

Employee Psychological Ownership Guidance Model Based on Three-way Decision

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Abstract

Psychological ownership is an employee's expectation of the company's value and effectiveness. It can promote the enthusiasm of employees to work and maintain the pride as the company's owners. Psychological ownership is of great importance to the decisions of employees and company managers. Through the analysis of the dynamic changes of employees' psychological ownership, this paper explores the subjective and objective factors that affect the change of employee psychological ownership, and also analyzes the impact of employee psychological ownership on the company's development. The study found that good psychological ownership can play a promotion role of the employees' and corporate's development, When the psychological ownership is insufficient or exceeds a certain expectation value, employees will have a slack mentality, which affecting work efficiency and company development. To this end, based on the influence of employee psychological ownership on working status, this paper proposes a model of employee psychological ownership guidance based on three-way decision, that is to achieve the company's intervention and guidance of employees psychological ownership through the combination of subjective and objective factors, to ensure the good development between individuals and companies, and achieve a win-win situation. The analysis of the results shows that the model can provide guidance for the development of employee psychological ownership and promote the development of the company.

Keywords

Psychological ownership, three-way decision, satisfaction.

1. Introduction

Psychological ownership was first proposed by Pierce, he defined psychological ownership as object or a part of the object that the individual perceives as if it were his own, and he think that the formal ownership that company gives employee is beneficial to the generation of psychological ownership[1]. For different employees and company managers, the need to psychological ownership is different. Employees expect to get more benefits in their work, so psychological ownership tends to "increase". For company managers, they "draw cakes" for employees, provide virtual psychological ownership to satisfy the employees' ideas and ensures that employees work actively. However, in practice, they tend to minimize the cost of human resources and operation cost, so they are not very willing to satisfy the psychological ownership of employees. This is a game problem for employees and company managers, so how to grasp the dynamics change process of employees' psychological ownership is very important for managers.

Different psychological ownership will produce different behaviors for employees, specifically, there are three main types, namely, satisfactory psychological ownership, which will produce positive behaviors and make employees work hard; Dissatisfied psychological ownership, will

cause negative behaviors, and the employees show resistance and slack behavior at work that will affect normal work progress; Vague psychological ownership, which is between satisfactory psychological ownership and dissatisfied psychological ownership, the behavior it causes is uncertain, in specific work, sometimes positive behaviors, sometimes produces slack performance, generally swinging, and it is easily affected by the outside world. The employees' psychological ownership generally changes dynamically between these three states, for the development of the company, company managers should actively intervene and guide the psychological changes of employees so that they can own appropriate and satisfactory psychological ownership status, reduce employees' vague psychological ownership and avoid negative psychological ownership status, which is beneficial to the long-term development of companies and individuals. To this end, based on the influence of employee psychological ownership on working status, this paper proposes a model of employee psychological ownership guidance based on three-way decision, that is to intervene and guide employees' psychological ownership timely and reasonably through understanding the state of employees' psychological ownership, so that they can have a good state of psychological ownership, to ensure the good development between individuals and companies, to achieve a win-win situation.

2. Literature References

Job satisfaction reflects the degree of satisfaction of employees in terms of their work content and working environment, it is the employee's personal measurement of whether they individual's needs are met by the organization, and it is a subjective psychological perception that combines positive and negative emotions from the employee's work process[2]. It can be seen that the formation of job satisfaction depends on the employee's expectation and actual income and perception, reflecting a psychological gap between expectation and reality. Existing research shows that employees with higher job satisfaction will show higher enthusiasm in their work, have expectations for their work, and are eager to have stable development in their work, so they will invest more energy in their work actively and improve individual work efficiency. This is beneficial to the professional development of the employees, of course, for the enterprise, it will directly affect the performance and growth of the enterprise, after all, the enterprise is composed of many individuals, and the performance of the individual directly affects the income and growth of the enterprise.

Psychological ownership is a subjective existence, is a kind of psychological perception of the subject to the object. According to the theory of psychological ownership, psychological ownership is mainly affected by two types of factors, one is objective factors, which is mainly the formal ownership (equity) of the enterprise. The other category is subjective factors, which are psychologically perceived by employees, according to the existing literature, such factors mainly include employees' job satisfaction, collectivism tendency, and tradition and so on[3]. According to the influencing factors of employee's psychological ownership, to make employees have psychological ownership, on the one hand, the enterprise should give employees formal ownership, such as the right to share the residual profits of the enterprise, that is, the right to benefit; The knowledge of enterprise management information, that is, the right to information; The right to participate in corporate decision-making and the right to influence on corporate management, that is, the right to control. On the other hand, enterprises need to consider the diversified needs of employees themselves and the employees' real situation, by changing employee job satisfaction and other factors affecting employees' psychological perception to improve employees' subjective perception of psychological ownership. The existing research indicates that the psychological ownership of employees includes positive psychological ownership and negative psychological ownership, and the development of psychological ownership is a dynamic process, not a constant change, while positive psychological ownership

and negative psychological ownership will also transform each other. We believe that positive psychological ownership will enable employees to devote more energy to their work and improve their enthusiasm for work, which will lead to higher job performance and more value for the company. Negative psychological ownership is not conducive to the development of the company, employees who have negative psychological ownership will have slack emotions, which will seriously affect individual performance and organizational atmosphere. So, enterprise managers should pay attention to the cultivation of employees' psychological ownership, and at the same time, encourage employees to form healthy psychological ownership through active guidance and adjustment.

In conclusion, as a link between the company and its employees, psychological ownership plays a decisive role to the development of the company. It is necessary that the company actively guide the psychological ownership and make decisions based on specific situation.

3. Model

3.1. Psychological Ownership Status Assessment

The factors affecting psychological ownership include subjective factors and objective factors, subjective factors include job satisfaction, collectivism tendency, and tradition and so on, objective factors, such as formal corporate ownership. All these factors are affecting the changes of employees' psychological ownership.

Psychological ownership's objects and their measurement are also different due to subjective influence factors and objective influence factors, different people's psychological ownership is also different. some people are easily interfered by subjective factors, while others focus on considering objective factors. To this end, we propose a comprehensive method to measure psychological ownership, that is, to measure a person's psychological ownership more rationally through the method of subjective and objective weighted summation. The psychological ownership measurement formula is as follows:

$$PO = wPO_{sub} + (1-w)PO_{obj}$$

Among them, PO_{sub} represents a comprehensive measure of the subjective influencing factors of psychological ownership, job satisfaction, etc. PO_{obj} represents the value of the objective factors that affect psychological ownership, w is the weighting coefficient, and $0 \leq w \leq 1$.

For the above formula, When $w=0$, it means that psychological ownership is only affected by objective factors. When $w=1$, it means that psychological ownership is only affected by subjective factors. But in most cases, psychological ownership is determined by subjective factors and objective factors, so different values can be set according to specific situations in the formula.

3.2. Employee Psychological Ownership Guidance Model Based on Three-Way Decision

Psychological ownership is not static, it will change due to the influence of internal and external factors, and different people also have different expectations due to different psychological ownership, thus showing different behaviors in their work. Specifically, there are three main types, namely, satisfactory psychological ownership, dissatisfied psychological ownership, and vague psychological ownership, the psychological ownership of employees generally changes dynamically between these three states.

Three-way decision is a way of thinking that conforms to human cognitive behavior and is widely used in decision-making, management science, and censorship [4]. This paper uses the idea of three-way decision to use a set of decision thresholds to divide the employee's psychological ownership into one state of satisfactory psychological ownership or dissatisfied

psychological ownership or vague psychological ownership. The specific psychological ownership decision rules are as follows:

- (1)When psychological ownership $po \geq \alpha$, the employee is in a state of satisfactory psychological ownership;
- (2)When psychological ownership $\beta < po < \alpha$, the employee is in a state of vague, uncertain psychological ownership;
- (3)When psychological ownership $po \leq \beta$, the employee is in a state of unsatisfactory psychological ownership.

In response to the above three rules, as a company manager, it is necessary to adopt different strategies to ensure the company's interests based on the assessment of the employee's psychological ownership status. Specifically, for employees who are in a state of satisfactory psychological ownership, give appropriate incentives to lead the other employees to work enthusiasm; For employees who are in a vague state of psychological ownership, they are generally comfortable with the current status, and different interference factors will affect the quality of their work. Sometimes, these employees show satisfactory psychological ownership and positive behaviors, and sometimes show unsatisfactory psychological ownership and negative behaviors. So, as company managers, should take timely guiding measures to change their status into a satisfactory state of psychological ownership, which is conducive to improving the efficiency of employees and promoting the development of enterprises. For employees who are dissatisfied with the handling of psychological ownership, they respond negatively to the current situation of the work and that state affects the overall development of the company, therefore, managers should intervene in time and even adopt stricter management measures to ensure the normal development of the company. The employee psychological ownership guidance model is shown in Fig. 1.

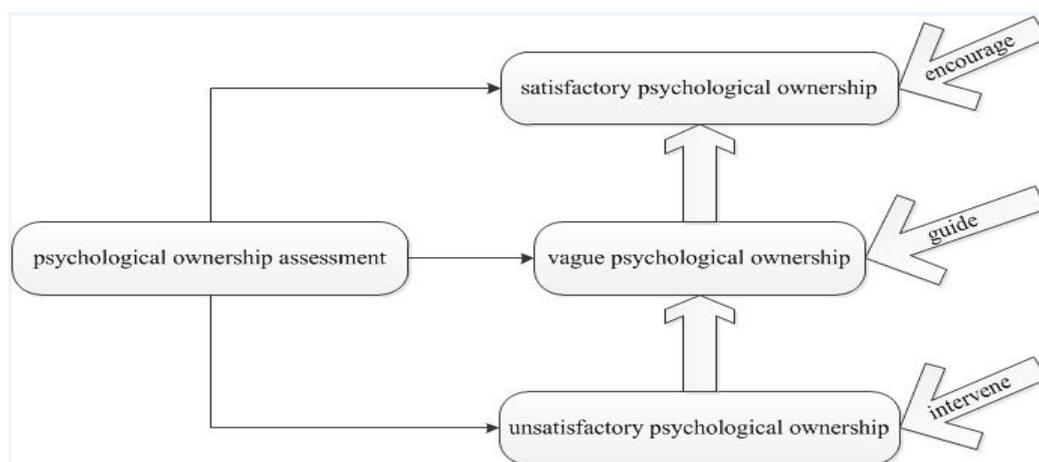


Fig 1. The employee psychological ownership guidance model

4. Model Validation and Recommendations

4.1. Data Collection

After the actual questionnaire survey, 11 groups representative data were selected to form table 1, where X_i represents the employee number, PO_{sub} represents the subjective factors that affect psychological ownership, comprehensive consider such as job satisfaction, etc. 1—5 are very dissatisfied—very satisfied. PO_{obj} represents the objective factors that affect psychological ownership, expressed by formal ownership (including income rights, information rights, and

control rights), 1—5 are very disagree— very agree. PO_w represents psychological ownership results when the weight is w .

Table 1. Evaluation table of employees' psychological ownership status

employee number	PO_{sub}	PO_{obj}	$PO_{w=0.7}$	$PO_{w=0.5}$	$PO_{w=0.4}$
X1	2	3	2.3	2.5	2.4
X2	4	1	3.1	2.5	2.8
X3	4	4	4	4	4
X4	5	1	3.8	3	3.4
X5	5	5	5	5	5
X6	1	5	2.2	3	2.6
X7	5	3	4.4	4	4.2
X8	3	4	3.3	3.5	3.4
X9	2	4	2.6	3	2.8
X10	4	5	4.3	4.5	4.4
X11	3	2	2.7	2.5	2.6

4.2. Hypothesis Analysis and Recommendations

According to the analysis in section 3.2, the following three viewpoints are proposed about Employee psychological ownership guidance model based on three-way decision.

- (1) The employees' psychological ownership is dynamically changing.
- (2) Satisfactory psychological ownership will have a positive impact on employees, prompting employees to improve work efficiency and this will increase corporate income too.
- (3) Dissatisfied psychological ownership can have a negative impact on employees, leading to negative behaviors at work, affecting normal work schedules and business development.
- (4) Through active guidance, vague psychological ownership can be transformed into satisfactory psychological ownership.

According to the psychological ownership decision rules and the statistics of table 1, it can be known that when the decision threshold is set to $\alpha=3.5, \beta=2.5$, when the weight $w=0.7$, that is, when the employee's psychological ownership is easily affected by subjective factors, the employee X4, X5, X7 and X10 are in state of satisfactory psychological ownership; The employees X2, X8, X9 and X11 are in state of vague psychological ownership, and employees X1 and X6 are in an unsatisfactory state of psychological ownership. When the weight $w=0.5$, that is, when the employee's psychological ownership is affected by subjective and objective factors equally, the employee X3, X4, X5, X7, X8, and X10 are in state of satisfactory psychological ownership, and employees X1, X2, and X11 are in unsatisfactory state of psychological ownership. When the weight $w=0.4$, that is, employees psychological ownership is easily affected by objective factors, the employee X3, X5, X7 and X10 are in state of satisfactory psychological ownership; the employees X2, X4, X6, X8, X9 and X11 are in state of vague psychological ownership, and the employee X1 is in an unsatisfactory state of psychological ownership.

Based on the above three results, the employees X5, X7 and X10 are always in state of satisfactory psychological ownership, belonging to employees with positive psychological

ownership in the company. And employee X1 is always in an unsatisfied state of psychological ownership, dissatisfied with the company. And most other employees' psychological ownership is vague, and these results are consistent with the actual situation of employees in the company. To this end, we propose the following specific recommendations for the changes about the state of psychological ownership and for the long-term development of companies and employees:

For enterprise managers, it is necessary to attach great importance to the cultivation of employees' psychological ownership, provide objective factors and subjective factors for cultivating employees' psychological ownership, and promote the formation of positive psychological ownership. At the same time, they must also recognize the dynamic process of psychological ownership, and take some measures to guide and adjust the psychological ownership of employees by assessing the state of psychological ownership of employees. For the satisfaction of the state of psychological ownership, it should be given affirmation and encouragement, so that it can be maintained better and longer, and at the same time play a "transfer effect" within the organization, leading more people to form positive psychological ownership. For employees with vague psychological ownership, their work status is not stable enough because of the emergence of some factors, their psychological ownership will develop to positive aspects and also to negative aspects, under such circumstances, managers should always be aware of the situation and their working status, providing timely favorable factors, guiding the vague psychological ownership to develop in a positive direction, and prevents the transformation into unsatisfactory psychological ownership. For employees who are dissatisfied with the state of psychological ownership, managers must realize that this state is difficult to translate into satisfaction, so it is necessary to intervene in time so that it does not seriously affect the company's atmosphere and order, if this dissatisfied psychological ownership status works for employees efficiency and organizational climate have already had a serious impact and there is a tendency to continue to deteriorate, then managers need to take strict management measures and even dismissal.

5. Summary

Through the analysis of the dynamic changes of employees' psychological ownership, this paper explores the subjective and objective factors that affect the change of employees' psychological ownership, and also analyzes the impact of employee psychological ownership on the company's development. Aiming at the influence of employee's psychological ownership on the working state, this paper proposes a model of employee psychological ownership guidance based on three-way decision methods, which is to realize the intervention and guidance of the company's psychological ownership through the combination of subjective and objective factors to ensure the good development of individual and the company and to achieve a win-win situation. And at the same time, put forward corresponding recommendations for different psychological ownership status. The analysis of the example results shows that the model can provide guidance for the development of employees' psychological ownership and promote the development of the company.

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