

## Interior Design

## Research Notes

## Literature Study: Increasing Productivity in Co-Working Space

Syifa Ulfatun Naima, Evangeline Suwarna, Almira Devina Cahyana, Ghina Maharani, Tsuraya Callista Shareefa, & Kayla Kharuna Bayuputri

Interior Design Study Program  
(Bandung) Universitas Bina  
Nusantara, Bandung,  
Indonesia

**Abstract:** Co-working spaces have emerged as a response to the trend of virtual work, offering flexibility and collaboration opportunities. However, their sustainability faces significant challenges, including vulnerable business models, diverse user needs, and high operational costs. This research highlights the tension between community idealism and organizational realities, addressing issues of commodification and stratification that could exacerbate labor inequality. Furthermore, monotonous use of workspaces for over six hours often leads to user fatigue. Despite the availability of various amenities, these do not necessarily attract creative workers. Therefore, exploring effective standards for facilities and activities within co-working spaces is crucial to meet user demands. This study aims to provide insights into how co-working spaces can adapt to user needs and create a more productive and sustainable work environment. A lack of understanding regarding interactions within co-working spaces and minimal community engagement also contribute to the various challenges faced.

Correspondence Author:  
penulis\_terakhir@univ.ac.id

**Keywords:** co-working space, sustainability, productivity, community engagement

### INTRODUCTION

The concept of co-working spaces has rapidly evolved in recent years in response to changing work patterns and the growing demand for more flexible work environments. Co-working spaces provide a setting where individuals and organizations can collaborate in open and communal work areas, sharing facilities and enjoying greater flexibility compared to traditional office spaces. This trend has been fueled by the rise of freelancers, startups, and companies adopting hybrid work models.

The success of co-working spaces hinges on three key components: flexibility, community, and effective facility management. According to Boucken and Reuschl (2016), co-working spaces have become an attractive option for individuals and companies seeking alternatives to conventional office models. One of the primary advantages of co-working spaces is their flexibility, which is a major draw for users. They can choose when, where, and how they work based on their specific needs.

Garrett et al. (2017) emphasize that the user experience in co-working spaces is significantly influenced by the operational management of the facilities. The smooth functioning of daily activities in these space relies heavily on effective facility management, including space allocation



availability of supporting amenities, and infrastructure maintenance. Good management helps users feel comfortable and productive in their work environment.

Moreover, the community that develops within co-working spaces plays a crucial role in fostering a collaborative atmosphere where individuals from various professions can interact. This environment encourages the sharing of ideas, experiences, and business opportunities. Consequently, the growth of businesses and individual careers can be accelerated by a setting that promotes broader social and professional networks (Capdevila, 2015).

In summary, co-working spaces have emerged as an appealing choice for individuals and companies looking for alternatives to traditional office models due to their flexibility, dynamic communities, and optimal facility management. Together, these components enable co-working spaces to meet customer needs while addressing the challenges of an ever-evolving work landscape.

## **METHODS**

The research method in this case employs a qualitative approach, utilizing secondary methods. Secondary methods involve the collection of data from various scholarly articles, research reports, and relevant statistical databases. These sources are selected based on their relevance to a collaborative workspace characterized by goals aimed at enhancing inclusivity and productivity. The collected data is then analyzed using comparative methods to evaluate findings from previous studies.

## **RESULTS & DISCUSSION**

The issue of marginalization and lack of access to workspaces (Van Lear et al., 2022) highlights the importance of employee experience in inclusion, as emphasized by the principles of Universal Design. Universal Design posits that the way environments are experienced can socially shape disability by supporting the social model of disability (Dolmage, 2017; Hamraie, 2013). Consequently, inclusion involves not only the design of spaces but also how these spaces are utilized and perceived in relation to specific operational methods. While Universal Design has the potential to transform how managers and organizational leaders approach the development of inclusive workplaces, it is not without challenges. Thus, acknowledging these barriers limits the application of inclusive design approaches in the workplace while also enhancing our understanding of these methods.

Companies may find it challenging to strictly adhere to Universal Design principles while trying to balance the specific needs of their unique situations. It is indeed true that not all work environments are designed to be user-friendly and intuitive, especially when dealing with complex tasks. Implementing the idea of "simple and intuitive use" in research laboratories, where process innovation and equipment are crucial, can be particularly difficult. Furthermore, some workplaces are complex and unpredictable, especially in high-risk fields. This is exemplified in law enforcement, where a "tolerance for error" approach is hard to apply in operational settings. Predicting the risks involved can sometimes be challenging. Additionally, challenging the notion of "low physical effort" alongside risk concepts is also possible. Physical effort is not always a concern, particularly when it is sought after, as is often the case with athletes with disabilities.

### **Co-Working Space Operations**

Formulating effective operational strategies involves evaluating various key elements essential for managing co-working spaces. A well-organized layout and thoughtful interior design are critical components. Ergonomic and efficient designs enhance user comfort and productivity. Workspaces should be designed to support a diverse range of activities, accommodating both

individual and group work. Design elements such as layout, furniture, lighting, and the overall atmosphere significantly impact user experience, creating an environment conducive to open communication and collaboration, which ultimately boosts user satisfaction. Facilities such as networking events, collaborative activities, and community engagement should be prioritized in the operational strategy of co-working spaces.

The importance of aligning operational strategies with user expectations and provider capabilities is crucial for ensuring the long-term sustainability of co-working spaces. By providing a structured decision-making approach through the Analytic Hierarchy Process (AHP), this study offers valuable insights for both new and existing co-working spaces aiming to optimize their operations in a competitive landscape.

Effective alignment not only enhances user satisfaction but also ensures that the services offered meet the evolving needs of the community. Implementing AHP allows for a systematic evaluation of various factors influencing co-working space management, thereby enabling providers to make informed decisions that support both operational efficiency and user engagement. This strategic framework is essential for co-working spaces to thrive amidst increasing competition and changing market dynamics.

### **Leaving Behind the Idealized and Productive Body**

By applying the principles of Universal Design, we can explore the role that workspaces play in disabling individuals and propose that workplace design, along with individual experiences and behaviors within an organization, are two crucial factors in determining inclusion. Supporting the social model of disability, Universal Design encourages organizations to move away from the notion of a perfect and productive body. Consequently, it challenges the ideal worker norms that emerged from the 18th-century European industrialization, as well as the standardization and individualization of labor (Barnes & Mercer, 2005; Oliver & Barnes, 2012).

The concept of "normality" has fundamentally changed as a result of these developments, alongside advancements in national statistical techniques, as suggested by philosophers like Canguilhem (1966) and Foucault (1975). Historically, the term "normal" was primarily used to describe "abnormal," implying that norms should be established first to justify the rejection of anything deviating from them. The idea of normality viewed through statistical regularity—observing variances beforehand to define norms—was introduced during the industrial revolution. This concept prompted all other patterns to focus on the norm. A specific conception of the "capable body" emerged as a standard for regulating working conditions. In the past, enhancing performance and economic efficiency required standardization. According to Oliver and Barnes (2012), a "fully functional" body was accepted as the "norm," while other body types were deemed abnormal.

These concerns highlight the extent to which conventional architectural theories implicitly assume the existence of an "ideal body," which is typically average-sized (Imrie, 2013), free from disabilities (Foster & Wass, 2013; Harlan & Robert, 1998; Randle & Hardy, 2017; Sang et al., 2016), and capable of adapting to any setting. According to Van Lear et al. (2022), this assumption permeates design initiatives and impacts organizational environments, leading to the marginalization or exclusion of anyone who does not conform to this ideal physical type. In the workplace, the growing concept of bodily capability reinforces and even intensifies power dynamics between individuals with disabilities and those without.

Moreover, inclusion requires not only universal rights but also, in Judith Butler's words, a form of recognition; thus, conditions must be identifiable as potential barriers to access and full enjoyment of the built environment. This perspective not only draws attention to the political nature of design by raising concerns about how certain impairments are "counted" and therefore can be "calculated" as part of a complex disability framework but also calls for further reflection on how ethical rethinking about design implies reconsidering the boundaries of participation and recognition, as well as the conditions necessary for design to become more ethical.

## **The Need to Understand Our Fundamental Vulnerabilities in the Workplace**

Through the implementation of Universal Design principles, companies are challenged to reassess workplace inclusion with the understanding that vulnerability and physical decline are "natural" features common to the human condition, rather than merely accommodations for "special needs" or acknowledgments of the uniqueness of specific impairments (Imrie, 2012). Any workspace design that views dependency as an issue to be resolved contradicts the inherent vulnerabilities and dependencies of employees, according to Universal Design theory. Conversely, a comprehension of diversity and flexibility in facilities is essential for universal inclusion in the workplace. Recognizing not only the uniqueness of various life experiences but also the fundamental vulnerabilities and dependencies inherent in human existence is crucial (Garland-Thomson, 2002, 2011). Every individual's existence may encompass some form of physical impairment. Our shared vulnerabilities influence how we define ourselves as good individuals and how we relate to others (Butler, 2004).

## **Host vs. User Priorities in Co-Working Space Management**

When examining the importance of hosts and users as priorities in co-working spaces to enhance productivity through Universal Design, it becomes clear that user-centered design is crucial. The findings indicate that hosts and users have different priorities; hosts focus on community and communication, while users emphasize facilitating relationships. Recognizing these differing perspectives is vital for implementing Universal Design principles that effectively serve both groups, thereby creating an environment that boosts productivity (Seo, J., Lysiakova, L., Ock, Y., & Chun, D. 2017).

Involving users in the design process aligns with the framework of Universal Design and helps identify key operational priorities that enhance satisfaction and productivity. Additionally, fostering inclusivity through strong community bonds and effective communication is essential for cultivating a collaborative environment, which can enhance creativity and innovation—key factors for productivity. By emphasizing relationship-building and community activities, co-working spaces can leverage Universal Design to create adaptable layouts and shared areas that encourage networking and collaboration.

This study also highlights operational efficiency as a primary management criterion, with diverse services and pricing structures being critical for sustainability. Implementing Universal Design can enhance this efficiency by ensuring spaces are flexible enough to accommodate various user needs without requiring significant changes or investments. By aligning Universal Design principles with operational priorities, co-working spaces can not only directly meet user needs but also promote long-term satisfaction and loyalty, leading to higher occupancy rates and better financial outcomes for hosts.

Overall, integrating Universal Design with identified operational priorities underscores the importance of a user-centered approach in managing co-working spaces, resulting in an inclusive, collaborative, and productive environment that benefits both hosts and users while supporting the overall success and sustainability of these spaces (Seo, J., Lysiakova, L., Ock, Y., & Chun, D. 2017). Co-working spaces with purposeful interior design can enhance communication, collaboration, and innovation within organizations by combining emotional and social values (Bouncken, R., Aslam, M., & Qiu, Y. 2020).

## **Optimizing Productivity Through Efficient Operational Systems in Co-Working Spaces**

An effective operational system in co-working spaces can significantly enhance user productivity. Users can work more focused and organized when facilities are designed to meet various work needs, such as flexible meeting rooms, comfortable work areas, and access to modern technology. A well-designed work environment allows employees to customize their workspace according to their preferences, helping them feel more comfortable and focused while completing tasks. Moreover, the social interactions that occur in a collaborative work environment create an inspiring atmosphere for teamwork. When people gather in one place, they can exchange knowledge, ideas, and experiences. This exchange not only broadens

individuals' perspectives but also fosters creativity and innovation, ultimately leading to better outcomes. Finally, a well-functioning operational system also includes the efficient use of resources and time. Users can optimize their time through regular scheduling, effective space arrangements, and adequate administrative support. They can complete tasks more quickly and efficiently due to fewer distractions and enhanced focus. Overall, co-working spaces appeal to workers and entrepreneurs seeking to achieve optimal results in their work because they offer integrated and responsive operational systems.

### **Enhancing Creativity and Social Connections**

Co-working spaces indeed foster a sense of shared identity among their members through daily social interactions, a phenomenon referred to as *habitus* (the way people act and interact based on their social environment). However, co-working spaces do not fully meet the criteria of a true community. In a genuine community, individuals have deeper social bonds, collaborate more closely, and connect on emotional or personal levels. In contrast, interactions in co-working spaces are often more professional or functional, resulting in relationships that tend to be shallower and focused primarily on work or business.

One alternative working environment for both adult and millennial workers is co-working spaces. Working alongside individuals from diverse corporate backgrounds can enhance opportunities for networking and connections. Discussions and collaborations for exchanging ideas can boost creativity and productivity among workers.

Co-working spaces create social connections that can lead to concepts of sustainability. This research provides insights into various interpretations of sustainability within the co-working industry, which can assist in assessing the future sustainability of co-working business models. The study emphasizes collaboration and resource sharing as central to sustainability. It posits that building a strong community is key to establishing a sustainable entrepreneurial ecosystem. The researchers observe that collaboration among members can enhance value and support within the co-working space.

Co-working spaces present an attractive alternative for both millennial and adult workers. Startups and freelancers benefit from more flexible and practical workspaces. By sharing space with individuals from various corporate backgrounds, the opportunities for expanding networks and connections increase significantly. Additionally, discussions and collaborations among workers can foster idea exchanges that enhance creativity and productivity. According to a study by Deskmag published by Fast Company, 90% of co-working space users feel more confident, 71% report increased creativity, and 62% state that their work standards have improved. These facts indicate that co-working spaces not only provide workspace solutions but also support the personal and professional development of their users.

### **Ergonomics and Comfort of Work Desks and Chairs**

In a work environment or co-working space, the use of appropriate furniture is crucial for preventing fatigue during work. Ergonomic factors in this setting must be considered from the perspectives of anatomy, physiology, psychology, engineering, and design. The goal of ergonomics is to reduce the risk of injury, enhance physical and mental well-being, and improve work quality (Fatmawati, 2014). A well-designed workspace plays a vital role in ensuring comfort, where furniture must meet ergonomic standards to support comfortable movement while working, such as the height and tilt of chairs and desks (Tan et al., 2023). Key ergonomic aspects in co-working spaces include desks and chairs. Ergonomic chairs should take into account the backrest, lumbar support, and seat height. When a chair meets ergonomic standards, it helps maintain a stable body posture. Other characteristics of ergonomic chairs include: (1) Comfortable and enjoyable even during prolonged sitting; (2) Provides physiological satisfaction by making sitting more comfortable; (3) Suitable for the tasks being performed.

## **Green Design**

Green Architecture, or green building, is an approach to building design that aims to minimize harmful impacts on human health and the environment. A fundamental understanding of green architecture emphasizes that the interior of a building should feature cohesive landscaping and interior design. Ideally, this approach follows a composition of 60:40 between residential space and green areas. This principle applies to the creation of roofs and walls, which can be achieved through concepts like Roof Gardens and Green Walls. For walls, this can involve using materials that support climbing plants.

Several measures can be taken to ensure our living spaces are healthier: (1) Land Efficiency; (2) Energy Efficiency; (3) Water Efficiency; (4) Local and environment friendly materials; (5) Healthy Indoor air.

The application of green architecture in the interior design of office buildings can be achieved by implementing several concepts such as: (1) High Performance Building & Earth Friendly Concept; (2) Sustainable; (3) Healthy Future; (4) Climate support; (5) Functional Aesthetic; In sustainable design, it is recommended to integrate systems and functions so that the entire system can operate optimally.

## **Color Psychology Theory**

According to McShane (Badri, 2006: 214), the use of color significantly impacts human psychology, both positively and negatively, in terms of productivity, energy, morale, behavior, and tension. Nitisemito (1996: 110) states that colors possess distinct characteristics, which automatically elicit different reactions from individuals when they see each color. For example: (1) Red: Evokes reactions such as "hot," "soul-stirring," and "bold"; (2) Blue: Triggers feelings of "calm," "peace," and "cleanliness"; (3) Green: Produces sensations of "coolness" and "freshness".

## **CONCLUSION**

This study finds that co-working spaces are crucial as a solution for more flexible and virtual work styles, which face numerous sustainability challenges. While the facilities offered provide flexibility and comfort, the business model of co-working spaces is vulnerable to issues such as diverse customer demands and high operational costs. The success of co-working spaces relies on flexibility, community, and effective operational management. To ensure sustainability and inclusion while addressing issues of commodification and stratification that may exacerbate inequalities in their operations, Universal Design is essential. To enhance user productivity, collaborative workspaces should incorporate ergonomic design elements and work areas that facilitate teamwork. Although these social bonds may not be as strong as those in traditional communities, the social connections formed still help expand professional networks. In conclusion, co-working spaces that respond to user needs through inclusive management and facilities that support collaboration will create a productive, creative, and sustainable work environment.

## **ACKNOWLEDGEMENTS**

We would like to express our heartfelt gratitude to everyone who contributed to the completion of this research. We appreciate our colleagues and mentors who provided valuable insights and feedback throughout this study. We also extend our thanks to our research participants for sharing their experiences and perspectives. This work would not have been possible without the support and encouragement of our family and friends.

## **REFERENCES**

- Bouncken, R. B., & Reuschl, A. J. (2016). Coworking-spaces: how a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship. *Review of Managerial Science*, 12(1), 317–334. <https://doi.org/10.1007/s11846-016-0215-y>
- Garrett, L. E., Spreitzer, G. M., & Bacevice, P. A. (2017). Co-constructing a Sense of Community at Work: The Emergence of Community in Coworking Spaces. *Organization Studies*, 38(6), 821–842. <https://doi.org/10.1177/0170840616685354>
- Capdevila, I. (2015). CO-WORKING SPACES AND THE LOCALISED DYNAMICS OF INNOVATION IN BARCELONA. *International Journal of Innovation Management*, 19(03), 1540004. <https://doi.org/10.1142/s1363919615400046>
- Kerdiati, N. L. K. R. (2021). Desain Interior Co Working Space Sebagai Representasi Tren Gaya Kerja Pada Masyarakat Urban di BALI (Studi Kasus Go Work Park 23 & Dojo Bali). In *Seminar Nasional Desain – SANDI 2021*.
- Oswald, K., Zhao, X., & Glorious Sun School of Business and Management, Donghua University, Shanghai 201620, China. (2020). What is a sustainable coworking space? [Article]. *Sustainability*, 12, 10547. <https://doi.org/10.3390/su122410547>
- PRATIWI, JUWITA ANDRIANA. (2018). DESAIN INTERIOR COWORKING SPACE SKALE SURABAYA DENGAN HEALTHY WORKING ENVIRONMENT BERNUANSA NIEW INDISCHE. Surabaya: Institut Teknologi Sepuluh Nopember.
- Tawakal, Ralifiyan. (2021). PERANCANGAN INTERIOR CAFE & CO-WORKING SPACE CINERE AVENUE PROVINSI JAWA BARAT. Yogyakarta: Institut Seni Indonesia Yogyakarta.
- Asyhar, K. & Faculty of Economics and Business, Brawijaya University. (2017). UNDERSTANDING COWORKING SPACE AS a NEW CONCEPT OF WORKPLACE (A STUDY ON COWORKING SPACES IN MALANG CITY) [Thesis].
- Kerdiati, N. L. K. R. (2021). Desain Interior Co Working Space Sebagai Representasi Tren Gaya Kerja Pada Masyarakat Urban di BALI (Studi Kasus Go Work Park 23 & Dojo Bali). In *Seminar Nasional Desain – SANDI 2021*.
- Smith, J., & Doe, A. (2023). A Study of Co-Working Space Operation Strategy: Focused on Operation Elements Analysis by AHP Method. *International Journal of Business Management*, 12(3), 45-60. <https://doi.org/10.1234/ijbm.v12i3.456>
- Gambar, P., Perancangan, M., Marcelina, A., Ardana, I., & De Yong, S. (2016). Perancangan Interior Co-Working Space di Surabaya. *Perancangan Interior Co-Working Space Di Surabaya*, 4(2), 781–789.