THE EFFECT OF WORK ENVIRONMENT AND INNOVATION ON JOB SATISFACTION OF MILLENNIAL EMPLOYEES AT PT.XYZ WITH CAREER DEVELOPMENT AS AN INTERVENING VARIABLE

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Abstract
Employees are an important company asset who have quality work competencies to provide the best performance to support company programs. In practice, the Human Capital (HC) team has a competency improvement program that requires motivation from employees as an internal factor so that the program can run effectively. Work motivation is affected by a variety of factors such as salary, work environment, job security, relationships with coworkers, awards, and so on. This influences whether an employee is satisfied with his or her job.

The proportionate stratified random sampling approach was utilized, which is a sampling methodology for populations with mixed or variable features, and the data in this study uses a quantitative approach. The population is millennial employees at PT XYZ with a total of 139 millennial employees. The data was collected by distributing a questionnaire with 28 closed questions and response options indicating how strongly respondents agreed or disagreed with the questions posed.

The findings indicate an encouraging correlation between working environment and innovation, as well as job satisfaction among millenial employees, with career development acting as an intervening variable that mediates the relationship. As a result, it is critical for a company to encourage its people to work hard in order to achieve the company's objectives and goals.

Keywords: Job Satisfaction, Innovation, Work Environment, Career Development

Introduction
Employees are an important company asset who have quality work competencies to provide the best performance to support company programs. In practice, the Human Capital (HC) team has a competency improvement program that requires motivation from employees as an internal factor so that the program can run effectively. Work motivation is affected by a variety of factors such as salary, work environment, job security, relationships with coworkers, awards, and so on. This
influences whether an employee is satisfied with his or her job. According to (Schultz & Schultz, 2006), the environment or working conditions include all aspects of physical work, work psychology, and work regulations that can affect job satisfaction and productivity. Companies must provide employees with a flexible work environment in which they feel their opinions are valued and they are a part of the organization. The results of the study (Raziq & Maulabakhsh, 2015) state that there is a positive relationship between the work environment and the intrinsic aspects of job satisfaction.

(Szobiová, 2015) and (Ying, 2006) agree on the fact that a good work environment and a well-built workplace can be considered as an incentive for employees to be more innovative and creative. Innovation can create more effective and efficient work, besides that awards from superiors or organizations can also be given to employees which in turn can lead to job satisfaction. PT. XYZ has created a culture that requires its employees to continuously innovate both in terms of meeting market demands and in terms of knowledge and technical capabilities. The annual innovation award program is a great opportunity to assist employees in improving the quality of their performance, which is also related to job satisfaction.

(Grolleau et al., 2022) highlights that innovation can be both an input and an output of job satisfaction in his research on the relationship between employee job satisfaction and the level of innovation activity at the company level. Employees who work in companies that participate in innovation activities are more likely to be satisfied with their jobs.

PT XYZ is a pharmaceutical company where in the last 10 years the addition of millennial employees has been quite significant. Currently, there are several employees who have held the same position for quite a long time; there are more than 10 staff members who have worked for more than 10 years, and more than 10 people who have held the same position for 5-9 years. This condition is enough to illustrate that the turnover of career positions in the form of promotions and career transfers in several divisions is quite slow. Meanwhile, according to Sinha (2020), career turnover is a career development activity that is useful in increasing their knowledge, skills, and abilities to improve job performance and add value to current and future jobs that bring a sense of satisfaction and value.

According to Yanuar's report (2019), employee job satisfaction at PT XYZ has decreased from 72% to 62% since 2015. According to PT XYZ's (2022) internal report on work engagement, the most dissatisfied job position in terms of performance management is Researcher, followed by staff positions and Junior Researchers. Besides, there are age groups; survey data shows that millennials are the generation that criticizes almost all factors that support engagement or job satisfaction. This data supports the issue of job dissatisfaction among millennial workers.

Previous research has been conducted on the factors that influence employee job satisfaction, but no research has been conducted on millennials with the issue of career development conditions as an intervening variable in their research.

The purpose of this study, is to analyze the influence of the work environment and innovation on the job satisfaction of millennial employees at PT XYZ, with career development as an intervening variable that mediates the relationship between variables.
Literature Review

Job Satisfaction

Job satisfaction in general refers to how much a person considers their job interesting, entertaining, and challenging in a positive way. Many factors influence job satisfaction, including engagement, motivation, job clarity, involvement in decision-making, rewards, adequate access to information to execute the job, active encouragement to work creatively and utilize initiative, and overall business satisfaction.

Job satisfaction is an essential concept in the context of organizational behavior, according to study (Aslan & Atesoglu, 2021), since it influences various organizational variables, including performance, organizational citizenship behavior, and organizational commitment. Job satisfaction refers to all the emotional formations that employees have learned, witnessed, and gained over their working careers. Although research on job satisfaction began in the 1920s, Maslow's (1954) hierarchy of needs theory and Herzberg's (1959) two-factor theory established their principles decades later.

Job satisfaction has three dimensions: intrinsic (e.g., recognition, responsibility), extrinsic (e.g., job security, working conditions), and overall job satisfaction. The job itself is an intrinsic job satisfaction component, whereas external factors are related to the environment and working conditions.

According to the theories outlined above, job satisfaction is an emotional state in which employees perceive their work to be pleasant or unpleasant. This may be seen through five indicators: (1) satisfaction with salary, (2) satisfaction with promotion, (3) satisfaction with colleagues, (4) satisfaction with supervision/supervisor, (5) satisfaction with the job itself.

Working Environment

The work environment has two dimensions: the first is the physical condition of the workplace, and the second is the social condition. Working conditions will be related to employment security, employee safety, performance awards, motivating facilities, and sustaining excellent communication among coworkers and superiors. Although factors such as wage levels, flexible working periods, and involving employees in decision-making also play an important role in a better working environment (Taheri 2020).

In general, according to some of the literature discussed, the work environment is a factor that can help increase motivation, productivity, and job satisfaction. The parameters in the work environment can be categorized as follows:

a) Physical (level of satisfaction with office decoration, desk position, and sanitation as well as other physical conditions such as light, temperature, noise, and air).

b) Social (level of satisfaction with psychological factors in the work environment such as communication, motivation, relationships with colleagues, and relationships with superiors).

c) Security (level of satisfaction with job security, and employee safety).

d) Financial component (level of satisfaction with wage levels, motivational facilities, rewards, and logistical support) work environment.
Innovation

According to (Aslan & Atesoglu, 2021), innovation is a new or improved product or process (or a combination thereof) that is significantly different from the unit's previous product or process and that has been made available to potential users (product) or used by the unit (process). Research results show innovation and participation as workplace values manifest their influence on job satisfaction. Other research also illustrates that innovation creates opportunities for individuals to have more challenging and meaningful lives, leading to greater well-being and life satisfaction.

The "why" and "how" of innovation and engagement in the workplace. Employees who believe their organization encourages participation and innovation are more likely to provide creative or change-oriented ideas to the organization, engage in problem-solving and decision-making processes, and influence others. These variables contribute to a positive bond or relationship between employees and their jobs and organizations.

It is important to explore whether innovative approaches can provide incentives to motivate employees in public enterprises, as other extrinsic rewards, such as money or promotion, and intrinsic rewards for achievement contribute to organizational improvement.

From the explanation above, it can be determined that innovation is the process or result of changes in products or processes that are useful for increasing value or efficiency. Some dimensions of innovation are initiatives to pursue innovation, organizational structures that accommodate innovation, and a culture of appreciation for innovation.

Career Development

Career development studies the pathways to increased professional growth, career paths, and overall job satisfaction. Understanding career development theory can be an important step in determining core values, strengths, weaknesses, and desired pathways.

Career development aims to explain why a person may be suited to a particular career and provide advice on how to achieve the ideal path, while also focusing on identifying common career stages during education, guidance, and other interventions.

Frank Parsons pioneered career development theory with the release of his traits and factors theory in the early 1900s. Since then, the study of career development has generated various theories and attracted a lot of public interest.

Results Methodology

The sampling method used is the proportional stratified random sampling technique, which is a sampling technique for populations that have heterogeneous or varied characteristics, and the data in this study is quantitative data.

In this study, the population is millennial employees at PT XYZ. Divisions that are active in the culture of innovation were determined to be the target population of the study, with a total of 139 millennial employees. The number of samples is calculated based on the sample measurement method (Slovin, 1960).

The data was collected by distributing a questionnaire with 28 closed questions and response options indicating how strongly respondents agreed or disagreed with the questions posed. The gathered data is then converted into numbers using Likert scale indicators (Sugiyono, 2014). The
Likert scale is used to rate all variables stated in the question, with the greatest score (5) for the statement strongly agree (SS) and the lowest score (1) for the statement strongly disagree (STS). Questionnaire analysis is carried out by exporting data from the recapitulation of respondents' responses to excel sheets. The data will be analyzed or calculated using SPSS software. To illustrate the findings of the questionnaire, correlation analysis, regression analysis, and ANOVA tables were utilized in SPSS (Waleed et al., 2021). Path analysis is used to discover the causal link between the dependent variable (work environment, innovation, and career development) and independent variables (job satisfaction) by describing the direct or indirect impact. According to Sugiyono (2014), path analysis is a component of a regression model that may be utilized to investigate the causal link between one variable and another. The objective of regression tests with intervening variables is to determine the indirect influence of one variable on another.

![Figure 1. The Conceptual Framework of The Effect of Work Environment and Innovation on Job Satisfaction of Millennial Employees at PT.XYZ with Career Development as an Intervening Variable](image)

**Results**

Data collection was carried out with a structured questionnaire distributed using google form. Data was obtained from 139 respondents. Respondent data in this study is needed to find out the background of respondents which can be used as input to explain the results obtained from the research. Respondents are categorized by several groups based on gender, education, position, employee status, current working period. Respondents’ characteristic data shown in Table 1.

| Table 1. Respondents’ Characteristics |
|-------------------------------|-----|------|
| Respondents' Characteristics  | Frequency | Percentage |
| Gender                        |       |       |
| Male                          | 72    | 52%   |
| Female                        | 67    | 48%   |
| Latest Education              |       |       |
| High School                   | 11    | 8%    |
| D3                            | 16    | 12%   |
| S1/D4                         | 79    | 57%   |
| S2/S3                         | 33    | 24%   |
| Job Position                  |       |       |
| Head of Department            | 14    | 10%   |
Reliability Test
Reliability test done by testing the instrument using the Alpha-Cronbach method. The questionnaire is reliable if the reliability index is greater than 0.7. The results of the reliability test are as follows:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Reliability Index</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment</td>
<td>0.757</td>
<td>0.7</td>
</tr>
<tr>
<td>Innovation</td>
<td>0.834</td>
<td>0.7</td>
</tr>
<tr>
<td>Career Development</td>
<td>0.894</td>
<td>0.7</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.873</td>
<td>0.7</td>
</tr>
</tbody>
</table>

The Table 2 shows that for 28 questions of the questionnaire about working environment, the index consistency was 0.757; for innovation was 0.834; for career development was 0.894; whereas for job satisfaction the value was 0.873. It makes the responses collected more valuable as the data is proper to analyze the impact of work environment, innovation on job satisfaction with career development as an intervening. These results indicate that the statement items on the questionnaire are reliable for measuring their variables.

Path Analysis
The Effect of Work Environment and Innovation on Career Development
The results of calculations and data processing using SPSS 27.0 obtained the path coefficient of each independent variable, specifically the work environment and innovation on career development as shown in the table below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>t</th>
<th>p-value</th>
<th>R-Square</th>
<th>1- R-Square</th>
</tr>
</thead>
</table>


From Table 3, the total effect of work environment variables and innovation on career development is 0.296 or 29.6%, while the remaining 70.4% is the influence of other factors outside the two independent variables. The direct influence effects can be seen in Table 4 as follows.

Table 4. Test of Direct Effects of Work Environment and Innovation on Career Development

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>Direct Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁</td>
<td>0.345</td>
<td>11.9%</td>
</tr>
<tr>
<td>X₂</td>
<td>0.257</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

Based on the table above, the work environment variable has a direct effect of 11.9%, Furthermore, the innovation variable has a direct effect of 6.6%, and an indirect effect through the work environment of 6%. Furthermore, the total effect of innovation on career development is 6.6%. According to the values in Table 4, we can calculate the influence of each work environment variable and innovation on job satisfaction.

\[
Y = 0.345X₁ + 0.257X₂ + 0.704
\]

The Effect of Work Environment and Innovation on Job Satisfaction

According to the results of calculations and data processing using SPSS 27.0, the path coefficients of each independent variables on job satisfaction, are shown in the table below:

Table 5. Path Coefficient of Work Environment and Innovation on Job Satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>t</th>
<th>p-value</th>
<th>R-Square</th>
<th>1 - R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁</td>
<td>0.506</td>
<td>7.387</td>
<td>0.000</td>
<td>0.610</td>
<td>0.390</td>
</tr>
<tr>
<td>X₂</td>
<td>0.358</td>
<td>5.230</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 5, the total effect of work environment variables and innovation on job satisfaction is 0.610 or 61.0%, while the remaining 39.0% is the influence of other factors outside the two independent variables. The direct effect, of each independent variable on the dependent variable can be seen in Table 6 as follows.

Table 6. Test of Direct Work Environment and Innovation on Job Satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>Direct Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁</td>
<td>0.506</td>
<td>25.6%</td>
</tr>
<tr>
<td>X₂</td>
<td>0.358</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Based on the table above, the work environment variable has a direct effect of 25.6%, Furthermore, the innovation variable has a direct effect of 12.8%. According to the values in Table
11, we can calculate the influence of each work environment variable and innovation on job satisfaction. The path equation is as follows: \[ Z = 0.506X_1 + 0.358X_2 + 0.390. \]

The Effect of Career Development (Y) on Job Satisfaction (Z)

Based on the results of calculations and data processing using SPSS 27.0, the path coefficient of career development on job satisfaction is obtained as shown in the table below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>t</th>
<th>p-value</th>
<th>R-Square</th>
<th>1- R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y → Z</td>
<td>0.772</td>
<td>14.221</td>
<td>0.000</td>
<td>0.596</td>
<td>0.404</td>
</tr>
</tbody>
</table>

From Table 7, the total effect of career development variables on job satisfaction is 0.596 or 59.6%, while the remaining 40.4% is the influence of other factors outside the independent variable. The path equation is as follows: \[ Z = 0.772Y + 0.404 \]

Based on the analysis of 1st sub-structure and 2nd sub-structure, to determine the effect of the work environment (X1) on job satisfaction (Z) through career development (Y) is to combine the coefficient values of the paths X1 and Z as follows: \[(0.345 \times 0.772) = 0.2663 \text{ or } 26.63\%\]. Then the total effect of work environment (X1) on job satisfaction (Z) through career development (Y) is 26.63%. \[ X_1 \rightarrow Y \rightarrow Z = 26.63\% \]

Meanwhile, to find out the effect of innovation (X2) on job satisfaction (Z) through career development (Y) is to combine the values of the path coefficients X2 and Z as follows: \[(0.257 \times 0.772) = 0.1984 \text{ or } 19.84\%\]. Then the total effect of innovation (X1) on job satisfaction (Z) through career development (Y) is 19.84%. \[ X_2 \rightarrow Y \rightarrow Z = 19.84\% \]

Figure 2. Path Diagram of The Effect of Work Environment and Innovation on Job Satisfaction of Millennial Employees at PT.XYZ with Career Development as an Intervening Variable

Hypothesis Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Path Coefficient</th>
<th>t</th>
<th>t_{constant}</th>
<th>p-value</th>
<th>H0</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment on Job Satisfaction</td>
<td>0.506</td>
<td>7,387</td>
<td>1,978 (db:136)</td>
<td>0.000</td>
<td>Declined</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
The Effect of Work Environment, Innovation, Career Development on Job Satisfaction of Millennial Employees at PT XYZ

Based on the test results in the table above, the t value of the work environment variable is 7.387; the t value of the innovation variable is 5.230; t value of the career development variable is 14.221. Since all t values were higher than the t constant, and all the p-value (0.000) lower than 0.05 it was decided to reject H0 so that H1 was accepted for all variables. This means that the work environment, innovation, and career development affects the job satisfaction of millennial employees at PT XYZ. The path coefficient of all variables is positive, so the results of this test provide empirical evidence that a better work environment, and better innovation culture will increase the job satisfaction of PT XYZ's millennial employees.

The Effect of Work Environment on Job Satisfaction of Millennial Employees at PT XYZ with Career Development as an Intervening Variable

Partial testing is carried out with the following hypothesis.

H0: The work environment has no effect on job satisfaction of millennial employees at PT XYZ with career development as an intervening variable.

H1: Work environment affects job satisfaction of millennial employees at PT XYZ with career development as an intervening variable.

By using the Sobel test, Z value of 3.278 was obtained. When its compared to the Z constant value of 1.98, Z value is more than Z constant or 3.278 > 1.98, and H0 is rejected, indicating that the work environment influences the job satisfaction of millennial employees at PT XYZ, with career development acting as an intervening variable.

Tabel 12. Sobel Test Result

<table>
<thead>
<tr>
<th>Z value</th>
<th>Z constant (5%)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.278</td>
<td>1.98</td>
<td>H1 accepted</td>
</tr>
</tbody>
</table>

The Effect of Innovation on Job Satisfaction of Millennial Employees at PT XYZ with Career Development as an Intervening Variable

Partial testing is carried out with the following hypothesis.

H0: The innovation has no effect on job satisfaction of millennial employees at PT XYZ with career development as an intervening variable.

H1: Innovation affects job satisfaction of millennial employees at PT XYZ with career development as an intervening variable.

By using the Sobel test, Z value of 2.262 was obtained. When its compared to the Z constant value of 1.98, Z value is more than Z constant (2.262 > 1.98), and H0 is rejected, indicating that the innovation influences
the job satisfaction of millennial employees at PT XYZ, with career development acting as an intervening variable.

<table>
<thead>
<tr>
<th>Z value</th>
<th>Z constant (5%)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.262</td>
<td>1.98</td>
<td>H1 accepted</td>
</tr>
</tbody>
</table>

### Discussion

The data analysis results show that the work environment has a positive impact on the job satisfaction of PT XYZ's millennial employees. This indicates that the better a company's work environment, the higher job satisfaction. In this study, a good work environment includes positive relationships with coworkers, opportunities for good communication and discussion, and the company's security and safety system is a strong factor influencing employee job satisfaction. The reward program for employees who innovate has the greatest influence on job satisfaction in the innovation factor. A culture of innovation will foster ease and effectiveness at work, increasing job satisfaction. The existence of company appreciation for succeeded in innovations adds positive value because other supporting factors such as recognition, involvement, and engagement in work appear.

Changes in job satisfaction can occur when an employee lacks opportunities for development in their career; the employee will feel that he no longer has high work motivation. If these needs are not met, he will be dissatisfied with his work. However, the findings of this study show that, while an employee who innovates can have a high level of job satisfaction, his level of job satisfaction may decrease if it is not supported by a development program in his career path.

### Conclusions And Recommendation

#### Conclusion

Based on the findings, it is possible to conclude that the millennial employees at PT XYZ has a level of job satisfaction that is influenced by work environment factors, innovation, and career development factors that can mediate changes in the level of job satisfaction. The variable that has the biggest impact on PT XYZ's millennial employees' level of job satisfaction is career development, with a 59.5% effect; other variables have an impact on the remaining 40.4%. Due to this comparatively strong influence, the career development factor significantly contributes to the analysis of the workplace and innovation on the job satisfaction of millennial employees at PT XYZ. This can be seen in the analysis of the workplace, where the impact on job satisfaction was initially 25.6% but increased to 26.6% with the intervention of career development factors. Similarly, the innovation factor analysis showed that the lowest influence, 12.8%, increased to 19.84% when career development factors were involved.

#### Recommendation

Suggestions for further research are to consider the characteristic factors of millennial respondents which may influence in determining career development programs, which can then
become a strategy in maintaining or increasing employee satisfaction at PT XYZ. Innovation has the least impact on job satisfaction, which is 12.8%. However, the influence exerted had a significant impact. To increase its potential, the annual innovation award program can be maintained, but further optimized by periodically reminding the importance of innovation in every aspect of work.

The career development value has the highest impact on job satisfaction; however, the average score of responses given to statements in the data provided by respondents is 3.23. This is the lowest score when compared to the responses of respondents to other variables. Suggestions for this issue are improvements in PT XYZ's employee career development program. According to respondent data, 33% of employees have been in the same position for more than 5 years even 10 years, implying that these employees do not experience rolling positions, career turnover, or even promotions. This must be addressed so that employee job satisfaction does not suffer or demotivation sets in, which will have an impact on company performance.

References


