The Influence of Physical Workplace Environment (PWE) for A Healthy Culture of Employees

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ARTICLE INFO	ABSTRACT
	The paper reviews the influence of the physical workplace environment (PWE) on the organisational culture of employees that can affect the employees' performance, well-being, satisfaction, engagement, and creativity. It emphasises that the physical environment can reflect and shape the organisational culture, which is the shared values, beliefs, and norms that influence how employees interact and work. A healthy workplace environment of an organisation will influence the innovation and collaboration between employees, decrease absenteeism and increase the performance of employees. The paper employs analytical reviews of the related articles to justify the influences of the physical workplace environment on employees' well-being in the organisational culture. The content analysis is used to analyse the literature framework of the article. The findings revealed the significance of the physical workplace environment on employees who are well-equipped with positive environment support, who will be highly satisfied and show a high level of commitment towards the organisation. It is essential to design a physical workplace environment aligned with the organisational culture and supporting the employee's needs and preferences. A well-designed physical workplace environment can enhance the organisation's communication, collaboration, innovation, and productivity and influence the employees' attitudes, behaviours, and outcomes.

1. Introduction

The physical workplace environment (PWE) has a significant impact on organizational culture and employee outcomes [1]. In addition, an open-plan office highlights the balance between privacy and communication [1]. Moreover, workplace design is linked to better collaboration, creativity and

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engagement contributing to overall organisational success [2]. The assignments given to employees are tailored based on the nature of the task and individual preferences [3]. The organization decides on the workspace in the office to align with the requirements of the job and the associated activities [3,4]. The organization takes a personalized approach to assigning work to its employees. Each task is carefully analysed to determine its nature and complexity [3]. The organization should consider the individual preferences and strengths of the employees before assigning them to the task. This is supported by Kamarulzaman *et al.,* [5] ensures that each employee is assigned tasks that best suit their skill set, ultimately benefiting both the organization and the employee.

One of the elements most important that should be considered by the organisation is the physical office environment, such as workspace allocation, lighting, temperature and noise that can impact the behaviour of the employees at work [6]. The management should consider the job requirements and the associated activities when deciding on the workspace in the office. Factors such as the need for privacy, collaboration, and communication are considered to ensure that the workspace aligns with the needs of the task at hand. By providing a suitable workspace, the organization aims to create a conducive and productive working environment for its employees. According to Kegel [6] the design of the workspace can affect organizational and employee outcomes, such as better communication, collaboration, creativity, and higher employee engagement, satisfaction, well-being, performance, and employee retention.

In other words, a positive physical office environment can be achieved by incorporating elements of safety and health [7]. Safety and health are crucial responsibilities in any workspace that involves employees and the organisation, and it is a collective responsibility to ensure well-being. Safety and health come from many angles for the offices for example from the physical office environment. Yanti *et al.,* [8] clearly state that performance is an essential tool to maintain employee focus. Furthermore, Kallio *et al.,* [9] argue that the physical office environment encompasses all the conditions surrounding the workspace that may directly affect employees. A positive work environment can significantly impact an employee's physical and mental well-being [6,9]. Every single factor, from lighting to temperature and everything in between, plays a significant role in creating an ideal workplace. The values of teamwork, communication, connection, collaboration, performance and creativity of the employee in the organisation can be improved with a positive environment.

According to Yanti *et al.,* [8], organizational culture embodies a shared set of beliefs and values that guide members in their work, shaping the proper approach to understanding, thinking, and feeling about work-related issues. These shared principles become ingrained as organizational norms. The strength of an organization's culture profoundly affects the employee's performance, steering the collective efforts towards achieving organisational goals.

2. Literature Review
2.1 The Elements for Healthy Workspace

According to Colenberg *et al.,* [10]*,* healthy workspaces must include the size, layout, furnishing and facilities.

i. A spacious size of workspace enables employees to navigate without feeling cramped, which is crucial for roles that involve physical activity or teamwork [11]. Sufficient room can alleviate stress and enhance productivity. The office's dimensions dictate the storage capacity. If the office is compact, storing all required files, equipment, and materials might be a challenge. This could result in disorder, which can adversely affect productivity and foster a tense work atmosphere. It's vital to factor in storage requirements when deciding on office size. In an

appropriately sized office, resources like printers, files, and supplies are readily available. This can conserve time and boost efficiency [12]. For instance, in an open-plan workspace, an equal amount of square footage is designated for each employee, typically around 175 square feet per person and 100 square feet in open workstations. Ample space is also significant for health and safety considerations. It facilitates proper social distancing, minimizes accident risks, and can aid in preventing disease transmission.

ii.   The selection of an office layout can influence numerous workspace aspects, including teamwork, privacy, communication, and overall productivity [1]. An office layout extends beyond a mere physical arrangement, the strategic workspace organization that can significantly affect employee interactions, resource availability, and task performance [13]. Layouts are designed to cater to specific work environments and organizational cultures [9]. Understanding the benefits and considerations of each layout type is crucial for creating a conducive and effective work environment [14]. Office layouts vary from traditional to contemporary designs, each addressing different work styles and organizational needs [15]. Haynes added a key factor to consider are temperature control, lighting, and noise level, particularly in open office layouts where employees work in proximity. There are various office layouts available, each with its unique advantages and considerations. Furthermore, the workspace layout should consider the organization and arrangement of different components within the workspace [16]. The office space layout is associated with several environmental factors, each pivotal role in shaping the employee's comfort and productivity levels [17].

iii.   Office furnishings' core elements include desks, chairs, and storage units [3]. These provide employees with individual workspaces and storage solutions. The choice of furniture is not only vital for establishing a functional and organized setting but also plays a significant role in ergonomics and employee wellness [18]. For instance, chairs and desks designed with ergonomics in mind promote proper posture, thereby mitigating discomfort and musculoskeletal issues. Appropriately adjusted chairs improve body posture and circulation, reduce muscle tension, and relieve back pressure [18]. An ideal chair should feature a swivel base, five wheels for stability, a breathable seat material, a rounded front edge, and adjustable seat height and backrest to support the lumbar region. Furthermore, office decorations influence the ambience and character of the workspace. Items like artwork, plants, or strategically placed decor can create an inspiring and visually appealing atmosphere [17]. Thoughtfully selected decorations contribute to a positive work environment, fostering creativity and pride in the workspace.

iv.   A workspace that is dynamic, comfortable, and functional can be created by incorporating various facilities that align with the organization's goals and values [3]. Adaptable workspaces are encouraged by using modular or movable furniture and flexible seating arrangements, which foster collaboration and adaptability [17]. Break areas are designed to be comfortable and equipped with recreational spaces, promoting relaxation and social interaction during breaks [9]. Wellness facilities like fitness areas and meditation rooms are included to enhance employee well-being. The aesthetics of the workspace are improved by green spaces, which incorporate indoor plants and provide a connection to nature. Finally, meeting spaces are made flexible to accommodate various meeting formats and sizes, including huddle rooms and conference rooms with adaptable furniture arrangements. These facilities collectively contribute to creating a workspace that is not only functional but also comfortable and dynamic.

2.2 Types of Workspace Layouts for Physical Workplace Environment (PWE)

There are different types of workspace layouts to suit different work styles and company needs [19,16,20]. Some of the common types are:

i.   Traditional Office

This layout consists of individual offices that are built-in or semi-permanent. It provides privacy and noise reduction but may also reduce collaboration and communication.

ii.   Cubicle Office

This layout uses partition walls to create cubicles or workstations. It is more space and cost-efficient than traditional offices but may also create a sense of isolation and monotony.

iii.   Low Partition Office

This layout is like the cubicle office, but with lower partition walls to allow lighter interaction. It is more modern and flexible but may also increase noise and distractions.

iv.   Team-Based Layout

This layout groups workers by team and combines individual workstations and collaboration spaces. It fosters teamwork and creativity but may also create conflicts and competition.

v.   Open-Plan Office

This layout eliminates partition walls and uses furniture to define work areas. It is very flexible and adaptable but may also reduce privacy and concentration.

2.3 The Influences of Physical Workplace Environment to Employees

The choice of office layouts can be dictated by an organization's unique requirements, the type of work conducted, and the preferences of the employees [17]. Preferences for workplaces can change over time, and a layout that is effective for one organization may not be appropriate for another [17]. The physical office layout plays an important role in the organization toward employees' performance, well-being, satisfaction, engagement and creativity [21].

i.   Employee Performance at the Workplace

An optimal office layout and conducive can enhance employee performance [4,8,17,21,22]. This can be achieved through the creation of a conducive environment for focused work, the use of ergonomic furniture, and efficient spatial planning [16]. These elements can minimize distractions and boost productivity [23]. For instance, providing quiet zones or individual workstations can support tasks that require intense concentration, while spaces designed for collaboration can promote teamwork that can increase the employee's productivity [18].

ii.   Employees Well-being with the Elements of Physical Workplace Environment

The physical conditions of the office environment play a crucial role in influencing employee well-being [21]. He added elements such as natural lighting, comfortable furniture, and adequate ventilation can create a positive and healthy workspace. This is supported by [24], a well-designed

office can alleviate stress, fatigue, and discomfort, thereby fostering physical and mental well-being among employees.

iii.   Employees' Satisfaction of Tasks Assigned

The comfort and functionality of the workplace are closely linked to employee satisfaction [25]. This is supported by [16], an office that is designed thoughtfully, considering employee preferences and needs, can contribute to a positive work experience. Amenities like comfortable seating, break areas, and other facilities can enhance overall job satisfaction.

iv.   Employee Engagement Among Team Members

The office layout can also affect employee engagement by promoting collaboration, communication, and a sense of community [20]. Open and flexible spaces can encourage interaction among team members, leading to a more engaged workforce [26]. Moreover, an office that is visually appealing and well-organized can foster a positive atmosphere, enhancing employee commitment to their work and the organization.

v.   Employees Creativity

The physical environment can either inhibit or stimulate creativity [27,28]. Office layouts that are innovative and incorporate flexible spaces, creative zones, and areas for collaboration can inspire employees to think creatively. A dynamic and visually stimulating workplace design can encourage unconventional thinking and the generation of innovative ideas.

2. Methodology

This paper conducts a comprehensive review of related articles to explore the impact of the physical workplace environment on employees' well-being within the context of organizational culture. The research primarily focuses on existing data related to workplace norms and practices associated with employee tasks. The information used in this paper is derived from secondary sources, including journal articles and academic research publications. The articles reviewed were published from 2003 onwards. Researchers from various countries have predominantly focused on the influence of the physical office environment on the values, practices, and training of employees within the organizational culture. The physical environment, whether positive or negative, can significantly influence employee task performance and directly impact the organizational culture, particularly when considering employee health [29].

Table 1 provides a summary of the research topics and findings from ten papers that discuss the impact of the physical workplace environment on organizational culture and its effect on employees at the workplace.

Table 1

Findings of Analytical Review of Article

No	Authors/Year	Title	Findings
1	Earle, Heather A., [17] (2003)	Building a workplace of choice: Using the work environment to attract and retain top talent.	The article provides examples of companies that have successfully used their workspaces to convey their corporate identity, enhance employee satisfaction and well-being, and foster a culture of creativity and collaboration the organizations need to understand the relationship between their work processes, people, technology, and space, and leverage the work environment to achieve their strategic objectives and improve their performance.
2	Kamarulzaman, N., A. A. Saleh, S. Z. Hashim, H. Hashim, and A. A. Abdul-Ghani [5] (2011).	An Overview of the Influence of Physical Office Environments towards Employees.	There is a growing body of literature that suggests workplace design can affect organizational and employee outcomes, such as better communication, collaboration, creativity, and higher employee engagement, satisfaction, well-being, performance, and employee retention. Good design can enhance the environment, communication, corporate identity, customer satisfaction and company profitability.
3	Kallio, Tomi J., Kirsi-Mari Kallio, and Annika Johanna Blomberg [9] (2015)	Physical space, culture, and organizational creativity–a longitudinal study.	The article explores how the design of a physical organizational environment can affect the emergence of a culture conducive to organizational creativity and identifies three aspects of organizational culture that are influenced by the physical space: openness, equality, and collectivity. These aspects are seen as mediating factors between physical space and organizational creativity.
4	Hardiyono, Hardiyono, Nurdjanah Hamid, and Ria Yusuf [4] (2017)	The effect of work environment and organizational culture on employees' performance through job satisfaction as intervening variable at state electricity company (Pln) Of South Makassar Area.	The work environment and organizational culture have a positive and significant effect on job satisfaction and employee performance and job satisfaction mediates the effect of work environment and organizational culture on employee performance.
5	Kegel, Paul [6] (2017)	The impact of the physical work environment on organizational outcomes: a structured review of the literature.	The importance of aligning the physical work environment with the organizational goals, culture, and strategy, the need for involving employees in the design process, and the potential for creating agile and adaptive workspaces that can support different types of work activities and preferences.
6	Skogland, Mari Anna Chatarina, and Geir Karsten Hansen [31] (2017)	Change your space, change your	The article explores how the design of a physical organizational environment can affect the emergence of an organizational

		spatial change management strategies.	culture conducive to creativity and the physical space plays a significant role in promoting change toward a culture that supports organizational creativity.
7	Nanayakkara, Kusal Tharinda, Sara Jane Wilkinson, and Sumita Ghosh [3] (2021)	Future office layouts for large organizations: workplace specialist and design firms' perspective.	The article identifies the main factors that influence office layout design, such as organizational culture, generation gap, flexibility, functionality, technology, acoustics, aesthetics, and sense of community and belonging.
8	Yanti, N. P. R., Mujiati, N. W., & Suwandana, G. M [8] (2021).	The influence of transformational leadership style, organizational culture, and physical work environment on employee performance in the tourism department of Bali, Indonesia.	The article finds that all three independent variables have a positive and significant effect on employee performance, meaning that the higher the transformational leadership style, organizational culture, and physical work environment, the higher the employee performance.
9	Alkharabsheh, Omar Hamdan Mohammad, Amar Hisham Jaaffar, Ying-Chyi Chou, Erni Rawati, and Pok Wei Fong [22] (2022)	The Mediating Effect of Fatigue on the Nature Element, Organizational Culture and Task Performance in Central Taiwan.	Fatigue has a negative direct effect on task performance and also mediates the relationship between organizational culture and task performance, as well as the relationship between the nature element and task performance. It highlights the importance of employers in providing a healthy workplace that promotes collaboration, health, safety, and the well-being of the employees in line with the recommendations of the World Health Organization (WHO).
10	Nanayakkara, Kusal, Sara Wilkinson, And Dulani Halvitigala [30] (2022)	Workplace design changes and their impact on organizational culture.	The article finds that all organizations in the study experienced culture changes with the changes in office layouts and that the clan culture, which emphasizes teamwork and collaboration, became the dominant culture type after the introduction of ABW settings.

3. Results

The physical workplace environment (PWE) and workspace layout can significantly influence the organisational culture and values, which in turn can impact employee productivity, efficiency, and overall job satisfaction. Here's a possible interpretation of the relationships:

Organisational Culture and Employee Outcomes

A positive organisational culture that values employee well-being can lead to increased productivity and efficiency. When employees are comfortable in their workspace and feel valued by their organisation, they are likely to be more engaged, motivated, and productive. Furthermore, employees will remain in the organisation and reduce the retention of employees.

Workspace Layout and Physical Workplace Environment

Different workspace layouts can create different physical workplace environments. For instance, an open-plan office or team-based layout can foster a more conducive and flexible environment that encourages collaboration and communication. On the other hand, traditional offices and cubicles might offer more privacy, which some employees might prefer for concentration.

PWE and Organisational Culture

A conducive, private, flexible, and healthy PWE can contribute to a positive organisational culture. It can make employees feel valued and comfortable, which can reduce absenteeism and increase workspace comfort. A healthy and flexible environment can also promote ergonomics, leading to less work-related health issues.

Workspace Layout and Employee Collaboration

Different layouts can facilitate different types of interactions. For example, low-partition offices and open-plan offices can encourage spontaneous interactions and idea-sharing, fostering a culture of collaboration and innovation. However, these layouts might also lead to distractions, potentially affecting individual tasks that require focus. Balancing these factors is crucial.

Physical Workplace Environment and Employee Well-being

A conducive and healthy environment can significantly impact employee well-being. Factors such as natural light, indoor plants, comfortable temperature, and noise levels can affect employees' mood and stress levels, which in turn influence productivity and efficiency. A flexible environment that allows employees to choose where and how they work can also contribute to increased satisfaction and productivity.

Ergonomics and Employees' Productivity

Ergonomics involves designing the workplace in a way that promotes efficient and safe work practices. Good ergonomics can prevent work-related injuries and improve productivity. For example, adjustable chairs and desks, proper monitor height, and regular breaks can reduce physical strain and prevent issues like back pain and repetitive strain injuries.

Organisational Culture and Employee Engagement

When employees see that the organisation values their comfort and health (evident from the physical workplace environment and ergonomics), it can lead to increased engagement. Employees are likely to be more committed and motivated, leading to reduced absenteeism and increased productivity and efficiency.

Adaptability of Physical Workplace Environment

The ability to adapt the workspace layout and physical workplace environment according to changing needs can also be beneficial. For instance, during a project requiring intense collaboration, having the flexibility to create a dedicated project space can enhance team communication and productivity.

Figure 1 Illustration of the physical workplace environment (PWE) and workspace layout affect the culture and value of the organisation and how the values influence the employees' performance and well-being.
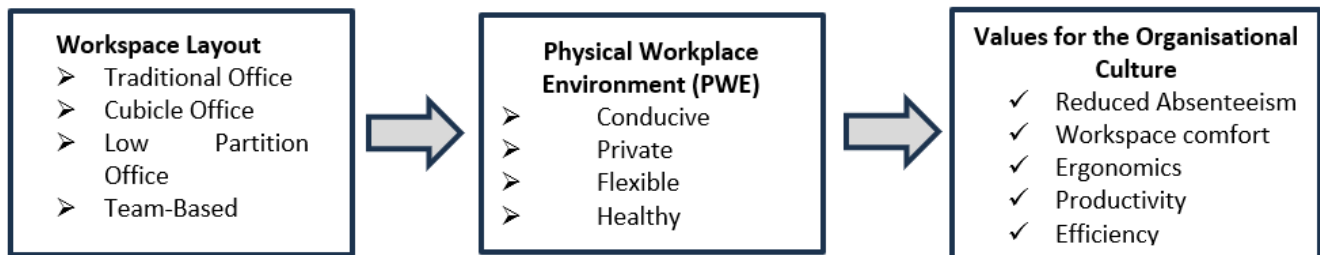

Fig. 1. The Influences of Workspace Layout on Organizational Culture at Workplace of the Employees

4. Conclusions

In conclusion, a well-designed physical workplace environment that aligns with the organisational culture can create a positive impact on the employees, enhancing their productivity and efficiency. However, it's important to note that these are general observations, and the actual impact can vary based on individual preferences and the specific context of the organisation. It's always beneficial to involve employees in these decisions to ensure their needs and preferences are met. Additionally, organisations should monitor and evaluate the effects of their physical workplace environment on their employee's well-being and performance and adjust as needed. By doing so, they can create a positive work environment that supports their goals and values.

The words, manner, pattern, and purpose style of the employee at the workplace are used to finally become values to the employees to practice for improvement. The physical workplace environment significantly shapes employee behaviour, exerting a direct influence on their actions and attitudes. Effective communication, collaboration, cooperation, and creativity all emanate from this environment, playing pivotal roles in shaping organizational culture. As a result, fostering positive relationships and achieving alignment with the organization's goals become attainable objectives.

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