# THE INFLUENCE OF CLIMATE ON ORGANIZATIONAL INNOVATION: A STUDY IN VIETNAM

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**Abstract -** Creativity and innovation are considered as the most important competitive competences of a company. Since 20th century, a large number of researches have been conducted to find out ways to encourage employees' creativity and, in turn lead to innovation in organization. This research examined the relationship between work climate and innovative behaviour of employees in 10 private companies in Vietnam. Accordingly, these substantial factors: Risk – taking, Idea Support, Openness were found to have influences on the innovative behaviours of employees. This result gives both theoretical implications for understanding how innovative work behaviour of employeesare affected by various aspects of the work environment and methodological implications for companies to improve creativity and innovation.

**Index Terms -** Creativity, creative climate, innovation, innovative work behaviour

## I. INTRODUCTION

Innovation and intrapreneurship are key drivers underlying the competitive advantage of organizations (Lukes, 2017). Therefore, how to increase the innovation in organization has parked the interests of plenty of researchers (Morris, 2006). Among a lot of concerns, the relation between organizational climate and individual creativity has been considered. Amabile (1988) found the organizational climate would encourage or discourage the creativity of employees. Besides, Ekvall (1996) built a scale with 9 dimensions that reflexed the creative climate in an organization. Morris (2005) found some factors from work environment such as: clear goals, opening in communication, appropriate time in task were related to creativity.

The present study aimed two goals: (1) assess the creative climate scale and innovative work behaviour scale's validity in the study context, (2) finding which factors from organizational climate that influenced the creativity through measuring innovativebehaviours of employees in Vietnamese private companies

### Theoretical frame work

### Creativity and innovation

Creativity is the production of novel and useful ideas in many domains (Amabile, 1996, Woodman, 1993). While innovation is defined as the successful implementation of creative ideas within an organization (Amabile, 1996). Innovation is a result of employees' creativity or all innovation begins with creative ideas. Successful implementation of new programs, new product introductions, or new services depends on a person or a team having a good idea – and developing that idea beyond its initial state (Amabile, 1996). Innovative work behaviour (IWB): Innovative work behaviour is typically seen to a comprehensive set of behaviours related to the generation of ideas, creating support for them, helping their implementation (Scott& Bruce, 1998: Jassen, 2000). In addition, Far & Ford (1990) defined that IWB aimed to achieve the initiation and intentional introduction of a new and useful ideas which results process, products or procedures. While creativity is the production of novel and useful ideas, IWB includes an applied component and is expected to result innovative output. Creativity can be a component of IWB (Jong& Hartog, 2008). Employee's innovative behaviour conceptualizes it as distinct from innovation outputs and as a multi-faceted behaviour rather than a simple count of 'innovative acts' by employees (Lukes, 2017). It can be a measurement of employees' creativity inorganization. Moreover, examining the level of innovative behaviours of employees could reflex the innovation of organization besides the innovative outputs such as new products or new procedures.

### Climate for creativity

Organizational climate refers to the recurring patterns of behaviour exhibited in the day to day environment of the organization. It can be considered as pattern of behaviours, attitudes, feelings that characterize life in an organization (Isaken et al, 2000). The perception of people in an organization of this pattern can influence their productivity and creativity (Amabile, 1988). After observing different work atmospheres of many companies affecting the degree of participation in idea suggestion schemes, Ekvall (1996) developed 9 dimensions to enhance creativity. They are Involvement/ Challenge, Freedom, Trust/Openness, Idea Time, Playfulness/Humorous, Conflict, Idea Support, Debate and Risk-taking. According to Ekvall (1996), all listing dimensions positively related to creativity and innovation except Conflict with the negative impact. According the result from the first stage of this study, there were three dimensions: "Conflict", "Debate" and "Idea Time" which were not measured because they did not reflex the strongly significant impacts on employees' perception of their work climate.

**Involvement/ Challenge (I)**

Involvementrefers the emotional involvement of the members of the organization in its operations and goals. A high – challenge climate is seen when people are experiencing joy and meaningfulness in their job, and therefore, they invest much energy. Low challenge means feelings of alienation and difference; the common sentiment and attitude is apathy and lack of interest for the job and organization (Ekvall, 1996). Santhamani (1983) suggested that one of the critical issues challenging the leaders was to find the way to encourage involvement. West et al (1990) found that team vision, the extentthat team have clearly defined goal and objectives is propensity to innovation.

Keller (1997) used aninvolvement scale with 532 scientists and engineering and found the relation between job involvement and achievement. Morris (2005) found that clear goals would enhance the creativity in team.

H1: The more people involve in organization, the more innovative behaviours they have.

**Idea Support (S)**

The ways new ideas are treated. In a supportive climate, ideas and suggestions are received in an attentive and supportive way by bosses and workmates. People listen to each other and encourage initiatives. Possibilities for trying out new ideas are created. The atmosphere is constructive and positive. When idea support is low, the reflexive "no" prevails. Every suggestion is immediately refuted by a counter – argument. Fault findings and obstacle raising are the unusual styles of responding to ideas (Ekvall, 1996).

A lot of studies surrounding creative efforts pointed to the importance of support. Support for innovation was concerned with the support for innovative ideas. This required both articulated support and enacted support (West et al, 1990). Besides, Andrew and Gordon (1970) found that early negative feedback by leaders, or peers tended to inhibit creativity.

**H2:** The more support for ideas people receive, the more innovative behaviours they have.

Freedom (F)

It refers the independence in behaviour exerted by the people in the organization. In a climate with much of this kind of freedom people make contacts and give the receive information; discuss problems and alternatives; plan and take initiatives of different kinds; and make decision. The opposite climate would include people who are passive, rule – bound and anxious to stay inside established boundaries (Ekvall, 1996).

Amabile et al (1996), Enson et al (2001) stated that there was reason to examine the freedom or autonomy granted because of its contribution to motivate creative work and allow individual to pursue their unique insights.

Amabile (1988) suggested that the adaptability to choose what done with employees' task will enhance the organizational creativity.Trevelyan's (2001) found that if leader controlled too tight, involvement and motivation would decrease and tend to inhibit the achievement.

**H3:** The more freedom people get, the more innovative behaviours they have.

**Openness/Trust (O)**

This refers to the emotional safety in relationships. When there is a strong level of trust, everyone in the organization dares to put forward ideas and opinions. Initiatives can be taken without fear of reprisal and ridicule in case of failure. Communication is open and straightforward. Where trust is missing, people are suspicious of each other and are wary of making expensive mistakes. They also are afraid of being exploited and robbed of their good ideas (Ekvall, 1996).

Amabile (1988) found that competition among persons and groups would foster a self-defensive attitude. A collaborative atmosphere where people were continually sharing their ideas and helping each other with their work, rather than competing with each other was necessary for creativity (Morris, 2006). Dhanaraj (2006) insisted on building a hub firms orchestrate network, where there was no attempt to cheat or compete with each other, would lead to innovation output.

H4: The more open people are to others, the more innovative behaviours they have.

**Playfulness/Humorous (P)**

In this environment, the spontaneity and ease are displayed. A relaxed atmosphere with jokes and laughter characterizes the organization which is high in this dimension. The opposite climate is characterized by gravity and seriousness. The atmosphere is stiff, gloomy, and cumbrous. Jokes and laughter are regarded as improper (Ekvall, 1996).

Sla˚tten (2011) found the positive relationship between humorous climate and employees' creativity. Pundt (2015) proved that humorous leadership would support the innovative behaviours of employees.

**H5:** The more humorous environment people are in, the more innovative behaviours they have.

**Risk-taking (R)**

This refers to the tolerance of uncertainty in the organization. In the high risk – taking case, decisions and actions are prompt and rapid, arising opportunities are taken and concrete experimentation is preferred to detailed investigation and analysis. In the risk – avoiding climate, there is a cautious, hesitant mentality. People try to be on the "safe side". They decide to sleep on the matter. They set up

committee and they cover themselves in many ways before making a decision (Ekvall, 1996). Plesk and Bevan (2003) identified that the degree to which there was psychological supported for individuals and teams wanted to try new things had an impact on the speed and frequency of innovation/ organizational creativity.

McFadzean (1988), Martin et al (2003), Mishra and Srinivasan (2008) proved that taking risk experimenting was behaviour that was associated with creativity and innovation. While a culture with too many controls would inhibit risk – taking attitudes and consequently creativity.
H6: The more risk-taking people are, the more innovative behaviours they have.

## II. RESEARCH METHOD

### A. Participants and procedure

**Participants**
This study included 180 employees who were members of 10 Vietnamese private companies. They occupied jobs in: Technique/IT, Finance/Accountant, Education/Administration, Marketing/Sales (range= 15 – 20 % for every field). The period of time they have worked in the companies differed from 4 intervals (1 – 3 years, 3 – 5 years, 5 – 10 years and over 10 years). Participants were chosen by convenienceand 41,1% of them were men.

**Procedure**
The first stage: In order to find out which climate dimensions are important to employees' creativity/ organizational innovation, each two groups of 7 employees were interviewed. Every item of two scales was discussed carefully to form a suitable questionnaire.
The second stage: the questionnaires were sent to employees of 10 companies which had been chosen. 200 responses were recorded. After eliminating 20 responses which were below the requirement, 180 responses meeting the criteria were transferred to quantitative process.

### B. Measurement

For innovative work behaviour (IWB) in the present study, scale of Jassen (2000) which consists 9 items ($\alpha$ = 0.95 – 0,96) was used. After the first stage study, 4 items were considered as suitable to the companies' situation.
The Situational Outlook Questionnaire (SOQ) with $\alpha$= 0.73 – 0,89 (Ekvall, 1996) was used to measure work environment for creativity. This scale was revised from the Creative Climate Questionnaire (CCQ) of Ekvall (1983). However, it was modified to meet the situation of this research. Three components of this scale were not measured because they were assessed as not meaningfulimportance to the creativity/ innovation of the surveyed companies. They were: Conflict, Debate and Idea time. Responses of these two scales were given by 5-points scales from completely disagree to completely agree.

## III. DATA ANALYSIS AND RESULTS

**Table 1: Reliability of scales**

| Scales | Cronbach 's α | Corrected Item – total correlation |
|---|---|---|
| **Situational Outlook Questionnaire (SOQ) :** | | |
| - Involvement/ Challenge (I): 4 items | 0,769 | 0,363 – 0,659 |
| - Idea Support (S): 3 items | 0,920 | 0,892 – 0,914 |
| - Freedom (F): 4 items | 0,781 | 0,379 – 0,684 |
| - Openness/Trust (O): 4 items | 0,795 | 0,392 – 0,853 |
| - Playfulness/humorous (P): 3 items | 0,716 | 0,443 – 0,702 |
| - Risk-taking (R): 3 items | 0,817 | 0,537 – 0,747 |
| **Innovative Work Behaviour (IWB):** 4 items | 0,893 | 0,583 - 0,895 |

Fig.1 showed that the scales had good internal – consitency ($\alpha$= 0,7 – 0,9). Besides, the corrected item – total correlation of items from each scale range from 0,3 to 0,9. Both of these proved that the scales could measure the dimensions significantly reliably.

**Table 2: Rotated Component Matrix**

| | Component | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| S2 | ,961 | | | | | |
| S1 | ,957 | | | | | |
| S3 | ,799 | | | | | |
| O2 | | ,888 | | | | |
| O1 | | ,845 | | | | |
| O4 | | ,741 | | | | |
| F4 | | | ,853 | | | |
| F2 | | | ,852 | | | |
| F3 | | | ,810 | | | |
| F1 | | | ,582 | | | |
| I4 | | | | ,883 | | |
| I2 | | | | ,872 | | |
| I1 | | | | ,721 | | |
| R2 | | | | | ,895 | |
| R1 | | | | | ,782 | |
| R3 | | | | | ,740 | |
| P2 | | | | | | ,835 |
| P3 | | | | | | ,830 |
| P1 | | | | | | ,708 |

(*) This final result was eliminated the items which had the factor loadings below 0,3. Results from EFA analysis showed that SOQ scale met the standard to EFA analysis (KMO= 0, 663, sig. =0,000) and 6 dimensions were extracted with 74, 8 % of cumulation. The rotated component matrix (fig.2) showed that the items were clustered in 6 factors and

each item could measure their respective factor effectively (factor loadings = 0,5 – 0,9).
TheEFA result of IWB was suitable (KMO=0,770, sig. =0,000) and four items were reduced into one dimension (cumulation = 76,092%, factor loadings were approximately from 0,7 to 0,9).

Table 3: Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|
| ,869[a] | ,755 | ,747 | ,28603 |

a. Predictors: (Constant), S, O, F, R, P, I

b. Dependent Variable: IWB

Table 4: Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | -,323 | ,352 | | -,916 | ,361 |
| S | ,200 | ,047 | ,183 | 4,278 | ,000 |
| O | ,153 | ,042 | ,175 | 3,653 | ,000 |
| F | ,025 | ,033 | ,028 | ,748 | ,456 |
| R | ,651 | ,041 | ,684 | 15,749 | ,000 |
| P | -,024 | ,053 | -,018 | -,458 | ,648 |
| I | ,086 | ,054 | ,067 | 1,584 | ,115 |

a. Dependent Variable: IWB

The linear regression results in fig. 3 and fig. 4gave an insight that there were three factors influencing the innovative work behaviour of employees. Their important orders were: Risk – taking (beta= 0,684, sig. =0,000), Idea Support (beta= 0,183, sig. =0,000), Openness (beta= 0,175, sig. =0,000). These three factors explain 74,7 %of employees' innovative work behaviour variance. According to this result, the hypotheses: H2, H4 and H6 were strongly supported. While the study also hypothesized that Involvement/ Challenge, Freedom and Playfulness/Humorousalso had the positive relationships to Innovative work behaviour respectively, there were no evidencesto prove these relationships.

## IV. DISCUSSION AND IMPLICATIONS

This study suggested that there were relationships between Risk – taking, Idea Support, Openness in the work environment and innovative work behaviour of employees. Besides previous studies, which examined the influence of work environment factors on individual creativity of the innovation output of organization. The present study investigated the impact of creative climate on innovative working behaviour, which was considered as one of the antecedent of innovation output like new products, new procedure (Lukes, 2017). Using the SOQ and IWB scales to measure the concerned factors, these scales were modified to suit the empirical situation in Vietnamese companies. Although there were three hypotheses had not proved yet, the result with three factors: Risk – taking, Idea Support, Openness were beneficial to organize a creative workplace to foster the innovative behaviours of employees.

The relationship of Risk – taking and Innovative work behaviour. As expected in H6, Risk – taking was predicted to Innovative work (beta= 0,684, sig. =0, 000). That means in the organization, managers should enrich the activities which encourage people to trynew things and accept failure for more innovation. In such climate, people will be brave to express new ideas and do not wonder that they will get benefit or lose everything. Similarly, the study of Amabile (1988) also stated that risk – taking encouragement will motivate the creativity and innovation in organizations.

A positive relationship between Idea Support and Innovative work behaviour was found in this present study. The important influence of Idea Support on Innovative work behaviour(beta= 0,183, sig. =0,000) suggestedto create the supportive workplace wherepeople have chances to share their ideas, get feedback to fulfill them. Lukeš et al (2012), recommended that when feedbacks were fast, constructive and informative would foster entrepreneurial activities in organization.

The relationship of Openness and Innovative work behaviour. As being hypothesized in H2, the result provedthat when people wereopen to each other, sharing knowledge and information, they would increase their innovative behaviours. The impact of openness on innovative behaviour was significant (beta= 0,175, sig. =0,000). This result consisted with the study of Amabile (1988) when she found that collaboration from employees and divisions would foster the creativity and lead to innovation. Morris (2005) examined the companies in New Zealand and stated that open communication of organization changes, opportunities to voice concerns, understandings and ideas, and the feeling of" being heard" enhancedorganizational creativity.

The relationship of Involvement/ Challenge, Freedom andPlayfulness/Humorousand Innovative work behaviour were not supported. This was similar to the study of Porzse et al (2012) when the authors did not prove the impact of above - mentioned factors on innovative activities of employees in medical manufacturing firms in Hungary.

Moreover, this study also examined the correlation between Idea Support and Openness and found out they were significantly related to each other (r=0,416, p= 0,000). This might be explained that flourishing the open climate would increase supporting- idea activities among employees and vice versa.

## V. LIMITATION AND RECOMMENDATION

While this study suggest appropriate scales to assess employees' innovative behaviours and which affected them as well as found out some meaningful relationships between organizational climate and innovative workbehaviour. It must have got some limits which might be the suggestions for further researches: In order to find out more about the impact of organization characteristics on creativity/ organizational innovation, future studies should explore somecontrol variables such as size, the level of organizational specialization. Some antecedences of creative climate such as: strategy, culture, leadership should be considered to completely benefit companies to create an environment that nourishes the sustainable innovation.

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