



Doctoral Dissertations from Organization, Management and Entrepreneurship at South East European Universities (1997-2016)

Doktorske disertacije iz područja menadžmenta, organizacije i poduzetništva u regiji (1997-2016)

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7. Interkatedarski skup katedri za organizaciju, menadžment i poduzetništvo na visokoškolskim institucijama u jugoistočnoj Europi

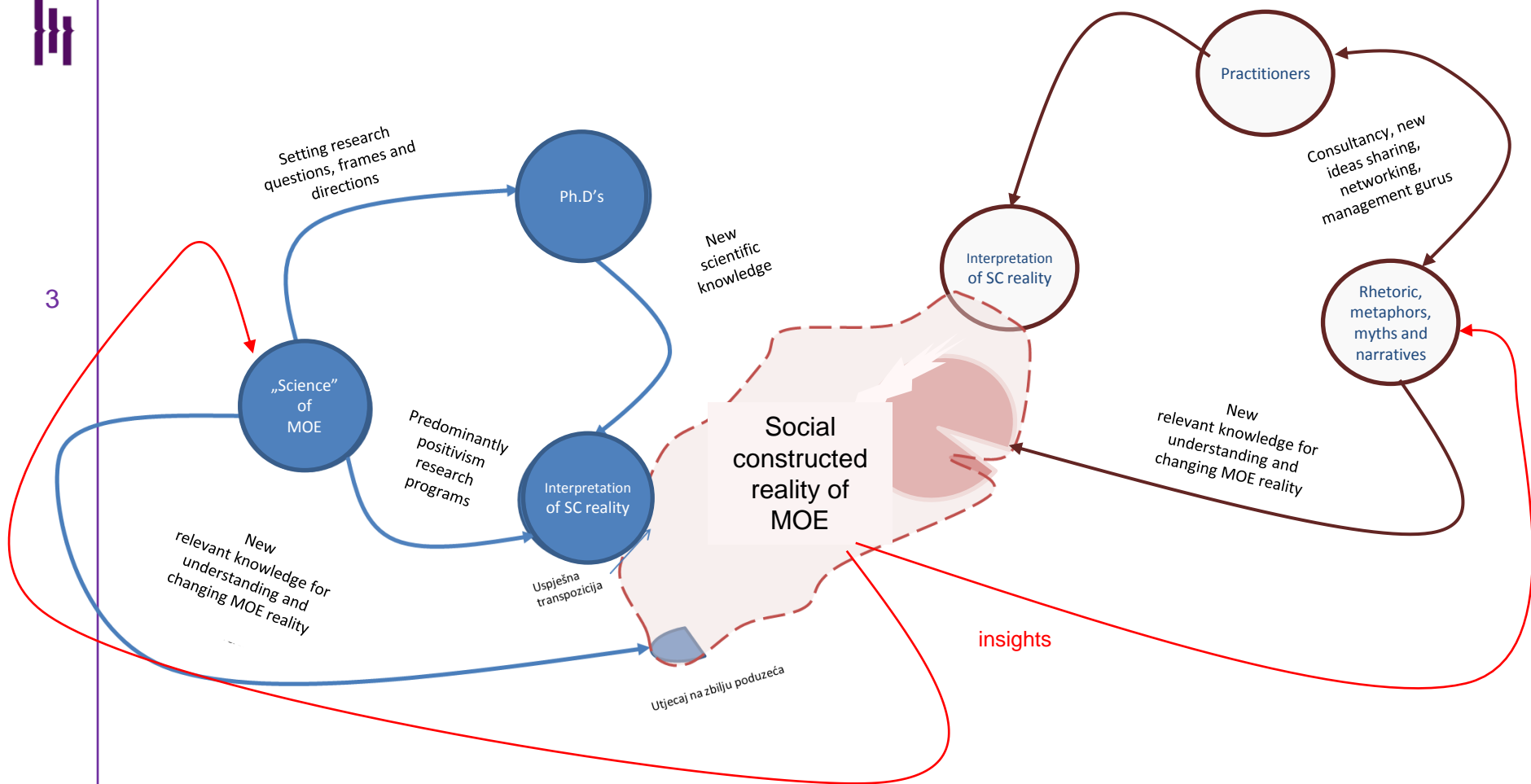
*Management Education and Research in the Upcoming Epoch:
Rethinking Discipline and Reconceptualization Modes of Creating Knowledge*

Zagreb, 22.9.2017.

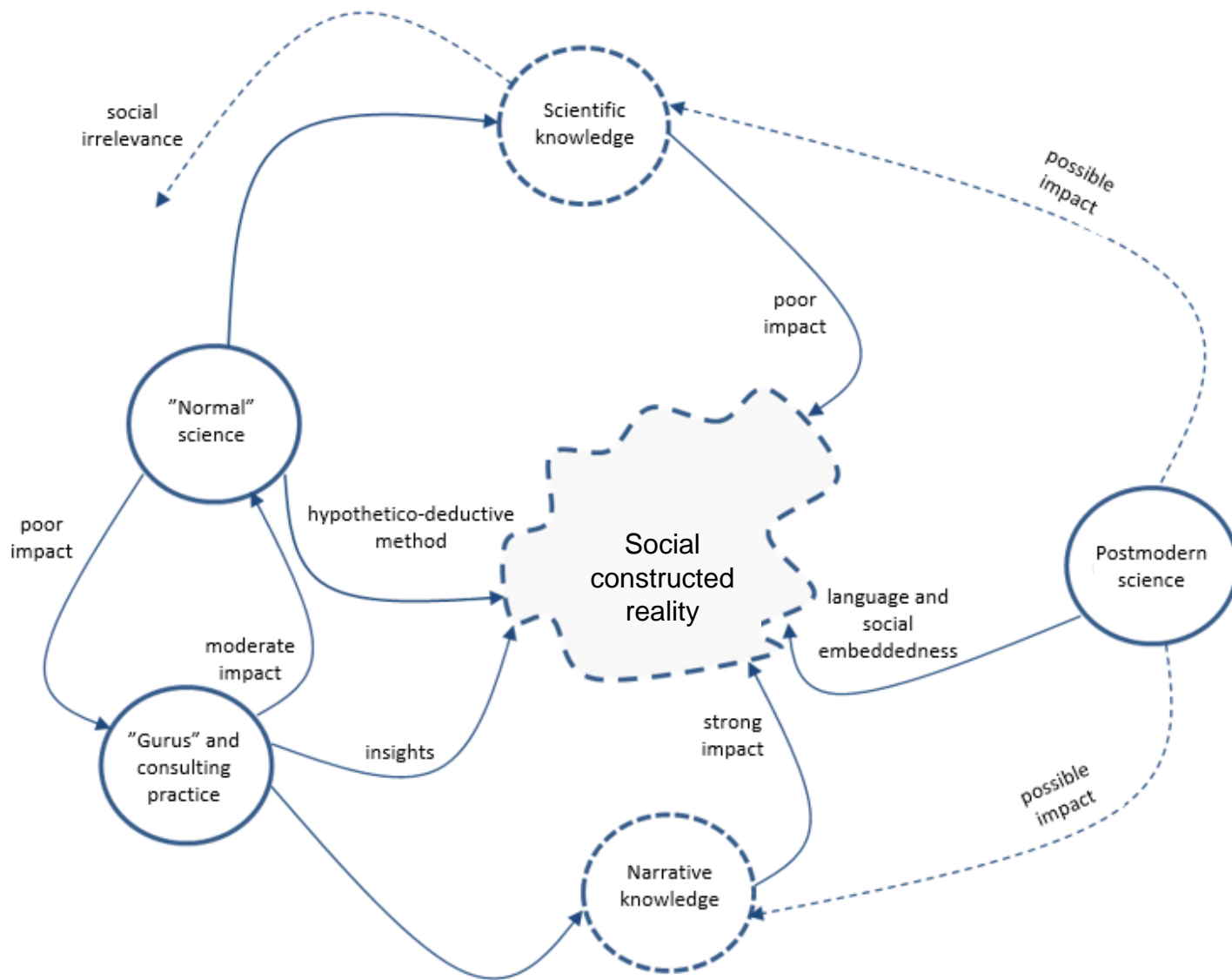
Introduction

- The paper explores basic features of doctoral dissertations in the field of organization, management and entrepreneurship, which were defended in the period of 1997-2016 at 13 universities from four Southeast European countries (Croatia, Slovenia, Bosnia and Herzegovina, and Serbia).
- Our intention is to explore several issues: (1) to identify the most important themes depicted in the doctoral dissertations in South East Europe in the areas of management, organization and entrepreneurship, (2) to determine whether there are significant divergences in the research practice of the universities in the region, and (3) to explore how the research interest in doctoral topics in these areas moved over time at selected universities.

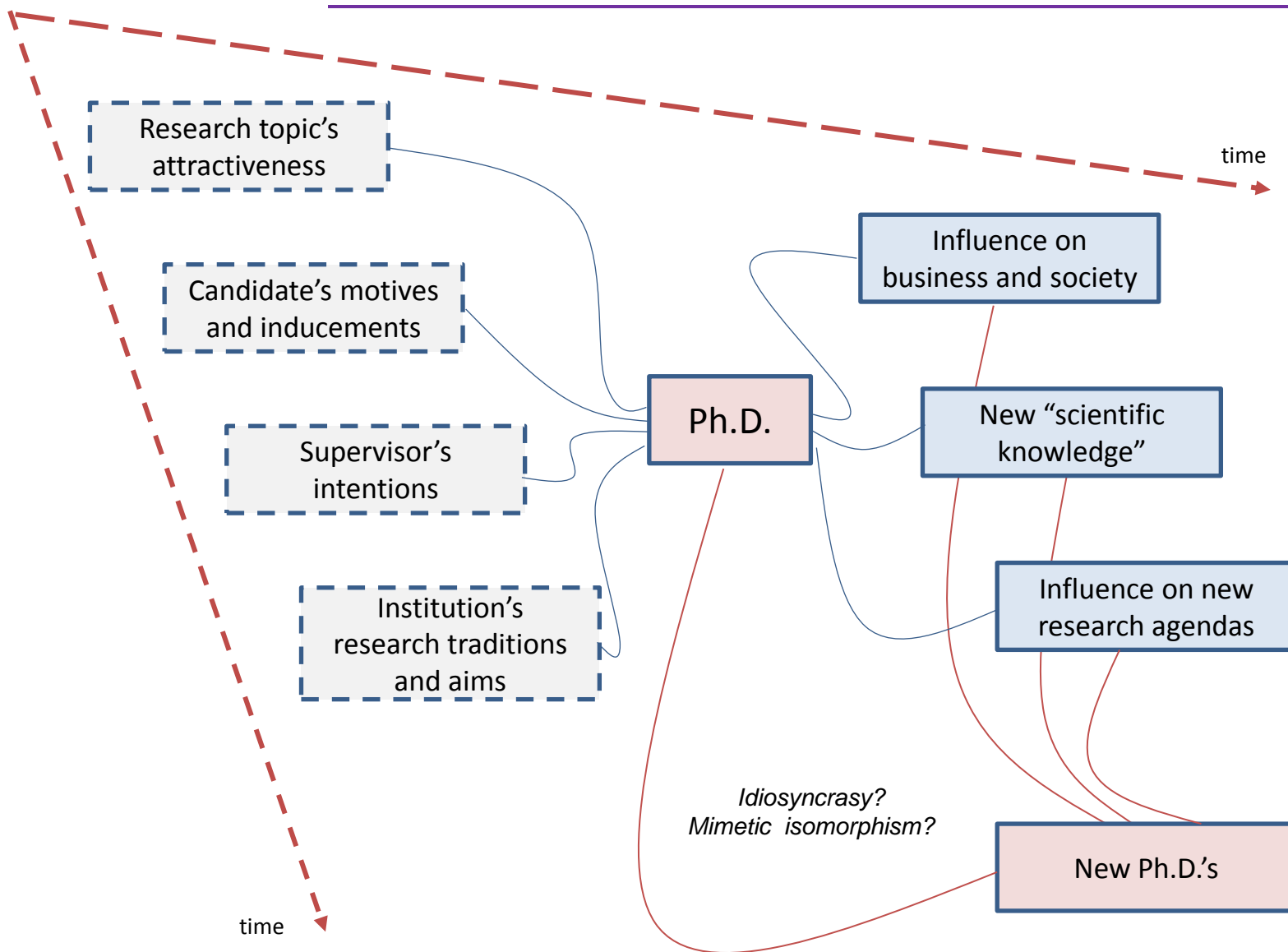
Problem of irrelevance of scientific knowledge in MOE studies



Is normal science a significant component in creation of knowledge in MOE?



The phenomenon of dissertations' correspondences and similarities



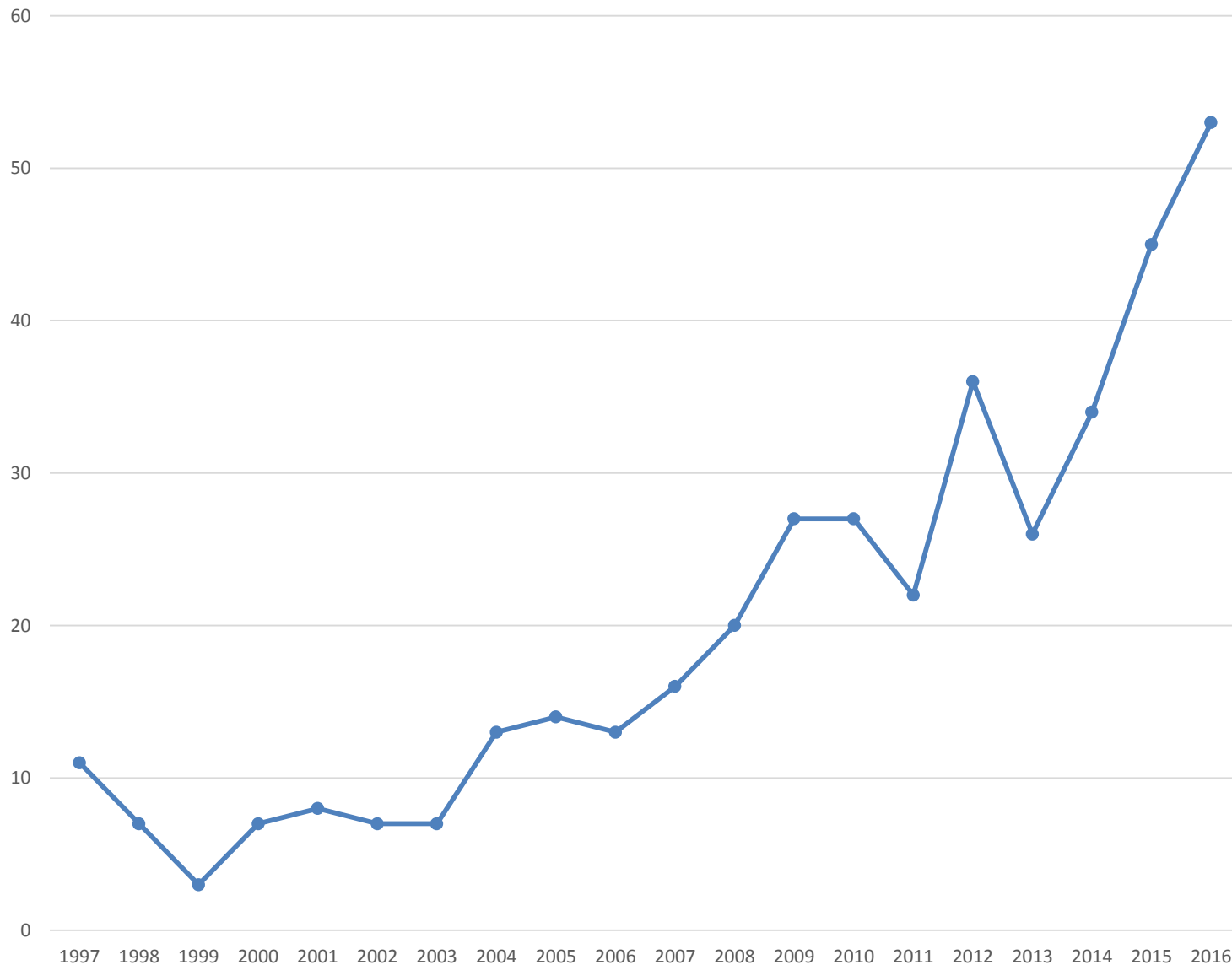
Selected institutions

1. Sveučilište u Zagrebu, Ekonomski fakultet - Zagreb
University of Zagreb, Faculty of Economics & Business (EFZG)
2. Sveučilište J. J. Strossmayera u Osijeku, Ekonomski fakultet
J. J. Strossmayer University of Osijek, Faculty of Economics (EFOS)
3. Sveučilište u Rijeci, Ekonomski fakultet
University of Rijeka, Faculty of Economics (EFRI)
4. Sveučilište Jurja Dobrile u Puli, Fakultet ekonomije i turizma "Dr. Mijo Mirković"
Juraj Dobrila University of Pula, Faculty of Economics and Tourism "Dr. Mijo Mirković" (EFPU)
5. Sveučilište u Splitu, Ekonomski fakultet
University of Split, Faculty of Economics (EFST)
6. Univerzitet u Kragujevcu, Ekonomski fakultet
University of Kragujevac, Faculty of Economics (EFK)
7. Univerzitet u Novom Sadu, Ekonomski fakultet u Subotici
University of Novi Sad, Faculty of Economics Subotica (EFSU)
8. Univerzitet u Sarajevu, Ekonomski fakultet
University of Sarajevo, School of Economics and Business (EFSA)
9. Univerzitet u Banjoj Luci, Ekonomski fakultet
University of Banja Luka, Faculty of Economics (EFBL)
10. Sveučilište u Mostaru, Ekonomski fakultet
University of Mostar, Faculty of Economics (EFMO)
11. Univerza na Primorskem, Fakulteta za management
University of Primorska, Faculty of Management (EFFM)
12. Univerza v Mariboru, Ekonomsko-poslovna fakulteta
University of Maribor, Faculty of Economics (EFPUM)
13. Univerza v Ljubljani, Ekonomska fakulteta
University of Ljubljana, Faculty of Economics (EFLU)

Basic information about selection of dissertations

- 396 doctoral dissertations were defended in thirteen institutions in Southeast Europe from 1997 to 2016 in the area of management, organization and entrepreneurship. Since we conducted the survey in mid 2017, we have also received data on 6 newly defended dissertations, so we also included them in the analysis of themes and keywords.
- The analysis by years shows an evident increase in the number of doctoral dissertations over the observed period. By 2003, there were less than ten PhDs per year in the analyzed institutions, and since then the number of dissertations has been increasing gradually from year to year and in 2016 it has reached the number of 52 defended dissertations.

Number of MOE doctoral dissertations – selected institutions (1997-2016)



Number of MOE doctoral dissertations – selected institutions

	Institution	Country	Number of dissertations
1.	Ekonomski fakultet, Zagreb	Croatia	43
2.	Ekonomski fakultet, Split	Croatia	37
3.	Ekonomski fakultet, Osijek	Croatia	45
4.	Ekonomski fakultet, Rijeka	Croatia	15
5.	Fakultet „Mijo Mirković“, Pula	Croatia	10
6.	Ekonomski fakultet, Ljubljana	Slovenia	82
7.	Ekonomsko-poslovna fakultet, Maribor	Slovenia	37
8.	Fakultet za menadžment, Koper	Slovenia	32
9.	Ekonomski fakultet, Sarajevo	B-H	32
10.	Ekonomski fakultet, Banja Luka	B-H	18
11.	Ekonomski fakultet, Mostar	B-H	8
12.	Ekonomski fakultet, Subotica	Serbia	27
13.	Ekonomski fakultet, Kragujevac	Serbia	16

Number of MOE doctoral dissertations per year

	EFBL	EFZG	EFRI	EFST	EFSa	EFPU	EFPUm	EFOS	EFLU	EFFM	EFMO	EFK	EFSU	UKUPNO
1997	1	4	0	1	0	0	1	0	2	0	0	0	2	11
1998	0	0	1	0	1	0	1	0	2	0	0	1	1	7
1999	0	0	0	0	0	0	1	1	0	0	0	0	1	3
2000	0	0	0	0	1	0	3	0	2	0	0	0	1	7
2001	3	3	0	0	0	0	0	0	2	0	0	0	0	8
2002	0	3	0	0	0	0	0	2	1	0	0	0	1	7
2003	0	1	1	1	1	0	0	0	2	0	0	1	0	7
2004	2	0	0	0	1	0	2	0	6	0	0	1	1	13
2005	1	2	0	0	0	0	0	1	3	0	0	2	5	14
2006	0	3	0	0	0	0	0	0	5	2	0	0	3	13
2007	1	1	1	0	0	0	4	0	7	0	0	1	1	16
2008	1	2	1	0	2	0	1	2	6	3	0	0	2	20
2009	0	2	0	2	0	0	2	4	5	6	0	4	2	27
2010	1	4	2	8	6	0	0	1	3	2	0	0	0	27
2011	1	4	3	4	1	0	2	1	3	2	0	0	1	22
2012	2	1	0	8	0	1	2	9	10	3	0	0	0	36
2013	1	5	0	0	4	0	2	4	4	3	0	3	0	26
2014	1	3	2	3	1	6	0	2	6	2	4	2	2	34
2015	0	3	4	6	7	1	8	3	3	2	3	1	4	45
2016	3	2	0	4	7	2	8	11	9	7	0	0	0	53
2017	0	0	0	0	0	0	0	4	1	0	1	0	0	6
Total	18	43	15	37	32	10	37	45	82	32	8	16	27	402

Gender structure of doctoral students in SEE region

	M	F	Total	M	F
1997. - 2001.	21	15	36	58,3%	41,7%
2002. - 2006.	28	26	54	51,9%	48,1%
2007. - 2011.	57	55	112	50,9%	49,1%
2012. - 2016.	87	107	194	44,8%	55,2%
1997. - 2016.	193	203	396	48,7%	51,3%

Institution	M	F	Total	M	F
EFBL	15	3	18	83,3%	16,7%
EFZG	17	26	43	39,5%	60,5%
EFRI	8	7	15	53,3%	46,7%
EFST	15	22	37	40,5%	59,5%
EFSA	19	13	32	59,4%	40,6%
EFPU	4	6	10	40,0%	60,0%
EFPUM	16	21	37	43,2%	56,8%
EFOS	19	22	41	46,3%	53,7%
EFLU	40	41	81	49,4%	50,6%
FMKP	16	16	32	50,0%	50,0%
EFMO	3	4	7	42,9%	57,1%
EFK	7	9	16	43,8%	56,3%
EFSU	14	13	27	51,9%	48,1%

12

F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Keyword	frequency	EBFL	EFZG	EFRI	EFST	ESA	EFPU	EFUPM	EFOS	EFUL	FMKP	EFMO	EFK	EFUSU	
1 ICT	17	0	1	0	0	5	1	2	1	6	1	0	0	0	
2 hotel industry	10	1	3	1	2	0	1	0	1	0	0	1	0	0	
3 health care industry	9	0	0	0	0	2	0	2	1	3	1	0	0	0	
4 tourism	8	0	2	0	0	0	0	0	2	1	1	0	1	1	
5 manufacturing	7	0	1	0	3	0	0	0	0	0	2	1	0	0	
6 retail	6	0	1	0	1	0	0	0	1	2	0	0	0	1	
7 franchising	4	0	0	0	0	0	0	0	1	1	0	0	0	2	
8 wood processing industry	4	0	0	1	0	0	0	0	0	2	1	0	0	0	
9 insurance industry	3	0	0	1	0	0	0	0	2	0	0	0	0	0	
10 construction industry	2	0	1	0	0	0	0	0	0	0	1	0	0	0	
11 mining industry	2	0	0	0	0	1	0	0	0	1	0	0	0	0	
12 processing industry	2	0	1	0	1	0	0	0	0	0	0	0	0	0	
13 pharmaceutical industry	2	0	0	0	0	0	0	1	0	1	0	0	0	0	

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Mapping intellectual structure of dissertations

- **253** different themes were identified, including three that have the highest frequency of occurrence: **performance** (89), **strategy** (66) and **management** (51).
- Of that number, **145** themes are listed only once and **26** twice. The total number of occurrences of themes in the selected dissertations is **1106**.
- Based on the analysis of key themes we sought after to determine whether there are significant divergences in the research practice of the universities in these research areas.
- Besides, we carried out a **multiple correspondence analysis (MCA) and correspondence analysis (CA)** which provided us with a two-dimensional models illustrating the themes' and institutions based on their proximity.

Themes with the highest frequency of appearance in the dissertations (≥ 10)

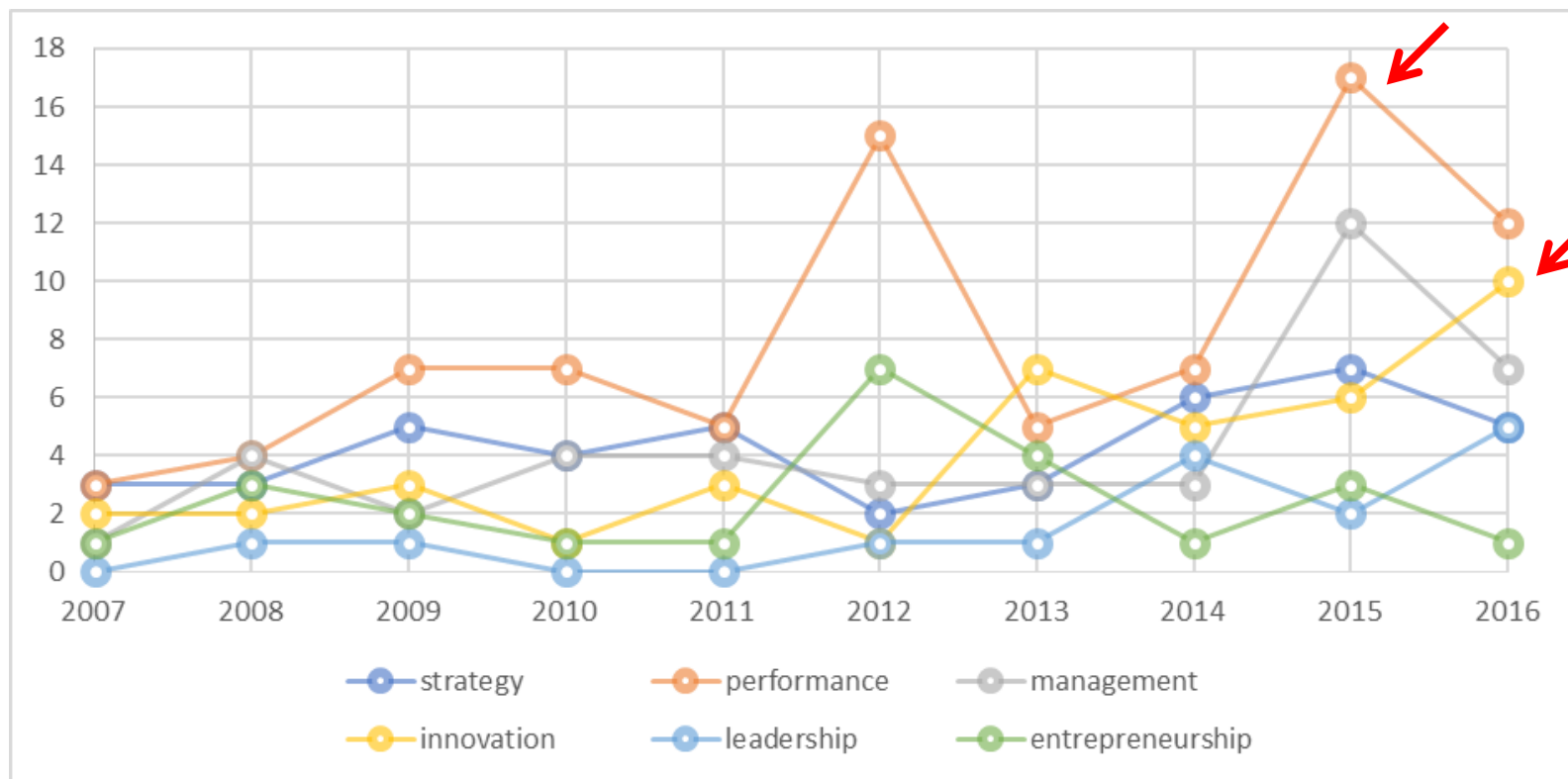
	Themes			Themes	
1	performance	89	16	competitiveness	16
2	strategy	66	17	quality management	15
3	management	51	18	knowledge management	15
4	Innovation	42	19	market	15
5	entrepreneurship	30	20	transition	14
6	organization	24	21	large enterprises	13
7	human resource management	21	22	business processes	12
8	SME	21	23	higher education	12
9	business decision-making	19	24	corporate governance	11
10	growth	19	25	Networks	11
11	leadership	18	26	CSR	11
12	competitive advantage	17	27	organizational change	10
13	ICT	17	28	organizational learning	10
14	international management	17	29	hotel industry	10
15	environment	16			

Themes with the highest frequency of appearance in the dissertations (2007-2016)

2007 (14)	f	2008 (19)	f	2009 (21)	f	2010 (29)	f	2011 (18)	f
Strategy	3	management	4	performance	7	performance	7	performance	5
Performance	3	performance	4	strategy	4	Competitiveness	6	management	4
risk management	2	strategy	3	business decision-making	3	Management	4	Strategy	4
Innovation	2	entrepreneurship	3	international management	3	quality management	4	corporate governance	3
social networks	2	growth	2			strategy	4	M&A	3
						business decision-making	3	human resource management	2
								innovation	2
								organizational structure	2
								SME	2

2012 (39)	f	2013 (22)	f	2014 (29)	f	2015 (39)	f	2016 (52)	f
performance	15	innovation	7	performance	7	performance	15	performance	12
entrepreneurship	7	performance	5	strategy	6	management	11	Innovation	10
organization	6	entrepreneurship	4	innovation	5	public administration	7	management	7
knowledge management	5	management	3	leadership	4	strategy	7		
competitive advantage	4	human resource management	3	business processes	3	innovation	5		
large enterprises	4	ICT	3	growth	3				
		strategy	3	competitive advantage	3				
				SME	3				
				manufacturing	3				
				top management	3				

Frequency of appearance selected 6 themes (2007-2016)



Themes with the highest frequency of appearance in the dissertations at observed universities in Croatia

EFZG (43)	f	EFRI (15)	f	EFOS (45)	f	EFST (37)	F	EFPU (10)	f
strategy	14	performance	5	management	10	performance	23	strategy	2
Performance	7	management	4	Entrepreneurship	8	strategy	8	competitive advantage	2
human resource management	5	M&A	2	higher education	7	large enterprises	7		
Organization	5	values	2	knowledge management	5	SME	4		
		public administration	2	performance	5				
		strategy	2						
		growth	2						
		business processes	2						

Themes with the highest frequency of appearance in the dissertations at observed universities in Slovenia

EFLU (82)	f	EFPUM (37)	f	FMKP (32)	f
performance	15	innovation	15	performance	6
strategy	10	management	7	entrepreneurship	4
innovation	9	performance	5	knowledge management	4
		entrepreneurship	5		
		transition	5		

Themes with the highest frequency of appearance in the dissertations at observed universities in Bosnia and Herzegovina

EFBL (18)	f	EFMO (8)	f	EFSA (32)	f
performance	6	performance	5	performance	8
transition	3	public administration	2	management	7
investment	3	outsourcing	2	strategy	6
public companies	3			ICT	5
strategy	2			competitiveness	4
organizational change	2				
corporate governance	2				
organizational structure	2				
restructuring	2				
entrepreneurship	2				

Themes with the highest frequency of appearance in the dissertations at observed universities in Serbia

EFK (16)	f	EFSU (27)	f
strategy	6	strategy	8
organizational change	3	management	6
management	2	innovation	5
competitiveness	2	growth	3
human resource management	2	performance	3
business decision-making	2		
globalization	2		
international management	2		

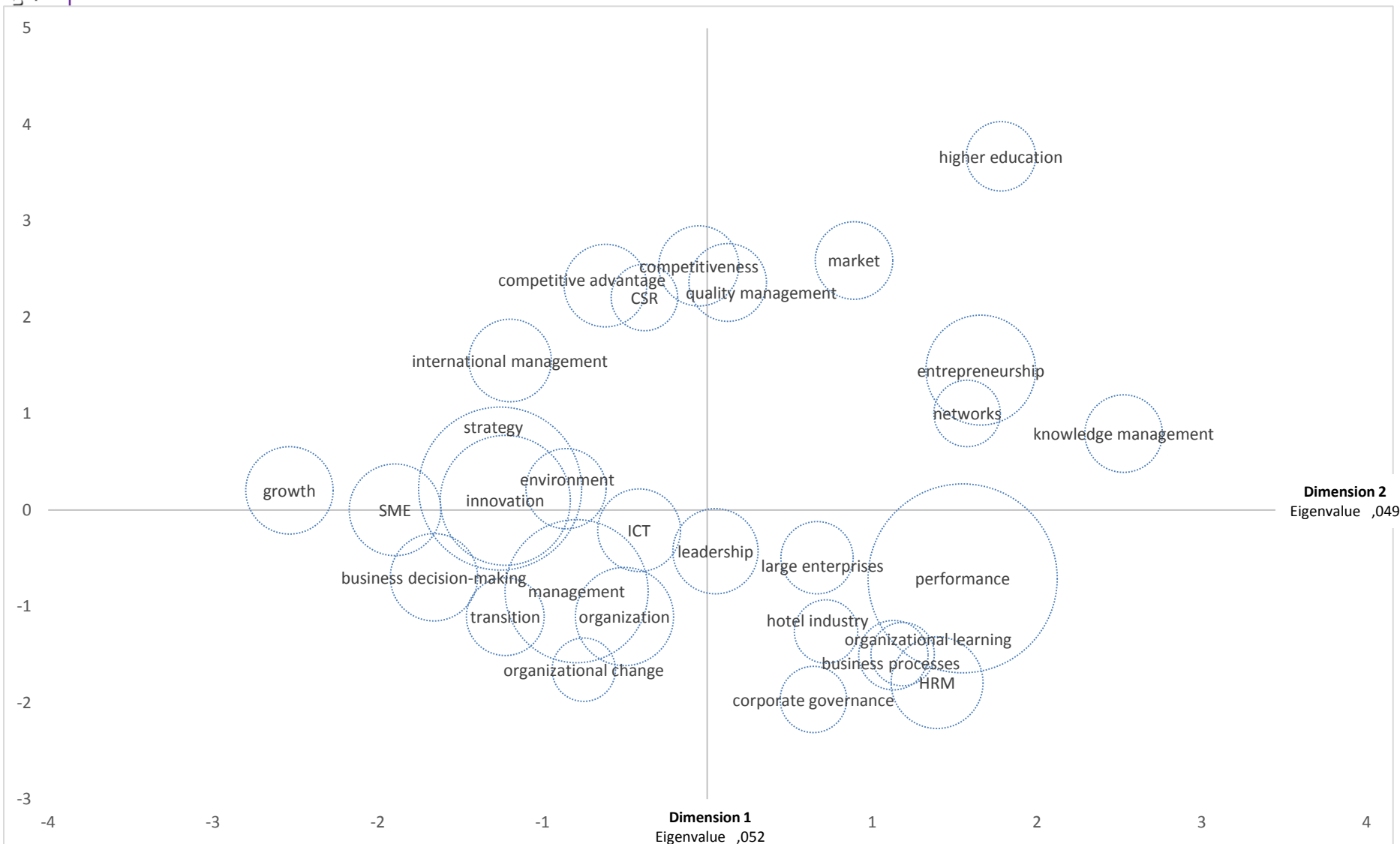
Themes with more than 10% frequency of appearance in dissertations in analysed institutions

	EFBL	EFZG	EFRI	EFST	EFSA	EFPU	EFPUM	EFOS	EFLU	FMKP	EFMO	EFK	EFBU
performance	33%	16%	33%	62%	25%	10%	14%	11%	18%	19%	63%	0%	11%
strategy	11%	33%	13%	22%	19%	20%	3%	9%	12%	9%	0%	38%	30%
management	6%	7%	27%	8%	22%	0%	19%	22%	7%	6%	0%	13%	22%
innovation	6%	5%	7%	5%	9%	10%	41%	2%	11%	6%	13%	0%	19%
entrepreneurship	11%	2%	0%	3%	0%	0%	14%	18%	6%	13%	0%	6%	7%
organization	6%	12%	7%	0%	3%	10%	8%	4%	9%	3%	0%	6%	4%
HRM	6%	12%	0%	8%	6%	0%	3%	7%	5%	0%	0%	13%	4%
SME	6%	0%	0%	11%	6%	10%	8%	4%	5%	9%	0%	0%	4%
business decision-making	0%	7%	0%	5%	9%	0%	3%	4%	5%	3%	0%	13%	4%
growth	0%	0%	13%	3%	0%	0%	8%	4%	5%	6%	13%	6%	11%
leadership	0%	0%	0%	8%	3%	0%	5%	4%	7%	6%	13%	6%	0%
competitive advantage	6%	2%	0%	5%	3%	20%	0%	7%	5%	3%	0%	6%	7%
ICT	0%	2%	0%	0%	16%	10%	5%	2%	7%	3%	0%	0%	0%
international management	0%	5%	0%	3%	0%	0%	3%	4%	9%	3%	0%	13%	4%
environment	0%	2%	7%	3%	0%	0%	0%	7%	9%	6%	0%	0%	4%
competitiveness	0%	2%	7%	8%	13%	10%	3%	7%	0%	0%	0%	13%	0%
quality management	6%	2%	7%	5%	3%	0%	0%	9%	2%	3%	0%	6%	4%
knowledge management	0%	2%	0%	3%	3%	0%	0%	11%	2%	13%	13%	0%	0%
transition	17%	0%	0%	0%	6%	0%	14%	0%	2%	3%	0%	0%	4%
large enterprises	0%	5%	7%	19%	0%	0%	0%	0%	2%	3%	0%	0%	0%
business processes	6%	0%	13%	3%	9%	10%	3%	0%	1%	0%	13%	0%	4%
higher education	0%	0%	0%	0%	9%	0%	0%	16%	1%	3%	0%	0%	0%
corporate governance	11%	5%	7%	3%	0%	0%	0%	0%	1%	6%	13%	6%	0%
networks	0%	7%	7%	3%	6%	0%	0%	0%	2%	0%	0%	0%	7%
CSR	0%	5%	0%	0%	6%	10%	5%	2%	4%	0%	0%	0%	0%
market	6%	5%	7%	0%	6%	0%	0%	2%	5%	0%	0%	0%	0%
organizational change	11%	0%	7%	0%	3%	0%	0%	0%	2%	3%	0%	19%	0%
organizational learning	0%	0%	7%	3%	0%	0%	3%	2%	7%	0%	0%	0%	0%
hotel industry	6%	7%	7%	5%	0%	10%	0%	2%	0%	0%	13%	0%	0%
capabilities	7%		5%										
public administration					9%						25%		
employees						8%				9%			
technology						5%				6%			
family business						5%				6%			
personality traits						8%							
healthcare						5%							

Mapping intellectual structure of dissertations: Multiple correspondence analysis

- *Multiple Correspondence Analysis* (MCA) is an exploratory data analysis technique for the graphical display of multivariate categorical data. Two-dimensional space, illustrating themes' **importance** and their **proximity**, as result of MCA and content analysis, is suitable graphical presentation of data and solid basis for considering the analyzed phenomena.
- The position of themes on the map symbolizes the content of all dissertations that might be described by the two dimensions that emerged from the analysis.
- The **distance between the circles** reflects the proportion of dissertations that jointly discuss the topics related to the themes: the closer they are in their proximity, the larger the segment of dissertations that mention them together and vice versa.

The intellectual structure of the dissertations in management, organization and entrepreneurship in SEE Universities



Correspondence analysis of dissertations' themes and institutions

- **Correspondence analysis** is a statistical visualization method for exploring the relationship and picturing the associations between the levels of a two-way contingency table
- It is a geometric technique for displaying the rows and columns of a two-way contingency table as **points** in a **low-dimensional space**, such that the positions of the row and column points are consistent with their associations in the table
- For purpose of our study, we have selected two variables for CA: (1) the institutions and (2) the themes

Correspondence analysis of dissertations' themes and institutions

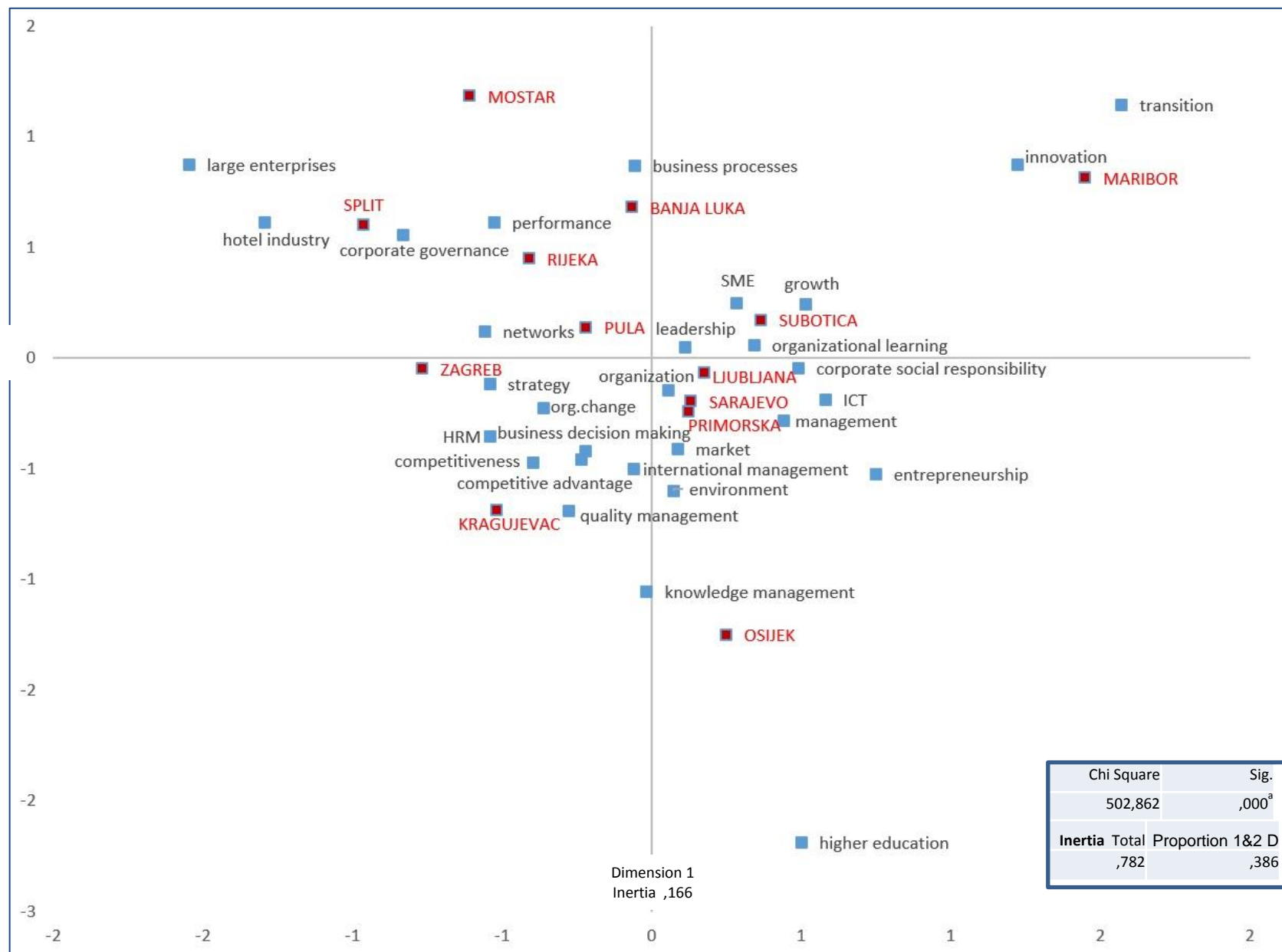
two-way contingency table (13 institutions * 29 themes)

	EFBL	EFZG	EFRI	EFST	EFSA	EFPU	EFPUM	EFOS	EFLU	FMKP	EFMO	EFK	EFSU
performance	6	7	5	23	8	1	5	5	15	6	5	0	3
strategy	2	14	2	8	6	2	1	4	10	3	0	6	8
management	1	3	4	3	7	0	7	10	6	2	0	2	6
innovation	1	2	1	2	3	1	15	1	9	2	1	0	5
entrepreneurship	2	1	0	1	0	0	5	8	5	4	0	1	2
organization	1	5	1	0	1	1	3	2	7	1	0	1	1
human resource management	1	5	0	3	2	0	1	3	4	0	0	2	1
SME	1	0	0	4	2	1	3	2	4	3	0	0	1
business decision-making	0	3	0	2	3	0	1	2	4	1	0	2	1
growth	0	0	2	1	0	0	3	2	4	2	1	1	3
leadership	0	0	0	3	1	0	2	2	6	2	1	1	0
competitive advantage	1	1	0	2	1	2	0	3	4	1	0	1	2
ICT	0	1	0	0	5	1	2	1	6	1	0	0	0
international management	0	2	0	1	0	0	1	2	7	1	0	2	1
environment	0	1	1	1	0	0	0	3	7	2	0	0	1
competitiveness	0	1	1	3	4	1	1	3	0	0	0	2	0
quality management	1	1	1	2	1	0	0	4	2	1	0	1	1
knowledge management	0	1	0	1	1	0	0	5	2	4	1	0	0
transition	3	0	0	0	2	0	5	0	2	1	0	0	1
large enterprises	0	2	1	7	0	0	0	0	2	1	0	0	0
business processes	1	0	2	1	3	1	1	0	1	0	1	0	1
higher education	0	0	0	0	3	0	0	7	1	1	0	0	0
corporate governance	2	2	1	1	0	0	0	0	1	2	1	1	0
networks	0	3	1	1	2	0	0	0	2	0	0	0	2
CSR	0	2	0	0	2	1	2	1	3	0	0	0	0
market	1	2	1	0	2	0	0	1	4	0	0	0	0
organizational change	2	0	1	0	1	0	0	0	2	1	0	3	0
organizational learning	0	0	1	1	0	0	1	1	6	0	0	0	0
hotel industry	1	3	1	2	0	1	0	1	0	0	1	0	0

Correspondence analysis of dissertations' themes and institutions

- Two variables can be represented as two set of points on **symmetric map** (the graphical representation of results from CA) in subsequent analysis
- Row points (column points) that are closer together have more similar column profiles (row profiles).
- The positions of two sets of points with respect to each other are **not** directly comparable which means the distance between row and column points cannot be interpreted directly and should be explained with caution.

Correspondence analysis of dissertations' themes and institutions: symmetrical map



Concluding remarks

- There is a significant increase in the number of PhDs in all analyzed institutions in the past 20 years.
- There is no doubt about the existence of different interests and a variety of doctoral topics. However, there is a strong concentration of research efforts to investigate the relations between some of the management, organizational or entrepreneurial constructs and firm and/or managerial performance
- There are significant differences and some similarities based on themes frequency in dissertations of the analyzed universities. CA and MCA show interesting parallels and divergences among SEE institutions regarding Ph.Ds in this research area.
- In addition, we have noticed a rise in the number of dissertations focused on innovation and leadership in the past years. This shows particular shift in research interest in organization, management and entrepreneurship areas in South East Europe