



The moderating effect of employee satisfaction and team trust on the positive traits of leaders and firm performance

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Abstract. This paper mainly adopts regression analysis to study the moderating effects of employee satisfaction and team trust on the positive traits of leaders and firm performance. The results show that there is a positive correlation between leaders' positive traits and firm performance. Employee satisfaction and team trust play a positive moderating role between positive traits of leaders and corporate performance, and the higher the employee satisfaction and team trust, the stronger the positive effect of positive traits of leaders on corporate performance.

Keywords: Employee satisfaction; Team trust; Positive traits of leaders; Enterprise performance.

1 Introduction

Enterprise performance is always the core issue in the study of organizational behavior and management. At present, studies have shown that the positive traits of leaders have a positive impact on firm performance. Leaders with good insight, analysis and problem-solving capabilities are more conducive to improving enterprise performance [1]. However, many studies have shown that some characteristics of leaders have different impacts on enterprise performance [2]. In fact, due to different scenarios in which leaders' positive traits play a role, their functional effects are also very different [3]. Employee satisfaction and team trust play a part in this. Therefore, this paper intends to use employee satisfaction and team trust as moderating variables to study the impact of leaders' positive traits on firm performance. In particular, the following hypothesis is proposed:

Hypothesis 1: Positive traits of leaders have a positive impact on firm performance.

Hypothesis 2: Employee satisfaction plays a moderating role in the relationship between leaders' positive traits and firm performance.

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Hypothesis 3: Team trust plays a moderating role in the relationship between leaders' positive traits and firm performance.

2 Research method

This paper collects and organizes research data through online questionnaire survey. From August 17, 2022 to October 22, 2022, 500 questionnaires were distributed to ordinary employees in more than 30 provinces and regions across the country, and the respondents completed the questionnaire by logging in to the designated website. As of the last day of the survey, 474 questionnaires were recovered, with a recovery rate of 94.8%. Among the recovered questionnaires, 8 were all selected with the best answers, and 6 were all selected with the worst answers, which were regarded as invalid questionnaires. 460 were valid, with an effective rate of 92%.

3 Measuring tool

The questionnaire was designed to study the moderating effects of employee satisfaction and team trust on the positive traits of leaders and firm performance. During the preparation of the questionnaire, Google Academic, CNKI and other search websites were used to consult the relevant measurement scales of employee satisfaction, team trust, leader positive traits and enterprise performance. The scale adopts a 5-level Likert setting, and each item has 5 rating levels, which are strongly disagree, disagree, uncertain, agree and strongly agree, respectively, and are recorded as 1, 2, 3, 4 and 5[4].

Employee satisfaction is measured from five aspects by referring to the Minnesota Satisfaction Scale revised by Zhang Xiaoning and Gu Ying [5], and the specific items are shown in Table 1.

Team trust measurement refers to BTI, the new behavioral catalog proposed by Gillespie in 2003, and measures team trust from two aspects: trustworthiness trust and disclosure trust [6]. For specific items, see Table 1.

The measurement of leaders' positive traits is based on the Davolfes-Grondt Leader Strength Measurement Scale, which measures the positive traits of leaders from six aspects: perceived intelligence, willpower and courage, risk and responsibility, interpersonal relationship, independence and confidence, achievement and pursuit of excellence [7]. The specific items are shown in Table 1.

In terms of enterprise performance, as this paper mainly conducts research from the perspective of employees, it mainly uses employee performance measurement, specifically referring to the organizational employee performance scale compiled by Wang Hongyu to measure task performance and relationship performance [8], and the specific items are shown in Table 1.

4 Data analysis and discussion

4.1 Variable characteristic analysis

Table 2 shows the results of questionnaire survey organized by SPASS20.0 software. As can be seen from Table 2, the average survey results of each variable item, such as employee satisfaction, team trust, leader positive traits, and enterprise performance, are maintained within a stable range. It shows that the similarity of the results of this questionnaire is high. In addition, the absolute value of kurtosis of each variable item is always less than 10, and the absolute value of skewness is always less than 3, indicating that the sample data of the questionnaire survey in this paper are subject to normal analysis [9], which can be followed by mathematical statistical analysis.

4.2 Reliability test

In this paper, Kronbach coefficient method was used to test the reliability, and the results are shown in Table 3. As can be seen from Table 3, Kronbach coefficient values of each variable survey scale are greater than 0.8, indicating that the scale design has good reliability [10].

4.3 Validity test

The validity test mainly includes content validity test and structure validity test [11]. In terms of content validity test, since the questionnaire was compiled after sorting out relevant literature and communicating with relevant experts and ordinary employees of enterprises, the investigation content and purpose are clear. Therefore, it can be considered that the questionnaire content validity meets the requirements [12]. In terms of structural validity, KMO value, Bartlett test and factor analysis were used to test. KMO value and Bartlett test results are shown in Table 4.

It can be seen from Table 4 that the KMO value and the output KMO value of Bartlett sphericity test are greater than 0.8, and in the case of 214 degrees of freedom, the approximate chi-square is 156.34 and the P value is 0.000, meeting the conditions of the next factor analysis. The principal component analysis method was used to conduct factor analysis on the survey scale of each variable, and the maximum variance method was used for orthogonal rotation to extract common factors with feature roots greater than 1 [13], and the factor load was obtained. The statistics are in Table 5.

As can be seen from Table 5, the employee satisfaction measurement scale is a single factor structure, and each factor load is greater than 0.7, indicating that the structural validity of the five items of the employee satisfaction measurement scale is good. At the same time, the cumulative variance contribution rate is also greater than 60% of the standard value, indicating that the scale measurement can well represent the greater satisfaction.

As can be seen from Table 6, the team trust measurement scale has two common factors, and the factor load under the three common factors are all greater than 0.7, which can intuitively indicate that the scale has good structural validity. At the same

time, the cumulative variance contribution rate of the common factor is 63.96%, which is greater than 60%, indicating that the current measurement scale can well characterize team trust.

Table 1. Table 1 The specific items

Measurement scale of employee satisfaction	Team Trust Scale	Leader Positive Trait Measurement Scale	Enterprise performance measurement Scale
Overall, I am satisfied with the working environment provided by the organization.	I trust the judgment of the team members.	Leaders have good insight, critical thinking, analytical and problem solving skills.	I can do my work with high quality.
On the whole, I am satisfied with the current salary and benefits package.	I trust the knowledge and abilities of other team members related to the decision making task.	Leaders demonstrate courage, courage, and decisiveness through their decisions and actions.	I can do my job within working hours.
Overall, I am satisfied with my current promotion opportunities.	I can rely on other team members to make important decisions on my behalf.	Leaders have outstanding dedication and responsibility.	I always complete the tasks assigned by my superiors on time.
Overall, I am satisfied with the organizational atmosphere.	I trust my team members to accurately convey my decision-making views to others.	Leaders can build good relationships with team members and can trust, understand, and support us.	I always accomplish my work goals accurately.
Overall, I am satisfied with the leadership ability, character and management style.	I believe the team members can help me with my work difficulties.	Leaders are confident in their own values and abilities, and have independent judgment and decision-making about their own actions.	I work very hard.
	I am willing to share my personal feelings with other team members.		At work, I am willing to help other colleagues in the company.
	I am willing to disclose my decision-making views to my team members.		I am willing to stay in this department and continue to work in this position.
	I will be honest with my team members about how		I am often able to take on

	I feel about the work.		more than my own work.
	I am willing to discuss with team members issues related to decision-making that may negate my work.		I can do my work with high quality.
	I share my personal knowledge and experience related to the job with my team members.		

Table 2. Characteristic statistics of variable

Variable	Item	Mean Value	Standard Deviation	Skewness	Kurtosis
Employee satisfaction	Overall, I am satisfied with the working environment provided by the organization.	3.85	1.015	-0.752	0.619
	On the whole, I am satisfied with the current salary and benefits package.	3.96	0.858	-0.731	0.245
	Overall, I am satisfied with my current promotion opportunities.	3.97	1.232	-0.721	0.438
	Overall, I am satisfied with the organizational atmosphere.	3.53	1.025	-0.319	-0.762
	Overall, I am satisfied with the leadership ability, character and management style.	3.64	1.014	-0.232	-0.347
Team trust	I trust the judgment of the team members.	3.62	1.212	-0.244	-0.329
	I trust the knowledge and abilities of other team members related to the decision making task.	4.03	1.015	-1.432	2.514
	I can rely on other team members to make important decisions on my behalf.	4.05	0.938	-1.485	2.144
	I trust my team members to accurately convey my decision-making views to others.	3.84	1.002	-0.721	0.398

	I believe the team members can help me with my work difficulties.	3.77	0.972	-0.687	-0.114
	I am willing to share my personal feelings with other team members.	3.82	1.039	-0.701	0.244
	I am willing to disclose my decision-making views to my team members.	3.99	1.158	-0.735	0.336
	I will be honest with my team members about how I feel about the work.	4.02	0.962	-0.734	2.014
	I am willing to discuss with team members issues related to decision-making that may negate my work.	4.06	1.362	-0.785	0.248
	I share my personal knowledge and experience related to the job with my team members.	3.88	1.006	-0.748	0.654
Leader positive traits	Leaders have good insight, critical thinking, analytical and problem solving skills.	3.94	0.894	-0.724	0.258
	Leaders demonstrate courage, courage, and decisiveness through their decisions and actions.	4.08	0.963	-1.321	1.527
	Leaders have outstanding dedication and responsibility.	3.98	1.021	-0.109	0.446
	Leaders are able to build good interpersonal relationships with team members and can trust, understand, accept and provide support.	4.02	1.115	-0.123	1.026
	Leaders are confident in their own values and abilities, and have independent judgment and decision-making about their own actions.	4.04	1.069	-1.221	0.683
	Leaders have a strong	3.63	1.001	-0.269	0.359

	commitment to individual and team achievement, including the achievement of goals and continuous development.				
Enterprise performance	I can do my work with high quality.	3.96	1.205	-0.754	0.447
	I can do my job within working hours.	3.54	1.038	-0.354	-0.751
	I always complete the tasks assigned by my superiors on time.	3.57	1.204	-0.215	-0.308
	I always accomplish my work goals accurately.	3.67	0.977	-0.411	-0.468
	I work very hard on work and I am willing to help other colleagues in the unit.	4.03	1.007	-1.425	2.548
	I am willing to stay in this department and continue to work in this position.	4.05	0.938	-1.411	2.169
	I am often able to take on more than my own work.	4.10	1.014	-1.542	3.212
	I can do my work with high quality.	3.88	1.006	-0.748	0.654

Table 3. Reliability test results statistics

variable	Number of terms	Kronbach coefficient
Employee satisfaction	5	0.869
Team trust	5	0.875
Leader positive traits	6	0.844
Enterprise performance	8	0.859
Questionnaire ensemble	24	0.861

Table 4. KMO value and Bartlett sphericity test statistics

KMO sampling suitable value		0.862
Bartlett test	Approximate chi-square	156.34
	df	214
	Sig.	.000

Table 5. Employee satisfaction factor load statistics

Item	Factor loading	Explanatory variance for each factor /100%	Cumulative variance contribution rate /100%
Overall, I am satisfied with the working environment provided by the organization.	0.844	69.87	69.87
On the whole, I am satisfied with the current salary and benefits package.	0.823		
Overall, I am satisfied with my current promotion opportunities.	0.786		
Overall, I am satisfied with the organizational atmosphere.	0.768		
Overall, I am satisfied with the leadership ability, character and management style.	0.831		

Table 6. Team trust factor load statistics

Item	Factor loading		Explanatory variance for each factor /100%	Cumulative variance contribution rate /100%
	1	2		
I trust the judgment of the team members.	0.844		32.55	63.96
I trust the knowledge and abilities of other team members related to the decision making task.	0.823			
I can rely on other team members to make important decisions on my behalf.	0.793			
I trust my team members to accurately convey my decision-making views to others.	0.835			
I believe the team members can help me with my work difficulties.	0.827			
I am willing to share my personal feelings with other team members.		0.845	31.41	
I am willing to disclose my decision-making views to my team members.		0.914		
I will be honest with my team members about how I feel about the work.		0.876		

I am willing to discuss with team members issues related to decision-making that may negate my work.		0.846		
I share my personal knowledge and experience related to the job with my team members.		0.882		

As can be seen from Table 7, the leader positive trait measurement scale is a single-factor structure, and each factor load is greater than 0.7, indicating that the structural validity of the 6 items of the scale is well taught. At the same time, the cumulative variance contribution rate is also greater than 60%, indicating that the scale can well represent the positive traits of leaders.

Table 7. Leader positive trait factor load statistics

item	Factor loading	Explanatory variance for each factor /100%	Cumulative variance contribution rate /100%
Leaders have good insight, critical thinking, analytical and problem solving skills.	0.874	67.42	67.42
Leaders demonstrate courage, courage, and decisiveness through their decisions and actions.	0.839		
Leaders have outstanding dedication and responsibility.	0.903		
Leaders can build good relationships with team members and can trust, understand and support us.	0.883		
Leaders are confident in their own values and abilities, and have independent judgment and decision-making about their own actions.	0.896		
Leaders have a strong commitment to individual and team achievement, including the achievement of goals and continuous development.	0.794		

As can be seen from Table 8, the enterprise performance measurement scale has two common factors, and the factor loads under the three common factors are all greater than 0.7, which can intuitively indicate that the scale has good structural validity. At the same time, the cumulative variance contribution rate of common factors is 66.24%, which is greater than 60%, indicating that the current measurement scale can well characterize enterprise performance.

Table 8. Leader positive trait factor load statistics

Item	Factor loading		Explanatory variance for each factor /100%	Cumulative variance contribution rate /100%
	1	2		
			28.68	66.24
I can do my work with high quality.	0.896			
I can do my job within working hours.	0.794			
I always complete the tasks assigned by my superiors on time.	0.836			
I always accomplish my work goals accurately.	0.829			
I work very hard.		0.883	37.56	
At work, I am willing to help other colleagues in the company.		0.849		
I am willing to stay in this department and continue to work in this position.		0.862		
I am often able to take on more than my own work.		0.871		

4.4 Regression analysis

4.4.1 Testing the positive impact of leaders' positive traits on enterprise performance.

The positive traits of leaders are taken as independent variables and the performance of enterprises as dependent variables. The results are shown in Table 9.

Table 9. Regression analysis of the positive influence of leaders' positive traits on firm performance

	coefficient
Leader positive traits	0.034**
R2	0.042
Adjust R2	0.024
F	2.223**
VIF	1.000

Note: ** indicates a significance level of 5%.

As can be seen from Table 9, the above regression analysis has statistical significance. At the same time, the standard coefficient is positive, indicating that at the significance level of 5%, the positive characteristics of leaders have a positive impact on firm performance. Hypothesis 1 is valid.

4.4.2 Testing the moderating effect of employee satisfaction.

Taking employee satisfaction as a moderating variable, it is put into the regression analysis of the impact of positive traits of leaders on enterprise performance for testing and analysis, and the results are shown in Table 10. Model 1 in Table 1 is a regression model of the positive traits of leaders on enterprise performance without considering employee satisfaction. Model 2 is a regression model that takes employee satisfaction into account and increases the interaction terms of leader positive traits and employee satisfaction.

Table 10. The moderating effect of employee satisfaction on the positive traits of leaders and firm performance

	Model 1	Model 2
Leader positive traits	0.411***	0.457***
Employee satisfaction	0.144***	0.121***
Positive leader traits * Employee satisfaction		0.143***
R2	0.274	0.302
Adjust R2	0.243	0.297
F	18.721***	19.464***
VIF	1.000	1.000

Note: *** indicates a significance level of 1%.

As can be seen from Table 10, the above regression analysis has statistical significance. At the same time, both positive traits of leaders and employee satisfaction have a positive impact on enterprise performance, and the interaction terms of positive traits of leaders and employee satisfaction also have a positive impact on enterprise performance. Moreover, in Model 2, the positive traits of leaders have a higher degree of positive impact on firm performance. It can be concluded that employee satisfaction has a positive moderating effect on the positive traits of leaders and corporate performance, and hypothesis 2 is valid.

4.4.3 Testing the moderating effect of team trust.

Taking team trust as a moderating variable, it is put into the regression analysis of the influence of positive traits of leaders on enterprise performance for testing and analysis, and the results are shown in Table 11. Model 3 in Table 3 is a regression model of the impact of leader positive traits on enterprise performance without considering team trust. Model 4 is a regression model that takes into account team trust and increases the positive traits of leaders and the interaction terms of team trust.

Table 11. The moderating effect of team trust on the positive traits of leaders and firm performance

	Model 3	Model 4
Leader positive traits	0.431***	0.468***
Team trust	0.184***	0.204**
Team trust * Employee satisfaction		0.107**

R2	0.354	0.369
Adjust R2	0.347	0.347
F	26.471***	25.448***
VIF	1.000	1.000

As can be seen from Table 11, the above regression analysis has statistical significance. At the same time, both team trust and employee satisfaction have a positive impact on enterprise performance, and the positive traits of leaders and the interaction terms of team trust also have a positive impact on enterprise performance. Moreover, in model 4, the positive traits of leaders have a higher degree of positive impact on firm performance. It can be concluded that team trust plays a positive moderating role between the positive traits of leaders and corporate performance, and hypothesis 3 is valid.

5 conclusion

Employee satisfaction and team trust play a positive moderating role between leaders' positive traits and corporate performance. In the new situation, enterprise management should not only have a leader with positive characteristics, but also attach importance to organizational human resource management, actively create a good organizational atmosphere, improve employee satisfaction and enhance team trust, so as to give full play to the positive characteristics of leaders to promote enterprise performance.

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