Too Fit to Innovate: When flexibility does not lead to innovative work behaviors

This is where the abstract will be.

# Introduction

Thus the important role of creating a "climate" for innovation. This can best be done by inculcating a culture of flexibility and openness and this coupled with the right people should result in high innovation per capita.

# Theoretical Framework and Hypotheses

## Culture of Flexibility

Organizational culture is widely viewed as a source of sustained competitive advantage to businesses [@Barney1986organizational]. It serves as the common character of the organization, wherein individual differences are subsumed and a unified "way of thinking" emanates, reflecting basic underlying assumptions [@Schein2006organizational]. @Denison1990 claimed that management behaviors reinforce principles of the culture, that when we speak of organizational culture, we refer to the meanings inherent in the actions, procedures, and protocols of organizational commerce and discourse.

@Denison1995theory have articulated a framework of culture that spans two planes. The first being that of orientation (internal or external) and the second being that of flexibility vis-à-vis stability.

This framework elucidates four inclinations of an organization’s culture. These individual dimensions can be defined as: ***Adaptability***: An organization’s ability to alter behavior, structures & systems to survive environmental changes. ***Involvement***: The level of participation by an organization's members in decision making. Both the above dimension are high on the scale of flexibility and change. An organizational culture that stresses these two dimensions, could be expected to react rapidly both to external changes and internal integration and acceptance of change. The other two dimensions of organizational culture as outlined in the framework are; ***Mission***: Existence of a shared definition of the organization's purpose. Simple existence of a "mission statement" does not create a mission oriented organizational culture. A mission oriented culture is one where in general the organization is perceived to have a unified goal towards which its actions are directed ***Consistency***: The degree to which beliefs, values, and expectations are held consistently by members can be termed as the consistency orientation of an organization’s culture. The dimensions of Mission and Consistency provide support for stability and conceptually should encourage "more of the same behavior".

## Culture of Flexibility and Innovative Work Behavior

@Mumford1988creativity have defined “creativity” as that activity which has to do with the production of novel and useful ideas, “innovation” on the other hand deals with the production or adoption of useful ideas and idea implementation @Kanter1988.

Researchers exploring innovation have explicitly recognized that idea generation is only one stage of a multistage process. Innovation begins with recognition of the problem recognition, and subsequent generation of ideas or solutions, which could be novel or adopted. At the next stage, an innovative individual seeks support for an idea. Finally, during the third stage of the innovation process, the innovative individual completes the idea by producing a physical embodiment of the idea in terms of a product or process, something which can be disseminated. And once disseminated value can be extracted from it, either in financial terms or in terms of increased efficiency etc.

@West1990innovationa have defined innovative behavior as the intentional creation, development and application of new ideas within a work role, group or organization, which results in benefit to the individual role performance, the group, or the organization. This definition restricts innovative behavior to intentional efforts to provide beneficially novel outcomes. Profits from innovation could include both better functioning of the organization and other social-psychological benefits for individual workers or groups of individuals, such as increased job satisfaction, and better interpersonal communication.

Following @Scott1994determinants, in this study we conceive “innovative work behavior” (IWB) as the complex behavior which consists of a set of three different behavioral tasks: (1) Idea generation, (2) Idea promotion, (3) Idea realization. Individual innovation begins with generation of ideas. The generation of ideas could result from perceived problems, incongruities, discontinuities, and emerging trends, and the need to resolve these. These ideas then need to be promoted to create potential allies. After generating an idea, one has to engage in social activities to sponsors and believers in the idea. Finally to be value adding the idea needs to be realized or implemented. Minor innovations, in scope, can often be completed by individuals, however accomplishment of more complex innovations usually requires the focussed effort of a team composed of members with a variety of specific knowledge, abilities and competence.

## Role of Person--Organization and Person--Job Fits

Person-environment fit (P-E fit) has been described as, "so pervasive as to be one of, if not the dominant conceptual forces in the field" [@Schneider2001fits, pg. 142]. *Person–job (P-J)* fit conceives that individuals will be most successful in jobs that best meet their needs and in which they can contribute. *Person-organization (P-O)* fit asserts that individuals would be best able to realize their full potentials in organizations that share their personalities and values.

Organizations are able to impact innovation but only in an indirect way. This happens by creating a culture of innovation [@Zien1997]. In fact organizational culture is a subtle way in which organizations make changes to the way things are done in an organization[@Hogan2013].

@Tesluk1997a, have theorized on the mechanics of culture and HR practices and their impact on individual creativity. In this model, the business environment, strategy and top management jointly determine the organizational culture. Which are subsequently ingrained in the structures and practices in the organization. These formal practices then create a *climate for creativity*, the quality of which has an impact on individual creativity. There are also direct influences of organizational culture and HR practices which influence individual creativity.

Firstly, the organizational culture as determined by the organization is not important insofar as its impact on individual creativity is concerned, rather it is the "perception" of this culture from the perspective of the worker which we posit is of greater importance. Secondly there is not only a forward looking path but also a backward path between organizational climate and organizational structure to organizational culture.

Person Environment Fit (PEFIT) has been proposed to be an important factor in determining organizational outcomes that arise due to the actions of individual employees in an organization [@Kristof-Brown2005consequences].

In consideration of the above our proposed model for the effect of organizational culture on innovative work behavior is shown below in Figure 1.

Proposed Model

Proposed Model

From prior research [@Tesluk1997a], the model we have chosen and previous research we come to our first hypothesis:

***H1***: *Organizational culture would positively correlate with innovative work behavior.*

***H2***: *Perception of P-E fit would have a moderating effect of the relationship between organizational culture and innovative work behavior. Such that a high perceived P-E fit would substitute for impoverished organizational culture.*

# Method

## Sample and Data Collection

An internet based questionnaire was created with separate sections for the constructs of interest. Thirty five students with prior work experience in the first year of an MBA program sent the survey link to ten each of their colleagues who were still working. A reminder was sent to the 350 people after a week. A total of 134 responses were received, of which 128 were usable. This is a response rate of about 37%. Of the 128 respondents, 100(78%) were male. All the respondents were highly educated with about 44% holding postgraduate degrees. This unusually high figure could be because we targeted prior colleagues of MBA students, most of whom were MBAs themselves.

Though the collection of single source cross-sectional data is considered problematic [@Podsakoff2003common], the constructs we wished to examine were such that other reports would not have been appropriate. For instance innovative work behavior is susceptible to idiosyncratic evaluations and subtlelities are missed with other than self-reports [@Janssen2000job]. Further, our hypotheses were all regarding moderation and @Siemsen2010common have shown that moderation hypotheses are only attenuated due to common method variance (CMV). As CMV is detrimental to our hypotheses we employed some procedural mechanisms to control CMV. Psychological separation was attempted by keeping each scale on a different page and having an informational page in between. We also apprised the respondents of anonymity and took just two demographic variables.

## Measures

### Culture of Flexibility

Flexibility in organizational culture was measured by combining the dimensions of involvement and adaptibility using the questionnaire provided in @Denison1995theory. Respondents were asked to rate their organizations on a scale of Strongly Disagree (1) to Strongly Agree (5). An example statement is "This organization is very responsive and changes easily". The Cronbach's was 0.64 for this measure.

### Innovative Work behavior

Innovative work behavior was measured using the scale given by @Janssen2000job. This questionnaire asks respondents to indicate the frequency with which they took part in one of nine activities. Three each of these nine activities correspond to one dimension of innovative work behavior; generation, promotion or realization of ideas. The anchor statement for this scale was "How often do you engage in the following behavior at work?". An example item from this scale is "Evaluating the utility of innovative ideas". This was also scored on a scale of Never (1) to Extremely Often (5). The Cronbach's for this scale was 0.91. Responses to this scale have been found to load on a single factor in earlier studies as well [@Janssen2005joint]

### Person--Organization Fit

Value congruence with the organization was measured using the three items given in @Cable2002convergent for person--organization fit. An example item is "The things that I value in life are very similar to the things that my organization values", measured on a 5-point scale with anchors, 1 = "To a very little extent", and 5 = "To a very large extent". The Cronbach's for this scale was 0.72

### Person--Job Fit

Perceived person--job fit, conceptualized as demands-abilities fit, was also measured using three items given in @Cable2002convergent. An example item is "My abilities and training are a good fit with the requirements of my job". This was also anchored on a 5 point scale of 1 = "To a very little extent" to 5 = "To a very large extent". The Cronbach's for this scale was 0.70

Gender and level of education were not found to be either correlated to the substantive variables or significant in the regressions, thus the analysis reported are without these two demographic variables.

As the data was collected using a single questionnaire and both predictor and criterion variables were responded to by the same individual, common method bias can be suspected. Further common method bias reduces the likelihood of detecting moderation effects [@Siemsen2010common], therefore we checked for common method bias by using exploratory factor analysis[[1]](#footnote-33). Five factors were extracted with an eigenvalue greater than 1.0. Of these the first factor explained 31% of the variance only, indicating that common method bias was not a serious issue in our data.

# Results

The means, standard deviations and correlations for the substantive variables are given in Table 1.

Correlation matrix (n = 128). All correlations are significant at 0.05. Internal consistency measures (Cronbach's ) are given along the diagonal. Correlations above the diagonal are corrected for attenuation due to reliabilities of scales.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | MEAN | SD | 1 | 2 | 3 | 4 |
| 1. Innovative Work Behavior | 3.40 | 0.72 | (0.91) | 0.67 | 0.51 | 0.26 |
| 2. Flexible Culture | 3.38 | 0.73 | 0.51 | (0.64) | 0.42 | 0.42 |
| 3. Value Congurence | 3.35 | 1.00 | 0.41 | 0.28 | (0.72) | 0.34 |
| 4. Person--Job Fit | 3.34 | 0.94 | 0.20 | 0.28 | 0.25 | (0.70) |

The correlations are with expected strengths and directions. A flexible culture is expected to predict innovative work behavior and both types of fit are also moderately related to innovative work behavior.

To test the hypotheses we ran hierarchical regression analyses in a stepwise fashion. We first entered all the predictors but no interaction terms (Model 1), we then entered all two-way interactions (Model 2) and finally the three-way interaction (Model 3). Results from the regression analysis are given in Table 2. Prior to the regression analysis we mean centered all the predictor variables but did not alter the criterion variable. We also calculated the variance inflation factors (VIF) to check for multicollinearity. None of the VIFs in the three models were above two, which is far below the thumb rule cut-off of 10. Table 3 gives the adjusted R2 and other diagnostic information. From this table we see that Model 3 (with the three way interaction) does not have any additional explanatory value above Model 2.

Hierarchical regression analysis

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Model 1 | *p* | Model 2 | *p* | Model 3 | *p* |
| (Intercept) | 3.40 | 0.00 | 3.40 | 0.00 | 3.40 | 0.00 |
| Flexible Culture (CUL) | 0.42 | 0.00 | 0.38 | 0.00 | 0.38 | 0.00 |
| Value Congurence (POF) | 0.21 | 0.00 | 0.26 | 0.00 | 0.26 | 0.00 |
| Person--Job Fit (PJF) | 0.01 | 0.85 | -0.04 | 0.44 | -0.04 | 0.50 |
| CUL x POF |  |  | 0.16 | 0.03 | 0.16 | 0.03 |
| CUL x PJF |  |  | -0.40 | 0.00 | -0.40 | 0.00 |
| POF x PJF |  |  | 0.18 | 0.00 | 0.18 | 0.00 |
| CUL x POF x PJF |  |  |  |  | -0.02 | 0.82 |

Comparison of the three models of hierarchical regression

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
| Adj. R Squared | 0.32 | 0.45 | 0.45 |
| F | 21.32 | 18.39 | 15.65 |
| p-value | 0.00 | 0.00 | 0.00 |

From Model 1, we can infer that a flexible culture () and value congruence with the organization () are significantly related to innovative work behavior, as expected. The relationship between person--job fit and innovative work behavior does not reach significance (). Hypothesis 1 suggests that the relationship between flexibility of culture and innovative behavior would be moderated by value congruence with the organization such that the relationship would be stronger for individuals having a higher value congruence. This hypothesis receives support from our data (). Hypothesis 2 predicts that the relationship between flexibility of culture and innovative work behavior would be moderated by person--job fit in such a way that when person--job fit is high, the relationship would be weakened. This hypothesis also receives support in Model 2 (). Finally hypothesis 3 made a case for the interaction between value congruence with the organization and person--job fit such that value congruence with the organization would ameliorate the resistance to change of an individual with high person-job fit. This hypothesis is also supported ().

To clarify the relationships further, we plot the relationship of flexibility of culture with innovative work behaviors for four cases of the moderators. The cases taken are as follows: (Case 1) -1 SD PJF, -1 SD POF; (Case 2) -1 SD PJF, +1 SD POF; (Case 3) +1 SD POF, -1 SD PJF; and finally (Case 4) +1 SD PJF, +1 SD POF. The plot is shown in Figure 2.

Interaction Plot

Interaction Plot

Simple slopes analysis was used to test whether the slopes significantly differed from zero or not. The results are shown in Table 4.

Simple slopes analysis (df = 120)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Slope | SE | t-value | p-value |
| Case 1: PJF(-1SD), POF(-1SD) | 0.58 | 0.11 | 5.26 | < 0.01 |
| Case 2: PJF(-1SD), POF(+1SD) | 0.92 | 0.16 | 5.72 | < 0.01 |
| Case 3: PJF(+1SD), POF(-1SD) | -0.13 | 0.17 | -0.75 | 0.46 |
| Case 4: PJF(+1SD), POF(+1SD) | 0.15 | 0.11 | 1.42 | 0.16 |

Multiple slope comparison tests were also performed to test for significance of slope difference [@Dawson2006probing]. The results of these tests are given in Table 5.

Slope difference test

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | t-value | p-value | corrected p-value | Significance |
| Case 4 vs. Case 3 | 1.58 | 0.116 | 0.698 | No |
| Case 4 vs. Case 2 | -4.30 | 0.000 | 0.000 | Yes |
| Case 4 vs. Case 1 | -2.73 | 0.007 | 0.044 | Yes |
| Case 3 vs. Case 1 | -4.00 | 0.000 | 0.000 | Yes |
| Case 3 vs. Case 2 | -4.32 | 0.000 | 0.000 | Yes |
| Case 2 vs. Case 1 | 1.88 | 0.062 | 0.372 | No |

# Discussion

## Theoretical Implications

Theoretical Implications here.

## Practical Implications

Practical implications here.

## Limitations and Future Research

The use of a cross-sectional, non-experimental design limits what causal inferences can be drawn. There is the possibility of reverse causal relationships among the variables. However our results are consistent with theoretical predictions based on extant research. The use of a longitudinal or experimental design in future research would help strengthen causal inferences.

The single survey approach may have exposed the study to common method variance. It is recommended that future research gather measures of independent and dependent variables from different data sources or temporally separate the collection of data

Limited sample size and the sampling procedure would limit the generalizability of the results we have got.

# Conclusion

TablesHere

FiguresHere

# References

1. we used the **prcomp** function in R[@RCoreTeam2015r] [↑](#footnote-ref-33)