Research Article

The Effect of Leadership and Work Environment on Organizational Commitment Through Job Satisfaction As an Intervening Variable: A Case Study of Employee at PT. Duwa Atmimuda Kudus

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Abstract.
This study aims to analyze the effect of leadership and work environment on organizational commitment through job satisfaction as an intervening variable (a case study of employees at PT Duwa Atmimuda Kudus). The population in this research were employees of the production department of PT Duwa Atmimuda Kudus. The sampling method used was the purposive sampling technique. The total sample in this study was 173 employees. The analysis technique used was the SEM AMOS Version 24 application. The results showed that leadership has a negative but insignificant effect on job satisfaction. However, the work environment has a positive and significant effect on job satisfaction. Leadership has a negative but insignificant effect on organizational commitment. The work environment has a negative but insignificant effect on organizational commitment. Job satisfaction has a positive and significant effect on organizational commitment.

Keywords: leadership, work environment, organizational commitment, job satisfaction

1. Introduction

In addition to investment and technology, the growth of a company highly depends on human resources (HR). Human resources are the most important part of an organization because an organization needs skilled and efficient employees to run the wheels of the organization. Employees are also the most valuable asset that an organization must have, so they need to be nurtured or developed properly. It is because, without them, organizational goals cannot be achieved even with highly developed facilities.

The availability of competent human resources can increase productivity and make the organization more competitive. Therefore, organizations need to improve the skills of their employees to support the growth and development of the company both at
home and abroad. One of the things that encourage organizations to have competent human resources or employees can be seen in the leadership of the organization itself.

Leadership is a process by which an individual influences a group of individuals to achieve a common goal (Northouse, 2016: 6). Organizational commitment is the level at which a worker identifies an organization, its goals and hopes to remain a member (Robbins & Judge, 2015: 47). If the boss is good, likes to involve employees in big projects, likes to appreciate their work, and likes to motivate, this can foster a high commitment to the company.

In addition, leadership has an influence on employee job satisfaction. Job satisfaction is a positive feeling about work resulting from an evaluation of its characteristics (Robbins & Judge, 2015: 46). Someone who has a high level of job satisfaction then they have positive feelings about their job (Robbins & Judge, 2015: 46).

The work environment is the actual state of the company in the form of work facilities and infrastructure around the employee's workplace. The work environment includes, among others; the internal atmosphere of the workplace, work facilities and tools, cleanliness, lighting, comfort, and working relationships between employees who work in the company where they work (Sutrisno, 2016: 118).

PT Duwa Atmimuda Kudus is located at Jambean Street No. 21, Kudus Regency. PT Duwa Atmimuda Kudus was previously an Adi Workshop, initially only as a supplier for PT Hartono Istana Teknologi. However, with current developments, the company is expanding its market share as a supplier for companies in Central Java, the Special Region of Yogyakarta, and the East Java Region.

Some problems occur during the development of the company PT Duwa Atmimuda Kudus. One of those problems is the low level of employee organizational commitment. The following is a table that shows employee exit data at PT Duwa Atmimuda Kudus from 2020 to 2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>Employee Exit</th>
<th>Total Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>1</td>
<td>329</td>
</tr>
<tr>
<td>2021</td>
<td>4</td>
<td>325</td>
</tr>
<tr>
<td>2022</td>
<td>9</td>
<td>316</td>
</tr>
</tbody>
</table>

Source: HRD PT. Duwa Atmimuda Kudus, 2023

Over the last 3 years the number of employees leaving the company has increased, indicating the low level of organizational commitment. Leaders in this company often motivate their employees and direct them to develop the potential they already have.
after working in the company. So many employees leave and decide to set up their businesses and lack satisfaction with their work environment. Furthermore, his leadership has not been maximized enough because there are still indicators that have sufficient qualifications. There are still inadequate facilities and infrastructure. There is also lack of employee satisfaction in the uneven distribution of overtime payment.

This research is motivated by the research gap in previous studies which can be explained as follows:

The first research done by Dharminto, et al (2021) states that leadership has a positive and significant effect on job satisfaction. It is also reinforced by research conducted by Bagis, et al (2021) that states that leadership has a positive and significant effect on job satisfaction. Meanwhile, Hadiyatno's research (2022) states that leadership has a positive but insignificant effect on job satisfaction.

Ratnasari, et al (2020) found that the work environment has a positive and significant effect on job satisfaction. According to research conducted by Fatmawati and Chaerudin (2021), the work environment has a positive and significant effect on job satisfaction. Meanwhile, Mahdiana and Ubaidillah (2021) found that the work environment has a positive but insignificant effect on job satisfaction.

According to Subagyo et al's research (2019), leadership has a positive effect on organizational commitment. In addition, Tumbelaka, et al (2019) also discovered that leadership has a positive and significant effect on organizational commitment. Meanwhile, research conducted by Bagis, et al (2020) revealed that leadership has a negative but insignificant effect on organizational commitment.

Edward and Purba's (2020) research indicates that the work environment has a positive and significant effect on organizational commitment. According to studies by Irawan and Le (2021), the work environment affects organizational commitment. Meanwhile, Marpaung et al. (2022) found that the work environment has a positive but insignificant effect on organizational commitment.


Based on the explanation of the background, phenomena, and several research gaps above, this research is conducted to analyze the effect of leadership, and work environment on organizational commitment through job satisfaction as an intervening variable (case study on employee of PT. Duwa Atmimuda Kudus).
Based on the problems, the theoretical framework for this research is as follows:

**Figure 1: Theoretical Framework.**

- **H1**: Leadership has a positive and significant effect on job satisfaction.
- **H2**: Work environment has a positive and significant effect on job satisfaction.
- **H3**: Leadership has a positive and significant effect on organizational commitment.
- **H4**: Work environment has a positive and significant effect on organizational commitment.
- **H5**: Job satisfaction has a positive and significant effect on organizational commitment.

### 2. Method

This research is included in the type of quantitative research which aims to test theories, build facts, show relationships between variables, provide statistical descriptions, and estimate and predict the results (Fauzi, et al, 2022: 17-18). The population was 304 employees of the production department of PT Duwa Atmimuda Kudus. The sampling technique used in this research was the Slovin formula. The sample was 173 employees of PT Duwa Atmimuda Kudus. The sampling technique used in this research was the purposive sampling technique which was based on predetermined criteria (Ferdinand, 2014: 179). The sample criteria used are employees who have worked for at least 1 year.

This research used primary data which was obtained through distributing questionnaires in the form of a list of questions related to variables. Meanwhile, the secondary data in this research were employee data, profile, vision and mission, organizational...
structure, job description, and history of PT Duwa Atmimuda Kudus. The data collection was done through documentation, observation, questionnaire, and data analysis using SEM AMOS version 24.

3. Result and Discussion

3.1. Presenting the Results

The number of male respondents were 165 respondents (95.4%) and female respondents were 8 respondents (4.6%). This shows that employees at PT Duwa Atmimuda Kudus are predominantly male.

The respondents in this study had the following education levels: JHS (3 respondents, 1.7%), SHS (158 respondents, 91.3%), D3 (4 respondents, 2.3%), and S1 (8 respondents, 4.6%). This demonstrates that the majority of employees of PT Duwa Atmimuda Kudus have an SHS education level.

The age distribution of the respondents in this study is as follows: 5 respondents (2.9%) are between the ages of 17 to 20; 38 respondents (22%) are between the ages of 21 to 30, 80 respondents (46.2%) are between the ages of 31 to 40, and 50 respondents (28.9%) are over the age of 41. This shows that all of the employees at PT Duwa Atmimuda Kudus are of productive age.

The duration of employment for the respondents in this study was as follows: 35 participants (20.2%) worked for 1-3 years, 18 participants (10.4%) for 4-6 years, 50 participants (28.9%) for 7-9 years, and 70 participants (40.5%) for ≥ 10 years. This indicates that the majority of PT Duwa Atmimuda Kudus's employees have worked there for more than ten years.

<table>
<thead>
<tr>
<th>TABLE 2: Hypothesis Test Regression Weight.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
</tr>
<tr>
<td>Job Satisfaction</td>
</tr>
<tr>
<td>Organizational Commitment</td>
</tr>
<tr>
<td>Organizational Commitment</td>
</tr>
<tr>
<td>Organizational Commitment</td>
</tr>
</tbody>
</table>

Source: AMOS output results, 2023.

Based on the table the hypothesis test above can be explained as follows:
3.1.1. Hypothesis 1 (Direct Effect of Leadership on Job Satisfaction)

The C.R. value between the effect of leadership on job satisfaction is -1,066 and the p-value is = 0.287. Because the C.R. value is smaller than 1,645 (-1,066 < 1,645) it means it is negative and the p-value is more than $\alpha$ (0.287 > 0.05) which means it is not significant. Thus it can be concluded that leadership has a negative but insignificant effect on job satisfaction. Hypothesis 1 is rejected.

3.1.2. Hypothesis 2 (Direct Effect of Work Environment on Job Satisfaction)

The C.R. value between the effect of work environment on job satisfaction is 4.515 and the p-value is = 0.000. Because the C.R. value is greater than 1.645 (4.515 > 1.645) it means it is positive and the p-value is less than $\alpha$ (0.000 < 0.05) which means it is significant. Thus it can be concluded that the work environment has a positive and significant effect on job satisfaction. Hypothesis 2 is accepted.

3.1.3. Hypothesis 3 (Direct Effect of Leadership on Organizational Commitment)

The C.R. value between the effect of leadership on organizational commitment is -0.631 and the p-value = 0.528. Because the C.R. value is smaller than 1.645 (-0.631 < 1.645) it means it is negative and the p-value is more than $\alpha$ (0.528 > 0.05) which means it is not significant. Thus it can be concluded that leadership has a negative but insignificant effect on organizational commitment. Hypothesis 3 is rejected.

3.1.4. Hypothesis 4 (Direct Effect of Work Environment on Organizational Commitment)

The C.R. value between the effect of work environment on organizational commitment is -0.022 and the p-value is = 0.982. Because the C.R. value is smaller than 1.645 (-0.022 < 1.645) it means it is negative and the p-value is more than $\alpha$ (0.982 > 0.05) which means it is not significant. Thus it can be concluded that job satisfaction has a negative but insignificant effect on organizational commitment. Hypothesis 4 is rejected.
3.1.5. Hypothesis 5 (Direct Effect of Job Satisfaction on Organizational Commitment)

The C.R. value between the effect of job satisfaction on organizational commitment is 6,059 and the p-value is $= 0,000$. Because the C.R. value is greater than 1,645 ($6,059 > 1,645$) it means it is positive and the p-value is less than $\alpha$ ($0,000 < 0,05$) which means it is significant. Thus it can be concluded that job satisfaction has a positive and significant effect on organizational commitment. Hypothesis 5 is accepted.

3.1.6. Mediation Test

**Table 3: Magnitude of Total Effect.**

<table>
<thead>
<tr>
<th>No</th>
<th>Path of Effect</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>X1-Y (leadership-organizational commitment)</td>
<td>-0.051</td>
<td>-0.089</td>
<td>-0.140</td>
<td>Not able to be an intervening variable</td>
</tr>
<tr>
<td>2.</td>
<td>X2-Y (work environment-organizational commitment)</td>
<td>-0.002</td>
<td>0.416</td>
<td>0.414</td>
<td>Able to be an intervening variable</td>
</tr>
</tbody>
</table>

Source: AMOS output results, 2023.

Based on the table above, the total effect of leadership on organizational commitment through job satisfaction is -0.140 with the direct effect value is -0.051 and the indirect effect is -0.089. The direct effect has a greater value than the indirect effect value so it can be interpreted that job satisfaction cannot mediate or become an intervening variable for leadership on organizational commitment.

The total effect of the influence of work environment on organizational commitment through job satisfaction is 0.414 with the direct effect value being -0.002 and the indirect effect being 0.416. The direct effect has a smaller value than the indirect effect value so it can be interpreted that job satisfaction can mediate or become an intervening variable of work environment on organizational commitment.

3.2. Create a Discussion

3.2.1. Leadership on Job Satisfaction

Based on the results of hypothesis testing, the effect of leadership on job satisfaction has a negative but insignificant effect. Leadership does not affect job satisfaction. This shows that at PT Duwa Atmimuda Kudus, job satisfaction is not influenced by whether
or not a leader is good, but is influenced by the individual satisfaction of employees. It is because the level of satisfaction of a person is different, such as the salary earned and the level of satisfaction with coworkers.

These results are consistent with the research of Ruhayu (2023) and Pally & Septyarini (2022) which state that leadership has a negative and insignificant effect on job satisfaction. However, they are in contrast to the results of research conducted by Dharminto, et al (2021) and Bagis, et al (2021) which state that leadership has a positive and significant effect on job satisfaction.

3.2.2. Work Environment on Job Satisfaction

Based on the results of hypothesis testing, the effect of work environment on job satisfaction has a positive and significant effect. This shows that a good work environment can increase job satisfaction, whereas a good work environment can reduce employee boredom and stress levels it will increase employee job satisfaction.

These results are in line with the research of Fatmawati & Chaerudin (2021), Indrifianto & Aima (2022), and Ratnasari, et al (2020) which state that the work environment has a positive and significant effect on job satisfaction. This study contrasts with the results of research conducted by Simanungkalit (2022) and Astuti, et al (2021) which state that the work environment has a negative but insignificant effect on job satisfaction.

3.2.3. Leadership on Organizational Commitment

Based on the results of hypothesis testing, the effect of leadership on organizational commitment has a negative but insignificant effect. This shows that leadership does not affect organizational commitment. This shows that in the company PT Duwa Atmimuda Kudus, the leadership factor is not a factor that affects organizational commitment. This means that so far employee commitment has not been influenced by who or how the leadership is. This can happen because most of the employees have worked for more than 10 years. However, organizational commitment at PT Duwa Atmimuda Kudus is influenced by the presence of employees who still do not carry out the rules properly. For example, in the case in 2022, it was discovered that there were several employees who played cards during working hours.

These results are in accordance with the research of Bagis, et al (2020), Ryan & Justine (2023), and Dewi (2017) which state that leadership has a negative but insignificant effect on organizational commitment. In contrast to the results of research conducted

3.2.4. Work Environment on Organizational Commitment

Based on the results of hypothesis testing on the effect of the work environment on organizational commitment, it has a negative but insignificant effect. The environment has no effect on organizational commitment. Based on the phenomenon at PT Duwa Atmimuda Kudus, the lack of adequate work equipment and equipment has a huge impact on employee involvement in achieving organizational goals.

These results support the research of Suryo, et al (2020) and Intan, et al (2019) which state that the work environment has a negative and insignificant effect on organizational commitment. However, these results contrast with the results of research conducted by Edward & Purba (2020) and Irawan & le (2021) which state that the work environment has a positive and significant influence on organizational commitment.

3.2.5. Job Satisfaction on Organizational Commitment

Based on the results of hypothesis testing on the effect of job satisfaction on organizational commitment, it has a positive and significant effect. This shows that the more job satisfaction increases for employees, the better or higher the organizational commitment.

These results are in accordance with the research of Marpaung, et al (2022), Ikasari, et al (2022), and Irawan & le (2021) which state that job satisfaction has a positive and significant effect on organizational commitment. However, these results contrast with the results of research conducted by Pratama, et al. (2019) and Erawati, et al (2022) that state that job satisfaction has a positive but insignificant effect on organizational commitment.

3.2.6. Leadership on Organizational Commitment through Job Satisfaction

Based on the calculation results, it is known that the direct effect value is -0,051 and the indirect effect is -0,089. The direct effect has a greater value than the indirect effect value. Therefore, it can be interpreted that job satisfaction cannot mediate or become an intervening variable for leadership on organizational commitment.
These results of this study are inline with the research of Bagis, et al (2021), which states that job satisfaction cannot mediate leadership variables on organizational commitment. However, it is different from research results done by Endri & Ignatus (2019), Putri, et al (2022), Putu, et al (2023) which state that job satisfaction can mediate leadership variables on organizational commitment. This means that if the leadership in the company is not good, employee job satisfaction with the leaders in the company will not affect how much organizational commitment increases or decreases.

3.2.7. Work Environment on Organizational Commitment through Job Satisfaction

Based on the calculation results, it is known that the direct effect value is -0.002 and the indirect effect is 0.416. The direct effect has a smaller value than the indirect effect value so that it can be interpreted that job satisfaction can mediate or become an intervening variable of work environment on organizational commitment.

These results are consistent with Marpaung et al's (2022) research, which found that job satisfaction can mediate work environment variables on organizational commitment. Meanwhile, they contradict the findings of Ika's research (2020), which found that job satisfaction cannot mediate work environment variables on organizational commitment. This suggests that the more unpleasant and safe the work environment, the more unsatisfied individuals are with their company, resulting in lower organizational commitment.

4. Conclusion

From the results and the discussion of the research, the researchers can draw the following conclusions:

Leadership has a negative and insignificant effect on job satisfaction among employees of PT Duwa Atmimuda Kudus. This means that leadership will not affect employee job satisfaction. The work environment has a positive and significant effect on job satisfaction among employees of PT Duwa Atmimuda Kudus. This indicates that a good work environment can increase job satisfaction. Leadership has a negative and insignificant effect on organizational commitment among employees of PT Duwa Atmimuda Kudus. This shows that leadership will not affect organizational commitment. The work environment has a negative and insignificant effect on organizational commitment among employees of PT Duwa Atmimuda Kudus. This means that a work environment will not affect organizational commitment. Job Satisfaction has a positive and significant
effect on organizational commitment among employees of PT Duwa Atmimuda Kudus. This means that the more employee job satisfaction increases, the better or higher the organizational commitment.

For the future researchers, they can add other research variables such as organizational culture and career development.

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References


