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Research on Influence of Abusive Supervision and Psychological Capital on Team Members' Tacit Knowledge Sharing

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***Abstract*—This paper has used the conservation of resources theory, we examined how abusive supervision influences team members' tacit knowledge sharing. Furthermore, psychological capital was introduced as a mediating factor. We analyzed the mediation mechanism of the four dimensions of psychological capital, which are self-efficacy, hope, resilience and optimism. The findings showed that the relation between abusive supervision and tacit knowledge sharing is positive, and the mediating effect of psychological capital in the acting path was fully confirmed. Consequently, abusive supervision could indirectly affect tacit knowledge sharing with the mediating role of psychological capital. Factors concerning the reduction of abusive supervision and promotion of psychological capital should be taken into consideration in order to advance tacit knowledge sharing. The efficiency and competitive edge of an entire organization would be improved after seriously attention paid to the factors related to tacit knowledge sharing.**

Keywords-*Abusive supervision; Psychological capital; tacit knowledge sharing; Team members*

I. INTRODUCTION

In the knowledge economy, knowledge is considered as very important intangible asset, which can provide long-term sustainable competitive advantages for organizations. Nonaka (1994) believes that knowledge can be divided into two categories: explicit knowledge and tacit knowledge [1]. Tacit knowledge reflects individual work skills and experiences, and tacit knowledge is the most important source of competitive advantage for individuals, teams, or companies. Therefore, tacit knowledge sharing among team members is of great significance to knowledge management in organizations.

In organizations, managers are important decision makers and agents whose behavior is an important factor affecting how much resources an employee has invested in knowledge sharing. There are many literatures about leadership behavior and knowledge sharing, many of which are about the relationship between positive leadership behavior and knowledge sharing. However, it is also necessary to take the impact of some neglected negative disruptive leadership on knowledge sharing into account, in particular recent studies of abusive management. Chinese managers stress discipline and authority and tend to control most of the valuable resources. In order to obtain effective resources, employees need an unquestionable deference and respect to their superior's commands [2]. Therefore, Chinese employees have a higher tolerance for abusive management, which leads to the prevalence of abusive management. Therefore, it is necessary to study the relationship between abusive supervision and tacit knowledge sharing among team members in Chinese cultural background.

In conclusion, most of the research about constructive leadership on the impact of knowledge sharing, but few studies focus on the negative and destructive leadership influences on knowledge sharing, especially the recent research abusive supervision. This study attempts to save the resources from the perspective of the theory of the team members as the research object, discuss the mediating effect of psychological capital on the mechanism of abusive supervision and team members of the tacit knowledge sharing among the related research, leadership behavior and tacit knowledge sharing to improve.

II. RESEARCH HYPOTHESIS

A. Relationship between Abusive Supervision and Tacit Knowledge Sharing among Team Members

Leadership behavior is one of the most important factors that influence knowledge sharing. Yang (2007) found that transformational leadership positively influences employee knowledge sharing climate and behavior. And Abusive Supervision will lead to low job performance, negative work

attitude and individual psychological effect [3]. According to the resource conservation theory, team members who are abused by management may be able to reduce tacit knowledge sharing because of the lack of resources. Based on the above inference, this paper makes the following hypothesis:

H1: Abusive Supervision has a significant negative impact on tacit knowledge sharing among team members.

B. The relationship between Abusive Supervision and Psychological Capital

Psychological capital is one of the most important internal resources for team members. It includes four positive psychological resources: self-efficacy, hope, toughness and optimism. Leadership is one of the most important factors that affect psychological capital. Zhong, Li, et al. (2013) found that transformational leadership positively influences psychological capital [4]. When team members are treated badly by managers for a long time, they may lose their inner psychological resources and even suffer from psychological problems. As a result, abusive supervision will reduce the psychological capital of team members. Based on the above analysis, the following hypotheses are proposed:

H2: Abusive Supervision has a significant negative impact on psychological capital.

H2a: Abusive Supervision has a significant negative impact on self-efficacy.

H2b: Abusive Supervision has a significant negative impact on hope.

H2c: Abusive Supervision has a significant negative impact on resilience.

H2d: Abusive Supervision has a significant negative impact on optimism.

C. The Influence of Psychological Capital on Tacit Knowledge Sharing among Team Members

Psychological capital is a positive mental state. Some scholars have found that psychological capital is positively related to knowledge sharing behavior, and promotes employee's role behavior and organizational citizenship behavior. These behaviors include knowledge sharing [5]. It can be inferred that psychological capital can promote knowledge sharing among team members. To sum up, the following hypotheses are proposed in this study:

H3: Psychological capital has a significant positive impact on tacit knowledge sharing among team members.

H3a: Self-efficacy has a significant positive impact on tacit knowledge sharing among team members.

H3b: Hope has a significant positive impact on tacit knowledge sharing among team members.

H3c: Resilience has a significant positive impact on tacit knowledge sharing among team members.

H3d: Optimism has a significant positive impact on tacit knowledge sharing among team members.

D. The Mediating Role of Psychological Capital

Abuse supervision allows team members into negative mental state, for example, pessimism, lack of resilience, low self-efficacy, which leads to the low level of psychological capital, which led to the team members become pessimistic about the surrounding environment, may be afraid of the tacit knowledge sharing will be fully sense of reciprocal knowledge lower work from their peers. As a result, team members are usually reluctant to provide tacit knowledge. Gooty et al. (2009) found that subordinates' psychological capital played an intermediary role between Perceived Transformational Leadership and subordinate organizational citizenship behavior [6]. Based on the above analysis, this study proposes the following hypotheses:

H4: The relationship between psychological capital intermediary, Abusive Supervision and tacit knowledge sharing among team members.

H4a: The relationship between self-efficacy, Abusive Supervision and tacit knowledge sharing among team members.

H4b: We hope that the relationship between Abusive Supervision and tacit knowledge sharing among team members.

H4c: The relationship between resilience, Abusive Supervision and tacit knowledge sharing among team members.

H4d: Optimism, intermediary, Abusive Supervision and tacit knowledge sharing among team members.

III. RESEARCH DESIGN

A Scale Selection

In this paper, a single dimension structure of Chinese version of abuse management scale is used in Aryee research, which contains 10 items. Refer to the 12 related questions in the psychological capital Questionnaire Revised by Li Chao ping (2008) [7]. The tacit knowledge sharing scale refers to the tacit knowledge renewal sharing scale developed by Bock et al. (2005) [8], which has 3 items.

B Data Collection

The survey is aimed at corporate teams. A total of 270 questionnaires were issued to the team members of the enterprise, and 260 valid questionnaires were collected. And use SPSS20.0 software for statistical analysis, test the research model and research hypothesis, and draw the corresponding research conclusions.

IV. DATA ANALYSIS

A Reliability and Validity Analysis

Using SPSS20.0 software to analysis the reliability and validity of the questionnaire, through the calculation, the overall Cronbach's Alpha coefficient of the questionnaire was 0.828, the Cronbach's Alpha coefficients of each scale are greater than 0.7, indicating the high reliability; scale KMO values are greater than 0.7, the spherical test have reached a significant level of 0.001, the value of KMO test and Bartlett the spherical test is passed, the factor loading coefficient of each item is greater than 0.5, the cumulative variance contribution rate is greater than 50%, indicating that 3 tensor scales have good structure validity.

B Multiple Regression Anslysis

- Regression analysis of the tacit knowledge sharing of Abusive Supervision results are shown in table I.

TABLE I. REGRESSION ANALYSIS OF TACIT KNOWLEDGE SHARING IN ABUSIVE MANAGEMENT

Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
Tacit knowledge sharing	Abusive supervision	-.171**	-2.794	.026

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

From table I, we can see that the Sig value of regression coefficient significance test is less than 0.01, and the regression coefficient is less than 0. It shows that Abusive Supervision has significant influence on tacit knowledge sharing, and it has negative influence. So assume that Hl is founded.

- The regression analysis of the psychological capital and its dimensions is made by the abusive management, and the results are shown in table II.

TABLE II. REGRESSION ANALYSIS OF PSYCHOLOGICAL CAPITAL AND ITS DIMENSIONS BY ABUSIVE MANAGEMENT

Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
Psychology capital	Abusive supervision	-.225***	-3.710	.047
Self-efficacy	Abusive supervision	-.133	-2.157	.014
Hope	Abusive supervision	-.234***	-3.863	.051
Resilience	Abusive supervision	-.165**	-2.681	.023
Optimism	Abusive supervision	-.190**	-3.105	.032

Note: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

From table II, we can see that the Sig value of significance test of regression coefficient of self-efficacy of Abusive Supervision is less than 0.1, which shows that the impact of Abusive Supervision on self-efficacy is not significant. So, suppose H2a doesn't hold water.

The regression coefficient abuse supervision of psychological capital, hope, toughness testing of Sig value is less than 0.001, and the regression coefficient is less than 0, indicated that abuse supervision have significant negative impact on psychological capital, hope, resilience and optimism. Therefore, assume that H2, H2b, H2c, and H2d are established.

- The regression analysis of psychological capital and its dimensions of tacit knowledge sharing is shown in table III.

TABLE III. REGRESSION ANALYSIS OF TACIT KNOWLEDGE SHARING BETWEEN PSYCHOLOGICAL CAPITAL AND ITS DIMENSIONS

Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
Tacit knowledge sharing	Psychology capital	.642***	13.466	.410
Tacit knowledge sharing	Self-efficacy	.566***	11.021	.317
Tacit knowledge sharing	Hope	.529***	10.013	.277
Tacit knowledge sharing	Resilience	.545***	10.436	.294
Tacit knowledge sharing	Optimism	.554***	10.681	.304

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

Table III shows the psychological capital and its dimensions of tacit knowledge sharing significant test of regression coefficient Sig values were less than 0.001, and the regression coefficient is greater than 0, shows that psychological capital and its dimensions of tacit knowledge sharing has a positive effect. So, assume that H3, H3a, H3b, H3c, and H3d are all set up.

C The Mediating Effect of Psychological Capital

- The mediating effect of psychological capital on abusive supervision and tacit knowledge sharing

First of all, inspection abusive influence the management of tacit knowledge sharing; secondly, tested the variable abuse supervision effect on mediating variables of psychological capital; finally, impact test abuse supervision, psychological capital and on tacit knowledge sharing. The results are shown in table IV.

TABLE IV. MEDIATING EFFECTS OF PSYCHOLOGICAL CAPITAL ON ABUSIVE AUPERVISION AND TACIT KNOWLEDGE SHARING

Equation	Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
1	Tacit knowledge sharing	Abusive supervision	-.171**	-2.794	.026
2	Psychology capital	Abusive supervision	-.225***	-3.710	.047
3	Tacit knowledge sharing	Abusive supervision	-.028	-.575	.409
		Psychology capital	.636***	12.974	

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

As shown in table IV, abuse supervision has significant negative impact on tacit knowledge sharing, standard regression coefficient was -0.171; abusesupervision has a significant negative impact on the psychological capital, the

standard regression coefficient was -0.225; regression coefficient abusesupervision of tacit knowledge sharing is -0.028, and the regression coefficient with respect to join the psychological capital abusesupervision and tacit knowledge regression coefficient absolute value decreased significantly after sharing, indicated that the addition of psychological capital, abusive supervision on the tacit knowledge sharing negative effects become insignificant, but in this model, effects of psychological capital on tacit knowledge sharing is significant, so the psychological capital in abusesupervision and the tacit knowledge sharing among the plays fully mediating role, so that the establishment of H4.

- The mediating effect of self-efficacy on abusive supervision and tacit knowledge sharing

First of all, inspection a abusive influence the management of tacit knowledge sharing; secondly, tested the variable abuse supervision effect on mediating self-efficacy; finally, impact test abuse supervision, self-efficacy of tacit knowledge sharing. The results are shown in table V.

TABLE V. MEDIATING EFFECTS OF SELF-EFFICACY ON ABUSIVE SUPERVISION AND TACIT KNOWLEDGE SHARING

Equation	Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
1	Tacit knowledge sharing	Abuse supervision	-.171**	-2.794	.026
2	Self-efficacy	Abuse supervision	-.133	-2.157	.014
3	Tacit knowledge sharing	Abuse supervision	-.098	-1.897	.324
		Self-efficacy	.553***	10.726	

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

As shown in table V, Abusive Supervision has a significant negative impact on tacit knowledge sharing, the standard regression coefficient is -0.171, and the impact of Abusive Supervision on self-efficacy is not significant. Using the method of Bootstrap direct test coefficient product significant calculation shows that the test results intermediary does not contain 0, (LLCI=-0.1624, ULCI=-0., 0040) showed that the mediating effect of self-efficacy is significant, and the mediating effect of size -0.0736. In addition, after controlling for the mediating variable self-efficacy, the impact of Abusive Supervisionon tacit knowledge sharing was not significant, and the interval LLCI=-0.1993, ULCI=-0.0037) contained 0. Therefore, self-efficacy plays a fully intermediary role between Abusive Supervisionand tacit knowledge sharing. So assume that H4a is founded.

- The mediating effect between abusive management and tacit knowledge sharing is to be tested

First of all, inspection abusive influence the management of tacit knowledge sharing; secondly, test variables influence management want to abuse the intermediary variables; finally, test abuse supervision, hope and impact on tacit knowledge sharing. The results are shown in table VI.

TABLE VI. MEDIATING EFFECT BETWEEN ABUSIVE SUPERVISION AND TACIT KNOWLEDGE SHARING

Equation	Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
1	Tacit knowledge sharing	Abusive supervision	-.171**	-2.794	.026
2	Hope	Abusive supervision	-.234***	-3.863	.051
3	Tacit knowledge sharing	Abusive supervision	-.050	-.927	.277
		Hope	.517***	9.516	

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

Table VI shows the abuse supervision has significant negative impact on tacit knowledge sharing, standard regression coefficient was -0.171; abuse supervision has a significant negative impact on hope, regression coefficient is -0.234 standard regression coefficient; abuse supervision of tacit knowledge sharing is -0.05, and the regression coefficient with respect to without hope the abuse of tacit knowledge management and absolute value of regression coefficient decreased significantly after sharing, indicated that the addition of hope, abuse supervision of tacit knowledge sharing negative effects become insignificant, but in this model, I hope to share the tacit knowledge influence significantly, so I hope in abuse supervision and tacit knowledge sharing between to fully mediate, so that the establishment of H4b.

- The mediating effect of resilience between abusive supervision and tacit knowledge sharing

First of all, inspection aabusive influence the management of tacit knowledge sharing; secondly, tested the variable abuse supervision impact on the intermediary variable toughness; finally, impact test abuse supervision, while the toughness of tacit knowledge sharing. The results are shown in table VII.

TABLE VII. MEDIATING EFFECTS OF RESILIENCE ON ABUSIVE SUPERVISION AND TACIT KNOWLEDGE SHARING

Equation	Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
1	Tacit knowledge Sharing	Abusive supervision	-.171**	-2.794	.026
2	Resilience	Abusive supervision	-.165**	-2.681	.023
3	Tacit knowledge sharing	Abusive supervision	-.084	-1.590	.298
		Resilience	.531***	10.062	

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

As shown in table VII, abuse supervision has significant negative impact on tacit knowledge sharing, standard regression coefficient was -0.171; abuse supervision has a significant negative impact on the toughness, regression coefficient is -0.165 standard regression coefficient;

abusesupervision of tacit knowledge sharing is -0.084, and the regression coefficient with respect to join the toughness abusesupervision and tacit knowledge regression coefficient absolute value decreased significantly after sharing, indicated that the addition of toughness, abusesupervision of tacit knowledge sharing negative effects become insignificant, but in this model, impact toughness of tacit knowledge sharing is significant, so the toughness in abusesupervision and tacit knowledge sharing between completely mediated the effect, so that the establishment of H4c.

- The mediating effect of optimism on abusive supervision and tacit knowledge sharing

First of all, tested the variable abuse supervision effect on the dependent variable sharing of tacit knowledge; secondly, test variables abuse impact management optimistic about the mediating effect test; finally, abusesupervision, optimistic of tacit knowledge sharing. The results are shown in the three equations of table VIII.

TABLE VIII. MEDIATING EFFECTS OF OPTIMISM ON ABUSIVE SUPERVISION AND TACIT KNOWLEDGE SHARING

Equation	Dependent variable	Independent variable	Standard coefficient β	t	Adjusted R2
1	Tacit knowledge Sharing	Abusive supervision	-.171**	-2.794	.026
2	Optimism	Abusive supervision	-.190**	-3.105	.032
3	Tacit knowledge sharing	Abusive supervision	-.069	-1.304	.306
		Optimism	.541***	10.254	

NOTE: P<0.1; *P<0.05; **P<0.01; ***P<0.001.

In table VIII, abuse supervision has significant negative impact on tacit knowledge sharing, standard regression coefficient was -0.171; abuse supervision has a significant negative impact on optimism, regression coefficient is -0.19 standard regression coefficient; abuse supervision of tacit knowledge sharing is -0.069, and the regression coefficient compared with coatings without the optimistic abuse supervision and tacit knowledge regression coefficient absolute value decreased significantly after sharing, indicated that the addition of optimism, abuse supervision of tacit knowledge sharing negative effects become insignificant, but in this model, effects of optimism on tacit knowledge sharing is significant, so optimistic in abuse supervision and tacit knowledge sharing between play fully mediate. Therefore, assume that H4d is established.

V. CONCLUSION

Firstly, the results of this study show that abusive supervision represents a negative state of team members, when team members have long been badly treated by managers, they need to deal with and bear the pressure.It is easy to make team members into a negative mental state, such as the lack of pessimism, resilience, low self-efficacy, which leads to the low level of psychological capital, even makes them suffer from psychological problems. Secondly, the research shows that the various dimensions of psychological capital(self-efficacy,hope, resilience and optimism)have positive influence on tacit knowledge sharing. Moreover, regression analysis shows that self-efficacy and optimism have a strong prediction intensity for tacit knowledge sharing in the organization. In addition, this study shows that organizational leadership behavior affects the level of psychological capital of team members, and the team members of different levels of psychological capital have different levels of tacit knowledge sharing.

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