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Enhancing the quality of historical area by delivering the concept of transit-oriented development within Kota Tua Jakarta

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Abstract. This research aimed to propose a new concept for a historical area in Jakarta known as Kota Tua Jakarta by delivering a concept of Transit-Oriented Development to enhance the environment's quality. The idea of TOD itself has been regarded as a perfect solution for a metropolitan city such as Jakarta, which has a relatively large population. As second-year research, this research has been developed from the first-year research that has conducted some ideas from precedent studies of historical areas. Using the eight principles of TOD (cycling, walking, transiting, connecting, shifting, connecting, densifying, and compacting), authors have concluded some results and proposed a design to be implemented within Kota Tua Jakarta. Authors have conducted a qualitative method with observation and mapping analysis to deliver a relevant result. The result will implicate urban planners and architects in providing good design and excellent planning for Indonesia's historical site and Kota Tua Jakarta, particularly.

1. Introduction

Revitalization has been regarded as activities to revitalize an area within a city or part of a city, and return it to its previous vitality. An area needs to be revitalized when it has suffered both socially and economically and has encountered degradation to the local infrastructure and utilities. The process of revitalization itself, then, includes improvement to physical, economic, and social aspects, and sound approaches must be able to recognize, exploit and support the potential of the environment of an area or region, including its unique location, history, meaning, identity and image and local wisdom [1]. Purwantiasning et al. also highlighted that revitalization in Indonesia could be perceived as an activity to preserve cultural heritage without development involving any developmental changes; for example, revitalization activity in Indonesia can be seen in the revitalization of Prambanan [1].

Purwantiasning et al. [2] has been developing comparative studies of degraded areas located in Clarke Quay and Boat Quay (Singapore), Albert Dock (Liverpool, England), and Sunda Kelapa Port (Jakarta, Indonesia) using methodologies to analyze successful rehabilitation of areas with high historical value. The experience of revitalization in Jakarta is related to the conservation of important buildings.

From the above discussion, it is clearly stated that Jakarta's local government has been encouraged to enhance the quality of the Jakarta Old Town Area by making it a comfortable place for tourism. One



solution has been to create a pedestrian area within the Jakarta Old Town Area, for example, through the provision of a large plaza in front of the Fatahillah Museum, formerly known as the Stadhuis (Government Office). Furthermore, there are now pedestrian routes from this plaza to other interesting places within Jakarta Old Town. Tourists can directly reach all the attractive places within the area on foot from Farahillah Museum. The authors clearly understand that local governments will always need new ideas to support their program to enhance the environment's quality by doing this research. Authors have proposed an original idea by delivering a concept of Transit Oriented Development to be implemented within Kota Tua Jakarta. There are several reasons why Authors need to propose this idea:

- Poor image of the area following years of neglect by the existence of some abandoned buildings within Kota Tua Jakarta
- Lack of vitality within the area, which has acted to discourage business investment;
- Lack of infrastructure and facilities within the area;
- Poor and uncontrolled traffic conditions;
- Significant degradation to the quality of the environment;

By following those above conditions, the Authors have proposed some ideas as follow:

- Strengthening existing activities within the area and encouraging the development of new business and economy activities by delivering a mixing, compacting, and densifying concept as three of principles of TOD's concepts;
- Implementing a conservation and revitalization concept in the development of the Jakarta Old Town area by delivering adaptive reuse concept for abandoned buildings;
- Enhancing the infrastructure and facilities in the area in developing and preserving of the Jakarta Old Town environment by providing a concept of cycling and walking within areas as two principles of TOD's concepts;
- Encouraging a variety of social, art, and culture activities within the area by delivering some facilities such as art space as well as co-working space within the area;
- Revitalizing the function of the area as a residential place with many activities for the community by adopting the concept of LIVING IN THE CITY and delivering some principles of TOD's concept such as mixing, compacting, and densifying;
- Developing good public transportation within the area by providing some principles of TOD's concept such as transiting, connecting, and shifting, thus visitors will enjoy the area comfortable and safe.

In the previous research Purwantiasning and Bahri [3] has stated that one of the best solutions to enhance the quality of Kota Jakarta is by delivering a new concept which is synergized to improve and improve the quality of the built environment as well as the quality of the local community who live within the historic area. This new concept has been known in many countries that have delivered it in their metropolitan cities—this concept is known as Transit-Oriented Development. Transit-Oriented Development itself could be explained as a concept to integrate all functions within one area. As mentioned in Purwantiasning [4], TOD, which stands for Transit-Oriented Development according to ITDP [5], could be defined as “an integrated urban place designed to bring people, activities, buildings and public space together, which easy walking and cycling connection between them and near excellent transit service to the rest of the city.....”

To conclude the definition of TOD, Purwantiasning [4] and Purwantiasning and Bahri [3] also explained that a district of an area that implemented TOD is an area or a neighbourhood that could be said as an area or a zone that could accommodate the community in doing many activities within it. In other words, as mentioned by Sacramento Regional Transit [6], this area or region should have various zones, not only for residential but also for commercial, public use, and green space. The main principle of the concept of Transit-Oriented Development is to improve the quality of infrastructure within the historic area which has been degraded for years. The significance of infrastructure itself could be reached

by applying the concept of Transit Oriented Development, which prioritizing the need for comforts and safeness for the community particularly local community as well as visitors of the historical area.

As mentioned by Taki and Maatouk [7], a well-regulated and well-planned city is characterized by land use and transportation system conditions, and it indicates economic prosperity. The problems that may arise are how to conserve and preserve the historical buildings' character within Kota Tua Jakarta. Since Kota Tua Jakarta needs to be enhanced and improved its quality of the environment, but in the other hand, it will become dilemmatic that this area is a historical area that needs to be preserved and conserved. As mentioned by Ahmad [8], the concept of TOD has several advantages, especially for protecting the environment, hence improve the quality of life for the future generation.

According to the above references and also explanation, it is clearly understood that to enhance and improve the quality of the environment of Kota Tua Jakarta as one of the historical districts in Indonesia is by delivering a concept of Transit Oriented Development which is significantly oriented to the safety and comfort the users. Referring to Sisiopiku et al. [9], by implementing the concept of TOD, the planning for public transportation, transit, and optimizing the use of the buildings within the area would create "livable" communities that offer healthy and sustainable transportation choices for all in the future. In this case, users are visitors, and the community within Kota Tua Jakarta will enjoy the area by using the pedestrian way and bicycle way. They could reach one building and one activity to another by only walking distance within the area. Lu et al. [10] underlined that the need to walk for the local community would encourage people to do more physical activity, mainly walking; many design features promote walking such as mixed land use, densifying, and well-connected street networks district. Thus Lu et al. [10] also agreed that TOD's concept has similar activity benefits as established urban neighborhoods.

2. Research methods

To obtain a practical solution and conclusion, authors have utilized a qualitative method. Authors have designated a historical area of Kota Tua Jakarta as a case study. The authors have chosen this area because this area has a significant historical value, which could become the city's identity and has excellent value in the past. Some mapping analyses have been done to identify the existing condition of Kota Tua Jakarta. Some mapping analyses also have been done to describe the possibility of implementing TOD's concept. Some activities also have been done to support the research. Those are literature studies, surveys, and observations, as well as questionnaires distribution. At the end of this research, the authors have provided recommendations to answer this research's aim.

3. Results and discussion

By using mapping analysis, the authors have proposed some ideas refer to the eight principles of Transit Oriented Development concepts. Those principles are walking, cycling, compacting, densifying, mixing, transiting, shifting, and connecting. Firstly, the Authors have discussed walking and cycling since the existence condition of Kota Tua Jakarta shown that there is a lack of pedestrian ways and particularly bicycle ways. There are no bicycle ways within Kota Tua Jakarta, though visitors need to mobile from one activity to another as quickly as they can. The authors have proposed developing the area by implementing the concept of walking and cycling by offering design for bicycle ways and pedestrian ways that are safe and comfortable for users. The idea of the proposed design as follows:

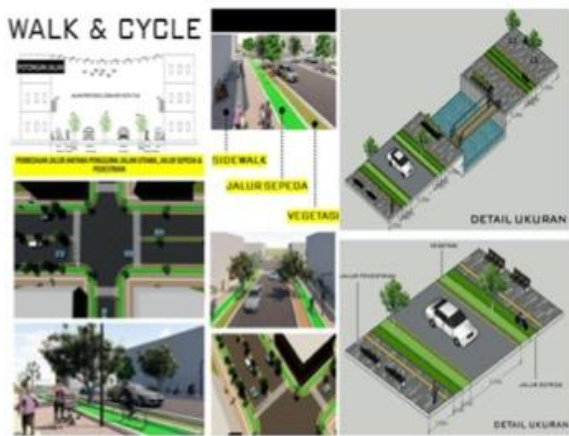


Figure 1. Proposed design of bicycle ways and pedestrian ways.



Figure 2. Proposed design of Toko Merah as a new function (Art Gallery and Café).

To implement the principles of mixing, compacting and densifying, the Authors have chosen three significant buildings within Kota Tua Jakarta that need to be adaptively reused. They are Toko Merah as an Art Gallery and Café, Dasaad Musin as a Hostel and Café, and Jasindo as a Culinary and Souvenirs Centre. The following figures (Figure 2, Figure 3, and Figure 4) represent the proposed ideas of those three historical buildings. Toko Merah, which is located on Jalan Kali Besar Barat, is the most significant building within Kota Tua Jakarta. This building has a particular color, a red color which is enveloped the building, and this building has been vacant for many years. However, sometimes there is a specific event that has been held within Toko Merah. Since Toko Merah economically has not functioned effectively, the Authors have an idea to propose this building to be a new concept within the Area. Canal Batavia, which is located in front of Toko Merah, nowadays is become the most significant tourist attraction, and sometimes, visitors have difficulties finding supporting facilities nearby Canal Batavia, such as café or restaurant. The idea to reuse Toko Merah as a café and art gallery (see Figure 2) maybe is a perfect solution to support the need of the Area of Canal Batavia.



Figure 3. Proposed design of dasaad musin as a new function (Hostel and Cafe).



Figure 4. Proposed Design of Jasindo as a New Function (Culinary and Souvenirs Centre).

The second building is Dasaad Musin, located on Jalan Kali Besar Timur, near Fatahillah Museum and Fatahillah Square. This building has been regarded as an art deco architecture style built in the 17th century. Since the Local Government of DKI Jakarta has bought Dasaad Musin, the Government willing to enhance this historic building to be financially improving. For years Dasaad Musin has been revitalized and renovated by keeping its character and values. But since then, the building still vacant without any activities within it. Dasaad Musin is significant because its location is near the main tourist attraction (Fatahillah Museum and Fatahillah Square). Thus, for this reason, the Authors need to propose the idea of some activities within Dasaad Musin to be more attractive. Figure 3 shows that the authors have proposed a new idea to be created within Dasaad Musin as a Hostel and Café to support the activities within Kota Tua Jakarta.

Since the area of Kota Tua Jakarta has not a significant area or space to support the local community's activities in promoting their special culinary and handmade handicraft, the Authors have a thought to propose an area or space within a formal building to support this idea. The building of Jasindo, located on Jalan Pintu Besar Utama, has a potency to be enhanced and promoted as a supportive building for a culinary souvenirs center. This idea has encouraged the Authors to propose the design idea of Jasindo to be Culinary and Souvenirs Centre within the area of Kota Tua Jakarta.



Figure 5. Proposed design of some spot to become transiting spot.



Figure 6. Proposed design of some pedestrian ways to become connecting area.



Figure 7. Proposed design of some spots to become shifting spots.

Figures 5, 6, and 7 show the proposed design of the three principles of Transit Oriented Development's concept. They are shifting, transiting, and connecting. To implement the transiting principle, authors have proposed some spots within the area of Kota Tua Jakarta to become transit spots such as a bus stop and bicycle parking area; thus, visitors or the local community could transit from one transportation mode to another. In implementing the principle of connecting, some pedestrian ways need to be enhanced by delivering a proposed design connecting one activity to another, one building to another, and one transportation mode to another. And the last principle is shifting. Authors have proposed some spot to be a parking area as a shifting concept for the local community and visitors who need to change one transportation mode to another by parking their private vehicles within this area.

4. Conclusion

To conclude this research, the authors have stated that there is a big possibility to implement the eight principles of Transit Oriented Development's concept. To apply the walking and cycling principles, the Authors have proposed some pedestrian ways and upgrade the quality of existing pedestrian ways within

Kota Tua Jakarta. The authors have also offered new bicycle ways and the bicycle station spots to serve all bicycle riders. To implement the mixing, compacting, and densifying principles, authors, have proposed three significant buildings to be adaptively reused with more effective and efficient economically. And the three last principles are transiting, connecting, and shifting, which has been proposed by delivering some spots within the area of Kota Tua Jakarta become a transiting spot and shifting spot connected within the area be more easily to be accessed. This proposed design should encourage the local government to implement eight principles of Transit-Oriented Development's concept. By applying the eight principles of Transit-Oriented Development's concept, the historical area of Kota Tua Jakarta could become an integrated area with a specific character that provides a better environment that could be accessed easily by walking and cycling within the region. Hopefully, implementing those eight principles of Transit-Oriented Development's concept could enhance the quality of the built environment to be more comfortable, safe, attractive, and sustainable.

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