

## Role of Managerial Personality in Innovative Behavior at Workplace

Sadhana Singh and Akhilendra K. Singh

Banaras Hindu University Varanasi

Due to global competition in the workforce, issues of innovative work behaviors, and managerial personality are the prevailing themes for present-day organizations. These are crucial factors for organizational effectiveness and employees' well-being. In this study, an attempt was made to explore the linkage between personality traits and innovative work behavior of executives. For this purpose, the present study was carried out on 210 managerial personnel of different private sector organizations in India. The personality of the executives was measured using NEO-FFI (Costa & McCrae, 1992) whereas innovative work behavior was measured by the Innovative Work Behavior Scale (Janssen (2000)). The obtained data were analyzed using descriptive and inferential statistics. The results of hierarchical regression analysis show that neuroticism has no significant association with innovative work behavior. Extraversion, openness, and conscientiousness were significantly positively associated with innovative work behavior and its dimensions whereas agreeableness was significantly negatively associated with such behavior. Results were discussed in the light of available theory and research.

**Keywords:** Five-factor personality, innovative workplace behavior, front-level managers, hierarchical regression analysis

Creativity and innovation are vital for the long-term survival of organizations (Devanna & Tichy, 1990) because it enables organizations to remain competitive in a rapidly changing environment and achieve a competitive advantage (Amabile, 1988). Competitive advantage depends upon the organization's utilization of the existing creativity and its ability to generate new ideas and knowledge more efficiently and implement these ideas more effectively (Oldham & Cummings, 1996). When employees perform creatively, they come up with novel ideas and products that provide an organization with important raw materials for subsequent development that enhance the organization's ability to grow and compete (Oldham & Cummings, 1996).

### ***Innovative work behavior (IWB)***

The construct of Innovative work behavior (IWB) is closely related to employee creativity. However, researchers distinguished Creativity as idea generation from Innovation which is the implementation of these ideas (West, 2002). Innovation theory has repeatedly stressed that

innovation is broader than creativity and also includes the implementation of ideas (e.g., King & Anderson, 2002). Thus, IWB does not only include idea generation but also behaviors needed to implement ideas and achieve improvements that will enhance personal and/or organizational performance. Farr and Ford (1990) define innovative work behavior as an individual's behavior that aims to achieve the initiation and intentional introduction (within a work role, group, or organization) of new and useful ideas, processes, products, or procedures. Innovative behavior is an attempt to generate, discover, and execute fresh thoughts for the benefit of organizational results and preservation in their positions, group, or organization (Janssen, 2000, p. 202).

### ***Personality***

The American Psychological Association defines personality as "individual differences in characteristic patterns of thinking, feeling and behaving" (Kazdin 2000). In industrial and organizational psychology, personality research

has seen a clear resurgence since the early 1990s (Mount & Barrick, 1998). One likely cause of this resurgence is the popularity and usefulness of the Big Five personality model. In short, this model suggests that five broad factors (neuroticism, extraversion, openness, agreeableness, and conscientiousness) account for most of the variance in personality measures (Wiggins & Trapnell, 1997).

In particular, well-known meta-analyses from the 1990s used the Big-Five framework to demonstrate that personality is important for I/O psychology (e.g., Barrick & Mount, 1991). Most of these reviews show that conscientiousness and emotional stability consistently predict job performance for all job types (Barrick, et al., 2001). Also, job-specific and criterion-specific relationships between personality and performance were found for other factors (Tett, Jackson, & Rothstein, 1991). In addition, some researchers have suggested that personality is useful for predicting other work-related criteria, like job satisfaction (Goodstein & Lanyon, 1999; Judge, et al., 2002). Hence, exploring the association of the big five personalities with innovative work behavior may be fruitful in decision-making related to hiring.

### **Big Five Personality and Innovation**

#### **Neuroticism and innovation**

The relation between neuroticism and creativity is not obvious. A common saying behind this puzzled relationship is that creative people are likely to be neurotic because they have unusual and bizarre thoughts, and unusual imageries (Dowd, 1989). But this is only anticipation, no empirical finding is available that supports this (Berenbaum & Fujita, 1994). It is evident from past research that “high energy” and “self-confidence” characterize creative individuals (Barron & Harrington, 1981) but neurotics are slower and depressed persons.

Eysenck claims that neuroticism is the personality dimension most closely related to creative thinking and behavior (Gao, Zhang, Ma, & Du, 2020). However, at present, scholars have different opinions on the neuroticism and creativity relationship. For instance, some studies found that creativity is positively related

to neuroticism (Guo et al., 2017). In contrast, others have reported a negative association between neuroticism and creativity (Batey et al., 2010). Therefore, we hypothesized that neuroticism would be negatively associated with innovative work behavior (H1).

#### **Extraversion and Innovation**

Extroverts are described as active, passionate, and energetic (McCrae & Costa, 1990). They like social engagement and have a predisposed risk-taking tendency (Cropley, 1990). Studies show that creative accomplishments are positively correlated with a level of confidence and risk-taking behavior. These descriptions suggest that extraversion ought to relate positively to creative ability and creative accomplishments.

For extraversion characteristics, scholars have found that the influence of the extraversion of creative industry entrepreneurs on creativity is different from the previous conclusions. For instance, Zhang et al. (2017) argued that introversion is needed for creativity since it requires an introspective process that requires time alone. However, other researchers have suggested that extroverted entrepreneurs are energetic, enthusiastic, and divergent thinkers who can improve their creativity (Zhou & Hoever, 2014).

Niu (2014) contended that innovations hardly take place in isolation even though employees are the source of innovation. Therefore, it was hypothesized that extraversion would be positively correlated with innovative work behavior (H2).

#### **Openness and innovation**

Openness to Experience is related to scientific and artistic creativity, divergent thinking, and political liberalism (McCrae, 1987). The behavioral tendencies typically associated with this trait include being imaginative, cultured, curious, intelligent, and artistically sensitive (Barrick & Mount, 1991). Openness is a general appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and a variety of experiences. Studies support that it is a crucial trait for creativity (Carson, et al., 2003; Peterson & Carson, 2000). McCrae suggested

that openness to experience is the catalyst that leads to creative expression and exploration. Past studies supported that creative ability and creative accomplishment depend on the extent to which an individual is open to experience (Harris, 2004; Silvia, 2010).

Openness has been considered to be positively related to innovative work behavior (Hammond et al, 2011). Larijani and Saravi-Moghadam (2018) asserted that openness to experience is the most outstanding personality dimension for creativity and innovation. They also mentioned that numerous empirical studies show a positive connection between openness to experience and employees' innovativeness. Therefore, we hypothesized that openness to experience would be positively correlated with the innovative work behavior of managers (H3).

#### ***Agreeableness and Innovation***

Costa and McCrae (1992), describe the individuals high on agreeableness are "compassionate and good-natured" and are also "eager to cooperate and avoid conflict". These descriptions indicate that agreeableness may lead to conformity whereas creative accomplishment and innovations have tended to relate to independence of thought and action. Research has shown that creative individuals tend to be less conforming (Guncer & Oral, 1993) and more autonomous (Perkins, 1993). Patterson, et al., (2009) also revealed the negative influence of agreeableness on organizational innovation. So, it is expected that agreeableness will be negatively correlated with the innovative work behavior of employees (H4).

#### ***Conscientiousness and Innovation***

Conscientious individuals are hard-working, dependable, painstaking, as well as achievement-oriented and methodological. They are self-disciplined and are great followers of rules and regulations. Costa and McCrae (1992) found that Individuals with low conscientiousness engage more in fantasy and daydreams. The capacity for fantasy and imagination is crucial for creative ideas and accomplishment. The methodological and "no-nonsense" temperament of conscientiousness seems to oppose the open-

mindedness that characterizes the creative person.

Furthermore, et al., (2013) proposed that traits related to hardworking and meticulousness are not related to innovation. Those who lack conscientiousness are inclined towards creativity. But, Rothmann and Coetzer (2003) reported that conscientiousness is motivating one's creativity. Therefore, it was hypothesized that conscientiousness would be negatively related to the innovative work behavior of managers (H5).

### **Method**

#### ***Sample***

The present investigation was carried out on 210 middle-level male managers belonging to different private sector organizations in India. The reason behind taking only the private sector is the specific treatment received by the employees who make them more sensitive and insecure about their job and performance. Their age range was found to be 24 to 65 years with a mean of 38.54 years and SD 8.20 years; organizational tenure ranged from 1.5 to 38 years with a mean of 14.22 years and SD 8.05 years.

#### ***Tools***

NEO Five Factor Personality Inventory (Costa & McCrae, 1992): Personality trait of executive was assessed using NEO-Five Factor Inventory. The scale consists of five subscales namely Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. It contains a total of 60 items (12 for each dimension) and follows a five-point response format. The reliability of the scale was found to be .85 for Neuroticism, .80 for Extraversion, .68 for openness, .75 for Agreeableness, and .83 for Conscientiousness.

Innovative Work Behavior Scale (Janssen, 2000): Innovative work behaviour scale was used to measure innovative behaviour of executives. This scale consists of 9 items and comprises three subscales namely idea generation, idea promotion, and idea implementation (three items in each subscale). The reliability of this scale was found to be .87.

### Procedure

In the present investigation first of all necessary permission for data collection was sought from the personnel or HR Department from different organizations, selected for the study. While collecting data; after establishing rapport with the employees the purpose of the research was explained. When it was found that the particular employee was convinced to participate in the study; the necessary instructions were given to the employee and above-mentioned scales were administered directly to the target person. Participants were informed about the confidentiality of their data and they were not paid for their participation in the study.

### Result

The obtained data was analyzed by using correlation and regression analysis. Table 1 reported the Mean Standard deviation and Bivariate correlation between the big five personality traits and innovative work behavior.

Perusals of Table 1 indicate that neuroticism and agreeableness were not significantly correlated with any dimensions of innovative work behavior. Extraversion is significantly positively correlated with idea generation, idea promotion, idea implementation, and overall innovative work behavior. Openness has also shown a significant positive correlation with idea generation, idea promotion, idea implementation, and overall innovative work behavior. Table 1

also reveals that conscientiousness significantly positively correlated with idea generation, idea implementation, and overall innovative work behavior, but its correlation with idea promotion was found statistically non-significant.

Further hierarchal regression analysis was applied to find out the relative contribution of the big five personality traits in innovative work behavior. In this analysis, neuroticism was entered in the first block, and the rest of the other four traits namely extraversion, openness, agreeableness, and conscientiousness were entered in the second block of the model. The reason behind this separation is the nature of the variable itself. In the Big Five taxonomy extraversion, openness, agreeableness, and conscientiousness are positive traits, whereas neuroticism has a reverse scoring pattern. Due to its reverse scoring pattern, it is imperative to partially out its effect from the rest of the predictors to avoid a major suppression effect. The results hierarchical regression analysis was recorded in Table 2.

Results reported in table 2 indicate that neuroticism was not significantly associated with innovative work behavior and with any of its dimensions. Examinations of Table 2 also reveal that extraversion was significantly positively associated with idea generation ( $\beta=.186$ ,  $p<.01$ ), idea promotion ( $\beta=.255$ ,  $p<.01$ ), idea implementation ( $\beta=.148$ ,  $p<.05$ ) and overall innovative work behavior ( $\beta=.235$ ,

**Table 1. Means, SD, and correlation matrix (N = 210).**

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. Idea Generation	16.15	3.23	-							
2. Idea promotion	10.00	2.44	.52**	-						
3. Idea implementation	15.03	3.56	.45**	.47**	-					
4. Innovative Work Behavior	41.19	7.45	.82**	.78**	.82**	-				
5. Neuroticism	33.66	4.85	-.10	-.09	-.10	-.12	-			
6. Extraversion	42.31	4.78	.25**	.23**	.26**	.31**	-.16*	-		
7. Openness	37.74	4.68	.17*	.16*	.31**	.27**	-.11	.28**	-	
8. Agreeableness	38.92	4.68	-.03	-.06	.08	.01	-.17*	.44**	.32**	-
9. Conscientiousness	45.66	4.79	.27**	.10	.26**	.27**	-.11	.47**	.15*	.56**

\* $p<.05$  \*\* $p<.01$

**Table 2. Summary of the results of hierarchy regression analysis for personality as a predictor and innovative work behavior as a criterion variable**

Independent Variables	Dependent Variable (Innovative Work Behaviour)							
	Idea Generation		Idea promotion		Idea implementation		Innovative Work Behaviour (overall)	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
First Step								
Neuroticism	-.096	-.070	-.095	-.075	-.101	-.056	-.121	-.081
Second Step								
Extraversion		.186**		.255**		.148*		.235**
Openness		.174**		.155*		.295**		.267**
Agreeableness		-.382**		-.300**		-.242**		-.379**
Conscientiousness		.366**		.112		.273**		.325**
R <sup>2</sup>	.01	.19	.01	.12	.01	.19	.02	.24
R <sup>2</sup> change	.01	.18	.01	.11	.01	.18	.02	.22
F change a	1.94	11.64**	1.89	6.45**	2.16	11.06**	3.09	15.28**

Step 1 degree of freedom = 1, 208, Step 2 degree of freedom = 4, 204

\*P<0.05, \*\*P< 0.01 Note: The standardized β's reported in the table.

p<.01). Openness was significantly positively associated with idea generation (β=.174, p<.01), idea promotion (β=.155, p<.05), idea implementation (β=.295, p<.01) and overall innovative work behavior (β=.267, p<.01). On the other hand, agreeableness has a significant negative association with idea generation (β=-.382, p<.01), idea promotion (β=-.300, p<.01), idea implementation (β=-.242, p<.01) and with overall innovative work behavior (β=-.379, p<.01). The association of conscientiousness is also significantly positive in case of idea generation (β=.366, p<.01), idea implementation (β=.273, p<.01) and overall innovative work behavior (β=.325, p, <.01), but its association with idea promotion was found not significant.

Results reported in Table 2 also show that extraversion, openness, agreeableness, and conscientiousness jointly explain 18% of the total variance in predicting idea generation, 11% of the total variance in idea promotion, 18% of the total variance in idea implementation, and 22% of the total variance in predicting overall innovative work behavior. It is also clear from the result that neuroticism accounts for only 2% of

the total variance in predicting overall innovative work behavior.

### Discussion

To explore how Big Five personality traits influence Innovative work behaviors among managerial personnel was the main aim of this research. It was supposed that extraversion, and openness would be positively associated with innovative work behavior and its dimensions (H1, H2 & H3); whereas neuroticism, agreeableness and conscientiousness would be negatively associated with innovative work behavior and its dimensions (H4 & H5).

Results displayed in Table 1 show that neuroticism was negatively correlated with overall innovative work behavior and its three dimensions (idea generation, idea promotion, and idea implementation) but these correlations were not significant. Results of hierarchical regression analysis also supported the non-significant association of neuroticism with innovative work behavior (see Table 2). This result is consistent with the results of King, McKee, and Broyles (1996), who reported no

significant association between neuroticism and creative thinking or innovation. Chen, et al., (2010) also found that neuroticism had no significant effect on idea generation, idea promotion, and idea implementation (dimension of innovative behavior scale) which provides empirical support to our result. Therefore, hypothesis H1 is rejected

Results of correlational analysis indicate that extraversion is significantly positively correlated with idea generation, idea promotion, idea implementation, and total innovative work behavior. Results of hierarchical regression analysis also supported this trend of association. Our result is consistent with several recent studies in which researchers indicate that extroversion is a positive predictor of innovation (Furnham & Bachtiar, 2008; Wolfradt & Pretz, 2001). Furthermore, Chen, et al., (2010) reported that extraversion has a significant positive impact on idea generation, idea promotion, and idea implementation.

The association between extraversion and innovation seems to be context-dependent. Introversion is likely to be related to real-life artistic endeavors whereas extraversion seems to predict performance measures of creativity and innovation (Batey & Furnham, 2006). Therefore, hypothesis H2 is accepted

Results of correlational analysis indicate that openness is significantly positively correlated with idea generation, idea promotion, idea implementation, and total innovative work behavior. Results of hierarchical regression analysis also supported this trend of association. Our result is in line with several previous pieces of research in which openness was indicated as the most important personality dimension to predict the propensity for innovation (Patterson, 2002; Batey & Furnham, 2006; Wolfradt & Pretz, 2001).

There is good empirical evidence of a positive association between various characteristics associated with innovation and those used to depict openness e.g., imaginative, original, flexible, unconventional (Feist, 1998). Research suggests that openness enhances an individual's intrinsic motivation towards novelty and therefore

works in a multiplicative way to produce innovation (King et al., 1996).

McCrae (1987) theorized that individuals who are low on openness to experience may have little motivation to be creative, preferring the familiar rather than trying something new, whereas those with a higher level of openness to experience may enjoy novel situations and unfamiliar challenges. Therefore, it is logical that openness to experience is a valid positive predictor of innovative work behavior. Likewise, Chen, et al., (2010) reported that openness to experience has a significant positive impact on idea generation, idea promotion, and idea implementation. Therefore, hypothesis H3 is accepted

Results of correlational analysis indicate that agreeableness has no significant correlation with innovative work behavior and its dimensions whereas results of hierarchical regression analysis show that agreeableness was significantly negatively associated with idea generation, idea promotion, idea implementation, and total innovative work behavior. This kind of contradiction generally happens due to the suppression effect. In this case, it is expected that neuroticism might suppress the effect of agreeableness on innovative work behavior. In hierarchical regression analysis when the effect of neuroticism was controlled the effect of agreeableness appears vividly. Several earlier studies have demonstrated a negative association between agreeableness and innovation (George & Zhou, 2001; Gelade, 1997; Patterson, 1999). In other words, being more disagreeable is linked to innovation.

Empirical studies have confirmed the negative association between innovation and agreeableness by showing that innovators have high social rule independence. These findings are consistent with Eysenck's emphasis on the potentially negative dispositional characteristics of innovators, where innovators are often outspoken, uninhibited, quarrelsome, and sometimes asocial. Chen, et al., (2010) also reported that agreeableness has a significant negative impact on idea generation, idea promotion, and idea implementation. Therefore, hypothesis H4 is accepted

Results of correlational analysis indicate that conscientiousness is significantly positively correlated with idea generation, idea implementation, and total innovative work behavior. Furthermore, the results of hierarchical regression analysis supported this trend of association.

Our result is in contrast with the vast majority of research which has demonstrated that a lack of conscientiousness is associated with innovation (Gelade, 1997; Harrison et al., 2006; Runco, 2004). Defined by terms such as fastidious, ordered, neat, and methodical, the evidence shows that individuals high on conscientiousness are more resistant to changes at work, and are more likely to comply with current organizational norms. A study reported that the negative association between conscientiousness and creativity is likely to be moderated by contextual factors, such as lack of autonomy and support (George & Zhou, 2001). Other studies have also shown that the facets of conscientiousness that are most closely associated with lack of innovation are being methodical, ordered, and dutiful (Robertson, et al., 2000).

Hsieh, et al., (2011) also provided empirical support to our findings. They reported from their study that conscientiousness has a significant positive association with innovation (technological innovation and innovation capacity). Therefore, hypothesis H5 is rejected

#### **Implication of the study**

Implications of the study for selection lie in the possibility that personality may be a more useful selection tool. It is obvious from our study that extraversion, openness to experience, agreeableness and conscientiousness were found to be positively correlated with innovative work behaviour and its dimensions namely idea generation, idea promotion and idea implementation. Therefore, selection and hiring of such executives who are dominated in these personality traits will foster innovative work practices in organization.

#### **Limitations and direction for future research**

Despite of meticulous effort to examine the impact of dispositional variable (personality

traits) on innovative work practices, this study has several shortcomings. First the sample was collected from multiple organizations, which helps with generalizability but may have hurt sample equivalence. Consideration of only male managers of middle level management of private sector organization in the study might be another imperfection of the study. Future studies may use single organizations and may include the participants from all the level of hierarchy in organization in sample like front level managers, middle level managers and top-level managers of both gender (male and female). Future researcher might be conducted to compare the relationship of these variables in public and private sector organizations.

#### **Conclusion**

In sum, we can say that extraversion, openness, and conscientiousness are vital personality traits which kindle innovative behavior at work place whereas agreeableness hinders such kind of work behaviour among managerial personnel.

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**Sadhana Singh**, Ph.D., Lecturer in Psychology, GGIC Sadat, Ghazipur

**Akhilendra K. Singh**, Ph.D., Assistant Professor of Psychology, DAV PG College, BHU, Varanasi-221001. Email- [akhilendrabhu@gmail.com](mailto:akhilendrabhu@gmail.com) (Corresponding author)