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

Judul karya ilmiah (artikel)	:	Informal Space Utilization Shifting post-Urban Revitalization in the Semarang Old City		
Jumlah Penulis	:	3 penulis (**Santy Paulla Dewi***, Retno Susanti, Grandy Loranessa Wungo)		
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		g. Terindeks	:	Scopus Q3, SJR 0.21

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d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	11	11	11
Total = (100%)	36	**35**	35,5

Semarang, 24 Mei 2023

Reviewer 1,

Dr.Ars. Ir. Rina Kurniati, M.T
NIP. 196608221997022001
Unit Kerja : Departemen PWK FT.Undip

Reviewer 2,

Dr. Anang Wahyu Sejati, S.T., M.T.
H.7.198504072018071001
Unit Kerja : Departemen PWK FT.Undip

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Semarang, 23 Mei 2023
Reviewer 1,

Dr.Ars. Ir. Rina Kurniati, M.T.
NIP. 196608221997022001
Unit Kerja : Departemen PWK FT.Undip

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b.Ruang lingkup dan kedalaman pembahasan (30%)	12			11
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Total = (100%)				**35**
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b) Ruang lingkup dan kedalaman pembahasan:

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Kota Semarang. Diskusi sangat menarik dan mengupas dalam tentang pemanfaatan ruang-ruang informal untuk berbagai aktifitas khususnya sebagai respon aktivitas selama covid-19. Perlu diperhatikan istilah yang masuk kategori "local term" seperti satpol PP, BPK2L dsb perlu dicarikan istilah padanan yang sesuai dengan konteks internasional.

c) Kecukupan dan kemutakhiran data/informasi dan metodologi:

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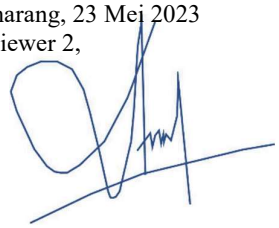
Semarang, 23 Mei 2023
Reviewer 2,



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Informal Space Utilization Shifting post-Urban Revitalizationin the Semarang Old City

Dewi, Santy Paulla ; Susanti, Retno; Wungo, Grandy Lorenessa
Save all to author list

[a] Faculty of Engineering, Universitas Diponegoro, Semarang, Indonesia

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Abstract
Author keywords
SciVal Topics
Funding details

Abstract

The Semarang Old City revitalization has changed its physical appearance significantly, from a slum and crowded area to a more organized, pleasant, and attractive one. The revitalization is one of the Mayor's missions after being reelected in 2015 to enhance the Old City's image as a prominent historical tourist destination. The government established a regulation prohibiting informal activities in the Old City. Informality is considered an interference in urban areas, including spaces that accommodate informal activities through illegal acquisition. However, informal activities persist in the Old City, shifting the physical setting and transforming the spatial utilization. Therefore, this study aimed to examine the transformation of informal spaces in the Old City after revitalization. Quantitative methods were used by distributing questionnaires to informal activity workers and interviews with the Old City manager. The results showed spatial utilization and relation transformations, a close relationship between informal and formal activities, and no conflict regarding spatial utilization. However, the relationship between formal and informal spaces changed after the revitalization. Formal activities prefer clear spatial boundaries, making informal space utilization and pattern more dynamic. ©2023 Faculty of Geography UGM and The Indonesian Geographers Associaton.

Author keywords

informal activities; informal space; revitalization; space use

Source details

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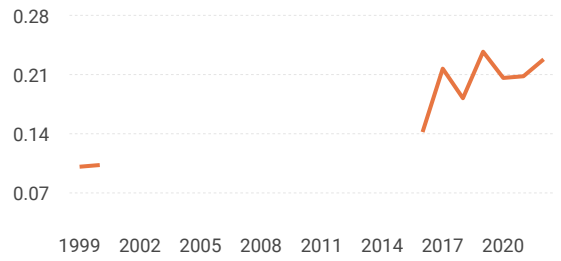

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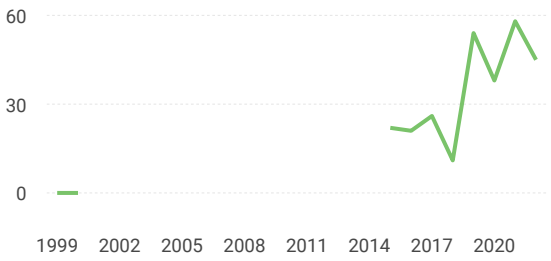

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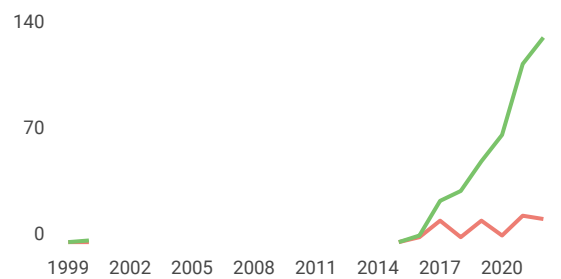

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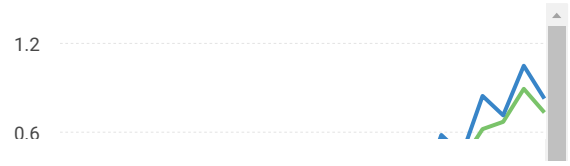

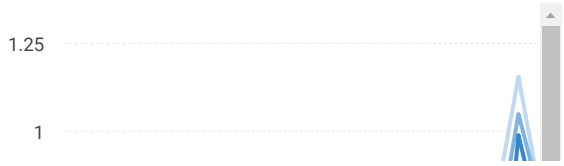

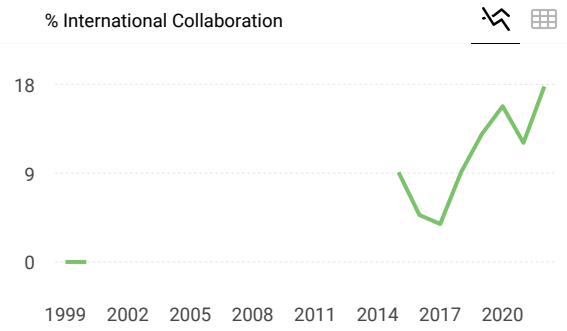

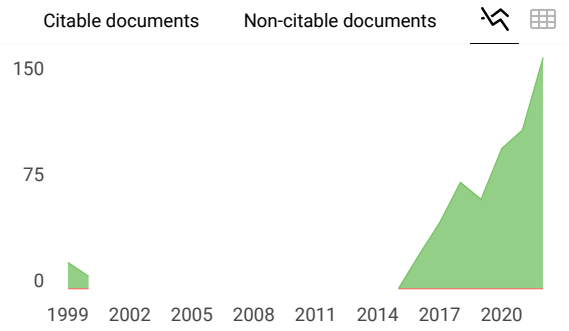

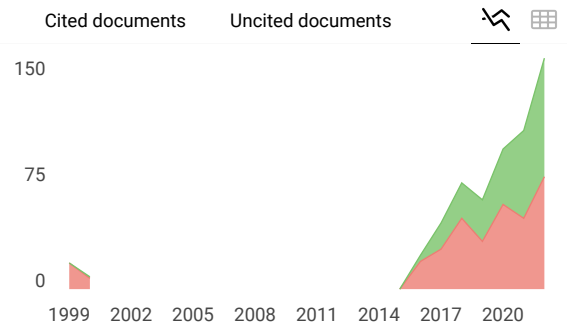

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Jakarta, 07 December 2022
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Prof. Ir. Nizam, M.Sc., DIC, Ph.D., IPU, ASEAN Eng
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RESEARCH ARTICLE

Spatial and Temporal Analysis of 2019 Novel Coronavirus (2019-Ncov) Cases in Selangor, Malaysia

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Abstract. The COVID-19 pandemic continues to wreak devastation on public health systems worldwide, particularly in Selangor, Malaysia, COVID-19 was reported from October 2020 to October 2021 at prevalent rate. In order to control and prevent the spread of this pandemic, which is already underway, there is need to comprehend the spatial dimension of this disease. Therefore, the purpose of this study was to describe the patterns of COVID-19 virus transmission in the state of Selangor. Methods: Using a Geographic Information System (GIS), and the Moran's Index (MI), spatial distribution of COVID-19 across the entire mukim was mapped and spatial statistical analysis was carried out with indications of local spatial correlations. Results: The finding revealed that the clusters were concentrated in the western and southern regions (Global Moran's I = 0.468, p = 0.05, Z = 7.01) of the state of Selangor, thus, this research provides important information on the regional distribution and temporal dynamics of COVID-19. Conclusion: An assessment of COVID-19's geographic spread can help enhance health care programs and resource allocation in Malaysia, specifically Selangor where the COVID-19 is pandemic.

1. Introduction

The novel coronavirus illness (COVID-19) has become a global health concern because of its high transmission rate and rapid spread. The COVID-19 pandemic has affected practically every country on World, wreaking havoc on our health system, economy, and culture (Sarkodie & Owusu, 2021). COVID-19, which first surfaced in December 2019 in Wuhan, China, has impacted millions of individuals. The World Health Organization (WHO) classified the outbreak as a pandemic due to its global impact (Alcantara et al., 2020). The WHO later classified the condition as a coronavirus disease in 2019 (COVID-19) (World Health Organization, WHO, 2020). The virus spreads quickly when individuals are gathered as it is transmitted mostly by airborne and direct interaction. Furthermore, the duration of the incubation period (Li et al., 2020) and the peak of transmissibility on or before the onset of symptoms (He et al., 2020) contribute to the disease's rapid spread throughout continents, resulting in an exponential rise in the number of infected people and millions of fatalities (Mackenzei & Smith, 2020).

Since July 2020, approximately 220 nations and regions worldwide have reported more than 17 million infections (WHO, 2020). As of January 1st, 2021, Malaysia had more than 115,078 confirmed cases of COVID-19 infection, with 474 deaths (Ministry of Health, MOH,2021). More than 33,169 instances have been confirmed in Selangor as of January 1, 2021(Rahim et al., 2021; Brohan et al., 2021). COVID 19 starts from asymptomatic to life-threatening respiratory problems. Fever, dry cough, dry cough, weariness, loss of taste or smell and dyspnoea are among the most commonly reported clinical signs of COVID-19. On average, symptoms begin to appear within 5–6 days of infection, although they might take as long as 14 days (Lauer et al., 2020; Yu et al., 2020). Acute respiratory distress syndrome (ARDS), pneumonia, bacterial superinfections, coagulation problems, sepsis, and mortality are all possible complications. Older age, diabetes, and cardiovascular disease have been related to poor results and an increased chance of mortality (Chen et al., 2020; Xu et al., 2020).

COVID-19 is due to SARS-CoV-2, an infection that is believed to have developed as a result of a bat spike mutation. This mutation enabled COVID-19 to infect humans (Angeletti et al., 2020). SARS-CoV-2 is classified into three strains: strain A, which strongly matches the bat coronavirus. Numerous epidemiological, ecological, and statistical models have been used to track the progression of the global COVID-19 pandemic, as well as to examine its spread and predict its future trends (Chu, 2021; Han et al., 2021). COVID-19 epidemiology and

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RESEARCH ARTICLE

Development of a traffic accident simulation system for main roads in Loei Province, Thailand: Application of a geographic information system and multiple logistic regression with clustering

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Abstract. Traffic accidents are a major and crucial problem worldwide. The development of a traffic accident simulation system applied by using a geographic information system and multiple logistic regression with clustering can provide drivers with safe routes as well as guidelines for assessing the risk points of accidents in each subdistrict. This research is based on case-control study design. The data were collected by using two types of questionnaires: a questionnaire for 35 community leaders and a questionnaire for 580 community residents based on the distance at which main routes pass through the subdistrict area. The data were analysed through multiple logistic regression with clustering, and the standardized coefficient of the selected variables was then added to the equation as a weight in the traffic accident simulation system. The results of the study indicated that 11 variables affected traffic accidents. These factors were evaluated in order to predict traffic accidents (Pseudo R square=0.5906). Standardized coefficient of variables was applied in a geographic information system to simulate traffic accidents on roads. This study was distinctive for its analysis, which examined the clusters of variables that were the subdistrict-level data, including surroundings and road conditions at the riskiest location in each subdistrict. The data were analysed based on their quality as subdistrict data clusters. The analysis results were then applied as the weight of variables used in the GIS to obtain the values appropriate to the data clusters' quality for the GIS to properly simulate traffic accidents in each area.

1. Introduction

Traffic accidents are a major problem worldwide. Every year, every country loses valuable human resources, as well as assets affecting the economy, society, and people's quality of life. According to a 2018 report by the World Health Organization (2018), approximately 1.35 million people are killed in traffic accidents every year, and traffic accidents rank as the 8th cause of death. According to the World Atlas website in 2017, Thailand topped the ranking as the country with the highest death rate in road accidents at 36.2 deaths per 100,000 population, followed by Malawi at 35 deaths per 100,000 population and Liberia at 33.7 deaths per 100,000 population (Laohavilai, 2017). In detail, 13,335 people died in traffic accidents in Thailand, and 835,527 injuries occurred (Puttarn, 2021). In 2019, Loei Province had the second-highest traffic accident-related death rate in the Northeast region, with a rate of 36.09 deaths per 100,000 population. The death rate was higher than the death rate nationwide in 2019 (29.90 deaths per 100,000 population) (Thai Health Promotion Foundation in Thailand, 2019), which was nearly equal to the number of traffic accidents in the world. Therefore, traffic accidents are a significant problem for which further solutions should be sought.

Traffic accidents are caused by many factors, including personal conditions, such as gender, age, and individual negligence (Kumeda et al., 2019); road conditions; and environmental conditions, such as road surface, electricity, weather conditions (Kumeda et al., 2019; Sori, 2019), and vehicle conditions (Sori, 2019). Each traffic accident can be caused by a combination of various factors, including people, vehicles, roads, and the environment. In analysing factors resulting in traffic accidents, the use of logistic regression analysis statistics is considered appropriate since the dependent variable is a multiple variable, and there are two possible values: having an accident and not having an accident. For independent variables, several variables are related to the dependent variable, and in each region, the independent variables are related to the different dependent variables. Therefore, to select independent variables that are related to the following variables for application design, a multiple logistic regression analysis is considered in this study. In addition, to create obvious benefits, a geographic information system is implemented to solve the problem of traffic accidents.

A geographic information system is a computerized information system for data input, manipulation, and analysis. It involves collecting, storing, retrieving, organizing, analysing, and expressing spatial relationships (Ondieki and Murimi, 1997) by using geographic features as a link between data. A report is presented in the form of a map of spatial data displaying the nature of the distribution of interesting various spatial data. In the past, several research reports have studied the use of geographic information systems to analyse traffic

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RESEARCH ARTICLE

Determination of Groundwater Flow Pattern in the basement complex terrain of Ado-Ekiti, Southwestern Nigeria

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Abstract. Hydrostatic level sampling, geo-referencing and Geographic Information System were employed to delineate the major groundwater recharge / discharge zones, the groundwater flow direction and the groundwater divides in Ado-Ekiti metropolis with the objective of groundwater resource protection. Static water level measurements were made from 108 hand – dug wells evenly distributed on a regional basis. The latitudes, longitudes and elevations above mean sea level of the well points were measured using the Global Positioning System. A mean value of 5.84 ± 2.35 m above mean sea level was observed for the depths to the static water level with a mean value of 408.27 ± 46.06 m above mean sea level for the groundwater head. The contour maps obtained enabled the delineation of the major groundwater recharge / discharge zones, the groundwater flow direction and the groundwater divides with the regional tendency of the underground flow approximately lying along the Northwest – Southeast direction and groundwater divides along the South – Eastern/ South – Western axes of the Central portion. Strict environmental ethics must be enforced around the groundwater recharge / discharge zones and flow directions in order to avoid groundwater contamination.

1. Introduction

The water needs of the residents of the ancient city of Ado-Ekiti, Southwestern Nigeria, are mainly met by tapping groundwater from hand-dug wells often susceptible to surface pollutants (Oyedele, 2009; Dada *et al.*, 2911; Awopetu & Baruwa, 2017). The top of the water surface in the saturated part of an aquifer, the water table, varies in depth according to local topography and prevailing climate. It may be deep or shallow and may rise or fall depending on such factors. The water table may fall as a consequence of an extended period of dry weather. On the other hand, heavy rains may cause the water table to rise. The depth is generally established by a long term balance between recharge and seasonal climatic fluctuations (Oseji *et al.*, 2009; Taiwo *et al.*, 2011). Water is exclusively a basic need for living things and a source of life for humans (Zahra & Putranto, 2021; Daramola *et al.*, 2022).

Most local groundwater supplies in Ado-Ekiti comes from an unconfined aquifer made up of loose soil materials such as sands, gravels, and floodplain deposits with varying clay content and degree of saturation. Unconfined aquifers or water table aquifers are often shallow and frequently overlie one or more confined aquifers. Being the uppermost aquifer, they are recharged through permeable soils and subsurface materials above the aquifer. Inherently, groundwater could be prone to contamination from anthropogenic activities. Groundwater pollution is anticipatory in most developing countries as a result of increased anthropogenic activities apart from possible natural pollutants (Talabi and Kayode, 2019; Bon *et al.*, 2021). Often, hydrochemical processes, nature of the aquifer media and high precipitation will influence the interplay (Oyedele *et al.*, 2019; Popoola *et al.*, 2020; Lachassagne *et al.*, 2021). Human activities often trigger surface pollution and gradually affect the subsurface, including groundwater (Zahra & Putranto, 2021).

Talabi (2016) reported on the Hydrochemistry and Sanitary Risk Assessment of Domestic Hand-Dug Wells in some parts of the study area, Ado Ekiti. The study cautioned on the risk of contamination. High concentrations of NO^{3-} and Cl^{-} as well as presence of *Escherichia coli* (*E. coli*) in the water indicated pollution from anthropogenic sources related to human and animal wastes. Deductions from Oyedele *et al.* (2019) revealed the imprints of natural weathering, ion-exchange processes and anthropogenic activities on the groundwater quality in the study area. Šrajbek *et al.* (2022) traced the degradation of groundwater quality globally to incessant and intensive anthropogenic sources particularly with the growth of the human population. The study underlined the need for groundwater protection.

The overall dependence on groundwater as the common water source in Ado Ekiti for both domestic and drinking purposes mandates its protection especially from contamination induced by soil particles eroded during heavy

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RESEARCH ARTICLE

The Temporal and Spatial Analysis of Corona Pandemic in Jordan using the Geographic Information System: An Applied Geographical Study

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Abstract. The coronavirus disease which results from severe acute respiratory syndrome (SARS-COV-2), is considered a global challenge affecting millions of people and leading to a global increase in mortality, including in Jordan. Therefore, this study aims to analyze the temporal and spatial patterns of the prevalence and outbreak of coronavirus in Jordan during six periods, from 1, October 2020 until 31, March 2021 by applying geographical information systems. The Moran coefficient was applied in addition to the G* test and location quotient (LQ). The results showed the overall pattern for the distribution of cases affected by the virus was random since most governorates' experience increased the focus and prevalence of the pandemic. Furthermore, four hot spots were revealed, namely Amman, Irbid, Zarqa, and Balqa'. This study introduced new insights into the statistical analysis of the distribution and prevalence of coronavirus in Jordan using geographical information systems. This will help planners and decision-makers to predict the dynamics of the temporal and spatial transfer of the virus in the future. It will also explain the current situation to set the appropriate policies or measures to face the pandemic, as well as reduce its prevalence. Therefore, monitoring, evaluating, and planning the usage of geospatial analysis are essential for controlling the spread of COVID-19 in the country.

1. Introduction

The prevalence of a disease is regarded as one of the most serious challenges experienced by humanity. This is due to the negative effects on people's lives in all the environmental, technological, social, and economic domains at the national and international levels (Garchitorena et al., 2017). Also, the pandemic diseases that prevailed throughout the world during the last few centuries, such as plague, AIDS, flu, measles, and malaria have led to the deaths of millions of people (Wagner et al., 2014). Currently, the world is confronted by one of the most serious diseases ever, namely COVID-19 according to the World Health Organization (WHO). This virus first emerged on 31st December 2019 in the city of Wuhan, the capital of Hubei province. Subsequently, it spreads rapidly throughout China and to all the countries in the world, including Jordan. As a result, about 136 million cases and 3 million deaths were registered at the world level until 31st, March 2021. The rapid and wide prevalence of the virus throughout the world has become a global concern and crisis despite the increased efforts for its control. The records of the WHO suggest that North and South America registered the highest numbers of cases, followed by Europe, the Eastern Mediterranean, South East Asia, and Africa (WHO, 2021).

This rapid prevalence has resulted in considerable psychological consequences, where about (98.54%) suffered from severe anxiety and depression due to the high infection rate (Kelvin and Rubino, 2020). Furthermore, individuals whose ages range between (30-79) years are more exposed to the virus, especially when they have underlying health problems, such as cardiorespiratory diseases, diabetes, blood pressure, and cancer (Liu et al., 2020). Meanwhile, the age categories over 50 years are more exposed to death due to coronavirus as compared to the other categories (Yahya et al., 2020).

The prevalence of diseases, especially infectious ones, takes on a spatial dimension, therefore, experts in general health can determine how the infection is transmitted at the national and international levels by following the paths of human communication (Mackey et al., 2014). In this regard, the geographical information system and spatial maps are considered effective analytical tools, which can be viewed as being basic for knowledge, prevention, and therapy. These instruments can also be used as a visual representation that helps draw the maps of the geographical distribution of the pandemics and predicts the areas exposed to risks in the future in order to give priority to prevention and medical treatment. As for the spatial analysis, the risks of diseases as well as the directions of their prevalence across time and space can be evaluated, while the spots of infection and prevalence can also be determined (Kandwal et al., 2009; Lyseen et al., 2014). Furthermore, geographical information systems are considered a basic tool for several educational programs that deal with