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# The Development plan of 'Rusun' integrated modern market (case study: Grogol Market)

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**Abstract.** Since a long time ago, traditional markets have been an important part in Indonesians daily life and also become one of the main driver of the local level economy. Despite having a vital role for many stake holder, we can't deny the fact that people start to avoid traditional market. As a effort to make people comeback to traditional market and bring it's life back, Pemprov DKI Jakarta (Jakarta Capital City Government) and PD. Pasar Jaya (DKI Jakarta owned company who perform public services in market management) start to plan a strategy to revitalize some of it's traditional market. Some of the traditional market that will be revitalize will be done by Perumnas (State owned housing developer) as it's developer. The strategy that will involve Perumnas as developer will be to developed an Apartment and Rusun that integrates with the traditional market. In this new concept of development, we hope to give a new life to traditional market. This study aims to produce a feasibility study to support this project and provide an argument whether this project are feasible or not.

## 1. Introduction

Traditional market is something that very vital in Indonesian life since a long time ago. In traditional market we can see how Indonesia, a multicultural country can interact socially and economically. As a facility, traditional market have it's role to support local level economy, not just as a place to buy your daily necessities, it is an important place for farmers as well. But in this modern time, more people start to leave traditional market and opt to more modern-style market like supermarket or hypermarket, this trend is not come out of nowhere, this come from the experience that the costumer had in traditional market is not pleasant. From it's hygiene, zoning and also the management that leave the costumer don't want to comeback. As the authority that managed traditional market in DKI Jakarta, PD. Pasar Jaya and Pemda DKI start to take initiative and plan a strategy to revitalize traditional market. This plan is welcomed by many stakeholders, and one of them is Perumnas with it's one million homes program. As a result, Perumnas and PD. Pasar Jaya start to plan to revitalize markets and adds a vertical housing. This plan is also very inspired by Singapore's HDB Housing that connects it's housing to market and also public transportation. One of the chosen traditional market to be revitalize with this concept is Grogol Traditional Market. Grogol Market is a class B [1] market located in di Jalan DR. Muwardi IV, Kelurahan Grogol, Kecamatan Grogol Petamburan. Grogol Market have 1.609 shops available but only the 900 shops filled in with sellers. The physical condition of Grogol Market is not in good condition



either. With this plan to revitalize Pasar Grogol and adding vertical housing in it, we aim to produce a study that can provide the argument of how feasible this project is. As this is their first project between Perumnas and PD. Pasar Jaya and the first project that ever combine traditional market and vertical housing.

## 2. Research Purpose

- a. To know and understand PD. Pasar Jaya and Perumnas restriction or policy that have been set
- b. To know the condition of Grogol Traditional Market
- c. To know and understand the demand of the Rusun and Apartment that will be develop
- d. To know and understand the zoning and design that fit the most for traditional market
- e. To know the best and most feasible development scenario to be applied in this development project.

## 3. Result and analysis

### 3.1. Grogol traditional market

The object study is Grogol Traditional Market that located in Jalan DR. Muwardi IV Kelurahan Grogol Kecamatan Grogol Petamburan, Jakarta Barat. This market is a class B market [1] that managed by PD. Pasar Jaya. Grogol Traditional Market was build in 1996 and build in 12.195 m<sup>2</sup> land, have 3 story with the typical large of 7.150 m<sup>2</sup> per floor, parking size of 5.000 m<sup>2</sup> and landscaping of 398 m<sup>2</sup>. Grogol Traditional Market also have 1.609 stores available to be rent and sell a variety type of goods.

### 3.2. Legal and policy analysis

This project is the pilot project between Perumnas as state owned company and PD. Pasar Jaya as regional government owned company, so it will need a distinct work frame and regulation for both of this company so the project can run well. The model that will be used in this project are equity sharing. PD. Pasar Jaya as the owner of the market and Perumnas as the developer and they will do a profit sharing. In this development there will be two alternative to what kind of vertical housing that will be build, whether it will Rusunami or Rusunawa. Rusunawa is a rent-based Rusun that will be provided for a more lower income people, but as a rent-based, it will produce SKBG Sarusun instead. And with SKBG Sarusun both PD. Pasar Jaya, Perumnas and also the future costumer will have a difficulty to deal with the regulation and in Jakarta there's still not much Rusun that have a SKBG Sarusun. As in Rusunami is owned-based Rusun for lower income people that will produce SHMSR which is something that more usual for Rusun in Indonesia and already have a clear regulation of how to operate it. But in this case, to produce SHMSR we have to transfer PD. Pasar Jaya "Hak Pakai" to "Hak Pengelolaan" as it is stated in Undang-undang Republik Indonesia Nomor 20 Tahun 2011 Tentang Rumah Susun Pasal 17 that Rusun can only be build on top of "Hak Pengelolaan" land. [2] [3]

As for the city plan which refer to Rencana Dasar Tata Ruang (RDTR) we know that Grogol Traditional Market is located in a land that have a commercial function with code K.1 and KDB of 60% and KLB 2,4 with it's maximum story of 3 floor. But to max it's function of Rusun and Traditional Market we can motion a new density to the local government (Pemda DKI Jakarta) and get a new density allowance to:

**Table 1.** City plan Grogol Market

ASPECT	CITY PLAN	NEW CITY PLAN
Code	002.K.1.b	Special Code
Function	Commercial	Market and Rusun
Maximum Density (KDB)	60%	55%
Maximum Density (KLB)	2,4	4,5
Maximum Floor	3	24

### 3.3. Comparative studies

This analysis aims to find out the key to success of the object of comparative studies, namely Modern Market BSD and also Fresh Market PIK which has been developed with the concept

of modern markets. In terms of visibility both markets are located on the main road so that it so that it can attract the attention of the people around. For architectural characters, both markets have used modern concepts. For outside circulation and zoning, the outside circulation is regulated in such a way that it can make smooth circulation, and Fresh Market PIK has provided pick up places and also loading docks to make circulation better. For parking, in both markets there are dedicated parking area for visitors, Fresh Market PIK also provided in-building parking. For zoning and internal circulation, both markets already have their own zoning regulations which must be obeyed by sellers. Modern Market BSD already has a detailed zoning that makes it easier for visitors to shop, besides that with the zoning we can arrange M & E or plumbing more specifically. For architectural elements, all markets already provide signage and also use natural lighting by making an open ceiling model [4].

### 3.4. Market analysis

**3.4.1. Macro market analysis.** Indonesia's macro economy is very influential on property development, if the macro economy in a sluggish or in a weak state it will certainly affect what property should be developed. A glimpse of GDP start to declined in 2011 to 2015 and began to rise again in the following year. Then as of August 16, 2016, Bank Indonesia no longer used the BI Rate to determine interest rates in Indonesia, now Bank Indonesia uses the BI 7-Day Repo Rate as the benchmark interest rate. This change is expected to strengthen the effectiveness of monetary policy. Thus, whenever there is a change in policy interest rates, both increases and decreases, the impact on bank interest rates, both deposits and credit can become faster. For the exchange rate, a decrease in the exchange rate is seen in 2009 and 2015 and for others it has increased. For inflation, judging from the results of the inflation table in 2007 to 2016, it was shaped like a rising and falling wave until the latest inflation rate dropped from 5.96% to 3.53%. For PMA and PMDN it is seen that each year the rate is always increasing indicating that the level of investment in Indonesia continues to increase, this increases the opportunity to build properties such as offices and residences to provide demand from investments made.

### 3.4.2. Micro market analysis

#### 3.4.2.1 Apartment

##### a. Supply

In the 3 km radius of Grogol Market, there are 16 strata title apartments and there are more middle class apartments with a large of 50% and also the second largest is a premium class then followed by middle-upper and middle-low class.

##### b. Demand and price unit

The following is a table of average occupancy rate and take-up rate of apartments around the project.

**Table 2.** OCC rate and take up rate in radius 3 km

	OCC Rate	Take Up Rate
Min	0 %	10%
Max	100%	100%
Average	66%	93%

Then Table 4 is an explanation table of average price per unit and per m2.

**Table 3.** Average price per unit

Tipe	Min	Max	Average Price
Studio	Rp. 430,000,000	Rp. 1,158,800,000	Rp. 640,800,000
1 Bedroom	Rp. 255,000,000	Rp. 2,540,000,000	Rp. 1,030,813,373
2 Bedroom	Rp. 325,000,000	Rp. 4,802,000,000	Rp. 1,690,046,458

3 Bedroom	Rp. 812,000,000	Rp. 6,548,000,000	Rp. 2,545,485,273
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**Table 4.** Average price per sqm

Type	Min	Max	Average Price
Studio	Rp.14,062,500	Rp.44,569,231	Rp. 22,711,718
1 Bedroom	Rp.14,000,000	Rp.50,800,000	Rp. 25,054,838
2 Bedroom	Rp.13,000,000	Rp.48,505,501	Rp. 29,075,669
3 Bedroom	Rp.12,096,774	Rp.48,503,704	Rp. 26,636,430

Then the following Table 6 is the average service charge price offered.

**Table 5.** Average service charge

Type	Min	Max	Average Price
Service	Rp.8,000	Rp.22,000	Rp. 14,200

#### d. Market share and pricing

To find out the market share, we will use scoring method with the competitor to find out the market share and pricing. The following are the results of the calculation.

**Table 6.** Market share and apartment pricing

Apartment Name	Price/M2				Service	Market Share	Competitiveness
	Studio	1 BR	2 BR	3 BR	Charge		
Apartemen Mediterania Garden 2		33,974,359	35,918,367	25,000,000	15,000	20%	42%
Tomang Park Residence	24,587,814	26,918,727	27,110,881	27,117,654	15,000	22%	46%
Season City Apartement	14,062,500	14,583,333	14,179,104	14,285,714	10,000	28%	59%
Purposed Project	11,516,053	10,821,992	9,879,627	12,761,433	9,198	30%	62%

#### 3.4.2.2. Rusun

Unlike the usual property, the Rusun that will be built is a subsidy Rusun. The selling price and size are also regulated by the Decree of the Minister of Public Works and Public Housing No. 522 / KPTS / M / 2016. According to the regulation the selling price per m2 is the maximum is Rp. 8,900,000 / m2 and also with a floor area of at least 21 m2 and not exceeding 36 m2 [5]. The following Table 7 is the selling price of Rusunami.

**Table 7.** Rusun pricing

Project Name	Type	Size	Price	Price/m2
Sentra Land	Studio	22,30 m2	198,475,000	
Cengkareng		24,90 m2	221,610,000	8,900,000
	1 BR	36,00 m2	320,400,00	
Bandar	Studio	27,00 m2	259,200,000	9,600,000
Purposed	Studio	25.00 m2	225,000,000	
Project	1 BR	36.00 m2	320,400,000	8,900,000

#### 3.4.2.3. Modern Market

To determine supply, competitors, market share and prices from the modern market, we will use benchmarking method. Based on the results of the calculation, the purpose project has a score in the middle between the competitors. Here is the market share and price for the purpose project based on the score that has been generated.

**Table 8.** Pricing for modern market

Market Name	Price		Service Charge	Market Share	Competitiveness
	Los (rental/month)	Kios (m <sup>2</sup> )			
Pasar Modern	375,000	50,000,000	15,000	37%	117%
Fresh Market	500,000	67,700,000	17,000	31%	98%
Purposed Project	453,390	61,100,000	16,254	33%	105%

### 3.5. Preference Analysis

#### a. Rusun

The results of distributing questionnaires to 34 people who could buy a flat, 88% were interested in buying a flat in this project, 70% were interested in buying type 1 BR and also 76% agreed with the price of the service charge.

#### b. Apartment

Then to respondents who are not qualified as a flatter, they are asked questions about the apartment development plan. 66% of the respondents were interested in buying an apartment in the project, from 66% they were more interested in buying type 2 BR then continued with 1 BR, 3 BR and finally the studio. 64% also agreed with the service charge price offered.

### 3.6. Development Analysis

The overall development concept is to develop Apartments, Rusun and Modern Markets. Before carrying out the development plan we must ensure that we have sufficient land for the development of the Modern Market. A modern market development plan is an existing and active business place plus 20% for new traders. Here are the broad proportions for each property.

**Table 9.** Development Plan

Development Plan	
Building	6707.3
Mo den Market	3056.6
Housing	3650.6
Non-Building	5,487.75
Street	2,195.10
Landscape	1,646.33
Parking on Street	1,646.33

#### a. Modern market

Following in Table 10 is the development information for the Modern Market.

**Table 10.** Modern market development plan

		Unit	Size
Modern Market	Land	3056.6	m2
	GFA Aavailable	9169.92	m2
	Floor	3	
	Total NLA	7641.6	m2
	Total GLA	9169.2	m2
	Los	540	Unit
	Counter	139	Unit
	Stall	547	Unit
	Total Unit	1226	Unit
	Parking Lot Needs	245	Lot
Parking Building	GFA Parking 7000 m2	7000	m2
	Parking Capacity 200 Lot	200	Lot
	Floor	2	

*b. Rusun*

Table 12 contains the development information for the Rusun.

**Table 11.** Rusun development plan

Rusun		Size	Unit
	Land	3056.6	m2
	GFA Available	7313.21	m2
	Floor	2	
	Total NLA	5850.57	m2
	Total GFA	7313.21	m2
	Studio	47	Unit
	1 BR	122	Unit
	Total Unit	169	Unit

*c. Apartment*

Table 13 shows the development information for the apartment.

**Table 12.** Apartment development plan

Apartemen		Size	Unit
	Land	3650.6	m2
	GFA Available	36566.06	m2
	Floor	10	
	Total NLA	29252.85	m2
	Total GFA	39566.06	m2
	Studio	195	Unit
	1 BR	277	Unit
	2 BR	154	Unit
	3 BR	18	Unit
	Total Unit	644	Unit
	Parking Lot Needs	180	Lot
Gedung Parkir	GFA Parking	7301.22	
	Parking Capacity	209	
	Floor	2	

*3.7. Cash flow*

The following are the results of cash flow without financing, which means there is no debt calculation, and is considered 100% capital is from equity.

**Table 13.** Cash flow without financing

NPV	(IDR36,116,506,860)
IRR	9.14%
PP	4 years
Cash In	1,012,904,513,511
Cash Out	869,754,244,298
Cash Flow	143,150,269,214

Then in the Table 15 is cash flow with financing, which is considered to be a development cost obtained from a bank loan;

**Table 14.** Cash flow with financing

NPV	(IDR 13,792,286,636.17)
IRR	7%
PP	Year 5
Cash In	1,318,999,013,511
Cash Out	1,224,879,364,696
Cash Flow	94,119,648,815

#### 4. Conclusion

This Rusun Integrated Modern Market development project is a pilot project of cooperation between BUMN Perum Perumnas and PD BUMD. Pasar Jaya. In addition to increasing the level of cooperation between BUMN and BUMD, Perumnas as a developer also aims to improve the function of regional assets so as to further develop their assets. Due to a very new project and creating a new market, a development plan study is needed so that the project runs smoothly and feasible. After the development plan was carried out in accordance with the studies that had been conducted, it was found that this project was feasible with a payback period in year 5. With this study, it is expected to be able to be an input for the running of the cooperation between the two business entities.

#### 5. References

- [1] Republik Indonesia 2013 Peraturan Menteri Perdagangan Republik Indonesia Nomor 48/M-DAG/PER/8/2013 Tentang Pedoman Pembangunan dan Pengelolaan Sarana Distribusi Perdagangan
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