

# Uncertainty Management's Impact on Job Satisfaction and Innovation

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## *Abstract*

**Purpose** – *The purpose of this paper is to examine the relationships between person-organization uncertainty management (UM) fit, and two outcomes in an innovative workplace: job satisfaction and innovation.*

**Design/methodology/approach** – *This study analyzes data gathered through self-report questionnaires from a government-funded engineering research organization. Complementary fit variables were constructed using a median split method, and complementarity was examined by using separate ANCOVAs to compare person-organization fit dissimilarity and person-organization fit similarity.*

**Findings** – *The study affirmed that followers, even uncertainty averse ones, feel more satisfaction when they perceive their organizations embrace uncertainty. The investigation also found positive effects of high personal UM on innovation and no significant effects for organization UM on innovation. Enhanced organizational innovation was best accounted for by high person UM cooperating in complementary fashion with both high and low UM within the organization.*

**Implications** – *Even handed organizational efforts to supply support to both sides of this emotionally difficult but beneficial interaction is a key ingredient to enhancing satisfaction in innovative efforts. Organizations may enhance innovation by selecting those creative people who can work in complementary fashion with both high and low UM sides of the organization.*

**Originality / Value** – *This study is the first outside replication of the UM–job satisfaction studies conducted by the Clampitt and Williams (2005) using their Working Climate Survey. Extending this thread, the investigation explored the effects of person-organization UM fit on innovation. The study provided useful information about the role of UM complementarity in the innovative workplace.*

**Keywords:** *uncertainty management, innovation, job satisfaction, fit complementarity*

**JEL classification:** M10, M12

Uncertainty as defined in this study involves ambiguities that cannot be quantified by probability science (Kahn & Sarin, 1988). Such *true ambiguities* as they are called by Courtney, Kirkland, and Viguerie (2000) are usually characterized by persistent and high-volume novelty, complexity, and contradiction (Budner, 1962). The study of what is not knowable and its effects on individuals and organizations is not new. Various academics—psychologists (Budner, 1962; Frenkel-Brunswik, 1949), market economists (Einhorn & Hogarth, 1985; Ellsberg, 1961), communication theorists (Berger and Calabrese, 1975; Clampitt and DeKoch, 2001; Clampitt & Williams, 2005; Eisenberg & Goodall, 2001; Gudykunst, 2002), culture researchers (Hofstede, 1980) - over the past 60 years have taken up the study of uncertainty and ambiguity. Capturing a total picture of the uncertainty arena involves considering external uncertainty factors managed by organizations as well as the uncertainties managed by individuals in personal interactions (Clampitt & Williams, 2005).

Since many external uncertainties cannot be measured, they are a special problem to those organizational leaders and employees who strategize based on specifiable, risk-weighted goals. In this context, past organizational leaders viewed lack of clarity and resulting unpredictable surprises in the workplace as an unwanted threat (Courtney, Kirkland, & Viguerie, 2000). Mumford, Connelly, & Gaddis (2003) have further noted that while uncertainty in the environment demands innovative interaction, paradoxically this creative response may generate additional tension-causing ambiguity in organizations. Ironically, the traditional tendency to be intolerant and reduce ambiguity in the workplace can then lead to greater rigidity and less openness in workplace interactions just when uncertainty is running high and an adaptive and creative response is most needed (Kanter, 2006; Amabile & Conti, 1999).

An employee's personal perceptions of uncertainty may become cause for dissatisfaction when information needed exceeds the information available in the workplace. In addition, ambiguities regarding organizational values, expectations, innovation, and politics all may impact satisfaction and performance (Brasher, 2001; Clampitt & Williams, 2005). In the past, practitioners and researchers have assumed eliminating these uncertainties and the negative emotions associated with them to be a main driver in workplace interactions (Berger and Calabrese, 1975). However, a number of communication scholars have proposed alternatively that uncertainty management may be subservient to the "outcome value" of interactions (Sunnafrank, 1990; Berger, 1979). Some uncertainties may be beneficial in the workplace because they provide flexibility and the opportunity for innovation (Eisenberg & Goodhall, 2001). This positive view interprets uncertainty as a creative opportunity and calls for *embracing* uncertainty (Clampitt & DeKoch, 2001). This perspective underscores uncertainty management's vital role in innovation and organizational sensemaking and change processes.

## Hypotheses of Present Study

### *Uncertainty Management Fit and Job Satisfaction*

Job satisfaction is a “pleasurable and positive emotional” opinion of one’s job and work experience (Locke, 1976). Multiple fit studies focusing on values of employees and organizations have found strong positive ties between employees and their organizations when they perceive a shared set of values (Holland, 1985; Schneider, Goldstein, & Smith, 1995).

Schneider’s attraction-selection-attrition (ASA) theory has served as the basis for much of this research that hypothesized employees will select and find satisfaction working in organizations where they cooperate with others who have similar values and perspectives (Schneider et al., 1995). This view is also found in person-organization fit literature supporting the “congruence-satisfaction relationship” (Furnham & Schaeffer, 1984; Mount & Muchinsky, 1978). More specifically in regard to innovative workplaces, employees working in an environment that encourages use of their creative abilities report more job satisfaction (Nicholson & West, 1988). Following this theoretical thread in the area of uncertainty management, it might be anticipated that in the matter of UM, similar person-organization fit (i.e., high/high and low/low) would associate more strongly with job satisfaction in innovative environments. However, organization and leadership theory (Mumford, Scott, Gaddis & Strange, 2002) as well as observations from the workplace (Kanter, 2006; Fishman, 2000) suggest that often innovators are at odds with management, and when desirable organizational outcomes are achieved, it is because the uncertainty inherent in these differences has been acknowledged and even fostered.

Supporting this conclusion, several studies conducted by the Clampitt research group (Clampitt & Dekoch, 2001, 2002; Clampitt & Williams, 2000, 2005; Clampitt, Williams & DeKoch, 2002; Williams & Clampitt, 2003) showed when employees, even uncertainty averse ones, perceived their organizations as positively embracing uncertainty, they felt more satisfaction on the job (Clampitt et al., 2002). These results were similar to Choi’s (2004a) findings that environmental, not personal, characteristics contribute the most to satisfaction in the creative workplace.

Clampitt and colleagues (Williams & Clampitt, 2003; Clampitt, Williams, & Dekoch, 2002; Clampitt & Williams, 2000) cumulative findings support the impact of organization uncertainty management on job satisfaction, but they do not support the hypothesis that congruence between person and organization UM will lead to optimized job satisfaction. In

Figure 1, cumulative results indicated Low/High (Unsettling) P-O fit quadrant associated slightly more than High/High fit in regard to job satisfaction. Similar Low/Low (Status Quo) P-O fit showed the least relationship to enhanced job satisfaction. These findings suggested that in innovative environments, some complementary fit, that is interactions between opposite uncertainty management dispositions, contributes to job satisfaction. The present study explored this relationship between job satisfaction and uncertainty management (UM) in the innovative workplace.

Embrace (High UM)	<b>Stifling</b> Fit High/Low P-O Fit 2003 study-- J. Sat. 73% 2002 study-- J. Sat. 78% 2000 study-- J. Sat. 68% Overall J. Sat. score: 73%	<b>Dynamic</b> Fit High/High P-O Fit 2003 study-- J. Sat. 91% 2002 study-- J. Sat. 89% 2000 study-- J. Sat. 88% Overall J. Sat. score: 89%
	Personal UM	
Avoid (Low UM)	<b>Status Quo</b> Fit Low/LowP-OFit 2003 study-- J. Sat. 77% 2002 study-- J. Sat. 68 % 2000 study-- J. Sat. 64 % Overall J. Sat. score: 70%	<b>Unsettling</b> Fit Low/HighP-OFit 2003 study-- J. Sat. 90% 2002 study-- J. Sat. 96 % 2000 study-- J. Sat. 85% Overall J. Sat. score: 90%
	Avoid (Low UM)	Embrace (High UM)
Organization UM		

**Figure 1 Job satisfaction means in three studies of P-O UM fit (Williams & Clampitt, 2003; Clampitt, Williams, & Dekoch, 2002; Clampitt & Williams, 2000).**

*Note.* In the 2003 study ( $N = 1000$ ), differences were statistically significant [ $F(3, 1042) = 30.85, p < .000$ ]. In the 2002 study ( $N = 200$ ),  $F$  values not provided in publication. In the 2000 study ( $N = 1046$ ), differences were statistically significant [ $F(3, 234) = 13.14, p < .001$ ].

In light of these findings, it is expected that job satisfaction will associate most highly with an organizational climate that embraces uncertainty. This result will be found both in congruent as well as complementary fit combinations. Since no published independent studies outside the Clampitt research group have utilized the Working Climate Survey (Clampitt & Williams, 2000, 2005; Williams & Clampitt, 2003), this study replicated investigations done by the Clampitt research group in order to confirm or disconfirm the following hypothesis:

$H_1$ : High organization uncertainty management fit matchups will associate more highly with employee job satisfaction than high person uncertainty management fit combinations

#### *Uncertainty Management Fit and Innovation*

Complex and uncertain environments are characterized by unpredictable surprises (Marion & Uhl Bien, 2001), and organizational survival demands innovative responses to such novel and contradictory information and change (Mumford, Connelly & Gaddis, 2003). As a result, creative innovation also is coming to be viewed as an important competency of employees in organizations seeking to compete in such complex environments (Amabile, Conti, Coon, Lazenby & Herron, 1996).

Early literature found connections between personal ambiguity tolerance (AT) and creativity (Budner, 1962; Norton, 1975). Avoidant, low personal tolerance for uncertainty associated negatively with creative innovation (Amabile, 1997; Ford, 1996; Scott & Bruce, 1994) and high AT correlated positively with creativity (Brophy, 2000-2001; Tegan, 1990). So, improving innovation initially focused on the psychology of creative individuals and bringing those with higher tolerance for ambiguity into organizations. However, interest in the interactions and organizational processes of creativity followed (Woodman, Sawyer and Griffin, 1993) because organizational tolerance for risk-taking and a climate that optimizes uncertainty also promote creativity (Amabile, 1997; Amabile et al., 1996; Clampitt & DeKoch, 2001; Ford, 1996). An organization's willingness to embrace uncertainties related to creative innovation, not just individual creative disposition, was found to be critical to the innovation process.

Clampitt and colleagues wisely explored these two streams of research, looking at the fit between uncertainty management preferences of employees and their perceptions of their organization's UM (Williams & Clampitt, 2003; Clampitt, Williams, & DeKoch, 2002; Clampitt and Williams, 2000). Their UM framework juxtaposed four fit matchups and their impact on job satisfaction. The subscales used to measure personal uncertainty management (PUM) focus on innovative cognitions such as a person's inclination to follow intuition, willingness to launch an effort without specified, predictable outcomes, and openness to new ideas and change. Similarly, the organization uncertainty management (OUM) scale contained questions about the organization's innovative openness to employee doubts about a project, willingness to launch a project without specifiable outcomes, and active search for new ideas and change.

In Hypothesis 2 expressed below, the current study extends the work of the Clampitt research group by using the Working Climate Survey to investigate the relationship between person-organization uncertainty management fit and employee innovation. The question raised is whether organizational UM will contribute to innovation in the same way it was shown to contribute to job satisfaction in earlier studies conducted by Clampitt and Williams (2005).

*H<sub>2</sub>*: High organization uncertainty management fit matchups will associate more highly with employee innovation than high person uncertainty management fit combinations.

#### *Uncertainty Management and Complementary Fit*

Other recent investigations have looked at the fit relationships among individual creativity values and goals and organizational creativity climate and support (Choi, 2004a, 2004b; Livingstone, Nelson & Barr, 1997). They hypothesized that both sides – a person's creative propensities as well as the environment's support for creativity – come into play. A number of researchers believe the innovation process, by definition, is complementary because the full innovative process involves not only generating new ideas but also evaluating and deciding which ideas are most useful in light of environmental constraints and

context (Basadur, Graen & Green, 1982; Basadur & Hausdorf, 1996; Mumford, Scott, Gaddis, & Strange, 2002; Kirton, 1976; Woodman, Sawyer, & Griffin, 1993). Though beneficial to the organization, such innovative cooperation between people with very different perspectives can generate additional negative affect and stress (Mumford et al., 2002). Clampitt and DeKoch (2001) described this as a challenging complementary interaction of exploring and refining ideas, alternately increasing or reducing uncertainty between optimal thresholds. The low-high and high-low fit matchups in Clampitt and colleague's UM matrix offer an opportunity to examine the relationships between elements in the organization that embrace the uncertainty of innovative ideation and those that represent the evaluative, refining side of innovation implementation. The present study, informed by fit theory, proposes that innovation in its completeness is a dialectical interaction that engages both kinds of employee tasks (Baxter & Montgomery, 1998; Eisenberg & Goodall, 2001). Organizational innovation is a complementarity with offsetting cross-level dimensions that sometimes seem to be paradoxically antithetical (Amabile et al., 1996; Mumford et al., 2002).

Some person-organization fit literature has supported this rather counter-intuitive idea that desirable compatible fit may be complementary (Muchinsky & Monahan, 1987). In this case, compatibility is the coexistence of offsetting characteristics, a P-O interaction that works well like two "successful dance partners" (Kristof-Brown, Barrick, & Stevens, 2005, p. 937). The person "makes whole" the environment by filling a gap or deficiency, thus making the organization more effective (Muchinski & Monahan, 1987: 271). Especially in the case of personality-based perceptual variables, sometimes opposites attract (Kristof-Brown et al., 2005). A complementarity hypothesis related to optimized innovation seems reasonable since in this study the UM variables are related to ambiguity tolerance and uncertainty management which are by definition robust, personality-based perceptions (Budner, 1962; Clampitt & Williams, 2005; Frenkel-Brunswik, 1949; Norton, 1975). Therefore, the third hypothesis is put forward:

*H<sub>3</sub>*: Complementary person-organization UM fit will predict higher levels of innovation than similar person-organization UM fit.

## ***Method***

### ***Data Collection***

Liaisons at a large government funded research facility were contacted at the office in charge of innovation research and training. Through them, the link to the study questionnaire was made available to each employee via Internet-based organizational channels. Initially, the questionnaire link was published in the company website, and then, as a means of improving participation, a center-wide email was sent to all employees asking them to consider volunteering for anonymous involvement in the study. According to the Zoomerang software used to conduct the survey, 447 actually visited the questionnaire site. Of those 447 who had the survey before them, 114 (26% of the 447) chose not to participate,

109 (24%) partially finished the survey, and 224 (50%) completed it. After outliers were omitted from the study, a total of 222 cases were included in the analysis. Among the participants, 63% were male and 37% were female. The mean age of respondents was 46.5 years, and ages ranged from 19 to 69 years. Tenure in the organization ranged from 1 to 51 years, and the mean was 17.57 years.

### ***Measures***

*Working Climate Survey.* Utilizing a 7-point Likert-type scale, Clampitt and William's Working Climate Survey (WCS) measures "how employees as well as organizations embrace uncertainty" (2005:4). Cronbach alpha coefficients for the Personal Uncertainty Scale were .69 and .73 for the Work Environment Uncertainty Scale (Clampitt & Williams, 2005). This measure is appropriate for the proposed study because unlike all other ambiguity tolerance instruments (Budner, 1962; MacDonald, 1970), most of the items frame UM within the context of doing jobs within an organization. For example, employees are asked to respond to items such as, "I need precise plans before starting a job," and "I need a definite sense of direction for a project."

*Job Satisfaction.* Using a 7-point Likert-type scale, the study utilized a 3-item measure of overall job satisfaction taken from the Michigan Assessment Questionnaire (MAQ), (Cammann, Fichman, Jenkins and Klesh, 1983). Previously utilized in P-O fit studies (Saks and Ashforth, 1997), its Cronbach alpha was .93.

*Creative Innovation.* Ettlíe and O'Keefe's (1982) 20-item scale measures innovative intentions and behaviors using a 5-point Likert-type scale. The Cronbach alpha for Ettlíe and O'Keefe's (1982) short-form instrument was 0.86 and such consistency has been demonstrated in other innovation studies (Drennan and Kennedy, 2000). This measure, unlike some other scales (Hurt, Joseph and Cook, 1977), does not focus on innovator traits but rather on innovative intentions and behaviors. Moreover, the Ettlíe and O'Keefe scale seemed appropriate to the study because it specifically frames innovative intentions and behaviors in a workplace context. For example, work is implied in items like the following, "I will be counted on to find a new use for existing methods or existing equipment."

*Control Variables.* Three kinds of demographic information were collected and entered as controls: gender, tenure, and age. A fourth control variable, general optimism, was measured using a 5-point Likert-type scale, the Life Orientation Test-Revised (LOT-R; Scheier, Carver & Bridges, 1994). The Cronbach alpha coefficient in a 2002 study was .78 (Brissette, Scheier & Carver, 2002).

### ***Analysis***

The present investigation replicated the four quadrant matrix used in the studies of UM and job satisfaction conducted by the Clampitt study group (Clampitt & Williams, 2000, 2005; Clampitt et al., 2002; Williams & Clampitt, 2003). These investigations focused on the fit between a person's self-reported uncertainty management style (PUM) and his/her perception of the organization's

uncertainty management climate (OUM). That is, the independent variable of the study was four categorical groups of people—first, those with high PUM/high OUM; second, those with high PUM/low OUM; third, those with low PUM/high OUM; and fourth, those with low PUM/low OUM. In addition, complementary fit variables, and high dissimilarity and low dissimilarity between PUM and OUM, also were constructed using median split method, and complementarity was examined by using separate ANCOVAs to compare person-organization fit dissimilarity and person-organization fit similarity.

## **Results**

### *Scale Reliability*

One of the stated purposes of this study was to independently replicate the research of Clampitt and Williams (2000, 2005) and particularly the use of their Working Climate Survey. In this investigation, the Cronbach alpha coefficients for the PUM and OUM were .69 and .87 respectively, comparing favorably with previous findings of Clampitt and Williams (2000, 2005)—for PUM, .69-70 and for OUM, .73.

For their OUM scale, Clampitt and Williams' (2000) principal component analysis extracted three components with eigen values of 3.67, 2.04, and 1.12 accounting for 62.1% of the variance. In this study, the OUM scale also had three similar components with eigen values of 5.32, 2.4, and 1.12 accounting for 73.1% of variance. For their PUM scale, Clampitt and Williams (2000) found three components with eigen values of 2.81, 1.77, and 1.54 accounting for 55.6% of variance, and likewise, this study found 3 similar components in the PUM scale with Eigen values of 3.15, 2.28, and 1.41 accounting for 57% of the variance. These statistics support the stability and consistency of the measure from one use to the next.

A factor analysis was conducted for each of the scales in the study. As suggested by Pallant (2004), prior to performing the analysis, the suitability of the data for factor analysis was confirmed by using Kaiser-Meyer-Okin (KMO) Measure of Sampling Adequacy (Kaiser, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954). All scales exceeded the recommend KMO value of .6, and all measured as statistically significant under Bartlett's test. Table 1 presents a summary of reliability testing both from the present study and from the past.

**Table 1 Cronbach Alphas for Scales**

<b>Scale</b>	<b><math>\alpha</math>, Alpha</b>	<b>Alphas in previous studies</b>
Working Climate Survey: PUM	.69	.69-70 (Clampitt and Williams, 2005, 2000)
Working Climate Survey: OUM	.87	.73 (Clampitt and Williams, 2005)
Job Satisfaction Scale	.89	.93 (Cammann et al., 1983)
Innovation Scale	.82	.86 (Ettlie and O'Keefe, 1982)
Life Orientation Test	.83	.78 (Scheier et al., 1994)



*Correlation Analysis*

Table 2 presents the means, standard deviations, and results of a Pearson product-moment correlation of the main variables in the study. In regard to the dependent variable, job satisfaction (JS), OUM had the largest positive relationship ( $r = .46$ ) of any variable. The positive OUM – Js connection pointed to possible support for Hypothesis 1 that says employees feel satisfied when their organizations embrace uncertainty. In regard to innovation, PUM had the association of highest magnitude ( $r = .45$ ), and in contrast, OUM had no significant correlation with innovation.

*Analyses of Covariance*

Hypothesis 1 stated that when supplies of organizational uncertainty management (OUM) are high in UM fit, satisfaction will be higher than when supplies of PUM are high. In Table 3, the ANCOVAs revealed that among the four fit variables, the strongest impact of UM fit on job satisfaction was high OUM in the context of high OUM/low PUM fit [ $F(1,213) = 19.7, p < .000$ ]. Examination of the estimated marginal means (emm) for two groups, high PUM and high OUM.

**Table 2 Means, Standard Deviations, and Correlations among Study Variables (N = 222)**

Variable	M	SD	1	2	3	4	5
1. Js	5.46	1.39	1				
2. Innov	3.55*	.44	.13**	1			
3.OUM	4.75	.66	.46***	.07	1		
4. PUM	4.09	1.08	.02	.45***	.03	1	
5. Opt	3.82*	.80	.36***	.19***	.28***	.08	1

*Note.* Js = job satisfaction; Innov = innovative intentions and behaviors; OUM = organization uncertainty management; PUM = person uncertainty management; Opt = optimistic disposition.

\*5-point scale; all others are 7-point \*\* $p < .05$ . \*\*\*  $p < .01$ .

**Table 3: Summary of ANCOVA Results for UM Fit and Job Satisfaction**

Source	<i>df</i>	<i>F</i>	<i>eta</i> <sup>2</sup>	<i>p</i>	<i>MSE</i>
Between subjects					
HPUM/HOUM	1	6.9*	.03	.009	1.65
LPUM/HOUM	1	19.7*	.09	.000	1.55
HPUM/LOUM	1	9.6*	.04	.002	1.63
LPUM/LOUM	1	14.9*	.07	.000	1.59

\* $p < .05$ .

Combinations further revealed high OUM combinations' significant contribution to job satisfaction ( $emm = 6.02$ ) in comparison to high PUM fit combinations ( $emm = 4.94$ ). Fit combinations of high OUM with both low and high PUM enhanced job satisfaction the most, and  $F$  test confirmed the significant effects of this pairwise comparison [ $F(2,212) = 21.45, p = .000, \eta^2 = .168$ ]. These findings modestly supported Hypothesis 1 regarding OUM and job satisfaction.

Hypothesis 2 predicted that high OUM fit matches would relate to innovation more highly than high PUM combinations. Contrary to this hypothesis, ANCOVA results reported in Table 4 showed the relationship with innovation of low OUM's matchup with low PUM [ $F(1,213) = 10.6, p = .001$ ] was second highest among all fit combinations, and the lowest association was the high OUM's matchup with low PUM [ $F(1,213) = 6.4, p = .012$ ]. In addition, estimated marginal means for innovation indicated high PUM fit matchups ( $emm = 3.69$ ) contributed slightly more to creative innovation than high OUM ( $emm = 3.57$ ), and the  $F$  test confirmed the significant effects of this pairwise comparison [ $F(2,212) = 6.55, p = .002, \eta^2 = .058$ ]. Therefore, Hypothesis 2 was not supported, and in fact, person uncertainty management was a slightly stronger contributor to innovation in the workplace.

**Table 4 Summary of ANCOVA Results for UM Fit and Innovation**

Source	<i>df</i>	<i>F</i>	$\eta^2$	<i>p</i>	<i>MSE</i>
Between subjects					
HPUM/HOUM	1	13.4*	.06	.000	.179
LPUM/HOUM	1	6.4*	.03	.012	.185
HPUM/LOUM	1	6.8*	.03	.010	.184
LPUM/LOUM	1	10.6*	.05	.001	.181

\* $p < .05$ .

Hypothesis 3 stated complementary person-organization UM fit would predict higher levels of innovation than similarity person-organization UM fit. However, Table 4 shows similarity P-O UM fit high/high [ $F(1,213) = 13.4, p = .000$ ] and low/low [ $F(1,213) = 10.6, p = .001$ ] associated most strongly with innovation. In Figure 2, simple complementarity expressed as high/low and low/high person-organization uncertainty management fit did not have a significantly stronger impact on innovation when compared to similarity fit (H/H and L/L). Thus, Hypothesis 3 was not supported. However, estimated marginal means for all four fit combinations pictured together in Figure 2 did provide a significant comparison [ $F(3,211) = 9.98, p = .000$ ] suggesting it was the high PUM group, cooperating in a complementary fashion both with high organization UM (idea generating climate) as well as low organization UM (idea evaluating climate), that best accounted for the total innovation reported.

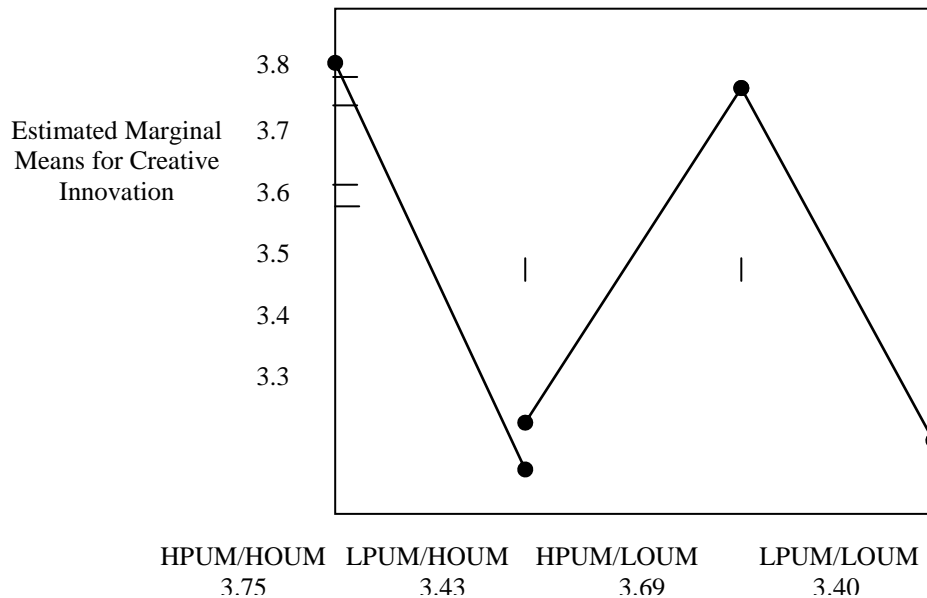


Figure 2 Effects of all OUM and PUM combinations on creative innovation

### Discussion

As predicted, organizational uncertainty management made the strongest contribution to job satisfaction, and this finding supported the results of research conducted by Clampitt and colleagues (Clampitt and Williams, 2000, 2005; Clampitt, Williams, and Dekoch, 2002). Data analyses showed high OUM's cooperation with both idea generators (high PUM) and idea evaluators (low PUM) best accounted for the total employee satisfaction in an innovative workplace. Even handed organizational efforts to supply support to both sides of this emotionally difficult but beneficial interaction may be a key ingredient to enhancing satisfaction in innovative efforts. Fostering optimal innovative performance will require this two-sided organizational support.

Contrary to expectation, person uncertainty management had a slightly greater impact on innovation than organization UM. This was also supported by the correlational findings that indicated PUM's almost exclusive contribution to innovation and OUM's non-significant relationship to innovation. This aligns with results of Choi's (2004a) person-environment fit study of creativity that also found creative behavior was strongly predicted by person characteristics to the exclusion of environmental support. However, this study's results suggested optimizing overall organizational innovation is not just a matter of hiring creative high PUM people but rather selection criteria should also emphasize the creative employee's ability to cooperate in complementary fashion both with those who generate new ideas as well as with those you contextualize and evaluate ideas within the organization.

Since uncertainty management is perception-based, personality variable, it was expected that simple complementary fit, i.e., high/low and low/high person-organization UM fit would be significantly related to enhanced innovation in the

workplace. However, this hypothesis focusing on simple complementarity was not supported. Alternatively, the analysis revealed another kind of complementary relationship within the high person UM group. Again, complementarity was found on a broader group level in that optimal innovation was best accounted for by the high UM people group as it cooperated with both high and low UM sides of the organization—the parts of the organization that generate new ideas as well as the parts that contextualize them.

### ***Limitations of the Study***

Theory reviewed in the existing literature suggested that organizations inherently tend to produce uniformity, and employees who do not fit in, are selected out over time; therefore, capturing complementary fit in the context of uncertainty management was a challenge. So predictably, focusing on employees who are out of sync with their organization greatly increased the difficulty of finding adequate numbers of cases for this aspect of the study.

### ***Future Research***

Although complementary cooperation helps an organization achieve innovative goals, still the process is very likely to generate significant interpersonal negative affect as a by-product. Future studies are needed that address moderators, on the person as well as organization level, that may mitigate the negative affective dynamics of the innovation process. Along these lines, communication styles and spirituality in the workplace and their buffering effects may need to be explored.

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