

A Empirical Study of Transformational Leadership on Employees' Adaptive Performance

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Abstract. This paper investigates the influence of transformational leadership on employees' adaptive performance, the survey from 364 staff on 10 different industries found that adaptive performance of employees constituted by the six dimensions, they are innovative behavior, continuous learning, crisis management, stress management, interpersonal adaptability, and cultural adaptability; The data from the survey also show that transformational leadership has a significant positive impact on employee performance and its six sub-dimension, including stress management sub-dimension of greatest impact, then down followed by innovative behavior, cultural adaptation, continuous learning, interpersonal adaptability, crisis management.

Keywords: employee, transformational leadership, adaptive Performance, influence.

1. Introduction

As the rapid development of technology, the regular change of organizational structure (such as the prevalence of mergers, corporate restructuring, organizational streamlining, etc., and the changing environment from the tide of globalization, the work environment today are full of change and uncertainty.^[1] In this changing environment, staff roles, responsibilities and working relationships have frequent changes, the definition of job performance has become more complex, ambiguous and dynamic, changes in working life even become the normal.^[2] When facing the complex and changing environment, in addition to making timely adjustments to the structure, the real key to victory is to have enough outstanding talent. Therefore, organizations increasing emphasis on whether the staff can effectively adapt to environmental changes^[3], And rapid response to changes becomes one of the competitive advantage for organizations to existence^[4]. Based on this background, in the areas of job performance, in addition to task performance and contextual performance there appeared a new categories of performance --adaptive performance, and it gradually be taken seriously and issues of concern of many scholars.^[5]

In the study of the adaptive performance' concept and composition, Pulakos have made a considerable contribution. In 2000, Pulakos defined the adaptive performance as ".Modify individuals' behavior to meet changes in the environment, the new working conditions or new work requirements resulting from the incident"^[6]. Through the relevant literature sorting, critical incident searching, and preliminary empirical analyzing, Pulakos divided adaptive performance into eight dimensions, they are: Handling Emergencies or Crisis Situations, Handling Work Stress, Solving Problems Creatively, Dealing with Uncertain/Unpredictable Work Situations, Learning Work Tasks, Technologies, and Procedures, Demonstrating Interpersonal Adaptability, Demonstrating Cultural Adaptability, Demonstrating Physically Oriented Adaptability, and based on these dimensions he developed a job adaptive inventory(Short title, JAI).As in their study, the key events from 21 different jobs, JAI data from 24 different jobs. The resulting adaptive performance structure

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has a high external validity, and can be applied to different jobs. This article also use this model to discuss the content and structure of the employees' adaptive performance in china.

Since the organizational emphasis on adaptive performance, an important management issue is how to improve organizational employees' performance .To individual performance, there are two type of factors, First, individual factors ,such as ability, personality, interests, work experience, etc; The other is factors related to work situation. ^[7]At present, most study involved predictor of adaptive performance are focused on the personal factors, like: cognitive ability, achievement motivation, Self-efficacy, openness, etc. but the relationship between organizational environmental variables and adaptive performance is relatively lack of studies^[8]. Social cognitive theory emphasizes the individual (cognitive and affective), behavioral, and environmental have an interaction with each other^[9]. In all levels in the organization's environment, Leader is the most micro-environment the organization's staff facing to. There are no doubt that managers' leadership style will be an important factor of employees' job performance.

Some foreign studies have confirmed that leaders' support will make employees have a positive impact on the adaptive performance^[10] ,like, Smith et al. (1997) propose that supportive management would aid the development of adaptive expertise and Ford, Quinones, Sego, and Sorra (1992) add that workers are more likely to feel comfortable at performing new behaviors in the presence of highly supportive managers. Griffin & Hesketh (2003) found the situation variables of complexity and management support were however, significant predictors of adaptive performance. employees who rated their work environment as complex and who had higher levels of support from management were rated by their supervisors as better performers of adaptive behavior.

Transformational leadership is a hot issue in Western leadership theory since 80s of last century, and has become the new paradigm of leadership theory ^[11].Bass account an important feature of transformational leadership as they are good at creating an organizational environment and atmosphere that encourages innovation, transformational leadership are consisted of four aspects: intellectual stimulation, individualized consideration, charisma and inspirational^[12] . Intellectual stimulation refers to behaviors that leader use to intellectual employees, like constant challenge assumptions, challenge the status quo, train staff curiosity, encourage employees to give full imagination, encourage employee to find new ways to solve problems, etc. Individualized consideration refers to behaviors that can show the leader concern the employees' development, like, give attention to individual needs, respect for personal views, and support employees' innovative ideas. Charisma is connection with the leadership image in employees, through a special charm, the leader can form an noble image in the hearts of employees, he/she become an example of employees, then enhancing their impact on staff behavior and attitude. Incentive motivation refers to behaviors leader use to motivate employees, like describing an desirable future .

Some studies have perceived that transformational leadership have a positive impact on employees' feeling of organizational support^[13], employees' achievement motivation ^[14]and Self-efficacy^[15]. All of these factors have been confirmed to have positive impact on adaptive performance, Therefore, we have reason to believe that transformational leadership will have a positive impact on employees' adaptive performance. And many studies, domestic and abroad , have confirmed that transformational leadership have a positive impact on innovative behavior, an important part of adaptive performance. ^[16] Based on the above analysis, we assume:

Hypothesis 1: transformational leadership will have a positive impact on employees' adaptive performance.

Hypothesis 2: Transformational Leadership will have adaptive significant effects on the Sub-dimension of employees' adaptive performance.

2. Methodology

2.1. Sample

We send questionnaires through various channels to some enterprises of Changsha, Zhuzhou, Chengdu, Dazhou, Xi'an, Shenyang and other areas, these enterprises come from different forms of ownership and industries. 400 questionnaires were distributed, a total of 360 were recovered, the response rate was 90%, of which 346 valid questionnaires, and the valid response rate was 87%. In the sample of this survey, 180 respondent employees were male, accounted for 52%.

2.2. Measurement

Transformational leadership scale is adapted from Multifactor Leadership Questionnaire (MLQ) which was prepared by Bass & Avolio in 1999^[17], All 20 items are measured with five-point Likert Scales. Use SPSS13.0, a statistical software, to analysis the reliability, Cronbach' α coefficient reached 0.941, indicating that the scale has high reliability.

Adaptive performance measurement questionnaire is prepared on the based of the eight-dimensional theory of adaptive performance dimensions and their corresponding descriptions by Pulakos. The result of exploratory factor analysis revealed that in our country, the employees' adaptive performance was composed by 6 factors, they are "Solving Problems Creatively (F1)", "Demonstrating Cultural Adaptability(F2)", "Learning Work Tasks, Technologies, and Procedures (F3)", "Handling Work Stress (F4)", "Demonstrating Interpersonal Adaptability (F5)" and "Handling Emergencies or Crisis Situations(F6)", all of these six factors cumulative explain 62.460% of the variance, the result show that the scale has good construct validity (the results of exploratory factor analysis shown in Table 1); The reliability analysis of the results also show that the scale has high reliability: Cronbach' α of the total adaptive performance scale is 0.908, the six subscales Cronbach' α were as follows, 0.806, 0.741, 0.783, 0.768, 0.734, 0.720.

Tab. 1: Results of exploratory factor analysis

| Factor | Total | % of Variance | Cumulative % |
|--|-------|---------------|--------------|
| F1 Solving Problems Creatively | 2.775 | 11.562 | 11.562 |
| F2 Demonstrating Cultural Adaptability | 2.644 | 11.017 | 22.580 |
| F3 Learning Work Tasks, Technologies, and Procedures | 2.606 | 10.859 | 33.439 |
| F4 Handling Work Stress | 2.419 | 10.081 | 43.520 |
| F5 Demonstrating Interpersonal Adaptability | 2.359 | 9.828 | 53.348 |
| F6 Handling Emergencies or Crisis Situations | 2.187 | 9.112 | 62.460 |

3. Results

3.1. Related analysis of Transformational leadership and employee adaptive performance

Table 2 shows the correlation between these variables. From Table 2 we can see that there are a significantly ($p < 0.01$) positive correlation between transformational leadership and employee adaptive performance and its six sub-dimensions. Specifically, A strong correlation between transformational leadership and "Handling Work Stress" ($r=0.86, p<0.01$); A moderate correlation between transformational leadership and the whole adaptive performance ($r=0.68, p<0.01$), "Solving Problems Creatively" ($r=0.56, p<0.01$), "Learning Work Tasks, Technologies, and Procedures" ($r=0.56, p<0.01$), "Demonstrating Cultural Adaptability" ($r=0.56, p<0.01$); A low correlation between transformational leadership and "Handling Emergencies or Crisis Situations" ($r=0.45, p<0.01$), "Demonstrating Interpersonal Adaptability" ($r=0.45, p<0.01$).

3.2. Regression analysis of transformational leadership on employee adaptive performance

In order to further reveal the internal relations of transformational leadership on employee adaptive performance and its different dimensions, study how the transformational leadership affect on the employee adaptive performance and its different dimensions, we take transformational leadership as independent variables, the employee adaptive performance as the dependent variable, use Simple regression analysis to analysis the influence of independent variables on dependent variable.

Tab. 2: Mean, Standard deviation, Correlation & Internal consistency coefficient

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|------|------|--------|--------|--------|--------|--------|--------|--------|-------|
| TL | 3.60 | 0.71 | 0.941 | | | | | | | |
| AP | 3.63 | 0.47 | 0.68** | 0.908 | | | | | | |
| AP1 | 3.45 | 0.66 | 0.56** | 0.78** | 0.806 | | | | | |
| AP2 | 3.75 | 0.56 | 0.52** | 0.84** | 0.53** | 0.783 | | | | |
| AP3 | 3.57 | 0.66 | 0.45** | 0.64** | 0.36** | 0.45** | 0.720 | | | |
| AP4 | 3.55 | 0.91 | 0.86** | 0.58** | 0.47** | 0.42** | 0.42** | 0.768 | | |
| AP5 | 3.71 | 0.86 | 0.45** | 0.67** | 0.38** | 0.51** | 0.33** | 0.33** | 0.734 | |
| AP6 | 3.71 | 0.62 | 0.56** | 0.78** | 0.50** | 0.66** | 0.40** | 0.45** | 0.50** | 0.741 |

Notes: TL= transformational leadership; AP= adaptive performance; AP1= Solving Problems Creatively; AP2= Learning Work Tasks, Technologies, and Procedures; AP3= Handling Emergencies or Crisis Situations; AP4= Handling Work Stress; AP5= Demonstrating Interpersonal Adaptability; AP6= Demonstrating Cultural Adaptability; ** p<0.01, two-tailed test.

Tab. 3: Results of regression analysis

| | Standardized Coefficients β | Adjusted R ² | F | R ² Change | t |
|---|-----------------------------------|-------------------------|-----------|-----------------------|--------|
| Adaptive performance | 0.683** | 0.465 | 300.405** | 0.466 | 17.332 |
| Solving Problems Creatively | 0.564** | 0.316 | 160.056** | 0.318 | 12.651 |
| Demonstrating Cultural Adaptability | 0.561** | 0.312 | 157.807** | 0.314 | 12.562 |
| Learning Work Tasks, Technologies, and Procedures | 0.518** | 0.266 | 126.367** | 0.269 | 11.239 |
| Handling Work Stress | 0.855** | 0.731 | 937.169** | 0.731 | 30.613 |
| Demonstrating Interpersonal Adaptability | 0.450** | 0.200 | 87.240** | 0.202 | 9.340 |
| Handling Emergencies or Crisis Situations | 0.445** | 0.196 | 85.161** | 0.198 | 9.228 |

Notes:** p<0.01, two-tailed test.

From the regression analysis in table 3, we can see that transformational leadership has a significant positive impact on employees' adaptive performance and its six sub-dimensions, particularly on "Handling Work Stress", transformational leadership can explain 73.1% variance of this sub-dimension. Then followed "Solving Problems Creatively (Adjusted R²=56.4%, p<0.01)", "Demonstrating Cultural Adaptability (Adjusted R²=56.1%, p<0.01)", "Learning Work Tasks, Technologies, and Procedures (Adjusted R²=51.8%, p<0.01)", "Demonstrating Interpersonal Adaptability (Adjusted R²=45.0%, p<0.01)" and "Handling Emergencies or Crisis Situations (Adjusted R²=44.5%, p<0.01)". As for the whole adaptive performance, transformational leadership can explain 46.5% of the variance.

At this point, all assumptions in our study have been confirmed.

4. Discussion

Since Allworth and Hesketh (1997) formally proposed the concept of "adaptive performance", its theoretical meaning and empirical research are being expanded continually by the academic, on the basis of the previous theory and literature, this article has an empirical study on the content of the employees' adaptive performance and the impact of transformational leadership on it. The main conclusions are as follows:

(1) Adaptive performance of employees constituted by six dimensions, they are Handling Emergencies or Crisis Situations, Handling Work Stress, Solving Problems Creatively, Learning Work Tasks, Technologies, and Procedures, Demonstrating Interpersonal Adaptability, Demonstrating Cultural Adaptability. Compared with the original eight-dimensional adaptive performance structure of Pulakos, our study less "Dealing with Unpredictable Work Situations" and "Demonstrating Physically Oriented Adaptability". The results of exploratory factor analysis merge "Dealing with Unpredictable Work Situations" into "Handling Emergencies or Crisis Situations" and exclude "Demonstrating Physically Oriented Adaptability" outside from the

construct of employees' adaptive performance. The reason is mainly due to differences in respondent. The main respondent of Pulakos(2000) is US military while in our study is general staff in enterprises. "Demonstrating Physically Oriented Adaptability" refers to physiological adaptation to different environmental factors, like, heat, noise, uncomfortable weather and tough conditions. The aspect is very important to military and related professionals whose work place changes frequently and work condition is tough. But to people who work in a relatively fixed place and have a comfortable working environment, they will not have any deep understanding of this aspect.

(2) Transformational leadership has significantly positive influence on employees' adaptive performance and its six sub-dimensions. Transformational leadership focuses on creating a positive and profound feeling contact with its subordinates, emphasizes on increasing the employees' individual potential and level of need, encourages employees to go beyond personal interest to pursue the common goal of corporate. Transformational leadership will have a strong intrinsic motivation on employees, the motivated employees will complete the task with a more firm will focus on self-study and self-improve in daily life; When confronted with problems and difficulties, they will tend to use a positive attitude and more flexible ways to deal with and solve the problems and show greater flexibility in daily work.

5. Article Contributions and Shortcomings

In a dynamic changing environment, in order to maintain sustained and efficient operation and to obtain long-term competitive advantage, it is critical to the organization to have employees with high adaptive performance. In this paper, we discussed the relationship between transformational leadership and employees' adaptive performance, it can give enterprises some advice on how to improve employees' adaptive performance through the leadership.

At present, there is a big gap and shortage in domestic study on adaptive performance^[18]. Counting on the similar domestic articles from 2003, domestic study on adaptive performance are less than 7 years, and most of the articles were only introduced the concept and discussed theoretically, only a few discuss the dimensions and influencing factors of adaptive performance. This study makes up for the gaps to some extent. But we should be noted that in our research we just validate influence between the two variables do exist. In our further research, we shall explore some mediator variables between transformational leadership and employees' adaptive performance, and how they effect on.

6. References

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