

Development of the Future TOD Area in Blok M Jakarta as a Global Economy District

Nabil Rizki Mulya WIDODO, Bandung Institute of Technology, Indonesia

Novita RATNASARI, Bandung Institute of Technology, Indonesia

Muhammad Ganendra WIJAKSANA, Bandung Institute of Technology, Indonesia

Lyna Zahida MUMTAZ, Bandung Institute of Technology, Indonesia

Tina STEPHANIE, Bandung Institute of Technology, Indonesia

Annisa Diah ASTARINI, Bandung Institute of Technology, Indonesia

Salsabila Purnomo AJIE, Bandung Institute of Technology, Indonesia

Abstract

Blok M is one of the areas in Jakarta designated to be a TOD district. This area is expected to contribute to the economy as a global hub. But the area has lost appeal due to a lack of innovation and the 2020 pandemic's challenges. This study identifies opportunities to maximize Blok M's potential as an important transit-oriented area.

The objective of this research is to develop a comprehensive and the most optimal design plan for Blok M that addresses the challenges. The study employed a synoptic method approach to facilitate the formulation of sustainable development design strategies. The strategy developed envisions the area as "Blok M: The Metro-Pulse of Jakarta, Enhancing Urbanism with a Human-Centric Ecosystem as a Global Economic Hub". There are 3 key design principles in this concept Create The Identity, Elevate The Activity, and Stimulate The Mobility.

The strategic planning and design are expected to develop a livable, inclusive TOD in Blok M, contributing to Jakarta's transition as a sustainable global economic city and serving as a model for regenerative city development. The paper offers practical design principles and planning approaches that can contribute to fostering sustainable urban growth and enhancing the quality of life.

Keywords

Blok M, Global Economy Hub, Human Centric Design, Regenerative City, TOD.

1. Introduction

With the changes of Indonesia's capital from Jakarta to Nusantara in Kalimantan, the role of Jakarta is undergoing a significant transformation. Jakarta's future development and policy will now focus and leading to enhancing its economic strength by becoming a global city. According to the Jakarta Regional Development Planning Agency (2022), the city is prepared to be a major hub for finance, trade, and international business in Indonesia. As part of this transition, efforts will be made to improve the investment climate and ensure Jakarta continues to make a substantial contribution to Indonesia's GDP. This shift signals an ambitious reorientation of Jakarta's urban agenda, emphasizing global competitiveness while addressing the challenges that come with increased economic activity.

In the context of these ambitions, various districts within Jakarta must adopt more aggressive and innovative strategies to stimulate economic growth. This push for development is further complicated by Jakarta's growing urban challenges. High rates of urbanization have contributed to the main issues, including overpopulation and inadequate infrastructure. The city's migration rate continues to rise, with an influx of between 0.66% - 1.19% annually, equating to approximately 113,000 new residents each year (Statistical Bureau of Jakarta, 2023). With a population of 11.3 million, Jakarta is the 28th most densely populated city in the world, with a density reaching 16,000 people per square kilometer (Statistical Bureau of Jakarta, 2023). The city's rapid population growth worsens its already severe housing shortage, resulting in a backlog of around 1.4 million homes that are needed (Minister of Agrarian Affairs and Spatial Planning of the Republic of Indonesia, 2017). The inability to meet housing demands has led to the spread of informal settlements, further straining urban infrastructure and services.

In addition to urbanization and housing shortages, Jakarta faces critical environmental challenges linked to climate change. The city is increasingly vulnerable to the effects of global warming, which manifest in phenomena such as the urban heat island effect, deteriorating air quality, and more frequent natural disasters, notably flooding. These challenges are driven by high greenhouse gas emissions from fossil fuel consumption and unsustainable land-use changes. The compounding impact of these factors creates a difficult environment for urban planners to develop inclusive, healthy, and livable spaces within Jakarta.

One of the key areas identified for economic development in Jakarta is Blok M, a district located in South Jakarta. Historically, Blok M has been an economic and commercial hub, but it has recently been earmarked for revitalization as a Transit-Oriented Development (TOD) zone with the garden city concept (MRT Jakarta, 2023), which envisions green spaces integrated with urban growth. The introduction of the MRT and the construction of Martatilahu Park initiated in 2017 and 2021 respectively, are part of the district's broader transformation. Blok M is expected to significantly contribute to Jakarta's economic revitalization and its global ambitions. However, despite these efforts, the district faces several setbacks. The area has experienced a decline in visitors and a decrease in business activity, with numerous tenants closing down. This downturn has been attributed to a lack of innovation and an inability to recover from the effects of the 2020 COVID-19 pandemic, which severely impacted local businesses.

Given Jakarta's broader economic objectives and the specific challenges facing Blok M, it is evident that a strategic and well-considered design intervention is required. Blok M must adapt to the changing urban landscape and reassert itself as a future global economic zone. This research aims to explore comprehensive design solutions that can revive the economic district in Blok M and transform Blok M into an integrated and vibrant TOD district. This transformation should give Blok M economic growth contributing to Jakarta's emergence as a globally competitive city while also enhancing the quality of life

of its residents. The success of this endeavor depends on Blok M's ability to balance economic growth with environmental sustainability and social inclusivity, ensuring its long-term resilience in the face of ongoing urban and environmental challenges.

2. Method

2.1. Site Profile

Blok M is a prominent area located in Kebayoran Baru, South Jakarta, Indonesia, recognized for its vibrant blend of cultural, commercial, and social activities, particularly during the 1970s to the late 1990s. The area holds significant historical and cultural importance, especially for the Japanese community in Jakarta. Over the years, Blok M became a central hub for this community, offering various Japanese businesses such as restaurants and entertainment venues. Moreover, the annual Ennichisai festival, which began in 2010, celebrates Japanese culture through performances and cuisine (Jonathan, Marion and Dewi, 2020). Historically, Blok M was a popular retail and entertainment district, particularly for the younger generation. However, the area has experienced a decline in appeal due to a lack of innovation and has not fully recovered from the impacts of the 2020 pandemic.

Blok M is well-connected to several transit nodes, including a bus terminal and the MRT, making it an integral part of Jakarta's transit network. Additionally, it is home to several prominent commercial centers such as Blok M Square, Blok M Plaza, Pasaraya, and Menara Sentra. These factors make the area strategically valuable for its development as a Transit-Oriented Development (TOD) zone. In this study, the focus is on the development of the area surrounding Blok M Square, covering a total area of 21 hectares.



Figure 1. The Existing Site of Blok M. Source: Author Analysis, 2024

2.2. Design Approach

This research on the Blok M area development draws on literature related to Transit-Oriented Development (TOD), Human-Centric Design, and Inclusive Economic Growth.

TOD

Transit-Oriented Development (TOD) is a development concept focused on enhancing areas within and around mass transit hubs by integrating public transport networks with non-motorized transport options, thereby reducing motor vehicle use (Baidowi and Pius, 2020). This model promotes mixed-use, high-density development with moderate to high land utilization (Minister of Agrarian Affairs and Spatial Planning of the Republic of Indonesia, 2017)

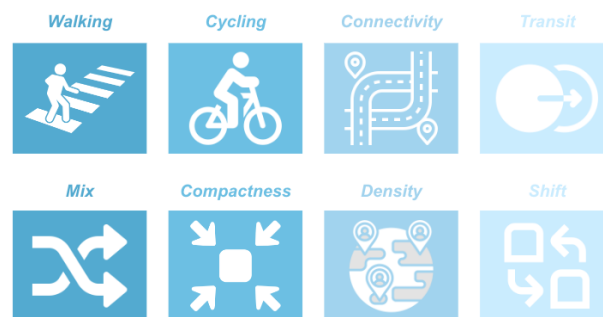


Figure 2. 8 Principles of TOD. Source: ITDP, 2017

According to the Institute for Transportation and Development Policy (ITDP), eight principles of TOD include: (1) Walking: creating pedestrian-friendly environments; (2) Cycling: supporting bicycle use for safer, busier streets; (3) Connectivity: establishing dense road networks for easy access; (4) Transit: ensuring well-provided, affordable public transportation; (5) Mix: fostering diverse activities and residents; (6) Compactness: facilitating shorter urban travel; (7) Density: maintaining sufficient population levels for vibrant public services; and (8) Shift: encouraging sustainable transport modes like walking, cycling, and public transit (Delaware Department of Transportation University of Delaware, no date; University of Arkansas Community Design Center, no date; *TOD Standard 3.0*, 2017).

Human Centric

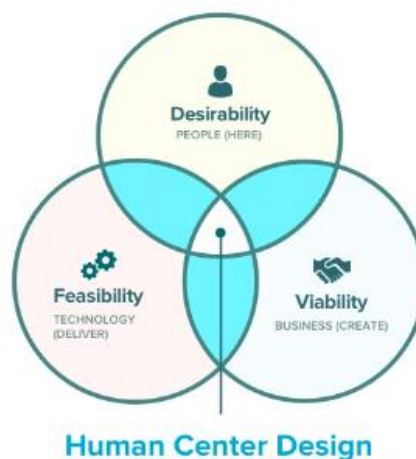


Figure 3. Human Center Design Concept. Source: leadfuze

Human-centric urban design focuses on creating urban spaces that prioritize the needs and well-being of people. This approach contrasts with traditional urban planning, which often emphasizes vehicular traffic and infrastructure over human experience with the key aspects: (1) Pedestrian and Transit-Friendly Features: Research indicates that human-centric designs, such as narrowed streets and wider sidewalks, enhance the livability of urban streets (Gehl, 2013; Das, 2023). Pedestrian satisfaction increases with fewer vehicular lanes and the presence of transit-friendly facilities like bus stops and subway stations (Choi *et al.*, 2016); (2) Social and Environmental Considerations: Human-centric urban design also involves considering

the social, environmental, and economic impacts of urban projects. This approach aims to create solutions that are socially desirable, technically feasible, and economically viable (Volpi, Opromolla and Medaglia, 2019); (3) Humanized Transportation Design: Incorporating humanized ideas into urban road design, such as barrier-free facilities and well-designed sidewalks, aims to meet people's physiological and psychological needs, ultimately achieving harmony between humans and nature (Zhou, Zhou and Zha, 2015; McGill, 2023).

In conclusion, Human-centric urban design is a holistic approach that prioritizes human needs and experiences, enhances community livability, and involves interdisciplinary and community collaboration to create sustainable and desirable urban environments.

Inclusive Economy



Figure 4. Inclusive Growth Pillars. Source: UNCTAD

Inclusive economic growth is a multi-dimensional concept aimed at ensuring that the benefits of economic development are equitably distributed across all societal segments (Deng *et al.*, 2013). It emphasizes equal opportunities for all individuals, particularly the disadvantaged, to engage in economic activities and benefit from them. This approach extends beyond traditional measures like GDP per capita to include indicators such as labor productivity, employment, and poverty, reflecting overall societal well-being. Inclusive growth seeks participation from all socio-economic strata in wealth creation, necessitating policies that promote asset accumulation and long-term development for the disadvantaged (Angulo Bustinza and Zeballos Ponce, 2023).

2.3. Design Process

This study attempts to develop a design using the synoptic method approach. The synoptic method is a structured and rational approach to urban planning and design that emphasizes a systematic process integrating various alternatives to achieve optimal solutions for urban development challenges (Shirvani, 1985). In our design, we employed three design concepts to achieve sustainable development goals: Transit-Oriented Development (TOD), Human Centric, and Inclusive Economic Growth. We then iteratively developed the design concepts and plans based on economic feasibility, until we reached a design that can be implemented and achieve the goals for the area's development. The following outlines the design process we conducted.

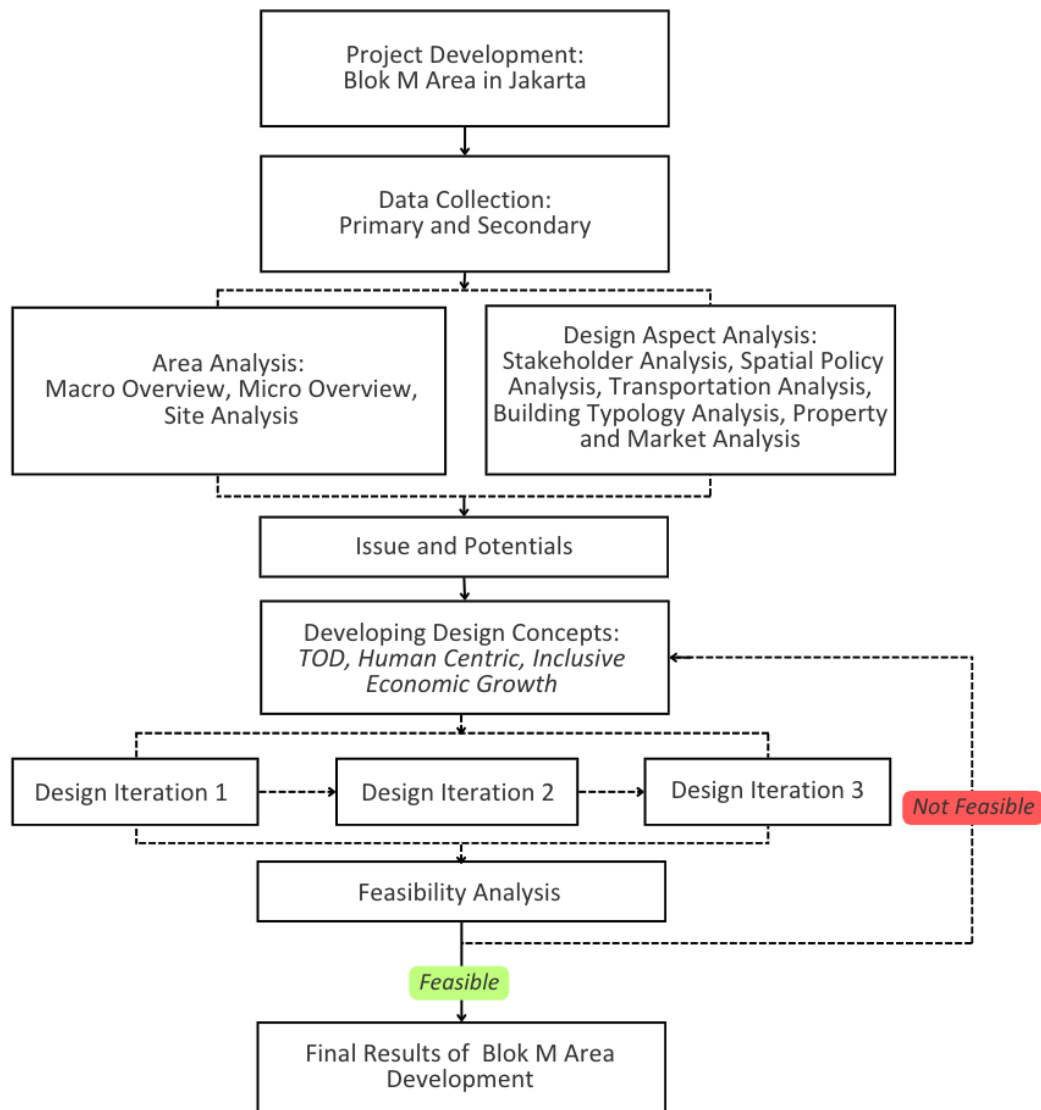


Figure 5. Design Process Framework. Source: Author Analysis, 2024

3. Result and Discussion

3.2. Design Vision

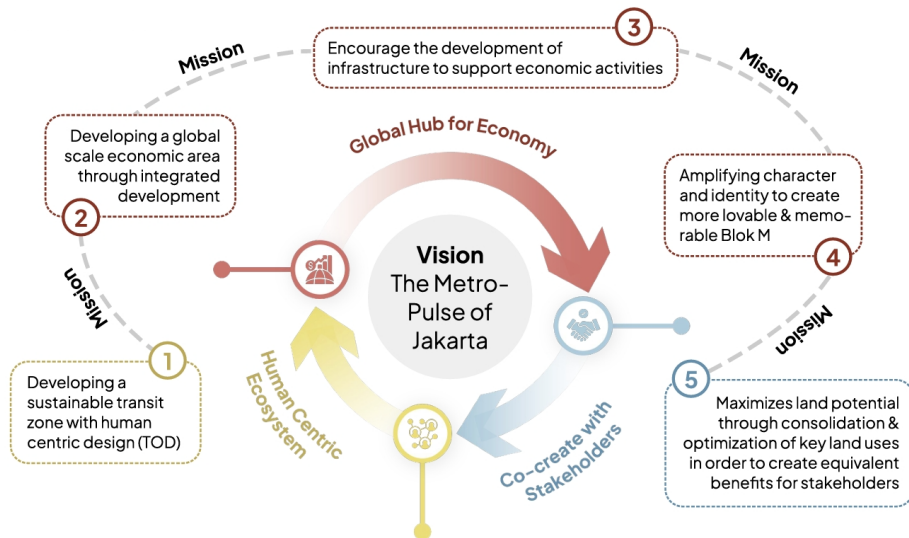


Figure 6. Design Vision. Source: Author Analysis, 2024

The Blok M area is being redesigned with the vision "Blok M: The Metro-Pulse of Jakarta: Enhancing Urbanism with a Human-Centric Ecosystem as a Global Economic Hub," focusing on creating a Human-Centric Ecosystem and establishing Blok M as a Global Economic Hub. This vision will be achieved through three major concepts: human-centric design, a Global Economic Hub, and Co-Creation with Stakeholders.

a. Human-centric Ecosystem

The Blok M area is directed to become (1) Transit Oriented Development with an area design that can improve the welfare of human life carrying out activities in the Blok M area. The design prioritizes the walkability and accessibility of the area.

b. Global-hub for Economy

Developing a global scale economic area through (2) integrated development of a vibrant (mixed-use) area. In its implementation, (3) it is necessary to encourage the development of infrastructure to support economic activities (basic services, connectivity, and business incubation facilities), and (4) strengthen the character and identity of the area to create a more beloved and memorable Blok M.

c. Co-create with Stakeholder

Involves the involvement of various groups and individuals who are affected or have an interest in the design and development of urban space. This is realized by maximizing land potential through (5) consolidation and optimization of land use to provide commensurate benefits for stakeholders.

3.3. Design Framework

To realize the vision of the Blok M area as the "Metro-Pulse of Jakarta," a comprehensive design framework must be established, centered around three key concepts: Create the Identity, Elevate the Activity, and

Stimulate Mobility. The identity of the area is anchored by Blok M Square, which serves as the central hub, flanked by two sub-centers that are interconnected through visual axes. This deliberate design fosters a sense of place and coherence, making Blok M a recognizable and inviting destination within the city.

To elevate activity within the district, a vibrant mix of commercial, office, and residential functions is incorporated, with particular emphasis on commercial activities that attract visitors and residents alike. This blend not only enhances the area's economic vitality but also encourages social interaction and community engagement. To ensure the area remains lively, excellent pedestrian accessibility is prioritized through the creation of a pedestrian spine that facilitates movement within the district, while motor vehicle access is effectively managed outside the core area, promoting a safer and more walkable environment

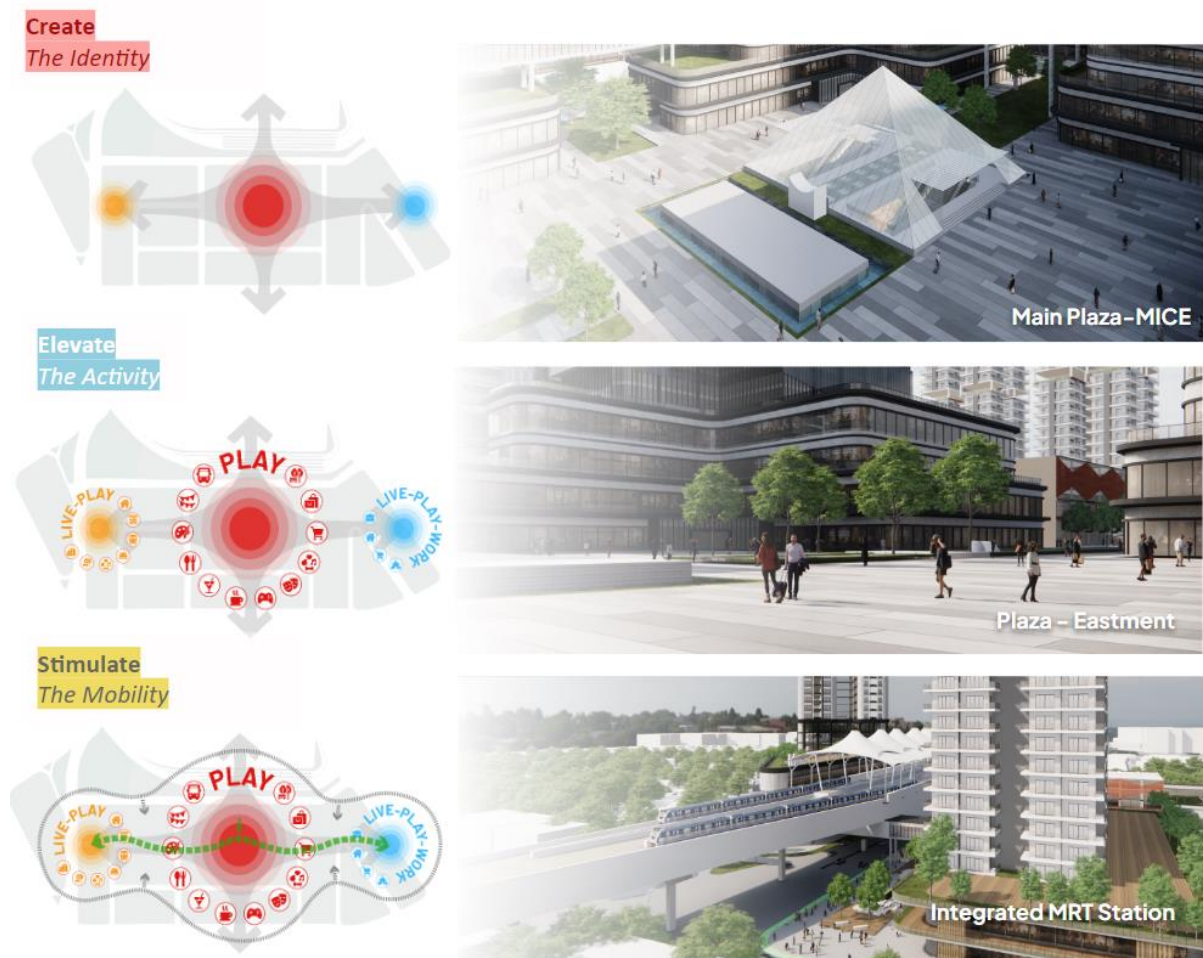


Figure 7. Design Concept Metro Pulse of Jakarta. Source: Author Analysis, 2024

From the framework above, we then translated the approach into an urban design framework in which there are zoning concepts, spatial structure (circulation) concepts, open space concepts, and multilevel spaces. In terms of zoning, this area has 7 (seven) zoning: commercial, mixed-use, residential, open space, public facility, office, and parking. The mixed-use zone is increased to support the human-centric theme and TOD principles. The area is dominated by mixed-use and commercial zones, reflecting the character of Blok M. Commercial zones include F&B retail, cafes, entertainment, art & culture, superstores, hotels, and

shopping malls, which are attractive to investors. The area is also designed to be a superblock model where there are 9 (nine) main blocks with names ranging from Block A (with the westernmost position) to Block I (with the easternmost position). Each block is then subdivided into 2 sub-blocks according to the difference in function designation or the difference in placement.

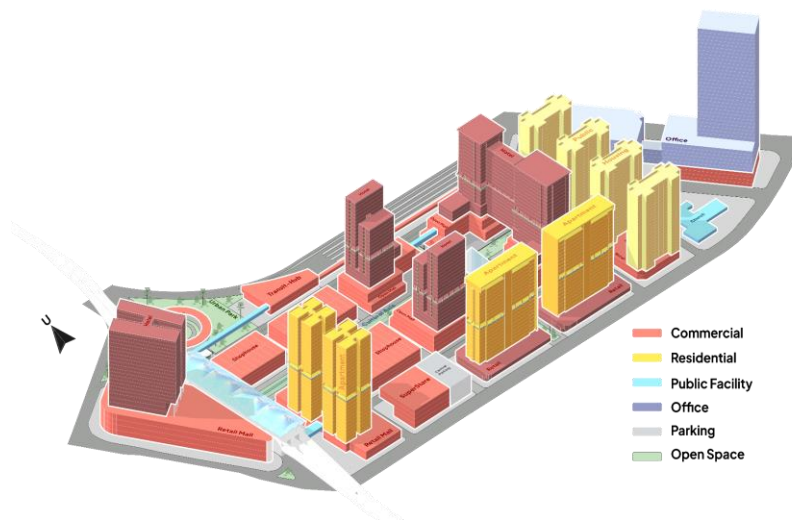


Figure 8. Urban Design Framework (Zoning). Source: Author Analysis, 2024

The area is designed with a focus on pedestrian-oriented access through public easements, making it permeable and easily accessible. The main axis, the "Cultural Main Axis," serves as the primary pedestrian corridor from the MRT station to the center point, creating a monumental impression. Along the main axis, buildings with active frontages will be provided to enhance attractiveness. Motorized vehicles can only access the area through the roads in the north and south, with parking in the basement and on-street parking in the south to support the superstore function. The Blok M bus terminal and the MRT station are

connected by a sky bridge to improve integration between transportation hubs. All roads are designed with interconnectivity, without any dead-ends, to support the overall connectivity within the area.

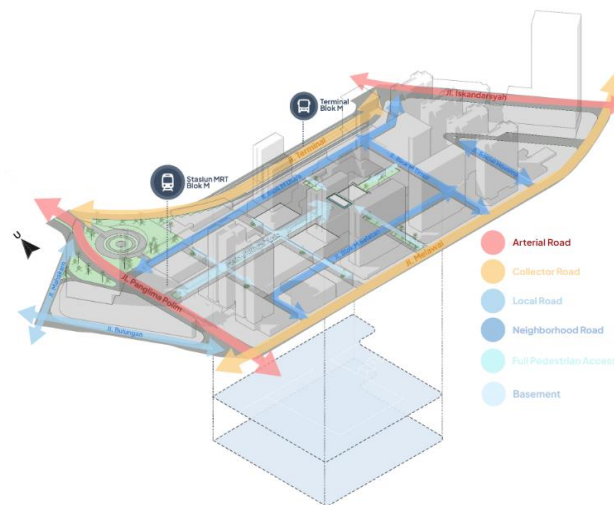


Figure 9. Urban Design Framework (Circulation). Source: Author Analysis, 2024

The open space area in the district has been increased to 35% of the total land, which has been maximized in the form of a plaza designed as a public open space that can accommodate various formal and informal activities. The plaza's design considers accessibility, circulation, and connectivity with the surrounding buildings, further activating the district and improving the microclimate, through the use of vegetation and paving materials that create thermal comfort and good air circulation. Additionally, the green building concept is applied with green roofs and podiums as extra open space, enhancing the visual and environmental quality, as well as offering more recreational and social opportunities for users.

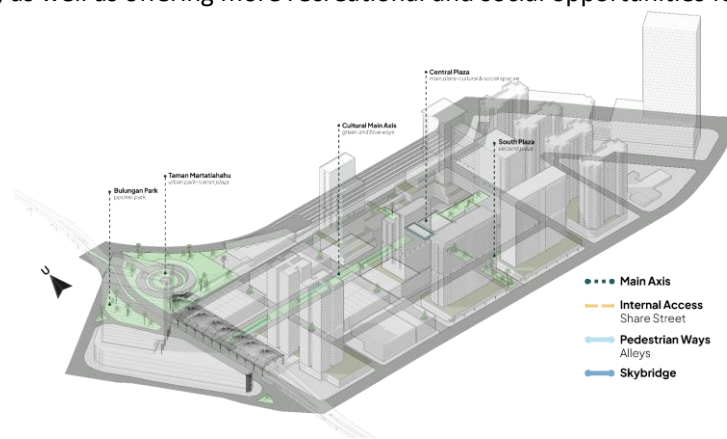


Figure 10. Urban Design Framework (Open Space). Source: Author Analysis, 2024

We conceptualize spatial capacity across three distinct layers: underground/basement, surface, and aerial/building height. By analyzing the potential utilization of each layer, we can optimize the activities assigned to these levels for maximum efficacy. The underground layer is designated for MICE facilities, event galleries, parking, and essential utilities. The surface layer is allocated for open spaces and plazas, fostering social interaction and recreation. The upper layers are reserved for dynamic building functions. This multilevel space approach facilitates the effective utilization of underground, ground-level, and above-

ground spaces through multifunctional buildings that integrate residential, commercial, and office uses. Ultimately, this strategy seeks to enhance density and land-use efficiency while contributing to a more functional and cohesive urban environment.



Figure 11. Urban Design Framework (Vertical Space). Source: Author Analysis, 2024

With all of these concepts in mind, we can effectively visualize a comprehensive three-dimensional rendering of our design ideas, allowing us to better understand the spatial relationships, aesthetic qualities, and functional integrations of the various elements we propose to implement in the Blok M urban environment.



Widodo, N. R. M.; Ratnasari, N.; Wijaksana,
M. G.; Mumtaz, L. Z.; Stephanie, T.; Astarini,
A. D.; Ajie, S. P.

Development of the Future TOD Area
in Blok M Jakarta as a Global Economy District



Figure 12. 3D Render Metro Pulse of Jakarta. Source: Author Analysis, 2024

3.4. Development Strategy

The proposed development strategy adopts an integrated approach that blends economic, human-centric, and collaborative elements. The human-centric design strategy focuses on creating an inclusive and accessible environment by prioritizing pedestrians with the provision of a main boulevard, cycling lanes, and easily accessible public spaces. It ensures direct connections between all buildings and key transit points, such as MRT stations and terminals, reducing dependency on private vehicles. Centralized basement parking minimizes surface traffic and maximizes space for public and commercial use. The design also includes a well-integrated transit hub to facilitate seamless transfers between transportation modes, enhancing travel efficiency. Additionally, buildings are designed with human-scale proportions to promote comfort, accessibility, and social interaction, contributing to the overall well-being of users.

The Global Hub for Economy by Complete Lifestyle strategy aims to develop a dynamic and diverse land-use mix that caters to various lifestyle needs, integrating spaces for work, live, and play. It emphasizes plaza enrichment by enhancing public spaces for recreation, social interaction, and environmental quality. The strategy also focuses on the reorganization of street vendors through relocation to a designated center. Additionally, the inclusive living initiative promotes affordable housing options to ensure inclusivity within the Transit-Oriented Development (TOD) area. The creation of thriving nodes at Blok M Square introduces distinctive landmarks, enhancing the district's identity and vibrancy, while the cultural axis incorporates local cultural elements such as sculptures and traditional architecture to enrich the area's visual experience and cultural identity.

The Co-Create with Stakeholders strategy focuses on optimizing land use through two key approaches. First, the optimum form initiative consolidates small land parcels into more efficient building forms, improving land-use efficiency and enhancing the overall value of the area. Lastly, the multilevel space approach promotes the effective utilization of underground, ground-level, and above-ground spaces through multifunctional buildings that integrate residential, commercial, and office functions. This strategy aims to increase density and land-use efficiency while creating a more functional urban environment.

3.5. Future Impact

With these redevelopment ideas, Blok M will present significant sustainable development principles that impact in economy, social, and environment. Economically, it aims to establish a new commercial hub by attracting investment, creating jobs, and increasing property values through integrated mass transit systems like MRT, BRT, and microtrans. This transit-oriented development maximizes land value and drives growth.

Socially, the redesign enhances pedestrian connectivity and accessibility, fostering inclusivity and improving residents' quality of life through public amenities like parks and green spaces. The project will accommodate an increase from 0 to 3,128 households, including 1,480 units for low-income residents, addressing essential needs for affordable housing and social equity.

Environmentally, Blok M emphasizes green open spaces and natural elements, prioritizing emission reduction and non-motorized transport. Compact, high-rise designs optimize land use, reducing the carbon footprint and contributing to a healthier urban environment. The establishment of a low-emission zone, incorporating 35% green open space, further reinforces the area's commitment to sustainability.

Additionally, the development of Blok M: Metro-Pulse of Jakarta is expected to support the growth of Global City Jakarta in alignment with the Sustainable Development Goals (SDGs), particularly Goal 8, which promotes inclusive economic growth, and Goal 11, which aims to make cities inclusive and sustainable.

4. Conclusions

This research establishes a compelling strategic vision and design approach to revitalize Blok M in Jakarta as a vibrant global economic district. The study proposes a human-centric, transit-oriented approach that prioritizes walkability, accessibility, and multimodal integration while fostering inclusive and sustainable growth through the provision of affordable housing, public spaces, and opportunities for economic participation. The design framework also introduces innovative strategies to optimize land use and integrate multi-level spaces, alongside a collaborative stakeholder engagement process, positioning the Blok M project as a replicable model for sustainable urban development that can enhance Jakarta's economic positioning and livability. For the next step, we advocate for the incorporation of the design ideas into the spatial planning framework of Jakarta, particularly in the upcoming relocation of the capital city.

5. References

- Angulo Bustinza, H.D. and Zeballos Ponce, V.F. (2023) 'Inclusive economic growth and international trade in Peru 2000-2021', *Suma de Negocios*, 14(30), pp. 46–59. Available at: <https://doi.org/10.14349/sumneg/2023.V14.N30.A5>.
- Baidowi, E. and Pius, Y. (2020) 'Development of transit oriented development (TOD) areas in improving public transport services and traffic engineering in DKI Jakarta province', in *IOP Conference Series: Materials Science and Engineering*. Institute of Physics Publishing. Available at: <https://doi.org/10.1088/1757-899X/852/1/012026>.
- Choi, J. *et al.* (2016) 'Human-centered designs, characteristics of urban streets, and pedestrian perceptions', *Journal of Advanced Transportation*, 50(1), pp. 120–137. Available at: <https://doi.org/10.1002/atr.1323>.
- Das, S. (2023) 'Cities Designed in Human Scale Make Healthier and Happier Societies: A Visual Essay', in, pp. 141–158. Available at: https://doi.org/10.1007/978-3-031-36316-0_11.
- Delaware Department of Transportation University of Delaware (no date) *Transit-Oriented Development*, www.completecommunitiesde.org.
- Deng, S. *et al.* (2013) 'Asset opportunity for the poor: an asset-based policy agenda towards inclusive growth in China', *China Journal of Social Work*, 6(1), pp. 40–51. Available at: <https://doi.org/10.1080/17525098.2013.766621>.
- Gehl, J. (2013) *Cities for People*. Island Press. Available at: <https://books.google.co.id/books?id=IBNJoNlQqC>.
- Jonathan, C., Marion, E.C. and Dewi, P.A. (2020) 'Development of Japanese Community in Blok M area seen from aspect of business and industry', *IOP Conference Series: Earth and Environmental Science*, 452(1). Available at: <https://doi.org/10.1088/1755-1315/452/1/012068>.
- Kotler, P. (2005). *The role played by the broadening of the marketing movement in the history of marketing thought*. *Journal of Public Policy & Marketing*, 24(1), 114-116.
- McGill, J. (2023) *Why a Human-Centric Approach in Business Matters*, LeadFuze.
- Minister of Agrarian Affairs and Spatial Planning of the Republic of Indonesia (2017) *Regulation No. 16 of 2017 concerning Guidelines for Transit-Oriented Development*. Indonesia.

-
- MRT Jakarta (2023) *Kawasan Berorientasi Transit (TOD)*, <https://jakartamrt.co.id/id/kawasan-berorientasi-transit-tod>.
- Pitts, J. (2008). *Green buildings: Valuation issues and perspectives*. The Appraisal Journal, 76(2), 115.
- Sarjana, S., Khayati, N., Warini, L., & Praswiyati, P. (2020). *The Role of Transportation Management in Optimizing Supply Chain Management at Industrial Estate*. Jurnal Transportasi Multimoda, 18, 1–14.
- Shirvani, H. (1985) *The Urban Design Process*.
- Statistical Bureau of Jakarta (2023) *Jakarta in Figures*.
- Thomsett, K. J. (2005). *Real Estate Market Valuation*. New Jersey: Wiley Finance.
- TOD Standard 3.0* (2017). New York.
- University of Arkansas Community Design Center (no date) *Transit-Oriented Development* .
- Volpi, V., Opromolla, A. and Medaglia, C.M. (2019) ‘Analyzing Social Impact Evaluation Tools Applied to Design Thinking: A Proposal for Improving User Experience in Urban Spaces Through Social Innovation’, in, pp. 353–361. Available at: https://doi.org/10.1007/978-3-030-22636-7_26.
- Zhou, Z., Zhou, S. and Zha, W. (2015) ‘Humanized Transportation Design Research Based on the Sustainable Development of Urban Roads’, in *ICTE 2015*. Reston, VA: American Society of Civil Engineers. Available at: <https://doi.org/10.1061/9780784479384.373>.