

Analysis of the transmission path of factors influencing employee slackness in companies based on ISM-MICMAC

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Abstract: Employee slackness is a prevalent behavior among current corporate employees, and this behavior harms both employee personal development and organizational effectiveness. In this study, factors are extracted from four levels: employee, leader, company, and job, and the relationships of factors influencing employee slackness are sorted out using the explanatory structural model (ISM) and the cross-influence matrix multiplication method (MICMAC), and corresponding conclusions are drawn based on the relevant mechanistic models. The results of the study show that a strong sense of overqualification and less meaningful work as independent group factors have the deepest influence on corporate employees to produce slacking behavior. The findings of this study help enterprises to understand the influencing factors of employees' slacking behavior at a deeper level; they also provide important management insights for enterprise managers to pay attention to and alleviate employees' slacking emotions and negative work behaviors.

Keywords: explanatory structural model, cross-influence matrix multiplication, employee slackness, influencing factors, employee behavior

1. Introduction

With the increase of uncertainty in the domestic and international market environment and the increasingly fierce competition in enterprises, employees are under great pressure at work and are prone to slackness, often choosing to delay the completion of tasks or even avoid them. The negative behavior of employee slacking is not only negatively related to employees' performance but also damages the overall performance of the organization, thus causing a lot of economic losses to the enterprise. Therefore, to create a healthy working environment and improve corporate performance, it is necessary to study the factors influencing employee slackness, and there are few studies in this area.

In a competitive business environment, factors exist at the levels of individual employees, leaders, and business organizations that influence the generation of slackness and negative behaviors to some extent. In terms of individual employees, WANG et al.[1] explored the effect of online loafing behavior on job burnout through questionnaires based on resource conservation theory and time management theory, and found that moderate online loafing behavior helps to reduce job burnout while employees are working, while excessive online loafing probably leads to an increase in the level of employee burnout. In addition, the relationship with others in the organization is an important factor influencing employees' work attitudes and behaviors, and XU et al.[2], from the perspective of job requirements and resource

theory, found that loneliness leads to emotional stress such as anxiety, tension, and dissatisfaction in individuals, which makes them lack enthusiasm and motivation for work, and individuals are extremely prone to job burnout due to long-term energy loss under work and interpersonal stress. In terms of leaders, scholars have found that positive transformational leadership is negatively associated with employees' withdrawal behavior at work, while negative abusive management positively affects employees' withdrawal. LIU et al.[3] used methods such as hierarchical regression and Bootstrap to explore the mechanism of the influence of gracious leadership on employee burnout. At the same time, the leader's role demands on employees can also have an impact on employee slackness. WANG et al.[4] used a structural equation modeling approach and found that role overload positively affects employees' burnout behavior through statistical analysis of top and bottom matching data. Based on attribution theory and the "frustration-aggression" model, GENG et al.[5] further verified empirically that when employees in state-based companies feel dissatisfied with their welfare, they are more likely to develop employee slackness. Throughout the previous studies, most of the existing studies on factors influencing employee slackness have been discussed using a single model or method, and few studies have combined various factors for in-depth analysis. This study intends to build an explanatory structural model (ISM) of the factors influencing employee slackness based on previous research, and use

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cross-matrix multiplicative analysis (MICMAC) to classify each influencing factor hierarchically, to clearly understand the direct and indirect factors influencing employee slackness through the model, and draw corresponding conclusions.

2. Construction of an index system of influencing factors of employee slack

2.1 Staff level

At the employee level, the influence of individual characteristics on their slack behavior is mainly related to the personality characteristics of employees and their stage and environment and is analyzed by combining their personality, characteristics, and development stage. The personality characteristics of employees determine their cognition and treatment of external things. If they cannot objectively and reasonably recognize their work and themselves, or have misunderstandings about other people in the organization, they may have negative psychological states, resulting in slack behavior[6,7]. When employees think they have more than the required level of education, experience, knowledge, skills, and ability, their emotional exhaustion will increase[8], which may show more employees slack. In addition, employees inevitably encounter role conflicts in the balance of work, life, and other aspects. If these conflicts cannot be solved well, they will hurt the psychology of employees[9], resulting in slack behavior.

Leader level

Leader level refers to the different leadership styles and leadership styles of leaders. As the main body of commanding employees' work, leaders' behavior will have a certain impact on employees' slack behavior. First of all, the mismatch between subordinates' needs and their acceptance of empowering leadership will lead to emotional exhaustion of subordinates, and compared with insufficient authorization, excessive authorization of leaders will lead to emotional exhaustion of subordinates[10]. Emotional exhaustion will make employees slack. Secondly, followership prototype-trait fit can stimulate employees' harmonious work passion and promote their active followership, and may also make employees fall into role overload and choose to withdraw from work[4]. Therefore, the mismatch between the followership prototype and employee traits may lead to employee slack. Thirdly, when employees perceive dependence on their superiors, they will be proud, and then engage in more proactive behaviors. When employees perceive the disclosure of their superiors, they will have anxiety, and then show more job withdrawal behaviors[4]. Therefore, the improper superior trust may cause employees to slack off.

2.2 Enterprise level

The enterprise-level mainly focuses on the overall characteristics of the enterprise and the characteristics related to employees. The enterprise is the environment where employees work, and its cultural atmosphere and organizational structure will affect employees' work

behavior. The degree of matching between employees and organizations will negatively affect their job burnout[11], so the lower the degree of matching between enterprises and employees, the more obvious their job burnout will be. When employees do not feel the attention and concern of the organization, their job burnout will increase[12], so they show slackness. In addition, when employees feel alienated from others and thus feel anxious and unhappy, they will also have job burnout[2], resulting in employee slack. If an enterprise cannot make employees feel that they can meet their needs by fulfilling their roles in the organizational environment, then employees will show work withdrawal behavior[3] and employee slack.

2.3 Work level

The work level involves the content characteristics and significance of the work, which mainly affects the slack of employees through work pressure and its adjustment factors. Non-compliant tasks are a kind of work requirement higher than responsibilities. While threatening employees' resources, they cause employees to have negative emotions such as unfairness and tension, increase employees' emotional exhaustion[13], and lead to employee slack. Work autonomy and work meaning will have a significant negative impact on job burnout[2]. Therefore, when employees feel that their sense of control over their work is too low or the meaning of their work is not significant, they lack a sense of identity with their profession. The subjective willingness to work is very low, which may lead to the psychological and behavioral manifestations of employee slack. Excessive workload will form a hindrance stressor and cause employee burnout[3]. Therefore, excessive workload also leads to employee fatigue, which becomes an obstacle to the achievement of its goals and causes employees to slack off. In summary, the index system of influencing factors of employee slack constructed in this paper is shown in table 1 :

Table 1 Influencing factors of employee slack in enterprises

Second index	Third-grade indexes	Indicator narrative	Indicator number
Staff level	Low emotional intelligence	Employees cannot well monitor, identify, and use their own and others' emotions and emotions to guide their thoughts and behaviors;	X ₁
	Low self-efficacy	Employees lack confidence in their ability to accomplish a behavior;	X ₂
	Strong sense of overqualification	Employees believe that they have more than the required level of education, experience,	X ₃

		knowledge, skills, and ability;	
	Role conflict	Multiple role conflicts arise when employees play multiple roles at the same time;	X ₄
Leader Level	Unreasonable authorization mode	The mismatch between subordinates' needs and accepted empowering leadership;	X ₅
	Follow the prototype-trait mismatch	The follower prototype in the leader's mind does not match the employee's traits;	X ₆
	Perception of unreasonable superior trust	Employees do not perceive dependence on superiors or too much perception of superior disclosure.;	X ₇
Enterprise level	Low person-organization fit	The characteristics of employees do not fit with the enterprise and cannot reach an agreement or complementarity.;	X ₈
	Weak sense of organizational support	Employees believe that their organizations do not value their contributions, do not care about their well-being, and meet social and emotional needs.;	X ₉
	Strong loneliness in the workplace	Employees feel that they lack communication and contact with others, and feel anxious and unhappy because of this sense of alienation.;	X ₁₀
	Organizational self-esteem is weak	Employees have no confidence in fulfilling their needs by fulfilling their roles in an organizational environment;	X ₁₁
Work level	The work task is not compliant	Tasks that are not in line with the expected scope of	X ₁₂

		work, should not be done by oneself or unnecessarily performed;	
	Low work autonomy	Employees feel unable to control their work independently.;	X ₁₃
	Less meaningful work	The content of work is of little significance to society or individual employees.;	X ₁₄
	Excessive workload	Employees bear too much work in unit time;	X ₁₅

3. ISM Method

The Explanatory Structural Modeling (ISM) method, proposed by Professor J. Warfel in 1973, is a new analytical method mainly used to analyze the problems of socioeconomic systems with many factors and complex structures[2]. ISM has the great advantage of transforming ambiguous ideas into intuitive models with good structure, because it presents the conclusions in the form of hierarchical topological diagrams, and this presentation has the intuitive effect that the hierarchical diagrams can be used to understand at a glance the causal hierarchy of system factors, the ladder structure. The specific steps of ISM are as follows: STEP1: Analyze and identify the influence factors of this research system, use literature research, expert interviews, and other methods to initially determine the direct influence relationship between the influence factors, and construct the influence matrix of the influence factor relationships, i.e., the adjacency matrix A. The presence or absence of influence relationships in the matrix is generally indicated by 0 and 1. STEP2: On the basis of the adjacency matrix, the unit matrix is added and the reachable matrix is obtained using Boolean operations. The creation of the interpreted structural model and MICMAC analysis are performed based on the reachable matrix. The reachability matrix represents the degree that each element can reach the other through a certain path, and the direct and indirect relationships between elements can be known through the reachability matrix. The adjacency matrix A is added to the unit matrix E to obtain (A+E), and then several Boolean operations are performed on (A+E) until $(A+E)(n-1) \neq (A+E)n = (A+E)(n+1)$, from which the reachable matrix M is calculated. STEP3: After finding out the reachable matrix, we decompose the structure of the reachable matrix according to the region division method and the layer division method, and finally, get the layer situation of the model. It is generally considered that the top layer is the final goal of the system, while the following layers are the reasons for the previous layer respectively. STEP4: After the hierarchy is divided, the hierarchy of the model is then represented more visually by drawing a directed connection diagram.

4. MICMAC Method

The cross-influence matrix multiplication method (MICMAC) was to analyze the position and degree of interaction of the influencing factors in a system[18].MICMAC analysis aims to identify the dependencies and drivers of each factor in the set of influencing factors, to find the focus of management and intervention. It obtains the values of drivers and dependencies by summing up the rows and columns of the reachable matrix and then classifies the influencing factors into four categories: I independent, II-dependent, III linked, and IV spontaneous with the horizontal and vertical error lines of the mean, and represents the results in quadrant diagrams. MICMAC can classify the influencing factors, further analyze the influence of each factor, and identify the surface, middle, and bottom influencing factors that cause the results. Because ISM does not quantify many results of factors, the MICMAC analysis method can analyze the influence and dependency relationship between factors in the system a little more thoroughly. MICMAC operates as follows:STEP1:MICMAC analysis is performed based on the obtained reachability matrix M. The results can be represented by axes, where dependencies are represented by horizontal coordinates and driving forces by vertical coordinates.STEP2:The driving force can be obtained by calculating the number of influencing factors whose matrix element is 1 in the ith row of the matrix where the influencing factor F_i is located, i.e., the driving force $D_i = \sum f_i$; the dependence of factors can be obtained by calculating the number of influencing factors whose matrix element is 1 in the ith column of the matrix where the influencing factor F_i is located, i.e., the dependence $R_j = \sum f_j$. The greater the driving force, the greater the degree of influence of that influence on other factors; the greater the dependence, the greater the dependence of that influence on other influences.STEP3:The influencing factors were classified into four clusters according to the magnitude of the driving force and dependency, i.e. contact cluster (quadrant I), independent cluster (quadrant II), spontaneous cluster (quadrant III), and dependency cluster (quadrant IV), and the "driving force-dependency" of the influencing factors of corporate employee slackness was drawn classification diagram and analyzed accordingly.

5. Calculation and analysis

5.1 ISM Operations and Analysis

Based on the pre-constructed index system of enterprise employee slackness influence factors, this study invited 10 experts to score a total of 15 indicators at four levels identified: enterprise, employee, leadership, and work, to determine whether there is a direct correlation among the influence factors. When $X_{ij}=1$, it indicates that X_i has a direct or significant influence on X_j ; when $X_{ij}=0$, it indicates that X_i has no or no significant influence on X_j . The final adjacency matrix is shown in Table 2 after combining the opinions of the experts:

Table 2 Adjacency matrix A of factors influencing employee slackness in companies

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄	X ₁₅
X ₁	0	1	0	1	0	1	0	1	0	1	0	0	1	0	0
X ₂	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
X ₃	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
X ₄	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
X ₅	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
X ₆	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0
X ₇	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
X ₈	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
X ₉	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
X ₁₀	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
X ₁₁	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
X ₁₂	0	0	0	0	0	1	1	0	1	0	1	0	0	0	1
X ₁₃	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
X ₁₄	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0
X ₁₅	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on the adjacency matrix in Table 2, the ISM hierarchy is shown in Figure 1:

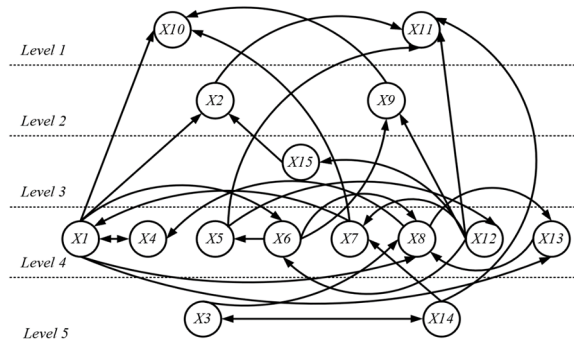


Figure 1 Explanatory structural model of factors influencing employee slackness in enterprises

Based on the reachability matrix, the hierarchy in the system is divided according to certain decomposition rules, to construct the ISM explanation structure model. The model clarifies the hierarchical relationship and the path of action of the factors influencing enterprise employees' slackness. As can be seen from Figure 1, the 15 factors affecting enterprise employees' slackness are divided into five layers, from top to bottom in order from the surface layer to the middle layer to the bottom layer.

The first layer is the direct layer, which is the most direct factor influencing corporate employees to slack off and the ultimate target of the system's influence, including a stronger sense of workplace isolation and weaker organizational self-esteem.

The middle layer includes the second, third, and fourth layers, and the factors in these three layers are indirect influences and have a cascading relationship that can be passed to the top layer through the resolution of the bottom layer factors. Specifically, the second layer includes a low sense of self-efficacy and a weak sense of organizational support. The third layer includes excessive workload; the fourth layer contains more factors, including low emotional intelligence, role conflict, unreasonable delegation pattern, following prototype-trait mismatch, poorly perceived supervisor trust, low personal-organizational fit, non-compliance with work tasks, and low job autonomy.

The fifth layer, the root layer, is the fundamental element that most deeply affects employee slackness and plays the most critical role, including a strong sense of overqualification and less meaningful work.

Further, the influencing factors with associated relationships are connected, and the relationships between the layers reflect their influence paths.

5.2 MICMAC Computing and Analysis

Based on the calculations in 5.1, the results of MICMAC analysis are obtained as shown in Figure 2:

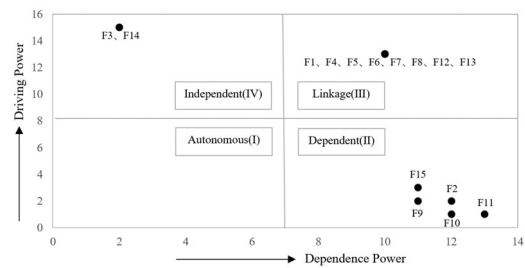


Figure 2 Results of MICMAC analysis of factors influencing employee slackness in companies

Based on determining the ISM model, the cross-influence matrix multiplication method MICMAC is applied to evaluate the driving force and dependence of the influencing factors of corporate employee slackness, and then clarify the interactions between the influencing factors. The influencing factors are divided into four clusters according to the magnitude of the driving force and dependency, which are the autonomous factor cluster, the dependent factor cluster, the linked factor cluster, and the independent factor cluster, corresponding to the four quadrants of the coordinate system.

The dependence and driving force of the influencing factors in the first quadrant of the autonomy factor cluster are weak, while the findings indicate that no factors affecting employee slackness are in this quadrant, suggesting that there is some correlation between the factors.

The second quadrant is the cluster of dependent factors, and the influencing factors located in this quadrant have strong dependencies and low drivers. The factors in the first, second, and third levels of the ISM model are located in this quadrant, specifically low self-efficacy at the employee level, weak sense of organizational support, a strong sense of workplace isolation, weak organizational self-esteem, and excessive workload. These aforementioned factors are highly dependent on and driven by lower-level factors.

The third quadrant linkage factor cluster has stronger dependencies and drivers of influencing factors, low employee emotional intelligence, and role conflict are located in this quadrant, in addition to unreasonable leadership empowerment patterns, following prototype-trait mismatch, poor employee perceived leadership trust, and low fit with the organization, non-compliance with work tasks, and low job autonomy, which belong to the linkage factor cluster and play the role of transmitting the influence of lower factors to the upper levels in the whole system.

The fourth quadrant is a cluster of independent factors, and the influencing factors located in this quadrant have strong driving forces, usually located at the bottom of the ISM model, are key elements of the whole system, and can profoundly influence other factors.

5.3 Theoretical Insights and Practical Implications

Based on the results of ISM and MICMAC, this study finds that the factors affecting employee slackness in enterprises originate from multiple sources and that

enterprises, employees, leaders, and the job itself may all contribute to employee-level burnout. In addition, MICMAC shows that no factors are located in the autonomous factor group, indicating that all the influencing factors are interrelated, and the hierarchical relationship and action path of each factor are more complex, which to some extent increases the difficulty for enterprises to solve the problem of employee slackness. To alleviate the current situation that employee slackness affects work efficiency, it is necessary to take differentiated measures for different levels of factors and to focus on a "strong sense of overqualification" and "less meaningful work" which have a stronger driving force. Accordingly, this study proposes the following recommendations.

(1) For enterprises, should pay high attention to employees who have a strong sense of overqualification and perceive their work as less meaningful, and should take a series of measures to make maximum use of the talents of overqualified employees. For example, we should improve the internal career development paths[8], improve the work analysis process and results, and match employees with reasonable work tasks. At the same time, job rotation and other mechanisms should be used to increase the richness and challenge of employees' work. In addition, given the importance of corporate culture, companies should create a cultural atmosphere with a sense of belonging to improve the motivation of employees at work.

(2) For leaders, should fully empower employees with a strong sense of overqualification and provide sufficient organizational support to meet the expectations of overqualified employees to participate in decision-making work and improve the meaning of their work. In the process of empowerment, leaders should ensure the rationality of the empowerment model and develop an appropriate approach based on the personal traits of the followers' employees[4]. At the same time, they should give full trust to employees, stimulate their work enthusiasm and potential with the help of incentives, and guarantee their autonomy in making decisions to the maximum extent.

Conclusion

(1) Strong sense of workplace loneliness and weak organizational self-esteem is the most direct and superficial factors influencing corporate employees' slackness, and are the ultimate influence target of the system, and the two factors are very dependent and weakly driven, and these problems can be solved by the solution of other influencing factors.

(2) Strong sense of overqualification and less meaningful work are the most fundamental and deepest factors affecting enterprise employees' slackness, playing a key role, and these two factors have a strong driving force and weak dependency, which will have a profound influence on other factors.

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