

## EXPLORATION OF THE BIG FIVE PERSONALITY FACTOR AS DETERMINANTS OF JOB SATISFACTION AMONG SUPERVISORS IN SELECTED INDUSTRIES IN NIGERIA

Olujide A. Adekeye<sup>1\*</sup>, Angie O. Igbinoba<sup>2</sup>, Elizabeth I. Olowookere<sup>1</sup>, Sussan O. Adeusi<sup>1</sup>, Muyiwa A. Solarin<sup>1</sup> and Frederick Ahmadu<sup>3</sup>

<sup>1</sup>Dr. Department of Psychology, Covenant University, Ota, Nigeria.  
jide.adekeye@covenantuniversity.edu.ng

<sup>1</sup>Dr. Department of Psychology, Covenant University, Ota, Nigeria,  
elizabeth.olwookere@covenantuniversity.edu.ng

<sup>1</sup>Dr. Department of Psychology, Covenant University, Ota, Nigeria,  
sussan.adeusi@covenantuniversity.edu.ng

<sup>1</sup>Dr. Department of Psychology, Covenant University, Ota, Nigeria.  
adeniyi.sholarin@covenantuniversity.edu.ng

<sup>2</sup>PhD Candidate. Department of Mass Communication, Covenant University, Ota, Nigeria,  
angie.igbinoba@covenantuniversity.edu.ng

<sup>3</sup>Dr. Department of Sociology, Covenant University, Ota, Nigeria,  
Frederick.ahmadu@covenantuniversity.edu.ng

\*Corresponding Author

### Abstract

**Introduction:** The Five-Factor model of personality in the workplace clearly revealed a correlation between elements of the five-factor model and job performance but what is not clear is how the factors affect employee job satisfaction. The aim of this study is to explore how the Big-Five Personality Factor determines job satisfaction among factory workers at Agbara industrial complex.

**Methodology:** This study is cross-sectional and descriptive in nature. One hundred and ninety factory workers participated with mean age of 32.6 years. Two hypotheses were raised and tested. Two validated scales were used, the Big Five Inventory (BFI) and the Minnesota Job Satisfaction Questionnaire (MJSQ).

**Results:** Findings show a significant positive relationship between job satisfaction and different personality types-openness ( $r = .515$ ,  $df = 186$ ,  $p < 0.05$ ), conscientiousness ( $r = .285$ ,  $df = 186$ ,  $p < 0.05$ ), and extraversion ( $r = .146$ ,  $df = 186$ ,  $p < 0.05$ ). The result furthered revealed a significant effect of personality type in predicting job satisfaction ( $R = .524$ ,  $R^2 = .275$ ;  $F_{(5, 184)} = 13.960$ ,  $p < 0.05$ ).

**Conclusion:** This study concluded that five factor model of personality had a strong influence on the job satisfaction of factory workers. The finding will assist administrators to comprehend the importance of personality factors and its effect on employee job satisfaction.

**Keywords:** Personality, Big five, job satisfaction, supervisors, factory workers

## 1. INTRODUCTION

The concept of job satisfaction is based on a theoretical framework in the area of work motivation. Job satisfaction connotes among others an employee's thoughts and feelings towards their job and how they evaluate their job. George and Jones (1996) recognize that individuals are strongly predisposed to reflect reasonable constant and predictable moods and emotional states, and which determine the satisfaction experienced. Job satisfaction is therefore the degree to which an individual likes his or her job (Spector, 1997). The concept consists of an affective component, encompassing whether an individual's feeling is satisfied by the job, and a perceptual component, which assesses whether or not the job is meeting the personal needs of the individual. Job satisfaction according to Coomber & Barriball (2007) and Mobley, Horner and Hollingsworth (1978) is the primary predictor of intent to leave a profession or organization. Maslow's hierarchy of needs theory supports the argument that human needs are central to the control of human behaviour in organizations (Maslow, 1970). Importance is therefore placed on the fulfillment of the five critical levels of needs. Three of these, socialization, esteem and self-actualization, are key needs that relate to another popular motivation concept-the Herzberg's (1959) Motivation Hygiene theory.

Costa and McCrae (1992) developed the NEO-PI-R personality traits inventory that includes five factors: Neuroticism; Extraversion; Openness; Agreeableness; and Conscientiousness. The origin of Costa and McCrae's (1976) research was Cattell's 16 personality factors, extracted to the three domains of Neuroticism, Extraversion, and Openness. This was the original model called the NEO." In the past 30 years, an expanding literature has accumulated, giving general support to the argument that job satisfaction is, in part, dispositionally based (House, Shane, & Herold, 1996). Despite this widespread acceptance, a broad array of traits has been investigated, and there has been little integration in the literature. As Spector (1997) noted, "Although many traits have been shown to correlate significantly with job satisfaction, most research with personality has done little more than demonstrate relations without offering much theoretical explanation" (p. 51).

Personality as described by Robbins, Caspi & Moffitt (2002) is a system that is widely understood to be an inclusive and comprehensive organization that consists of individual parts, elements, units, sub-systems and processes that are interrelated and unified into a whole. Several tools were designed to measure personality and one popular measure is the use of the five domains as contained in the big five inventory (BFI). The five-factor model of personality, also popularly referred to as the Big Five (Goldberg, 1990) framework provides a comprehensive taxonomy to organize traits relevant to job satisfaction (Judge, Heller & Mount, 2002). The five dimensions are Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Judge, et al., (2002) through meta-analysis found that four of the Big Five traits were related to job satisfaction.

The five domains of the BFI have been found to contain all known personality traits and to provide the basic structure behind all personality traits. These include neuroticism or negative emotionality. This deals with whether a person adjusts to an unpleasant situation or becomes emotionally unstable. Individuals who score high in neuroticism are emotionally reactive and vulnerable to stress. Extraversion is the preference for social and lively activity and a need for stimulation while openness is the acceptance of new ideas, experiences and approaches. According to Costa & McCrae (1992), openness reflects the extent to which an individual desires uniqueness, variety, and change. Agreeableness is the quality of being compassionate and cooperative. This often reflects in thoughts, feelings and actions. Conscientiousness is the degree of organization, persistence and motivation towards a life goal. However, a person with an extremely high conscientiousness score may border on perfectionism by setting his or her sights too high.

The worker as a person is a critical determinant of job satisfaction. It is also the case that the situation and the interaction between the person and the situation are at the core of what determines job satisfaction. Arvey et al. (1991) provided an excellent review in this area. They differentiated the situational and individual components in the following statement. We adopt the perspective that the term 'situational' factors refers to variables and constructs which are predominantly associated with the job, the job environment, the job climate, organizational factors, and other 'non-person' factors. Similarly, we classify constructs such as 'dispositions' and traits as person factors. Pervin and John (1997) described each of these dimensions. Neuroticism contrasts emotional stability with a broad range of negative feelings, including anxiety, irritability, and nervous tension. Openness to Experience describes the breadth, depth and complexity of an individual's mental and experiential life. Extraversion and agreeableness both summarize traits that are interpersonal, that is, they capture what people do with each other and to each other. Finally, Conscientiousness primarily describes task and goal-directed behaviour and socially required impulse control.

Organ and Lingl (1995) selected the dimensions of agreeableness and conscientiousness to examine job

satisfaction and organizational citizenship behavior (OCB). They reported the following: The connection between conscientiousness and job satisfaction is not as obvious as that between agreeableness and job satisfaction. Though, we could imagine that a "conscientious" disposition would contribute indirectly to satisfaction in a number of ways: as a generalized work-involvement tendency (i.e., a liking for rule-governed behavior that probably is more characteristic of work in organizations than in other life domains); from a "virtue is its own reward" ethic; or from informal rewards (recognition, respect, compliments) generated from others who admire (even if they do not themselves emulate) this characteristic.

Many managers assume that job satisfaction determines job performance by positing that if an employee is satisfied and happy in his/her work that there will be a better performance than a person who is not happy at work. This assertion has been severally challenged. The question for this study is exploring if this assertion is true for factory workers. There is a general agreement that the five-factor model of personality can be used to describe the most salient aspects of personality. The five-factor structure has generalized across measures, cultures, and sources of ratings (McCrae & John, 1992). Although the five-factor model has been researched in many areas of industrial-organizational psychology, most notably with respect to job performance (Barrick & Mount, 1991), the relationship of the five-factor model to job satisfaction is much less studied. A number of studies have investigated relations between an isolated facet of the five-factor model (especially Neuroticism, Hlatywayo, Mhlanga & Zingwe, 2013) and job satisfaction. However, the review of the literature does not show a substantial focus on the relation between the big-five personality and job satisfaction. Many of the literature consulted concentrated on the big-five and job performance (Mount and Barrick, 1995) and personnel selection (Borman, Hanson and Hedge, 1997). This shows a limited number of empirical studies that have examined the big five as a key to understanding job satisfaction.

## **1.1 Objective**

The objective of this study is to investigate the relationship between the five-factor model of personality and job satisfaction and to determine if there is a significant effect of personality on job satisfaction.

## **1.2 Hypotheses**

1. There will be a significant relationship between personality type and job satisfaction
2. There will be a significant effect of personality type on job satisfaction.

## **2. METHODS**

The design used for this study is the survey research design. This study involved participants from some selected factories in an industrial location called Agbara. We selected participants from the human resource, marketing, quality control, engineering and the management training section. This initial selection generated a pool of 275 participants. Fifty-seven (57) declined participation while some questionnaire forms were not properly filled. At the end, only 190 questionnaire forms were properly filled and fit for use constituting 87% response rate.

Characteristics of the participants included a gender mix of 137 males (72.1%) and 53 females (27.9%). One hundred and eight (57%) participants were married, while 61 (32%) were single. The remaining 21 described their status as separated, widowed or divorced. Concerning the educational status of participants, about half 96 (50.5%) are ordinary national diploma (OND), 39 (20.5%) had higher national diploma (HND) while 44 (23.2) reported having the senior secondary school certificate.

Data on participants' years of experience shows that 152 (80%) had spent between one and three years while 6 participants each had spent less than a year and between 7 and 9 years on the job. on the distribution of participants by position, majority (72.1%) were classified as workers with 20 designated as management trainees. Two (1.1%) reported their job status or position as secretaries while 16 (8.4%) were senior staff. The remaining fifteen (7.9%) were supervisors.

### **2.1 Instrument**

The questionnaire form designated as Personality and Job Satisfaction Scale (PJSS) was divided into three parts. Part A was to elicit Sociodemographic information of participants such as age, gender, educational status, present position and years of experience. The Part B was subdivided into two sections. Section 1 measured personality by making use of the Big Five Inventory (BFI- John & Srivastava, 1999). Section 2 used the Minnesota Job Satisfaction Questionnaire (MSQ- Weiss, Darwin, England & Lofquist, 1967).

#### **2.1.1 Big Five Inventory (BFI)**

The BFI is a self-report inventory designed to measure the big five dimensions which are openness, conscientiousness, extraversion, agreeableness and neuroticism. It is quite brief for a multidimensional personality inventory. Scores are reversed for all negatively keyed items. This was developed by John & Srivastava (1999). It is a forty-four (44) item inventory and consists of short phrases with relatively accessible vocabulary. For the psychometric properties, McCrae, Costa & Goldberg (1992) reported a Cronbach alpha of .80 and reported a three month test-retest interval coefficient of .85 and a convergent validity of .75 and .85 when correlated with Big Five Inventory (Costa and McCrae, (1992) and Big Five Inventory (Goldberg, 1990) respectively.

### 2.1.2 Minnesota Job Satisfaction Questionnaire (MSQ).

Job satisfaction was measured using the Minnesota satisfaction questionnaire (MSQ). This was developed by Weiss, Darwin, England & Lofquist (1967). It is a twenty (20) item inventory earlier developed by the authors. It is designed to assess job satisfactoriness, which is a fulfillment a worker derives from his/her input into the environment. Weiss et al., (1967) reported a one week interval test-retest reliability coefficient of .89. a one year interval coefficient of .07. The concurrent validity by Wanous (1974) for American samples was .71 while Mogaji (1997) reported .50 for the Nigerian sample. Three components of the fulfillment can be obtained with the inventory and these are: intrinsic motivation, extrinsic satisfaction and general satisfaction. The likert type scale of 1 = Very Dissatisfied, 2 = Dissatisfied, 3 = not sure, 4 = Satisfied and 5 = Very Satisfied.

### 2.1.3 Psychometric Properties

The reliability of the Personality and Job Satisfaction Scale (PJSS) was ascertained by employing the test-retest reliability method using the Cronbach's Alpha. The test-retest reliability was carried out by administering the research scale to a group of 30 workers in Ota community (21 males and 9 females). After an interval of four weeks, it was re-administered to the same set of people (only 28 were available). The two sets of scores were correlated using the Pearson's r. The correlation coefficient was found to be 0.76. The multiple split halves (Cronbach's) returned a reliability of 0.79. The PJSS comprising of the two validated scales (BFI & MSQ) were therefore considered adequate for the conduct of this study.

## 2.2 Procedure for Data Collection and Analysis

Participants were selected from factories situated in Agbara industrial complex. The human resource managers assisted in providing estimates of the work force in the factory/organization and the available cadres. The human resource personnel helped distribute and collect the questionnaire forms and this led to many participants declining involvement in the survey, probably, not sure of its intended use or consequences. The forms were coded and the data set was cleaned as appropriate. The data was then subjected to statistical analyses. The Pearson's r and the one-way analysis of variance (ANOVA) were employed to analyze the data.

## 3. RESULTS

**Table 1: Correlation Analysis between the BFP and Employee Job Satisfaction**

Variables	N	Mean	SD	r	p
Openness	190	29.16	5.08	.515**	.000
Conscientiousness	190	25.60	4.56	.285**	.000
Extraversion	190	22.52	3.67	.146*	.022
Agreeableness	190	26.45	3.70	.062	.199
Neuroticism	190	22.87	3.94	.104	.077

\*\* : correlation is significant at the .01 level (1-tailed)

\* : correlation is significant at the .05 level (1-tailed)

This Table shows the relationship between the components of the big five personality and job satisfaction and the result reveals that three of the components were significantly correlated with employee job satisfaction. The result shows that openness ( $r = .515, p < .01$ ), conscientiousness ( $r = .285, p < .01$ ), and extraversion ( $r = .146, p < .05$ ) were significantly related to job satisfaction while agreeableness ( $r = .062, p > .05$ ) and neuroticism ( $r = .104, p > .05$ ) were not significantly related to the criterion variable. Based on this finding, the hypothesis which states that there will be a significant relationship between the big five personality and employee job satisfaction was retained for openness, conscientiousness and extraversion but was rejected for agreeableness and Neuroticism.

Table 2: Model Summary of the Regression Analysis

Model	R	R <sup>2</sup>	Adj R <sup>2</sup>	Error
1	.524(a)	.275	.255	11.63191

\*a: Predictors (constant), neuroticism, extraversion, conscientiousness, agreeableness, openness

In testing hypothesis two, regression analysis was carried out on the big five personality as the predictor variables and job satisfaction as the criterion variable. In this study, 27.5% of the variations in job satisfaction was accounted for by the big five personality.

Table 3: Regression Analysis on Employee Job Satisfaction (b)

Source	SS	MS	df	F	Sig.
Regression	9443.910	1888.782	5	13.960	.000(a)
Residual	24895.464	135.301	184		
Total	34339.374		189		

\*a: Predictors (constant), neuroticism, extraversion, conscientiousness, agreeableness, openness

b: Dependent variable- Job satisfaction

The model summary as presented in Tables 2 and 3 reveals that there is a significant effect of the big five personality on job satisfaction ( $R = .524$ ,  $R^2 = .275$ ,  $F_{(5, 184)} = 13.960$ ,  $p < .005$ ). Based on this result, hypothesis 2 was sustained.

#### 4. DISCUSSION

The result of the first hypothesis shows there was a significant relationship between job satisfaction and three (openness, conscientiousness and extraversion) of the five constructs of the big five personality. There was however, no significant relationship between agreeableness and neuroticism dimension of the big five personality and job satisfaction. The study by Day and Bedeian (1995) supports the finding from this study. They reported a positive relationship between both Extraversion and Conscientiousness and job satisfaction but did not find a significant correlation between job satisfaction and Agreeableness.

The lack of significant relationship between job satisfaction and neuroticism in this study contrast the findings of Tanoff (1999) who reported a negative and statistically significant correlation between neuroticism and job satisfaction in all but one of the areas examined in the study. In that study, neuroticism was significantly correlated to job satisfaction in ten of the eleven occupational categories. Other previous researches such as Furnham & Zacherl (1986); Organ & Lingl (1995) and Sterns, Alexander, Barrett, & Dambrot (1983) yielded mixed results in understanding the relation between job satisfaction and the big five personality. However, these studies did show some consistency in finding a relation between neuroticism and job satisfaction.

The study by Judge, Heller and Mount (2002) supports the findings of this study, they reported that extraversion and conscientiousness displayed moderate correlations with job satisfaction and further reported that conscientiousness displayed the second strongest correlation with job satisfaction. Tokar, Fisher and Subich (1998) noted in their review that greater job satisfaction was related to higher levels of extraversion. Barrack and Mount (1991) reported that conscientiousness displayed a strong correlation with job satisfaction while Costa and McCrae (1992) noted that extraverts are predisposed to experience positive emotions and such positive emotionality was likely to generate satisfaction with one's job.

Stemming from the relationship between job satisfaction and the BFI, hypothesis two revealed a significant effect of big five personality on job satisfaction. In this study, 27.5% of the variation in job satisfaction was accounted for by the big five personality. In support of this study, Tanoff (1999) reported that four of the five FFM variables (Neuroticism, Extraversion, Openness, and Agreeableness) combined to account for 14% of the explained variance in participants' job satisfaction. In a study, Fietze (2011) found all five personality traits to be important for the job satisfaction of German workers, albeit with a similarly low contribution to the explained variance ( $R^2 = .06$ ) compared to the present study.

#### 5 CONCLUSIONS

The results of this study support the hypothesis that there are linkages between personality and job

satisfaction. This study shows a significant relationship between job satisfaction and three domains (openness, conscientiousness and extraversion) of the BFI. Although McCrae and Costa (1990), and Costa and McCrae (1994) emphasized that the stability of adult personality and the possibility of life stressors influencing an individual's emotional stability should not be overlooked. This study shows that neuroticism had no significant relationship with job satisfaction and since neuroticism contributed in a fairly substantial fashion to the understanding of job satisfaction across occupational groups and in different job classifications in other studies there is the need to focus more on this domain in future studies.

## **6. ACKNOWLEDGEMENTS AND COMPETING INTERESTS STATEMENT**

The grant for this study was provided by Covenant University.

The authors declare that there are no competing or potential conflicts of interest.

## **REFERENCE LIST**

- Arvey, R. D., Carter, G. W., & Buerkley, D. K. (1991). Job satisfaction: Dispositional and situational influences. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology*: Vol. 6. (pp. 359-383). New York: John Wiley & Sons.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44: 1-26.
- Borman, W. C, Hanson, M. A., & Hedge, J. W. (1997). Personnel selection. *Annual Review of Psychology*, 48. 299-337.
- Costa, P. T., Jr., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFD professional manual. Odessa, FL: Psychological Assessment Resources.
- Costa, P. T., Jr., & McCrae, R. R. (1994). Set like plaster? Evidence for stability of adult personality. In T. F. Heatherton, & J. L. Weinberger (Eds.). *Can personality change?* (pp. 21-40). Washington DC: American Psychological Association.
- Coomber, B. & Barriball, K. L. (2007). Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. *International Journal of Nursing Studies*: 44(2): 297–314.
- Day, D. V., & Bedeian, A. G. (1995). Personality similarity and work-related outcomes among African-American nursing personnel: A test of the supplementary model of person-environment congruence. *Journal of Vocational Behavior*, 46. 55-70.
- Fietze, S. (2011). "Arbeitszufriedenheit und Persönlichkeit: 'Wer Schaffen Will, Muss Fröhlich Sein!.'" SOEP papers 388, 2011.
- Furnham, A., & Zacher, M. (1986). Personality and job satisfaction. *Personality and Individual Differences*, 7: 453-459.
- George, J. M., & Jones, G. R. (1996). The experience of mood turnover decisions: Interactive effects of value attainment, job satisfaction and positive mood. *Journal of Applied Psychology*, 78:111-118.
- Goldberg, L. R. (1990). An alternative "description of personality": The Big Five factor structure. *Journal of Personality and Social Psychology*, 59, 1216-1229.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World Publishing.
- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work*. New York, NY: John Wiley & Sons.
- Hlatywayo, C. K., Mhlanga, T. S., & Zingwe, T. (2013). *Mediterranean Journal of Social Sciences*.4 (13).
- House, R. J., Shane, S. A., & Herold, D. M. (1996). Rumors of the death of dispositional research are vastly exaggerated. *Academy of Management Review*, 21, 203–224.

- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102–138). New York: Guilford Press.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: a meta-analysis. *Journal of Applied Psychology*, 87(3): 530.
- Maslow, A. H. (1970). *Motivation and personality* (2<sup>nd</sup> ed.). New York: Harper and Row
- McCrae, R. R., & Costa, P. T., Jr. (1990). *Personality in adulthood*. New York: Guilford Press.
- Mobley, W. H., Horner, S. O. & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *J Appl Psychol.* 1978; 63(4):408–414.
- Mogaji, A.A. (1997). Effects of organizational climate on employee's commitment, involvement and motivation in some Nigerian manufacturing industries. University of Lagos.
- Mount, M. K., & Barrick, M. R. (1995). The Big Five personality dimensions: Implications for research and practice in human resources management. *Research in Personnel and Human Resources Management*, 13, 153-200.
- Organ, D. W., & Lingl, A. (1995). Personality, satisfaction, and organizational citizenship behavior. *Journal of Social Psychology*. 135. 339-350.
- Pervin, L. A., & John, O. P. (1997). *Personality: Theory and research* (7th ed.). New York: John Wiley & Sons.
- Robins, R. W., Caspi, A., & Moffitt, T. E. (2002). It's not just who you're with, it's who you are: personality and relationship experiences across multiple relationships. *J. Personal.* 70:925–64
- Spector, P. E. (1997). *Job Satisfaction: Application, Assessment, Causes, and Consequences*. Thousand Oaks, CA: SAGE
- Sterns, L., Alexander, R. A., Barrett, G. V., & Dambrot, F. H. (1983). The relationship of extraversion and neuroticism with job preferences and job satisfaction for clerical employees. *Journal of Occupational Psychology*. 56. 145-153.
- Tanoff, G. F. (1999). *Job Satisfaction and Personality: The Utility of the Five-Factor Model of Personality*. Unpublished PhD Thesis, Department of Applied Behavioral and Communication Sciences and the Graduate School of the University of Oregon
- Tokar, D. M., Fischer, A. R., & Mezydlo Subich, L. (1998). Personality and vocational behavior: A selective review of the literature, 1993-1997. *Journal of Vocational Behavior*, 53, 115-153.
- Wanous, J. P. (1974). A causal-correlation analysis of the job satisfaction and performance relationship. *Journal of Applied Psychology*, 59, 139-144. <http://dx.doi.org/10.1037/h0036532>
- Weiss, D. J., Darwin, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire*. Minnesota: IRC, University of Minnesota.