The 2nd International Conference Planning in the Era of Uncertainty: Sustainable Development Creative – Sustainable Traditional Market Design in Malang Gunawan Tanuwidjaja*, Richo Wirawan1 1Petra Christian University, Architecture Study Program, Jl. Siwalankerto 121-131, Surabaya, Indonesia Abstract Thirteen thousand four hundred and fifty (13,450) Traditional Markets in Indonesia faced great competitions from the entrants of modern markets. The traditional markets failed to compete because of poor planning, inconvenient access, overcrowded trading activities, lack of air circulation and poor sanitation, affecting 12.625 million vendors. A more sustainable development model for Indonesian traditional markets is proposed based on the Singapore’s sustainable commercial development. The Pasar Besar of Malang City, with 4,424 stores, 3,295 vendors and as one example of degrading markets, needed a new sustainable design. Therefore, an interesting architecture concept is proposed and hopefully could become an example of traditional market revitalisation in Indonesia. Keywords: Traditional Market, Integrated
Planning and Design, Creative, Pasar Besar 1. Introduction Indonesian Traditional Markets faced great competitions from the entrants of modern markets, shopping malls etc. Indonesian traditional markets failed to compete because of poor planning, inconvenient access, overcrowded trading activities, lack of air circulation and poor sanitation.

[1]. And 13,450 traditional markets were dilapidated, and affecting 12.625 million vendors [2]. For example, according to PD Pasar Jaya [3] from 151 traditional markets in Jakarta, 13 markets were reported in poor condition and 111 markets were in very poor condition.

And seven markets were closed due to severe competition. Natawidjaja (2006) 4 also stated that new modern market (supermarket) sales have increased 15% per year, while the traditional market sales decreased 2% per year. Pricewaterhouse Coopers [5] also found that modern market sales would increase.

The supermarket sales would increase by 50%, while hypermarket sales would grow by 70% between 2004 and 2007. This actually shows that the traditional market could not compete in the fair economic battleground with the modern market, due to many disadvantages. Suryadarma [6]

further described the negative impact of the severe competition. He found that informal traditional traders with the same commodity suffered the great impact of the presence of supermarkets and hypermarkets. On the other hand,

fresh food traders (meat, fish, vegetables, fruit, etc.) were still able to compete with supermarkets and hypermarkets because
customer preference.

And the modern markets won over traditional markets because of lower prices, shopping comfort and credit-type

* Corresponding author. Tel.: +62 81 221 220 842 E-mail address: gunte@petra.ac.id, gunteitb@yahoo.com. Payment. Lastly, the modern markets established business links with large suppliers causing more efficient operation and more economies of scale. Indonesian Government had prescribed

the Presidential Decree No 112 Year 2007 for regulating the traditional and modern markets

[7]. In 2014, President Jokowi, also formulated a new strategy to build or reconstruct the 5000 traditional markets in Indonesia. As stated in the Decree,

Government of Indonesia is obliged to implement: ? Spatial Planning and Development Control of the Traditional Markets, Shopping Centres and Modern Stores; ? Regulating the supply chain to The Modern Markets (including from The Small – scale Industries); ? Development and Supervision of The Traditional Market (including the Empowerment Program), Shopping Centres and Modern Markets ? Revitalisation of the Traditional Market. Unfortunately, the implementation of

Presidential Act No. 112 of 2007 was not effective

due to [8]: ? Unclear classification of Traditional Markets ? Uncompleted database of Traditional Markets ? Single-sectored approach in the implementation ? Ineffective coordination between Ministry of Trade (MENDAG), Ministry of Cooperation, Small and Medium-sized Business (MENEG KUKM) and Municipal Governments ? Hindrances from “status quo” party ? Limited human resources capacity and funding in Government agencies, traditional markets management institutions, as well as informal traders ? Lack of community participation in the process ? Time shortage of the project implementation

2. Literature Review To propose a more sustainable development model for Indonesian traditional markets,
Singapore case study was evaluated. The Singapore's sustainable commercial development, in the 40-years period, showed the successful integrative planning, design and management effort. Singapore became

**a strong economic country-state capitalising on its commercial development for the international market demand**

[9].

**With annual growth of 2-10% and Gross National Income (GNI)**

$363,827.2M, in 2013

the city has proven its resourcefulness to become

"the Global City" [10]. The revolution of Singapore was started

by Ministry of National Development (MND) and Urban Redevelopment Authority (URA)

as the Urban Planning Authority [11].

Since then, the integrated urban and economic - planning and development were conducted with

**Economic Development Board (EDB), Singapore Tourism Board (STB),**

Housing Development Board (HDB), etc.

And this creative collaboration resulted in

"Sustainable Urban Development" [12]. The effort was translated in

**Concept Plan 2001. The Plan stated the concept of “a thriving, world-class city in the 21st Century.”** First, the “Ring Concept” of **Expressways and Mass...**
Rapid Transit (MRT) system was proposed. Secondly, high-density-high-rise towns were located adjacent to the "Ring". Thirdly, the Conservation Park and Open Spaces were also provided. Lastly, the commercial areas were suggested in the strategic areas and new town central [13].

The key proposals of the Concept Plan were translated into Master Plan 2003. The Master Plan was used as the detailed guide for the city development for the next 10-15 years [14].

Figure 1. The Ring Concept Plan in 2001, Source: Urban Redevelopment Authority of Singapore, http://www.ura.gov.sg

Discussing the Commercial Planning, Singapore Creative Collaboration was implemented with several strategies. First, the rational commercial planning was conducted by URA in the Concept and Master Plan. Table 1. Commercial Typology of Singapore,


| No Commercial Centres Average Catchment Radius (km) Average Catchment Area Population (ha) (Person) Catchment Population | 1 |
(Density Unit) or Up to 1 Metropolitan Serving National Population 2
Regional Centres 5 14.000 500.000 166.667 3 Sub-regional Centres Type 1 3
3.000 200.000 66.667 4 Town Centres (TC) Type 1 1.5 700 20.000 60.000 5
Neighbourhood Centres (NC) Type 1 0.4 50 2.000 6.000 6 Amenity Centre 0.5
50 15.000 5.000 Table 2. Detail of Commercial Typology of Singapore
Source:

Urban Redevelopment Authority of Singapore, http://www.ura.gov.sg 1

No Centres Office Retail Entertainment Hotel Total Commercial Gross Commercial Floor Area (sqm)
approximation only

1 Metropolitan 7.000.000 5.000.000 3.000.000 15.000.000 2 Regional
Centres 800.000 400.000 20.000 200.000 1.420.000

3

Sub-regional Centres Type 1 61.000 178.000 89.000 328.000

4 TC Type 1 39.000 34.000 13.000 0 86.000 5 NC Type 1 - 8.000 0 0 8.000 6 Amenity Centre 0 840 0 0
840

Following the rational commercial planning, URA allocated strategic areas in Central Region for Commercial Areas or Shopping Streets with proper planning; careful design; as well as constant monitoring of commercial spaces intake and prices

[15]. Due to those positive data in 1970-2000’s, URA was

confident to allow more area for commercial development.

And URA conducted the Government Land Sale program (GLS) 1

via public tender for commercial. Then, the private sector could contribute in the developing innovative commercial ideas [16].
The URA's Development Control Division has to evaluate and approve the projects.

URA also ensures the infrastructure provision, environmental improvements and building construction standards with other agencies [17]. Secondly, URA prescribed a new Commercial Area serving a New Town, normally in its central and close to MRT or Bus Station.

One of successful example of the Regional Commercial Centre is Tampines which complemented with sizeable commercial area [18]. Thirdly,

the strategy of historical areas revitalization for commercial areas was adopted.

This strategy was successful with increasing number of foreign tourists and local shoppers in areas such as Kampong Glam, Chinatown, Kampong Bugis, Little India, Joo Chiat, etc. Loo et. al. [19] found that most of the town centres were sustainable. But some neighbourhood centres were lacked of vitality because of growing affluence and increased mobility of the residents. This indicated that the retail hierarchy need the rationalisation following current economic trend. The Government also introduced resettlement of street hawkers since 1971. The program actually catered basic stall facilities and services such as piped potable water, electricity and garbage collection and disposal. And it was reported that by 1996, all street hawkers had been resettled. Most of the food centres and traditional markets were located in
the Town Centres and the Neighbourhood Centres. Some excellent examples were presented below [20]. Figure 3.

The Situation of Tampines Wet Market Source: www.flickr.com

3. Results and Analysis On the other hand, sustainable commercial development in medium-sized cities such as Malang, need more attention from the Government. Malang is the second largest city and the educational hub of East Java Province, Indonesia. The city's population is 820,243 persons and average annual population growth rate 0.80% [21]. It is a popular destination for Surabaya and surrounding cities residents because of its cool temperature. And it is a thriving city, with steady economic and population growth and not affected by the Asian financial crisis [22]. Badan Pusat Statistik Kota Malang [23] highlighted the Gross Regional Domestic Product of Malang with total of Rp. 30,802,611,880. The City Regional domestic product was mostly contributed by Commercial, Hotel and Restaurants sector (38.06%), Industry (33.48%) and Services (12.42%). Traditional and modern markets which could be categorised under trades actually contributed almost 28.23% or Rp. 8,696,893,057. And this is very substantial for Table 3.

Percentage Distribution of Gross Regional Domestic Product at Current Market Price

Source: Badan Pusat Statistik Kota Malang (2011) No Sectors

Percentage Distribution of Gross Regional Domestic Product at Current Market Price

1 Agriculture 0.37% 2 Mining and Quarrying 0.03% 3 Industry 33.48% 4 Electricity, Gas and Clean Water 1.40% 5 Construction 3.14% 6 Trade, Hotel and Restaurant 38.06% 6a Major and Retail Trading 28.23% 6b Hotel 0.48% 6c Restaurant 9.34% 7 Transportation and Comunication 3.01% 8 Financial, Rental and Corporate Services 8.11% 9 Services 12.42% The Malang City area of 110.06 sq. km is divided into five districts, such as: Kedungkandang, Sukun, Klojen, Blimbing and Lowokwaru.

Agriculture sector is the main sector, except Klojen sub-district. The Malang City produced 13,629 tonnes annually from 2,090 Ha rice field. Meanwhile, it also produced 1,174 tonnes of corns, 243 tonnes of cassavas and 29 tonnes of sweet potatoes. The plantation sector of Malang produced a great volume of fruits annually such as: Avocado (1,557 tonnes), Durian (308 tonnes), Rose Apple (580 tonnes), Orange (2,259 tonnes),
Mango (4,046 tonnes), Papaya (3,739 tonnes), Banana (8,894 tonnes), Rambutan (2, 243 tonnes), Zalacca (10,206 tonnes), Star Fruit (1,872 tonnes) and Jackfruit (1,549 tonnes). Therefore, traditional markets for agriculture products played important roles in the city development [24]. There are 30 traditional and modern markets with total of 13,044 traders in the city.

### The largest number of markets in Malang is the Klojen

<table>
<thead>
<tr>
<th>Klojen</th>
<th>Blimbing</th>
<th>Lowokwaru</th>
<th>Subtotal</th>
</tr>
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<tbody>
<tr>
<td>2 1 1 3</td>
<td>6 4 1 3</td>
<td>4</td>
<td>2 1 5</td>
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<tr>
<td>1 3 7 4 2</td>
<td>5</td>
<td>15</td>
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</tbody>
</table>

Sub-district (14 markets), as the centre of economy activity in Malang. The distribution of traditional markets could be described in the Table 4 below. Table 4. Distribution of Markets in Malang City by Sub-Districts

<table>
<thead>
<tr>
<th>Source</th>
<th>Badan Pusat Statistik Kota Malang (2011) No Sub-Districts I II Classification of the Market III IV V Total Total 1 Kedungkandang 1 2 3 1 2 Sukun</th>
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<tbody>
<tr>
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<td>2 1 1 3 Klojen 6 4 1 3 4 Blimbing 2 1 5 Lowokwaru 2 Subtotal 13 7 4 2 5</td>
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</tbody>
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30 Table 5. Distribution of Markets in Malang City by Sub-Districts

<table>
<thead>
<tr>
<th>Source</th>
<th>Badan Pusat Statistik Kota Malang (2011) No Name of Districts Name of The Market Closed Store No of Stores No of Traders Open Store No of Stores No of Traders 5-Feet Hawker No of Traders Total of Store Total of Trader 1 Kedungkandang Districts Pasar Madyopuro 24 24 610 610 7 634 641 2 Pasar Sawojajar 166 149 8 - 19 174 168 3</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Pasar Kedungkandang 99 99 283 283 10 382 392 4 4 Pasar Kotalama 2</td>
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<td></td>
<td>-- 126 126 40 126 166 5 Pasar Lesanpuro -- 82 82 - 82 82 6</td>
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<td></td>
<td>Pasar Kebalen 30 15 396 350 478 426 843 7 Pasar Temboro - - - - - - - - 8</td>
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<td>Sukun</td>
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<td>Districts Pasar Sukun 36 17 343 107 - 379 124 9 Pasar Gadang 57 34 224 101 - 281 135 10 Pasar Induk Gadang 64 34 2,532 1,724 - 2,596 1,758 11 Pasar Hewan Sukun - - - - - - - - 12 Klojen District</td>
</tr>
<tr>
<td></td>
<td>Pasar Besar 718 627 3,706 2,164 504 4,424 3,295 13 Pasar Baru Barat 2</td>
</tr>
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<td></td>
<td>174 58 1, 087 159</td>
</tr>
<tr>
<td></td>
<td>- 1,261 217 14 Pasar Klojen 40 34 221 151 - 261 185 15 Pasar Kasin 28 20 224 120 - 252 140 16 Pasar Oro-o Oro Dowo 40 34 172 130 - 212 164 17 Pasar</td>
</tr>
<tr>
<td></td>
<td>Bareng 45 30 189 89 17 234 136 18 Pasar Buku Willis 68 68 4</td>
</tr>
</tbody>
</table>
No Name of Districts Name of The Market Closed Store No of Stores No of Traders Open Store No of Stores No of Traders 5-Foot Hawker No of Traders Total of Store Total of Trader 28 Pasar Hewan Blimbing
29 Lowokwaru District Pasar Tawangmangu 259 136 782 314 20 1,041 470 30 Pasar Dinoyo 144
92 1,122 574 325 1,266 991 Total 17,523 13,044 From all those markets, 14 traditional markets in Malang
were unorganized, looks shabby and unhealthy. In 2013, revenue from traditional markets reached USD 3.2
billion. Therefore, Malang Municipality would revitalize the 14 traditional markets to change the negative
image of traditional markets. Revitalization of traditional markets required budget of Rp 41.5 billion. To
facilitate existing traders to be able to utilise the revitalised markets, a participatory revitalisation strategy
must be proposed [25]. Understanding the importance of Traditional Market in Malang, a new strategy was
proposed with creative integrated planning and design based on Singapore case study. The strategy could
be described

below: ? Developing Web-GIS-Based Database of Traditional Markets, Shopping Centres and Modern Stores (with Collaboration of all Stakeholders) ? Regulating the supply chain to The Modern Markets (including from The Small – scale Industries) ? Spatial Planning and Development Control of the Traditional Markets, Shopping Centres and Modern Stores (with Collaboration of all Stakeholders) ? Development and Supervision of The Traditional Market (including the Empowerment Program), Shopping Centres and Modern Markets ? Revitalisation of the Traditional Market (with Community Based Empowerment) ? Program Evaluation (with all stakeholders) And all these steps needs to be developed in collaboration of all Stakeholders, such as Ministry of Trade, Ministry of Industry, Ministry of Cooperatives and SMEs, Ministry of Internal Affairs, Ministry of Public Works (especially The Spatial Planning Directorate),
Ministry of Marine Affairs and Fisheries, Ministry of Health, Indonesia Investment Coordinating Board (BKPM), Commission for the Supervision of Business Competition (KPPU), Central Bureau of Statistics, Municipal Governments & Local Agencies, Association of Traditional Markets Management Indonesia (ASPARINDO), Association of Traditional Markets’ Traders Indonesia (APPSI), Association of Shopping Centres of Indonesia (APPBI), Suppliers and Local Communities of the Markets. 26 Firstly, WebGIS Based Database of Traditional Markets, Shopping Centres and Modern Stores is proposed to support the decision making process as well as monitoring and evaluation of the program. Secondly, The

Spatial Planning and Development Control of the Traditional Markets, Shopping Centres and Modern Stores also must be conducted in order to give competitive edge to the traditional market, as well as to create sustainable commercials. This effort could be done with implementing feasibility study of current traditional market; market (social-economic) study; revitalisation or relocation of traditional market; and development control (planning) especially in prescribing zoning regulation for modern market development. Public workshops should be conducted to integrate all stakeholders input in the spatial plans and the field implementation.

Lastly,