

**LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH**

- Judul karya ilmiah (artikel) : Open Source Web GIS Framework in Monitoring Urban Land Use Planning: Participatory Solutions for Developing Countries
- Jumlah Penulis : 5 penulis
- Status Pengusul : Anang Wahyu Sejati, Imam Buchori, **Iwan Rudiarto**, Christopher Silver, Kartiko Sulistyo
- Identitas Jurnal Ilmiah : a. Nama Jurnal : Urban and Regional Analysis
 b. Nomor ISSN : 2068 - 9969
 c. Vol.,no.,bulan,tahun : XII, 1, 2020, p. 19 - 33
 d. Penerbit : CICADIT – University of Bucharest
 e. DOI artikel (jika ada): 10.37043/JURA.2020.12.1.2
 f. Alamat web jurnal : http://www.jurareview.ro/resources/pdf/volume_29_non-linear_and_lagging_convergence_effects_of_the_eu%20%80%99s_regional_support_at_nuts_3_level_abstract.pdf
 g. Terindeks di SJR Q2 0,274 (2019) dan SNIP 0,309 (2019)
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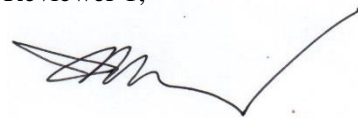
Catatan Penilaian artikel oleh Reviewer:

- a. Kelengkapan unsur jurnal lengkap dan sudah sesuai dengan petunjuk penulisan jurnal (*author guidelines*). Pembahasan dalam IMRaD sejalan dengan judul yang diangkat yaitu penggunaan *open source web GIS* untuk *monitoring* perubahan guna lahan.
- b. Pembahasan artikel dilakukan secara mendalam berkaitan dengan penggunaan *open source web GIS* untuk memantau perubahan guna lahan yang dapat melibatkan *user* secara langsung dan interaktif. Sesuai dengan bidang ilmu penulis terutama terkait dengan perencanaan guna lahan dengan menggunakan teknologi Web GIS. Referensi yang digunakan dalam pembahasan sebanyak 36 pustaka (62%) yang sebagian besar berupa artikel jurnal internasional.

- c. Artikel memiliki kemutakhiran sumber pustaka yang cukup yang didukung oleh 58 referensi dimana 60% terbitan kurang dari 10 tahun dan 7% terbitan ≤ 10 tahun dengan *turnitin similarity index* 11%. Metode yang digunakan mengandung unsur inovasi dimana biasanya penggunaan perangkat *monitoring* perubahan guna lahan dilakukan dengan aplikasi GIS biasa tidak berbasis web.
- d. Jurnal termasuk jurnal internasional bereputasi terindeks *scopus* dengan SJR = 0,274 tergolong Q2. Diterbitkan oleh CICADIT University of Bucharest, Romania berbasis *online* dan *open access* dengan tautan DOI. Jurnal tidak berbayar dan *editorial board* beragam dari berbagai negara terutama dari Eropa.

Semarang, 08-03-2020

Reviewer 1,



Prof. Dr. Ir. Nany Yulastuti, MSP
NIP. 195407171982032001
Departemen PWK, FT. Undip

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Total = (100%)	40			38,0
Nilai = (40% x 38 : 4)				3,8

Catatan Penilaian artikel oleh *Reviewer*:

- a. Unsur jurnal lengkap dan ditulis megacu kepada petunjuk penulisan artikel yang tersedia di laman jurnal. Komponen penulisan isi artikel merepresentasikan judul yang diangkat yaitu tentang penggunaan *open source web GIS* untuk monitoring perubahan guna lahan.
- b. Lingkup dan kedalaman pembahasan cukup dimana peran Web GIS untuk *Land Use Planning* dijabarkan yang juga memberikan peluang pengguna/*user* untuk dapat berpartisipasi karena bersifat *open source*. Pembahasan dalam artikel ini menggunakan sebanyak 62% literatur dari total 58 literatur yang digunakan dan sebagian besar berupa artikel jurnal.

- c. Jumlah total referensi yang digunakan sebanyak 58 pustaka dimana 93% diantaranya merupakan terbitan kurang atau sama dengan 10 tahun terakhir. Penggunaan *open source web GIS* termasuk dalam hal baru di Indonesia untuk pemantauan perubahan guna lahan yang biasanya menggunakan aplikasi GIS *non open source*.
- d. Kelengkapan dan kualitas jurnal baik dan termasuk dalam jurnal internasional bereputasi yang terindeks *Scopus* dengan SJR= 0,274 (Q3). Jurnal *open access* dan tidak berbayar dan dilengkapi dengan tautan DOI dengan penerbit *University of Bucharest - Interdisciplinary Centre for Advanced Research on Territorial Dynamics*.

Semarang, 11-02-2020

Reviewer 2,



Prof. Ir. Bakti Setiawan, M.A., Ph.D

NIP. 195906281985031006

Departemen Arsitektur dan Perencanaan, FT. UGM

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b. Ruang lingkup dan kedalaman pembahasan (30%)	11,0	11,0	11,0
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	11,0	12,0	11,5
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	10,0	11,0	10,5
Total = (100%)	36,0	38,0	37,0
Nilai = (40% x 37 : 4)			3,7


Semarang, 13-03-2020

Reviewer 1,



Prof. Dr. Ir. Nany Yuliasuti, MSP
NIP. 195407171982032001
Departemen PWK FT.Undip

Reviewer 2,



Prof. Ir. Bakti Setiawan, M.A., Ph.D
NIP. 195906281985031006
Departemen Arsitektur & Perencanaan, FT. UGM

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


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Journal of Urban and Regional Analysis Open Access
Volume 12, Issue 1, 2020, Pages 19-34

Open-source web GIS framework in monitoring urban land use planning: Participatory solutions for developing countries (Article) (Open Access)

Sejati, A.W.^a  Buchori, I.^a  **Rudiarto, I.^a**  Silver, C.^b Sulistyio, K.^a 

^aDiponegoro University, Semarang, Indonesia
^bUniversity of Florida, Gainesville, United States


Abstract

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This paper presents a Web GIS application development framework through an open-source software which aims to provide reliable open data services, required for policymaking in urban land use planning. The geodatabase model is comprehensively developed. It displayed a user interface using QGIS, MapServer, and Pmapper, with open source tools with PHP MapScript programming languages and integrated DB-SQL, to generate a complete digital map service with information on urban land use policy. The results of this Web GIS development can be publicly used with spatial databases suitable for public consumption, and as decision support systems for stakeholders, especially in the policy of urban land use planning. Thus, this application can serve as a model for land-use monitoring systems based upon the principle of information disclosure toward smart city and smart governance. © 2020, Editura Universitatii din Bucuresti. All rights reserved.

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Last updated on 09 August, 2020 • Updated monthly

ISSN 2067-4082
e-ISSN 2068-9969
L-ISSN 2067-4082

Journal of Urban and Regional Analysis

Volume XII - Issue 1 - February, 2020

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Journal of Urban and Regional Analysis

ISSN Print 2067 - 4082

ISSN online 2068 - 9969

ISSN-L 2067 - 4082

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Volume 12, Issue 1, 2020

1. COMPETITIVE TECHNICAL INTELLIGENCE: USING PATENT DATA TO DETERMINE SMART CITY TRENDS FOR DEVELOPING COUNTRIES
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2. OPEN-SOURCE WEB GIS FRAMEWORK IN MONITORING URBAN LAND USE PLANNING: PARTICIPATORY SOLUTIONS FOR DEVELOPING COUNTRIES
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3. NON-LINEAR AND LAGGING CONVERGENCE EFFECTS OF THE EU'S REGIONAL SUPPORT AT NUTS 3 LEVEL
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6. LAND COVER IMPACTS TOWARDS THERMAL VARIATION IN THE KUALA LUMPUR CITY



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COMPETITIVE TECHNICAL INTELLIGENCE: USING PATENT DATA TO DETERMINE SMART CITY TRENDS

Martin POTANČOK, Jan ČERNÝ
University of Economics, Prague, **Czech Republic**

Abstract: The aim of this paper is to define a method for uncovering smart city technology trends using competitive technical intelligence processes focused on intellectual property analysis using data visualisation. The authors introduce ways of gathering relevant core bibliographic data on the desired technology together with search preparation and query building. For demonstration purposes, the authors have used the European Patent Office datasets. The aim of this paper is to define a method for smart city competitive intelligence analysis focused on the main innovative companies and organizations and specific technology trends. The time period between the years 1997 and 2017 is used. Based on the results, the authors have indicated that Samsung is the leader in intelligent city innovations in this period. Five main product invention categories were also identified.

Key Words: *Competitive Technical Intelligence, competitor analysis, intelligent city, patent classification.*

Introduction

Competitive Technical Intelligence (CTI) is a relatively new method for monitoring external competitors' activities, with technology fields as the main focus. Although there is no specific definition for summarizing the scope of these methods, we can define it as a strategic process of company information needs for planning, collecting, analyzing and distributing data, information and knowledge entities from the external enterprise environment to monitor market activities, where technology is the common factor (Coburn 1999, Porter et al. 2007, Cerny 2016, Zhang et al. 2016).

Our paper is focused on the technology collection and analyzing phases, therefore it is important to define technology information signals as information entities where patent information is a significant part of this functional technology intelligence framework. We can distinguish the following types of information from the external environment (Brenner 2005): social media technology signals; grey literature signals; scientific information signals; joint ventures signals; intellectual property information signals; production signals; market feedback signals.

The aim of this paper is to define a method for uncovering smart city technology trends using competitive technical intelligence processes focused on intellectual property analysis. We have chosen patent information signals as a key part of intellectual property to uncover smart city technology trends with these particular topics: analyses of the key players on the global market, the country where the applicants mostly seek patent protection and the key technologies. One of the reasons for our study is also the lack of knowledge about the potential data analysis and usage of patent entities to get a competitive advantage. This fact has appeared in the study of Černý et al. (2015), which demonstrated that only 8% of Czech companies use patent information for competitive analysis. The structure of this paper corresponds to the above.

The smart city can, without question, be defined as one of the leading technology fields within our society that is presently connected to the Internet of Things (Doucek et al. 2018). Pellicer et

NON-LINEAR AND LAGGING CONVERGENCE EFFECTS OF THE EU'S REGIONAL SUPPORT AT NUTS 3 LEVEL

Mindaugas BUTKUS, Diana CIBULSKIENĖ, Alma MAČIULYTĖ-ŠNIUKIENĖ,
Kristina MATUZEVIČIUTĖ
Šiauliai University, Šiauliai, Lithuania

Abstract: Reduction of the territorial disparities in terms of their development level is the main aim of the European Union's (EU's) regional support. Most of the previous studies investigate the linear relationship between support and growth at countries' or NUTS1/2 disaggregation level, omitting the question on what is the impact of this support on regional convergence among NUTS3 regions and on whether non-linear effects occur. To fill this gap, we modified the difference-in-differences estimator to test empirically the non-linear convergence effects of the EU's regional support at NUTS 3 level over the 2000-2006 programming period, taking into account the possible lagging effect. The results revealed that the impact of regional support on convergence is positive with the diminishing marginal effect as the intensity of payments is increasing. Moreover, we find evidence that the return is higher for the post-intervention compared with the intervention period, i.e. the convergence outcomes of the EU's support occur in the long-run.

Key Words: regional disparities, convergence, NUTS 3, non-linear effects.

Introduction

The EU's regional support aims to ensure the growth of the least developed regions in order to reduce territorial disparities. To achieve this goal, the European Commission (EC) uses support from the Cohesion (CF) and Structural (SF) funds. Approximately 160 billion euro were allocated from these funds to the EU's Member States (MS) over the 2000-2006 programming period. The question of interest is whether this support has achieved its objectives, if it has boosted growth in the least developed regions and if it led to regional convergence. The analysis of previous research, however, disclosed that most of the papers investigate the impact of SF and CF on regional growth (GDP per capita and employment) at country, or NUTS1/2 disaggregation level, leaving open the question on what impact SF and CF have on convergence, especially at NUTS3 level.

The leading article by Becker et al. (2018), covering the four last programming periods, revealed the positive effect of the SF on economic growth in NUTS2 regions and it noted that this effect does not last long. Moreover, Becker et al. (2013) found that SF payments positively influence only about 30% of the EU-25 NUTS2 regions by revealing the heterogeneity of the effect. Kyriacou and Roca-Sagalés (2012) assessed the effects of SF transfers on the convergence among 14 EU countries and it also concluded that the effect of SF treatment is heterogeneous. Although studies (Rodríguez-Pose and Novak 2013, Pinho et al. 2015, Becker et al. 2018, Pięta 2018) show that EU's regional support has become more efficient over the last two programming periods, compared to the previous ones, the efficiency problem of SF and CF allocations persists as CP underestimates the importance of transfer intensity which might influence the return on support.

Just a few studies estimate the non-linear relation between the EU's regional support and economic growth or/and convergence ascertaining the potentially decreasing marginal effect when transfer intensity is increasing. Wostner and Slander (2009), Kyriacou and Roca-Sagalés (2012), Becker et al. (2012), Pinho et al. (2015), Pontarollo (2016), Cerqua and Pellegrini