

Do Personality Traits Matter in Fostering Innovative Work Behavior?

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Abstract: The creativity and innovative behavior of employees is crucial to determine the continuity and sustainability of any organization. Personality trait has a strong effect on workplace behaviors, attitudes, innovation and performance. This study investigated the relationship of the “Big Five” personality dimensions (Extraversion, emotional stability, agreeableness, conscientiousness and openness to experience) with innovative work behavior. A set of questionnaire was personally distributed to 63 employees at automotive components manufacturing in Selangor. Personality traits were assessed using McCrae and Costa while innovative work behavior was adopted from Kleysen and Street. The results indicated that one dimension of personality trait, i.e., openness to experience showed significant relationship ($r = 0.575$) with innovative work behavior. The other personality traits were not significantly related to innovative work behavior. Thus, the management can develop new strategies to boost innovative work behavior among employees in organization as personality trait is without a doubt an essential contributor in producing innovative employees. For future studies, the comparison between dimensions of innovative work behavior should be made and the use of different personality qualities is also recommended to allow for fundamental implications.

Key words: Personality traits, innovative work behavior, strategies, contributor, implications

INTRODUCTION

As 2015, Malaysia was ranked 32nd in Global Innovation Index (GII), compared to 33rd in 2014 while in 18th ranking in Global Competitiveness Index (GCI). Although, Malaysia has made an improvement in the GII and GCI, innovation in Malaysia is still at low level. Even though, various efforts have been carried out, there are still short of innovations in many sectors of the economy (MOSTI, 2006) and thus, resulted in slow development of the right environment for innovation to flourish in Malaysia (Ling and Nasurdin, 2010). During the Human Resource Consultative Panel (HRCP) Workshop on 17 June, 2008, one the challenges in human resource was talent management. It is believed that good talents will affect organizational and national competitiveness. One of the factors that contribute Malaysian businesses lagging behind other countries such as Singapore in terms of sustainability is Malaysia's lack of talent (Baharin and Abdullah, 2011). Every employee should possess the innovative mindset to support the organization in order to retain survive and success (Leong and Rasli, 2013) can be implemented by utilizing employee's ability to innovate (Jong and Hartog, 2008). Globally, there is pressure to

employ skillful and knowledgeable talent given that talented employees have been identified as a powerful source of competitive advantage. Talent management is the main pillar to creating an organization capable of learning, innovating and changing as well as executing new processes. Many empirical studies have been conducted to address factors that contribute to the employee's creativity (Amabile *et al.*, 1996; Oldham and Cummings, 1996; Zhou and Shalley, 2003) and innovative work behavior (Jong and Hartog, 2008). As evidenced, factors that contribute to creativity and innovation are encouraged particularly by a combination of individual qualities such as personality and cognitive style and external factor such as environment support (Amabile *et al.*, 1996; Ekvall, 1996; Scott and Bruce, 1994).

There are four factors which can be associated with innovative individuals namely intelligence, knowledge, motivation and personality (Patterson, 2002). As mentioned by Yesil and Sozbilir (2013) personality plays an important role in understanding human behavior. According to Hodgetts and Luthan (1991), personality is “an individual's characteristics and behavior, organized in a way that reflects the unique adjustment the person

makes to his or her environment". The Five Factor Model (FFM) or Big Five of personality has been widely used as a mechanism to measure and understand the individual personality. The five universal traits are agreeableness, conscientiousness, extraversion, openness to experience and neuroticism. Even though previous studies examined the relationship between personality and innovation, yet these results show inconsistency. Thus, the aim of this investigation is to understand the role of personality traits in shaping innovative work behavior in the organization.

Literature review

Innovative work behavior: Innovation is defined "as the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order" (Van de Ven, 1986). Innovation also is defined as "the process of engaging in behaviors designed to generate and implement new ideas, processes, products and services, regardless of the ultimate success of the phenomena". According to Amabile *et al.* (1996) innovation is "the successful implementation of creative ideas within an organization". Employees can be considered as vital resources besides capital, facilities, building and others. The creativity and innovative behavior of employees will determine the continuity and sustainability of the organization. The success of organization depends on the intelligence capability such as employee creativity rather than material assets (Amabile *et al.*, 1996).

There are many definitions of individual innovative behaviors found in the literature. Innovative work behavior is defined as "the intentional introduction and application (within an individual, group or organization) of ideas, processes, products or procedures which are relevant to the new unit of adoption, designed to significantly benefit the individual, the group, organization or wider society.

Innovative behavior is viewed as a multistage process and (Scott and Bruce, 1994) have outlined three multi-dimensional aspects namely idea generation, idea mobilization and idea realization. Idea generation is "a free-flowing activity where application, implication and consequences are identified and then shaped through refinement into a new ideas or set of ideas" (Mumford, 2000). At this stage, employees will identify opportunities and explore new ideas that contain original, relevant and useful criteria (Amabile *et al.*, 1996). The subsequent dimension is idea mobilization which is also known as idea promotion or idea championing. Here, the idea generated is promoted to the higher level in management such as top management or key organizational members in order to

bring the idea into practice (Kanter, 1988; Janssen, 2000; De Jong and Den Hartog, 2010). The aim of the last activity, idea implementation is to incorporate the ideas that were generated and promoted into the daily business and to realize those ideas that can be experienced and applied within the work role, group or organization (Kanter, 1988; Janssen, 2000; Kleysen and Street, 2001). In sum, the dimensions of innovative work behavior are considered as important elements in determining the level of employee's innovation and the survival of an organization. Each dimension has its own unique function in which employees must be given the opportunity to involve in all activities starting from generating idea up to the realizing phase. The aim generally is to change and bring improvement in one's current situation.

Personality traits

Agreeableness: Traits of agreeableness are good-natured, flexible, cooperative, caring, trusting and tolerant. Agreeable people are sympathetic and are willing to help other people. They also believe that other people will treat them in the same way. According to Costa and McCrae (1992) low agreeableness can be considered as narcissistic and antisocial and can be associated with paranoid personality disorders while high agreeableness is associated with the dependent personality disorder.

Conscientiousness: People who possess qualities such as organized, dependable, reliable, systematic, achievement oriented are best described as conscientious individual (Hogan *et al.*, 1996; Shaffer *et al.*, 2006; Tahir and Ismail, 2007). According to Borlongan (2008), people with high conscientiousness are normally low in creativity. Even so, conscientiousness people will use technology that would allow them to perform their work more efficiently and attain high level of work (Barrick and Mount, 1991).

Extraversion: Personality theory revealed that people high on extraversion are illustrated as searching for interaction opportunities with others, normally liking other people, being gregarious, assertive, dominant, energetic, active, talkative and enthusiastic (Costa and McCrae, 1992). In a simple term, extravert people are likely to be cheerful, social as well as seeking excitement and inspiration. Instead, introverts prefer to be alone and are illustrated as reserved, quiet and independent. Besides, extraversion is a good predictor of creativity and innovation (Zhou and Shalley, 2003; Batey and Furnham, 2006).

Openness to experience: Openness to experience is a personality dimension that characterizes someone who is intellectually curious and tends to seek new experiences and explore novel ideas, especially aspects of intelligence related to creativity (McCrae, 1987). Previous studies found this personality trait to be most consistently related to creativity (McCrae, 1987; Costa and McCrae, 1997; George and Zhou, 2001). Individuals who are high on openness to experience usually appreciate unusual ideas and imagination are curious and broadminded and like a variety of experiences. While individuals who are low on openness are more conventional and conservative, they prefer straightforward and obvious thoughts over complex and ambiguous ones (Costa and McCrae, 1997).

Neuroticism: According to McCrae and John (1992), “neuroticism signifies variances of individual tendency to experience suffering and is defined as emotionally insecure and uneven”. Individuals who score high on emotional stability are usually calm, even tempered and relaxed. They can handle stressful situations without getting upset (Costa and McCrae, 1992).

Personality traits and innovative work behavior: Previous study states that personality has a strong effect on workplace behaviors, attitudes and performance (Matzler *et al.*, 2011). Personality also plays an important role in understanding individual innovative behavior (Patterson, 2002). Numerous studies have found the relationship between personality traits and innovative behavior. However, the significant level is different and shows inconsistent results.

For example, a study conducted among marine tourism employees at China found that agreeableness, extraversion and openness to experience of personality traits were significantly correlated with the idea generation, idea promotion and idea implementation factor in innovative behavior. Meanwhile, the other two personality traits i.e., conscientiousness and neuroticism were not significant to innovative behavior (Chen *et al.*, 2010).

Another study had been conducted to investigate the relationship between entrepreneurial leadership and innovative behavior: the moderating effect of openness to experience and extraversion (Hong-Da *et al.*, 2014). The study reveals that positive effect of entrepreneurial self-efficacy on innovative behavior was stronger among subordinates who had a low openness to experience trait. The study also showed that the positive effect of individual entrepreneurial self-efficacy on performing innovative behavior is moderated by extraversion.

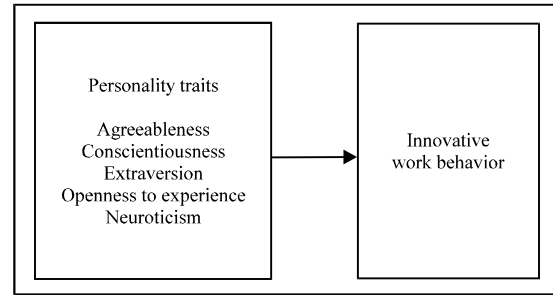


Fig. 1: Conceptual framework

In addition, a study investigating the impact of personality traits on individual innovation behavior in Turkey (Yesil and Sozbilir, 2013) involved 215 employees in ten small and medium sized hotels. Based on the findings, openness to experience has implications for individual innovation behavior while the other personality traits did not reflect any effect on individual innovation behavior.

Conceptual framework: In this study, personality traits served as independent variables in determining the influence towards innovative work behavior or dependent variable. Personality traits were measured through five dimensions namely agreeableness, conscientiousness, extraversion, openness to experience and neuroticism among employees in automotive components manufacturing. Therefore, this study proposes the following framework as illustrated in Fig. 1. Based on the conceptual framework, the hypotheses for this study is developed as:

- H₁: there is significant relationship between agreeableness and innovative work behavior
- H₂: there is significant relationship between conscientiousness and innovative work behavior
- H₃: there is significant relationship between extraversion and innovative work behavior
- H₄: there is significant relationship between openness to experience and innovative work behavior
- H₅: there is significant relationship between neuroticism and innovative work behavior

MATERIALS AND METHODS

Sampling frame is a set of elements from which a researcher can select a sample of the target population (Currihan, 2003). Listing of employees was obtained from the Human Resource Executive at the Automotive Components Manufacturing. Simple random sampling was

applied and each of the members has an equal and independent chance of being selected as the sample. The questionnaire was personally distributed to respondents. The items measurement for five dimensions of personality traits namely agreeableness, conscientiousness, extraversion, openness to experience and neuroticism was adopted from (Costa and McCrae, 1992) while the items to measure innovative work behavior were driven from (Kleysen and Street, 2001). The Cronbach's α value were 0.72 and 0.88, respectively. The scoring on the questions was based on a "5" point Likert scale with "1" for strongly disagree and "5" for strongly agree.

RESULTS AND DISCUSSION

Mean score for dimensions of personality traits: Table 1 summarizes the overall mean scores for all five dimensions of personality traits. The results depict that the respondents possess personality traits given the mean score ranging between 3.61 and 4.07.

Reliability analysis: The reliability coefficient for five dimensions of personality traits and innovative work behavior are above 0.70, these indicate that data used for this study met good internal consistency and reliability level required for significant analyses (Table 2).

Correlation analysis: Table 3 presents the correlation analysis and the data found that only openness to experience has a significant relationship with innovative work behavior. Meanwhile, there is no relationship between agreeableness, conscientiousness, extraversion and neuroticism and innovative work behavior among the employees in automotive components manufacturing. A finding of this study is consistent with the study conducted among hotel employees in Turkey (Yesil and Sozbilir, 2013). Accordingly, openness to experience positively influences individual innovative behavior with the r value 0.411. Among the five dimensions of personality traits, openness to experience is the most frequently investigated and has received consistent support in postulating a positive relationship with innovative work behavior which relates to creativity (Costa and McCrae, 1997; George and Zhou, 2001). The finding of this study is also consistent with Yesil and Sozbilir (2013) and Chen *et al.* (2010) where the openness to experience has a positive effect on individual innovative behavior.

Previous studies found that agreeableness demonstrated a negative association with innovative work behavior (Gelade, 1997; Patterson, 1999; George and

Table 1: Mean score and standard deviation

Personality traits	Mean	SD
Agreeableness	4.0778	0.54864
Conscientiousness	4.0222	0.62000
Extraversion	3.6222	0.45419
Openness to experience	3.6185	0.74658
Neuroticism	3.6963	0.70228

Table 2: Mean score and standard deviation

Items	No. of items	Cronbach's α
Personality traits	25	0.895
Agreeableness	5	0.755
Conscientiousness	5	0.738
Extraversion	5	0.837
Openness to experience	5	0.855
Neuroticism	5	0.799
Innovative work behavior	14	0.924

Table 3: Correlation between personality traits and innovative work behavior

Personality traits	R values	Hypothesis
Agreeableness	-1.810	H ₁ Rejected
Conscientiousness	-0.900	H ₂ Rejected
Extraversion	0.210	H ₃ Rejected
Openness to experience	0.575	H ₄ Fail to reject
Neuroticism	0.233	H ₅ Rejected

Zhou, 2001). A study done by Sung and Choi (2009) revealed that agreeableness is not significant with creativity performance.

According to Patterson *et al.* (2006), conscientiousness are not related to innovation. In addition, individual with low conscientiousness are associated with innovation (Barron and Harrington, 1981; Harrison *et al.*, 2002). Furthermore, individual with high conscientiousness are directed toward carrying out the given task efficiently rather than interrupt the given task flow by developing new ideas (George and Zhou, 2001). Empirical studies have proven that extraversion is a good predictor of creativity and innovation (Patterson, 2002; Batey and Furnham, 2006). In contrast a study done by Barrick *et al.* (2001), showed that extraversion is not a predictor of overall work related to creativity except for some specific occupations and specific criteria.

Neuroticism leads to unfavorable feelings in life (Magnus *et al.*, 1993). Previous studies found neuroticism is negatively related to job satisfaction which in turn may lead to innovative work behavior.

CONCLUSION

To sum up, this study attempted to investigate the influence of personality traits towards innovative work behavior. The findings demonstrate that openness to experience may encourage innovative researcher behavior in organizations. However, agreeableness, conscientiousness, extraversion and neuroticism did not

influence individual innovative behavior. Based on these findings, the management can develop new strategies to boost innovative work behavior among employees in organization. Furthermore, the findings give a clear understanding on employee's personality traits which is an essential contributor in producing innovative employees. As for the recommendation, further research can be carried out by comparing different dimensions of innovative work behavior for better understanding on the significance of each dimension. Other personality qualities such as proactive personality can also be used to measure the impact of individual personality deeply. Further research also should be involving greater sample size can permit more powerful hypotheses test.

ACKNOWLEDGEMENT

Researchers gratefully acknowledge the fieldwork support of student researcher, Shazleen N.M. Nor.

REFERENCES

- Amabile, T.M., R. Conti, H. Coon, J. Lazenby and M. Herron, 1996. Assessing the work environment for creativity. *Acad. Manage. J.*, 39: 1154-1184.
- Baharin, I. and A. Abdullah, 2011. Sustainable business in Malaysia: The need for talent ecosystem. *Int. J. Basic Appl. Sci.*, 11: 30-33.
- Barrick, M.R. and M.K. Mount, 1991. The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychol.*, 44: 1-26.
- Barrick, M.R., M.K. Mount and T.A. Judge, 2001. Personality and performance at the beginning of the new millennium: What do we know and where do we go next?. *Int. J. Selection Assess.*, 9: 9-30.
- Barron, F. and D.M. Harrington, 1981. Creativity, intelligence and personality. *Annu. Rev. Psychol.*, 32: 439-476.
- Batey, M. and A. Furnham, 2006. Creativity, intelligence and personality: A critical review of the scattered literature. *Genet. Soc. Gen. Psychol. Monogr.*, 132: 355-429.
- Borlongan, M.D.D., 2008. Goal orientation-creativity relationship: Openness to experience as a moderator. Master Thesis, San Jose State University, San Jose, California.
- Chen, S.C., M.C. Wu and C.H. Chen, 2010. Employee's personality traits, work motivation and innovative behavior in marine tourism industry. *J. Serv. Sci. Manage.*, 3: 198-205.
- Costa, P.T. and R.R. McCrae, 1992. Four ways five factors are basic. *Personality Individual Differences*, 13: 653-665.
- Costa, P.T. and R.R. McCrae, 1997. Conceptions and Correlates of Openness to Experience. In: *Handbook of Personality Psychology*, Hogan, R., J. Johnson and S. Briggs (Eds.). Academic Press, San Diego, CA., USA., ISBN-13: 978-0121346454, pp: 825-847.
- Currivan, D.B., 2003. *Sampling Frame: The Sage Encyclopedia of Social Science Research Methods*. SAGE Publisher, Thousand Oaks, California.
- De Jong, J. and D. Den Hartog, 2010. Measuring innovative work behaviour. *Creativity Innov. Manage.*, 19: 23-36.
- Ekvall, G., 1996. Organizational climate for creativity and innovation. *Eur. J. Work Organ. Psychol.*, 5: 105-123.
- Gelade, G.A., 1997. Creativity in conflict: The personality of the commercial creative. *J. Genet. Psychol.*, 158: 67-78.
- George, J.M. and J. Zhou, 2001. When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *J. Applied Psychol.*, 86: 513-524.
- Harrison, D.A., K.H. Price, J.H. Gavin and A.T. Florey, 2002. Time, teams and task performance: Changing effects of surface- and deep-level diversity on group functioning. *Acad. Manage. J.*, 45: 1029-1045.
- Hodgetts, R.M. and F. Luthan, 1991. *International Business Enterprises: Case Studies*. McGraw-Hill Companies, New York, USA.
- Hogan, R., J. Hogan and B.W. Roberts, 1996. Personality measurement and employment decisions: Questions and answers. *Am. Psychologist*, 51: 469-477.
- Hong-Da, L., C.C.H. Vivian, H. Chin-Tien and F. Wu-Chen, 2014. Relationship between entrepreneurial leadership and innovative behavior: The mediating effect of entrepreneurial self-efficacy and the moderating effect of openness to experience and extraversion. *Inform. Technol. J.*, 13: 1035-1044.
- Janssen, O., 2000. Job demands, perceptions of effort-reward fairness and innovative work behaviour. *J. Occup. Organiz. Psychol.*, 73: 287-302.
- Jong, J.P.D. and D.D.N. Hartog, 2008. Innovative work behavior: Measurement and validation. *EIM. Bus. Policy Res.*, 2008: 1-27.
- Kanter, R.M., 1988. When a thousand flowers bloom: Structural, collective and social conditions for innovation in organizations. *Res. Org. Behav.*, 10: 169-211.
- Kleysen, R.F. and C.T. Street, 2001. Toward a multi-dimensional measure of individual innovative behavior. *J. Intellectual Capital*, 2: 284-296.

- Leong, C.T. and A. Rasli, 2013. Differences in innovative work behaviour and everyday work role performance of employees: An empirical investigation. *Am. J. Econ.*, 3: 94-99.
- Ling, T.C. and A.Z. Nasurdin, 2010. The influence of knowledge management effectiveness on administrative innovation among Malaysian manufacturing firms. *Asian Acad. Manage. J.*, 15: 63-71.
- MOSTI, 2006. National survey of innovation 2002-2004. Science and Technology Information Centre, Putrajaya, Malaysian.
- Magnus, K., E. Diener, F. Fujita and W. Pavot, 1993. Extraversion and neuroticism as predictors of objective life events: A longitudinal analysis. *J. Personality Social Psychol.*, 65: 1046-1053.
- Matzler, K., B. Renzl, T. Mooradian, V.G. Krogh and J. Mueller, 2011. Personality traits, affective commitment, documentation of knowledge and knowledge sharing. *Int. J. Hum. Resou. Manage.*, 22: 296-310.
- McCrae, R.R. and O.P. John, 1992. An introduction to the five-factor model and its applications. *J. Personality*, 60: 175-215.
- McCrae, R.R., 1987. Creativity, divergent thinking and openness to experience. *J. Personality. Social Psychol.*, 52: 1258-1265.
- Mumford, M.D., 2000. Managing creative people: Strategies and tactics for innovation. *Human Resour. Manage. Rev.*, 10: 313-351.
- Oldham, G.R. and A. Cummings, 1996. Employee creativity: Personal and contextual factors at work. *Acad. Manage. J.*, 39: 607-634.
- Patterson, F., 1999. *The Innovation Potential Indicator, Manual and User's Guide*. Oxford Psychologists Press, Oxford, England.
- Patterson, F., 2002. Great Minds Dont Think Alike? Person-Level Predictors of Innovation at Work. In: *International Review of Industrial and Organizational Psychology*, Cary, L.C. and I.T. Robertson (Eds.). Wiley, Hoboken, New Jersey, ISBN:0-470-84295-4, pp: 115-144.
- Patterson, F., M. Kerrin and G. Gatto-Roissard, 2006. Characteristics and behaviours of innovative people in organizations. Literature Review, NESTA Policy and Research Unit (NPRU), London, UK.
- Scott, S.G. and R.A. Bruce, 1994. Determinants of innovative behavior: A path model of individual innovation in the workplace. *Acad. Manage. J.*, 37: 580-607.
- Shaffer, M.A., D.A. Harrison, H. Gregersen, J.S. Black and L.A. Ferzandi, 2006. You can take it with you: Individual differences and expatriate effectiveness. *J. Applied Psychol.*, 91: 109-125.
- Sung, S.Y. and J.N. Choi, 2009. Do big five personality factors affect individual creativity? The moderating role of extrinsic motivation. *Soc. Behav. Personality Int. J.*, 37: 941-956.
- Tahir, A.H.M. and M. Ismail, 2007. Cross-cultural challenges and adjustment of expatriates: A case study in Malaysia. *Turkish J. Int. Relat.*, 6: 72-98.
- Van de Ven, A.H., 1986. Central problems in the management of innovation. *Manage. Sci.*, 32: 590-607.
- Yesil, S. and F. Sozbulir, 2013. An empirical investigation into the impact of personality on individual innovation behaviour in the workplace. *Procedia Soc. Behav. Sci.*, 81: 840-851.
- Zhou, J. and C.E. Shalley, 2003. Research on employee creativity: A critical review and directions for future research. *Res. Personnel Hum. Resou. Manage.*, 22: 165-218.