THE MEDIATING EFFECT OF WORKPLACE ENVIRONMENT ON EXECUTIVES’ PERFORMANCE IN MANUFACTURING INDUSTRIES AT KULIM HI-TECH PARK KULIM KEDAH, MALAYSIA

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Abstract:

Workplace environment plays the important role in addressing issues related to job performance. Therefore, the purpose of this study is to assess the extent of the mediating effect of workplace environment and its contribution to the performance of executive in manufacturing industries. A questionnaire was designed for data collection to measure workplace environment related psychology mental and physical workplace on executives’ performance. Data were collected among executives in manufacturing industries at Kulim Hi-tech Park, Kulim, Kedah, Malaysia. Stratified sampling method was used to collect data and the data obtained were analyzed using SmartPls 3.7.8. The results of the study found that there is a significant relationship between psychology mental and physical workplace on executives’ performance in manufacturing industries. It is proved from SmartPls analysis shown that all independent variables have a significant impact on executives’ performance in manufacturing industries. The limitation of the research only covers the manufacturing industries. Another limitation is the respondents only included executives. Apart from these limitations, this research can give the strong impact to the top management of manufacturing industries to design the strategy of workplace environment in order to be more effective in improving the work performance of executives.

Keywords:

Workplace Environment, Psychology Mental, Physical Workplace, Executives’ Performance
Introduction
Workplace environment refers to the phenomenon of the relationship between an employee and the environment in which they work. A good workplace environment contributed to a high level of satisfaction and this situation was motivated every employee to work more aggressively towards better and productive work performance. The workplace environment is divided into two namely psychology mental and physical workplace. Workplace environments involved psychology mental included appropriate work time structures, flexible work schedules, workloads, work stress, moral support and top manager attitudes. While the workplace environment that involved the physical workplace included brightness, temperature conditions, noise levels, odor pollution, office decoration, workplace design, workspace position, types of furniture beside safety and health factors in the workplace (Ahmed, Zaman & Khattak, 2017; Nadeem & Ahmad, 2017; Sukdeo, 2017; Zafar, Karim & Abbas, 2017).

Objectives and Research Questions of the Study

Objectives of the Study
Objectives of the study covered:
1. To evaluate the relationship between psychology mental on executives’ performance in manufacturing industries.
2. To examine the relationship between physical workplace on executives’ performance in manufacturing industries.

Research Questions of the Study
1. Is there any relationship between psychology mental on executives’ performance in manufacturing industries?
2. Is there any relationship between physical workplace on executives’ performance in manufacturing industries?

Literature Review

Psychology Mental at Workplace
Lanka (2019) in his study, the influence of workplace environment and its impact on job performance. This study was done by placing the workplace environment consisting of job assistance, supervisor support and workplace environment conditions found that job assistance and supervisor support have a positive relationship to job performance. The study involved the psychological environment of work only without involving the factors of physical conditions in the workplace. The results of this study shown that the psychology of an employee is strongly influenced by the support of his top management. Every employee has a desire to improve their performance even better. The result of good moral support for his work and the help of supervisors causes each employee to be able to produce better performance as expected by the organization. Every employee is always thinking about a good workplace environment with appropriate work time structure, flexible work schedule, excessive workload, work stress, moral support and attitude of their top managers in the workplace that affects their workplace environment either well or unsatisfactory. An unsatisfactory workplace environment directly has a negative impact on their work performance (Bonaventure, 2021; Dung, Thi, Ngo, Duong & Pham, 2021).
The workplace environment has a positive or negative impact on the psychological well-being of employees in an organization. The psychological environment is a collection of all the characteristics of the environment mentioned above that have a close relationship to the behavior of staff in performing a daily task. The psychological environment also involved the mental health faced by an employee where the employee is directly involved in the problems that occur in the workplace especially excessive work stress, lack of moral support and intolerance of senior managers to an issue such as completing a job with prompt, late responding to injuries occurring in the workplace for preventive action and any unfavorable top management decisions of the staff in the organization cause the staff to be in a state of strong mental stress and unhealthy mental well-being contributes to unsatisfactory work performance. Workplace environments involving staff mental psychology also predict staff well-being by looking at workplace psychology in particular (job demands, job control, social support), organizational justice (procedural justice, interaction and distribution of work) and family conflict negatively impact performance work done in the workplace. By focusing on a broad and comprehensive review involving future studies, it is important that the psychological environment using several variables involving job demands, job control, social support, procedures, fairness of interaction and distribution of work, work to family and family conflict to work should be in pay attention (Dewydar, 2021; Umair, Ihsan, Reba & Phil, 2021). The workplace environment that involved psychology focuses on the level of mental well-being of each employee by predicting mental well-being to be predicted as a mediator (mediator) to support overall work performance. Finally, this study stated about the importance of a calm, harmonious workplace environment and mental well-being that involved the psychology of each employee can have a direct impact on the work performance of staff whether good or bad.

While Bhanu and Babu (2018) in their study the effects of workplace environment, work stress and job satisfaction are important elements of job performance. By emphasizing the sources of stress such as top manager stress, conflict among staff, workload (workload), anxiety of job loss and lack of communication as well as stress in the workplace is one of the risks faced by employees of an organization that negatively affect health mentally of each staff. Work stress is usually associated with overwork, relationship problems among staff, conflicts in communication and conflicts with top management adversely affect unproductive work performance. When the mental psychology of employees can be freed from excessive work stress, employees acquire job satisfaction that can motivate them to work more diligently and efficiently (Hee & Kamaludin, 2016; Edem & Akpan, 2017). The results of this study also found less work stress, giving satisfaction to each staff to improve their work performance over time. This study emphasized the importance of the workplace environment plays an important role in the work performance of its employees. There are organizations that fail in providing a good workplace environment and do not understand about the importance of workplace environment for job satisfaction of their employees and such organizations face many difficulties in setting the level of work quality required by the organization to meet organizational goals.

Heavy workload is one of the main causes of stress among employees in the organization. Excessive workloads have to be borne by employees causing them to feel burdened with tasks that they cannot afford to carry. It is difficult to balance between the needs of work and personal life. As employees who are responsible for all the affairs of their daily tasks, it is important to be aware of the negative effects of excessive workload on employees and take the necessary steps to reduce the stress on their work. While precarious jobs, financial problems and a
competitive job market have forced staff to take on heavy workloads and do things excessively (Arifin, 2021; Amrullah, 2021). Furthermore, such employees are forced to work long hours at work in an effort to show their loyalty and commitment to the organization. The employees in the organization had to work until late at night to complete all tasks in a set time. This leads to stress and fatigue to them for a long period of time. On the other hand, if employees are able to complete their tasks within working hours and the task is not a heavy task to carry, then the employees feel themselves highly motivated and high satisfaction to complete their tasks during their working hours. They are not burdened with an excessive workload, are able to do the job well and are able to produce the quality and productivity expected by the organization. They do not need to work overtime from their work hours, wait until late at night to finish a job and directly give birth to themselves a job satisfaction that can result in a proud job performance (Zakarani, Hidayana & Noor, 2021; Hayat, Shakeel & Chen, 2021).

Physical Workplace

Al-Omari and Okasheh (2017) in their study, the effect of workplace environment influence on job performance, case study in engineering company in Jordan. This study focuses on employees work performance and its relationship with air conditions (pollution or freshness), temperature (hot or cold), noise (noise), light conditions (bright or dim) and office space layout. The results of this study found that all variables tested have a significant relationship with job performance. These conditions included workplace environments that are protected from any dirty air pollution such as chemical pollution, unpleasant odors resulting from waste materials or the smell of manufactured products causing employees shortness of breath as well as unrefreshing air conditions. While excessive noise, relatively hot or too cold temperatures, light conditions that are too bright or too dim as well as office layout affect work performance.

This study explained that fresh air, moderate temperature, noise and light that do not affect breathing, body, eye problems and non-draining office layout position contributed to work performance. This study found that job performance is a result of employees motivation, abilities and how they adapt to the problems of an unpleasant workplace environment. Organizations cannot ignore the factors involved the above variables as these conditions affect negative and unproductive behaviors among organizational employees and affect job performance decline (Garasic & Lavazza, 2015; Mathews & Khann, 2016). This study also shown that noise, ventilation, light and office layout is a physical environment of the workplace that needs to receive due attention from top management to ensure staff work performance can be maintained. A healthy workplace environment can produce positive work productivity in an organization. A healthy workplace environment is good for an organization because of its ability to contributed to improvement in business. A healthy workplace environment increased productivity and reduced costs associated with absenteeism, employee’s compensation and medical claims. Being healthy not only required medical attention, but also a pleasant view of the workplace and its surroundings. There are several aspects that must be focused on when creating a healthy workplace environment including culture in the workplace. Each organization has its own organizational culture that is associated with corporate culture in determining the standard values that must be followed by each of its employees.

When each employee has created a positive workplace environment culture that is practiced by each employee, the workplace environment tends to be healthier as each employee does not feel disturbed or uncomfortable while at work. A great corporate culture of an organization can keeps every employee always productive and help the organization retain the best employees.
and tend to last longer in the organization. Other aspects included the physical environment of the workplace, occupational health and safety, a healthy lifestyle and supporting a quiet workplace environment that is free from any disturbances and orderliness of the workplace. It is very important for an organization to ensure that the workplace environment of its employees is very satisfactory because a peaceful workplace environment can produce a very encouraging level of quality and productivity (Inayat & Khan, 2021). Maintaining a healthy workplace environment requires attention to equipment that needs to be supplemented with well-designed workplace to avoid overcrowding, easy task design, physical workplace environment (humidity, temperature, noise, light, space, and ventilation), mental psychological factors such as occupational and workplace control, personal interactions as well as independence from the exposure of the workplace environment from chemical pollution. In an organization, every top manager should understand that different workplace environments produce different ways of collaboration, work discipline and productivity that lead to different levels of profitability for improvement in business dealings. A positive workplace environment can improve relationships between colleagues, a friendly work atmosphere and will result in more discussions besides ideas can be expressed for the benefit of the organization. As a result, there are more opportunities for the organization to increase business and improve internal relationships and communication towards increasing the work productivity of the organization's employees (Putra, Syahrial, Sekretari, Nartasari, Sekretari, Sekretari, Sekretari, 2021).

Samson (2018) studied the impact of workplace environment on job performance by studying the impact of workplace physical factors on job performance, the impact of psychological factors on job performance and analyzing the impact of life balance factors on job performance of Nakuru Commercial Bank employees. The physical factors of the workplace environment studied include furniture, light and ventilation, and noise. Psychological factors of the workplace environment included supervisor support, supervisory roles and quality leadership. While life balance included work (work conflict) and work (excessive homework). This study found that psychological factors have a positive relationship with work performance compared to the physical factors of the workplace and life balance factors. Mental psychological factors involving supervisory roles have a strong influence on job performance (Currie, Gormley, Roche & Teague, 2017; Hasan & Teng, 2017). The study stated that every employee understands their roles and responsibilities in performing their daily tasks more effectively. Based on the study and the results obtained found that all the variables studied are important. It is the responsibility of top management to focus on all factors involved physical factors, psychological factors and life balance as all factors contributed positively to job performance. A large number of employees spend most of their lives at work. It is a priority for an organization to ensure that a positive and healthy workplace environment for the health of its employees (Alarcon, Arzaga, Baguio, Sofia, Sanvictores & Platon, 2021; Ohrn, Wahlström, Harder, Nordin, Pettersson-stromback, Danielsson, Jarvholm, 2021).
Executives’ Performance

The performance of an organization is the result of the excellent work performance shown by executive level employees. Executives are middle-level management staff who are responsible for planning and executing a task assigned by top management. While the achievement of an organization is valued based on the performance of the organization's executive employees (Singh & Kassa, 2018). Executives can be defined as employees who are responsible for planning, organizing, executing and monitoring all their daily job responsibilities by focusing all activities towards achieving organizational goals (Amin, Halim & Majid, 2017; Mutua & Kinyili, 2017). Executives’ performance refers to the skills, abilities and competencies that an executive possesses in an organization. There are previous literature reviews shown that there is a positive relationship between executives' performance on work quality and productivity, skills and competencies, creativity and innovation, problem solving and decision making, job knowledge, attitudes and discipline, communication, teamwork, management skills and professionalism with the job performance of each employee in an organization. Ahmad (2021) in his study stated that an executive in an organization has a big role to perform especially a job designed to achieve maximum profitability for a long time. In addition, executives also have a role to ensure the existence of their organization is very important in the global market and the ability to move the organization forward compared to other competitors. An executive is said to be an efficient and skilled person when they are able to perform a task with excellence. As a result of success in the implementation of a task, the organization also move forward to achieve success that has been set based on the vision and mission that has been designed about what needs to be achieved in a certain period.

Theoretical Framework

**Independent Variables**
- Psychology Mental
- Physical Workplace

**Dependent Variable**
- Executives’ Performance In Manufacturing Industries
This research was conducted to identify the relationship between psychology mental and physical workplace on executives’ performance. A questionnaire was designed to collect the data from in manufacturing industries at Kulim Hi-tech, Kulim Kedah, Malaysia.

**Hypothesis Development**

Objectives of the study covered:

- H1: There is significant relationship between psychology mental on executives’ performance in manufacturing industries.
- H2: There is significant relationship between physical workplace on executives’ performance in manufacturing industries.

**Result**

**Participants**
The data was collected from 25 manufacturing industries, 351 questionnaires were distributed and 196 questionnaires were analysis among the employees. The respondents were selected using the stratified sampling technique.

**Measurement Scale**
Questionnaires are designed in Linkert Scale (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree)
Data Analysis

The data obtained were studied using SmartPLS version 3.7.8 to discuss the findings obtained. SmartPLS is highly recommended by statistical scholars in producing accurate analysis of the cause and effect relationship of each variable. SmartPLS is also referred to as a large multivariate analysis technique in social and psychological research. SmartPLS is capable of analyzing measurement model evaluation and structural model evaluation.

Table 1 shown the Loading, Composite Reliability (CR), Average Variance Extracted (AVE) value for each construct studied and the lowest value is 0.647 and the highest value is 0.817. These values are greater than 0.5 (> 0.5), confirming that the study construct is able to explain the mean change of variance within the items (Fornell & Larcker, 1981; Gefen & Straub, 2005; Henseler, Ringle & Sinkovics, 2009).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Loading, CR &amp; AVE Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Loading</td>
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<tr>
<td>Psychology Mental</td>
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</tr>
<tr>
<td>PM1</td>
<td>0.7195</td>
</tr>
<tr>
<td>PM2</td>
<td>0.7194</td>
</tr>
<tr>
<td>PM3</td>
<td>0.8276</td>
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<tr>
<td>PM4</td>
<td>0.7844</td>
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<td>PM5</td>
<td>0.7663</td>
</tr>
<tr>
<td>PM6</td>
<td>0.7016</td>
</tr>
<tr>
<td>PM7</td>
<td>0.7541</td>
</tr>
<tr>
<td>PM8</td>
<td>0.6840</td>
</tr>
<tr>
<td>PM9</td>
<td>0.6849</td>
</tr>
<tr>
<td>PM10</td>
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<tr>
<td>Physical Workplace</td>
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<td>PW7</td>
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<td>PW10</td>
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<td>PW11</td>
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<td>------------</td>
<td>------------</td>
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<td>PW12</td>
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<tr>
<td>PW13</td>
<td>0.6496</td>
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<td>Executives' Performance</td>
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<tr>
<td>EP1</td>
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<tr>
<td>EP2</td>
<td>0.7524</td>
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<tr>
<td>EP3</td>
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<tr>
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<td>EP7</td>
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<td>EP8</td>
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<tr>
<td>EP11</td>
<td>0.8067</td>
</tr>
<tr>
<td>EP12</td>
<td>0.8066</td>
</tr>
</tbody>
</table>
The discriminant validity test was measured through two methods, namely the Heterotrait-Monotrait (HTMT) criterion test and cross loading (Henseler et al., 2009). Table 2 below shown the output from the HTMT analysis. The results can be calculated easily using the formula as in (Henseler, Ringle & Sarstedt, 2015).

**Table 2**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>EP</th>
<th>PW</th>
<th>PM</th>
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</thead>
<tbody>
<tr>
<td>EP</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PW</td>
<td>0.6764</td>
<td>0.7837</td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>0.5430</td>
<td>0.6424</td>
<td>0.7363</td>
</tr>
</tbody>
</table>

Note: Values in Bold face are the square root values of average variance extracted

**Assessment of Structural Model**

The findings for testing this direct effect model using SmartPLS software package version 3.7.8 that is through the structural equation model. This measurement aims to test the direct effect model and the effect model of the mediated variable. Therefore, empirical evidence has been used to construct a direct effect model as shown in Table 3.
Table 3

Summary of Hypotheses

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Summary of Hypotheses</th>
<th>Beta</th>
<th>Std Error</th>
<th>T-Value</th>
<th>P-Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM -&gt; EP</td>
<td></td>
<td>0.6671</td>
<td>0.1847</td>
<td>2.3391</td>
<td>0.0194</td>
<td>Significant</td>
</tr>
<tr>
<td>PW -&gt; EP</td>
<td></td>
<td>0.5578</td>
<td>0.0767</td>
<td>7.2762</td>
<td>0.0000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Discussion

Psychology Mental
The results obtained shown that the psychology mental variable has significant relationship on executives' performance in manufacturing industries (β= 0.6671; t = 2.3391; p = 0.0194). H1 Accepted. The results also shown that psychology mental contributed 18.5% (R² = 0.185) to changes of executives' performance in manufacturing industries.

Psychology mental involved appropriate work time structures, flexible work schedules, workloads, work stress, moral support and top management attitudes play the important role in forming a positive work culture and have a significant relationship to the work performance of each executive in the manufacturing industry. A well-managed psychology mental can produce high quality and productivity of work and satisfactory work results for the continued growth of the organization. Every executive has a high desire to improve their existing skills to ensure that they are always competent in carrying out whatever task is given can be performed well and the results of the task that make their top management proud. However, if psychology mental is not managed efficiently, it can have a negative impact on the duties and responsibilities of every executive as a result of dissatisfaction and work stress that exceeds the limits causing the quality and productivity of work to be affected. While psychology mental that can be managed effectively can increase the motivation of every executive to work harder in carrying out their responsibilities to achieve organizational goals. This study shown a significant relationship between psychology mental with the performance of executive work in the manufacturing industry. Therefore, the emphasis given by the manufacturing industry on the workplace environment involved psychology mental has a very positive impact on the work performance of each executive as well as satisfactory work results for the continued growth of the organization.

Physical Workplace
The results obtained shown that the physical workplace variable has significant relationship on executives' performance in manufacturing industries (β= 0.5578; t = 7.2762; p = 0.000). H2 Accepted. The results also shown that physical workplace contributed 55.8% (R² = 0.558) to changes of executives' performance in manufacturing industries.

Based on the results of the above study shown that there is a significant relationship between physical workplace which included brightness, temperature conditions, noise levels, odor pollution, office decoration, workplace design, workspace position, types of furniture and safety and health factors on executive work performance in manufacturing industry. Physical workplace greatly affected the work performance of every executive because the environmental factors in their workplace need to be calm and free from any distractions that can contaminated
their work performance. Every executive can focus on their daily tasks in more detail, avoid any emotional disturbances and result oriented can be produced better. It is the responsibility of every manufacturing industry to provide a workplace environment that involved a physical workplace that is satisfactory from any elements of emotional disturbance and tranquility of every executive so that they can focus on their responsibilities more effectively. The results of this study also confirmed that the physical workplace greatly influenced the work performance of an executive in carrying out their daily tasks in the workplace. Therefore, the manufacturing industry should focus more on providing a comfortable, quiet and peaceful physical workplace as this situation has a positive impact on the work performance of each executive better.

Conclusion
In this study it was found that both psychology mental and physical workplace variables have a significant effect on executives’ performance at workplace. Providing a peaceful workplace environment gives peace of mind to every executive to focus on their daily tasks more effectively. This situation indicated that the workplace environment involving psychology mental and physical workplace plays a role in improving the quality and productivity of executives' work performance in line with manufacturing industries' targets to maximize long-term profits and be able to sustain the market continuously. Every executive feels valued because the manufacturing industries provided a peaceful workplace environment to enable them to focus on their daily tasks more efficiently, with high quality, productivity and result oriented. The comfortable workplace environment provided by the manufacturing industries has a motivating effect on every executive to work harder without any interference either from the elements of psychology mental and physical workplace. This situation gives an improvement to their work performance more efficiently in producing work output as targeted by the industries where they work.

References


