

Copyright © 2018 American Scientific Publishers All rights reserved Printed in the United States of America

Advanced Science Letters Vol. 24, 3146-3151, 2018

# Model of Indonesian Traditional Market Revitalisation: Case Study of Five Metropolitan Cities in Java Island

Ferry Hermawan\*, Frida Kistiani, and Ismiyati

Department of Civil Engineering, Diponegoro University, Semarang, Indonesia

The existence of Indonesian traditional market in the post reform order has a lesson learn of survival community. Traditional market represents a micro-economy, which contribute the national economy stability during the crisis. Most of traditional market in Java island is influenced by ancient Mataram Kingdom as figure out on the relief of Borobudur Temple. Mechanism of transaction in traditional market, such as bargaining process and selling culture has a distinctive local wisdom of Indonesia. The revitalisation of public market in Indonesia has a mediocre performance in general. Most of revitalisation projects among traditional market did not given a strategic bargaining position of previous market vendors to involve for market development process. This research focuses on modelling the revitalisation of traditional market in Indonesian context. A case study in five metropolitan cities was adopted. The findings underline that the pattern of Indonesian Traditional market in each metropolitan city on Java Island revealed that transportation access, distinctive local food and sociology aspect influencing the revitalisation process. This research suggests the model of Indonesian traditional market revitalisation to encourage the local authorities in sustainable community. The proposed model has a strategic issue, in terms of public building policy and capacity building of local authority.

Keywords: Revitalization, Traditional Market, Indonesia.

#### 1. INTRODUCTION

A program of traditional market revitalization as an attempt to strengthen micro economy is an initiative by the Ministry of Trade of the Republic of Indonesia. The program aims at responding to the proliferation of modern markets after Reformation Era, such as hypermart or mini market in urban areas, particularly in Jakarta as the capital city. Semeru, as one of the non-governmental organizations (NGOs), reveals that the decrease of the traditional market performance started since the beginning of economic crisis in Indonesia. In addition, liberalization in retail sector has triggered to the declining number of traditional markets. In contrast, large supermarkets with foreign capital start to exist in many cities in Indonesia, so that it is possible that the decreased number of traditional markets is not solely caused by the growth of modern markets. There are indeed internal issues on the existence of traditional markets in Indonesia. Management of most traditional markets is unrecorded; most markets have limited, irregular, and unhygienic facilities and infrastructure, and street vendors are often sporadic and likely to be unprofitable for the common buyers. 1 Jakarta is one of metropolitan city plays a role as the center of circulation of daily

necessities, which are largely distributed through traditional markets. A Lesson learnt from the post economic crisis between 1999 to 2007, traditional markets in Jakarta could not compete with modern markets. Such situation became worse with the ratification of regulation on modern markets through Commission for the Supervision of Business Competition (KPPU), which eventually supports setup and limitation of modern markets. Since 2007, there are many regulations from the central government to local governments with respect to their commitment to improve competitiveness and increase protection to the traditional markets. This is evidenced by the stipulation of Presidential Decree No. 112 year 2007 concerning Structuring and Construction of Traditional Markets, Shopping Centers and Modern Stores to promote better market structuring as the impact of trade liberalization, and as an empowerment effort in microeconomic sectors. Such decree is part of effort to promote "Revitalizing traditional markets" in urban areas. Jakarta become a "role model" on the revitalization program in Indonesian Traditional Market based on considerations as a capital city, has complex areas, and its infrastructure has fulfilled the requirements, representing urban development at the national level.<sup>2</sup> PD Pasar Jaya as a special agency under the local government of DKI Jakarta, is the agency who in charge of the development of traditional markets.<sup>2</sup> Referring to

<sup>\*</sup>Author to whom correspondence should be addressed.

policy on empowerment of traditional markets, PD Pasar Jaya has been appointed as the executor which would ensure the success of the revitalization pogram. KGM Project (anonymous) is the first successful traditional market revitalization project in Jakarta since year 2009.<sup>2</sup> The framework developed in the research on revitalizing traditional markets provides direction for conducting similar activities in other areas. According to,<sup>2</sup> sustainability of revitalization program on traditional markets would be achieved if constructed based on capabilities and balance between profit and technical performance. However, according to the past experience, a successful market revitalization in Jakarta still needs to consider the local context, such as local community tradition, demographic factors, and local infrastructure.

Referring to Agenda 21, sustainability of local construction, local capability to adapt technology, and availability of natural resources and human resources are contextual and unable to be generalized.3 On a previous study of Ref. [2], the concept of revitalization was still limited to one case study of a traditional market. In fact, from some market revitalization projects in Jakarta and in several cities in Java Island, the concern of policy makers in each region is still limited to the physical aspect of the building and the use of budget.<sup>2</sup> The social economic aspects, despite having implication to the market activity after revitalization was not seen as significant factors. Thus, this research is necessary to construct a conceptual model that approximates the ideal form of revitalizing traditional markets in Indonesia. A model of revitalizing traditional markets in Indonesia is a new thinking on the concept of development of public sector. Currently, the guidelines of market development according to FAO are still around management of raw materials and fresh food<sup>4,5</sup> and integration of shopping centres in urban areas; otherwise, the guidelines are merely as a tool in the "community development." The model that will be developed in this research focuses on public building policies in Indonesia. The infrastructure development considering several factors namely location and quality of public facilities, while sustainability of planning program of revitalizing traditional markets will also be discussed in this research. Programs on revitalizing traditional markets in Indonesia have a relatively large risk of failure. The tendency for failures is indicated from market conditions after revitalization, such as the decline in number of traders especially the existing traders, decreased buying and selling activity compared to the situation before revitalization, and disappearance of local cultures from the traditional market, namely traditional bargaining style, cultural sense on the goods and price of the goods. About 60 percent of the construction business sector is still dominated by large contractors in big cities in Java.8 The phenomenon gives rise to the research question: "How is the ideal form of revitalizing traditional markets in Indonesia that are located in urban areas in Java Island?"

### 2. RESEARCH METHOD

Case study was adopted as research method to investigate the standard of revitalisation on Indonesian Traditional Market. The examination method of this research still follows the prominent approach in explanatory and evaluation approach towards traditional market from five metropolitan cities in Java island. Considering the sensitive community in public market will affect the validity of the data, the semi-structured interviews (with market vendors, local authority and contractors) are conducted during the field observation on each location. This research conducts

the field observation among five cities: Semarang, Bandung, Surabaya, Solo and Yogyakarta. Since the ethical consideration rises during the data collection, this research attempts to fill the gap of information to corroborate the observation data with previous research works.2 The justification of the results conducted through historical data of traditional market from reputable sources such as published journals that relevant to the issue of traditional market revitalization by Indonesian context. thesis and some official report of the local authority (i.e., detail design of traditional market revitalization). The purpose of this study is to build a conceptual model of Indonesian traditional market revitalization in 5 metropolitan cities in Java island. The model is generated by the role model from KGM market Jakarta.<sup>2</sup> The model of revitalization will formulate a practical guidance for practitioners of public buildings in local context. This study will contribute to the research domain of strategic management in public infrastructure, especially the traditional market for Indonesian context.

### 3. RESULTS AND DISCUSSION

## 3.1. Traditional Markets and Urban Development in Java Island

The construction of infrastructure in Indonesia is still dominated in cities in Java Island. Back then, the history proves this has happened before the 19th century, where discussions on urban development in Java Island show that development activities are concentrated in big cities.<sup>9,10</sup> Traditional markets in some big cities in Indonesia have a specific character that often provides less competitive conditions. For example, the access to the market is not sufficient, dirty and unhygienic, and street vendors are often sporadic. 1,2 The phenomena are depicted in Figure 1, as they become fundamental issues which influence the market revitalization program in Indonesia. An issue that is often overlooked in revitalizing markets is the socio-economic aspect as market is the 'soul' of the micro economy. According to, 10 street vendors which are running informal business have a significant contribution to the microeconomic development in some areas in Indonesia. Furthermore, those small traders have a strategic role as a microeconomic force for the low-economic community and the unemployed when an economic crisis hits a nation. Therefore, the socio-economic aspect has been the essential foundation for sustainable local economic development.

In line with Ref. [10], demographic factors become the other significant factors in issuing policies on public infrastructure, including traditional market infrastructure. Development and characteristics of population growth in a region have been the focus of an ongoing infrastructure planning. <sup>11</sup> Therefore, revitalizing traditional markets in urban areas in Java Island such as in Jakarta, Bandung, Semarang, Yogyakarta, Solo and Surabaya should become the concern of regional government. Revitalization is not merely about the management of budget, but also gives space to the socio-economic aspects while paying more attention to the local wisdom and local needs.

The urban development in Java Island within the last two decades has changed the management of provision of public facilities quite significantly. Public infrastructures such as roads, clean water, electricity networks, and the settlement are referring to population density. The existence of traditional markets is another interesting phenomenon to the microeconomic development in line with national economic turnaround, as shown in the



Fig. 1. General situation of indonesian traditional markets in Jakarta and in other cities.

study by SEMERU in 2007. Moreover, optimism for Indonesia's economic growth tends to rise in post 2004. 12 Those two studies have provided justification that traditional market and national economy are two inseparable topics. In fact, politically in every election of both regional and national leaders, traditional markets are often the media of strategic communication since the traditional market is one of development components. 13, 14 However, several contradictions and criticism also appear in each region on the planning of revitalizing traditional markets, that give rise to social unrest as well as changes in economy from market traders. 15, 16 Therefore, traditional markets are part of the development planning that are inseparable of the city development. Research on the model of revitalizing traditional markets in Indonesia aims to depict urban development in Java, especially in markets in the urban areas, from several perspectives, namely the role, location and governance.

## 3.2. Indonesian Traditional Market: Roles, Location and Phenomena

Traditional markets have sufficient strategic role in the development of a city. Market as the public sector have a strategic position as a place of marketting and distributing agricultural products. The market acts as a place to trade or purchase various types of groceries and fresh food, and as a medium of social interaction. However, the market can also act as "the tools of community development" especially in large cities where many job seekers from the countryside are lying their hope for a better living. Revitalizing traditional markets as the central issue of economic development aims to restructure the governance and renew the conventional system to be the modern one. 17, 18

The location of markets in Java as part of the city planning follows a regular pattern as can be seen from some

documents showing city morphology.<sup>19</sup> Reference [19], argues that the traditional markets are positioned as part of the centre of governance while also performing a religious function. The location of markets is always attached to the King's palace or residence of the local leaders, center for worship, and the town square. Several metropolitan cities in Java island have a concentric radial typology (such as Jakarta and Semarang), although some of them (such as Solo, Bandung and Yogyakarta) tend to be grid.<sup>19</sup>

The traditional markets, if viewed from the city development patterns in Java, are situated in a strategic position. For example, they are mostly near the square or mosque, or at the centre of public activities in subdistrict or district capital. One of the hallmarks of traditional markets compared to modern market is its location which is always located near the city centre and centre of governance. 15, 19 The close distance of modern markets to traditional markets also triggers to the decreased number of prospective buyers to the traditional markets.<sup>20</sup> It is no wonder when modern markets were proliferating, such as hypermart or supermarket in 2007, there was a decrease in number of traditional markets in city centres.1 The argument is in line with the research findings of Ref. [21] that the price of goods is affected by how far potential buyers could reach a traditional market. Furthermore, different characteristics of each city in Indonesia will also affect the patterns of traditional market buildings. Though in nature, a traditional market has a typical strategic location, affected by the distance and demand-supply (between buyers and sellers), density of the region both in demographics as well as in the road network system, and characteristics of the traders in interacting with prospective buyers.

Land-Rent Theory proposed by Ref. [22] is regarded as the base of theory of location cited in this research. The topic on

location in infrastructure management relates to some aspects, such as:

- (1) population density and the feasibility of supporting infrastructure in a densely populated area, 23, 24
- (2) effectiveness of services and cost of public transportation, <sup>16</sup> and
- (3) psychological perspective that is able to change the mindset of its inhabitants.<sup>25</sup>

In fact, location of the market that is near the street is most preferred by buyers, so sellers (street vendors) grow like "loranthus" around the traditional markets. <sup>10</sup> This phenomenon still raises a dilemma that has not found any solution.

Location turns out to be not fully determining the success of the market revitalization program. Indeed, the shape of the market building plays a significant part in gaining a successful market. Often a traditional market becomes "suspended" after revitalization. Old traders do not want to come back to their stall as the market becomes more quite with the change in position and layout; this is surely uneasy for buyers to reach. Thus, it is common few years after revitalization, the market is turned back to the previous condition prior to the revitalized.<sup>26</sup>

#### 3.3. Characteristic of Indonesian Traditional Markets

The characteristic of Indonesian traditional markets (see Table I) from five metropolitan cities in Java island was identified from field observations and confirmed by some supporting document

Table I. Characteristic of traditional market.

about traditional market (detail design of market revitalization, historical notes and news from local documentary report, reference book and other research works from thesis or dissertation). Each character represents the local condition and the nature of market activities. Some of markets figure out the pattern of infrastructure, such as road networks, how strategic location affect to the local authority management, thematic groceries and local wisdoms, local fashion and local food.

This research also investigate the similar dishes ingredient from each part of Java Island that representing the local resources such as local production of fruit, vegetables and ground spices in Java island.<sup>28</sup> The various local product in traditional market means that logistic supply chain of market groceries stuffs also contributes the transportation support. These facts justify that from the period of 1900s, the traditional market among five cities in Java (Table I), the location-based refers to the transportation of their product.

## 3.4. Impact of Traditional Market Revitalization on Local Economic Activities

Revitalizing traditional markets attempts to improve the competitiveness of local economy through improved environment quality namely by ensuring the flow and quality of daily needs (such as food, drink and the Earth), parking lots, environmental hygiene, waste disposal and social interaction within community.<sup>5,7</sup>

Reference [29] did a survey by distributing questionnaires and found that the intention to buy goods at a traditional market in the

Name of market	City	Characteristics
Pasar Gede	Solo	The market is located at the crossroads until the local authority built the stalls as market facilities. This market very close to the history of Mataram Kingdom or Mangkunegaran.
Pasar Glodok	Jakarta	The market traders display their merchandise on the floor. Most of them is Chinese descent. They sell thrift or secondhand stuffs. The merchandise was taken using large baskets. The market located on the open field and stalls allocated around there. Nowaday, this market prominent as electronic market in Jakarta Kota district.
Fruit market (Pasar Buah)	Solo	The market building has a modern long stall. On top of stone pillars there is a wooden construction with tile as cover roof. Traders outside the stall using large umbrellas which material made by bamboo and leaves.
Fish market (Pasar Ikan)	Jakarta	The old buildings market with classical pillars have been replaced with new construction. The fishing boat does not need to be attracted to the beach, but it can be directly anchored beside the market complex. In this market, we could be distracted with very strong fish smells.
Pasar Gelap	Surabaya	Located in the heart of Chinatown, on the river banks of Kali Mas next to Jembatan Merah (Red Bridge).  Gelap market well known as black market which are sold an illegal goods, such as items obtained from shoplifting, stealing, or stow.
Pabean market	Surabaya	The market consists of two lines with six stalls. The building market is not able to accommodate most of traders, so that traders spilling outside the market building. In this market, fresh fish from the fishing boats sold, usually at the evening. Customs Markets never quiet both day and night.
Bird's market (Pasar Burung)	Yogyakarta	Having a birdsong as pet is a part of Javanese tradition. A lot of birds available in this market. This market was initially a part of the Beringharjo market (at <i>Malioboro</i> street), but because the market is too crowded and cramped, thus it relocated to a bigger place.
Pasar Baru	Bandung	Located in the Chinatown area as a trade centre. Along the road was built the market stalls for regularity and cleanliness. There are clean water resources facilities and special meat stalls which covered by gauze anti flies. On the right and left doors are built a small tower with a roof that is typical as the entrance gate. That tower serves as the police station and market office.
Pasar Senen	Jakarta	At the beginning, the market day is only Monday, then people namely <i>Pasar Senen</i> or Monday market. The market has become a center of domestic goods, especially vegetables. Its location near Kali Lio once used to bring merchandise by boats.
Johar market (Pasar Johar), Bulu market (Pasar Bulu)	Semarang	Located on the old city area that well known as Central Business District (CBD) in the Dutch Colonial period. The influence of river culture, this market has a distinctive character as central market in central

Java. The harbour of Tanjung Mas also influencing the trading activities since 1900s. Semarang city has similar typology with Jakarta. Thus, more and less the appearance of traditional market very close the local tradition of harbour city, china town community and radial concentric road network pattern.

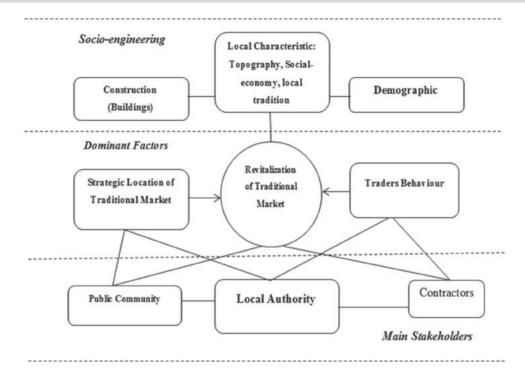


Fig. 2. Factors that affect Indonesian traditional market revitalization model

city of Bandung was greatly influenced by two factors, namely the quality of service and identification of buyers. According to,<sup>29</sup> buyers in the market tend to be loyal customers if the service is friendly and the trader understands what is needed by the buyers, including remembering the name of the buyer and offering special products during transactions. Social interaction forming intimacy between the traders and the buyers is also the advantage of traditional markets.<sup>15</sup> The similar findings are also revealed by Ref. [2] on revitalizing KGM market in North Jakarta, that the key success of socialization of revitalization program depends on the cooperative and communicative attitude of the market traders. Some failures in market revitalization in Jakarta are due to less responsive contractors or investors in handling complaints from existing traders. Then, ideally, revitalization program should bring physical changes of the building, followed with sustainability of social interaction in the traditional market after revitalization.

Various factors that could affect the success of traditional markets revitalization in every city in Indonesia need a reference that is expected to draw a perspective holistically while paying attention to local characteristics. It requires a standardization, namely "Indonesian Traditional Market Model." The model refers to the earlier research by<sup>2</sup> namely Framework of Sustainable Dynamic Capability (FSDC) which describes the balance of resources to achieve successful revitalization projects. Reference [2] found that the success of traditional market revitalization is determined from a strategic approach used to maintain the continuity of the market. The liveliness is a major consideration in the strategic approach to revitalizing traditional market buildings.

The earlier research concluded, at least two core factors that would keep traditional market activities alive, namely: (1) location of the market and (2) behavior of traders during socialization of the revitalization program. Both factors are interlinked and contribute to the performance of traditional markets before and

after the revitalization. Factors mentioned in the literature review are later hypothesized as a framework (see Fig. 2) that will be used as the basis of the establishment of a revitalization model and then presented on the data which would support the case study in each city being examined. Figure 2 shows three layers that form the traditional market revitalization system in Indonesia. First, the primary stakeholders are the contractors, local governments and the public community. The second is about the dominant factors determining the success of such revitalization, and the third is the technical factors that could be socially engineered to build a balanced system or socio-engineering aspect. The third layer is a representation of the traditional market institutions in Indonesia that influence each other.

The arrangement of public buildings including traditional market is still around physical aspect. The traditional market as a component of urban activities in Java Island still follows the city development pattern since the 17th century. The sustainability of traditional markets as the heart of micro economy is determined by location and social interaction within, involving traders, buyers, market managers and local governments. The process of revitalization should not be around technical matters but also include social perspective for sustainable city development. In other words, socio-engineering is the most logical approach to provide solutions for local governments. This research comes from the idea to achieve the most fundamental objective of the revitalization, that is, improving the life quality of society and support local, economic, and ecological competitiveness.

## 4. CONCLUSIONS

It has been argued that revitalization a traditional market based on the local context can be generalized only the structural or physical perspective. There are sustainable aspects will contribute the model of revitalisation, "socio-engineering" and economy. Socio-engineering in Indonesian traditional market incurred by market vendors as the centre of successful factor and local authority has another role for developing appropriate infrastructure planning. Lesson learnt from the historical pattern of traditional market among five metropolitan cities, we could found that three dominant aspects of revitalization are: transportation access, distinctive local food and sociology. Transportation access can be a backbone of activities of construction, supply chain of market stuffs or groceries circulations and generating economy in general. Distinctive local food and sociology aspect is a part of local brand and consideration of local authority in terms of regulation and public building management purposes. We could achieve from role model-1 from successful revitalization project of KGM Jakarta. Market trader is the key success in upgrading competitiveness of Indonesian Traditional Market among urban area.

**Acknowledgment:** This research was funded by competitive grant from Diponegoro University PNBP Contract No: SP DIPA-042.01.2.400898/2016, 7 December 2015, Budgeting Year 2016. It also benefited from in-kind support from Laboratory of Construction Management, Department of Civil Engineering, Diponegoro University. We would like to thank all the colleagues and friends: Dr. Wisnu Setiawan and his wife Dr. Arif Budi Sholihah (Solo and Yogyakarta), Mr. Andang Wijaya (Surabaya), Roby Kuncoro (Jakarta), Dr. Tutik Rachmawati (Bandung) and all my students in the final project team for valuable supports and outstanding collaboration during the data collection in Semarang.

## **References and Notes**

- 1. Semeru, Traditional Markets in the Era of Global Competition (2007).
- F. Hermawan and R. Soetanto, A strategic approach for sustainable public buildings: A case study of revitalisation of public market buildings in Jakarta, ICONIC, Technische Hochschule Nürnberg George-Simon-Ohm, Nuremberg, Germany (2014).
- 3. C. Du Plessis, Construction Management and Economics 25, 67 (2007).
- 4. J. D. Tracey-White, Food and Agriculture Org. 141 (1999)
- D. Suryadarma, et al., Food Policy 35, 79 (2010).

- 6. C. J. Thomas and R. D. Bromley, Applied Geography 23, 47 (2003)
- 7. A. Morales, Journal of Planning Education and Research 28, 426 (2009).
- 8. Biro Pusat Statistik, Statistic of Indonesia, Jakarta (2011).
- C. H. Weiss, Toward reform of program evaluation: Aims, methods, and institutional arrangements, edited by J. Lee, Cronbach and Associates, San Francisco, Jossey-Bass Inc., \$16.95 (hardcover), Pergamon (1981), p. 438.
- 10. T. Rachmawati, International Journal of Green Economics 7, 44 (2013).
- F. Hermawan, T. Rachmawati, and H. L. Wahyono, Procedia Engineering 125, 481 (2015)
- World Bank, World Bank Report: Indonesia, Emerging Markets Redefine Global Economy (2011), April 2015, Available from: <a href="http://www.worldbank.org/en/news/press-release/2011/06/15/world-bank-report-indonesia-emerging-markets-redefine-global-economy.">http://www.worldbank.org/en/news/press-release/2011/06/15/world-bank-report-indonesia-emerging-markets-redefine-global-economy.</a>
- F. Wibowo, Jokowi Kampanye key Pasar (2014), Maret 2014], Available from: <a href="http://www.bisnis.com/photos/view/20140328/214939/jokowi-kampanye-ke-pasar">http://www.bisnis.com/photos/view/20140328/214939/jokowi-kampanye-ke-pasar</a>.
- A. Yudhistira, Jokowi Serap aspirasi pedagang pasar poncol (2013), April 2013], Available from: http://jakarta.okezone.com/read/2013/03/20/500/778624/jokowi-serap-aspirasi-pedagang-pasar-poncol.
- A. I. Mirah, et al., Efektivitas dan Dampak Program Revitalisasi Pasar Tradisional di Pasar Agung Peninjoan (2013).
- R. D. R. Nugraha, Libatkan Investor, Pedagang Pasar Banjaran Tolak Revitalisasi (2016), Available from: <a href="http://www.inilahkoran.com/berita/bandung/53574/libatkan-investor-pedagang-pasar-banjaran-tolak-revitalisasi">http://www.inilahkoran.com/berita/bandung/53574/libatkan-investor-pedagang-pasar-banjaran-tolak-revitalisasi</a>.
- 17. J. Smith, D. Maye, and B. Ilbery, Area 46, 122 (2014).
- 18. T. Reardon and C. P. Timmer, Annu. Rev. Resour. Econ. 4, 225 (2012).
- J. Santoso, Arsitektur-kota Jawa: kosmos, kultur & kuasa, Centropolis, Magister Teknik Perencanaan, Universitas Tarumanegara (2008).
- H. M. Parawangsa, Manajemen Pembangunan Pasar', dalam Departemen Koperasi dan Pembinaan Pengusaha Kecil, edited by P. P. P. d. P. K. Lima, lakarta (1994)
- 21. G. Donofrio, Journal of Planning History 13, 136 (2014).
- W. Alonso, Location and Land Use, Toward a General Theory of Land Rent (1964).
- W. Isard and R. E. Coughlin, Municipal Costs and Revenues Resulting from Community Growth, Chandler-Davis Publ. Co (1957).
- 24. I.-S. Suen, Journal of Urban Planning and Development 131, 1 (2005).
- C. Montgomery, Happy City: Transforming Our Lives Through Urban Design, Macmillan (2013).
- A. Buchori, Menyoal Revitalisasi Pasar Tradisional (2015), 11 Maret
   2016], Available from: <a href="http://metrobali.com/2015/07/25/menyoal-revitalisasi-pasar-tradisional">http://metrobali.com/2015/07/25/menyoal-revitalisasi-pasar-tradisional</a>.
- O. J. Raap, Kota di Djawa Tempo Doele, Kepustakaan Populer Gramedia (KPG), Jakarta, Indonesia (2015), pp. 73–94.
- A. L. T. Hayatinuvus and H. Cherry, Indonesian Kithcen 300 Popular Recipies Across the Archipelago, Yasa Boga, Kompas Gramedia (2015), pp. 93–191.
- 29. R. A. Rahadi, *Procedia-Social and Behavioral Sciences* 36, 529 (2012).

Received: 20 June 2017. Accepted: 22 September 2017.