PEMBANGUNAN KOTA BERKELANJUTAN MELALUI PENERAPAN TRANSIT ORIENTED DEVELOPMENT DI JAKARTA, PELUANG DAN TANTANGANNYA
(Sustainable Urban Redevelopment Through Implementation Of Transit Oriented Development In Jakarta, Challenges And Opportunities)

Iwan Prijanto
CEODEX Transit Chairperson ABHI (Ikatan Ahli Bangunan Hijau Indonesia)

Abstrak
Kata kunci: pembangunan berkelanjutan, transit oriented development

Abstrak
The terms transit oriented development (TOD) have received considerable attention in Jakarta especially following the introduction of Jakarta’s first plan to implement mass rapid transit (2008) and later on with the massive initiatives on LRT Development. Since then TOD has become an abuzz word that mostly interprets only as intermode rail base transit area or sometimes interprets as simple as a property developent opportunity within or next to Transit station area. This paper will explain the author approach and lesson learned to ensure that the implementation of TOD especially in developing megacity like Jakarta will create significant benefits for the city and the transit agency itself, identifying major challenges, obstacles and constraints, to ensure that the TOD will be implemented comprehensively and consistently, and its potential values and benefits can finally be realized.

This paper examine the strategic role of TOD in Jakarta context, the vision and potential benefits including potential value capture, the specific characters, challenges and potential solutions based on there view of its transit agency business model and authority model, the systemic approach relationships among major players affected with TOD policy, and overall strategic framework from the perspectives of practitioner to enrich the understanding of TOD policy and implementation in a hyper complexity like Jakarta.

Keywords: sustainable development, transit oriented development

INTRODUCTION

The increasing level of urbanization in Java Island is mostly manifested in urban sprawling phenomena. Jabodetabek or Greater Jakarta is the major sprawled region in Java Island. The
uncontrolled citysprawling has made the situation become very complex so that mostly are beyond the ability of authorities to respond and anticipate effectively. Demands for land coupled the absence of strong vision and well-structured land-use plans and design have led to speculative land price. This has accelerated the uncontrolled spreading of low rise residential with high dense population, and leaving only minimum green open spaces and available spaces for future development. The absence of strong and comprehensive city master plans has made land use conversion and development approvals done on plot by plot basis, and it is generally leads to unplanned urban form. Lack of planning leadership creates on-demand planning that is mostly not coherent and not well integrated. Unfortunately, this rapid expansion of urban forms is not followed by sufficient infrastructure development. The road length ratio of Jakarta city is still only 6.2%. It is very small compare to Singapore that has 12% or Paris 24%, or Tokyo 22%. Furthermore the city is mostly designed as car-based city leaving only a small portion for rail-based transportation. Heavy traffic congestion has becomes daily travelling night mare formost of the citizen. The overall unfavourable situation has made Jakarta behave like unsustainable and self-destructing cities.

The introduction of several mass transit system in Jakarta in conjunction with the initial intention to implement Transit Oriented Development (TOD) along mass transit corridor has given the Jakarta city a second chance to survive and sustain only if it is consistently implemented.

THE VISION & APPROACH

We realize that the TOD principles will be implemented along the mass transit corridor of Jakarta that mostly already became horizontal dense urban fabrics Inpractical, we define the TOD terms into Transit Oriented Re-development because it should involve strong commitment to redevelop the existing urban form instead of just finding vacant land in between existing buildings.

JAKARTA TOD’S ACHIEVEMENT LEVEL

We classify the TOD implementation evolution into several levels from the point of view of transit operator/agency in side out and from the city authority perspective outside in. Basic ally there is six-achievement level of Transit oriented development.

Zero level condition is when the transit agency only focused on constructing the core station infrastructure. There is no interconnection and no integration scheme with its surrounding area. This is definitely not a TOD scheme at all. In fact most of the current mass transit initiatives in Jakarta are struggling hard to avoid this situation happened. Or being trapped in the old paradigm that hardly thinks beyond the station boundary outside the station is City government responsibility, the mass transit builder/agency responsibility only within station boundary.

1st level condition is when the transit agency has already aware and trying seriously to provides seamless interconnection that can minimize pedestrian/passenger flow interruption from roadway traffic. Passenger exit are redistributed to avoid traffic concentration and let the passenger reach their destination spot directly and conveniently.

2nd level condition is when the transit agency trying to stimulate demand. The transit agency is carefully selects the activity node to be connected with the station. Since Jakarta has segmented market profile so the transit agency need to ensure that the customer segment of the Mass transit system are mostly similar with the node/buildings that will be directly connected, otherwise it will conflicting. The first aim of the introduction of Mass system in Jakarta is to provide the best Alternative for private car user to shift to public transportation. The existence of Mass Transit system in Jakarta should not substitute existing road base public transportation.

3rd level is to produce destination. The transit agency put extra effort to create stimulate and promote public realm, public amenities and commercial amenities that well integrate with the station itself. By creating specific destination it will increase the in between trip during off-peak hour as well as increasing the...
5th level condition when the arrangement is stimulating urban growth. This is already moving into city authority perspective. By giving extra plot ratio incentive within transit area (walk-able distance), it will create significant property tax income and the opportunity to secure and create more open space and more public realm, more public and commercial facilities as well as better micro climate and environmental friendly neighborhood.

5th level condition when the overall transit area is successfully creating place. The opportunity to implement TOD is not just for stimulating a smart compact development around the station but also to carefully create a distinctive, vibrant place based on each local contextual spirit, potential in genuity and uniqueness. This will leverage ridership potential during off-peak hour more significantly. Placemarking effort will produce meaningful destination for Jakarta City.

6th level condition when the city authority have the possibility to restructure the existing urban morphology. Some areas within Mass Transit Jakarta corridor are not well planned resulting in less-ordered urban morphology. By introducing several interlinked TOD areas within mass transit corridor will eventually create demand for larger or district scale area to be redeveloped. Furthermore by implementing feeder system that interconnecting each TOD area will create a wider service scope of the mass transit system as the mass transit backbone.

SIMPLIFIED TOD’S ACHIEVEMENT LEVEL

To simplify this evolution of TOD achievement level we classify it into just three levels (example):

1. Seamless mobility
2. Sustainable neighborhood
3. Optimum growth district

By having more simple category we can envision that along the corridor of mass transit system in Jakarta there will be lean TOD areas (seamless mobility), medium TOD areas (sustainable neighborhood), and heavy/maximum TOD areas (optimum growth).

THE MAJOR CHALLENGES

The introduction of TOD in Jakarta are facing basic challenges, it can be classified into four interlinked layers:

1st layer: Business & Operational model layer. This is about internal decision of the transit agency whether they will choose to conductand rely only on rail way business model or prefer to combine railway business with Property business model. This paper will not explain this issue in detail.

2nd layer: Development model. The discussion within this layer is mostly regarding the relationship of Mass Transit Development with City development itself that mostly happened within Transit area. The TOD principle are manifested in several local regulation namely: RTRW or City master plan and RDTR or Detailed masterplan legalized by the parliament and Urban Design guidelines legalized by the Governor. By implementing this legal product in practice some of the property owners within the transit area have already received plot ratio incentive through had is cretionary process instead of regulatory process that actually already mandated by the new City Master Plan (RTRW 2010-2030).

On the other hand there is no specific Development contribution scheme exist that regulate the related property owners within Transit area to contribute sufficiently to various public accessibility infrastructures related to their properties as an obligation to be eligible to receive spatial development incentives. For instance according to Urban design guidelines along MRT corridor The Jakarta-provincial government will also received significant value capture from the property tax resulted from additional
around 9 million square meters GFA released due to the introduction of the MRT system. The estimation of this property tax income within 15-30 years is much bigger than the fund invested in 15-kilometer MRT system. This calculation tells that actually the local government has the capacity to finance the MRT infrastructure by themselves, they only need a bridging fund. Unfortunately, there is not yet an earmark policy implemented to ensure that the biggest portion of this property tax income should be reinvested in the mass transit and public accessibility infrastructure.

![Figure 2. Mutual relationship within transit area](image)

3rd_layer **Authority model**: Until now there is no clear dedicated authority for Urban Mass Transit development in Jakarta. The transit Agency considered as builder, operator and owner of certain assets related to MRT system but the authority is still rely on various government units within local and central government. Coordination, synchronization and integration has become luxury items since each units tends to works with silo mentality and the transit agency, the related property owners within transit area, as well as the public have to deal with multifaceted authorities. Unfortunately, this unfavorable institutional environment are mostly neglected and ignored by the policy maker. Building an infrastructure is obviously more tangible than dealing with institutional building and reformation.

Furthermore, most cases of mass transit development in Jakarta were driven to jump into design and construction process before the government has sufficient and proper strategic planning and also regulational ready in place. As a result the planning process have to put into consideration of the given design constraint that already started and finished earlier.

The biggest consequences of these late comprehensive planning process are: insufficient land acquired, eventhough the core mass transit system itself, let alone for the transit area development. The Jakarta government has to struggle to acquire necessary land and have to deal with uncontrolled land exaction as well. The transit agency has to struggle to acquire land to secure its cooling tower, ventilation shaft and to provide seamless pedestrian facilities. Loosing the golden moment to capture the highest values possible for the benefit of the government, the public as well as the mass transit agency itself.

**JOINT DEVELOPMENT POTENTIALS**

To maximize and ensure synchronization process and capturing the highest value possible the transit agency have to conduct a joint development scheme decisively. The business-to-business cooperation among major players such as property owners and leader system operator are the only effective and available choice.

The Transit agency has to ensure that they can manage and secure rights to use underground and air space belongs to Government. They also need to drive the spatial regulation that still allowed to use the in between building space for the public accessibility purpose such as exit gateway of MRT? LRT passer, and other public access facilities.

By having the sufficient rights to use the public and the in between space, the transit agency can drive an interface development process more confidently and effectively. The adjacent property owners can be invited to connects with MRT station and create a meaningful nodes at the end of the
pedestrian journey to their property, while at the same time the Transit agency will ensuring a vibrant commercial promenades along pedestrian path corridor. This situation will allow seamless mobility and more sustainable neighbourhood scheme can be achieved. Later on the comprehensive planning framework can stimulates further redevelopment within transit neighborhood so that the sustainable, smart and compact development can be realized. The intention to create places can derived more ridership to the Mass Transit system and more optimum public benefits. Providing an effective and interruption free feeder system that can connects different neighbourhood can be the ultimate joint development program. The feeder system will enable last mile accessibility to the mass transit backbone.

CONCLUSIONS

Urban railway and transit projects are not considered as a closed system project. It is probably among the most sophisticated and complicated projects so far. The transit agency needs to deal with alot of contextual and non-engineering problems that must carefully be addressed. We need to have an effective institutional framework that is long lasting despite of any leadership turnover or even political turbulence. We should also have a proper and sufficient legal and regulatory-framework support. We need to have strong feasibility studies and strategic masterplan that comprise not only financial matters but also potential private and community involvement. The timing, phasing, coherence and consistency of the development process are the major key success factors to implementary urban transit projects.

The implementation of TOD principle should be coupled with the sufficient effort to create effective and dedicated authority model ensuring comprehensive spatial planning and sufficient regulation framework that consistently implemented. The TOD initiatives should give benefits to all related stakeholders and provides well balanced between incentives and obligation for the affected parties, otherwise it can become another public investment failure.

References