

# Dual Leadership Analysis on Employee Productivity and Creativity

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**Abstract:** In today's dynamic global economy, businesses confront increasingly intricate domestic and international landscapes. A singular leadership approach is insufficient; companies must enhance staff productivity and creativity to secure market competitiveness. This study utilizes questionnaire surveys, statistical analysis via SPSS25.0, along with reliability, validity, regression, and other methods, involving a large Southwest Chinese services firm with 300 workers and 58 supervisors. The aim is to illuminate the intermediary role played by psychological empowerment and employee silence behaviour in influencing dual leadership and its relationship with employee creativity and productivity, alongside assessing the regulatory impact of environmental uncertainty and leadership prototypes. This research helps elucidate the mechanism underlying dual leadership's effects on workforce effectiveness, providing invaluable theoretical guidance for enhancing staff creativity and productivity.

**Keywords:** Dual Leadership, Productivity, Creativity, Humble Leadership, Narcissistic Leadership

## 1. Introduction

At present, the economic development speed of all countries in the world is slowing down. In the current, each economic entity has encountered different shocks, and the development of enterprises is facing higher requirements. In the face of the increasingly complex competitive environment for enterprises, it is particularly important to improve the market competitiveness of enterprises <sup>[1]</sup>. In order to enhance the market competitiveness of the enterprise, we must get rid of the previous inefficient management mode, and promote the development and change of the enterprise through the promotion of employee creativity and productivity <sup>[2]</sup>. However, the single past single leadership style cannot effectively improve the creativity and productivity of employees, nor can it deal with some problems in the process of enterprise development, and the successful introduction of the dual leadership concept into the enterprise management reform effectively avoids the above problems <sup>[3,4]</sup>.

Leadership style refers to the behavior pattern of leaders in practice. Since the 1970s, scholars at home and abroad began to realize the important influence of leadership style within the organization, and conducted a lot of research on it <sup>[5]</sup>. Although the current leadership style and employee productivity and creativity mechanism has been very extensive and mature, but previous research focused on the different types of single leadership style in the importance of employee productivity and creativity and development, but ignored in the enterprise management practice, leadership behavior often has dual. Zacher And Rosing further point out that separating different leadership styles and separately discussing the impact of a certain leadership style on employee behavior and performance in the workplace will lead to a disconnect between theoretical research and management practice. Therefore, it is necessary to carry out empirical research on whether, how and when dual leaders affect employee productivity and creativity <sup>[6]</sup>. Previous studies have confirmed the positive impact of dual leadership on workplace employee behavior and performance. By combing relevant literature, it is found that researchers discussed the combination of contradictory behavior strategies of dual leaders based on different research perspectives, which can be summarized as three dual leaders, including integrated open and closed leadership behavior, integrated transformative and transactional leadership style, and authorized and command leadership style, and the combination form <sup>[7-10]</sup>. The so-called dual leadership refers to a leadership style composed of two kinds of complementary leadership behaviors, emphasizing the dynamic balance and coordinated development of contradictory activities of managers through contradictory thinking. Previous studies have shown the opposite concept and influence of humble and

narcissistic leadership styles<sup>[11]</sup>. However, as the research continues to deepen, researchers found that leaders can effectively integrate two seemingly contradictory but actually independent and complementary traits or behaviors, and, in turn, have a positive impact on the organization and employees<sup>[12]</sup>. Further, Owens et al suggest that a leader with both high levels of narcissism and humility, and that these two independent and coexisting leadership styles will have a positive impact on leadership effectiveness, employee performance and organizational innovation<sup>[13]</sup>. And predecessors to this, a pair of yuan leadership style combination influence research less, therefore, this paper will be humble and narcissistic combination of dual leadership style as an independent variable, the introduction of psychological authorization and employee silence behavior two intermediary variables, explore the dual leadership style through psychological authorization and employee silent behavior in the process of employee creativity and productivity path. First of all, the theoretical basis of the creativity and productivity of dual leaders and employees is combed, and then the research hypothesis is put forward and the theoretical model is constructed. Then, the mature scales of relevant variables at home and abroad were integrated to form a questionnaire, and SPSS data processing software was used to analyze the data and test the hypothesis. The research content of this paper enriches the research on the influence of dual leadership style on employees' creativity and productivity from the perspective of motivation. The topic selection has theoretical frontier, and has certain expansion and enlightenment for related research fields.

## **2. Research hypothesis and theoretical model construction**

### **2.1. Dual leadership style and employee creativity**

#### **2.1.1. Dual leadership and employee creativity**

Humble leadership is a "bottom-up" leadership theory. In the face of the complex and changeable internal environment of enterprises, humble leadership is conducive to the construction of healthy and stable corporate members. Compared with traditional leadership styles, humble leaders can make objective evaluation of the strengths and weaknesses of employees, accept their suggestions, and encourage communication and discussion. In addition, because humble leaders often treat employees with appreciation, it is easier to attract excellent talents. When failing at work, employees with a humble leadership style will constantly find new ways to improve their creativity to improve their current situation<sup>[14,15]</sup>.

Narcissistic leaders are mainly overconfident and extroverted. They are often unwilling to listen to others' suggestions when they encounter problems, and have a strong sense of psychological superiority. It is difficult to understand employees' ideas from the perspective of employees. The purpose and starting point of their work mainly lies in themselves. Narcissistic leaders are confident in their own decisions, especially in the face of difficulties or environmental uncertainty that can make employees feel secure<sup>[16-18]</sup>.

Dual leadership is when a leader shows both humble and narcissistic leadership behavior. humility helps narcissistic leaders learn to appreciate the strengths of others. conversely, narcissism also helps humble leaders appropriately show confidence and determination, thus improving leadership effectiveness for employees. Based on this, this paper proposes the following assumptions:

H1: Dual leadership is conducive to improving the creativity of employees.

#### **2.1.2. The intermediary role of psychological authorization**

Psychological authorization evaluates employees' psychological perception of work from four dimensions: autonomy, self-efficacy, work influence and work significance. Based on the self-determination theory, it can be concluded that narcissistic leaders will have a negative impact on the satisfaction of employees' psychological needs, and then affect employees' sense of authorization. Narcissistic leaders often pay attention to whether their own interests are met, but ignore the psychological needs of employees. Moreover, due to the fact that it is difficult for narcissistic leaders to listen to their suggestions or opinions, employees doubt their self-worth, which affects their work enthusiasm and autonomy<sup>[19]</sup>.

According to the theory of creativity component, employees' internal motivation is one of the important process variables of employees' creativity, and as the direct inducement of internal motivation, psychological authorization will have an important impact on the creativity of employees, and is an important factor to determine employees' happiness index and work efficiency<sup>[20,21]</sup>. Humble leaders can affirm employees' efforts and efforts, encourage employees to put forward their own ideas, and help

employees with the problems encountered. This type of leader will improve employees' confidence and self-identity, thus enhancing their creativity. However, narcissistic leaders tend to pay more attention to self-achievement and ignore the recognition and affirmation of employees, which reduces their internal motivation such as psychological authorization, and indirectly affects the work enthusiasm of employees, leading to the reduction of employees' creativity. Therefore, the following assumptions are made:

H2: Dual leaders have a positive effect on psychological authorization;

H3: Psychological authorization plays an intermediary role between dual leadership and employee creativity.

### ***2.1.3. The regulation effect of environmental uncertainty***

For employees, environmental uncertainty, as one of the important characteristics of the external environment, will have an important impact on their creativity<sup>[22,23]</sup>. The degree of environmental uncertainty is different, and the leadership style of the leader also affects the creativity of employees. That is, when the environment is volatile, humble leaders will listen to the employees' behavior and fully mobilize their work enthusiasm and subjective initiative. In addition, the humble leaders have the courage to undertake their own decision-making mistakes, and will analyze and deal with the problems from a rational perspective, and find the solutions to the problems from different angles.

In the face of strong uncertainty in the environment, narcissistic leaders should not only bear the pressure brought by the environment, lead employees out of difficulties, but also help employees to stabilize their mentality. At this point, narcissistic leaders will appropriately belittle employees, and employees, as stakeholders, will also help leaders to find solutions. In addition, in the face of fierce market competition, narcissistic leaders will make decisions quickly due to the influence of their personality. After employees make clear their goals, they will play their own strengths to solve the problems encountered, so as to reduce the adverse impact of narcissistic leaders on employees' creativity to a certain extent. Accordingly, this paper proposes the hypothesis that:

H4: Environmental uncertainty plays a moderating role between dual leadership and employee creativity.

## ***2.2. Dual leadership style and employee productivity***

### ***2.2.1. Dual leadership and employee productivity***

Social identity theory posits that individual identification is rooted in shared enterprise traits and protects corporate interests. As employees foster emotional ties with their leaders, it translates into organizational loyalty. Given the economic exchange of gains and losses between leaders and subordinates, employees naturally aspire to protect the organization's image and bolster its progress. Modest leaders, through balanced employee evaluation, recognition of merits, personal introspection and timely rectification, nurture an increased sense of credibility and identity among workers. Furthermore, these leaders proactively provide growth opportunities and focus on employee career progression, accordingly increasing job motivation and boosting productivity rates.<sup>[24]</sup>

Resource protection theory believes that if employees do not get resource support in the process of work, they will have a sense of resource deprivation and a negative mood of sabotage<sup>[25]</sup>. A crucial contributor to the resource disparity is poor leadership style, marked by egotism and willful neglect of employee benefits. Such leaders frequently usurp employees' tasks, deplete resources, stifling positive collaboration and partnership. Moreover, such perfectionistic leaders who strive for uniformity tend to amplify their power, adding undue strain on employees, causing emotional distress or performance impairment. This adversely affects resource allocation, diminishes motivation, hence decreasing overall efficiency.<sup>[26]</sup>

Dual leaders show two complementary leadership styles, which can explore the advantages of employees, and adjust the performance to prevent too little or excessive performance, and keep them at the best level conducive to realizing the mission and goals of the organization. Based on this, this paper proposes the hypothesis that:

H5: Dual leadership is conducive to the improvement of employee productivity.

### ***2.2.2. The intermediary role of employees' silent behavior***

When dealing with narcissistic leaders, a source of pressure, employees will keep silent in order to maintain existing resources, and employees' silent behavior will have a negative impact on their behavior

and work attitude. The long-term silence will lead to pressure and lack of feedback behavior, and reduce the output of information<sup>[27-29]</sup>. When employees realize that their suggestions will not be adopted by the leaders, they will remain silent, which will cause dissatisfaction among employees, reduce their work enthusiasm, and reduce their productivity. Humble leaders encourage employees to put forward their own ideas and appreciate their strengths and praise them, so employees are willing to talk to humble leaders for help when they encounter problems at work. Based on this, this paper proposes the hypothesis that:

H6: Dual leaders have a positive effect on employees' silent behavior;

H7: Employee silent behavior plays an intermediary role between dual leadership and employee productivity.

### 2.2.3. The regulatory role of the leading prototype

The implicit leadership theory holds that the leadership prototype is composed of the leadership image in the eyes of employees, and that employees can distinguish leaders from non-leaders. In the new leadership after a period of time, the vast majority of employees will get along with leadership, communication and cooperation in the new leadership of work ability, skills and behavior style, and compare the mind with the ideal leadership style, if the new leadership and the employees of the ideal leadership matching degree is higher, the employee recognition of the new leadership will improve accordingly, but if the new leadership and the employees of the ideal leadership has the big difference, employees with the new leadership will reduce, even negative negative emotions, thus affect the productivity of employees<sup>[30]</sup>. Accordingly, this paper proposes the hypothesis that:

H8: The leadership prototype plays a regulating role between the dual leadership and employee productivity.

The theoretical model constructed in this paper is shown in Figure 1 below:

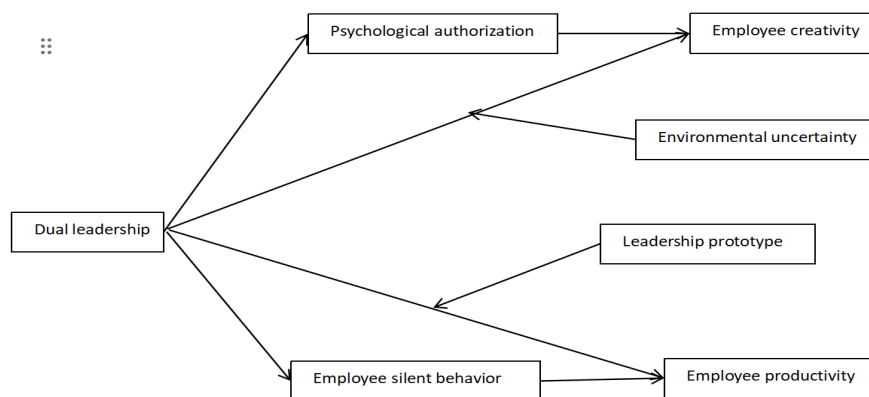


Figure 1: Theoretical model of the influence of dual leadership on employee productivity and creativity

## 2.3. Questionnaire design and data collection

In this paper, two sets of questionnaires: leadership questionnaire and employee questionnaire are designed. The leadership questionnaire includes three parts: background information, employee creativity and employee productivity, and the employee questionnaire includes seven parts: background information, dual leadership, psychological authorization, environmental uncertainty, employee silent behavior and leadership prototype. The Likert scale was graded, with 1 indicating complete disagreement and 5 indicating full agreement.

### 2.3.1. Variable measurement

Before the questionnaire survey, the first need to define operational variables, this paper refers to the relevant field top journals published mature scale, and most of the scale by the domestic related senior scholars translation, and according to the Chinese organization situation combined with the research content for further modified, get the measurement scale of this paper.

### 2.3.2. Sample selection

The survey subjects of this study were 300 employees and 58 leaders of a large service company in

southwest China. The questionnaires were distributed through the online network platform, and a total of 298 valid questionnaires were finally collected, including 256 for employees and 42 for leaders.

## 2.4. Credit and validity test

### 2.4.1. Scale reliability analysis

At present, the commonly used reliability measurement index is the Cronbach coefficient, and SPSS25.0 is used to calculate the scale, which is between 0 and 1, which indicates that the scale has high reliability and can be used for research and analysis.

### 2.4.2. Scale validity analysis

The validity can represent the validity of the study results, and the researcher can use relevant measurement tools and means to express the degree of the survey content. If the survey content can be consistent with the results, the survey results have high validity. Usually, the KMO (Kaiser-Meyer-Olkin) value is used to express the validity of the survey results.

## 3. Data analysis and hypothesis testing

### 3.1. Demographic description

A total of 298 valid questionnaires were collected, including 256 employee questionnaires, 42 leadership questionnaires, 132 male employees and 124 female employees; 29 male leaders and 13 female leaders, and the basic characteristics scales of the sample were more than 0.8. Therefore, the scales designed in this paper have high credibility and meet the quality requirements of data analysis.

### 3.2. Hypothesis test

In this paper, SPSS25.0 software uses hierarchical regression analysis, and stratified the main effects, mediation effects and regulatory effects. The results are shown in Table 1 below:

Table 1: Results of the hierarchical regression analysis

variable		Employee creativity		Employee productivity		Psychological authorization			
		model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8
controlled variable	Leadership gender	-0.083	-0.126	-0.004	0.007	-0.037	-0.125	0.109	0.117
	Leadership age	-0.271**	-0.278**	-0.148*	-0.139*	-0.382**	-0.213**	-0.186*	-0.171*
	Leadership degree	0.108	0.228	-0.092	-0.107	0.127	0.214	-0.058	-0.081
	Employee gender	0.038	-0.029	0.108	0.093	-0.003	0.049	0.037	0.040
	Employee age	-0.042	-0.018	0.006	-0.019	-0.031	-0.026	0.024	-0.013
	Employee degree	0.219	0.179	0.039	0.032	0.221	0.205	0.040	0.069
argument	Dual leader	.4370**	0.152	.5160**	0.135	.5170**	0.258*	.4180**	
regulated variable	(1) Environmental uncertainty							0*.152	
	(2) Lead the prototype								0*.172
interaction	(1) Uncertainty of the dual leadership environment							0*.127	
	(2) Dual leadership leadership prototype								0*.141
metavariable	Psychological authorization		0*.317		0.210*				
	R <sup>2</sup>	0.128	0.219	0.142	0.236	0.284	0.258	0.163	0.182
	F	8.632	12.528	9.613	14.249	23.182	21.593	10.425	11.813

### 3.2.1. Analysis of the main effect and mediation effect test results

Model 1 and 2 used employee creativity as the dependent variable, and models 5 to 8 used psychological empowerment as the dependent variable. On the basis of control variables, the influence of dual leadership and psychological authorization on employee creativity is tested. The results show that dual leaders are beneficial to improving the creativity of employees; after adding intermediary variables, psychological authorization has a significant impact on employee creativity, while the effect of dual leaders on employee creativity is reduced to 0. Therefore, hypothesis H1, H2 and H3 are true.

Model 3 and 4 used employee productivity as the dependent variable, and models 5 to 8 used psychological empowerment as the dependent variable. On the basis of control variables, the influence of dual leadership and psychological authorization on employee productivity is tested. The results show that dual leadership is beneficial to improving employee productivity; after adding intermediary variables, psychological empowerment has a significant influence on employee productivity, while the effect of dual leadership on employee productivity is reduced to 0. Therefore, hypothesis H5, H6 and H7 are true.

### 3.2.2. Analysis of the test results of the regulatory effect

On the basis of model 5, add the interaction term of binary leader and environmental uncertainty to obtain model 7. The results show that the interaction term is significant, assuming H4 is established; on the same basis of model 6, add the interaction term of binary leader and leader prototype to add model 8. The results show that the interaction term coefficient is significant, and assuming H8 is established.

From the above analysis, the final hypothesis verification results are shown in Table 2 below:

*Table 2: Results of hypothesis validation*

hypothesis	Suppose the content	result
H1	Dual leadership is conducive to improving employee creativity	found
H2	Dual leadership has a positive effect on psychological authorization	found
H3	Psychological empowerment plays an intermediary role between dual leadership and employee creativity	found
H4	Environmental uncertainty plays a moderating role between dual leadership and employee creativity	found
H5	Dual leadership is conducive to the improvement of employee productivity	found
H6	Dual leaders have a positive effect on employees' silent behavior	found
H7	Employee silent behavior plays an intermediary role between dual leadership and employee productivity.	found
H8	Leadership prototype plays a mediating role between dual leadership and employee productivity	found

## 4. Conclusion

In the Chinese organizational context, the improvement of employees' creativity and productivity not only depends on the internal motivation and cognitive ability of employees, but also is influenced by the leadership style and the external environment of the enterprise, which is a complex interactive process between leaders and employees. Through this dual leadership analysis of the dual path of employee creativity and productivity, explore the psychological authorization and employee silence behavior in binary mediation effect between leadership and employee creativity and productivity, and environmental uncertainty and leadership prototype in dual leadership and employees whether there is a regulatory effect between creativity and productivity.

This paper intends to integrate the relevant theories and research methods of management, psychology and sociology, incorporate employees' self-cognition and organizational situation factors into the analysis framework, and establish the action mechanism model of dual leadership on employees' creativity and productivity, which has certain theoretical significance. Specific as follows: this paper broke the previous research single leadership style or focus on open-closed, change-transactional and authorized-command three dual leadership style perspective of mindset, instead study flexible complementary humble-narcissistic binary leadership to employees, productivity and creativity, can enrich and develop leadership style of employee behavior, expand the research perspective of dual leadership style. As the key to enterprise development, employee creativity and productivity have increasingly attracted wide attention from the theoretical and practical circles. The practical significance of this paper is as follows: This study provides ideas for the cultivation of enterprise leaders. In management, enterprises can change the thinking pattern of leaders' single leadership style through training and other ways, shape their dual leadership ability, and improve their flexible response ability.

However, due to some realistic factors, this study still has some shortcomings. First of all, the sample data of this study mainly comes from a service industry in southwest China, sample data is still relatively single, and there are some subjective deviation, future research can expand the research group, at the same time can try to combine empirical and case, or combining Python, such as data tools to carry out the combination of qualitative and quantitative research. Secondly, although this study demonstrates the influence of humble-narcissistic dual leaders on employees, productivity and creativity, one of the paths and boundary functions, whether there are other mechanisms and boundary constraints is still unclear and remains to be discussed in the future, this study mainly focuses on the influence of dual leaders on

individual employees, and the research can be extended to team and organization level in the future. Finally, this study is a cross-sectional study, and the influence effect of dual leadership on employees has a certain time effect, and the future longitudinal study design with a certain time span is also the future research direction.

## References

- [1] W.Xun , M.Ramesh, M.Howlett, and Q.Gu, "Local Government Entrepreneurship and Global Competitiveness: A Case Study of Yiwu Market in China," *Social Science Electronic Publishing*, 2017,14(3):51-66.
- [2] H.Peng and F.Wei, "Trickle-Down Effects of Perceived Leader Integrity on Employee Creativity: A Moderated Mediation Model," *Journal of Business Ethics*, 2018, 150(3),837-851.
- [3] M.Abdelmotaleb , A.Metwally , and S.K.Saha , "Exploring the impact of being perceived as a socially responsible organization on employee creativity," *Management Decision*, 2018, 56(11):2325-2340.
- [4] L.Yan, B.Yang, and M.Lin, "When is task conflict translated into employee creativity?The moderating role of growth need strength," *Journal of Personnel Psychology*, 2018,17(1):22-32, 20.
- [5] A.Farag, S.Tullai-Mcguinness , M.K.Anthony, and C.Burant , "Do Leadership Style, Unit Climate, and Safety Climate Contribute to Safe Medication Practices?," *Journal of Nursing Administration*, 2017,47(1):8-27.
- [6] Zacher H ,Rosing K.Ambidextrous Leadership and Team Innovation[J].*Leadership & Organization Development Journal* ,2015,36( 1) : 54-68.
- [7] Hunter S.T.,Cushenbery L.D.,Jayne B.Why Dual Leaders will Drive Innovation: Resolving the Exploration and Exploitation Dilemma with a Conservation of Resources Solution[J].*Journal of Organizational Behavior* ,2017,38( 8) : 1183-1195.
- [8] Bass B.M.,Avolio B.J.,Jung D.I.,et al.Predicting Unit Performance by Assessing Transformational and Transactional Leadership[J].*Journal of Applied Psychology* ,2003,88(2):207-218.
- [9] Sagie A.,Zaidman N.,Amichai -Hamburger Y.,et al.An Empirical Assessment of the Loose-Tight Leadership Model: Quantitative and Qualitative Analyses[J].*Journal of Organizational Behavior*, 2002,23( 3) : 303-320.
- [10] Zhang Y.,Waldman D.A.,Han Y.L.,et al.Paradoxical Leader Behaviors in People Management: Antecedents and Consequences [J].*Academy of Management Journal* ,2015,58(2) : 538-566.
- [11] Chatterjee , A., & Hambrick, D.C.It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance.*Administrative Science Quarterly*, 2007, 52, 351-386.
- [12] Chen, M.-J.Reconceptualizing the competition-cooperation relationship: A transparadox perspective. *Journal of Management Inquiry*, 2008, 17(1): 288-304.
- [13] Owens , B.P., Wallace, A.S., & Waldman, D.A.Leader narcissism and follower outcomes: The counterbalancing effect of leader humility.*Journal of Applied Psychology*,2015,100, 1203-1213.
- [14] F.Zhou and Y.J.Wu, "How humble leadership fosters employee innovation behavior: A two-way perspective on the leader-employee interaction," *Leadership & Organization Development Journal*, 2018, 39,(3): 375-387.
- [15] J.Kirkland, B.D.Edwards, and K.E.Flaherty, "The effect of honest and humble leadership on salesperson customer orientation," *Journal of Business Research*,2021,130(5):49-58.
- [16] P.J.Fuller, B.M.Galvin, and B.E.Ashforth, "Larger than life: Narcissistic organizational identification in leadership1," *Organizational Dynamics*,2018,47(1):8-16.
- [17] H.H.Friedman, "What Went Wrong?Lessons in Leadership from Solomon, the Bible's Wisest and Worst Ruler," *Leadership*,2019,12(1):1-20.
- [18] C.A.O'Reilly and J.Pfeffer, "Why are grandiose narcissists more effective at organizational politics? Means, motive, and opportunity," *Personality and Individual Differences*, 2021, 172(1):95-110.
- [19] G.Jordan, G.Migli , I.Todorovi , and M.Mari, "Psychological Empowerment, Job Satisfaction and Organizational Commitment Among Lecturers in Higher Education: Comparison of Six CEE Countries," *Organizacija* , 2017,50(1):17-32.
- [20] A.Ghaniyoun, K. Shakeri, and M.Heidari, "The Association of Psychological Empowerment and Job Burnout in Operational Staff of Tehran Emergency Center," *Indian Journal of Critical Care Medicine: Peer-reviewed, Official Publication of Indian Society of Critical Care Medicine*, 2017, 21(9):563-567.
- [21] W.C.Yang, "Workplace ostracism and workplace behaviors: A moderated mediation model of perceived stress and psychological empowerment," *Anxiety Stress & Coping*, 2018, 31(1):1-14.
- [22] B.Prasad and P.Junni , "Understanding top management team conflict, environmental uncertainty and firm innovativeness: Empirical evidence from India," *International Journal of Conflict Management*,2017,28(1):122-143.

- [23] A.A.Jahanshahi and A.Brem , "Entrepreneurs in post-sanctions Iran: Innovation or imitation under conditions of perceived environmental uncertainty?," *Asia Pacific Journal of Management*, 2020,37(2):531-551.
- [24] M.Stepanek, K.Jahanshahi, and F.Millard, "Individual, Workplace, and Combined Effects Modeling of Employee Productivity Loss," *Journal of Occupational and Environmental Medicine*, 2019, 61(6):1-26.
- [25] L.Paoella and A.J.Sharkey, "Forging Consensus: An Integrated View of How Categories Shape the Perception of Organizational Identity," *Social Science Electronic Publishing*, 2017,51(5):327-353.
- [26] C.Zorbas, A.Lee, A.Peeters , M.Lewis, and K.Backholer , "Streamlined data-gathering techniques to estimate the price and affordability of healthy and unhealthy diets under different pricing scenarios," *Public Health Nutrition*,2020,24(1):1-11.
- [27] D.G.Winfred, W.Nicola, A.Ademola, M.Thomas, and W.Jim, "A cross-sectional ecological analysis of international and sub-national health inequalities in commercial geospatial resource availability," *International Journal of Health Geographics*,2018,17(1):1-14.
- [28] J.Duan, C.Bao, C.Huang, and C.T.Brinsfield , "Authoritarian leadership and employee silence in China," *Journal of Management & Organization*, 2018,24(1):62-80.
- [29] J.C.Emelifeonwu and R.Valk , "Employee voice and silence in multinational corporations in the mobile telecommunications industry in Nigeria," *Employee relations*, 2019,41(1):228-252.
- [30] S.Parthiban and P.Rodrigues, "Cronbach alpha reliability coefficient-based reputation mechanism for mitigating root node attack in MANETs," *International Journal of Information and Communication Technology*,2017,11(2): 220-286.