

The Role of Job Satisfaction in Mediating the Influence of Transformational Leadership on Innovative Behavior in Employees of Pt. Xyz

Azriel Yuda Penalemen Tarigan¹, Ida Bagus Ketut Surya², I Gusti Made Suwandana³

^{1,2,3} Faculty of Economics and Business, Universitas Udayana, Bali, Indonesia

Address : Jl. Raya Unud Campus, Jimbaran, District. Kuta Sel., Badung Regency, Bali 80361

Author Correspondence : azrielyudaaa@gmail.com

Abstract. *The role of job satisfaction as a mediator of transformational leadership on employees' innovative behavior is crucial in the context of modern business competition. In the current era of globalization, competition between companies is increasingly strong, it requires companies to understand and optimize these factors to improve their performance and competitiveness. Therefore, this research aims to analyze the relationship between transformational leadership, job satisfaction, and employees' innovative behavior. This research was conducted at PT. XYZ, with a total sample of 60 employees determined based on saturation sampling. Data was collected through interviews and distributing questionnaires to research subjects. The data were analyzed using path analysis technique with SPSS. This research aims to analyze the mediating role of job satisfaction on the influence of transformational leadership on innovative behavior. The results of this research show that transformational leadership and job satisfaction significantly influence innovative behavior with a positive direction, transformational leadership significantly influences job satisfaction with a positive direction, and job satisfaction is able to mediate the influence of transformational leadership on innovative behavior as a partial. The implications of this research theoretically support the findings of previous research. The practical implications for PT. XYZ is to maintain innovative behavior, transformational leadership, and job satisfaction among its employees.*

Keywords: *Innovative Behavior ; Transformational Leadership ; Job Satisfaction*

INTRODUCTION

Changes in the business world are developing rapidly at this time, so companies must be able to adapt and compete effectively to continue to gain profits (Satria Efandi *et al.*, 2023). One of the many methods that an agency can take to be able to compete with other competitors in this era of rapid dynamics is by being innovative. (Sudirman *et al.*, 2020). Innovative behavior is considered the key to success in today's rapidly changing and competitive business world, where companies must continue to innovate to survive and develop (Kusuma dan Rahyuda, 2021). Innovative behavior can be broadly interpreted as a person's effort to create and produce new or different ways from those that have existed before to support performance (Rachman, 2019). Innovative behavior is not just the creation of new ideas, but also involves the process of implementing related ideas, especially in the context of job placement (Andani dan Wibawa, 2022).

This research has a study focus on one of the service provider agencies based in Denpasar City, namely PT. XYZ as a company providing *end-to-end solutions* in the field of Information and Communication Technology (ICT). Experience PT. XYZ for more than three

decades has made it a pioneer in providing ICT services in various industrial sectors including natural resources, finance, manufacturing, retail and distribution, as well as other public sectors. Questionnaire results regarding innovative behavior at PT. XYZ can be reviewed in the following table:

Table 1.
Pre-Survey Results

No.	Statement	Answer	
		Yes	No
1	I am able to think of creative ideas regarding problems existing in the company .	9	6
2	I am able to convince other people of my creative ideas .	7	8
3	I am able to seek support in realizing the creative ideas I have.	6	9
4	I am able to apply these creative ideas to existing problems in the company.	4	11

Source: Data processed, (in 2024)

The table above is the result of an initial *survey* of workers at PT. XYZ where it was found that the workers there had sufficient ability to produce creative ideas related to problems in the company. However, they are less able to convince other people of their creative ideas and are also unable to seek support to realize these ideas. Apart from that, employees are also unable to apply these creative ideas in solving existing problems in the company. The *pre-survey* results indicated that there was a phenomenon of less innovative behavior which was reflected in the large number of workers who chose "no" on the questions asked.

This research also carried out an interview process with three workers whose results showed problems related to innovative behavior, especially in the context of transformational leadership. One of the main obstacles is the low ability of superiors to involve employees in decision making due to the bureaucracy that must be carried out within the company. This results in employees feeling limited in contributing to decision making. Another problem that arises is the lack of individual interaction between superiors and subordinates, mainly due to busy working hours outside the office. Lack of employee job satisfaction is due to the lack of opportunities given to develop careers by the company. Employees feel they do not have clear access to opportunities for promotion or advancement. The causal factors involve a lack of employee development programs, lack of transparency in promotion policies, and a lack of open communication with superiors regarding promotion opportunities. Apart from that, the

status of employees who are only on contract also complicates the situation. Contract employees feel uncertain about long-term career opportunities and face limited access to development opportunities.

Transformational leadership can help create a culture of innovation within the organization and encourage employees to think creatively and take risks in achieving business goals (Setiawan, 2020; Suhana *et al.*, 2019). Thus, it can be said that a good understanding is needed on the relationship between transformational leadership and innovative behavior by organizational leaders and managers towards long-term success and growth (Sueb dan Sopiah, 2023). Transformational leadership is an individual's ability to influence subordinates to make changes to work patterns to be more optimal (Budur dan Demir, 2022). Research conducted by Putri dan Sentoso (2022) explained that there was a significant influence of transformational leadership on innovative behavior with positive characteristics. These results indicate that a better form of transformational leadership will result in better innovative behavior. Other research that supports this statement was carried out by Hoirunnisak dan Izzati (2022) employees of PT "X". Different results were found Saputra dan Rohman (2024) where in the research transformational leadership was not proven to have a significant effect on the formation of innovative behavior. Different results were also found by Pebrian *et al.* (2023) stated that there is no influence between transformational leadership style on innovative behavior.

Transformational leadership is stated to be able to influence job satisfaction, where good transformational leadership will help increase a worker's sense of job satisfaction. Research conducted by Maryen *et al.* (2023) supports the previous statement where transformational leadership has a significant positive influence on job satisfaction. These results indicate that a better pattern of transformational leadership can increase job satisfaction in employees. The statement from this research is in line with research whose Evawati *et al.* (2022) results both state that transformational leadership has a significant positive influence on job satisfaction.

Dahri dan Aqil (2018) states that job satisfaction is one of the things that has a crucial influence on the formation of innovative behavior. Job satisfaction is defined as the evaluation and attitude shown by a worker towards the work he is doing (Basalamah dan As'ad, 2021). Job satisfaction is a personal characteristic that every individual has, therefore they have different levels of satisfaction from one another in line with their own considerations (Nabawi, 2019). Sena (2020) argue that job satisfaction has a significant impact on innovative behavior

with a positive correlation. This opinion is supported by other opinions Pramezwarly *et al.* (2022) who also say that job satisfaction has a significant and positive influence on innovative behavior.

The Role of Job Satisfaction in Mediating the Influence of Transformational Leadership on Innovative Behavior in PT Employees. XYZ was proposed as the title to be researched based on the background described previously, where there was a contradiction in the results of *the research gap* regarding the influence of transformational leadership on innovative behavior, namely including significant and insignificant results. This research aims to carry out a review of this problem by adding a mediating variable in the form of job satisfaction.

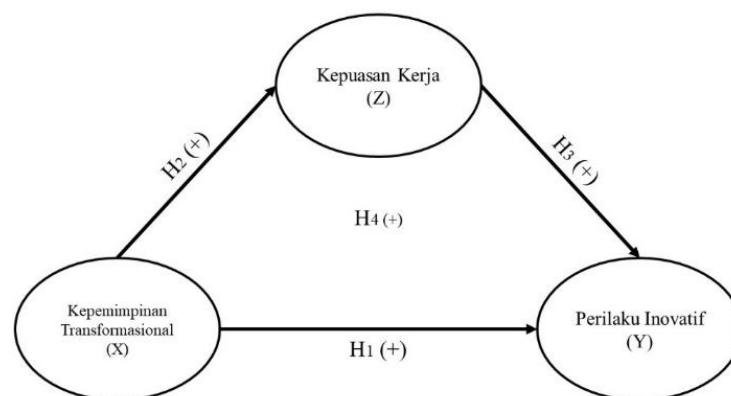


Figure 1. Conceptual Framework

Source: processed in 2024

The research carried out as Putri dan Sentoso (2022) a result explains that transformational leadership has a positive and significant effect on the innovative behavior of Bank BPR Batam City employees. These results indicate that better transformational leadership will increase innovative behavior. Other research that supports this statement was carried out by Hoirunnisak dan Izzati (2022) employees of PT "X", then research by Nurdin *et al.* (2020) teaching staff at private high schools in Pamijahan District, Bogor. The results of the research carried out Widodo dan Mawarto (2020) show that transformational leadership has a positive and significant direct influence on the innovative behavior of lecturers at private universities in Indonesia. Likewise, research results Khan *et al.* (2019) state that transformational leadership has a significant impact on the formation of innovative behavior of commercial bank employees in Bangladesh with a positive relationship direction. The hypothesis proposed in this research referring to the previous description, namely :

H₁ : Transformational leadership has a positive and significant effect on innovative behavior.

The results of the research carried out Maryen *et al.* (2023) show that transformational

leadership has a big role and positive direction in shaping employee job satisfaction at the Regional Financial Management Agency (BPKD) of Tambrauw Regency. These results indicate that the better transformational leadership will increase employee satisfaction with their work. Research results from Evawati *et al.* (2022), Wijayanti dan Aini (2022), and Prasetyo *et al.* (2023) is in line with previous research results, namely that transformational leadership has a significant influence on job satisfaction. Likewise, research carried out Djuraidi dan Laily (2020) states that transformational leadership plays a significant and positive role in shaping employee job satisfaction at Lotte Grosir Mastrip. The hypothesis proposed in this research referring to the previous description, namely :

H₂: Transformational leadership has a positive and significant effect on job satisfaction.

Dahri dan Aqil (2018) Carrying out research whose results are in the form of job satisfaction has a significant and positive impact on the formation of innovative behavior. These results indicate that the more satisfied workers are with the work they do, the more innovative behavior they will develop. Other research that supports this statement was carried out by Enderwati *et al.* (2022), Sena (2020), and Pramezwary *et al.* (2022) where it was found that job satisfaction had a significant and positive influence on innovative behavior. Likewise, research Kumar *et al.* (2022) states that job satisfaction has a significant and positive influence on innovative behavior. The hypothesis proposed in this research referring to the previous description, namely :

H₃ : Job satisfaction has a positive and significant effect on innovative behavior .

Al-edenat (2018) argue that job satisfaction is able to mediate the correlation between transformational leadership and innovative behavior. This means that innovative behavior will be better if transformational leadership is also better, but with the caveat that good job satisfaction must also be formed. Research conducted Putra dan Surya (2020) states that job satisfaction has a large and positive impact on mediating the relationship between transformational leadership style and employee performance at Toyota Auto 2000 Denpasar. The statement from this research is the same as research carried out by Sandiartha dan Suwandana (2020) where job satisfaction succeeded in being a mediator between work stress and the performance of employees working at the Graha Canti Cooperative. These results indicate that work stress has a significant role in employee performance if there is mediation from job satisfaction, so it can be stated that the performance of employees who work at the Graha Canti Cooperative has a high dependence on the level of job satisfaction. The hypothesis proposed in this research referring to the previous description, namely :

H₄ : Job satisfaction mediates the influence of transformational leadership on innovative behavior.

RESEARCH METHODS

The research design of this research is in the form of correlational causality research, meaning that this research aims to see the causal correlation that arises from two or more variables using a quantitative approach (Sugiarto, 2022: 29). This research was carried out at a company in the form of PT. XYZ. The location was chosen by researchers based on the reason that a problem was found related to innovative behavior. The objects of this research are transformational leadership, job satisfaction, and innovative behavior. The types of variables studied in this research are divided into three types, namely endogenous variables (innovative behavior), exogenous variables (transformational leadership), and moderator variables (job satisfaction). Innovative behavior variables will be measured using indicators developed by Hoirunnisak dan Izzati (2022) four indicators, including : Idea exploration, idea generation, idea introduction, and idea implementation. Next, the transformational leadership variable will be measured using indicators developed by Żywiołek *et al.* (2022) four indicators, including : inspirational motivation, ideal influence, individual consideration, and intellectual stimulation. Lastly, the job satisfaction variable will be measured using indicators developed by Sandhiarta dan Suwandana (2020) five indicators, including : Salary, promotion, procedures, coworkers, and supervision.

The population members in this research are all employees who work at PT. XYZ with a total of 60 workers whose sample members were determined using a saturated sampling technique. The types of data in this research are quantitative and qualitative data, where quantitative data is obtained from the total respondents and their answers in the questionnaire section, while qualitative data is the respondents' perceptions about the object being studied and the general description of the company. Data sources in this research are also divided into two types, namely primary and secondary. Primary sources are data that can directly provide data to someone tasked with collecting related data (Sugiyono, 2022: 137). The primary sources for this research are the results of interviews and questionnaire answers obtained from distributing questionnaires to respondents. Secondary sources are data that cannot directly provide data to someone tasked with collecting related data (Sugiyono, 2022: 137). Secondary sources used in this research were obtained through the company's official website and data regarding the number of PT employees. XYZ. Data collection was carried out through interviews and questionnaires. This research utilizes a questionnaire as a research instrument

which contains questions that will be answered by respondents in writing. The research instrument refers to a Likert scale whose assessment is carried out by determining the score for each answer to the question asked in the questionnaire. The data in this research will be analyzed using descriptive statistical tests, prerequisite tests (classical assumptions), *path analysis* (path analysis), and VAF and Sobel tests.

RESULTS AND DISCUSSION

Descriptions of the characteristics of the subjects in this research include age, gender, highest level of education, and years of work. The total sample members involved in data collection were 60 workers at PT. XYZ. The majority of respondents based on age were in the range of 21-30 years with a percentage of 60%. These results are due to the fact that this age range is generally considered a productive period, where individuals tend to have high energy and motivation, and already have sufficient experience at work so that they can be used to adapt to work demands, however, this age range still has desire to learn and develop further . The majority of respondents based on gender were men with a percentage of 70%. These results are due to PT. XYZ employs mostly technicians and in general the technician profession tends to be dominated by men. The majority of respondents based on their last education were Bachelor (S1) with a percentage of 50%. This is because of work at PT. XYZ requires deeper skills and knowledge, especially in the fields of informatics and engineering which are often obtained through higher education in Bachelor programs. Finally, the characteristics of respondents in this research, which are based on the majority's work experience, are in the range of 1-5 years with a percentage of 46.7%. This is because of the job rotation between branches implemented by the company to provide broader experience to employees and the company's rapid growth in recent years which requires many new employees.

Table 2.
Validity Test Results

No.	Variable	Instrument	<i>Pearson Correlation</i>	Information
1 .	Innovative behavior (Y)	Y _{1.1}	0.818	Valid
		Y _{1.2}	0.953	Valid
		Y _{1.3}	0.961	Valid
		Y _{1.4}	0.967	Valid

2 .	Transformational leadership (X)	X _{1.1}	0.957	Valid
		X _{1.2}	0.957	Valid
		X _{1.3}	0.947	Valid
		X _{1.4}	0.802	Valid
3 .	Job satisfaction (Z)	Z _{1.1}	0.967	Valid
		Z _{1.2}	0.799	Valid
		Z _{1.3}	0.982	Valid
		Z _{1.4}	0.982	Valid
		Z _{1.5}	0.832	Valid

Source: Data processed 2024

The table above contains the results of the validity test for each item in each variable studied. It was found that the results met the requirements to be declared valid, where the conclusion was based on the *Pearson Correlation value* of each item for each variable, namely above 0.30. Thus, the instrument in this research was declared suitable for measuring each variable studied.

Table 3.
Reliability Test Results

No.	Variable	<i>Cronbach's Alpha</i>	Information
1.	Innovative behavior (Y)	0.944	Reliable
2.	Transformational leadership (X)	0.935	Reliable
3.	Job satisfaction (Z)	0.951	Reliable

Source: Data processed 2024

The table above contains the results of the validity test for each item in each variable studied. For the innovative behavior variable the reliability value is 0.944, for transformational leadership the reliability value is 0.935, while the reliability value for job satisfaction is 0.951. Each variable has a *Cronbach's Alpha value* > 0.60. Thus, it is stated that all instruments in this research have met the reliability requirements.

The type of research used in this research is quantitative descriptive. The scale used to carry out measurements is divided into five criteria, starting from very low to very high. The distribution of the scale is based on each indicator measured and calculated using the formula (5-1): $5 = 0.80$.

Table 4.
Variable Description Criteria

Average Score	Criteria		
	Innovative Behavior	Transformational leadership	Job satisfaction
1.00 – 1.80	Very low	Very Not Good	Very low
1.81 – 2.60	Low	Not good	Low
2.61 – 3.40	Enough	Enough	Enough
3.41 – 4.20	Tall	Good	Tall
4.21 – 5.00	Very high	Very good	Very high

Source: Sugiyono (2022)

Innovative behavior in this research is a latent variable which is symbolically written with the letter Y. This variable will be measured using a Likert scale with a range of 1-5 followed by 4 statements.

Table 5.
Description of Respondents' Answers to Innovative Behavior

No	Statement	Respondent's Answer (person)					Amount	Average	Criteria
		1	2	3	4	5			
1	I am able to find creative ideas as solutions to existing problems in the company . (Y 1.1)	0	8	16	11	25	233	3.88	Tall

2	I am able to convince other people of the creative ideas I have . (Y 1.2)	0	18	13	15	14	205	3.42	Tall
3	I am able to find support in realizing the creative ideas I have . (Y 1.3)	1	17	15	16	11	199	3.32	Enough
4	I am able to apply creative ideas to problems in the company . (Y 1.4)	2	16	16	15	11	197	3.28	Enough
Average								3.48	Tall

Source: processed primary data, 2024

The table above explains the criteria for respondents' answers to the statements submitted in the innovative behavior variable with the highest and lowest mean values. An explanation of these results will be explained below:

The statement with the lowest mean value on the innovative behavior variable is "I am able to apply creative ideas to problems in the company" with a score of 3.28. This value falls within the adequate criteria but is included in the statement with the lowest mean value compared to the other statements. This indicates that respondents still feel unable to apply creative ideas to problems in the company. On the other hand, the statement with the highest mean value for the innovative behavior variable is "I am able to find creative ideas as solutions to existing problems in the company" with a score of 3.88. This value is included in the high criteria and a conclusion can be drawn if in general the respondents in this research felt they were able to find creative ideas as solutions to existing problems in the company.

Transformational leadership in this research is positioned as a latent variable which is symbolically written with the letter X. This variable will be measured using a Likert scale with a range of 1-5 followed by 4 statements.

Table 6.
Description of Respondents' Answers to Transformational Leadership

No	Statement	Respondent's Answer (person)					Amount	Average	Criteria
		1	2	3	4	5			

1	Bosses are able to motivate teamwork . (X 1.1)	1	11	27	10	11	199	3.32	Enough
2	Bosses are able to be role models for employees . (X 1.2)	0	11	28	2	19	209	3.48	Good
3	Bosses are able to interact with employees individually. (X 1.3)	0	11	25	1	23	216	3.60	Good
4	Bosses are able to involve employees in decision making. (X 1.4)	1	13	27	6	13	197	3.28	Enough
Average								3.42	Good

Source: processed primary data, 2024

The table above explains the criteria for respondents' answers to the statements submitted in the transformational leadership variable with the highest and lowest mean values. An explanation of these results will be explained below:

The statement with the lowest mean value on the transformational leadership variable is "Supervisors are able to involve employees in decision making" with a score of 3.28. This value is included in the sufficient criteria but is included in the statement with the lowest mean value compared to the other statements. This indicates that respondents believe that their superiors still do not have good skills in involving employees in the context of decision making. On the other hand, the statement with the highest mean value on the transformational leadership variable is "Supervisors are able to interact with employees individually" with a score of 3.60. This value is classified as high criteria and a conclusion can be drawn if in general the respondents in this research felt that their superiors were able to interact with employees individually.

Job satisfaction in this research is a latent variable which is symbolically written with the letter Z. This variable will be measured using a Likert scale with a range of 1-5 followed by 5 statements.

Table 7.

Description of Respondents' Answers to Job Satisfaction

No	Statement	Respondent's Answer (person)					Amount	Average	Criteria
		1	2	3	4	5			
1	I am satisfied with the fairness of the income received. (Z 1.1)	2	10	13	8	27	228	3 , 80	Satisfied
2	I am satisfied with the opportunity to develop my career at work . (Z 1.2)	3	15	19	17	6	188	3 , 13	Quite satisfied
No	Statement	Respondent's Answer (person)					Amount	Average	Criteria
		1	2	3	4	5			
3	I am satisfied with the implementation of the policies set in the company. (Z 1.3)	2	11	20	0	27	219	3 , 65	Satisfied
4	I am satisfied with the work harmony that occurs between employees . (Z 1.4)	2	11	20	8	19	211	3 , 52	Satisfied
5	I am satisfied with the competence of my superiors in carrying out their duties. (Z 1.4)	1	8	30	11	10	201	3 , 35	Quite satisfied
Average								3.49	Satisfied

Source: processed primary data, 2024

The table above explains the criteria for respondents' answers to the statements submitted in the job satisfaction variable with the highest and lowest mean values. An explanation of these results will be explained below:

The statement with the lowest mean value on the job satisfaction variable is "I am satisfied with the opportunity to develop my career at work" with a score of 3.13. This value is

classified as quite satisfied but is included in the statement with the lowest mean value compared to the other statements. This indicates that respondents are not satisfied enough with the opportunity to develop their career in their work. On the other hand, the statement with the highest mean value for the job satisfaction variable is "I am satisfied with the fairness of the income received" with a score of 3.80. This value is included in the satisfaction criteria and a conclusion can be drawn if in general the respondents in this research were satisfied with the fairness of the income they received.

Table 8.
Path Analysis Results in Sub-Structural 1

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1,794	0.447		4,013	0,000
transformational leadership	0.496	0.126	0.460	3,947	0,000
R ² : 0.212					

Source: processed primary data, 2024

From table 8, the results of Sub-Structural 1 path analysis are found which produces the equation below:

$$Z = \beta_2 X + e_1$$

$$Z = 0.460 X + e_1$$

The equation above explains that the coefficient value obtained by the transformational leadership variable is 0.460. This figure means that transformational leadership has a positive influence on job satisfaction, so that the better the transformational leadership, the better the job satisfaction will be. The opposite applies, namely if transformational leadership gets worse job satisfaction will decrease.

Table 9.
Path Analysis Results in Sub-Structural 2

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	Std. Error	Beta		
(Constant)	0,547	0,390		1,404	0,166
Transformational leadership	0,296	0,109	0,278	2,712	0,009
Job satisfaction	0,549	0,101	0,556	5,420	0,000
R ² : 0.528					

Source: processed primary data, 2024

From table 9, the results of the Sub-Structural 2 path analysis are found which produces the equation below:

$$Y = \beta_1 X + \beta_3 Z + e_2$$

$$Y = 0.278X + 0.556Z + e_2$$

The equation above explains that the coefficient value obtained by the transformational leadership variable is 0.278. This figure means that transformational leadership has a positive influence on innovative behavior, so that if transformational leadership gets better, there will be an increase in innovative behavior. The opposite applies, namely if transformational leadership gets worse it will reduce innovative behavior.

The equation above also explains that the coefficient value obtained by the job satisfaction variable is 0.556. This figure means that job satisfaction has a positive influence on innovative behavior, so that if job satisfaction increases, innovative behavior will also increase.

Table 10.

Direct Influence, Indirect Influence of Transformational Leadership (X), on Job Satisfaction (Z) and Innovative Behavior (Y)

Influence of variables	Direct influence	Indirect influence via Z	Total Influence	Std. Error	Sig.	Results
X→Z	0.460		0.460	0.126	0,000	Significant

Z→Y	0.556		0.556	0.101	0,000	Significan t
X→Y	0.278	0.256	0.534	0.109	0.009	Significan t

Source: processed primary data, 2024

The table above describes the results of the path analysis for each variable in this research. Apart from the direct and indirect forms of influence, in the table above you can also see the magnitude of the error value. From the table above it can be said that the total influence of variable X on Z is 0.460 with a sig of 0.000. The total influence of variable Z on Y is 0.556 with sig 0.000. The total influence of variable

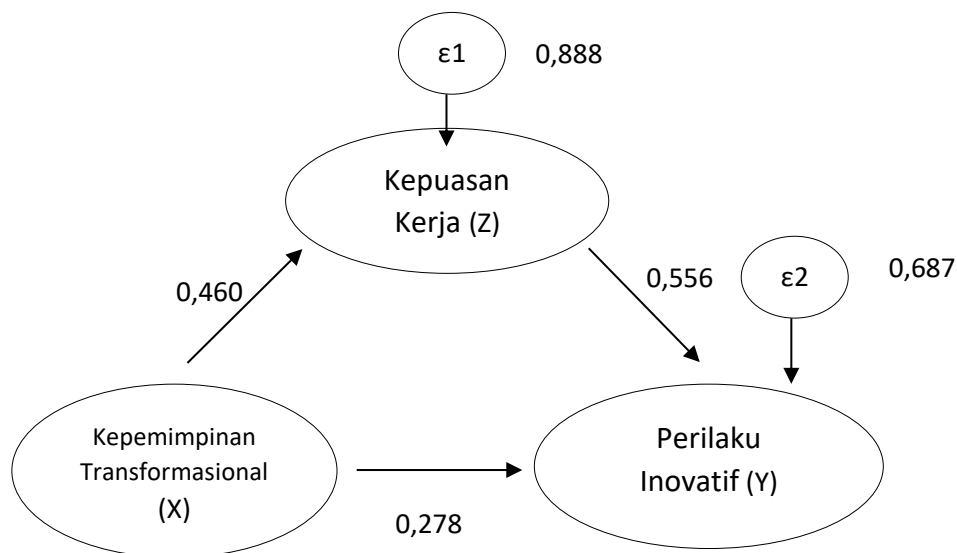


Figure 2. Path Analysis Model

Source: processed in 2024

Table 11.
Normality test

Equality	Asymp. Sig. (2-tailed) <i>Kolmogorov-Smirnov Z</i>
Sub-structural 1	0.200
Sub-structural 2	0.200

Source: processed primary data, 2024

The table above shows the results of the normality test for each sub-structural using the *One-Sample Kolmogorov-Smirnov Test formula* . Based on the results of the analysis, it was found that the value *Asymp. Sig. (2-tailed)* each sub-structural is the same, namely 0.200. The value obtained exceeds the specified *alpha value* , namely 0.05 ($0.200 > 0.05$) so that the data contained in this research has a normal distribution which is sufficient for the assumption of normality.

Table 11.
Multicollinearity Test

	Model	Collinearity Statistics	
		Tolerance	VIF
Sub-structural 2	Transformational leadership	0.788	1,269
	Job satisfaction	0.788	1,269

Source: processed primary data, 2024

The table above presents the results of the sub-structural multicollinearity test 2 using standard *tolerance* and VIF value calculations. Based on the results of the analysis, it was found that the value *The tolerance* for each variable in sub-structural 2 is the same, namely 0.788. The value obtained exceeds the standard *tolerance value* , namely 0.10 ($0.788 > 0.10$). Apart from that, from the analysis above it was also found that the VIF value for each variable in sub-structural 2 was the same, namely 1.269. The value obtained is below the standard VIF value, namely 10 ($1.269 < 10$). Thus, it can be said that the data contained in this research is free from symptoms of multicollinearity.

Table 11.
Heteroscedasticity Test

Equality	Model	Q	Sig.
Sub-structural 1	Transformational leadership	0.169	0.866
Sub-structural 2	Transformational leadership	-1,064	0.292
	Job satisfaction	-0.243	0.809

Source: processed primary data, 2024

The table above presents the results of the heteroscedasticity test for each sub-structural based on the absolute value of the residual. Based on the results of the analysis, it was found

that the significance value of each sub-structural was different, but the significance value of each sub-structural exceeded the set *alpha value*, namely 0.05. These results confirm that the independent variables used in this research do not have a significant influence on the dependent variable, so it is stated that the data in this research is free from symptoms of heteroscedasticity.

From the results of the path analysis that has been carried out, it was found that the Beta coefficient value of the transformational leadership variable on innovative behavior was 0.278 with Sig. 0.009. This value confirms that the first hypothesis is accepted, so that transformational leadership has a significant positive influence on innovative behavior. This means that better transformational leadership will increase the formation of innovative behavior in PT employees. XYZ. The results of this research are relevant to a number of other research, including research carried out by Putri dan Sentoso (2022), Hoirunnisak dan Izzati (2022), Nurdin *et al.* (2020), Widodo dan Mawarto (2020), and Khan *et al.* (2019), where it is stated that transformational leadership plays a role in forming innovative behavior significantly in a positive direction.

From the results of the path analysis that has been carried out , it was found that the Beta coefficient value of the transformational leadership variable on job satisfaction was 0.460 with Sig. 0,000. This value confirms that the second hypothesis is accepted, so that transformational leadership has a significant positive influence on job satisfaction. This shows that better transformational leadership will increase the level of employee job satisfaction at PT. XYZ. This shows that transformational leadership can increase employee morale and sense of ownership of the work they do. The results of this research are relevant to a number of other research, including research carried out by Maryen *et al.* (2023), Evawati *et al.* (2022), Wijayanti dan Aini (2022), Prasetyo *et al.* (2023), and Djuraidi dan Laily (2020), where it is stated that transformational leadership has a positive and significant influence on job satisfaction .

From the results of the path analysis that has been carried out, it was found that the Beta coefficient value of the job satisfaction variable on innovative behavior was 0.556 with Sig. 0,000. This value confirms that the third hypothesis is accepted, so that job satisfaction has a significant positive influence on innovative behavior. This shows that higher job satisfaction will lead to innovative behavior of employees at PT. The XTZ just keeps getting better. The results of this research are relevant to a number of other research, including research carried out by Dahri dan Aqil (2018), Endarwati *et al.* (2022), Sena (2020), Pramezwary *et al.* (2022), as well as Kumar *et al.* (2022), where it is stated that job satisfaction has a significant influence

on innovative behavior in a positive direction .

Based on the results of the Sobel Test analysis that has been carried out, the value of $Z = 3.008 > 1.96$ is found. This value means that it confirms that the fourth hypothesis is accepted, so that job satisfaction can be a significant mediator for the relationship between transformational leadership and innovative behavior of PT employees . XYZ . Based on the VAF test, the calculated value was also found to be 47.92 % , where this value is in the range of 20-80%. This value shows that the type of mediation of the job satisfaction variable is partial or *partial mediation* (Hair Jr *et al.*, 2014). Thus, it can be concluded that job satisfaction is able to be a mediator of the relationship between transformational leadership and innovative behavior of PT employees. XYZ partially. The results of this research are relevant to a number of other research, including research carried out by Al-edenat (2018), Putra dan Surya (2020), Sandiarta dan Suwandana (2020), Sudiyani dan Ria Sawitri (2022), as well as Reano *et al.* (2022), where it is stated that job satisfaction is able to operate as a mediator of the relationship between transformational leadership and innovative behavior. This means that innovative behavior will be better if transformational leadership is also better , preceded by the creation of good job satisfaction.

The theoretical implications of the results of this research provide evidence for the development of Human Resource Management Science, especially with regard to transformational leadership, job satisfaction, and innovative behavior which are considered to provide empirical evidence regarding the theory used. In this research, the theory used refers to the Two Factor Theory *which* states that there are differences in job dissatisfaction and job satisfaction and these two things are not continuous variables. Furthermore, Herzberg explained the two factors, namely *dissatisfiers* and *satisfaction* . This theory is the basis for evaluating transformational leadership and job satisfaction in innovative behavior by referring to various factors that motivate workers to feel satisfied when carrying out their work. From a theoretical perspective, this research also confirms that good transformational leadership and good job satisfaction will make employees have innovative behavior. Good transformational leadership will increase job satisfaction and this increase will result in employees having innovative behavior.

It is hoped that the practical implications of this research can provide advice and consideration for PT leaders. XYZ pays attention to innovative behavior by considering transformational leadership and job satisfaction. Based on the data collected through questionnaires, it was found that employee perspectives on transformational leadership were included in the high criteria. These results show that transformational leadership and job

satisfaction in employees are in good condition so that innovative behavior can be created. These results can be used by management at PT. XYZ to adopt policies to maintain or improve transformational leadership so that it can increase job satisfaction and generate innovative behavior in its workers.

CONCLUSIONS AND SUGGESTIONS

The results obtained from this research are that transformational leadership has a positive influence on the innovative behavior of employees at PT. XYZ significantly, where an increase in transformational leadership will increase innovative behavior. Another result obtained is that transformational leadership also has a significant and positive influence on job satisfaction, an increase in transformational leadership also increases job satisfaction. Job satisfaction itself is found to have a significant and positive influence on innovative behavior, so that if it is found that job satisfaction has increased, then there will also be an increase in innovative behavior. Job satisfaction is also a partial mediating variable that connects transformational leadership with innovative behavior, meaning that a better form of transformational leadership will increase job satisfaction in employees so that it will form innovative behavior.

Based on the conclusions of the research results above, suggestions for PT. XYZ includes Based on research results, transformational leadership has a positive and significant influence on employee innovative behavior. Therefore, companies are advised to improve the quality of transformational leadership to encourage increased employee innovative behavior. Apart from that, the findings also show that transformational leadership has a positive and significant impact on employee job satisfaction. By improving transformational leadership, companies can create better job satisfaction for employees. Employee job satisfaction has also been proven to have a positive and significant influence on innovative behavior. Therefore, strategies to increase innovative behavior can be carried out by increasing job satisfaction through improvements in transformational leadership which will ultimately have the potential to increase innovative behavior in employees. Future research should include other companies in the same field or different locations to provide more perspectives that can be applied generally.

REFERENCE

- Al-edenat, M. (2018). Reinforcing innovation through transformational leadership: mediating role of job satisfaction. *Journal of Organizational Change Management* , 31 (4), 810–838. <https://doi.org/10.1108/JOCM-05-2017-0181>
- Andani, NWR, and Wibawa, IMA (2022). The Influence of Inclusive Leadership on Employee Innovative Behavior is Mediated by Perceived Organizational Support. *Udayana University Management E-Journal* , 11 (2), 210. <https://doi.org/10.24843/ejmunud.2022.v11.i02.p01>
- Basalamah, MSA, and As'ad, A. (2021). The Role of Work Motivation and Work Environment in Improving Job Satisfaction. *Golden Ratio of Human Resource Management* , 1 (2), 94–103. <https://doi.org/10.52970/grhrm.v1i2.54>
- Budur, T., and Demir, A. (2022). The Relationship Between Transformational Leadership and Employee Performance: Mediating Effects of Organizational Citizenship Behaviors. *Iranian Journal of Management Studies* , 15 (4), 899–921. <https://doi.org/10.22059/IJMS.2022.325482.674598>
- Dahri, NW, and Aqil, M. (2018). Organizational Culture, Job Satisfaction, and Organizational Commitment in Increasing Innovative Behavior. *Journal of Business Theory and Implementation* , 9 (2), 191–199. <http://journal.umy.ac.id/index.php/bti>
- Dhani, NKSJ, and Surya, IBK (2023). THE INFLUENCE OF MOTIVATION, COMPENSATION AND WORK ENVIRONMENT ON EMPLOYEE JOB SATISFACTION (STUDY AT PT BALI BUSANA KREASI IN BADUNG DISTRICT). *Udayana University Management E-Journal* , 12 (6), 602. <https://doi.org/10.24843/ejmunud.2023.v12.i06.p04>
- Djuraidi, A., and Laily, N. (2020). The Effect of Transformational Leadership on Employee Performance Through Job Satisfaction as a Moderating Variable. *Journal of Economic and Business Research* , 13 (1). <http://journals.usm.ac.id/index.php/jreb>
- Enderwati, WD, Subiyanto, ED, and Septyarini, E. (2022). The Influence of Leadership Style, Work Environment and Job Satisfaction on Innovative Behavior of Berbah National Vocational School Employees. *J-MACC : Journal of Management and Accounting* , 5 (2), 12–22. <https://doi.org/10.52166/j-macc.v5i2.3474>
- Evawati, T., Yuliejantingsih, Y., and Nurkolis. (2022). The Influence of the Work Environment, Organizational Culture and Transformational Leadership Style of School Principals on Teacher Job Satisfaction in State Vocational High Schools in Pekalongan Regency. *Journal of Educational Management* , 11 (3), 314–327.
- Hair Jr, J.F., Sarstedt, M., Hopkins, L., and Kuppelwieser, V.G. (2014). Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review* .
- Hoirunnisak, and Izzati, U.A. (2022). The Relationship between Transformational Leadership Style and Innovative Behavior in Employees. *Journal of Psychological Research* , 9 .

- Khan, AM, Jantan, AH Bin, Salleh, LBM, Zuraina, DM, Islam, MA, and Hosen, S. (2019). The Impact of Transformational Leadership Effects on Innovative Work Behavior by the Moderating Role of Psychological Empowerment. *Journal of Reviews on Global Economics* , 8 , 925–938.
- Kumar, S., Birwal, N., Akhtar, N., Chaturvedi, V., and Singh, A. (2022). Examining the Impacts of Job Satisfaction and Mental Involvement for Increasing the Effectiveness of Innovative Work Behavior. *International Journal of Special Education* , 37 (3), 12299–12311. <https://www.researchgate.net/publication/359798173>
- Kusuma, IBS, and Rahyuda, AG (2021). Creative Self Efficacy in Mediating the Effect of Transformational Leadership and Innovative Behavior on Employee Performance at PT Pegadaian (Persero) Regional Office VII Denpasar. *Webology* , 19 (1), 96–109. <https://doi.org/10.14704/web/v19i1/web19007>
- Maryen, AS, Sapari, LSJ, and Pariry, JR (2023). The Influence of Transformational Leadership Style and Work Motivation on Job Satisfaction of Regional Financial Management Agency (BPKD) Tambrauw Regency Employees. *Simki Economic Journal* , 6 (2), 386–393. <https://jiped.org/index.php/JSE>
- Nabawi, R. (2019). The Influence of Work Environment, Job Satisfaction and Workload on Employee Performance. *Master of Management Scientific Journal* , 2 (2), 170–183. <https://doi.org/https://doi.org/10.30596/maneggio.v2i2.3667>
- Nurdin, F., Ihsan, M., Rahmawati, I., and Lestari, H. (2020). The Influence of Transformational Leadership and Organizational Culture on Teachers' Innovative Work Behavior in Private High Schools in Pamijahan District, Bogor. *Indonesian Journal of Science* , 1 (2), 99–105. <https://www.researchgate.net/publication/344335765>
- Pramezwaray, A., Juliana, Hubner, IB, Goeltom, VAH, Pramono, R., Calen, C., and Purwanto, A. (2022). Job Satisfaction And Job Performance Of Hotels During Covid 19 Pandemic: How Is The Role Of Innovative Work Behavior And Organizational Citizenship Behavior? *JPPI (Journal of Indonesian Educational Research)* , 8 (3), 778–794. <https://doi.org/10.29210/020221552>
- Prasetyo, J., Suriansyah, A., and Aslamiah, A. (2023). The Influence of Transformational Leadership, Emotional Intelligence through Job Satisfaction to Teacher Performance of Elementary School in Selat Kapuas. *International Journal of Social Science and Human Research* , 06 (05), 2827–2832. <https://doi.org/10.47191/ijsshr/v6-i5-40>
- Putra, IMA, and Surya, IBK (2020). The Mediating Role of Job Satisfaction in the Transformational Leadership Style on Employee Performance at Toyota Auto 2000 Denpasar. *Udayana University Management E-Journal* , 9 (2), 405–425. <https://doi.org/10.24843/ejmunud.2020.v09.i02.p01>
- Putri, KA, and Sentoso, A. (2022). The Influence of Transformational, Transactional, and Authentic Leadership on Innovative Behavior with Organizational Culture as a Mediating Variable among BPR Bank Employees in Batam City. *ECO-Buss* , 5 (1).

- Rachman, R.F. (2019). Development of Digital Media Based Creative Industries in Surabaya from an Islamic Perspective. *Journal of Islamic Community Development* , 10 (2), 157–176.
- Reano, Praningrum, and Kananlua, PS (2022). The Influence of Work Involvement and Organizational Support on Innovative Work Behavior with Job Satisfaction as a Mediating Variable in Regional Government Employees in Bengkulu Province. *The Manager Review* , 4 (1), 95–128. <https://doi.org/https://doi.org/10.33369/tmr.v4i1.25830>
- Sandiarta, IWB, and Suwandana, IGM (2020). The Effect of Job Stress on Employee Performance is Mediated by Job Satisfaction of Graha Canti Semawang-Sanur Cooperative Employees. *Udayana University Management E-Journal* , 9 (5), 1899. <https://doi.org/10.24843/ejmunud.2020.v09.i05.p13>
- Saputra, RAK, and Rohman, AM (2024). The Role of Transformational Leadership on Innovative Work Behavior through Intrinsic Motivation and Job Crafting in Islamic Education. *ADILLA: Journal of Sharia Economics* , 7 , 14–21.
- Satria Efandi, Rahman, A., Wahyuni, RW, and Haq, RAN (2023). The Influence of Organizational Culture and Psychological Capital on Innovative Work Behavior in the Creative Industry. *Psyche 165 Journal* , 105–111. <https://doi.org/10.35134/jpsy165.v16i3.242>
- Sena, A. (2020). The Influence of Organizational Culture, Job Satisfaction, and Professional Commitment on Innovative Behavior of Flight Instructors at The Civil Flight School in Indonesia. *Journal of Civil Aviation* , 1–17. <https://doi.org/https://dx.doi.org/10.25104/wa.v46i1.374.1-17>
- Setiawan, R. (2020). A Study Of Behavior Management: The Effect Of Transformational Leadership To Employee Innovative Behavior Through Collaborative Human Resource Management And Adhocratic Organizational Culture. In *Systematic Reviews in Pharmacy* (Vol. 11, Issue 12).
- Sudirman, FA, Susilawaty, FT, and Adam, AF (2020). Opportunities and Challenges for the Development of the Culinary Creative Industry in Achieving the SDGs. *Journal of Administrative and Social Sciences* , 9 (1), 12–24. <http://ejournal.unmus.ac.id/index.php/societas>
- Sudiyani, NN, and Ria Sawitri, NPY (2022). The Role of Job Satisfaction in Mediating the Influence of Leadership and Work Environment on Employee Performance at the Gianyar Regency DPRD Secretariat. *Journal of Equilibrium Management and Business* , 8 (2), 260–275. https://doi.org/10.47329/jurnal_mbe.v8i2.951
- Sueb, and Sopiah. (2023). Exploring the Relationship between Transformational Leadership and Innovative Work Behavior: A Systematic Literature Review. *Journal of Management Vision* , 9 (2).
- Sugiarto, Ir. (2022). *Business Research Methodology* (Two). CV. Andi Offset.
- Sugiyono. (2022). Research Methods: Quantitative, Qualitative, and R&D. In *Alphabet* (2nd ed.). Alphabet. <https://inlislite.ipdn.ac.id/opac/detail-opac?id=2927>

- Suhana, S., Udin, U., Suharnomo, S., and Mas'ud, F. (2019). Transformational leadership and innovative behavior: The mediating role of knowledge sharing in Indonesian private universities. *International Journal of Higher Education* , 8 (6), 15–25. <https://doi.org/10.5430/ijhe.v8n6p15>
- Widodo, W., and Mawarto, M. (2020). Investigating The Role of Innovative Behavior in Mediating The Effect of Transformational Leadership and Talent Management on Performance. *Management Science Letters* , 10 (10), 2169–2174. <https://doi.org/10.5267/j.msl.2020.3.019>
- Wijayanti, K., and Aini, Q. (2022). The Influence of Transformational Leadership Style on Nurse Job Satisfaction and Performance in Hospitals. *Journal of World Science* , 1 (7), 485–499. <https://doi.org/10.36418/jws.v1i7.69>
- Żywiółek, J., Tucmeanu, E. R., Tucmeanu, A. I., Isac, N., dan Yousaf, Z. (2022). Nexus of Transformational Leadership, Employee Adaptiveness, Knowledge Sharing, and Employee Creativity. *Sustainability (Switzerland)*, 14(18). <https://doi.org/10.3390/su141811607>