

PUBLICATIONS ANALYSIS ACCORDING TO MANAGEMENT DISCIPLINES BASED ON SCOPUS INDEXED JOURNALS FROM EASTER EUROPEAN COUNTRIES

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Abstract: There are some scientometrics and bibliometric analyzes in the literature studied the management publication but there is lack of multidimensional quantitative analyzes related to publications in particular management discipline. The paper aim is to analyze the management publications according to disciplines based on the nine chosen Eastern European journals' contents. The paper results points on the management discipline identification and based on it, it was found that published articles are focusing in four management disciplines: "Corporate finance management; Knowledge and information management; Public management and NGOs and Strategic management". Most of studied journals publishing activity are rather in various management disciplines not concentrated in particular areas.

Key words: management publications, bibliometrics, science measurement

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Introduction

Journals and management publications are among the most popular in the scientific field. However, in scientometrics and bibliometric analyzes, there is a lack of multidimensional quantitative and qualitative analyzes related to publications in particular management disciplines and trends in publishing activity in management journal. Previous studies have been based on analyzes compare the quantity and quality of management articles published in international journals by authors from the particular countries or regions (Liu et al., 2015; Węgrzyn, 2015). The previous study presents also statistical analyses of publication in particular journals. Coudounaris et al. (2009) presented analysis of Management International Review and they identified the key trends in the evolution of Management International Review. They pointed on the five major themes addressed included an examination of the nature of authorship, an identification and ranking of the most prolific authors, an evaluation of the characteristics of the articles, recognition of the most influential articles based on the number of citations they received, and an

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uncovering of the specific thematic areas within the published articles. The authors also analyzed publishing productivity and citation.

Grant et al., (2013) presented an analysis of publications of the Journal of Financial Services Marketing. They to compare the subjects covered by the journal with industry trends, and identify opportunities for future research, as well they to assess the journal's development over time and its influence in the field of financial services marketing. The study pointed that the journal has been successful in covering the industry's most important trends. While Podsakoff et al. (2008) studied 30 managerial journals contents to identify the universities and research scholars who have had the greatest impact on the field of management during the past quarter century and the factors that influence their impact. This above mentioned multilevel analysis deficit made the authors to decide to analyse the management publications based on the chosen Eastern European journals contents

Principles of Management Disciplines Diversification

The difficulty in analyzing trends in management publication by discipline is related to the problem of comprehensive unified identification of management disciplines in the literature. British Journal of Management (IFONA, 2017) in its front page inform that the journal includes articles across the full range of business and management disciplines:

- General Management
- Human Resource Management
- Organizational Behaviour
- Management Development
- Accounting and Finance
- Business Ethics
- Equality, Diversity and Inclusion
- Strategic Management
- Marketing
- Operations Management
- R&D Management
- Business Economics
- Public Sector Management
- Research Methods

Hatch and Cunliffe (2013) distinguish main five management areas: Strategy/Finance, Marketing, Information Technology, Operations and Human Resources. In the consideration of Junghans and Olsson (2014) the following disciplines of management were identified: organisation, financial management, strategic planning, space management, property operation and services. One of the most comprehensive divisions of management disciplines is presented by Cyfert et al. (2014). This division presents 21 management disciplines with a description of their contents:

1. Strategic management: Strategic analysis; Strategic planning; Implementation of the strategy; Strategic control; Strategies and development methods, Competitiveness and its sources; Strategies of internationalization including globalization; Corporate governance; Shift management; Business models (including e-business).
2. Entrepreneurship: Individual entrepreneurship; Entrepreneurial behavior; Organizational entrepreneurship; Entrepreneurship Measurement; Technological entrepreneurship; Social entrepreneurship.
3. Project management: Project life cycle; Methods of project management; Design maturity; Methods of measuring the processes effectiveness.
4. Knowledge and information management: Resources of information and knowledge; Intellectual capital; Strategies and models for managing information, Knowledge and intellectual capital; Organizations in the knowledge economy; Business intelligence; Management of organizational knowledge; Management of information systems; Communication systems in management; Design of management information systems; Managing and improving IT solutions.
5. Process Management: Process Management Methods; Organizational maturity; Design of process architecture; Reference models; Methods of process improvement; Process management structures; Methods of measuring the effectiveness of processes.
6. Quality management: Standardized management systems; Techniques and methods for improving the quality of products and processes; Quality cost account.
7. Managerial decisions support: Decision theory; Decision-making process; Optimizing decisions; Rationality of decision; Flexibility and risk management.
8. Organizational behavior: Characteristics of participants in the organization; Individual processes; Interpersonal processes; Group and intergroup processes; Teams in organizations; Contextual conditioning of organizational behavior; Power in the organization; Style of targeting; Leadership.
9. Innovation management: Essence, typology and sources of innovation; Models of innovation processes; Innovation management models; Open innovation and its forms; Commercialization of innovation.
10. Logistics management: Organization of logistics in the enterprise; Supply chain management.
11. Human Resource Management: Human Resource Management Models; Human resource management functions; Effectiveness of human resources management.
12. Marketing management: Behavior of buyers and competitors; Marketing activities; Effectiveness of marketing activities; Development of products and services; Network marketing.
13. Production and Technology Management: Operations management; Management of tactical activity; Production methods; Technical and

- organizational progress; Specialization, concentration and industrial cooperation; R & D management.
14. Corporate finance management: Asset management; Financial analysis of the enterprise; Enterprise asset management; Managing the company's working capital; Managing the company's financial performance; Corporate value management; Con-trolling.
 15. Intangible assets management: Trust in management; Sustainability; Management of intellectual property; Organizational culture; Corporate Social Responsibility.
 16. Service Management: Service Design; Forming relationships in service management; Service Organizations Models; Shaping the value of services.
 17. Management of business organizations: Organizational-legal forms of economic activity.
 18. Public management and NGOs: Governance in government administration; Management in self-government units; Management in non-governmental organizations; Institutional conditioning of management practices; Public sector co-operation with economic organizations.
 19. Organizational and management theory: Organization as the subject of research; Management as the subject of research; Development of organizational and management theory; Organizational and inter-organizational relationships; Objectives of the organization; Management functions; Models and types of organizations; Organizational structures.
 20. Methodology of Management Science: Object of the Methodology of Management Science; Research Methods in Science of Management; Paradigms of Management Science.
 21. Critical Studies in Management Science: Ecological management context; Ethical management context; Social context of management; Cultural studies; Alternative perspectives in organizational and management theories; Positive orientation of the organization.

Due to the comprehensiveness of the view, the clarity and relevance of the division, the authors based further analysis on this management disciplines identification.

Methodology

It was decided to study subjects of the papers published in years of 2010-2016 by the chosen journals indexed in Scopus database; the journals are indexed in Scopus „Business, Management and Accounting” area; the research sample consists of the one journal with highest SJR index from publishers located in chosen Eastern European Countries. SCImago Journal Rank (SJR indicator) is a measure of scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where such citations come from. Although, it was found during the detailed study of the highest SJR index journal contents in EEC that some of the journals contents are

not strictly related to management despite of they are qualified to “Business, Management and Accounting” area as the main one. So, finally the following journals were chosen to further analysis (table 1).

Table 1. The journal list as the sample the management publication development trends analysis

Journal	Country	H-Index	CiteScore 2015	SJR 2015
E a M: Ekonomie a Management	Czech Rep.	11	1,02	0,392
Foresight Russia	Russia	5	0,52	0,299
International Journal of Engineering Business Management	Croatia	10	0,86	0,381
International Journal of Strategic Property Management	Lithuania	17	1,32	0,512
Journal of Applied Economic Sciences	Romania	5	0,395	0,217
Periodica Polytechnica Social and Management Sciences	Hungary	7	0,7	0,323
Polish Journal of Management Studies	Poland	4	1	0,204
Quality Innovation Prosperity	Slovakia	5	0,962	0,262
South East European Journal of Economics and Business	Bosnia and Herzegovina	4	0,487	0,154

The journals published various number of papers in the analysed period (2010-2016). From 95 papers published in Periodica Polytechnica Social and Management Sciences to 480 articles published in Journal of Applied Economic Sciences. One journal (Quality Innovation Prosperity) was qualified to the research despite the fact that it has not indexed papers in whole studied period (table 2).

Table 2. Number of papers published and indexed in Scopus in studied journals in the period of 2010-2016

Journal	2010	2011	2012	2013	2014	2015	2016	2010 - 2016
E a M: Ekonomie a Management	46	44	46	49	50	53	53	341
Foresight Russia	24	23	22	22	21	21		133
International Journal of Engineering Business Management	15	24	46	53	31	26	9	204
International Journal of Strategic Property Management	30	27	25	28	31	31	33	205

Journal of Applied Economic Sciences	37	29	44	45	65	109	151	480
Periodica Polytechnica Social and Management Sciences	11	12	12	12	16	16	16	95
Polish Journal of Management Studies	34	35	43	37	78	76	81	384
Quality Innovation Prosperity			13	21	20	19	19	92
South East European Journal of Economics and Business	20	20	21	5	11	14	12	103

The journals papers contents were studied and assigned to one of 21 above described disciplines. In many cases the papers have contents related to more than one discipline in this event authors determinate leading paper theme and assigned the paper to leading discipline (Table 3).

Table 3. Number of the papers published in studied journals according to disciplines

<i>Discipline</i>	E a M: Ekonomie a Management	Foresight Russia	International Journal of Engineering Business Management	International Journal of Strategic Property Management	Journal of Applied Economic Sciences	Periodica Polytechnica Social and Management Sciences	Polish Journal of Management Studies	Quality Innovation Prosperity	South East European Journal of Economics and Business
1	52	6	10	26	22	4	21	7	12
2	9	5	4	10	9	7	22	2	4
3	5	10	11	18	6	3	11	2	2
4	30	11	38	19	40	7	44	10	4
5	10	7	10	2	30	2	16	4	3
6	7	3	11	6	12	4	18	8	3
7	10	6	14	9	16	3	12	0	3
8	11	5	2	5	11	3	41	0	8
9	6	10	23	10	28	7	11	7	6
10	7	3	20	3	12	9	25	5	6
11	14	6	4	2	28	5	21	2	3

12	14	4	3	15	18	4	17	7	4
13	11	8	35	5	13	4	12	7	6
14	46	3	5	13	115	7	18	2	19
15	18	5	4	0	9	7	13	6	2
16	6	5	1	5	7	1	4	1	2
17	9	7	0	2	46	3	7	0	3
18	25	12	2	29	41	6	48	5	7
19	15	9	1	3	9	3	5	3	2
20	7	3	0	0	5	2	7	10	1
21	29	5	4	24	3	4	11	4	3
Total	341	133	202	206	480	95	384	92	103

Achieved results allow to specify leading management disciplines in publications (figure 1). It was found that the discipline “Corporate finance management (14)” are the most common in publication activity in studied journals (11.2%). High participation in all publication had also following disciplines: “Knowledge and information management (4)” – 9.97%; “Public management and NGOs (18)” – 8.6% and “Strategic management (1)” – 7,86. “Service Management (16)” – 1.57% and “Methodology of Management Science (20)” – 1,72% are very rare disciplines in publishing in studied journals.

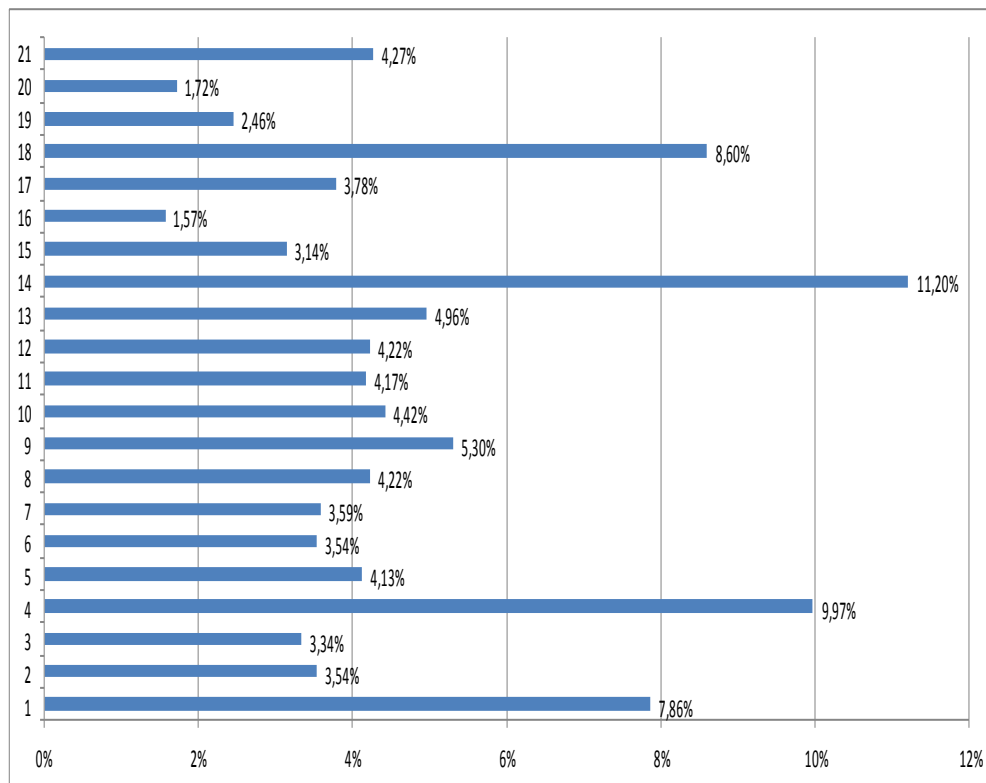


Figure 1. Percentage of publications according to disciplines

The division of data according to the criterion of the articles number divided into management disciplines was based on the k-means method belonging to the group of cluster analysis algorithms, ie the analysis based on the finding and extracting groups of similar objects (clusters). The summed data for the studied years has been standardized. With the help of the k-means method, three distinctly different clusters were formed. The clusters divide the articles into groups because of the similarity in the focus on the variable "number of articles," and the clusters differ each on other maximally (Table 4).

Table 4. Clusters according to discipline

Discipline	Cluster	Total paper number	Distance from center of cluster
Entrepreneurship	1	88	,857
Project management	1	70	,764
Process management	1	122	1,585

Quality management	1	72	1,060
Managerial decisions support	1	91	,837
Organizational behavior	1	105	2,143
Innovation management	1	125	1,520
Logistics management	1	86	,531
Human Resource Management	1	121	1,379
Marketing management	1	105	1,080
Production and Technology Management	1	85	1,030
Intangible assets management	1	74	,971
Service Management	1	39	1,759
Management of business organizations	1	139	1,736
Organizational and management theory	1	55	1,246
Methodology of Management Science	1	40	1,716
Critical Studies in Management Science	1	101	1,291
Strategic management	3	199	1,006
Knowledge and information management	3	264	1,722
Public management and NGOs	3	227	1,389
Corporate finance management	2	342	,000

Due to the type of discipline, three clusters were also identified, the first of which consisted of 17 disciplines with the smallest number of articles in the studied period. Only discipline "Corporate finance management" registers the largest number of publications, much higher than in other disciplines. Based on the average number of articles for each discipline, the journals were identified those have the largest share in the particular discipline.

Table 5. Studied journals publishing activity according to discipline

Discipline	Journals (over average of papers number in particular discipline)****	Average papers number
Strategic management	4,6,8,9	17,67
Entrepreneurship	4,6,8,9	8,00
Project management	2,7,8,9	7,67
Knowledge and information management	4,6,7,8	22,33
Process management	4,6,7, 8	9,44
Quality management	1,4, 7,8	8,00
Managerial decisions support	4,6,7,8	8,11
Organizational behavior	4,6,8	9,56
Innovation management	4,7,8	11,67
Logistics management	4,7,8	9,89
Human Resource Management	4,8	9,33
Marketing management	4,6,8,9	9,67
Production and Technology Management	4,7,8	11,22
Corporate finance management	3,4,6	25,67
Intangible assets management	4,6,8	7,22
Service Management	2,4,6,8,9	3,67
Management of business organizations	4,6	8,56
Public management and NGOs	4,6,8,9	19,56
Organizational and management theory	2,4,6	5,56
Methodology of Management Science	1,4,6,8	3,89
Critical Studies in Management Science	6,8,9	9,67
****Where:		
<ol style="list-style-type: none"> 1. Quality Innovation Prosperity 2. Foresight Russia 3. South East European Journal of Economics and Business 4. Journal of Applied Economic Sciences 5. Periodica Polytechnica Social and Management Sciences 6. E a M: Ekonomie a Management 7. International Journal of Engineering Business Management 8. Polish Journal of Management Studies 9. International Journal of Strategic Property Management 		

Then according to the variable number of articles , the disciplines were divided into three clusters, for which the particular journal published most often in a given discipline. In the first cluster, there are 8 disciplines, in the second cluster - 9, in the third cluster 4.

Table 6. Studied journals publishing according to discipline cluster

Cluster 1: Entrepreneurship, Project management, Quality management, Managerial decisions support, Intangible assets management, Service Management, Organizational and management theory, Methodology of Management Science,	1,2,4,6,7,8,9
Cluster 2: Process management, Organizational behavior, Innovation management, Logistics management, Human Resource Management, Marketing management, Production and Technology Management, Management of business organizations, Critical Studies in Management Science	4,6,7, 8, 9
Cluster 3: Strategic management, Knowledge and information management, Corporate finance management, Public management and NGOs	3, 4, 6,7, 8,9

The results of the analyzes indicate that journals such as "Quality Innovation Prosperity" or "Foresight Russia" were most frequently published in the Entrepreneurship, Project management, Quality management, Managerial decisions support, Intangible assets management, Service Management, Organizational and management theory, Methodology of Management Science. In the journal "South East European Journal of Economics and Business," most articles were found in the disciplines of "Strategic Management, Knowledge and Information Management, Corporate Finance Management, Public Management and NGOs". Other analyzed journals did not show such a significant concentration on any distinguished discipline cluster.

Conclusion

The study results point that major number (37.6%) of published articles are in four management disciplines: "Corporate finance management; Knowledge and information management; Public management and NGOs and Strategic management" The papers in disciplines of "Service Management and Methodology of Management Science" are niche in the publishing activity in studied journals. Most of studied journals publishing activity are rather in various management disciplines not concentrated in some areas. Presented analysis can be treated as the initial discussion in area of scientometrics studies in management publication activity. The methodology presented by Piotrowski (2016) seems to be promising in future research. There are also some interesting areas to be studied as the impact

of particular papers on management disciplines development or analysis of the management publications based on the chosen top managerial journals indexed in Scopus or Web of Science.

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ANALIZA PUBLIKACJI WEDŁUG DYSCYPLIN ZARZĄDZANIA OPARTYCH NA CZASOPISMACH Z KRAJÓW WSCHODNIOEUROPEJSKICH INDEKSOWANYCH PRZEZ SCOPUS

Streszczenie: W literaturze można znaleźć wybrane analizy jakościowe nauki i bibliometryczne, ale brak jest wielowymiarowych analiz ilościowych związanych z publikacjami w konkretnych dyscyplinach zarządzania. Celem artykułu jest analiza publikacji dotyczących zarządzania według dyscyplin w oparciu o próbę dziewięć wybranych czasopism z Europy Wschodniej indeksowanych w bazie Scopus. Wyniki pracy wskazują na identyfikację dyscypliny zarządzania i na jej podstawie stwierdzono, że publikowane artykuły koncentrują się na czterech dyscyplinach zarządzania: "Zarządzanie finansami przedsiębiorstw; Zarządzanie wiedzą i

informacją; Zarządzanie publiczne i organizacje pozarządowe oraz Zarządzanie strategiczne". Większość badanych czasopism zajmuje się publikacjami w różnych dziedzinach zarządzania a tylko niektóre są skoncentrowane na konkretnych obszarach.
Słowa kluczowe: publikacje z zarządzania, bibliometria, pomiar nauki

根據歐洲東部地區樣本引文分析的管理紀律分析

摘要: 文獻中有一些關於管理學出版物的文獻計量學和文獻計量學分析, 但缺乏與特定管理學科出版物有關的多維定量分析。本文的目的是根據東歐九種期刊的內容, 按照學科分析管理出版物。本文的研究結果指出了管理學科的認定, 並在此基礎上發現, 發表的文章主要集中在四個管理學科: “企業財務管理; 知識和信息管理;

公共管理和非政府組織與戰略管理”。大部分研究期刊的出版活動都是在各個不屬於特定領域的管理學科中進行的。

關鍵詞: 管理出版物, 文獻計量學, 科學測量