

INTEGRATION OF FUNCTION AND AESTHETICS IN THE DESIGN OF A MIXED-USE HOTEL BASED ON MODERN ARCHITECTURE ON ISKANDAR MUDA, MEDAN

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Abstract (English)

Indonesia's growing tourism sector drives demand for well-designed accommodations. Medan, a key urban tourism hub in North Sumatra, offers prime potential for a **mix-use hotel** on Jalan Iskandar Muda, integrating **accommodation, retail, and entertainment** to optimize land use. This study explores the balance of **functionality and aesthetics** in **modern mix-use hotel design**, using surveys, field observations, and literature analysis. The findings aim to enhance both **practicality and urban aesthetics** in Medan's architectural landscape.

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Key Words

Mix-use hotel, modern architecture, functionality, aesthetics, Medan

Introduction

The tourism sector in Indonesia, which has experienced significant growth, has become a major contributor to the national economy by generating foreign exchange, creating jobs, and strengthening the local economy. This growth has driven the need for adequate tourism infrastructure, including accommodations and supporting facilities such as shopping and entertainment centers, to meet the increasing expectations of visitors for comfort and travel experiences. [1]

Medan's growing urban tourism sector demands hotel facilities that are both functional and aesthetically appealing. Iskandar Muda Street, a strategic location with high land value, presents an opportunity for a **mixed-use hotel** integrating **accommodation, retail, and entertainment** to optimize space and reduce costs.

This study focuses on the **integration of function and aesthetics** in **modern mixed-use hotel design**, emphasizing efficiency, comfort, and visual appeal. By applying **modern architectural principles**—simplicity, innovative materials, and functional clarity—the design aligns with Medan's urban landscape. The findings aim to provide insights for developing tourism infrastructure that enhances both usability and city aesthetics.

Method

This study employs a structured methodology consisting of surveys, field observations, and literature analysis. Surveys identify user needs by analyzing credible journals on mixed-use hotel trends, particularly in Southeast Asia. Field observations assess the site conditions on Iskandar Muda Street, including topography, climate, infrastructure, and accessibility. Literature analysis explores modern architectural principles, case studies, and design trends, focusing on functionality, aesthetics, and sustainability. Insights from these methods guide the development of a climate-responsive, user-centric, and architecturally cohesive mixed-use hotel design in Medan.

Result and Discussion

The study highlights the **strategic potential of Iskandar Muda Street, Medan**, for the development of a **mixed-use hotel**, integrating **accommodation, retail, and entertainment** to optimize high-value urban land. Field observations confirm that the location offers strong accessibility and connectivity, making it ideal for a mixed-use development. Survey findings

indicate that potential users prioritize **comfort, modern aesthetics, and multifunctional spaces**, aligning with trends seen in similar urban centers like Bangkok and Kuala Lumpur.

Analysis of modern architectural principles underscores the importance of **simplicity, efficiency, and sustainability** in achieving a functional yet visually appealing design. Case studies reveal that successful mixed-use hotels integrate open spaces, green design elements, and seamless transitions between commercial and residential functions. Applying these principles ensures that the proposed design not only meets functional needs but also enhances Medan's **urban landscape and tourism appeal**.

1.1 Site Location



Figure 1 site Location

Source: google earth

The project, titled Mixed-Use Hotel, will accommodate facilities that support various activities. The project is located on Jl. Iskandar Muda, Sei Sikambing D, Medan Petisah District, Medan City, North Sumatra.

Site Area

Based on site measurements using Google Earth, the site has an approximate area of 16,600 m² or 1.6 hectares.

1.2 Mass Composition

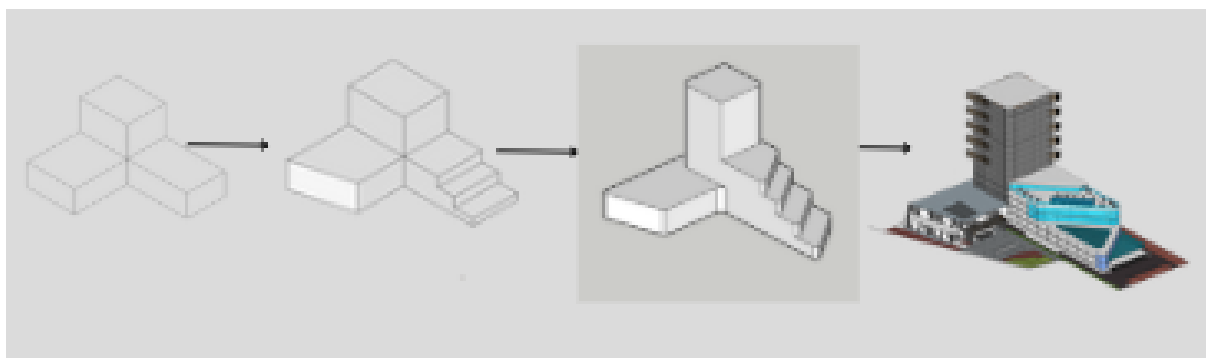


Figure 2 massing

Source: author documentation

Context

The massing of this hotel building is designed to resemble **stepped terraces**, creating the impression that the **tower is at the center** of the structure. This **stepped form** is also intended to **maximize the views** from within the building, allowing for better sightlines and an enhanced visual experience for guests.

Theme Impelementation

The use of **glass** and **exposed structures** are two key elements of **modern architecture**, which follows the principle of **functionality**. This approach minimizes **non-functional ornaments** that serve only decorative purposes. Therefore, the **shaders** on this building are not merely aesthetic but serve a functional role, ensuring that any decorative elements contribute to the overall efficiency and usability of the structure.

1.3 Outdoor concept

The outdoor concept of this project taken from modern architecture concept. All the element of the outdoor area using simplicity and minimum ornament. like the green area at the hotel parking area and the roof swimming pool that using minimum or even no ornament but stil has the aesthetic that integrate with function.

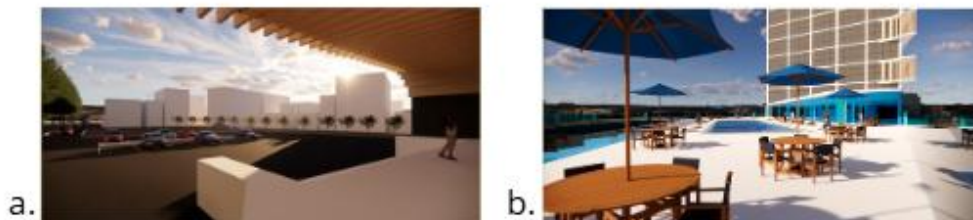


Figure 3 (a) hotel parking area (b) outdoor pool

1.4 indoor area

Modern architecture concept applied in the indoor area as well with minimum ornament, glass as wall and using functional ornament like skylight on the hotel and mall. its give the modern vibe to the user of the building.

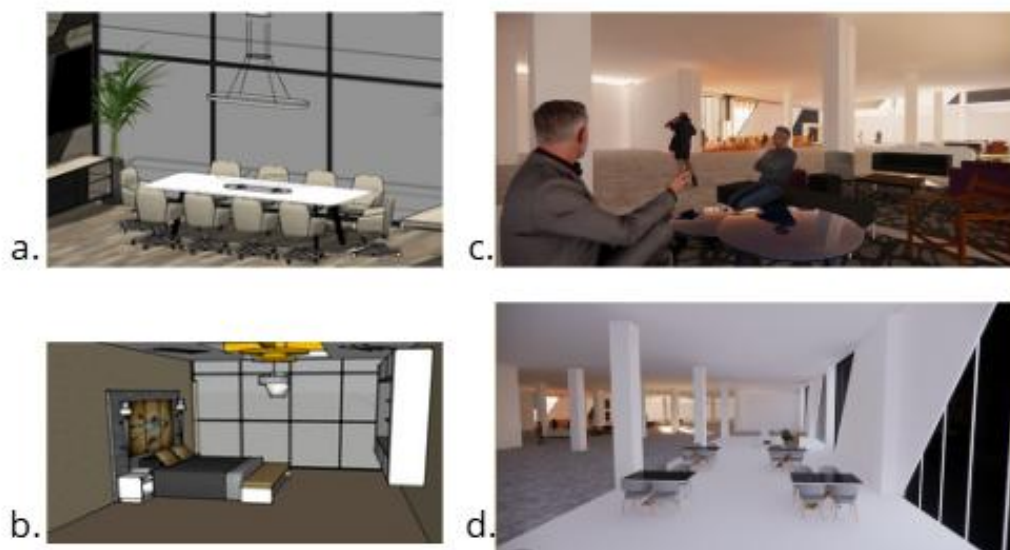


Figure 4 (a) meeting room (b) Hotel room (c) Lobby Lounge (d) Sitting Area

1.5 Façade Concept

- The façade of this project using the modern architecture concept where the building rarely has ornament. Using modern material like autoclaved aerated concrete (AAC) block and mainly using tinted glass as façade and shader using composite material



Figure 5 building facade

Conclusion

The development of a **mixed-use hotel** on Iskandar Muda Street, Medan, presents a strategic opportunity to optimize high-value urban land while addressing the growing demand for **functional and aesthetically appealing accommodations**. Through **surveys, field observations, and literature analysis**, this study highlights the importance of integrating **modern architectural principles**, including **simplicity, efficiency, and sustainability**, to create a **climate-responsive and user-centric** design. Findings indicate that successful mixed-use hotels prioritize **seamless spatial integration, accessibility, and contemporary aesthetics**, enhancing both usability and the urban landscape. By applying these insights, the proposed design aims to contribute to **Medan's tourism infrastructure**, offering a **harmonious blend of function and aesthetics** in a modern architectural context.

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Conflict of Interest

The authors whose names are listed below certify that the manuscript does not have a conflict of interest.

Muhammad Faris Dhiaulhaq

This statement is signed by all the authors to indicate agreement that the above information is true and correct (a photocopy of this form may be used if there are more than 10 authors):

Author's name (typed)

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Muhammad Faris Dhiaulhaq

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