

2.2 The mediating role of organizational equity perceptions

The study of organizational equity perceptions sprang from the equity theory proposed by Adams, who first linked motivational effects to distributive justice, which mainly emphasizes whether the rewards and punishments individuals receive in the organization are fair and determine their job action and job satisfaction. Equity theory is strongly associated with the subjective judgments of individuals, who generally overestimate their own inputs and underestimate the inputs of others^[6]. Leaders with high emotional intelligence use their management skills to provide as many opportunities as possible for employees to express their individual ideas, prompting individuals to perceive organizational procedures as fair^[7], and individuals in the organization are able to accept unfair outcomes if the organizational allocation process is fair^[8]. Interaction fairness, on the other hand, refers to the level of respect that employees perceive in their interactions with superiors and colleagues^[9]. The way leaders in an organization treat their employees will directly affect their attitudes at work. Although the relationship between leaders and employee engagement has been explored in previous studies, few empirical studies have analyzed the relationship from the perspective of the process of leader's emotional intelligence on employee engagement. It has also been suggested that the influence between leader emotional intelligence and other organizational effect variables may be mediated. Since organizational equity perceptions reflect employees' subjective feelings, the following research hypothesis is proposed in this study:

H2: Sense of organizational fairness mediates between leader's emotional intelligence and employee engagement.

H2a: Sense of distributive fairness mediates between emotional regulation and employee engagement.

H2b: Sense of procedural fairness mediates between emotional regulation and employee engagement.

H2c: Sense of interactional fairness mediates between emotion regulation and employee engagement.

H2d: sense of distributive fairness mediates the relationship between others' emotional evaluations and employee engagement.

H2e: a sense of procedural fairness mediates between others' emotional evaluations and employee engagement.

H2f: Sense of interactional fairness mediates between others' emotional appraisal and employee engagement.

2.3 Study Design and Data Collection

2.3.1 Research subjects and data sources

This study focused on the staff of agricultural enterprises and used a combination of paper and online questionnaires to distribute questionnaires. A total of 600 questionnaires were collected and 520 valid questionnaires were obtained, with an efficiency rate of 86.67%, by excluding those who checked the same option for multiple consecutive questions, as well as those who missed or answered incorrectly. Among the employees of agricultural enterprises who answered the questionnaire, 300 were male, accounting for 57.7%; 220 were female, accounting for 42.3%; 209 were aged 36-45, accounting for the highest

percentage of 40.2%; 266 were in private enterprises, accounting for the highest percentage of 51.2%; the number of employees working for less than one year, 1-5 years, 6-10 years and more than 10 years were 70, 150 people, 225 people and 75 people.

2.3.2 Research Tools

This study refers to the Leader Emotional Intelligence Scale developed by Wong and Law. To ensure the objectivity and authenticity of this study, the others' assessment was selected and combined with the specific content of the study, and the questions that could not be answered from the employees' perspective were excluded. The internal consistency coefficients of emotion regulation, others' emotion evaluation were calculated to be 0.814 and 0.815, respectively. organizational fairness perception scale was adopted from the scale developed by Moorman, including three dimensions of distributive fairness, procedural fairness, and interactional fairness, and the internal consistency coefficients were calculated to be 0.856, 0.871, and 0.902, respectively, and its scoring criteria were used by employees to combine their own situation and their perception of The scoring criteria were determined by the employees' own situation and their perception of organizational fairness. The internal consistency coefficients were calculated to be 0.859. All of the above selected scales were measured using the five-point Likert scale, and their reliability was above 0.8, indicating that the selected scales had good internal consistency.

2.3.3 Data Inspection

2.3.3.1 Common method deviation test

Because the tests for each variable in this study were done through the same subjects, and the data information collection periods were relatively concentrated, thus the problem of homology bias may arise. The first principal component obtained without rotation was 31.660%, which was less than 40%, indicating that the common method bias of the sample data was not serious.

2.3.3.2 Differential validity test

A validated factor analysis of leader emotional intelligence was conducted using the software AMOS 23 to test the differential validity between emotion regulation and others' emotion ratings. As shown in Table 1, all of the fitted indicators of the two-factor model of leader emotional intelligence performed better than the one-factor model, and all of the fitted indicators of the two-factor model reached the desired level, therefore, indicating that the two-factor model is valid.

TABLE I Validated Factor Analysis of Leaders' Emotional Intelligence

Model	χ^2	<i>df</i>	χ^2/df	GFI	CFI	PNFI	RMSEA
One-factor model	645.697	20	32.285	0.707	0.542	0.383	0.246
Two-factor model	28.005	19	1.474	0.987	0.993	0.665	0.030

Note: One-factor model: emotion regulation + others' emotion evaluation; two-factor model: emotion regulation, others' emotion evaluation

The validation factor analysis was conducted to test the discriminant validity among distributive fairness, procedural fairness, and interactional fairness. From Table 2, we can learn that the fitted indicators of the three-factor model of organizational fairness are better than the indicators of the single-factor model, indicating that the three dimensions divided in organizational fairness have better discriminant validity, so the selection of the three-factor model is more appropriate.

TABLE II Validated factor analysis of the sense of organizational fairness

Model	χ^2	df	χ^2/df	GFI	CFI	PNFI	RMSEA
One-factor model	2126.736	104	20.449	0.558	0.489	0.415	0.194
Three-factor model	109.595	101	1.085	0.975	0.998	0.819	0.013

Note: One-factor model: distributive justice + procedural justice + interactional justice; three-factor model: distributive justice, procedural justice, and interactional justice.

III. HYPOTHESIS VALIDATION

3.1 Examining the relationship between leaders' emotional intelligence and employee engagement

Using two dimensions of leader's emotional intelligence: emotion regulation and others' emotion evaluation as independent variables and employee engagement as dependent variables, a model of the direct effect of leader's emotional intelligence on employee engagement was constructed. The fitted indicators of the model are: $\chi^2=52.819$, $df=41$, $\chi^2/df=1.288$, CFI=0.995, GFI=0.982, RMSEA=0.024, A number of indicators reached the ideal model level. The path coefficient of emotion regulation on employee engagement was 0.65 and significant, and hypothesis H1a held; the path coefficient of others' emotion evaluation on employee engagement was 0.64 and significant, and hypothesis H1b held.

3.2 Intermediary role test

Using Bootstrap 5000 sub-sampling method for mediation test, the effect values between variables are shown in Table 3-Table 4.

TABLE III Overall and direct effects between emotion regulation and employee engagement

Effect	Dependent variable/independent variable	Emotional Regulation	Distributive justice	Procedural justice	Interactional justice
Overall effect	Distributive justice	0.536***			
	Procedural justice	0.029			
	Interactional justice	0.550***			
Direct effect	Employee Engagement	0.754***	0.469***	0.219***	0.464***
	Employee Engagement	0.214***			

From Table 4, it can be seen that emotion regulation has a significant effect on employee engagement, distributive fairness, and interaction fairness, but not on procedural fairness, and all three mediating variables significantly affect employee engagement, indicating that the mediating effect between emotion regulation and employee engagement holds. After controlling for the three variables of distributive justice, procedural justice and interaction justice, the direct effect of emotion regulation on employee engagement is significant, indicating that the mediating variables play a partially mediating role between emotion regulation and employee engagement, and hypotheses H2a and H2c are valid, while H2b is not.

TABLE IV Overall and direct effects between other's emotional evaluation and employee engagement

Effect	Dependent variable/independent variable	Other people's emotional evaluation	Distributive justice	Procedural justice	Interactional justice
Overall effect	Distributive justice	0.491***			
	Procedural justice	0.115*			
	Interactional justice	0.489***			
Direct effect	Employee Engagement	0.765***	0.458***	0.187***	0.465***
	Employee Engagement	0.292***			

From Table 4, we can learn that the mediating variables of other people's emotion evaluation on employee engagement and the three dimensions of organizational fairness show significant effects, and the effects of the three mediating variables on employee engagement are also significant, thus we can know that the mediating effect holds. After controlling for the three mediating variables of organizational fairness, the direct effect of others' emotional evaluation on employee engagement is significant, which

indicates that the three dimensions of organizational fairness play a partially mediating role between them, and the hypotheses H2b, H3b, and H4b hold.

3.3 Comparison and testing of multiple mediating effects

Since organizational fairness consists of three dimensions, there are multiple mediating variables between emotion regulation, others' emotion evaluation and employee engagement. In order to better explore the degree of influence of multiple mediating variables between the two and provide more convincing information for organizational management practice, multiple path information in the model is compared and studied, and the results are shown in Table 5.

TABLE V Summary of structural equation model results (N=520)

Intermediary Role Pathway	Path coefficient	Standard error	t-value
Emotional regulation → distributive justice	0.536	0.071	9.559
Distribution equity→Employee engagement	0.469	0.037	11.711
Emotion regulation→Interaction fairness	0.550	0.064	10.037
Interaction fairness→Employee engagement	0.464	0.039	11.878
Emotional evaluation of others → Fairness in distribution	0.491	0.058	9.274
Fairness in distribution→Employee engagement	0.458	0.035	12.179
Emotional evaluation of others→Procedural fairness	0.115	0.049	2.236
Procedural fairness→Employee engagement	0.187	0.030	6.758
Other people's emotion evaluation→Interaction fairness	0.489	0.053	9.485
Interaction fairness→Employee engagement	0.465	0.036	12.717

The comparison of the specific mediating and indirect effects is shown in Table 6. From the table below, we can learn that the effects of emotion regulation and others' emotion evaluation on employee engagement show significant positive effects, and in the construction of the model of emotion regulation and others' emotion evaluation on employee engagement, the roles of distributive fairness and interactional fairness are extremely important, but the mediating effects of procedural fairness are weaker.

TABLE VI Comparison of specific mediating effects and indirect effects

Pathway	Product of multiplication of coefficients	Share of indirect effects	Bootstrapping	
			Lower limit	Upper limit
Emotion regulation→Fairness in distribution→Employee engagement	0.251	48.9%	0.205	0.307
Emotion regulation→Fairness of interaction→Employee engagement	0.255	49.7%	0.210	0.309
Indirect effect	0.513		0.446	0.586
Emotional appraisal by others→Fairness in distribution→Employee engagement	0.225	47.5%	0.180	0.276
Emotional evaluation of others→Fairness of procedures→Employee engagement	0.022	4.6%	0.003	0.043
Emotional evaluation of others→Fairness in interactions→Employee engagement	0.227	47.9%	0.186	0.274
Indirect effect	0.474		0.414	0.537

The confidence interval of [0.205, 0.307] for distributive justice in emotion regulation and employee engagement at 95% confidence level does not contain 0, indicating a significant mediating effect of distributive justice between emotion regulation and employee engagement. Therefore, hypothesis H2a is supported. The confidence interval of interaction equity between emotion regulation and employee engagement at 95% confidence level is [0.210, 0.309], which does not contain 0, indicating that the mediating role of interaction equity between emotion regulation and employee engagement is significant. Therefore, hypothesis H2c was supported. The confidence intervals of distributive fairness, procedural fairness, and interactional fairness in the evaluation of others' emotions and employee engagement at the 95% confidence level are [0.180, 0.276], [0.003, 0.043], and [0.186, 0.274], all of which do not contain 0, indicating that the mediating role of distributive fairness, procedural fairness, and interactional fairness in the relationship between the evaluation of others' emotions and employee engagement is significant. Therefore, hypotheses H2d, H2e, and H2f were supported. Therefore, all the hypotheses proposed by the study passed the test except H2b which did not pass the test.

IV. CONCLUSION AND MANAGEMENT INSIGHTS

4.1 Conclusion

This study reveals the mechanism of action between leaders' emotional intelligence, organizational fairness, and engagement. The following conclusions were drawn: first, emotion regulation and others' emotion evaluation can significantly contribute to engagement; second, the effect of leader emotional intelligence on engagement is achieved through the mediating variables distributive justice and

interactional justice, and the total effect of procedural justice through leader emotional intelligence and thus engagement is not significant.

4.2 Management Insights

The findings of this study provide new paths for enhancing employee engagement in companies.

First, the role of leader's emotional intelligence should be highly valued. Research shows that emotional intelligence of leaders has a positive effect on employee engagement, so leaders should devote more energy to emotional intelligence to achieve the goal of improving employee engagement. Leaders need to have not only the skills needed to run a business, but also a high level of emotional intelligence, which is one of the most important traits for effective management. A leader's actions and behaviors have a direct impact on the organization's business status and performance. Even if a leader with low emotional intelligence achieves certain results in his or her field, the long-term development of the company will have a negative impact on the future development speed and space of the company. In the process of leader training or employee promotion, it is important to measure not only the management skills and expertise of individuals, but also their emotional intelligence as another key indicator. At the same time, during the recruitment process, candidates should be briefed on the current development of the department they are applying for and the future development space to establish reasonable expectations and encourage them to work hard to achieve the expected goals.

Second, focus on the development and enhancement of organizational equity. Research shows that high leadership emotional intelligence can be more effective in enhancing employee engagement through a sense of organizational fairness. Leaders can further understand their subordinates' attitudes toward organizational fairness in terms of distribution, procedural fairness and interaction fairness through in-depth conversations with subordinates, proactively enhance the sense of organizational fairness, and focus on strengthening the cultivation of employees' organizational identity, sense of belonging and sense of dependence, so as to achieve the organizational goal of improving employees' engagement. Currently, employees of enterprises generally pay attention to the degree of organizational fairness, not only want to realize their own value in the process of enterprise development, but also desire to get independent work opportunities to show their abilities, so the organization's recognition is also extremely important to them. For employees with such characteristics, the leadership style of authoritarian leadership is not feasible, which also puts forward a higher level of requirements for leaders, who should be more inclined to motivate and support rather than guide their management style, fully affirm the work ability of employees, create a fair organizational environment for employees, so that employees can reap more sense of belonging and satisfaction in this work environment. Motivation is the driving force behind the behavior of employees in an organization, and it is through motivation that the behavior of employees in an organization is promoted, and the development of employees is closely linked to the development of the company to achieve a "win-win" situation.

Once again, leaders must choose the right motivational approach to motivate employees to work enthusiastically. Employees will be more proactive, focused and efficient in their own work, and leaders can achieve a higher level of employee dedication through motivation. It helps employees to seek their own role in their work, to realize the meaning of their work, to gain greater job satisfaction in the organization and to assist them in realizing their personal value in their work. When developing incentives, companies need to survey and communicate with employees to understand whether they perceive the incentives. Leaders also need to let employees fully understand the organization's expectations for them, which include not only expecting employees to actively perform their duties at work, but also expecting employees to make continuous and developmental personal contributions to the organization and contribute to the improvement of the company's overall competitiveness. In addition, in the process of carrying out actual work, especially in the discussion of decisions involving employees' personal interests, leaders should actively encourage employees to participate in the discussion, so that the company can truly hear the voices from the staff level, which can promote the work process and also ensure the efficiency of the implementation of subsequent decisions, and can effectively reduce the work pressure of the supervisory department of the company and reduce the frequency of correcting deviations in the process of decision implementation. The final decisions made by the organization not only contain the will of the organization's leaders, but also the will of the organization's employees. The making of such decisions not only enables employees to perceive the organization's respect for them, but also enables employees to achieve self-control in the process of promoting the implementation of decisions later, which not only ensures the efficiency of the organization's work, but also stimulates employees' enthusiasm for their work. The satisfaction of employees' respect needs is also a key concern for leaders, as self-esteem and respect for others are closely linked. Self-esteem is an effective driving force that can drive employees to work hard and upward. Leaders should pay attention to the diversity of needs presented by employees in terms of self-esteem, and equip different needs with differentiated ways to meet the self-esteem needs of employees, which can further stimulate the initiative of employees in their work.

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