DOI: https://doi.org/10.38027/ICCAUA2024EN0066

Aligning the New Work Environment With OECD Goal 8: Design for A Global Automobile Brand

* ¹Assoc. Prof. Dr. **Suzan Girginkaya Akdağ,** ² Assist.Prof. Dr. **Pınar Sunar Bükülmez**, ³**Gamze Ekin**^{1.& 2.} Department of Interior Architecture and Environmental Design, Faculty Of Architecture and Design, Bahcesehir University, Istanbul, Türkiye

³ Product Designer in I-AM, Istanbul, Türkiye

E-mail: suzan.girginkayaakdag@bau.edu.tr , E-mail: pinar.sunar@bau.edu.tr, E-mail: gamze@i-amonline.com

Abstract

This paper explores the economic sustainability of new work environments by examining how interior design strategies contribute to the OECD's Sustainable Development Goal 8 for decent work and economic growth. SDG 8 aims to promote sustained, inclusive, and sustainable economic development, as well as full and productive employment. In pilot study, 46 employees of the brand are interviewed across nine sessions, encompassing focus groups and one-on-one interactions. Using content analysis, this data is analysed qualitatively to interpret patterns related to spatial politics, timing politics, and hybrid working culture of the new work environment. Identified patterns include individually focused tasks, virtual collaboration, agile working, socialization, and urban interaction. These patterns are then traced from the conceptual design crafted for the brand and finally discussed in terms of their alignment with SDG 8.2 (diversify, innovate and upgrade for economic productivity), 8.4 (improve resource efficiency in consumption and production), 8.8 (Protect labour rights and promote safe and secure working environments for all workers).

Keywords: Economic Sustainability, New Work Environment, SDG 8, Interior Design.

1. Introduction

The pandemic has brought attention to the critical role that businesses play in ensuring the health and welfare of their workers, prompting calls for stronger regulatory frameworks and enforcement mechanisms to ensure compliance with safety standards. In the wake of COVID-19, workers are increasingly demanding higher standards in the workplace as well as better job quality and fair compensation. Instead of accepting the existing norms, employees are pushing for significant reforms that put their health, safety, and well-being first (Kniffin et al.,2021).

The employee concerns regarding the new post-pandemic workplace have emphasized the importance of Agenda 2030 and its Sustainable Development Goals (SDGs) along with their associated targets. Envisioned as a blueprint to achieve a more sustainable and equitable future for all, the SDGs are founded upon a comprehensive development framework that prioritizes the environmental, social and economic pillars of sustainability with equal emphasis. With their holistic approach and accountability, the framework offers a thorough roadmap for governments, businesses, and civil society to collectively pursue shared objectives and address global challenges.

The eighth goal of the SDGs, titled "Decent Work and Economic Growth" aims to promote inclusive economic growth, protect labor rights, and create an enabling environment for entrepreneurship and innovation (Hales & Birdthistle, 2022). SDG 8 intersects with the design of the workplace in various critical ways. By incorporating principles of sustainability, inclusivity, collaboration and well-being into their work practices, organizations can contribute to the achievement of SDG 8 targets. As businesses are transforming to enhance employee satisfaction, performance, and overall organizational success in the post-pandemic period, a growing body of literature has been exploring the links between emerging work models and reimagined workspaces (Nediari et al., 2021; Helmold, 2021; Rishi et al. 2021; Pataki-Bittó & Kapusy, 2021; Barath & Schmidt, 2022; Umishio et al., 2022; Kane, 2022). This paper aims to identify areas for enhancement and opportunities for further integration of SDG8 principles in the post-pandemic work environment. Specifically, it examines alignment strategies for SDG8 within a custom-built office for a Global Automobile Brand situated in Kocaeli, which is a major hub of manufacturing activity and technology development in Turkey.

1.1. Working Environment and Its Quality

In the context of OECD (The Organisation for Economic Co-operation and Development) Better Life Initiative launched in 2011, evaluating the quality of the working environment emerged as a critical component of people's overall conditions. As part of this initiative, the OECD established the framework utilized for defining and measuring well-being (Durand, 2015). In this report, as well as in the broader OECD framework on job quality (Cazes et al., 2015), the term "working environment" was defined as a combination of job characteristics that shaped the context in which workers operated. The concept was multidimensional and included a great deal of non-financial aspects of a work, including the nature of assigned tasks for each worker, the physical and social conditions under which these tasks were performed, the attributes of the employing firm or organization, the scheduling of working time, the career opportunities provided, and the intrinsic rewards associated with the job

Since then, the concept of "job quality" has referred to the observable aspects of a job that employees experience and is intricately linked to the design of the physical workspace. Every element of interior design, from the layout and ergonomics of workstations to the choice of lighting, colors, and materials, contributes to either enhancing or diminishing job quality.

Workplace design entails taking into account not just the aesthetics, but also the functionality, comfort, and environmental implications of the workspace, ensuring it supports long-term employee well-being, productivity, and satisfaction (Sadick & Kamardeen, 2020). Given the complex and ever-changing dynamics of a new work culture, redesigning the current workplace and establishing a new employee experience from an interior design perspective demands a comprehensive and sustainable approach.

1.2. Sustainability and SDG8 Alignment Strategies for Workplace Design

Sustainability in the work environment encompasses practices aimed at minimizing environmental impact, promoting social responsibility, and ensuring long-term economic viability, aligned with its three pillars: ecology, equity, and economy (Lu et al., 2021; Afara et al., 2024; Amen et al., 2024). According to (Littig & Grießler, 2005) a sustainable working society necessitates: 1) integrating ecological principles into existing jobs and fostering the creation of new environmentally friendly jobs to ensure the provision of goods and services that are environmentally, socially, and health-conscious; 2) redistributing all necessary work in society considering gender, ensuring that everyone has access to sufficient income from meaningful and socially accepted work (such as through shorter working hours, childcare support, and achieving work-life balance for both men and women); and 3) providing individuals with the freedom to choose between different forms of work or lifestyles at any stage of life, while guaranteeing individual social security rights

Before the pandemic, the world was already dealing with numerous problems related to its social, ecological, and economic systems due to ongoing industrial progress and globalization (Umar et. al., 2021). The COVID-19 underlined the weaknesses of existing social and economic systems, along with the need to optimize resource utilization and efficiency (Ibn-Mohammed et. al., 2021). In this respect, the "UN 2030 Agenda" and the OECD's Sustainable Development Goals (SDGs), which represent a global endeavor to address the urgent challenges of poverty and environmental degradation, have gained notable significance Fenner & Cernev, 2021). The SDGs, consisting of 17 objectives and 169 targets, were designed to provide a strong foundation for the goal of "eradicating poverty while minimizing adverse impacts on the Earth's ecosystems" (Griggs et. al., 2014).

Within this framework, SDG 8 promotes sustained, inclusive, and sustainable economic growth, ensuring full and productive employment, decent work for all, and efficient resource utilization. In pursuit of sustainability, businesses have to formulate plans and devise strategies that optimize efficiency, trigger financial growth, build strong employee loyalty and satisfaction while ensuring that their suppliers, customers, and dealers experience the positive impacts they generate. Additionally, the need to prioritize the acquisition, retention, and development of talent, all the while striving to deliver maximum benefit to the world, environment, and society. In the ever-evolving landscape of the global economy, aligning the new work environment with SDG 8 is not just a matter of moral obligation but also a strategic imperative for global brands. By promoting decent work, inclusive growth, and sustainable practices, organizations not only fulfil their ethical responsibilities but also position themselves for long-term success in an increasingly competitive and interconnected world. In crafting the physical workplace design for pans, three primary key considerations—targets 8.2, 8.4, and 8.8—are to be achieved by promoting inclusivity and diversity to drive innovation, integrating sustainable practices to minimize environmental impact, and enhancing employee well-being to address both physical and mental health needs (Table 1).

In detail, *Goal 8's target 8.2 (diversify, innovate and upgrade for economic productivity*), aims to achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors. Specifically, in the automotive industry, companies need to follow the rapidly changing trends in the global automotive and mobility industry and position themselves to lead this evolving landscape. Innovation stands as a cornerstone, generating added value across our operational domains. The objective is to expand their market share and uphold their competitiveness by aligning with customer expectations and needs through an innovation-driven approach. Their strategy revolves around innovation, entrepreneurship, change management, and open innovation. The firms believe that technology and innovation are essential for adapting to the swiftly changing world.

As companies strive to build a respectful and fair work environment, they recognize the importance of embedding principles of diversity, equality, and inclusion at the core of their approach. Proactively promoting gender equality by enhancing women's employment opportunities and increasing their representation in senior management roles is a key aspect of this commitment. Moreover, supporting women in technology and innovation through initiatives and programs, as well as actively hiring individuals with disabilities, demonstrates their dedication to fostering diversity. In embracing future work models, such as transforming agile methodologies, culture and leadership practices and prioritizing human capital management, companies aim to re-create value for all stakeholders, with a particular emphasis on employees. By prioritizing employee welfare, advancement, and personal growth, while also building meaningful connections with stakeholders, organizations can cultivate a culture characterized by engagement, innovation, and shared prosperity. While shaping the industry and steer its future trajectory, companies need to ensure that they prioritize social benefit and evolve hand in hand with society.

Goal 8's target 8.4 (improve resource efficiency in consumption and production), highlights the need for adopting cleaner production methods, promoting sustainable consumption patterns, implementing environmental management systems, and fostering partnerships for sustainability., In the automotive industry, which is a significant contributor to carbon emissions, urgent action is required to meet the goals set in carbon reduction, waste management, circular economy, and water conservation.

To fight against global climate change, many companies aim to transform their operations in Turkey aim to achieve "carbon neutral" status across the board by 2040. To achieve this, they prioritized energy efficiency projects and implement designs and activities that increase the use of renewable materials and energy sources. They trained their staff and engage stakeholders to ensure the success of their sustainability initiatives. As they enhanced the efficacy of their initiatives to diminish carbon and water footprints, they remained committed to fully and transparently disclosing their performance data.

Goal 8's target 8.8 (Protect labour rights and promote safe and secure working environments for all workers), addresses employee well-being as a fundamental component of a thriving workforce and a prosperous society. In this context, the automotive industry falls under the hazardous classification as per the Communiqué on Workplace Hazard Classification for Occupational Health and Safety. Hence, adopting a proactive management approach focused on safety is essential to ensure occupational health and safety. With global trends continually evolving, it's imperative for occupational health and safety managers to keep pace with the latest developments and regularly update their crisis management strategies. While recent technological advancements such as the new 5G telecommunications standard, human-machine interaction, artificial intelligence, and collaborative robotics offer potential for simplifying and enhancing workplace safety in the future, they also bring forth new challenges regarding occupational health risks.

Thereby, leveraging digital technologies is crucial for the automotive sector to adapt to shifting global trends and effectively tackle emerging challenges. Additionally, nurturing a workplace culture that prioritizes comprehensive health practices encompassing physical, mental, social, and spiritual well-being can foster positive employee experiences, leading to increased creativity, innovation, and enhanced performance. Access to high-quality job opportunities not only empowers individuals to pursue their personal aspirations but also give them the chance to achieve their own goals, grow in their careers, feel valuable to society, and boost their self-esteem. Ensuring the holistic well-being of employees also contributes positively to work outcomes and the economy, delivering benefits beyond short-term work performance.

Adopting SDG 8 means more than just following rules; it means creating a future in which economic advancement is accompanied by social development and environmental responsibility. By addressing all three targets in the workplace design—emphasizing innovation, sustainability, and well-being, companies can not only foster economic growth but also enhance their brand reputation, attract top talent, and ensure long-term success in a constantly evolving market. The pilot research aims to discover how these principles can be aligned with the design of the new workplace.

Table 1. SDG 8 targets and strategies for the design of workplace

SDG8 TARGET	STRATEGIES for the DESIGN of WORKPLACE
	Promoting inclusivity and diversity to drive innovation
Target 8.2: Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	* Building an inclusive environment that embraces diversity. * Implementing strategies to ensure representation and participation from all backgrounds. * Creating collaborative spaces that encourage diverse perspectives and idea-sharing.
Target 8.4: Improve progressively,	Integrating sustainable practices to minimize environmental impact
through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead	* Incorporating energy-efficient design elements and utilizinzg eco-friendly materials. * Implementing waste reduction and recycling programs to minimize environmental footprint. * Promoting sustainable behaviors and encouraging responsible resource usage among employees
	Enhancing employee well-being to address physical and mental health needs
Target 8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	introducing weinless programs and initiatives to promote mental wen being.

2. Pilot Study

The workplace in need of redesign belonged to a prestigious global automobile brand situated in Kocaeli, a key center for manufacturing and technological advancement in Turkey. Since 2018, the brand had actively participated in WWF-Turkey's Green Office Program, demonstrating its commitment to minimizing its impact on natural resources through eco-conscious design. Initiatives such as reducing paper and plastic waste in quality assurance processes and implementing wastewater recovery projects to decrease freshwater consumption were launched. These efforts were in line with the brand's overarching "Environment-Friendly" strategy, which was evident across its research and development center and marketing, sales, and after-sales offices located in Istanbul. Recognizing the importance of environmental stewardship, the brand earned the prestigious "Green Office" diploma for its efforts in promoting energy efficiency, advocating for mindful utilization of natural resources, and fostering a culture of sustainability among its employees. In 2022, the sustainability committee of the brand unveiled its sustainability strategy and policy, focusing on social, environmental, and economic performance within the realms of corporate governance. Centering on its "Future Now" vision, the company boldly committed to pioneering transformation throughout its entire ecosystem. This commitment extended to involving its employees, suppliers, dealer network, and business partners in its sustainability endeavors.



Figure 1. The automobile brand's workplaces date back to before 2022 (by the design team I-AM)

The brand's commitment to sustainability gained even greater significance during the pandemic, owing to the change in the nature of work. The new hybrid culture called for new management styles and organizational structures. While previous knowledge about work transformed, there was an increasing emphasis on the need for autonomy and a results-oriented work culture. One of the key sustainability objectives was to enhance employee loyalty and satisfaction, which necessitated the redesign of office interiors in alignment with varying work hierarchies and schedules. Thus, office spaces needed to be reimagined hosting different working modalities, facilitating interactions and collaboration, diminishing hierarchy, and grouping, thereby empowering employees and teams (Figure 1). As employee needs and expectations diversified, supporting work and life balance became prominent.

2.1. Material and Methods

This qualitative research involved a case study centered on the new workspace interiors of a global automobile brand. The methodology included four main steps: Research, insight generation, design and evaluation (Table 2). In the initial research phase, the focus was on comprehending the brand's objectives and expectations. The second insight generation phase involved gathering employees' experiences with hybrid work practices and perspectives from management teams on agile teamwork practices. Also, a workshop was conducted to share insights and develop strategies line with global trends. Moderated by the researchers, the following questions were addressed to guide the design of the optimal employee experience and the next-generation office:

- What activities should office spaces support and how should they be located?
- How should the duration and nature of time spent in the office be determined?
- How should the hybrid working culture be shaped?

A frequency analysis was conducted on the language, terminology, and concepts used in the interview and workshop documents. This content analysis enabled the categorization of prominent sub-themes, which were subsequently paired with Goal 8 targets. Based on the findings, the design team developed a conceptual design, which served as the focal point for discussions regarding the alignment of the new work environment with the targets SDG 8.2, 8.4 and 8.8.

Table 2. Methods used in this research to apply the methodology steps proposed.

Methodology Step	Method
Research: Understanding the employee experience	System Analysis and Stakeholders interviews [2.1.1] with brand representatives moderated by researchers
Insight generation: Codesigning the new employee experience and work environment	Focus Group Discussions, and One-on-One In-Depth Interviews [2.1.2]. Workshops and other project activities [2.1.3] with employees moderated by researchers
Design: Identifying design features and proposing a conceptual design	Conceptual boards and preliminary design drawings by the design team I-AM (3 and 4)
Evaluation: Alignment with relevant SDGs	Discussion and conclusion by researchers (4 and 5)

2.1.1. System Analysis and Stakeholder Interviews

This was the first step in the process of building the brand's new generation office and improved employee experience. It was planned in accordance with agile organization principles that would meet the changing demands of the automobile brand in response to changes in employee satisfaction and remote work practices. After a thorough analysis of the literature and statistical data of the office workers, 18 stakeholder meetings were held with the brand representatives, who were core project team members from HR, internal communication, IT, transformation, design studio, and new projects departments. These provided essential forums for discussion, allowing expectations, viewpoints, and advice relevant to the future of work at brand to be gathered.

Additional meetings were held focusing on agile transformation, digital office operating system applications and internal communication of the brand. In these meetings, information was obtained about the current situation and plans and needs were analyzed. Eventually, the brand's campus in Istanbul was visited, and observations and evaluations were made. This visit enriched the understanding of the existing infrastructure and operating dynamics within the physical space.

2.1.2. Focus Group Discussions and One-on-One In-Depth Interviews

To analyze the office needs resulting from the brand agile transformation, focus group discussions were conducted based on agile roles and teams. During these meetings, 46 employees actively engaged in 9 groups, discussing topics such as employee experience design, internal communication, dynamic balance, data analytics, and transformation. Additionally, the brand organization scheduled in-depth one-on-one interviews with a total of 25 employees who represented a range of demographics and worked across multiple work families. The interviews focused on their experiences with agile and hybrid working practices, as well as their expectations regarding their working environment and workplace. To learn more about the variables impacting employees' varying emotional and energy states throughout the workday, and to examine their effects on work experience and productivity, a two-day diary study was conducted following the interviews.

2.1.3. Workshop and Other Project Activities

During the workshop, researchers moderated discussions where research findings were shared and deliberated with employees, considering global trends (Figure 2). The findings and recommendations presented with a comprehensive set of over 500 visuals in these workshops. These visuals covered a variety of themes, including diverse work environments, functional spatial solutions, various workstation configurations, and elements that facilitated social interaction. The research and design team tried to learn what purpose the spaces should have, how they should make the employees feel, and how the employees were expected to interact with the space, through practices carried out with the workshop participants. Throughout the project timeline, interviews were conducted with brand experts covering diverse subjects such as employee experience, dynamic balance culture, internal communication, and data analytics. Within the project framework, the conclusions drawn from these interviews were carefully evaluated.

Within three weeks following the workshop, a preliminary concept presentation was shared, incorporating the findings and decisions made. This presentation included concrete examples and layout plans that reflected the targeted principles for work areas, based on the discussed decision points. Following the preliminary concept decisions, the drafting of the conceptual and architectural projects commenced.



Figure 2. Photos of employees taken during the workshop sessions.

3. Findings

In their 2023 "Future Now" report, the automobile brand emphasized its alignment with SDG 8 by prioritizing the physical and mental well-being of its employees across all business operations. They implemented training programs on essential safety precautions and promoted a zero-accident culture to extend these practices widely. Consequently, it was crucial to understand how they reshaped the physical work environment in line with emerging work models and reimagined workspaces from an interior design perspective.

The workshop findings and recommendations addressed the activities office spaces should support and their optimal locations, the determination of the duration and nature of time spent in the office, and the shaping of a hybrid working culture. The scope of findings expanded to include various aspects, including the return to office, hybrid workspaces, daily employee experience, location-based experiences, urban factors, agile organization, unstructured interactions, management culture and style, and available facilities. This revealed the necessity of a holistic workplace strategy and design. The subsequent summary categorizes these findings into *space policies*, *time policies*, *and hybrid work culture*.

3.1 Research Findings on Space Policies

Global trends reveal workers favoring remote work for some tasks despite still valuing office-based work for others. In high-performing companies, managers anticipate a higher percentage of their employees working in the office simultaneously in the future. Employee preference for working in the office is also higher in these firms. Hence, the future office shall be seen as a physical environment where employees can flexibly engage in individual tasks, collaborate for teamwork and integrate into the cultural values of the institution by establishing social ties and relationships. The research conducted with the automobile brand employees unveiled insights on five primary issues regarding the functions of office spaces: *individually focused tasks, virtual collaboration, agile working, socialization,* and *urban interaction.*

Individually focused tasks

Open office policies and practices that had been widespread before the epidemic significantly used to neglect people's 'personal' space and 'privacy' needs. Employees that worked in open-plan offices using shared-desks were more likely to work in Individually focused tasks and/or online. Furthermore, employees faced difficulties in virtual meetings (virtual collaboration). It was evident that during the acute period of outbreaks and closures, certain employees, who demanded locations for focused professional activities, were unable to establish their own work space or allocate time at home. The absence of such space and time not only hindered job performance but also blurred the boundaries between work and personal life for individuals. The research findings revealed that a significant portion of employees, excluding those in close proximity to production, adopted a 50% remote and 50% office work arrangement. Regarding personal and focused work, the primary issues identified were:

- Employees struggled to allocate time for their personal-focused work due to the intensity of meetings, often postponing this work until after regular work hours. Besides the lack of personally focused working time, employees' lack of space in the office where they can work on their own or as a team creates inefficiency and dissatisfaction.
- Employees without assigned personal desks (those who had begun working during the pandemic or experienced job or location changes) expressed that this situation negatively impacted bonding, sense of belonging, and ownership rather than personal-focused work.
- Some employees required privacy and isolation for their personal tasks because of the sensitive documents they were handling or the negotiations they were involved in.

Virtual Collaboration

During the Covid-19 pandemic, both individual and collaborative tasks were conducted through information and communication technologies more extensively and frequently than ever before (Kane, 2021). Digital and smart office solutions for remotely conducting collective and collaborative activities proliferated rapidly during and after the epidemic (Halim et al.,

2022). Virtual collaboration, now prevalent due to remote work, has notably eased certain business functions, particularly for teams unable to physically convene. Notably, having team members from disparate locations attend work and meetings virtually, rather than all online simultaneously, have some positive effects (Babapour Chafi et al., 2021). This also applied to the automobile brand:

- Before the pandemic, participants working across different campuses of the automobile brand used to encounter various issues in online meetings, such as sound system malfunctions. However, these issues were effectively resolved in virtual meetings where all participants joined remotely.
- Virtual meetings replaced physical meetings, particularly in instances where visual aids like Scrum or Kanban boards were shared. Transitioning these materials to the digital realm enhanced the effectiveness of meetings and the utilization of these resources.
- The ease of screen sharing in online meetings led office-based employees to favor virtual collaboration, highlighting its convenience and effectiveness.

For these reasons, employees of the automobile brand dedicated most of their working hours to virtual collaboration activities. Among these, the intensity of on-line meetings stood out in particular. In some meetings, employees actively participated, while in others, they attended merely as listeners. Despite their advantages, online meetings and virtual collaboration activities also presented additional challenges, impacting individually focused tasks and complicating business operations and communication, as indicated below:

- Employees had to attend long, uninterrupted online meetings. Besides being unable to take breaks, they suffered from remaining in the same position for extended periods and a lack of physical activity.
- The office environment often became noisy and chaotic due to multiple employees engaging in online meetings or
 making phone calls simultaneously. This made it difficult to focus and made working in the office very tiring.
 Additionally, employees experienced discomfort from wearing headphones all day long.
- Employees were compelled to hold online meetings for tasks that could be quickly resolved in the office, which both slowed down their work and increased their workload.
- Attempting to resolve issues via email that could be quickly concluded through oral communication in the office created communication difficulties and further slowed down the process.

Agile Working

Agile working allows employees to choose where, when, and how they work, offering maximum freedom and minimal constraints for optimal performance (Rad & Rad 2022). The automobile brand's new office spaces were expected to incorporate solutions and designs that would facilitate agile team activities and interactions. Considerations for designing office spaces to support an agile organization included remote and hybrid working practices, agile transformation, and agile work activities. However, concerns arise about company culture and team cohesion during remote work periods. Organizations striving for diverse and inclusive workplaces face challenges in maintaining these aspects without full-time, face-to-face interactions (Candido et al., 2024). Research on the impact of physical proximity on team cooperation emphasized that the 'hybrid' model presented the most significant challenge to cooperation within agile teams. In this model, limitations on team members' involvement in collective work activities could negatively affect cooperation. The automobile brand's employees acknowledged the permanence of hybrid working and were aware of the risks outlined below:

- They advocated for designs that seamlessly integrated physical and virtual collaboration. This involved providing the necessary hardware and applications to facilitate effective collaboration among teams, whether working from the office or remotely. Examples included incorporating digital boards into the physical environment.
- They believed it was essential and advantageous for agile teams to convene physically at specific intervals. They argued that physical proximity was more conducive and efficient, especially in one-on-one meetings and when addressing problem-solving situations.

The automobile brand's employees identified spatial interactions as critical elements for agile transformation, as follows:

- It was important for agile transformation and belonging for employees to be able to experience the work families/tribes they belonged to in physical and digital environments.
- There was an emphasis on the storytelling and performance practices and physical facilities that would facilitate these were needed to share knowledge and experience that would serve the brand's agile transformation.
- Physical proximity was deemed valuable for agile teams as it fostered stronger bonds among team members and facilitated faster and more effective work.
- Establishing a 'home' for tribes was considered essential for enhancing teamwork, accessibility, and visibility. However,
 it was crucial to acknowledge that squad members might be situated on different campuses and could be part of
 multiple teams rather than exclusively working for one.
- As part of strengthening teams and individuals through agile transformation, it was emphasized that removing symbols of hierarchy, such as executive rooms, was necessary to encourage the shift away from old working habits.
- The importance of forming close relationships with the Chapter, particularly for young team members and newcomers to the brand, in the process of gaining experience, was underlined.

Socialization

There has been an ongoing debate on returning to work after COVID (Mitchell, 2023). Many employees strongly resisted a return to the office, having experienced well-being, productivity, and autonomy benefits from remote and hybrid work arrangements. These benefits led to a preference for maintaining the flexibility that remote and hybrid models provided (Gibson, 2023). On the contrary, some employees preferred the office over home for socialization, management contacts, and collaboration, expressing a desire to return to the office. Remote work, by eliminating the random and repetitive encounters common in the workplace, made it difficult for these employees to navigate the complex workplace hierarchy, understand expectations, demonstrate improvement, and feel valued for their contributions. Remote workers expressed a need for an office environment to collaborate with their teams, establish social relationships, and develop both personal and professional connections (Babapour Chafi et al., 2021). These facts underscored the importance of relationship-building among automobile brand employees. However, it also highlighted a new issue: the decline of socialization opportunities in the current office settings.

- At the automobile brand offices, even employees who preferred working from home acknowledged the need for the
 office to socialize. Co-worker friendships and social ties were strong, and the workplace was viewed as a 'family
 environment'.
- The decrease in random and repetitive encounters, along with the interruption of informal communication due to remote working, caused employees to feel isolated. They felt trapped by their own team's agenda and were unaware of what was happening in the company.
- While the lack of opportunities to take breaks and socialize in the workplace was a common complaint, there were also concerns that managers did not welcome these activities.
- There was an expectation for a workplace enriched with opportunities that would highlight the advantages and prestige of the automobile brand while providing chances for socialization and relaxation.
- There was a need for social spaces that would enable more 'comfortable' and flexible use, making employees feel that life continued at the workplace, rather than the 'military order' stemming from the production culture.
- Social areas shared with field employees on factory campuses needed improvement, and the redesign of offices should consider fostering a sense of equality with production employees.
- Menus offering a variety of meals, different food and beverages, and café options were also frequently mentioned.
- There was a need for waiting and hosting areas to accommodate visitors.

Alongside facilitating opportunities for socialization, the office was also expected to accommodate employees' design preferences:

- There was a desire for a greener workplace that fostered a connection with nature, incorporating interior plants and outdoor spaces designed for both socializing and working.
- Employees expressed a strong preference for utilizing daylight and moving away from the strict order and predominant use of blue color in existing offices.
- There was an expectation for office designs to prioritize environmental sustainability and reduce the carbon footprint.

Urban Interaction

Global trends have indicated a shift towards viewing the office as part of a broader ecosystem that includes the home, urban spaces, and collective workspaces(Amen & Nia, 2020; Aziz Amen, 2022; Gün, 2023; Odunlade & Abegunde, 2023)

. The office plays a central role in this ecosystem, serving as an intersection of city dynamics and employer policies. Corporate entities are increasingly exploring innovative spaces to adapt to this evolving paradigm. While the challenges posed by the distance of the automobile brand's campuses from city facilities could be addressed by the social areas and opportunities mentioned earlier, it was suggested that hub offices located near talent pools might be established. These hub offices would enable the automobile brand to connect with startup initiatives, particularly in areas targeted for strategic growth.

3.2 Research Findings on Time Policies

Previous research suggested that employees preferred a hybrid work model, with three days spent in the office, one and a half days working from home, and half a day in an alternative workspace. Two-thirds of employees wanted to continue working in different places in the future. Research conducted during the pandemic showed that employees' assessments of productivity while working from home had begun to decline, while their expectations regarding the quality and amenities of their office spaces had risen. In the case of the automobile brand, it appeared that employees were generally satisfied with working 50% remotely and 50% in the office, and they wanted to continue working this way after the pandemic.

- The prominent factors in choosing to work 50% remotely and 50% in the office were stated as saving time spent on transportation, avoiding traffic stress, the comfort provided by home, facilitating the maintenance of home and family order, and enjoying the benefits of being more integrated with city life.
- Working from home presented several disadvantages, including feelings of loneliness, decreased physical activity, and the absence of amenities such as access to food and beverages.
- The significance of physical togetherness and direct communication is highlighted, emphasizing their importance in fostering trust and strength within the team, especially when confronted with difficult situations.
- One reason that necessitated office work and team collaboration was the development of prototypes and products.

- Given the pandemic conditions, the inability to physically collaborate with teams became a primary reason for office attendance and diminished motivation to return to the office.
- Although a strict 50%-50% working arrangement might not have been feasible for teams closely linked to production, the option to work from home when necessary provided employees with flexibility.
- Some employees contested the idea of a uniform model, arguing that it wasn't suitable for everyone. They believed that going to the office should be based on activity and necessity.
- For instance, while some employees opted to spend time in the office during numerous online meetings to avoid inactivity and related concerns, others preferred attending these meetings from home to avoid disturbing those around them.
- If team members worked closely together or independently with little need for physical closeness beyond socialization and alignment, less than fifty percent of their workdays might be spent in the office. For instance, it was suggested that having the whole team meet in person in the office one week each month would be more suitable.
- Working hours were suggested to be flexible, particularly to accommodate the demands of younger workers. The time spent in the office should be differentiated for new hires, focusing on learning the job, orientation, meetings, and bonding with other employees. Similarly, physical unity was necessary for newly established teams.

3.3 Research findings on Hybrid Work Culture

The hybrid workplace model offers flexibility, better work-life balance, and autonomy, leading to higher engagement and a more productive, healthy, and stable workforce (Tarigan, 2023). There is a growing trend towards empowering, encouraging, and guiding employees towards initiatives that align with the organization's macro strategies and goals, while also promoting employee autonomy. Particularly among younger employees, there is an increasing demand for the ability to manage their own work and determine when and how tasks are completed (Ateeq, 2022). On the other hand, managers dealing with remote working conditions face challenges in devising and executing management approaches, primarily due to their inability to physically monitor their employees (Hamouche, 2023). As a result, managers are increasingly demanding constant readiness and availability from employees, while employees feel that their contributions to their roles and organizations are less noticeable, resulting in perceived constraints on their career advancement prospects. Within the context of the automobile company:

- Employees desired to experience the sense of freedom, flexibility, and the ability to intervene in the work environment that they had felt while working remotely, when they were in the office.
- Older employees, with longer tenure at the automobile company, expressed empathy towards the higher demands of younger employees, acknowledging that they, too, benefited from this evolving dynamic.
- Employees observed a perceived decline in the disciplined and strict production culture, which had traditionally been considered effective at the automobile company, in recent times.
- Despite the increased frequency of online meetings between employees and senior management, there was a
 perception that it had not maintained its previous level of motivation and effectiveness in enhancing interaction with
 senior leadership.
- While the automobile company was recognized as a prestigious entity committed to continuous improvement, employees emphasized that its true strength lay in the experiences of its workforce.
- Employees expressed feeling valued by the organization; nevertheless, they also indicated feeling exhausted due to the recent intense work tempo, the ongoing transformation process, and the impact of the pandemic.

4. Discussion

Based on the evolving dynamics of spatial organization, timing, and hybrid work culture, the future office should have embraced an activity-based layout that balances individual focus with agile team collaboration. Consequently, recommendations for the physical design of new offices, aligned with SDG 8 targets, are presented in the following table and elaborated upon below. In line with SDG 8.2, which emphasizes innovation and collaboration, four major concepts emerged: Agile Working, Virtual Collaboration, Socialization, Urban Interaction.

Agile working solutions aimed to thrive on adaptability and collaboration, enhancing productivity and innovation within the workplace (Figure 3). A key solution would be ensuring a sufficient number of focused work areas where employees could delve into tasks without distraction, improving concentration and efficiency. Additionally, offering a range of diverse agile team activities and designated areas within the interactive space would increase collaboration and creativity among teams, driving towards shared goals. By providing platforms, organizing events, and fostering a culture of inclusivity, companies can enhance team dynamic, productivity and promote employee well-being (Johnson et al., 2020). Implementing ergonomic solutions tailored to various working modalities would ensure comfort and well-being, supporting employees in achieving their best work. Equipping common rooms with sound insulation would further meet employees' needs for privacy during focused work, enhancing concentration and productivity. Moreover, agile working acknowledges the privacy and isolation requirements of specialized groups such as internal, legal, and human resources audits, ensuring confidentiality and effectiveness in their tasks. Providing opportunities for physical mobility during work tasks and breaks not only promotes employee health but would also foster a dynamic work environment conducive to creativity and innovation (Laughton & Thatcher, 2018). By planning for squad members to be in the office together, agile working increases physical collaboration opportunities, strengthening teamwork

and synergy. Periodically rearranging plans during workdays would promote unplanned encounters, fostering spontaneous interactions that stimulated fresh ideas and creativity. Creating a protocol for agile team activities and meetings, both physical and virtual, with guidance for activity-based office use would ensure seamless communication and collaboration across teams. Additionally, implementing a protocol for newly hired employees and their teams to work together in the office during the onboarding process would facilitate integration and engagement within the agile working culture from the outset.



Figure 3. **Agile working** solutions and strategic organization of social, interactive, and individual areas (by the design team I-AM)

Virtual collaboration in the new office workplaces would rely on a multifaceted approach aimed at maximizing efficiency and connectivity (Figure 4). Firstly, the incorporation of numerous virtual collaboration spaces would ensure that teams have dedicated areas equipped with the necessary technology for seamless online meetings and discussions. Moreover, the integration of new technological advancements would play a pivotal role in enhancing the virtual collaboration experience, offering features such as high-definition video conferencing and real-time document sharing. To optimize the use of virtual meetings, data analytics-driven strategies would be implemented, analyzing patterns to reduce their frequency and intensity while maintaining productivity. Additionally, the integration of technologies like telepresence and digital boards would facilitate both physical and virtual collaboration, enabling seamless interaction between remote and in-person team members. Meeting room reservation systems and office applications would also be deployed to monitor workspace usage, potentially incorporating sensors for anonymous tracking, ensuring efficient utilization of available resources. Furthermore, the provision of a free brand application as a shared office opportunity would cater to employees whose home conditions were unsuitable for remote work, promoting inclusivity and accessibility in virtual collaboration efforts.



Figure 4. Virtual collaboration solutions in the new office workplace (by the design team I-AM)

Socialization in the new office would aim to cultivate a sense of belonging and community among employees. In the new office environment, interactive spaces would be established to facilitate tribes and squads' periodic rituals and collaboration, fostering stronger team bonds (Figure 5). Additionally, social and break areas would be designated to encourage spontaneous social interactions among colleagues, creating a more cohesive work community. Both physical and virtual collaboration would be facilitated through innovative technologies such as telepresence and digital boards, enabling seamless communication and teamwork regardless of physical location. Interest communities such as Space Living, Sustainable Living, Smart Office Data, and Young Community could be established to engage employees in the development of office spaces, providing opportunities for involvement and contribution. Furthermore, periodic events would be hosted where employees gathered at the office for well-being, personal development, learning, and socialization, promoting a supportive and enriching work culture.



Figure 5. Socialization solutions in the new office workplace (by the design team I-AM)

Urban interaction would be fostered in the evolving workplace landscape by integrating select city facilities into office campuses, bridging the gap between work and the surrounding community (Figure 6). Moreover, experimental office spaces could be established to cultivate collaboration and creativity, strategically aligning with urban dynamics, startup initiatives, and talent pools. This approach would not only enhance interaction within the workspace but also would strengthen ties with the broader urban environment, fostering innovation and engagement.



Figure 6. Urban interaction solutions in the new office workplace (by the design team I-AM)

In alignment with SDG 8.8, which focuses on work conditions, safety, and the prioritization of well-being, three fundamental concepts have emerged: Physical Well-being, Mental Well-being, Employee Engagement and Culture.

Physical well-being initiatives would cover a range of measures designed to promote employees' health and comfort in the workplace (Figure 7). This included implementing various ergonomic solutions customized to different working modalities to

ensure that employees could work comfortably and safely. Additionally, providing opportunities for physical mobility during work tasks and breaks could encourage employees to stay active throughout the day, reducing the risks associated with sedentary behavior. Hygiene standards in shared areas were also crucial for safeguarding employees' health, particularly in light of recent public health concerns. Equipping common rooms with sound insulation further enhanced physical well-being by providing employees with the privacy and quiet they needed for focused work, contributing to a healthier and more productive work environment.

Mental well-being enhancement in the workplace was essential for fostering employees' emotional and psychological health. Introducing wellness programs and initiatives aimed at promoting mental well-being was a proactive step in this direction. These programs could include activities such as mindfulness sessions, stress management workshops, and counselling services to help employees cope with work-related stress and challenges. Designating social and break areas within the office environment also played a crucial role in fostering social interactions and providing employees with opportunities to connect with their colleagues. Furthermore, hosting periodic events, whether every three months or six months, where employees gathered for well-being, personal development, learning, and socialization, could break from their usual work routines and contribute to a positive work culture. These events would include both on-site and off-site activities, offering employees a chance to unwind, recharge, and build meaningful connections with their peers.

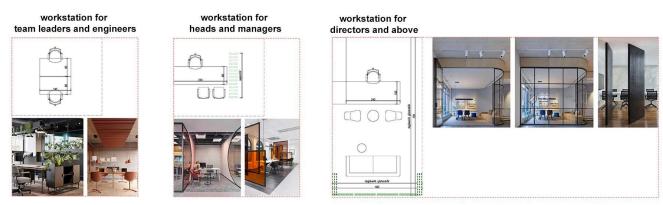


Figure 7. **Physical well-being** solutions through various working modalities in the new office workplace (by the design team I-AM)

Employee engagement and culture were also essential components of thriving the new workplace environment. Allocating showcase areas within the office premises would serve as a platform for employees to showcase their talents and creativity, fostering broad participation and innovative business activities. Furthermore, organizing special events like "the brand's break day" could provide employees with unique opportunities to engage with their colleagues and experience the office space in a different light, promoting a sense of belonging and camaraderie. Additionally, ensuring effective retrospective meetings in designated spaces, such as the brand's culture and social life centre in Kocaeli, would allow team members to reflect on their achievements and bond over shared experiences. These half-day celebrations, complete with refreshments, cultural events, and customizable packages, could contribute to building a strong brand culture rooted in collaboration, celebration, and community.

Eventually, when the project was handed over to designers skilled in sustainable interiors, the suggestions for the design of the physical workspace to fulfil SDG targets 8.2, 8.4, and 8.8 were further solidified. These suggestions are detailed in Table 3 and visualized on the conceptual boards, depicting the new workplace as shown in Figures 3-7 above.

The new workplace design features flexible and convertible, multi-functional areas with a fluid space setup that facilitates interaction between interactive, individual, and social spaces while also providing defined areas. The entrance and reception area features a prestigious and inclusive entry moment, characterized by smooth spatial flows. It creates an atmosphere of greenery, modernity, and wellbeing, reminiscent of a cozy and inviting home. By merging hospitality with functional workspaces, it presents a contemporary design featuring comfortable modular arrangements. The inviting ambiance is further enriched by various uses of greenery and warm colors revealing a welcoming, dynamic, and motivating message (Figure 6).

The design of the interactive working space emphasizes its adaptability to contemporary working styles, with common areas tailored for hybrid working setups. These areas prioritize comfort and encourage interactive collaboration. By integrating different functions, the environment fosters teamwork and creativity. Flexible meeting spaces and points allow for diverse interactions, complemented by a modern design language infused with biophilic elements to promote wellbeing. The space accommodates various working models and encourages socialization, while also providing closed, private meeting areas for confidential discussions. Its structures are designed to be flexible, capable of expanding or shrinking according to requirements, with options available for booking meetings (Figure 3).

The innovative use of digital technology enhances the perception of being "new and current," while fictional elements inspire creativity and collaboration. Additionally, the space is equipped to handle crowded meetings, featuring modular and multifunctional areas suitable for sprint reviews and other collaborative activities (Figure 4).

The individually focused work space is carefully crafted to prioritize focus, privacy, and silence. It features relaxing colors and warm materials to create a calming atmosphere. Accessible, modular, and integrated locker solutions are provided for convenience. The environment is designed to be natural and biophilic, promoting a sense of connection with the outdoors. A fluid, interactive, and screen-free table layout encourages productivity and creativity. A stylized and quiet work corner offers a serene space for uninterrupted concentration. Ergonomic, flexible, and functional elements contribute to a comfortable working environment. Bright and spacious areas enhance the overall ambiance, while inspiring and accessible vending machines provide convenient refreshments. Additional functions seamlessly integrated into the workspace ensure efficiency and versatility for individual tasks (Figure 7).

The social areas include break and hospitality zones, which provide easily accessible spots for socializing and quiet settings that resemble library settings. Gourmet health options from brand partnerships are combined with integrated conveniences like kitchenettes and mobile service facilities to ensure a diversity of meal experiences. While areas with physical and/or online games attempt to improve the overall work experience, these zones also act as socialization spaces (Figure 5).

Table 3. Suggestions for spatial design improvements aligned with SDG 8 targets

ECONOMIC SUSTAINABILITY	THE DESIGN OF THE WORKSPACE
Target 8.2: Achieve higher levels of	
economic productivity through	• Initiatives aimed at factoring an inclusive environment that embraces diversity
diversification, technological	• Initiatives aimed at fostering an inclusive environment that embraces diversity.
upgrading and innovation,	• Implementing strategies to ensure representation and participation from all backgrounds.
including through a focus on high-	• Creating collaborative spaces that encourage diverse perspectives and idea-sharing.
value added and labour-intensive	by Promoting Inclusivity and Diversity to Drive Innovation
sectors	
	Ensuring sufficient number of focused work areas
	Offering diverse agile team activities and designated areas within the interactive space
	• Implementing different ergonomic solutions tailored to various working modalities
Agile Working	• Equipping common rooms with sound insulation to meet employees' needs for focused
	work and privacy
	• Incorporating the privacy and isolation requirements of center of excellence groups such as
	internal, legal, and human resources audits
	• Providing opportunities for employees to enhance physical mobility during certain work
	tasks and during breaks
8 8	• Increasing physical collaboration opportunities for teams by planning for squad members
	to be in the office together
	• Periodically rearranging plans during workdays in the office to promote unplanned and
	repeated encounters, fostering spontaneous interactions that encourage creativity
	 Creating a protocol for agile team activities and meetings to be conducted both physically
	and virtually, with guidance provided for activity-based office use
	 Implementing a protocol for newly hired employees and their teams to work together in
	the office for a designated period during the onboarding process
	Incorporating an adequate number of virtual collaboration spaces
	Integrating new technological advancements to enhance virtual collaboration
	 Implementing data analytics-driven strategies to reduce the frequency and intensity of
	online meetings
	 Facilitating both physical and virtual collaboration through technologies such as
Virtual Collaboration	telepresence and digital boards
	 Implementing meeting room reservation systems and office applications to monitor
	workspace usage, possibly with sensors for anonymous tracking
	 Offering a free brand application as a shared office opportunity for employees whose home
	conditions are unsuitable for remote work
	Establishing interactive spaces for tribes and squads' periodic rituals and collaboration
	Designating social and break areas to encourage social interactions
	 Facilitating both physical and virtual collaboration through technologies such as
	telepresence and digital boards
Socialization	• Establishing interest communities such as Space Living, Sustainable Living, Smart Office
	Data, and Young Community to engage employees in the development of office spaces
	 Hosting periodic events where employees gather at the office for well-being, personal
	development, learning, and socialization
	Fostering urban interaction by integrating some city facilities into the office campuses
Urban Interaction	
	• Establishing experimental office spaces that foster collaboration and creativity to align with
	urban dynamics, startup initiatives, and talent pools, thereby enhancing interaction

-	
Target 8.4: Improve progressively,	
	Incorporating energy-efficient design elements and utilizing eco-friendly materials.
	• Implementing waste reduction and recycling programs to minimize environmental
production and endeavour to	, , , ,
•	 Promoting sustainable behaviors and encouraging responsible resource usage among
environmental degradation, in	
	by Integrating Sustainable Practices to Minimize Environmental Impact
	In 2018, the automobile brand actively participated in WWF-Turkey's Green Office Program,
	demonstrating its commitment to minimizing its impact on natural resources through eco-
	conscious design.
countries taking the lead	
	Sustainability Strategies in Green Offices and Production Facilities
	Climate crisis and energy management
	Waste management and circular economy
	Water management
Target 8.8: Protect labour rights	
and promote safe and secure	
working environments for all	• Implementing ergonomic designs and providing resources to support physical health.
workers, including migrant	• Introducing wellness programs and initiatives to promote mental well-being.
workers, in particular women	• Establishing a supportive culture that prioritizes work-life balance and stress management.
migrants, and those in precarious	by Enhancing Employee Well-being to Address Physical and Mental Health Needs
employment	
cp.cyc	Implementing different ergonomic solutions tailored to various working modalities.
	Providing opportunities for employees to enhance physical mobility during certain work
	tasks and breaks.
Physical Well-being	• Ensuring hygiene standards in shared areas.
	• Equipping common rooms with sound insulation to meet employees' needs for focused
	work and privacy.
	Introducing wellness programs and initiatives to promote mental well-being.
Mental Well-being	 Introducing weilness programs and initiatives to promote mental weil-being. Designating social and break areas to encourage social interactions.
	Hosting periodic events (every three months, every six months, etc.) where employees
	gather at the office for well-being, personal development, learning, and socialization. These
	events will break from their usual work routines and include both on-site and off-site
	activities.
Employee Engagement and Culture	• Allocating showcase areas to facilitate broad participation and creative business activities.
	• Organizing a "The Brand's Break Day" where employees can participate in various events
	and activities, offering them the chance to experience their new offices in a different way.
	• Ensuring effective retrospective meetings that should gather team members in a designated
	space, possibly at the brand's culture and social life center owned by the brand in Kocaeli.
	These half-day celebrations could include refreshments, cultural events, and customizable
	packages, starting with breakfast and ending with a yoga class.
	packages, starting with breakfast and ending with a yoga class.

5. Conclusion

This study investigated the economic sustainability of contemporary work environments, exploring how interior design strategies can contribute to OECD Goal 8, which emphasizes decent work and economic growth. Through a pilot research conducted for a global automobile brand, it addressed evolving functional and emotional requirements, taking into account employee pain points and expectations. Furthermore, it took into account new spatial, temporal and cultural dynamics such center of excellence requirements, as tribe-squad-chapter relationships, and diverse working modes across departments and teams. As a result of research and insight generation stages, five main themes stood out for the reorganization of physical work environment which were individually focused tasks, agile working, virtual collaboration, socialization, and urban interaction. Eventually, the conceptual design project crafted in line with these themes included agile working, virtual collaboration, socialization, and urban interaction solutions, aiming to fulfil target 8.2 promoting inclusivity and diversity to drive innovation. Additionally, the conceptual design project addressed physical needs, mental health needs, and employee engagement and culture solutions in order to meet target 8.8, enhancing employee well-being.

The key finding of this paper is that simply incorporating sustainable practices such as energy, waste, and water management in green offices is insufficient for brands to achieve economic sustainability. To genuinely attain economic sustainability, it is essential to integrate SDG 8 objectives into the spatial, temporal, and cultural dimensions of the modern workplace. Emerging work models and reimagined workspaces must aim to improve employee satisfaction, performance, and overall organizational success. This requires a comprehensive research into user needs and expectations, along with a holistic design approach, for brands committed to sustainability.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of Interests

The Author(s) declare(s) that there is no conflict of interest.

References

- Ateeq, K. (2022, February). Hybrid working method: An integrative review. In 2022 International conference on business analytics for technology and security (ICBATS) (1-8). IEEE. 10.1109/ICBATS54253.2022.9759041.
- Afara, A., Amen, M. A., Ayoubi, M. El, Ramadhan, D., & Alani, J. (2024). Arguing Faux Biophilia Concepts in F&B Interior Design: A Case Study Applied in Duhok City. Civil Engineering and Architecture, 12(2), 1091–1103. https://doi.org/10.13189/cea.2024.120231
- Amen, M. A., Afara, A., & Muhy-Al-din, S. S. (2024). The Persuasibility of Globe Thermometer in Predicting Indoor Thermal Comfort Using Non-standard Globe Diameter: Row Houses of Semi-Arid Climates as Case Studies. Civil Engineering and Architecture, 12(1), 425–435. https://doi.org/10.13189/cea.2024.120132
- Amen, M. A., & Nia, H. A. (2020). The effect of centrality values in urban gentrification development: A case study of erbil city. Civil Engineering and Architecture, 8(5), 916–928. https://doi.org/10.13189/cea.2020.080519
- Aziz Amen, M. (2022). The effects of buildings' physical characteristics on urban network centrality. Ain Shams Engineering Journal, 13(6), 101765. https://doi.org/10.1016/j.asej.2022.101765
- Gün, A. (2023). Urban Design Evolved: The Impact of Computational Tools and Data-Driven Approaches on Urban Design Practices and Civic Participation. Journal of Contemporary Urban Affairs, 7(1). https://doi.org/10.25034/ijcua.2023.v7n1-16
- Odunlade, O., & Abegunde, A. A. (2023). Territoriality in Post-conflict Neighbourhoods: Unravelling the Dynamics of Territorial Marks in Ile-Ife, Nigeria. Journal of Contemporary Urban Affairs, 7(1), 69–85. https://doi.org/10.25034/ijcua.2023.v7n1-5
- Babapour Chafi, M., Hultberg, A., & Bozic Yams, N. (2021). Post-Pandemic Office Work: Perceived Challenges and Opportunities for a Sustainable Work Environment. *Sustainability*, 14(1), 294. griggshttps://doi.org/10.3390/su14010294
- Barath, M., & Schmidt, D. A. (2022). Offices after the COVID-19 pandemic and changes in perception of flexible office space. Sustainability, 14(18), 11158. https://doi.org/10.3390/su141811158
- Candido, C., Avazpour, B., & Durakovic, I. (2024). Office design. In C. Candido, I. Durakovic, & S. Marzban (Eds.), Routledge handbook of high-performance workplaces (3-17). Routledge.
- Cazes, S., A. Hijzen and A. Saint-Martin (2015), "Measuring and Assessing Job Quality: The OECD Job Quality Framework", OECD Social, Employment and Migration Working Papers, No. 174, OECD Publishing, Paris, https://doi.org/10.1787/5jrp02kjw1mr-en.
- Davvies, G. (2019). Digital transformation and the future office. In N. Gillen (Ed.), Future office (41-54). Routledge. https://doi.org/10.4324/9780367814564
- Durand, M. (2015). The OECD Better Life Initiative: How's Life? and the Measurement of Well-Being. *Review of Income and Wealth*, 61(1), 4-17. https://doi.org/10.1111/roiw.12156
- Fenner, R., & Cernev, T. (2021). The implications of the Covid-19 pandemic for delivering the Sustainable Development Goals. Futures, 128, 102726. https://doi.org/10.1016/j.futures.2021.102726
- Gibson, C. B., Gilson, L. L., Griffith, T. L., & O'Neill, T. A. (2023). Should employees be required to return to the office?. Organizational Dynamics, 52(2), 100981. https://doi.org/10.1016/j.orgdyn.2023.100981
 Griggs, D., M. Stafford Smith, J. Rockström, M. C. Öhman, O. Gaffney, G. Glaser, N. Kanie, I. Noble, W. Steffen, and P. Shyamsundar. 2014. An integrated framework for sustainable development goals. Ecology and Society 19(4): 49. http://dx.doi.org/10.5751/ES-07082-190449
- Hales, R. and Birdthistle, N. (2022). The Sustainable Development Goals SDG#8 Decent Work and Economic Growth. Birdthistle, N. and Hales, R. (Ed.) Attaining the 2030 Sustainable Development Goal of Decent Work and Economic Growth (Family Businesses on a Mission). Emerald Publishing Limited, Leeds, pp. 1-9. https://doi.org/10.1108/978-1-80382-487-120221001
- Halim, N. H., Arita Hanim Awang, Noraini Ahmad, Nurlelawati Ab Jalil, Syakir Amir Ab. Rahman, Norzailawati Mohd. Noor, Abdul Razak Sapian, & Norfazillah Ahmad. (2022). The Readiness of Smart Office Interior Implementation in Malaysia. Proceedings of the International Conference of Contemporary Affairs in Architecture and Urbanism-ICCAUA, 5(1), 91–96. https://doi.org/10.38027/ICCAUA2022EN0081.
- Hamouche, S. (2023). Human resource management and the COVID-19 crisis: Implications, challenges, opportunities, and future organizational directions. *Journal of Management & Organization*, 29(5), 799-814. https://doi.org/10.1017/jmo.2021.15
- Helmold, M. (2021). New Office Concepts in the Post COVID-19 Times. In: New Work, Transformational and Virtual Leadership.

 Management for Professionals. Springer, Cham. https://doi.org/10.1007/978-3-030-63315-8 7
- Ibn-Mohammed, T., Mustapha, K. B., Godsell, J., Adamu, Z., Babatunde, K. A., Akintade, D. D., ... & Koh, S. C. L. (2021). A critical analysis of the impacts of COVID-19 on the global economy and ecosystems and opportunities for circular economy strategies. *Resources, Conservation and Recycling*, 164, 105169.https://doi.org/10.1016/j.resconrec.2020.105169

- Johnson, A., Dey, S., Nguyen, H., Groth, M., Joyce, S., Tan, L., ... & Harvey, S. B. (2020). A review and agenda for examining how technology-driven changes at work will impact workplace mental health and employee well-being. Australian Journal of Management, 45(3), 402-424.https://doi.org/10.1177/0312896220922292.
- Kane, G. C., Palmer, D., Phillips Nguyen, A. & Kiron, D. (2021). Beyond surviving: Developing a digital resilience mindset. In P. Michelman (Ed.), *The transformation myth: Leading your organization through uncertain times* (19). MIT Press.
- Kane, C. (2022). The Future Workplace: Reimagining the Office for the Twenty-first Century. In: Just, T., Plößl, F. (eds) European Cities After COVID-19. *Future of Business and Finance*. Springer, Cham. https://doi.org/10.1007/978-3-030-89788-8 16
- Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., Bamberger, P., Bapuji, H., Bhave, D. P., Choi, V. K., Creary, S. J., Demerouti, E., Flynn, F. J., Gelfand, M. J., Greer, L. L., Johns, G., Kesebir, S., Klein, P. G., Lee, S. Y., Vugt, M. v. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, 76(1), 63–77. https://doi.org/10.1037/amp000071.
- Laughton, K.-A. & Thatcher, A. (2018), "Health and wellbeing in modern office layouts: the case of agile workspaces in green buildings", in Bagnara, S., Tartagalia, R., Albolino, S., Alexander, T. and Fujita, Y. (Eds), Proceedings of the 20th Congress of the International Ergonomics Association. IEA 2018. Advances in Intelligent Systems and Computing, Vol. 825, 831-840.
- Littig, B., & Griessler, E. (2005). Social sustainability: a catchword between political pragmatism and social theory. *International journal of sustainable development*, 8(1-2), 65-79. https://doi.org/10.1504/IJSD.2005.00737
- Lu, J., Liang, M., Zhang, C., Rong, D., Guan, H., Mazeikaite, K., & Streimikis, J. (2021). Assessment of corporate social responsibility by addressing sustainable development goals. *Corporate Social Responsibility and Environmental Management*, 28(2), 686-703. https://doi.org/10.1002/csr.2081
- Mitchell, A. (2023). Collaboration technology affordances from virtual collaboration in the time of COVID-19 and post-pandemic strategies. *Information Technology & People*, *36*(5), 1982-2008. DOI 10.1108/ITP-01-2021-0003
- Nediari, A., Roesli, C., & Simanjuntak, P. M. (2021, April). Preparing post Covid-19 pandemic office design as the new concept of sustainability design. In IOP Conference Series: Earth and Environmental Science (Vol. 729, No. 1, p. 012095). IOP Publishing. DOI 10.1088/1755-1315/729/1/012095
- Pataki-Bittó, F., & Kapusy, K. (2021). Work environment transformation in the post COVID-19 based on work values of the future workforce. Journal of Corporate Real Estate, 23(3), 151-169. DOI: 10.1108/JCRE-08-2020-0031
- Rad, D., & Rad, G. (2021). Going Agile, a Post-Pandemic Universal Work Paradigm A Theoretical Narrative Review. *Postmodern Openings*, 12, 337-388. https://doi.org/10.18662/po/12.4/380.
- Rishi, S., Breslau, B., & Miscovich, P. (2021). The workplace you need now: Shaping spaces for the future of work. John Wiley & Sons. ISBN: 978-1-119-81480-1https://iopscience.iop.org/article/10.1088/1755-1315/729/1/012095
- Sadick, A. M., & Kamardeen, I. (2020). Enhancing employees' performance and well-being with nature exposure embedded office workplace design. *Journal of Building Engineering*, 32, 101789. https://doi.org/10.1016/j.jobe.2020.101789.
- Tarigan, S. G., Mannan, K. A., & Uddin, N. (2023, November). The Future of Workplace in Greater Jakarta: Hybrid Office in the Post Covid-19 Pandemic. In IOP Conference Series: Earth and Environmental Science (Vol. 1218, No. 1, p. 012026). IOP Publishing. https://doi.org/10.1088/1755-1315/1218/1/012026
- Umar, M., Zia-ul-haq, H.M., Ali, S., Yusliza, M.Y. (2021). Post COVID-19 Development of Sustainable Production and Consumption Systems. In: Chiappetta Jabbour, C.J., Khan, S.A.R. (eds) Sustainable Production and Consumption Systems. Industrial Ecology. Springer, Singapore. https://doi.org/10.1007/978-981-16-4760-4_4
- Umishio, W., Kagi, N., Asaoka, R., Hayashi, M., Sawachi, T., & Ueno, T. (2022). Work productivity in the office and at home during the COVID-19 pandemic: A cross-sectional analysis of office workers in Japan. *Indoor Air, 32*(1), e12913. https://doi.org/10.1111/ina.12913