrepreneurial action undertaken by the university staff. Philpott (2011) adds to this list activities such as **patenting** and licensing, **industry training courses** and **consulting**.

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KEY THEORETICAL DRIVERS OF ENTREPRENEURAIL UNIVERSITY

LEADERSHIP & GOVERNANCE

INSTITUTIONAL CAPACITY

Ent IN TEACHING AND LEARNING

UNI-BUS COLLABORATION

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BACKGROUND OF HIGHER EDUCATION IN SERBIA

DEVELOPMENT OF H.E.

- Disintegration of universities (Zgaga, 1996) – "the effect of entrepreneurial faculties"
- Mass-education – "the effect of overcrowded classroom"

MACROECONOMICS

- Fiscal pressures and lack of funds - for the year 2010, total public expenditure for higher education in Serbia was only 0.76% of (relatively low) GDP

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METHODOLOGY

Methodology

Questionnaire administration

Sampling procedure

Research variables

Data collection & analysis

- The study used a questionnaire as a main research tool
- CATI and PAPI techniques
- The pilot testing was done at the University of Belgrade by 11 academics

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Methodology

Questionnaire administration

Sampling procedure

Research variables

Data collection & analysis

- Faculty and administrative staff involved in managerial activities
- Total number of filled questionnaires was 79 (72 valid)

Methodology

Questionnaire administration

Sampling procedure

Research variables

Data collection & analysis

- *Dependent variable* – entrepreneurial success
- *Independent variables* – (1) leadership and governance, (2) institutional capacity, (3) entrepreneurship in teaching and research, and (4) university-business relationships

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Methodology

Questionnaire administration

Sampling procedure

Research variables

Data collection & analysis

- Data collected by trained assistants
- Period: December 2014
- Analysis: SPSS
- Means, std. dev., frequencies
- Pearson's correlation and multiple regression

EXAMINEE PROFILE

		Frequency	Percent	Cumulative Percent
Valid	Administrative	10	13,2	13,2
	Assistant	19	25,0	38,2
	Professor	45	59,2	97,4
	Other	2	2,6	100,0
	Total	76	100,0	

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RESULTS & DISCUSSION

DESCRIPTIVES
independent variables

Entrepreneurial mission	Mean	**Institutional capacity**	Mean
Entrepreneurial mission	2,82	Diversified financing	2,58
Commitment	2,42	Financing – key issue	2,99
Specific model	2,85	Experts from practice	3,75
Autonomy	3,34	Investing to employees	2,97
Entrepreneurial driver	3,18	Rewarding employees	3,28
		Rewarding external partners	3,72
Entrepreneurship, study programs and research	Mean	**University-business cooperation**	Mean
Entrepreneurial curriculum	3,41	Commitment to cooperation	3,47
Entrepreneurial thinking	2,97	Cooperation with industry	3,43
Entrepreneurial case studies	2,78	Cooperation with bus.incubators	3,65
Rewarding entrepreneurial students	2,89	Employees in industry	3,47
Entrepreneurial-based research	3,26	Student internship	3,49

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DESCRIPTIVES
dependent variables

Entrepreneurial success	N	Mean	Std.D
Involvement into business incubation processes	73	2,99	1,286
Number of spin-offs	75	2,85	1,074
Patents, licenses, new products, software etc.	75	2,96	1,409
Projects for industry	72	3,58	,915
Courses, trainings and seminars for industry	75	3,31	1,241
Consulting	75	2,85	1,343
Valid N (listwise)	71		
Cronbach Alpha			0.650

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Correlations

		Leadership and governance	Institutional capacity	Entrepr. in teaching and research	University Business cooperation	Entrepreneurial success
Leadership and governance	Pearson Correlation	1	,643**	,621**	,348**	,516**
	Sig. (2-tailed)		,000	,000	,003	,000
	N		70	72	72	69
Institutional capacity	Pearson Correlation		1	,648**	,448**	,639**
	Sig. (2-tailed)			,000	,000	,000
	N			71	71	67
Entrepreneurship in teaching and research	Pearson Correlation			1	,532**	,619**
	Sig. (2-tailed)				,000	,000
	N				74	70
University Business cooperation	Pearson Correlation				1	,408**
	Sig. (2-tailed)					,000
	N					70
Entrepreneurial success	Pearson Correlation					1
	Sig. (2-tailed)					
	N					

**. Correlation is significant at the 0.01 level (2-tailed).

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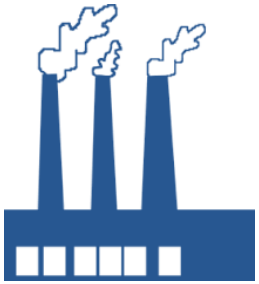
DISCUSSION

LEADERSHIP & GOVERNANCE

INSTITUTIONAL CAPACITY

Ent IN TEACHING AND LEARNING



UNI-BUS COLLABORATION

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CONCLUSIONS & IMPLICATIONS

CONCLUSIONS

1. SUMMARY OF THE MODEL
2. IMPLICATIONS
3. LIMITATIONS
4. RECOMMENDATIONS
5. CONLUDING REMARKS

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Q&A

Thank you for the attention!