Work Environment, Stress Productivity, and the Mediating Effect of Job Satisfaction

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ABSTRACT
This study set out to ascertain how work environment and stress affected productivity, with job satisfaction acting as a mediating factor. The purpose of this study was to improve the work productivity and job happiness of the nurses at Hasna Medika Hospital in Cirebon City. With the use of SmartPLS 3.0 software, this study employs quantitative data analysis techniques utilizing Structural Equation Modeling (SEM) based on Partial Least Square (PLS). At the Hasna Medika Hospital in Cirebon, 78 nurses were given questionnaires to complete in order to gather primary data. The findings demonstrated that job satisfaction was positively and significantly impacted by work stress. Furthermore, there was no discernible impact of the work environment or job stress variables on work productivity. Nonetheless, there is a sizable relationship between productivity and job satisfaction. The work environment and stress management are not the only factors that affect productivity and job happiness. Investigating additional factors that can help achieve this objective is crucial. These variables should be further investigated by researchers.

KEYWORDS:
Work Environment; Stress; Productivity; Job Satisfaction

INTRODUCTION
Serving as a hub for community development, the hospital is a well-functioning organizational unit. The goal is to create a safe and pleasant environment for patients to heal (Wibowo, 2017). Hasna Medika Hospital is a company that offers health services through hospitals and clinics specialized in cardiology. The project aims to provide health services, particularly those related to heart health, that are closer to the community. The hospital is responsible for maintaining public health in its work area. Employee productivity is considered a key factor in achieving superior performance (Ishrat et al., 2020). The company will achieve its organizational goals by increasing the efficiency of its workforce output (Iqbal et al., 2019). In today's labor market, employees have many job options, and the workplace environment has become an important factor in job acceptance and retention (Massoudi & Hamdi, 2017). Based on the research conducted by Shaikh et al. (2023), it seems that a range of characteristics, including cognitive factors like individual knowledge, attitudes, and experiences, as well as social factors, the external environment, and organizational procedures.

Sarode & Shirsath (2014) identified several factors, including office furniture, equipment, lighting, noise level, color, and air quality, that can influence how productive a person is at work. Second, outside variables including labor management, working environment, job satisfaction, discipline at work, and mental health. This job demands a high level of efficiency due to the division of labor based on job specifications (Purwanti & Sitorus, 2018). With the foregoing explained, the goal of this study is to further our knowledge of how hospital work environments can be effectively managed to increase productivity.

The global nursing workforce is currently facing a significant shortage of nursing staff, due to the anticipation of increased pensions in the coming years. In addition,
there is an increase in the proportion of nurses leaving or intending to leave their organizations (Labrague et al., 2020). It is important to address these challenges to ensure adequate staffing levels and high-quality patient care. It is recognized that there are several work environment problems at Hasna Medika Hospital Cirebon. These include insufficient lighting and inadequate facilities and infrastructure, which can lead to decreased focus, stress, and discomfort while working.

Exposure to psychosocial risks in the workplace can lead to stress and burnout from work (Leka et al., 2023). It is imperative that this matter be addressed in order to protect the workers' wellbeing. Stressful situations can cause a great deal of psychological stress in a variety of spheres of life, including work, relationships, and family. Work performance may suffer because of this burden (Rasool et al., 2020). In the sphere of human services, health professionals such as doctors, nurses, and therapists provide skilled care (Pisljar et al., 2011). Developing deep and lasting relationships with other people is their main priority. Furthermore, information that is superfluous or irrelevant might impair focus and elevate stress levels associated with work (Yang & Pitafi, 2023). To manage stress at work, workers require social assistance. Habibie et al. (2020) recognized support as a key technique to accomplish this goal. Social support can positively affect employees and help them handle work-related stress, which increases job satisfaction.

Businesses need to pay attention to the work environment in order to boost task completion and job satisfaction (Lestari et al., 2020). Stress can be caused by a lack of contentment, but its effects can be mitigated by a high degree of satisfaction (Ahsan et al., 2009). According to research by Heimerl et al. (2020), a company's ability to achieve sustainable development depends greatly on its employees' job satisfaction. This can help reduce employee turnover and improve customer connections, loyalty, employee performance, and productivity. Work happiness is very important for organizations, as this statement shows. This study seeks to investigate how work environment and job stress affect productivity through mediating job satisfaction.

Previous research in hospitals has shown an important correlation between work environment, work stress, and productivity based on empirical evidence (Sigalingging, 2020; Sinaga & Bernardo, 2021). 2020 saw the completion of the Sigalingging trial at Kabanjahe Regional Hospital. If their workplace is welcoming and comfortable, workers will be more enthusiastic and driven. Sinaga & Bernardo (2021) found that increased work stress in XYZ Hospital nurses was associated with decreased work productivity. Neither study included job satisfaction variables as intervening variables in this study. Intervening variables are abstract scientific ideas that scientists use to describe the interaction between independent and dependent variables in different situations (Shaw, 2018).

Previous research examining the correlation between job satisfaction and productivity factors showed mixed results. At a significance level of 0.000, Rambembuoch et al. (2023) discovered a substantial and statistically significant correlation between Work Productivity and Performance Satisfaction, indicating the existence of a link that is extremely unlikely to arise by coincidence. The Kediri Baptist Hospital nurses' job happiness and productivity did not show a statistically significant association, according to the Skrisia study conducted in 2023 (p = 0.098). Based on the phenomena, research issues, and research gaps identified, the study titled “The
Mediating Role of Job Satisfaction: Work Environment, Work Stress, and Work Productivity at Hasna Medika Hospital" requires more examination.

METHOD
This study employed quantitative associative research as its research methodology. Associative research is a technique for developing research issues that examine the relationship between two or more variables, according to Sugiyono (2019). Quantitative research is a positivist-based methodology, according to Sugiyono (2019). In order to test pre-established hypotheses, this technique entails researching a particular population or sample, gathering data using research instruments, and analyzing quantitative and statistical data.

Primary and secondary data sources were employed in this research. Using a Google Form survey, information was directly gathered from the Hasna Medika Hospital Cirebon City workforce. The Likert scale is used by Google Forms to gauge indications. According to Sugiyono (2019), the Likert scale is a tool used to assess people’s attitudes, opinions, and perceptions regarding societal issues. Respondents mark specific answers, such checklists or crosses, to indicate how much they agree or disagree with statements. There are several statements in the questionnaire. This study makes use of secondary data that was gathered from a variety of sources, such as books—electronic or print—previous research studies, and literature reviews (Hair et al., 2019).

The 78 workers in this study were all nurses at the Hasna Medika Hospital in Cirebon. In the study, the scientists used 78 samples. Arikunto (2019) suggests that it is best to take a sample of the entire community when there are less than 100 people in the population. Purposive sampling was employed in this investigation. The primary informants in this study were nurses. Using partial least squares (PLS) and structural equation modeling (SEM) with SmartPLS 3.0 software, this study employs a quantitative data analysis methodology. A statistical method called partial least squares (PLS) is used to do analysis in a single test to identify correlations between variables. Helping researchers validate concepts and demonstrate connections between latent variables is the aim.

RESULTS AND DISCUSSION
1. Characteristics of Respondents
The age, gender, and work section of 78 nurses at Hasna Medika Hospital Cirebon were among the variables studied in this study. Table 1 indicates that the age range of the bulk of respondents was 20–30 years (60%), followed by 30–40 years (38%), and 40–50 years (2%). According to the poll, 74% of nurses were women and 26% of nurses were men. 58% of respondents said they worked in inpatient services, 37% in the intensive care unit, 5% in emergency rooms, 5% in SOD, 5% in other departments, and 10% in catheterization.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged</td>
<td>20-30 Years</td>
<td>46</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>30-40 Years</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>40-50 Years</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Gender</td>
<td>Man</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Woman</td>
<td>58</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Keterisasi</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Characteristic</td>
<td>Category</td>
<td>Frequency</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------</td>
<td>-----------</td>
<td>----------------</td>
</tr>
<tr>
<td>Sections at Work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICU</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Emergency department</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Inpatient and Street</td>
<td>45</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOD</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. Data Analysis Results

a. Convergent Validity Test

Table 2 Outer Loading

<table>
<thead>
<tr>
<th>Work Environment</th>
<th>Work Stress</th>
<th>Job Satisfaction</th>
<th>Work Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LK 1</td>
<td>0.742</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LK 2</td>
<td>0.858</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LK 3</td>
<td>0.524</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LK 4</td>
<td>0.799</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LK 5</td>
<td>0.685</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LK 6</td>
<td>0.723</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SK1</td>
<td>0.845</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SK2</td>
<td>0.853</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SK3</td>
<td>0.800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KK1</td>
<td>0.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KK2</td>
<td>0.842</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KK4</td>
<td>0.713</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KK5</td>
<td>0.697</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK1</td>
<td>0.606</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK2</td>
<td>0.705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK3</td>
<td>0.870</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK4</td>
<td>0.893</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To assess the indicator's validity, use the outer loading value. The indicator is usable if the external loading value is greater than 0.7. Factors with loading less than 0.5 ought to be deleted, whereas loading greater than 0.5 is deemed acceptable (Chin, 1988). As a result, every signal found in this study is regarded as legitimate and supports further investigation. The structural model can be seen in the figure below:
b. Results of Reliability Test

The reliability of the indicator block in measuring constructs is determined through further testing. This study used composite reliability values to assess reliability, with a minimum acceptable threshold of >0.7. The indicator block's Cronbach alpha can be used to determine a build variable's value that indicates reliance. If a construct's Cronbach's alpha value is more than 0.7, it is regarded as reliable. The loading values for the study variable constructions that were determined by the Smart PLS algorithm are shown in Table 3.

Table 3. Construct Reliability and Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>(AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>0.762</td>
<td>0.847</td>
<td>0.583</td>
</tr>
<tr>
<td>Productivity</td>
<td>0.778</td>
<td>0.857</td>
<td>0.605</td>
</tr>
<tr>
<td>Work Environment</td>
<td>0.831</td>
<td>0.870</td>
<td>0.532</td>
</tr>
<tr>
<td>Work Stress</td>
<td>0.781</td>
<td>0.872</td>
<td>0.694</td>
</tr>
</tbody>
</table>

Table 3 demonstrates that every variable assessed has an AVE value more than 0.5, indicating that every variable in this study satisfies the requirements for discriminant validity. All of the study's variables were shown to satisfy the construct dependability requirements outlined earlier based on these standards.

c. Hypothesis Testing Results

T-Statistics and P-Values were tested as part of this study's hypothesis testing procedure. When the P-Values are less than 0.05 and the T-Statistics value is greater than 1.96, the hypothesis is deemed accepted. Path Coefficients, which illustrate the direct influences between variables, are shown in the table.
Hypothesis 1: Job satisfaction has a positive and favorable impact on productivity.

The results of the study demonstrate a strong positive relationship between job happiness and productivity, with a p-value of 0.000 below 0.05 and a T-table value of 6.930 exceeding 1.96. The initial theory was validated. Yusuf & Suwardana’s (2023) research indicates that employee productivity is positively and significantly impacted by job pleasure and motivation.

Productivity and work satisfaction are highly connected (Voordt & Jensen, 2023). Depending on the value system chosen, each employee may have a different level of satisfaction. Variations in personnel attributes are the cause of this (Fauzi et al., 2023). Improving job happiness among employees is crucial for increasing productivity. This can be accomplished by establishing a workspace that satisfies worker needs and promotes a positive work environment.

Hypothesis 2: Job satisfaction is positively and significantly impacted by the workplace.

The results of the investigation support hypothesis two, which indicates a significant impact. Happiness at work is significantly impacted by the workplace. The impact of the work environment on job satisfaction has a T-table value of 15.966, which is greater than 1.96. The p-value is 0.000, indicating statistical significance because the value is less than 0.05.

Employee performance is influenced by both tangible and intangible components that make up the work environment (Nugroho & Manafe, 2023). A positive work environment can boost morale and job satisfaction, which will help the company reach its objectives. It’s critical that businesses maintain a positive work environment.

The results of this study support the findings of other studies by Safria et al. (2023) and Aritonang & Febrian (2023), demonstrating a significant and positive influence of the work environment on employee job satisfaction. The standard of the work environment has a direct impact on how happy employees are in their jobs.

Hypothesis 3: The work environment has no significant effect on productivity

The results of the investigation support hypothesis three, which claims that the influence is minimal. Productivity is not significantly impacted by the workplace. The findings came from comparing the p-value (0.584) to 0.05 and the T-value (0.548) to 1.96 of the work environment impact table on productivity.

The results of this hypothesis are consistent with a study by Sabilalalo et al. (2020), which demonstrates that employee work productivity at the Southeast...
Sulawesi Province's Regional Secretariat Organization Bureau is not significantly impacted by the workplace. According to Dahlia's research from 2019, there is a slight but noticeable impact of the work environment on employee productivity. The working atmosphere at PT. Sumber Graha Sejahtera Luwu Regency is also recognized for not having a significant influence.

Workplace amenities that help staff members finish their tasks are crucial for boosting output and achieving the best possible outcomes. The sentence above demonstrates how employee productivity is significantly impacted by the work environment (Basalamah & As'ad, 2021).

**Hypothesis 4: Work stress has a positive and significant effect on job satisfaction.**

The study's findings support hypothesis four, which states that there is a considerable influence. It can be seen that work stress has a statistically significant positive effect on job satisfaction with a p-value of 0.039 less than 0.05 and a T-table value of 2.073 bigger than 1.96. According to Tuahun et al. (2023), work satisfaction and stress are inversely correlated. Employee job satisfaction is positively correlated with lower levels of job stress, and negatively correlated with higher levels of job stress. Stress can also make it difficult for staff members to communicate with one another, which will have a detrimental effect on the services that the hospital provides to patients (Aprilianti et al., 2023).

Employee satisfaction may be significantly impacted by stress at work. High levels of stress are common at all levels of management and staff in every firm, according to research by Tuahuns et al. (2023), and this mostly affects job satisfaction. Employee dissatisfaction increases the likelihood that they will quit.

**Hypothesis 5: Work stress has no significant effect on productivity**

The study's fifth hypothesis contends that there is no discernible impact of work stress on output. The conclusion was drawn from the p-value of 0.275 more than 0.05 and the T-table value of 1.093 less than 1.96 about the impact of work stress on productivity.

The results of this investigation corroborate those of Judith et al.'s (2022) study, which indicates that there is no meaningful relationship between workplace stress and worker productivity. Maengkom et al.'s research from 2023 demonstrates that lower productivity is a result of higher job stress and vice versa. According to Petreanu et al. (2013), stress can have a detrimental effect on an individual's health, performance, career chances, and even place them in danger of losing their job. Because workers are important assets to the organization, employers have an obligation to prevent or lessen work-related stress (Utamingtias et al., 2016).

**CONCLUSION**

With job satisfaction acting as a mediator, this study attempts to investigate in-depth the relationship between work stress, work environment, and productivity at Hasna Medika Hospital in Cirebon City. The study's findings confirm that the workplace environment and work stress have a significant impact on employee happiness. Establishing a healthy workplace is crucial for businesses because it can boost employee morale and job satisfaction, which in turn helps the firm reach its objectives. To lessen employee work-related stress, a supportive work environment must be established. However, this is countered by the dependent variable of worker...
productivity. Studies revealed that nurses’ productivity at Hasna Medika Hospital in Cirebon was not significantly impacted by their workplace or work-related stress.

It should be mentioned that productivity is significantly impacted by job satisfaction. Studies have indicated a robust association between job satisfaction and output. Enhancing labor and production efficiency requires ensuring that employees are happy in their jobs. This can be accomplished by establishing an environment at work that satisfies worker demands and promotes a positive workplace culture. The study admits its shortcomings, such as its restricted breadth and geographic coverage, and suggests that future investigations broaden their geographic scope and employ larger sample sizes. The study also suggests that more research be done on other factors that may boost worker productivity in a hospital setting. The hospital HR department may better understand and enhance work productivity and job satisfaction with the help of this research.

Reference


