

Comparative Analysis of Space Efficiency in Three Co-Working Spaces in Jakarta

Nixon Salim^{a,1,*}, Boike Janus Anshory^{a,2}, Rizki Kurniawan^{a,3}

^a Pradita University, Scientia Business Park, Banten, Indonesia

¹ nixon.salim@student.pradita.ac.id, ² boike.janus@pradita.ac.id, ³ rizki.kurniawan@pradita.ac.id

* Corresponding Author



Received 18 October 2023; accepted 8 November 2023; published 13 December 2023

ABSTRACT

In Indonesia, many companies operate from their own offices, whether in buildings or shop houses. However, co-working spaces have emerged since 2010, providing a viable alternative for entrepreneurs, particularly start-ups, freelancers, and small business owners who lack the capital to lease traditional office spaces. Co-working spaces have seen significant growth, especially in Jakarta, driven by the need for flexible and cost-effective workspace solutions. This research aims to examine the effectiveness of space utilization in co-working spaces in Jakarta, focusing on three specific locations: InHype.Co, UnionSpace, and Ko+labora. By employing both quantitative and qualitative methodologies, including surveys, direct observation, and interviews, this study provides a comprehensive analysis of space efficiency in these co-working environments. The findings reveal key factors that contribute to effective space utilization, including layout design, furniture functionality, and the balance between private and communal areas. The insights from this research are intended to inform entrepreneurs and designers on optimizing co-working spaces to enhance productivity and user satisfaction.

KEYWORDS

Space Efficiency
Co-Working Space
Workspace Design
Productivity

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1. Introduction

Jakarta, the capital city of Indonesia, is a prominent business hub, hosting numerous entrepreneurs and established businesses (Lubis, 2023). According to the Executive Director of CORE Indonesia, 50 percent of Indonesia's economic turnover is centered in Jakarta. Despite plans to move the capital to Palangkaraya, Jakarta remains the focal point of business activities. The city's dynamic business environment attracts significant investments from entrepreneurs, making it an ideal location for both large and small enterprises.

Co-working spaces have emerged as a popular solution for Small and Medium Enterprises (SMEs) and freelancers (Nisrina & Handoyo, 2021). The COVID-19 pandemic significantly impacted sectors such as retail, hospitality, and traditional office spaces, causing a decline in revenue and productivity. New start-ups and entrepreneurs, particularly those with limited capital, found renting conventional office spaces increasingly impractical. Co-working spaces offer a cost-effective alternative by providing shared facilities, reducing the need for substantial expenses on electricity, water, cleaning, security, and other utilities.

The advancement of technology and the widespread necessity of internet access have further diminished the reliance on traditional office setups. As Jakarta's population grows, so do the rental costs of office buildings, making co-working spaces an attractive option for new businesses (Tan & Lau, 2021). These spaces enable entrepreneurs to focus on core business activities by alleviating the burden of high operational costs and offering support with business licensing.

However, the effectiveness of co-working spaces hinges on more than just financial savings. The design and maintenance of these spaces play crucial roles in ensuring user comfort and productivity. While some co-working spaces provide comprehensive facilities, issues such as cleanliness and space

utilization need constant attention. Neglecting these aspects can lead to negative user experiences and poor reviews, which can deter clients and affect business performance. Therefore, it is essential to address the layout, cleanliness, and accessibility of co-working spaces to enhance user satisfaction and efficiency.

Comfort in co-working spaces is multi-faceted, encompassing psychological, physiological, and behavioral dimensions. Factors such as temperature, air quality, and sensory comfort significantly influence the user experience. The continuous development and popularity of co-working spaces in Jakarta necessitate further research into their spatial effectiveness.

This study aims to enhance the understanding of space utilization in co-working environments by analyzing three co-working spaces in Jakarta: InHype.Co, UnionSpace, and Ko+labora. The research employs both quantitative and qualitative methods, including surveys, direct observations, and interviews, to evaluate the spatial efficiency of these co-working spaces. The insights gained from this study are intended to guide entrepreneurs and designers in optimizing co-working space layouts, ensuring no wasted space, maintaining cleanliness, and ultimately fostering productive, effective, and efficient work environments.

2. Method

This study employs a mixed-methods approach, combining both quantitative and qualitative research methods to provide a comprehensive analysis of space efficiency in three co-working spaces in Jakarta: InHype.Co, UnionSpace, and Ko+labora. The research design includes surveys, direct observations, and interviews to gather data on the spatial utilization and user experiences within these co-working spaces.



Fig. 1.InHype.Co Logo

(<https://inhype.co/>)



Fig. 2.Union Space Logo

(<http://unionspace.my/PIK-Avenue>)

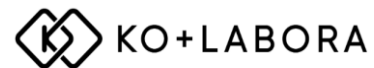


Fig. 3.KO+LABORALogo

(<https://id.linkedin.com/company/ko-labora>)

2.1 Data Collection

2.1.1 Surveys

Surveys were conducted among users of the three co-working spaces to collect quantitative data on their experiences and satisfaction with the space efficiency. The survey included questions related to the usability of the space, the adequacy of facilities, and overall comfort. Respondents were selected through a convenience sampling method to ensure a diverse representation of users.

2.1.2 Direct Observations

Direct observations were carried out to collect qualitative data on the physical layout, cleanliness, and usage patterns of each co-working space. The observations focused on the arrangement of furniture, the flow of movement, and the accessibility of different areas. Photographs were taken to document the physical settings and support the analysis. These photographs were also used to visually document the physical settings of each co-working space.

2.1.3 Interviews

Semi-structured interviews were conducted with the receptionists and staff members of the co-working spaces to gain insights into the operational aspects and challenges related to space management. The interviews provided valuable context to the survey and observational data, helping to understand the rationale behind certain design choices and maintenance practices.

2.2 Data Analysis

The collected data were analyzed using both quantitative and qualitative techniques. Survey responses were statistically analyzed to identify trends and patterns in user satisfaction and space

efficiency. The observational data and interview transcripts were thematically analyzed to extract key themes and insights related to the layout, functionality, and cleanliness of the co-working spaces.

2.3 Theoretical Framework and Design Considerations

According to Soerjani (Zulkarnain & Sumarsono, 2015), an office supports leadership and goal achievement through dynamic activities such as data processing and information management. Co-working spaces, defined by Anastasia (2018), provide flexible, innovative workplaces for SMEs and freelancers, fostering creativity and collaboration (Nisrina & Handoyo, 2021; Setiani et al., 2020).

Design considerations were examined to understand their impact on space efficiency. White walls, as noted by Ćurčić et al. (2019), create a comfortable work environment, while appropriate lighting levels (200-500 lux) are essential for productivity (Handayani et al., 2013). Ergonomic furniture, including office chairs and work desks, is crucial for functional workspaces (Haire & Lobel, 2022; Colenberg et al., 2021). Movable and demountable walls offer flexibility and cost savings (Zavani & Rahardjo, 2017), and carpets provide soundproofing and durability in high-traffic areas (Piotrowski & IIDA, 2010; Siikonen, 2021). Suspended ceilings with fiberglass tiles are commonly used for their acoustic properties and cost-effectiveness (Piotrowski & IIDA, 2010).

By integrating these methods, the study aims to provide a holistic understanding of space efficiency in co-working environments, offering practical recommendations for entrepreneurs and designers to enhance the functionality and user experience in co-working spaces.

3. Results and Discussion

The analysis of space efficiency in the three co-working spaces—InHype.Co, UnionSpace, and Ko+labora—revealed several key findings. These findings are supported by a review of relevant literature, which provides a theoretical framework for understanding the dynamics of co-working spaces.

According to Soerjani (Zulkarnain & Sumarsono, 2015), an office is a place with many activities to support leadership and achieve organizational goals. Offices involve dynamic tasks such as receiving, summarizing, processing, storing, and distributing work. The main element of an office is managing data and information. In contrast, a co-working space, as described by Anastasia (2018), is a modern workplace for creative, flexible, and innovative start-up businesses. Co-working spaces cater to SMEs and freelancers, providing a collaborative environment that fosters innovation and productivity (Nisrina & Handoyo, 2021; Setiani et al., 2020).

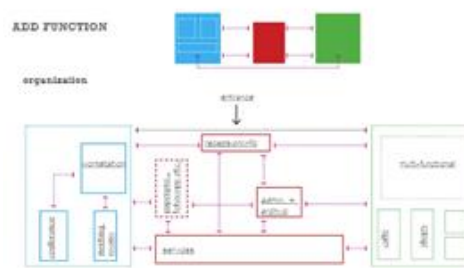


Fig. 4. Room Division of Coworking Space (Duygu. E, 2013)

Figure 4 illustrates the room division of co-working spaces as categorized by Ergin (2013):

- **Primary Space:** Areas where group work activities occur.
- **Service Space:** Facilities such as reception areas, libraries, and printing stations.
- **Hidden Service Space:** Private areas like staff rooms and workshops.

- **Secondary Space:** Public areas with commercial value, such as cafeterias and shops.

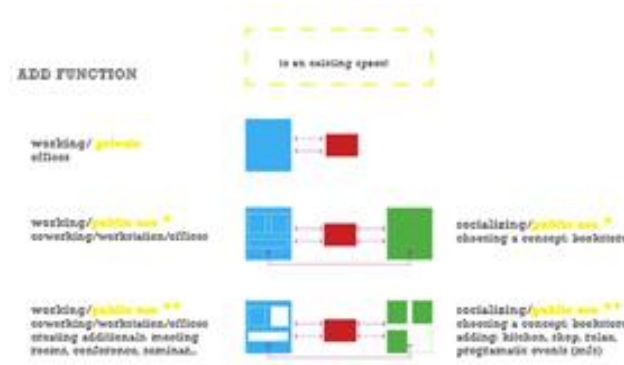


Fig. 5.Function-Based Room (Duygu. E, 2013)

Figure 5 depicts function-based room organization, emphasizing the importance of furniture functionality, room circulation, and support components like air conditioning and Wi-Fi (Bouncken & Görmar, 2023). Effective co-working spaces ensure comfortable movement and encourage social interaction among users.

Color and lighting significantly impact the user experience in co-working spaces. White walls, as noted by Ćurčić et al. (2019), create a comfortable environment, though they may sometimes lead to work errors. Appropriate lighting levels (200-500 lux) are essential for productivity, especially in environments where users work extensively with computers (Mumpuni, 2023; Handayani et al., 2013).

Furniture design also plays a crucial role for effectiveness, efficiency, safety and comfort (Sumarno & Prasetyo, 2022). Ergonomic office chairs, guest chairs, bookshelves, and adequately lit work desks are necessary to facilitate effective workspaces (Haire & Lobel, 2022; Colenberg et al., 2021). Movable walls and demountable wall systems offer flexibility and cost savings, allowing spaces to be reconfigured as needed (Zavani & Rahardjo, 2017).

Flooring materials like carpets provide soundproofing and comfort, especially in high-traffic areas. Carpets are beneficial for offices with open space systems, protecting floors from damage caused by wheeled chairs (Piotrowski & IIDA, 2010; Siikonen, 2021). In premium areas, materials like wood or ceramics are preferred for their durability and aesthetic appeal. Ceiling systems also contribute to the overall environment. Suspended ceilings with fiberglass tiles are common for their acoustic properties and cost-effectiveness (Piotrowski & IIDA, 2010).

3.1 Comparison of Co-Working Space Areas

3.1.3 InHype.Co

InHype.Co is located on the 5th floor of Baywalk Mall, Jl. Pluit Karang Ayu 1, Pluit, Kec. Penjaringan, Kota Jakarta Utara. This co-working space is situated near a cinema and has a relatively quiet atmosphere. The space is spacious and well-lit, with numerous chairs and tables for users. The communal area can be rented daily, monthly, or yearly and includes many power outlets to accommodate visitors with laptops.

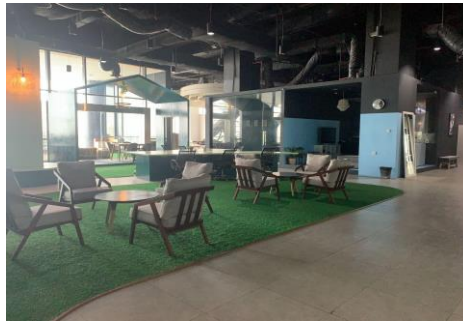


Fig. 6.InHype.Co Coworking Area (Salim, 2022)

However, the arrangement of furniture appears untidy and unorganized, leading to an imbalanced look when users occupy different seating areas. The meeting table features dim lighting, while the large communal table benefits from natural lighting. The combination of green colors and dark ceiling creates a dark impression, which could be improved by using white paint to enhance comfort (Ćurčić et al., 2019). The flooring is made of strong material to prevent damage from frequent use (Piotrowski & IIDA, 2010).



Fig. 7.InHype.Co Outdoor Coworking Area (Salim, 2022)

The outdoor area at InHype.Co, depicted in Figure 7, is commonly used for smoking and features seating furniture designed for relaxation. This space offers a comfortable environment for users to unwind and take breaks. However, the use of grass-textured carpet presents a significant drawback. While aesthetically pleasing and intended to mimic natural grass, this carpet material retains moisture when wet, such as during rain, leading to prolonged drying times. This issue reduces the practicality and usability of the outdoor area, as users are likely to avoid sitting on wet surfaces. To enhance the functionality of this space, it would be advisable to replace the grass-textured carpet with a more water-resistant and quick-drying material.



Fig. 8.InHype.Co Coworking Area with Sea View (Salim, 2022)

Figure 8 showcases the sea-view communal area at InHype.Co. This area is favored by users for its scenic view, offering a serene and visually appealing environment. The large windows provide ample natural light, creating a bright and inviting atmosphere. However, the space faces several challenges that limit its effectiveness as a working area. The seating position is excessively bright, which can cause discomfort and glare for users working on screens. Additionally, the furniture in this area is not ergonomically designed to support long periods of work. The seating arrangements are more suitable for rest and casual interactions rather than focused work tasks. To improve the functionality of this space as a productive working environment, it would be beneficial to incorporate ergonomic furniture and consider shading solutions to reduce glare and improve visual comfort.

3.1.2 UnionSpace

UnionSpace is located at PIK Avenue, Level 6, Jl. Pantai Indah Kapuk, Kota Jakarta Utara, close to a parking area, making it easily accessible for users. This co-working space is also near a gym, cinema, and other easily accessible dining places.



Fig. 9.UnionSpace Coworking Area (Salim, 2022)

The furniture in UnionSpace is practical for freelancers or employees working in groups, with narrow tables and closely placed chairs fostering a sense of collaboration. The cement-textured flooring is durable and supports high-traffic use, making it suitable for a busy co-working environment. The bright, white-painted walls and open ceiling design contribute to a sense of openness and ease of movement, enhancing the overall workspace experience. The space is predominantly used by students working on their theses, indicating its suitability for focused, academic work. The open design and practical furniture arrangement facilitate interaction and collaboration among users, promoting a productive atmosphere.



Fig. 10. Union Space Coworking Area 2 (Salim, 2022)

The larger Private Office at UnionSpace accommodates up to 6 people and is directly connected to the pantry and Co-Working Area, facilitating networking among different companies. This larger office space provides ample movement circulation, allowing for comfortable working conditions for small teams. The integration of the Private Office with communal areas such as the pantry and co-working space enhances the functionality of UnionSpace, providing a balanced mix of private and shared work environments. The cement-textured flooring continues in the Private Office, maintaining durability and ease of maintenance. The lighting primarily uses artificial sources, making the area bright and conducive to work, while the white-painted walls add to the spacious feel.

3.1.3 KO+LABORA

KO+LABORA, located at Hayam Wuruk Plaza, Jl. Hayam Wuruk, Maphar, Kec. Taman Sari, Kota Jakarta Barat, has separate areas that are not interconnected, requiring users to pass through the reception area to reach the Break Area. Unlike the other two co-working spaces, KO+LABORA is situated in an office building rather than a mall.



Fig. 11. KO+LABORACoworking Area (Salim. N, 2022)

The co-working area at KO+LABORA is characterized by diverse colors and comfortable seating. The design includes chairs, tables, and ottoman sofas for various activities, from chatting to solitary work. The wood-patterned ceramic flooring matches the light wall colors, creating a harmonious contrast with the darker floor. Lighting includes both artificial and natural sources, enhancing the space's productivity and comfort (Ćurčić et al., 2019). The careful selection of colors and materials contributes to a welcoming and productive environment. The variety of seating options allows users to choose according to their needs, whether they require a quiet space for focused work or a comfortable area for casual conversations.



Fig. 12. KO+LABORACoworking Area 2 (Salim, 2022)

The second co-working area features a long table, preferred by e-commerce companies for its open and well-lit environment. This space is surrounded by Private Offices and Meeting Rooms, with consistent floor and wall materials throughout. According to Husein, the marketing manager of KO+LABORA, the open atmosphere and bright lighting increase productivity for groups working at the table. The area benefits from both natural and artificial lighting, creating a balanced and conducive environment for work. The design emphasizes openness and collaboration, with ample space for movement and interaction among users. The consistent use of materials throughout the space ensures a cohesive and professional look, enhancing the overall user experience.

In summary, InHype.Co, UnionSpace, and KO+LABORA each offer distinct environments tailored to different user needs. InHype.Co provides spacious areas with scenic views but requires improvements in organization and ergonomic design. UnionSpace excels in creating a collaborative atmosphere suitable for academic work, with practical furniture and integrated communal areas. KO+LABORA stands out for its vibrant design, diverse seating options, and emphasis on comfort and productivity. Each space's unique features highlight the importance of balancing functionality, comfort, and aesthetic appeal to maximize user satisfaction and productivity in co-working environments.

3.2 Comparison of Private Offices

3.2.1 InHype.Co Private Office



Fig. 13. InHype.Co Private Office (Salim, 2022)

The Private Office at InHype.Co is directly connected to the Co-Working Area, which allows users to move to the communal space if they feel too hot inside. This integration provides flexibility for users who may need to alternate between private and communal work environments. The light-colored walls and downlight lighting provide adequate illumination, creating a conducive environment for productive work. The spacious furniture arrangement offers more than 90 cm of movement circulation, accommodating 5-6 people comfortably. This setup is ideal for start-up entrepreneurs with a small number of employees, offering ample space for collaboration and individual tasks. The comfortable desk and work chairs enhance user experience, and the proximity of Private Offices encourages communication and networking between different companies, fostering a collaborative community.

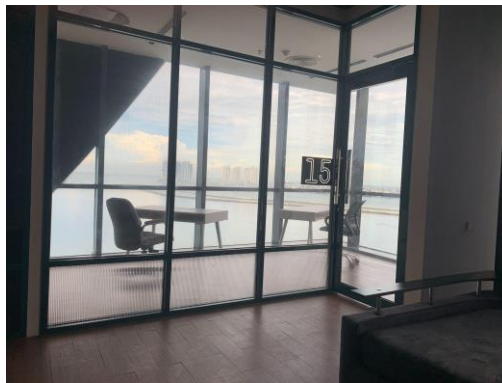


Fig. 14. InHype.Co Private Office with Sea View (Salim, 2022)

The sea-view Private Office at InHype.Co offers favorable lighting conditions but comes with a high rental cost. The natural lighting from large windows is beneficial during the day, creating a bright and inviting atmosphere. However, the space is more suitable for rest due to the lack of ergonomic furniture for laptop use, which is essential for maintaining productivity during long work hours. The room only provides one set of desks and work chairs, with an open layout that is not ideal for a collaborative workspace. The scenic view, while aesthetically pleasing, does not compensate for the functional deficiencies in this office setup. To enhance its usability as a working environment, it would be beneficial to incorporate ergonomic furniture and possibly redesign the layout to support collaborative activities better.

3.2.2 UnionSpace Private Office

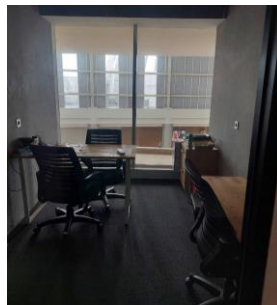


Fig. 15. UnionSpace Private Office (Salim, 2022)

The Private Office at UnionSpace features natural lighting from a window facing the mall. This workspace can accommodate 2-3 people due to its limited size, which restricts movement. The natural light provides a pleasant working environment, reducing the need for artificial lighting during the day. The carpeted floor offers soundproofing benefits, minimizing noise from adjacent offices and preventing damage from furniture movement. This setup is ideal for small teams that need a quiet and isolated working environment, allowing for focused and uninterrupted work.

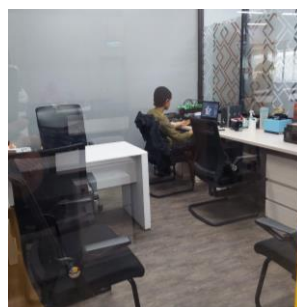


Fig. 16. UnionSpace Private Office (Salim, 2022)

The larger Private Office at UnionSpace can accommodate up to 6 people and is directly connected to the pantry and Co-Working Area, facilitating networking among different companies. This integration allows for easy access to communal areas, encouraging interaction and collaboration. The larger office space provides ample movement circulation, making it comfortable for small teams. The continuity of the cement-textured flooring from the co-working areas ensures durability and ease of maintenance. The lighting primarily uses artificial sources, making the area bright and conducive to work, while the white-painted walls enhance the sense of spaciousness. The design of this office supports both individual and collaborative work, making it a versatile space for various business activities.

3.2.3 KO+LABORA Private Office

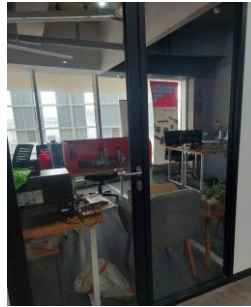


Fig. 17. KO+LABORA Private Office (Salim, 2022)

The Private Office at KO+LABORA features complete and ergonomic work furniture designed to enhance user comfort and productivity. The use of ergonomic chairs and adjustable desks ensures that users can maintain proper posture, reducing strain during long work hours. The carpeted floor absorbs sound, creating a quieter working environment and preventing damage from furniture movement. This feature is particularly beneficial in a bustling co-working space where noise reduction is crucial for maintaining focus.

Glass wall partitions covered with cutting stickers provide the necessary privacy while still allowing natural light to filter through, maintaining a bright and open feel within the office. The use of glass partitions also creates a sense of transparency and openness, which can foster a collaborative atmosphere while still delineating private spaces. The gray walls enhance the sense of privacy and professionalism, contributing to a calm and focused work environment.

The office can accommodate 3-4 people in a smaller space and 5-6 people in a slightly larger room, making it versatile for different team sizes. This flexibility allows businesses to choose a space that best fits their needs, whether they require a compact office for a small team or a larger room for more employees. The layout is designed to maximize space efficiency, ensuring that every inch of the office is utilized effectively.

InHype.Co's Private Office stands out for its flexible integration with communal areas and scenic views, though it needs ergonomic improvements. UnionSpace offers practical and well-integrated office options that cater to both small, isolated teams and larger, collaborative groups, emphasizing durability and functionality. KO+LABORA excels in ergonomic design and sound management, providing a professional and flexible workspace suitable for various team sizes. Each co-working space successfully addresses different user needs, highlighting the importance of tailored office designs to enhance productivity and user satisfaction in co-working environments.

3.3 Comparison of Meeting Rooms



Fig. 18. InHype.Co Meeting Room (Salim, 2022)

The meeting room at InHype.Co (fig. 18) features a U-shaped layout, which is effective for presentations and accessibility. This design includes a focal point in the middle, allowing easy access to various sides of the chairs and ensuring that all participants have a clear view of the presenter. However, the room uses glass partitions without cutting stickers, compromising privacy. The open and transparent design can make the space feel less confidential, which might not be suitable for all types of meetings. Despite this, the natural lighting and open layout contribute to a bright and inviting environment.

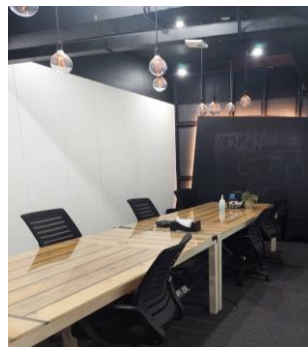


Fig. 19. UnionSpace Meeting Room (Salim, 2022)

The meeting room at UnionSpace (fig. 19) has a linear table arrangement, which can hinder movement circulation. This setup can make it difficult for participants to move around freely and access different parts of the room. The closed room without glass feels cramped and enclosed, with limited ventilation from other areas. This design choice can lead to a lack of natural light and a more oppressive atmosphere, which might affect the productivity and comfort of the meeting participants. The emphasis on privacy, however, makes it suitable for confidential discussions.



Fig. 20. KO+LABORA Meeting Room (Salim, 2022)

The meeting room at KO+LABORA features a combination of artificial downlights and natural light through curtained windows. The linear table arrangement impedes circulation, but the glass walls with stickers provide partial privacy. This setup balances openness with confidentiality, creating a

professional environment suitable for various types of meetings. The room benefits from both natural and artificial lighting, ensuring a well-lit space that remains comfortable throughout the day. The combination of these elements makes the room versatile for different meeting formats, although the linear arrangement might still limit ease of movement.

The comparative analysis of meeting rooms at InHype.Co, UnionSpace, and KO+LABORA highlights their distinct features and suitability for different meeting needs.

- **InHype.Co:** The U-shaped layout is effective for presentations and accessibility but lacks privacy due to the use of glass partitions without cutting stickers. The room benefits from natural light, creating a bright environment.
- **UnionSpace:** The linear table arrangement hinders movement and creates a cramped atmosphere in a closed room without glass, providing high privacy but limited natural light and ventilation.
- **KO+LABORA:** Combines artificial downlights and natural light with a linear table arrangement, providing partial privacy through glass walls with stickers. This room balances openness and confidentiality but may limit movement circulation.

Each meeting room design offers unique advantages and challenges, highlighting the importance of choosing a layout and features that align with the specific needs of the meeting participants.

4. Conclusion

Each of the three co-working spaces analyzed—InHype.Co, UnionSpace, and KO+LABORA—has its own advantages and disadvantages in each room and area. An effective workspace enhances user productivity and comfort, influenced by the choice of color, material, and finishing. These elements play a crucial role in the psychological well-being of users, impacting their behavior and efficiency while working. Although a formal work environment is necessary, aesthetic elements significantly influence user experience. The materials used must be sustainable and resilient to the environment, especially in public areas like co-working spaces, as opposed to private workspaces that require more privacy and soundproofing, such as carpeted floors.

Among the three co-working spaces, each offers different price ranges and diverse facilities. The research indicates that users tend to prefer private work areas because many users renting workspaces belong to companies that do not yet have sufficient capital to provide their own offices. This makes private workspaces more attractive to new companies or start-ups with a small number of employees, typically 4-10. Company owners renting private workspaces often choose rooms with glass walls, as these provide a sense of privacy while maintaining an open feel. Of the three co-working spaces studied, workspaces with glass walls are usually fully occupied, whereas those without glass walls often have vacancies. Despite the availability of windows in private workspaces, users still consider rental costs, preferring more affordable options. In the co-working areas, KO+LABORA has the highest number of users, predominantly e-commerce companies with employees working in groups at tables rented by the company.

Meeting rooms are also crucial for companies holding important meetings. Each of the three co-working spaces offers meeting rooms with different layouts and circulations. Although each space only has 2 to 3 meeting rooms, they are used regularly every week. Among the three, InHype.Co provides the most entertainment facilities, enhancing user satisfaction beyond work-related needs. In conclusion, each co-working space offers unique features that cater to different user needs. Effective workspace design, incorporating appropriate materials and finishes, plays a vital role in user productivity and comfort. By balancing aesthetics, functionality, and cost, co-working spaces can provide an optimal environment for various businesses, from start-ups to established companies.

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