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RESEARCH ARTICLE

THE ROLE OF BIG FIVE PERSONALITY ON INDIVIDUAL INNOVATIVE WORK BEHAVIOR OF EMPLOYEES

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ABSTRACT

Work skills enable employees to be able to complete assigned tasks successfully, efficiently and without any problems. The job skill that will be increasingly sought after is innovation. Innovative work behavior can be influenced by external factors and internal factors. One of the internal factors that influence employee innovative work behavior in the workplace is personality. The big five personality is a personality that can predict and explain individual behavior. The purpose of this study is to determine the impact of the big five personality traits on individual employees' innovative work behavior. This study involved 166 employees consisting of 66 male employees and 100 female employees of PT X. PT X is one of Indonesia's private banks. The data were collected using purposive sampling and the type of research used was non-experimental research with quantitative methods. The scale used were the innovative work behavior scale (α = 0.915) and the international personality item pool-five factor inventory (α = 0.904). The results of the analysis show that the extraversion dimension contributes 19%, agreeableness contributes 11.5%, conscientiousness contributes 11.2%, neuroticism contributes 6%, and openness to experience contributes 29.7% to employees' innovative work behavior.

KEYWORDS

Employee, Big Five Personality, Innovative Work Behavior

1. INTRODUCTION

The employees' job skills are one reason why the organization can accomplish its objectives. Employees that possess the necessary work skills are able to execute jobs successfully, quickly, and without any issues. Innovation is one of 10 occupational skills that are anticipated to become more in-demand during the next five years, according to the World Economic Forum (Whiting, 2020). Innovation and creativity are frequently linked despite the fact that they are both distinct. Sternberg and Lubart, 1999, as describe creativity as the ability to create something that is both novel and appropriate (McLean, 2005). While innovation is defined by Van de Ven and Angle, 1998, as the process of creating and putting new ideas into practice. As a result, it is possible to conclude that creativity is subjective, whereas innovation can be quantified in terms of developing something new, whether it is a product, concept, or strategy.

For a firm to expand, remain relevant, and establish its brand, innovation is crucial (Widiarini, 2020). The banking industry is one of the business areas that needs to keep innovating. According to, banks must innovate to keep up with shifting client expectations, streamline internal procedures, and preserve market dominance. Additionally, quoted from Deputy President Director of Bank Central Asia (BCA) stated that banks can compete with the highly regarded fintech startups by innovating in the banking industry (Blake, 2021; Faqir, 2020). PT X is an illustration of a business that never stops innovating. With the help of this innovation, PT X has grown to become one of Indonesia's biggest private banks, serving millions of both individual and corporate clients.

A contributing factor in the failure of product innovation, according to the Ministry of Finance of the Republic of Indonesia as cited in is employees' less innovative behavior. It is possible to define innovative work behavior as the deliberate development, introduction, and use of new ideas in work roles, groups, or organizations in order to increase performance West and Farr, 1989 as cited in (Janssen, 2000; Umam, 2018). This concept restricts innovative behavior to an intentional effort to achieve novel and beneficial outcomes. A further definition of innovative behavior is behavior that is directed at creating and executing fresh and useful concepts, methods, products, or practices *in a professional capacity, within a team, or within an organization* Farr and Ford, 1990 as cited in de Jong and den Hartog, 2007. It is crucial to understand the variables that can affect innovative work behavior at work since it is necessary for employees to engage in innovative work behavior in order to develop new ideas and see them through to product innovation.

Personality type is one of the internal factors that will be examined in this research. According to the big five theory is a personality theory that separates personality into five dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Feist et al., 2018). The openness to experience dimension reflects people's natural creativity, imagination, and curiosity. The conscientiousness dimension is made up of qualities like diligence, organization, hard effort, and ambition. The extraversion dimension depicts an affectionate, chatty, lively, and passionate individual. The agreeableness dimension depicts a person with a tender, dependable, and compassionate heart. Meanwhile, the neuroticism dimension expresses anxiety and emotionality.

This research is motivated by the research gap in several previous studies. According to, extraversion, conscientiousness, and openness to experiences all have an effect on an individual's innovative work behavior However, there was no correlation between agreeableness and neuroticism traits with innovative work behavior (Zuraik et al., 2020). However, according to extraversion, agreeableness, conscientiousness,

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and openness to experience all have a positive effect on an individual's capacity for innovation (Ali, 2019). While individual innovation was found to be negatively correlated with the neuroticism traits.

According to prior studies, researchers concluded that the only personality traits that were positively correlated with innovative work behavior were extraversion, conscientiousness, and openness to experience. According to some study, however, agreeableness also has a positive effect with innovative work behavior. Due to the fact that there is still study that shows differences, researcher wish to reinforce earlier research by examining the role of the big five personalities on individual innovative work behavior.

2. Literature Review

Innovative work behavior refers to the deliberate development, dissemination, and use of novel concepts in job roles, groups, or organizations with the goal of enhancing job, group, or organizational performance. This strategy restricts innovative behavior to deliberate attempts to generate original and intriguing concepts. However, innovation encompasses not just the stages of idea generation but also the stages of putting those ideas into action (Janssen, 2000).

In light of this, the term innovative work behavior refers to behavior that is focused on developing and implementing novel and helpful concepts, ideas, processes, products, or procedures in work positions, groups, or organizations (de Jong and den Hartog, 2007). As a result, all of the behaviors that contribute to the innovation process can be considered as part of the multidimensional construct known as innovative behavior.

The defines innovative work behavior as a complex behavior with three dimensions: idea generation, idea promotion, and idea realization (Janssen, 2000). The process of creating fresh, applicable ideas for any field is known as idea generation. Idea promotion is a post-idea process in which employees engage in social activities in order to locate friends, supporters, and sponsors, or to establish coalitions of supporters that give the necessary power. Idea realization, on the other hand, is a step in the innovation process that entails creating prototypes or innovation models that may be applied to jobs, groups, or organizations.

explained that there are four factors that influence innovative work behavior, namely individual differences, motivation, job characteristics, and contextual influences (Hammond et al., 2011). The two factors that make up the individual difference factor are personality and demographics. According to prior study, creative personality is positively related to innovative work behavior. In other words, an employee's innovative work behavior increases with their level of creativity. Previous studies have demonstrated that the big five personality can also affect innovative work behavior in addition to creative personality.

According to the big five personality is a personality that may predict and explain behavior (Feist et al., 2018). The big five technique is also used in psychology to evaluate human personality traits by categorizing them into five personality domains based on factor analysis. The five personality traits are extraversion, agreeableness, conscientiousness, neuroticism, and openness to experiences. The five big five dimensions can be used to explain each individual, although some people exhibit extreme values on one of the dimensions; in other words, people typically have one dominant factor among the five dimensions.

Each dimension has unique behavioral traits, according to Costa and McCrae, 1976 as cited in (Feist et al., 2018). A person with a high level of extraversion is usually cheerful and talkative. Individuals who have high levels of neuroticism are prone to anxiety and temperamental behavior. Individuals with a high level of openness to experiences are imaginative and curious. Individuals with high degrees of agreeableness frequently give and are willing to give in. While those who exhibit high degrees of conscientiousness are frequently dedicated and hard workers.

3. Methodology

Two characteristics made up the participants in this study. First and foremost, the participants are full-time employees of PT X. Second, the participants had been employed by PT X for at least a year, as per the researchers' belief that this allows participants to start innovating within the organization because they have adapted to and are familiar with their working environment. There are no restrictions on participation based on gender, religion, socioeconomic class, job title, family history, race, or ethnicity. The majority of participants were female (60.2%), aged 18 to 39 (66.9%), had an undergraduate degree (74.1%), had worked for one to five years (42.8%), and held staff positions (66.9%). This study employed a non-experimental quantitative method, gathering information from employees using online questionnaires. This study questionnaire is divided into five sections: introduction, informed consent, personal information, questionnaires, and conclusion. The participants first read the introduction, which includes a description of the research, and then move on to the stage of giving their informed consent. If they give this consent, the participants next fill out the personal information and questionnaires.

The measurement tool used to measure the big five personalities is the international personality item pool-five factor inventory (IPIP-FFI) scale developed by (Goldberg et al., 2006). Each question in this measuring tool uses five Likert scales, namely (1) very inaccurate; (2) moderately inaccurate; (3) neither accurate nor inaccurate; (4) moderately accurate; and (5) accurate. The initial Cronbach Alpha (α) value of this measuring instrument is .899. After item 9 and item 36 are dropped, the Cronbach Alpha (α) value of this measuring instrument is .904. The questionnaire consisted of 50 statements, which are divided into five dimensions, namely ten statements of the extraversion dimension (11, 6, 11, 16, 21, 26, 31, 36, 41, 46); ten statements of the agreeableness dimension (2, 7, 12, 17, 22, 27, 32, 37, 42, 47); ten statements of conscientiousness dimension (3, 8, 13, 18, 23, 28, 33, 38, 43, 48); ten statements of the neuroticism dimension (4, 9, 14, 19, 24, 29, 34, 39, 44, 49); and ten statements of the openess to experience dimension (5, 10, 15, 20, 25, 30, 35, 40, 45, 50). Examples of statements from the IPIP-FFI questionnaire are "I Am the life of the party" for the extraversion dimension, "I am interested in people" for the agreeableness dimension, "I am always prepared" for the conscientiousness dimension, "I get stressed easily" for the neuroticism dimension, and "I have rich vocabulary" for the openess to experience dimension. The IPIP-FFI questionnare had a fairly high level of reliability with dimensions of extraversion (α = .706), agreeableness (α = .792), conscientiousness (α = .829), neuroticism (α = .749), and openess to experience (α = .765).

The measurement tool used to measure innovative work behavior is the innovative work behavior (IWB) scale developed by Janssen (2000). This measuring instrument consists of nine items that refer to three dimensions of innovative work behavior. Each question in this measuring instrument uses seven Likert scales, namely (1) never; (2) rarely; (3) occasionally; (4) sometimes; (5) frequently; (6) usually; and (7) always. The Cronbach Alpha value of this measuring instrument is .930. The questionnaire consisted of nine statements, which are divided into three dimensions, namely three statements of the idea generation dimension (1, 2, 3); three statements of the idea promotion dimension (4, 5, 6); and three statements of the idea realization dimension (7, 8, 9). Examples of statements from the IWB questionnaire are "Creating new ideas for difficult issues" for the idea generation dimension, "Mobilizing support for innovative ideas" for the idea promotion dimension, and "Transforming innovative ideas into useful applications" for the idea realization dimension. The IWB questionnare had a fairly high level of reliability with dimensions of idea generation (α = .834), idea promotion (α = .858), and idea realization (α = .915).

A high Cronbach's Alpha coefficient indicates that all items have a high level of consistency as a measuring instrument based on the data processing outcomes. This study performed normality analysis, hypothesis analysis, and comparison analysis after gathering all the data.

4. Results

The Kolmogorov-Smirnov test method is used to perform a normality test as the first step in this study's data analysis, with the goal of determining the normality of the data set's obtained distribution graph. If p >.05., a data set is considered to be normally distributed. The big five personality variable and the innovative work behavior variable both showed p = .770 (p >.05) and p = .759 (p >.05), respectively, according to the results of the Kolmogorov-Smirnov test, indicating that the data in this study were distributed normally.

In order to continue analyzing the data after learning about the normal distribution of the data, the researcher performed a hypothesis analysis that was carried out using multiple linear regression. The big five personality variables have a significant positive influence on employee innovative work behavior by 27.3% (=.522; p=.05), according to the results of the data processing that has been done. In order to determine each of the big five personality dimensions' contribution to the innovative work behavior variable, a hypothesis test was also conducted on each of them.

Based on the results of data processing on the five big five personality dimensions, it is known that the extraversion dimension has a significant

positive effect on employee innovative work behavior by 19% (β= .436; p<.05), the agreeableness dimension has a significant positive effect on innovative work behavior employees by 11.5% (β= .339; p<.05), the conscientiousness dimension has a significant positive effect on employee innovative work behavior by 11.2% (β= .334; p<.05), the neuroticism dimension has a significant positive effect on innovative work behavior of employees by 6% (β= .245; p < .05), and the openness to experience dimension has a significant positive effect on innovative work behavior of employees by 29.7% (β= .545; p<.05).

Researchers processed demographic data for comparison analysis consisting of (a) gender, (b) age, (c) education level, (d) length of employment, and (g) job position. The IWB variable comparison analysis in terms of gender and age was carried out using the independent sample T-test technique. From the test results it was found that there were differences between the levels of IWB in male and female IWB. The results of the differential test showed that the male mean value ($\bar{x}$ = 5.303) was higher than the female mean value ($\bar{x}$ = 4.623) (Table 1). However, no differences in IWB rates were found between age groups.

The IWB variable comparison analysis in terms of education level, length of employment, and job position was carried out using the one-way ANOVA technique. From the test results it was found that there were differences in IWB. The results of the different tests show that the mean value of employees with a master's degree ($\bar{x}$ = 5,303) is the highest compared to other graduates (Table 2), the mean value of employees who have worked for 11-15 years ($\bar{x}$ = 5,510) is the highest (Table 3), and the mean value of employees with the highest manager position ($\bar{x}$ = 5,263) compared to employees in other positions (Table 4).

Table 1: Comparison Analysis in Terms of Gender

Gender	Mean	Std. Deviation	F	p
Male	5.303	.920	4.247	.041
Female	4.623	.163		

Table 2: Comparison Analysis in Level of Education

Age	Mean	Std. Deviation	F	p
High School	4.049	1.009	8.403	.000
Diploma	4.241	1.352		
Bachelor	5.033	1.062		
Master	5.546	.857		

Table 3: Comparison Analysis in Terms of Length of Employment

Length of Employment (years)	Mean	Std. Deviation	F	p
1 – 5	4.595	1.149	2.375	.032
6 – 10	4.930	1.134		
11 – 15	5.510	.795		
16 – 20	5.193	1.111		
21 – 25	5.296	1.029		
26 – 30	5.156	.837		
31 – 35	4.407	1.450		

Table 4: Comparison Analysis in Terms of Job Position

Job Position	Mean	Std. Deviation	F	p
Staff	4.730	1.124	3.731	.026
Manager	5.263	1.200		
Supervisor	5.187	.902		

5. Discussion

The five big five personality dimensions are discovered to play a significant role in employees' innovative work behavior, according to the findings of the study with PT X employees. These findings are consistent with Ali's research, 2019, which discovered that employee inventive work behavior is influenced by extraversion, conscientiousness, agreeableness, and openness to experience dimensions. In the meantime, who noted that people with high levels of neuroticism are typically characterized by worry and nervousness, can explain the aspects of neuroticism (Goldberg et al., 1981; Zuraik et al., 2020). These people will find it challenging to wait for ideas from others to be developed and implemented. According to Wang et al., 2014, as cited in examining alternate viewpoints from people with high degrees of neuroticism really demonstrates a favorable association between neuroticism and creativity, which is the first step in invention (Zuraik et al., 2020).

Researcher also compared respondents' innovative work behavior based on their gender, age, education level, length of employment, and position. It was discovered that there was a difference in innovative work behavior when employee gender was compared. This is consistent with study results, who discovered that gender had a substantial impact on innovative work behavior by (Østergaard et al., 2011). Additionally, according to research, men are more innovative than women (Janssen's, 2000). This is due to variances in work roles and positions within the firm. The majority of the time, women lack access or are not in positions of authority to use it. Due to these restrictions, women typically do not have the same opportunities to innovate Kim et al., 2016; Park et al., 2017; Powell et al., 2002, as cited in (Firdausiah and Etikariena, 2021).

Innovative work behavior did not differ depending on the employees' ages when age and innovative work behavior were compared. Contrary to the findings of study, which indicated that the age group of 25 to 44-year-olds who are currently in the establishment stage exhibit the most innovative work behavior, the results of this study are different (Etikariena's, 2018). In this instance, the researchers hypothesize that a result of the increasingly ferocious corporate competition, workers of all ages are also expected to be capable of developing innovations that can help organizations survive.

The innovative work behavior was then compared to the educational level of the employees, and it was discovered that there were differences in innovative work behavior between the educational levels of the employees. This is consistent with research, which indicated that a high level of education and innovative work behavior had a substantial impact (Etikariena's, 2018). These findings can be explained by the fact that education allows individuals to progress intellectually. In general, it can be said that an individual has a higher chance of improving their skills the more education they have had. As their level of education rises, innovative work behavior is therefore more likely to be displayed.

There were differences in the innovative work behaviors of the employees tested over a range of work durations, according to the results. This is consistent with finding that workers with more than ten years of experience are more likely to exhibit innovative work behavior (Etikariena's, 2018). This is probably due to the fact that the longer employees work for a company, the more they will understand their jobs and be able to develop new ideas.

Innovative work behavior was discovered to differ when compared to employee positions. According to this study, among the three types of employment positions, the manager position shown the most innovative work behavior, followed by the supervisor position, and the staff position displayed the least. A manager's job in a firm is to guide, control, and oversee the workers who report to them so that they can cooperate to accomplish organizational objectives. As a result, researchers predict that people in this role will be more inventive since they will help other workers innovate to meet organizational goals. Researcher, meanwhile, believe that staff members would exhibit less innovative behavior because they lack the authority to put their ideas into practice and will instead more frequently follow the instructions of their superiors.

6. Conclusion

This study found that employee personality plays a role in employee's innovative work behavior. Employees should therefore be able to better understand their own personalities in order to identify the variables that may affect their capacity to come up with an innovation. Employees can also learn more about other internal factors, like motivation to innovate, that affect innovative behavior in an organization. Companies are also expected to understand the value of innovative work behavior from their workers. As a result, businesses can create programs that encourage employee participation in the creation of innovation. It is also possible for businesses to be more receptive to employee suggestions for innovation.

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