Music at Workplace: Is it truly Improving Employees’ Performance?

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ABSTRACT

Employee performance is a key success in a company’s growth. Many studies examining the influence of music on employee performance employed the regression method. However, there is still a lack of studies comparing the performance of employees who listen to music at work to those who do not, particularly in Indonesia. The purpose of this study was to compare the performance of employees who listened to music while working to those who did not. This study was conducted at the Business Simulation Laboratory, Department of Business Administration of State Polytechnic of Ujung Pandang. This study employed an Experimental Research Method with a quantitative methodology. The total participants, 94, were divided into 2 groups, employees with treatment, employees who listen to the music while working with total 48 (Group A) and employees without treatment, with 46 participants (Group B). Independent-samples T test was used to analyze the result of the study. The study’s empirical findings indicated that there were productivity differences between Group A compared to Group B. The mean for group A is 82.40, whereas the mean for group B is 79.70. The average difference is deemed significant since its P-Value is less than 0.019 or its alpha value is less than 0.05. Besides, T Count displays the value 2.01, which is more than T Table. It means that the employee who works with music in the workplace performed a more excellent average performance than those who work without music.

Keywords: Employee performance, music at work, experimental study, music accompaniment, listening to music while working

INTRODUCTION

Employee performance is a key factor in a company’s growth. Performance is the result or overall degree of success of a person over a period of time in doing a job relative to a variety of variables, including work standards, goals or targets, or agreed-upon criteria (Ridwan et al., 2020). The aim and objective of performance are to set relevant objectives, not only for performance assessment at the completion of a certain time but also for the outcomes of the work process within that period (Juliati, 2021). If the employee's performance is exceptional, the company's performance is likely to be excellent as well (Pancasila et al., 2020). For monitoring employee performance, you may utilize a 0-100 scale (Roberts et al., 2020).

Many factors can affect employee performance improvement, one of which is the work environment. Employee performance is influenced positively and significantly by both the physical and non-physical work environments (Fithri et al., 2019; Halik et al., 2019). Both of these work environments contribute to improving employee performance. The work environment is a way of facilitating the smooth operation of the work process, where comfort and safety at work are also very important in producing a conducive and pleasant working environment for employees, which may assist employee performance in carrying out their tasks (Muslih et al., 2022). Performance management comprises all activities performed to improve an organization's or company's performance, including the performance of each individual and workgroup.
Individual skills, abilities, and traits impact function performance, which is inseparable from employee job satisfaction and incentive levels (Razak et al., 2018).

This study focused on the role of physical work environment research in encouraging employee productivity. Workspace, lighting, color, air, music, and noise level comprise the physical work environment (Atmaja et al., 2018). Each of the six components has a unique function in improving employee productivity. Music is an essential component of the physical work environment that may considerably enhance performance (Wen et al., 2019).

Numerous academic disciplines have examined the impact of listening to music while working. Several studies have shown that music may influence an individual’s behavior through a variety of physiological, emotional, and cognitive processes (Keeler et al., 2020; Niven, 2015) and enhance an individual's physiological health (Croom, 2015). This study demonstrates that each individual who listens to music while doing office tasks has a personal influence. Individuals’ internal factors (motivation, pleasure, happiness, etc.) and individuals’ external aspects (health, wealth, etc.) will undoubtedly be affected by the personality effect (work results, social relations, attendance at work, etc.)

Additionally, music may boost the speed (efficiency) of employees’ work (Chiu et al., 2020; Mao, 2022; Landay et al., 2019; McNulty, 2015). This is obviously connected to the previously described study results; the presence of music that may boost mental health will make employees more prepared and focused on their job, allowing them to perform their tasks more efficiently. Obviously, the ability to accomplish tasks in a short amount of time has an effect on the capacity to work with higher quantities. In this sense, it might be claimed that employees are more productive. Productivity is the effective use of resources, including work, capital, land, materials, energy, and information, in the development of a variety of products and services (Oyama, 2021; Birjandi et al., 2015). This definition defines the basic meaning of the word productivity, which pertains to the production and input of a company-owned resource. Moreover, when productivity is ascribed to workers (Employee productivity), it refers to the quantity of the same work performed effectively by an employee in relation to others (Iqbal et al., 2019).

As mentioned earlier, some studies examining the influence of music on employee performance adopt the regression method. However, there is currently a lack of studies comparing the performance of employees who listen to music at work vs. those who do not, particularly in Indonesia. Thus, this study explored the comparison between the subjects via experimental study. This was a valid justification for doing the comparative study.

This study is also driven by the contradictions between the findings of prior research. Several studies suggest that music has no influence on performance and productivity or that there is no effect that is both damaging and beneficial to employees’ performance and productivity (Kampfe et al., 2011; Schellenberg et al., 2013). To corroborate some of these findings, it is required to perform a study comparing employees who utilize music to those who do not.

Several study findings about the influence of music on performance are described in the introductory chapter. This phase will describe the concept of the music process as it relates to stimulating performance. There are at least three ways that music may aid in personality development (Mayer, 2019): through its collective dimension; its healing effects; and as a stimulus for (novel) behavior.
Figure 1. Conceptualization of Music in Encouraging Performance According to Mayer (2019)

The figure above depicts a conceptual explanation of three phases influencing performance and productivity. The first step is playing music, followed by the incorporation of music into the employee's work environment and a subsequent increase in performance and productivity. The concept is also consistent with the framework created by Shih et al. (2012), as seen in the following image.

Figure 2. Conceptualization of Music in Drive Performance and Productivity (Shih et al., 2012)
Music has been a part of human culture since the earliest times. Almost every human activity interacts with music, including official and casual events, religion, war, and others. Music serves the following purposes in human civilization (Kumar et al., 2020): emotional emotions; aesthetic pleasure; amusement; communication; symbolic representation; physical reaction; enforcing societal standards; the confirmation of social structures and religious rituals; contribution to the preservation and stability of culture; contribution to the integration of society.

Hypothesis: there is a performance difference between employees who listen to the music and employees who do not listen to the music.

METHOD

This study employed a quantitative methodology to achieve its research aims. Experimental research is the sort of study that will be conducted. According to Harrison et al. (2021), research using an experimental design, i.e., altering (or creating a change in) one variable (the independent variable) and then observing its influence on another variable (the dependent variable), is more reliable (the dependent variable). There are sample groups that will be modified (get therapy) and sample groups that will function normally; the differences between the two samples will then be examined.

Specifically, Lab Experiments are the experimental design to be implemented. Laboratory experiments replicate reality in the laboratory (Sallis et al., 2021). All samples will enter the given laboratory, where they will undergo a simulation of the actual process. Features of Lab Experiments (Sallis et al., 2021): take place in a scenario that has been intentionally produced; because the environment can be controlled, it is now feasible to isolate the influence of stimuli; the findings may not be generalizable to natural environments.

This study was carried out at the Business Simulation Laboratory of the State Polytechnic of Ujung Pandang in Makassar-South Sulawesi. The laboratory was provided with a comprehensive facility to facilitate participants running a business simulation. The total participants were divided into groups to run a corporate that replicated the real-world market condition with an interactive and risk-free environment.

This study was carried out last six (6) months. One month was allocated for developing research requirements, four months for data gathering, and one month for data processing and report writing. Each sample group alternatively entered the simulation laboratory each week. Within four months, each sample group visited the simulation laboratory 16 times, or once every week.

Participants in this study were final semester students of the D4 Business Administration Study Program, Department of Business Administration, State Polytechnic of Ujung Pandang. Final-semester students were taken as the participants because they were regarded to be work-ready and capable of representing the realities of employees in the real world. There were 94 participants in this study. The number of individuals who got the treatment was 48, whereas those who did not get treatment were 46. Participants assumed the role of an employee at their individual businesses. Each participant did many tasks based on a predetermined job description.

This research utilized primary data, which was collected directly from the source. The instrument that was used to gather data was a performance progress checklist. A list of tasks that needed to be finished during the period of time that the experiment was being conducted served as the basis for determining how well each individual was able to finish work and generate output during the test.
In experimental research, many steps must be completed. These phases must be subdivided according to the sample group since one of them is distinct from the others. These phases consist of the following:

<table>
<thead>
<tr>
<th>No</th>
<th>The Phases of Participant Group that get treatment (with music in the work environment)</th>
<th>The Phases of the Participant Group that did not get treatment (without music in the work environment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Creating research instruments and work instruction as well as a simulation laboratory</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Explaining to the participants about the work regulation in the simulation laboratory.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td><strong>Starting to work like a real employee in a workplace with music in the work environment</strong></td>
<td><strong>Starting to work like a real employee in a workplace without music in the work environment</strong></td>
</tr>
<tr>
<td>4.</td>
<td>Assessing participants’ performance</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Processing and analyzing data</td>
<td></td>
</tr>
</tbody>
</table>

The first and second phases of this experimental study are the preparation phase. The following phase was the data retrieval implementation phase. Then, data was collected through the subsequent phase, which was assessment. The last step was the processing and analysis of data. The “independent-samples T Test” test technique was employed for data processing. The purpose of the test was to determine the average difference in performance between the sample group that listened to music and the sample group that did not.

![Figure 3. Flow Chart of Research Process](image_url)
RESULTS AND DISCUSSION

There are several participant characteristics in this research. Each participant was categorized based on their gender and position.

Table 2. Participants based on gender

<table>
<thead>
<tr>
<th>No</th>
<th>The participants of the group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>the group with treatment (experimental group)</td>
<td>6</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
<td>The group without treatment (controlling group)</td>
<td>7</td>
<td>17</td>
<td>24</td>
</tr>
</tbody>
</table>

The total of participants 47

Based on the table above, there was a total of 47 participants taking part in the experiment. There were 13 male participants and 34 female participants in the study. All of the participants were divided into two groups; one group received treatment, while the other group acted as a control and did not get treatment.

There was a total of 23 participants who participated in the treatment group (6 men and 17 women). One of the participants in the group was finally expelled after not being involved in the 15th session of the 16 planned sessions. After the trial was over, a total of 22 participants from the treatment group fully participated in all planned sessions.

The number of participants in the control group or the group without treatment was 24 participants (7 men and 17 women). Three participants were excluded from the control group due to low attendance percentage because they only attended twice in 16 sessions. Twenty-one people comprised the control group at the completion of the trial.

There was a total of 43 participants whose data could be analyzed; 22 of them were in the treatment group and 21 in the control group.

Homogeneity Test

Experimental Group, Variance = 8.14
Control Group, Variance = 18.79
F test:
F-Count = 2.31
F-Table = 2.10
F-Count > F-Table = 2.31 > 2.10, (F-test: Two-sample Assuming Unequal Variances)

The homogeneity test revealed that the data collected was not homogeneous. The results of F-Count (2.31) were greater than those of F-Table (2.10). This condition showed that in testing, the Independent Simple T-Test must employ the "Two-sample Assuming Unequal Variances" method.
Independent Simple T-Test

After carrying out the F test, the next stage was independent simple T-Test testing. The amount of data used in this test was from 43 participants. A total of 22 participants were included in the experimental group that received treatment, and the remaining 21 were included in the controlling group category that did not receive treatment. The number of participants was reduced from 47 to 43, however, four individuals were expelled in the middle of the experiment for insufficient participation. In the end, 43 individuals remained to participate in the final phase. Finally, the remaining participants completed the final process were 43 participants.

### Table 4. The Result of Independent Simple T-Test between Experimental Group (A) and Controlling Group (B)

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>82,40530303</td>
<td>79,702381</td>
</tr>
<tr>
<td>Variance</td>
<td>8,141729798</td>
<td>18,791369</td>
</tr>
<tr>
<td>Observations</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>2,403280411</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) one-tail</td>
<td>0,010925177</td>
<td></td>
</tr>
<tr>
<td>t Critical one-tail</td>
<td>1,690924255</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0,021850353</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>2,032244509</td>
<td></td>
</tr>
</tbody>
</table>

In the table 4, there is a statistically significant average difference between the experimental group (group A) and the control group (group B). The mean for the experimental group is 82.40, whereas the mean for the control group is 79.70. The average difference is deemed significant since its P-Value is less than 0.019 or its alpha value is less than 0.05. In addition, t-count displays the value 2.01, which is more than t-table.

This study validates the findings of previous studies that show music affects performance. In a number of companies, background music has a substantial influence on staff performance (Lisa et al., 2022; Nedelkovska, 2019). This feature emphasizes the significance of attempts to include music in workers’ work environments. Musical insertion gives biological, social, and, most importantly, psychological and organizational well-being to coworkers, hence contributing to the achievement of QWL in the workplace (El-Aouar et al., 2016). Music is an emotional stimulant that stimulates intellectual and physical activities (Lvovna et al., 2017). When doing research, individuals who listen to music are extra excited about their job when they are listening to their preferred music. For instance, each employee has a song that inspires them to work harder.
CONCLUSION

The result of this study indicated that employees’ productivity is much higher when they listen to music while working than when they don’t. Those that play music while working tend to get better results. It has been shown that those who listen to their preferred music while working is much more productive. It is ideal for companies to provide areas or facilities suitable for listening to music. Music has been shown to increase productivity in the workplace and costs very little to use. Naturally, the best music to play at the workplace is the kind of music the employees like listening to.

REFERENCES


