

Analysis of Social Exchange Factors Stimulating Work Environment Creativity

Rubab Tahir, Razzaq Athar
PMAS- University of Arid Agriculture

Abstract

A detailed model of social exchange factors (cooperative team environment, employee participation, and procedural justice) and their impact on work environment creativity is examined in this paper. It is tested on the sample of 200 employees from banking industry of Pakistan. 5 major banks were selected for data collection across the vicinity of two cities i.e. Rawalpindi and Islamabad. It is found that Social exchange factors have positive impact on work environment creativity. Moreover, adhocracy culture positively moderates the relationship of social exchange factors with work environment creativity. It is also found that expert's knowledge sharing mediates the relationship of procedural justice and work environment creativity. This study can help organizations and practitioners in a better Human Resource Management i.e. incorporating these factors at the workplace can help in improving the workplace creativity which will ultimately leads to improved employee performance. This study is of equal significance for practitioners and academicians.

Key Words: Expert's Knowledge Sharing (EKS), Work Environment Creativity (WEC), Adhocracy Culture (AC), Organizational Citizenship Behavior (OCB).

Introduction

According to conventional wisdom theory and researchers, creativity is the trait of creative people. From several years this principal has been followed by researchers and practitioners and they direct their work on creativity by this principal. Modern approach of creativity argues that all humans are able to generate creative ideas in some of their domains sometimes but social setting of the organization and their work group can influence their intensity and rate of creative performance. Some other factors are also influencing this phenomenon. These factors are the social factors prevailing in work environment. Research finding therefore depict that work environment factors also influence employees creativity (Amabile et al., 1996). These factors include employee's perception about work environment to be cooperative, autonomous work nature and expert support (Shalley et al., 2004). In addition to this West and Richer (2008) argued that trust and safety among group is higher there is a greater probability that group will be creative and innovative. Ethical values of the organization and WEC are highly interconnected and they work together to enhance creativity. Organizations that are creative have a competitive advantage that they will survive in market place during economic down fall. WEC is the central point of research in both innovation management and organizational behavior (Amabile et al., 1996; Zhou and George 2001). Innovation and process of change is deeply rooted in creativity (Ford and Ogilvie 1996). This study will identify that either the social exchange factors can enhance the work environment creativity and role of expert's implicit knowledge in stimulating and sustaining creativity.

Literature Review

WEC is tendency of employees within an individual work environment to produce novel ideas that are useful in an organization. Creativity is different from innovation. Creativity is the production of creative and novel ideas in any knowledge area. Idea or product is considered creative when it is different from already existing products and ideas. There are two theories which explain the components of organizational creativity (Amabile et al., 1996; Stein, 1974; Woodman, Swayner, & Graiffin, 1983). Woodman et al. (1993) suggest road map of organizational creativity which depends on three types of attributes namely, Individual abilities, Group characteristics, Organizational characteristics. In this model organizational creativity is taken as an ultimate product of a process. These characteristics combine if together, leads to creative situations and behaviors. Creative behaviors are sum total of social factors and environmental factors influencing the creative behavior (Woodman et al .1993, p.310) of individual and groups in the organization. Amabile (1996) propose a componential theory of creativity. According to him creativity depends upon two perspectives i.e. within the individual, outside the personality. This research model is based on second model of Amabile (1988) model of creativity .Three basic organizational factors are explained which include several elements namely, Organizational motivation to innovate, Management practices, Resources

In this study we used a psychological view to work environment creativity and supplement it with situated learning theory to this model. Cooperative Team Environment is the one of the social exchange aspect which effects work environment creativity and it can be used to arouse social interactions (McCharrt & Rohrbaugh 1995). According to Organ, (1997) OCB is high in Cooperative Team Environment. Cooperative Team Environment is linked to general employee tilting practices. Cooperative Team Environment is relevant in this perspective because when reliance and synergy is created among individuals it will lead to WEC by process of knowledge management in the organization. Cooperative Team Environment is kind of a culture and group norms prevailing in the organization and it is characteristic of organization of Amabile componential theory of organizational creativity.

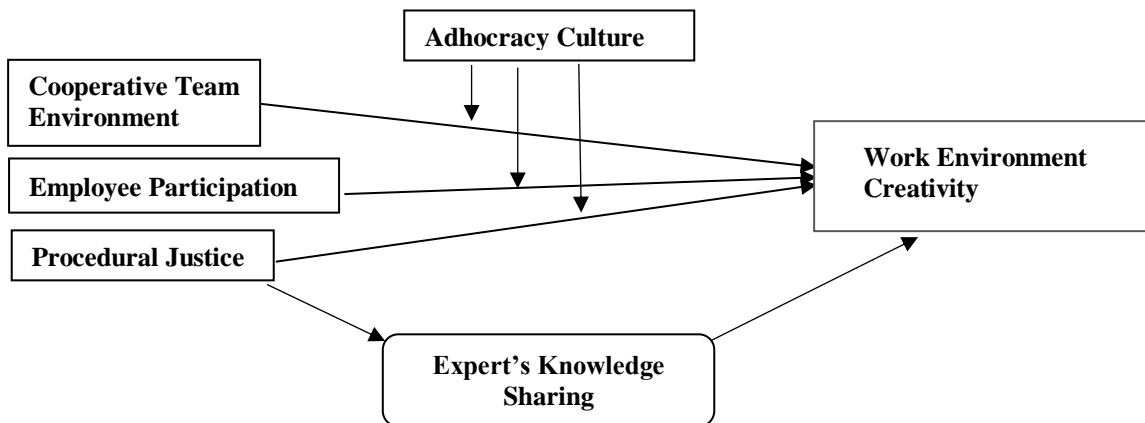
According to Greenberg (1990) procedural justice is the professed fairness of the processes by which decisions are made or allocation of resources is made. Leventhal (1980) specified six criteria of fair procedures consistency, bias suppression, and accuracy correct ability, representativeness, and ethicality. On the other hand Thibaut and walker's (1975) approach defines procedural fairness as the level of input or participation that procedures permit (often referred to as voice). Lind and Tyler (1988) their model suggests that procedural justice is defined by criteria that are relational in nature, such as status acknowledgment. Further trust in the compassion of authorities, and impartiality was added by other researchers (Tyler, DeGoey, & Smith, 1996). The process of exchange between employer and employee can be discussed using the Psychological bond and an implied expectation of employee is that he or she will be treated fairly and equally (Rousseau, 1989). This is in accord with the result (Farh, Early, & Linn, 1997) that OCB is related to Procedural Justice. It is expected that Procedural Justice would foster experts' knowledge sharing because knowledge sharing by parent's figure of the organization is form of OCB. Creativity of work environment depends upon the perception of employees about their culture rather than objective work setting (Amabile and Gyskiewicz 1989). According to Cameron and Quinn's (1999) Competing Values Framework is used. Framework of this model consists of four major organizational culture types. Cooperative team culture, adhocracy culture, stable hierarchy and rational firms. In our study culture is playing a major role in enhancing WEC. From this model of Competing Value Framework two types of cultures are playing vital role in our study model one is

cooperative team culture and other is adhocracy culture. According to Claver, Gracia, Molina (1998) the idyllic habitat for creativity is an adhocracy. Adhocracies stimulate creativities because they adapt to environment Camerron and Quinn (1999).

Hypotheses

- H1: Cooperative Team Environment has positive impact on WEC.
- H2: Employee Participation has positive impact on WEC.
- H3: Procedural Justice has positive impact on WEC.
- H4: AC positively moderates the relationship of Cooperative Team Environment and WEC.
- H5: AC positively moderates the relationship of Employee Participation and WEC.
- H6: AC positively moderates the relationship of Procedural Justice and WEC.
- H7: EKS mediates the relation of Procedural Justice and WEC.

Theoretical Framework



Methodology

This is a cross sectional study conducted to explore the impact of SEF on WEC. Significance of the relationship is explored on the survey based on primary data. Both moderating and mediating variables are tested. Moderating variable AC along with Cooperative Team Environment, Employee Participation and Procedural Justice on WEC and mediating variable EKS are examined. Instrument for data collection is questionnaire. It contains 29 items and 5 point likert scale is used. In this study there are six variables and questionnaire is adopted from already developed scale by famous researchers. To measure WEC we have used translated Amabile et al., (1996) creativity scale. This scale contains both items from creativity and innovations. Apparently respondents understood both words mean roughly the same. Cooperative Team Environment and AC were measured by using a modified scale of Quinn's (1999) Organizational Culture Assessment (OCAI). Experts knowledge sharing scale developed by (Schepers & Berg, 2007) is used for this study. Employee participation in this study is measured by using scale by Evers, Van Vliet –Mulder, and Groot (2000). For procedural justice five items of Neihoff and Moorman's, and organ (1993). Banking industry is the population of the study. Data was collected from non-probability convenient sampling. Data is collected from five private banks located in vicinity of

Rawalpindi and Islamabad. Sample size is 200. Data was collected through questionnaire. Data is collected from the middle level employees. Confirmatory factor analysis and Cronbach's Alpha was used as a measure of reliability, correlation, linear regression and mediation by Baron and Kenny method were used for data analysis.

Results

Data is coded in SPSS. Descriptive data was applied on data to calculate mean, mode, standard deviation and range to see how much of respondent agree with study. To check the reliability of data alpha values were calculated for each variable. To check the degree of association correlation analysis was done. Parametric Pearson correlation was used to analyze correlation matrix. Instrument (questionnaire) was distributed to employees of 5 banks located in vicinity of Rawalpindi and Islamabad, 54.0% were male and 46.0% were females. Respondents were from different age categories 33.0 % were from age group 25-under, 53.5% were from age group 26-40, 11.5 % from age group 41-55 and 2 % from age group 56-older. Descriptive data of independent variable (Cooperative Team Environment) shows that mean is 3.3964 and standard deviation of .55104 which shows that data is supporting the statements of this variable. SD shows how much data is deviating from mean. Mean and SD of Employee Participation also shows that majority of respondents are agree upon our idea of the variable under study. Similarly, Procedural Justice, AC, EKS and WEC mean values show the extent of agreeableness of respondent toward statements under each variable. The alpha coefficient of Cooperative Team Environment, Employee Participation, Procedural Justice, AC, EKS and WEC is 0.816, 0.832, 0.624, 0.862, 0.610, 0.758 and 0.814 respectively. Values are greater than 0.6 which shows that variables are in acceptable range of reliability. The coefficient of correlation of Cooperative Team Environment and Employee Participation its value is .555 which shows strong correlation between two variables. Coefficient of correlation for Cooperative Team Environment and Procedural Justice is .39 which is a medium correlation. The correlation between Cooperative Team Environment and AC is .340 which also shows medium correlation between these two variables. Value of correlation coefficient of Cooperative Team Environment and EKS is .183 which shows weak association of two variables. Correlation between Cooperative Team Environment and WEC is .320. This value is an indication of medium correlation.

Discussion

Hypothesis 1

We have used linear regression analysis to identify the relationship of Cooperative Team Environment and WEC. The test shows a significant relation between Cooperative Team Environment and WEC as p value is 0.000 which is less than .05 and the t value is 8.125 which are greater than of 1.96 and F value is 22.695 which show fitness of the model .Its means that Cooperative Team Environment has an impact on WEC. Now have a look on the R square and Beta values. Results show that R square is 0.103 it means that 10.3 % of the change in WEC is due to change in Cooperative Team Environment and 90.7% change in WEC is due to the other factors other than Cooperative Team Environment. The Beta value show positive relationship of Cooperative Team Environment and WEC it also shows that one unit of change in Cooperative Team Environment will bring about 32% change in WEC. Durbin Watson is 1.867 which is showing auto correlation which is within acceptable range of 1.5 to 2.5.

Hypothesis 2

We have used regression analysis to identify the relationship of Employee Participation and WEC. The test shows a significant relation between Employee Participation and WEC as p value is 0.000 which is less than .05 and the t value is 8.765 which is greater than of 1.96 and F value is 40.73 which show fitness of the model .Its means that Employee Participation has an impact on WEC. Results show that R square is 0.171 it means that 17.1 % of the change in WEC is due to change in Employee Participation and 82.9 % change in WEC is due to the other factors other than Employee Participation. The Beta value show positive relationship of Employee Participation and WEC it also shows that one unit of change in Employee Participation will bring about 41.3% change in WEC. Durbin Watson is 2.078 which is showing auto correlation which is within acceptable range of 1.5-2.5.

Hypothesis 3

We have used regression analysis to identify the relationship of Procedural Justice and WEC. The test shows a significant relation between Procedural Justice and WEC as p value is 0.000 which is less than .05 and the t value is 6.017 which is greater than of 1.96 and F value is 14.179 which show fitness of the model .Its means that Procedural Justice has an impact on WEC. Results show that R square is .067 it means that 6.7 % of the change in WEC is due to change in Procedural Justice and 93.3 % change in WEC is due to the other factors other than Procedural Justice. The Beta value show positive relationship of Procedural Justice and WEC it also shows that one unit of change in Procedural Justice will bring about 25.9% change in WEC. Durbin Watson is 1.873 which is showing auto correlation which is within acceptable range of 1.5-2.5.

Hypothesis 4

To test that AC positively enhances WEC along with Cooperative Team Environment we used linear regression. Three steps are followed. First step shows a significant relation between Cooperative Team Environment and WEC as p value is 0.000 which is less than .05. Results show that R square is 0.103 it means that 10.3 % of the change in WEC is due to change in Cooperative Team Environment and 90.7% change in WEC is due to the other factors other than Cooperative Team Environment. In 2nd step moderating variable also shows a significant positive relation with WEC. In third step interaction term is created between independent variable and moderating variable which is Cooperative Team Environment*AC and it is regressed against dependent variable which is WEC. From results it is clear that AC moderates the relationship between Cooperative Team Environment and WEC. Cooperative Team Environment alone is bringing only 10.3% change in WEC but when we take the product of Cooperative Team Environment and AC then value of r square shows 14.2% change in WEC. Beta Value shows that Ac positively moderate the relationship of Cooperative Team Environment and WEC. It also shows that one unit change in Cooperative Team Environment*AC will bring about 37.7% changes in WEC.

Hypothesis 5

To test that AC positively enhances WEC along with Employee Participation we used linear regression. Three steps are followed. First step shows a significant relation between Employee Participation and WEC as p value is 0.000 which is less than .05. Results show that R square is 0.171 it means that 17.1 % of the change in WEC is due to change in PE and 82.9 % change in WEC is due to the other factors other than Employee Participation. In 2nd step moderating variable also shows a significant positive relation with WEC. In third step interaction term is created between independent variable and moderating variable which is Employee Participation*AC and it is regressed against dependent variable which is WEC. From results it is clear that AC moderates the relationship between Employee Participation and WEC. Employee Participation alone is bringing only 17.1% change in WEC but when we take the product of Employee Participation and AC then value of r square shows 18.3% change in WEC.AC weakly moderates the relationship of Employee Participation and WEC. Beta Value shows that Ac positively moderate the relationship of Employee Participation and WEC. It also shows that one unit change in Employee Participation*AC will bring about 42.8 % changes in WEC.

Hypothesis 6

To test that AC positively enhances WEC along with Procedural Justice we used linear regression. Three steps are followed. First step shows a significant relation between Procedural Justice and WEC as p value is 0.000 which is less than .05. Results show that R square is .067 it means that 6.7 % of the change in WEC is due to change in Procedural Justice and 82.9 % change in WEC is due to the other factors other than Procedural Justice. In 2nd step moderating variable also shows a significant positive relation with WEC. In third step interaction term is created between independent variable and moderating variable which is Procedural Justice*AC and it is regressed against dependent variable which is WEC. From results it is clear that AC moderates the relationship between Procedural Justice and WEC. Procedural Justice alone is bringing only 6.75 % change in WEC but when we take the product of Procedural Justice and AC then value of r square shows 12.0 % change in WEC.AC weakly moderates the relationship of Procedural Justice and WEC. Beta Value shows that AC positively moderates the relationship of Procedural Justice and WEC. It also shows that one unit change in Procedural Justice*AC will bring about 34.6 % changes in WEC.

Hypothesis 7

After the introduction of intervening variable which is WEC, independent variable Procedural Justice is still significant. EKS is mediating between Procedural Justice and WEC but it is a partial mediation.

Conclusion

According to results obtained from this study, shows Hypothesis 1, 2, 3, 4, 5, 6 and 7 are true that AC moderates the relation of Cooperative Team Environment, Employee Participation and Procedural Justice on WEC. Employees who experience their culture as an adhocracy culture (AC), they will perceive their work environment more creative along with social exchange factors which are Cooperative Team Environment, Employee Participation and Procedural Justice respectively. EKS mediates the relationship of Procedural Justice with WEC. This study is a broader understanding of work

group creativity at individual level when we take in account social environment of individual working in a team within department. Individual who receives high level of expert's knowledge sharing will experience procedural justice which is helpful in enhancing work environment creativity. Cooperative team culture, employee participation and procedural justice will increase work environment creativity but if the culture is adhocracy this WEC will be much higher because adhocracy culture is ideal habitat for stimulating creativity. Social exchange factors (Cooperative Team Environment, Employee Participation and Procedural Justice) have positive impact on work environment creativity and AC Positively moderates social exchange factors and WEC. EKS partially mediates the relationship of Procedural Justice J and WEC. In this era of complexity and criticality organization must use creative ideas from their employees to cope up in a new way with competitors. AC play a vital role in fostering creativity. Cooperative Team Environment, Employee Participation and Procedural Justice enhance work environment creativity.

Limitations of the Study

- In this study only one source of information namely respondents, are used for all measures.
- All variables of the study are measured at individual level.
- Convenience Sampling Technique is used in this study. In future researches other sampling technique can be used to avoid the biasness caused by the use of convenience sampling technique.

Future Research

- In this study only one outcome of Cooperative Team Environment, Employee Participation and Procedural Justice is considered which is WEC, it can be investigated along with different outcomes as it is a multi-level phenomenon.
- This study can also be conducted in future by taking new mediating variable like Organizational behavior.
- Impact of domain knowledge on creativity can also be checked in future studies.

References

- Amabile, T. M. & Gryskiewicz, N. D. (1989). The creative environment scales: Assessing the work environment for creativity. *Creativity Research Journal*, 2, 231–253.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39, 1154–1184.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. In B.M. Staw & L. L. Cummins (Eds.), *Research in organizational behavior* (pp. 123–167). Greenwich: JAI Press.
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall: Englewood Cliffs.
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Bertrams, J. (1999). *De kennisdelende organisatie*. Schiedam, Netherlands: Scriptu [The knowledge sharing organization].

- Cameron, K. S., Quinn, R. E., & Tromp, T. (1999). *Onderzoeken en veranderen van organisatiecultuur*. Schoonhoven, Netherlands: Academic Service.
- Cameron, K. S. & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. Reading, MA: Addison Wesley.
- Claver, E., Llopis, J., Garcia, D., & Molina, H. (1998). Organizational culture for innovation and new technological behavior. *Journal of High Technology Management Research*, 9, 55–68.
- Davenport, T. and Prusak, L. (1998). *Working Knowledge*. Harvard Business School Press: Boston.
- Evers, A., Vliet-Mulder, J. C., & Groot, C. J. (2000). Documentatie van tests en test research in Nederland. Assen, Netherlands: NIP/Van Gorcum [Documentation of tests and test research in the Netherlands].
- Farh, J. L., Early, P. C., & Linn, S. C. (1997). Impetus for action: A cultural analysis of justice and organizational citizenship behavior in Chinese society. *Administrative Science Quarterly*, 42, 421–444.
- Ford, C., & Ogilvie, D. (1996) The role of creative action in organizational learning And change, *Journal of Organizational Change Management*, 9(1), 54-62.
- Feurer, R., Chaharbaghi, K., & Wargin, J. (1996). Developing creative teams for operational excellence. *International Journal of Operations & Production Management*, 1, 5–18.
- Greenberg, J. (1990). Organizational Justice: Yesterday, Today and tomorrow. *Journal of Management*, 16, 399-432.
- Kearsley, G. (1978). The theory into practice database. Social Development Theory [website]. Retrieved September 8, 2002, from the World Wide Web: <http://tip.psychology.org/vygotsky.html>.
- Leventhal, G. S. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research*. New York: Plenum.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum.
- McCartt, A. T., & Rohrbaugh, J. (1995). Managerial openness to change and the introduction of GDSS: Explaining initial success and failure in decision conferencing. *Organization Science*, 6(5), 569 -584.
- McDermott, R. (1999) “Learning across Teams: The Role of Communities of Practice In Team Organization”, *Knowledge Management Review*, Vol. 2, No. 8, pp 32-36.
- Monge, P.R., Cozzens, M., & Contractor, N.S. (1992). Communication and motivational predictors of the dynamics of organizational innovation. *Organization Science*, 3, 250-274.
- Organ, D.W. (1997) ‘Organizational citizenship behavior: It’s construct clean-up time’, *Human Performance*, 10 (2): 85–97.
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2: 121-139.
- Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *Leadership Quarterly*, 15: 33–53.
- Stein, M.I. (1974). *Stimulating Creativity*, Vol. 1. New York: Academic Press.
- Thibaut, J., & Walker, L. (1975). *Procedural justice*. Hillsdale, NJ: Lawrence Erlbaum.

- Tobin, D. R. (1998). The knowledge-enabled organization: Moving from “training” to “learning” to meet business goals. New York: Amacom.
- Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative Approaches to the employee-organization relationship: Does investment in employees pay off?. *Academy of Management Journal*, 40, 1089–1121.
- Tyler, T. R., DeGoey, P., & Smith, H. J. (1996). Understanding why the justice of Group procedures matters. *Journal of Personality and Social Psychology*, 70, 913-930.
- Vygotsky, L. (1978). Interaction between learning and development. From: *Mind and Society* (pp. 79-91). Cambridge, MA: Harvard University Press.
- West, M. A. & Anderson, N. R. (1996). Innovation in top management teams. *Journal of Applied Psychology*, 81, 680–693.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18: 293-321.
- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, 44, 682-696.