

Causality Between Organizational Culture and Openness for Change

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조직문화와 변화개방성의 인과모형

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Abstract

This investigation was carried out in Liaoning, Shandong, and Shaanxi where classified most of their geological organizations into profit organizations, which means they must implement enterprise-oriented reform immediately. The valid 311 questionnaires were collected and used to verify the serial mediating model by AMOS 23.0. Results verified the crucial mediating effects of structural and psychological empowerment between external-focused organizational culture and openness for change. Adhocracy culture positively affects employees' openness for change through three indirect paths, including one mediator and two mediators. Market culture impacts individuals' openness for change through two indirect paths, one is through structural empowerment and another one is through two mediators. The findings provide managers in geological organizations with an empowering management practice model which could promote geological industry reform effectively.

Keywords : Culture in Chinese Organization, Empowerment, Adaptation for Innovation

1. Introduction

Openness for change is defined as a willingness of organizational change and an accepting attitude toward change (Miller, 1994). People's attitude toward things is gradually formed through the process of socialization of ourselves in the living environment affected by contextual factors and ultimately generate motivation of individual behavior (Weiner, 2009). Cameron and Quinn (2011) proposed that most organizations frequently fail in their attempt to manage changes effectively, due to their inability to implement cultural change accurately. Therefore, it seems reasonable to assume that the organizational culture affects employees' openness for change earlier than

other factors. However, few studies have explored the mediators between organizational culture and individuals' openness to changes to explain the reason for this relationship, particularly in an empirical study. Therefore, this paper aimed to fill this research gap, and provide geological organizations with valuable strategic of change management which could help them adapt the policy of geological industry reform. Through the verification of proposed model this study would provide geological organizations which are facing an inescapable challenge of enterprise-orientated reform with effective empowering management strategic to improve employees' openness for change.

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2. Background and hypothesis

2.1 Theoretical Background

The notion of openness proposed by Miller et al. (1994), is conceptualized as supportive psychological responses to change and it will positively affect the potential consequences of change. And it is considered a necessary initial condition for successful planned change (Covin and Kilmann, 1990). This openness attitude is reflected in believing that organizational change benefits individuals and organizations, and having the willingness to accept the changes in work roles and work methods (Jo, 2018). The attitude toward changes may be solidified upon hearing of an imminent change, so the importance of forming a favorable sentiment early in the change process should not be ignored (Miller et al., 1994).

Prior researchers have proposed many factors can impact employees' psychological response to change, such as organizational culture (Haffar, et al., 2014), self-efficacy (Herold et al., 2007), positive psychological capital (Lee, 2016), and transformation leadership (Yang and Choi, 2012).

According to the theory of structural empowerment presented by Kanter (1988), structural empowerment is derived from lines of power (e.t., information, support, source) and opportunity that employees can acquire (Kanter, 2008). In recent years, for exploring the appropriate business model to adapt to the rapidly changing business environment, structural empowerment as an effective management technique to improve organizational performance has been receiving more attention from management scholars. Due to the function of its four dimensions, researchers suggest that structural empowerment is an effective strategic tool for members to create innovative behaviors and promote affective change commitment by relieving the helplessness of members and increasing self-confidence (Hebenstreit, 2012). Also, structural empowerment, also known as macro empowerment, is empowering behavior cultivated by the management layer through a series of structural policies and processes, and these practices of empowering management generally influenced by organizational

culture (Bailey, 2009).

Cho Tae-Jun (2014) proved that the clan culture has a positive effect on structural empowerment. The characteristics of clan culture related to the structured approach of empowerment that entitles organizational members to participate in the decision-making process and access to information about organizations (Sagie and Koslowsky, 2000). Especially in the process of organizational change this information sharing and communication about the planned change have a positive effect on individuals' openness for change (Gopinath and Becker, 2000). Likewise, due to the emphasis of the flexible and autonomous rights of members, the adhocracy culture generally provides members with supports, valuable information and opportunities for improving their adaptability to the changes. And these supports, information, and opportunities provided by organizations belong to the dimensions of structural empowerment (Laschinger et al., 2000).

Moreover, these structural empowering strategies created by adhocracy culture would make members to voluntarily devote themselves to organizational changes with openness for change (Todnem By, 2007; Wheatley et al., 1991). On the other hand, because of the hierarchy culture's control focused, this culture type will create an authoritarian atmosphere that provides members with few opportunities to acquire real-time information and improve their capacity (Yang et al., 2004).

2.2 Hypothesis Building

The low level of structural empowerment will result in the helplessness of working, especially in the change process employees due to helplessness it makes members have a negative attitude toward change (Zammuto et al., 2000). In contrast, Market culture is also known as rational culture or performance-oriented culture, and organizations with this culture type through a series of structural empowering strategies to pursue higher market shares (Lee, 2018). These empowering programs are designed with the alertness of external changes to adapt to external market change and improve individuals'

ability(Cho, 2015).

Therefore, structural empowerment plays an important mediating role between organizational culture and individuals' openness for change. And based on the discussion thus far, the following hypothesis was formulated:

- H1. Structural empowerment mediates the link between organizational culture and employees' openness for change.
- H1a. Structural empowerment positively mediates the link between clan culture and employees' openness for change.
- H1b. Structural empowerment positively mediates the link between adhocracy culture and employees' openness for change.
- H1c. Structural empowerment positively mediates the link between market culture and employees' openness for change.
- H1d. Structural empowerment negatively mediates the link between hierarchy culture and employees' openness for change.

Psychological empowerment is presented based on the concept of self-efficacy, which is a belief in self-competence to perform his or her job in an organization(Bandura, 1999). Psychological empowerment as a factor at the individual level, unlike structural empowerment, refers to individuals' experiences of intrinsic motivation based on cognitions about a person's relation to work roles(Spreitzer, 1995). Based on the self-efficacy theory and the cognitive empowerment theory, Spreitzer(1995) presented the four-dimensional psychological empowerment model, composed by meaning, competence, self-determination, and impact.

Recently in order to effectively implement organizational change in the rapidly changing market environment, many scholars have found the important role of psychological empowerment and self-efficacy to improve individuals' psychological outcomes of change, such as affective change commitment and readiness of change(No and Yang, 2016). It is because a high level of psychological empowerment will provide members with self-confidence to cope with challenges brought by organizational changes.

Moreover, according to the theory of cognitive evaluation, psychological empowerment as a psychological evaluation of job roles is related to organizational culture, organizational climate and organizational structure(Thomas and Velthouse, 1990). The organizational culture fully embodies the values, beliefs, and thinking mode of organizations, and has a crucial influence on psychological empowerment(Wheatley et al., 1991). Thus, organizational culture may through psychological empowerment influence individuals' openness for change. In clan culture and adhocracy culture which stress on creating a cooperative work environment can positively impact individuals' psychological empowerment thereby improving job effectiveness(Ha and Choi, 2009; Spreitzer, 1996). These two cultural types improve psychological empowerment by creating a participative atmosphere(Zammuto and O' Connor, 1992), thereby in the process of organizational changes, these positive cognitive of self will positively impact individuals' openness for change.

Although market culture and hierarchy culture are control-orientated, but market culture, as a mission-orientated and external-focused culture, generally provide with members decisively supports in the managerial processes of strategic planning, directing and objective setting for achieving organizational goals(Felipe et al., 2017), and their psychological empowerment would be enhanced through these supports and proper compensation. However, hierarchy culture, strongly formalized and depend on operating procedures and rules (Becerra-Fernandez and Leidner, 2008), may make junior members cannot participate in decision-making. This low-participate work environment created by a hierarchy culture may negatively related to individuals' psychological empowerment(Spreitzer, 1996).

Based on the discussion thus far, psychological empowerment has been viewed as an individual psychological level factor which influenced by organizational culture and impact individuals' openness for change. So the following hypothesis was formulated:

- H2. Psychological empowerment mediates the

linke between oganizational culture and employees' openness for change.

H2a. Psychological empowerment positively mediates the linke between clan culture and employees' openness for change.

H2b. Psychological empowerment positively mediates the linke between adhocracy culture and employees' openness for change.

H2c. Psychological empowerment positively mediates the linke between market culture and employees' openness for change.

H2d. Psychological empowerment negatively mediates the linke between hierarchy culture and employees' openness for change.

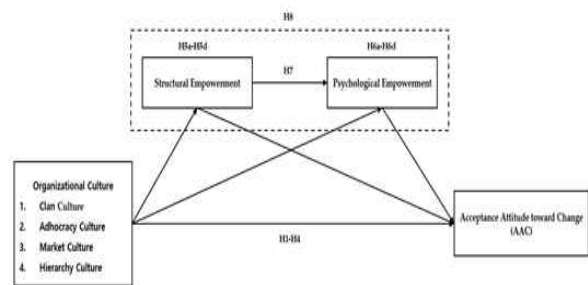
Psychological empowerment is a logical outcome of creating Kanter's structural conditions of empowerment through managerial efforts (Laschinger et al., 2001). Seibert et. al(2004) viewed structural empowerment as a climate construct, and they suggest that structural-empowerment climate is designed to create an environment where employees feel empowered and are trusted, so people working in this empowering climate individual psychological empowerment will easier form (Bailey, 2009). Hence, structural empowerment will be positively related to psychological empowerment.

Furthermore, scholars also found that it is able to increase job satisfaction and positive attitude to work by increasing access to structural empowerment in workplace and employees' psychological empowerment (Laschinger et al., 2004). Agrawal et al.(2018) verified the mediating effect of psychological empowerment in the relationship between structural empowerment and affective commitment. Applying this model in the situation of organizational change, psychological empowerment influenced by structural empowerment may positively impact affective change commitment which makes them adapt to planned changes with openness for change. Moreover, organizational culture plays an important role in initiating structural empowerment. Therefore, positive organizational culture can inspire psychological empowerment through influencing structural empowerment and ultimately can positively affect employees' openness for change. Accordingly, we

hypothesize that:

H3. Structural empowerment is positively associated with psychological empowerment.

H4. Organizational culture (clan culture, adhocracy culture, market culture, and hierarchy culture) impact psychological empowerment through influencing structural empowerment, and ultimately affect openness for change.



[Figure 1] Hypothesized theoretical model

3. Methodology

According to the instructions about the reform of the geological industry proposed by China government, firstly in order to form the echelon of geological reform, provincial geological survey bureaus should classify their geological organizations into two types: non-profit organizations and profit organizations. The geological organizations classified into profit organizations have to implement enterprise-oriented reform immediately following regional guidelines of geological industry reform. Being classified into non-profit organizations does not mean they never need enterprise-oriented reform, most of these organizations will promote enterprise-orientated reform after this transition period. However, the classification schemes and the reform plans in every region are not the same, even the progress of classification work is also different. Therefore, for using the most suitable samples to test the research model, we select employees who work at geological organizations in Liaoning, Shandong, and Shaanxi as respondents, because through pre-investigations. we found that most geological organizations in these three provinces have classified into profit organizations and

Table 1. Test of Convergent and Discriminant Validity: Correlation Coefficient Matrix and Square Root of AVE

Construct and Items		SL	Mean (SD)	AVE (CR)	CC	AC	MC	HC	SE	PE	OC
CC	CC2	0.714	3.36 (0.88)	0.635 (0.874)	0.797	-	-	-	-	-	-
	CC3	0.819									
	CC4	0.817									
	CC5	0.833									
AC	AC2	0.760	3.25 (0.90)	0.664 (0.887)	0.749 **	0.815	-	-	-	-	-
	AC3	0.876									
	AC4	0.825									
	AC5	0.794									
MC	MC3	0.718	3.52 (0.80)	0.625 (0.832)	0.582 **	0.740 **	0.790	-	-	-	-
	MC4	0.834									
	MC5	0.814									
HC	HC3	0.874	3.78 (0.77)	0.609 (0.822)	0.711 **	0.685 **	0.640 **	0.780	-	-	-
	HC4	0.774									
	HC5	0.681									
SE	IF	0.694	3.23 (0.63)	0.684 (0.895)	0.510 **	0.620 **	0.631 **	0.518 **	0.827	-	-
	OP	0.905									
	SP	0.900									
	RS	0.790									
PE	MN	0.825	3.46 (0.68)	0.647 (0.880)	0.676 **	0.793 **	0.675 **	0.605 **	0.770 **	0.804	-
	CP	0.795									
	SD	0.847									
	IP	0.747									
OC	AC1	0.764	3.25 (0.76)	0.656 (0.920)	0.508 **	0.684 **	0.605 **	0.504 **	0.668 **	0.717 **	0.810
	AC4	0.746									
	OC5	0.837									
	OC6	0.830									
	OC7	0.843									
	OC8	0.835									

Notes: (1) CC = clan culture, AC = adhocracy culture, MC = market culture, HC = hierarchy culture, SE = structural culture, PE = psychological empowerment, OC = openness for change, SL = standardized loading, SD = standard deviation, AVE = average variance extracted, CR = composite reliability; (2) The value in Bold are the square root of AVE, Correlation coefficients between each latent variable from 5th to 11th column, ** indicates significant at the 1% level; (3) Goodness-of-fit statistics for the measure model: $\chi^2=1379.114$, $df=869$, CFI=0.945, TLI=0.941, IFI=0.945, SRMR= .047, RMSEA=0.044.

have formulated corresponding guidelines and plans to promote enterprise-oriented reform. Therefore, the questionnaire survey was carried with the help of Geologist Communication Group in WeChat, and the outcome is 311(85.4%) usable

questionnaires in 364 questionnaires received. Regarding the demographic characteristics of the 311 participants, 64%(n=195) were male and 36%(n=112) were female. Moreover, approximately 69.5% (n=216) of the respondents were aged

20-39 while remaining 30.5% (n=95) were over 40 years old. Moreover, because of the demand for the professional competence of geologists, most of the respondents have a bachelor's degree (50.2%, n=156) and 37.6% (n=117) have a graduate degree, the remaining 12.2% (n=38) have an associate degree or below. Their position type were technical staffs (64.4%, n=201), administrative staff (18.6%, n=58), and technical management position (16.7%, n=52).

In order to ensure the reliability of the questionnaire,

we refer to the previous literature to design the questionnaire items. All variables were measured by Likert five-point scales. We used the employees' perceptions of organizational culture and structural empowerment in working place to measure the organizational culture values and the level of structural empowerment. Firstly, organizational culture was measured by the Organizational Culture Assessment Instrument (OCAI) proposed by Cameron and Quinn (2011). In this scale of organizational culture, it has four dimensions (types) of organizational culture and encompasses six items that measure each of the four culture types as a unidimensional construct. Laschinger et al. (2001)'s scale (Conditions for Work Effectiveness Questionnaire-CWEQ-II) was used to measure structural empowerment. It has 4 dimensions (opportunity, information, resource, and support) with 12-items: 3 items in each dimension.

Psychological empowerment was measured with a 12-items created by Spreitzer (1995), and this scale also has 4 dimensions (meaning, competence, self-determination, and impact) with 3-items in each dimension. Finally, we used an 8-item scale of openness for change, proposed by Miller et al. (1994) to measure employees' openness for change in geological organizations.

4. Results

According to estimate of respective indirect effects (Table 2) in this serial multiple mediating model, we found that adhocracy culture influences employees' openness for change through three indirect paths, including one mediator and two mediators, thus H1b, H1c, and H4 (adhocracy culture) were supported. Moreover, market culture impacts employees'

openness for change through two indirect paths, one is through structural empowerment and another one is through two mediators (structural empowerment and psychological empowerment), thus H2c and H5 (market culture) were supported. In addition, since all indirect effects of market culture on openness for change include structural empowerment, it shows the important role of structural empowerment. The path of adhocracy culture influencing on openness for change through psychological empowerment has the highest indirect effect ($\beta=0.093$, $p<0.05$) in these indirect paths, hence it indicates the importance of psychological empowerment to promote employees' openness for change in adhocracy culture.

This study provides valuable theoretical implications in three ways. Firstly, this study explored the antecedents of employees' openness for change from the cross-level interactions between organizational contextual factors and an individual psychological factor. The result showed that to explore the determinants of individuals' openness for change we cannot ignore the effect of cross-level interactions. Second, this study tried to explore the different effects of four culture types on openness for change. According to the result of this study, we found values of external-focused in adhocracy culture and market culture can promote the forming of individuals' openness for change. This will provide a valuable implication in the future research of organizational culture and the psychological outcome of organizational change. Third, this study constructed a two-mediator serial mediating model to explore the mechanism of organizational culture's influence on openness for change. The findings verified the important mediating role of structural empowerment and psychological empowerment in this relationship. This will help deepen the innovation

Table 2. Indirect effects of clan culture and market culture on openness for change

Hypothesized paths	Estimate	S.E.	Lower	Upper	p-value	Results
H5b: AC→SE→OC	0.056	0.034	0.006	0.148	0.028	Accept
H6b: AC→PE→OC	0.093	0.054	0.013	0.223	0.025	Accept
H8 (adhocracy culture): AC→SE→PE→OC	0.027	0.019	0.002	0.080	0.034	Accept
H5c: MC→SE→OC	0.083	0.042	0.019	0.184	0.015	Accept
H8 (market culture): MC→SE→PE→OC	0.040	0.030	0.003	0.114	0.030	Accept

of the empowerment theory and verify the effectiveness of applied the theoretical frame in the context of state-owned reforms of China.

Firstly, the findings reveal that creating the external-focused culture (adhocracy culture, market culture) is an effective approach for geological organizations to improve individuals' openness for change. In other words, managers in profit geological organizations should make efforts to combine the innovation value of adhocracy culture with the outcome focus of market culture to promote geological reform through improving members' intrinsic motivation of change.

Secondly, in our study, both adhocracy culture and market culture can impact individuals' openness for change through structural empowerment which reveals the importance of the practice of empowering management strategies in the change program. Therefore, according the dimensions of structural empowerment and combine with the model of empowerment and organizational change proposed by Erstad (1997), we found managers can implement empowering management through supporting teamwork (Cook, 1994), sharing information, work-based training and learning (Nicholls, 1995) to improve members' openness for change. These empowering strategies will make members understand objects of change and give them more power and support to cope with the challenges of change. This in line with the notion of structural empowerment that many of the strategies used to increase empowerment are ultimately controlled by supervisors who give the workers accesses to support, opportunity, and information (Laschinger et al., 2004). Meanwhile, managers do not ignore the importance of improving psychological empowerment.

5. References

- [1] A. Aggarwal, R. S. Dhaliwal, K. Nobi (2018), "Impact of structural empowerment on organizational commitment: The mediating role of women's psychological empowerment." *Vision*, 22(3):1-11.
- [2] T. L. Bailey (2009), *Organizational culture, macro and micro empowerment dimensions, and job satisfaction: An application of concurrent mixed and multi-level methods in the federal sector*. Universal-Publishers, Florida, USA.
- [3] S. J. Cho (2015), "The effect of organizational culture on knowledge management and management innovation in small business: Based on Moderating effect of entrepreneurship." Doctoral dissertation, Sangji University. <http://kiss.kstudy.com/thesis/thesis-view.asp?key=3213193>
- [4] C. Felipe, J. Roldan, A. Leal-Reodringuez (2017), "Impact of organizational culture values on organizational agility." *Sustainability*, 9(12):2354.
- [5] C. Gopinath, T. E. Becker (2000), "Communication, procedural justice and employee attitudes: Relationships under conditions of divestiture." *Journal of Management*, 26(1):63-83.
- [6] S. H. Ha, S. I. Choi (2009), "A study on the effects of employment instability and organizational trust of cluster analysis and organizational culture and empowerment on the organizational effectiveness: focused on construction industry." *Korean Review of Organizational Study*, 6(2):115-151. http://libproxy.wonkwang.ac.kr/90a6552/_Lib_Proxy_Url/www.riss.kr/link?id=A76539824
- [7] J. J. Hebenstreit (2012), "Nurse educator perceptions of structural empowerment and innovative behavior." *Nursing Education Perspective*, 33(5):297-301.
- [8] R. M. Kanter (1988), "When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organizations." *Knowledge Management and Organizational Design*, 10:93-131.
- [9] R. M. Kanter (2008), *Men and women of the corporation*. Basic Books, New York.
- [10] H. K. S. Laschinger, J. Finegan, J. Shamian, P. Wilk (2001), "Impact of structural and psychological empowerment on job strain in nursing work setting: Expanding Kanter's model." *The Journal of Nursing Administration*, 31(5):260-272.
- [11] H. K. S. Laschinger, J. E. Finegan, J. Shamian, P. Wilk (2004), "A longitudinal analysis of the impact of workplace empowerment on work satisfaction." *Journal of Organizational Behavior*, 5(4):527-545.
- [12] H. J. Lee, M. J. Kim (2017), "The effect of organizational culture and team learning behavior on organizational commitment." *Journal of Culture Industry*, 17(4):2

- 01-213.
- [13] V. D. Miller, J. R. Johnson, J. Grau(1994), "Antecedents to willingness to participate in planned organizational change." *Journal of Applied Communications Research*, 22:59-60.
- [14] Y. J. No, S. K. Yang(2016), "Effect of school principal emergent leadership on commitment to changing school mediated by teachers' empowerment." *The Journal of Education Administration*, 34(5):45-68. http://libproxy.wonkwang.ac.kr/90a6552/_Lib_Proxy_Url/www.riss.kr/link?id=A102769901
- [15] A. Sagie, M. Koslowsky(2000), *Participation and empowerment in organizations: Modeling, effectiveness, and applications*. Sage Publications, United Kingdom, London.
- [16] G. M. Spreitzer(1995), "Psychological empowerment in the workplace: Dimensions, measurement, and validation." *Academy of Management Journal*, 38(5):1442-1465.
- [17] K. W. Thomas, B. A. Velthouse(1990), "Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation." *Academy of Management Review*, 15(4):666-681.
- [18] R. Todnem By(2007), "Ready or not..." *Journal of Change Management*, 7(1):3-11.
- [19] B. J. Weiner(2009), "A theory of organizational readiness for change." *Implementation Science*, 4(1):67.
- [20] W. J. Wheatley, J. F. Vogt, K. L. Murrell(1991), "The concern of divorce in organizations: A survey of human resource managers." *Journal of Divorce & Remarriage*, 15(3-4):193-204.
- [21] P. S. Yang, S. B. Choi(2012), "The effects of empowering leadership on psychological capital and commitment to organizational change." *Journal of Human Resource Management Research*, 19(2):63-81. http://libproxy.wonkwang.ac.kr/90a6552/_Lib_Proxy_Url/www.riss.kr/link?id=A60132247
- [22] R. F. Zammuto, E. J. O'Connor(1992), "Gaining advanced manufacturing technologies' benefits: The roles of organization design and culture." *The Academy of Management Review*, 17(4):701-728.

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