

Personality Traits and their Effects on Employee's Job Performance: Evidence from largest Agricultural Research Institutes in Oyo State, Nigeria

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ARTICLE INFO

Keywords: Personality Traits, Openness, Agreeableness, Agricultural Employees and Job Performance

ABSTRACT

This study determined the effects of personality traits on employee's job performance in selected agricultural research institutes in Oyo State, Nigeria. Two hundred eighty three (283) employees were randomly drawn from three largest agricultural research institutes. The mean age of the researchers was found at 35.4 years mostly being male (51.5%). Results indicated that the overall job performance was significantly influenced by openness ($b_1 = -0.36, p < 0.05$), agreeableness ($b_1 = -0.489, p < 0.05$), extroversion ($b_1 = 0.118, p < 0.05$) and functionality stability ($b_1 = -0.95, p < 0.05$). The findings clearly showed that with openness and functional stability of the researchers, their moral increased in their job and thus less willing to leave their organization. Internal packages that can increase researcher's zeal towards their job are highly recommended.

Introduction

Job performance by the employees has always been an issue before the organizations. Hence, it is the key responsibility of the employers to see that their employees are happy having a good work environment, fulfill their needs, encourage them in their initiatives, guarantee fairness in cadre promotion, create adequate infrastructural facilities, and overall induce a feeling of job satisfaction. Although these organizational obligations make employees more committed to high job performance, personality traits are a big block in determining individual job performance. Smith and DeNunzio (2020) have drawn five personality traits in this direction. *Extroversion*, a tendency of a person to be sociable, out-going, expressive, warm-hearted, and organizations' image building quality, *Agreeableness*, a vital component of social attitude in terms of interaction with co-workers, blending with other colleagues, interpersonal relationships, likeability, and quality of reaching a point of agreement on some controversial issue, *Conscientiousness*, a sense of diligent duty guided by the rules and regulations of the organization. A trustworthy and

reliable person who is the follower of strong adherence to norms and values of the organization, *Functional Ability*, a strong, stable, and influential person to lead the subordinates even when in stress, anxiety, and depression and the *Openness*, open-minded, creative, smart, eager to try new things, imaginative, thoughtful, intelligent, and independent thinking. In this study, these five personality traits were considered as independent variables. In addition, there are some basic socio-economic characteristics of the researchers like age, education, gender, income, experience, and religion also affect job performance. Therefore, the study examined whether personal socio-economic profiles of the researchers affect their job performance and explored whether five dimensional facets of personality traits have some significant impact on the job performance productivity.

Methodology

This study consisted of agricultural researchers from three purposively selected research institutes (Forest Research Institute

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Received 13-01-2020; Accepted 14-04-2020

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of Nigeria (FRIN), Cocoa Research Institute of Nigeria (CRIN), and Institute of Agricultural Research and Training (IAR&T) in Oyo State, Nigeria. These three research institutes were chosen based on their high levels of activity and staff strength. One hundred and five researchers were randomly selected from each of the three research institutes. A total of 315 researchers were thus selected. But valid responses were obtained from 283 respondents only. Hence, 283 researchers formed the sample size of the study. Structured questionnaires were used to elicit information from the respondents. The questionnaire consisted of seven socio-economic variables (age, gender, educational level, income, years of experience, and religion). Eight items scale developed by Brayfield and Rothe (1951) and adapted by Abiona (2016) was used to measure overall job performance. A five-big (Extroversion, Agreeableness, Functional stability, Conscientiousness, Openness) items scale developed by Meyer and Allen (1997) and adapted by Abiona (2017) was applied for measuring personality traits of the researchers. The hierarchical regression procedure was employed for the intervened analyses. However, the regression analysis ran into two stages.

Step 1: Relationship between socio-economic characteristics and Job performance

Step 2: Relationship between personality traits and job performance

Below is the equation of regression analysis used in this study:

$$\text{Prob}(Y = 1) = \ln (p/i - \pi) = T_1X_1 + T_2X_2 + T_3X_3 + T_4X_4 + \dots + T_nX_n$$

Where

Y= Employees Performance either 1 if Yes or 0 if No.

X₁ = Age of employees (years)

X₂ = Gender (1 for male, 0 for female)

X₃ = Income (Naira)

X₄ = Working experience (Years)

X₅ = Marital status (1 if married, 0 otherwise)

X₆ = Educational status (Years of schooling)

X₇ = personality traits (If yes 1, 0, otherwise)

Results and Discussion

The age of researchers ranged from 25 years to 57 years ($x = 35.46$ years, $SD = 9.68$ years). Majority (42.1%) were in the age range of 31-40 years (Table 1). It is worthy to note that most organizations will not prosper unless there are young, vibrant and energetic employees, they have the derive to push organizations ahead. Therefore, each organization must have a robust policy to retain them otherwise they have tendencies to move at a better place where they are well taken care of. This result is in line with the assertion of Barkhuizen *et al* (2012) and Abiona *et al* (2020) who established that age has a great influence on job performance. Also, more than half (51.5%) of the researchers were male and 48.5% were female. This observation is in line with the report of Nwokocha (2011) and Julie (2013) who asserted that male work-

ers constituted the major workforce in most research institutes in Southwest, Nigeria. Our study further revealed that 41.4% of the researchers had post graduate degree while 31.4% had B.Sc and 26.5% Higher Diploma certificate. This result is contrary to the findings of Abiona *et al* (2011) and Fapojuwo *et al* (2014) that were of the opinion that B. Sc. is the dominant qualification in most of the agricultural based organizations in Nigeria. It is further to note that more than half (59.6%) of the researchers were married while 31.3% were single. This observation is in line with the findings of Fapojuwo (2010) and Banmake and Oose (2012) who reported that there were more married people in research institutes due to the influence of tradition that compels mature people to get married. More so, the researchers had a treasure of professional knowledge in the organization ($x = 7.3$ years, $SD = 6.5$ years) and on an average received income of ₦92044.62 per month.

Table 2 shows five indicators which were used to measure personality traits (Extroversion, Agreeableness, Conscientiousness, Functional Stability and Openness). It was discovered that, functional stability (= 3.40) of the researchers positively influenced their job performance. This result is an indication that researchers who were strong, durable, and influential led others and subordinates well. This finding also corroborated the assertion of several authors like Hasso (2013) and Yang and Hwang (2014) who were of the opinion that individuals who have the ability to withstand stress, anxiety and depression function well. It was also noticed that openness (= 3.39) of the researchers was positively related to job performance. This result indicated that

Table 1 Socio-Economic Characteristics of the Researchers (n = 283)

Variables	Frequency	Percentage
Age (years)*		
Less or equal to 30	102	33.0
31-40	130	42.1
41-50	31	10.0
50 and above	46	14.9
Gender		
Male	159	51.5
Female	123	48.5
Educational level		
OND/HND	94	31.4
B.Sc/BA	82	26.5
M.Sc/Ph.D	128	41.4
Income (N)**		
Less than or equal to 50000naira	44	14.3
51000-100000	92	29.8
101000-150000	66	21.4
Greater than 150000	107	34.7
Years of Experience***		
Less than or equal to 5 years	128	41.4
6-10	101	38.5
More than 10 years	62	20.1
Religion		
Christianity	196	63.4
Islam	113	36.5

*Average 35.4; ** Average 92,044.62; *** Average 7.3

researchers with open mind tend to be creative, smart, eager to try new things, imaginative, thoughtful, intelligent and independent Hasso (2013) Yang and Hwang (2014). It could also be seen from this result that researchers with open mind perform and relate well with co-workers which make them to value the structure of the organization.

It was also noted that agreeableness (= 2.7) as one of the big-five personality traits is related to employee's job performance. This result implies that for employees to reach a point of agreement they must have some disagreement with each other. This result is in consonance with the findings of several authors like Yang *et al* (2014), Yang and Hwang (2014) who were of the opinion that agreeableness is a vital component of social attitude in terms of interaction among co-workers. This also refers to blending of such workers with other colleagues, interpersonal relationships, kindness, and likeability with reference to enhancement of organizational productivity.

Furthermore, extroversion trait (= 3.23) of the researchers was also related to job performance. Researchers who tend to be sociable, outgoing, expressive and warm-hearted have the tendencies to win more customers and at the same time promote the image of their organization. It could be reported that exhibition of this kind of trait in workers may pull more profits and lead to the attainment of organizational goal. This trait may also assist employees to coordinate better. This finding is supported by the reports of Lounsbury *et al* (2012) and Rajiv *et al* (2013) who were of the opinion that employees with high extroversion trait are more energetic, stable, outgoing, risk-bearing, cooperative and problem solving individuals. In addition, conscientiousness trait (= 3.22) of the researchers was also seen to have influenced their job performance. The essence of being conscientious means you are guided by the rules and regulations of the organization. Conscientious is a trait that is associated with trustworthiness, reliability and strong adherence to rules, norms and values with a sense of duty Norhiclayah *et al* (2016).

The socio-economic characteristics of the researchers (age, gender, educational level, marital status, income, religion and years of experience) were entered into the model to act as control (Table 3). Age (b = 0.55, p<0.05), years of experience (b = 0.22, p<0.05), educational level (b = 2.31, p<0.05), marital status (b = 0.41, p<0.05), income (b = -0.91, p<0.05) were significantly related to job performance. This implies that the higher the educational level of the researchers, they perform all well with their jobs. Similarly, lesser the age of workforce in organization, the better is their job performance. It could be reported that this particular variable may affect profit-driven organization if their care is not properly taken. Also, years of experience was found to have a positive relationship and significant at 5 percent level of probability. This result simply showed that employee exhibited their personality traits with length of time they have spent in their respective organization. More so, it was also discovered that marital status of the researchers was significantly related to job performance. This finding may be related to emotional life of the researchers, that is, for optimal job performance, employee must be balanced emotionally. This study also revealed that education

Table 2 Statements indicating different personality traits

PERSONALITY TRAITS STATEMENTS	Mean	SD	Grand mean
Extroversion			3.23
My organization organizes social function round the year	3.70	1.04	
Social function is allowed in my place of work	3.61	0.87	
There is cordial relationship between management and the entire staff	3.48	0.92	
Employees are very stable when it comes to relationship	3.24	0.94	
Activities are distributed on status	3.18	0.89	
Management encourages employees to go on vacation at the year-end	3.04	1.30	
Management compels employees to join some social organization	2.89	1.13	
Employees performed their duties with less supervision	2.61	1.15	
Employees are forced to do the work	2.23	0.83	
Agreeableness			3.27
Management demands cooperation among the employees	3.89	0.78	
Problem is shared equally when it comes to work	3.69	0.80	
Spirit of empathy is highly demonstrated in my organization	3.68	0.78	
Staff in my organization are modest	3.62	1.07	
Employees are very friendly in my place of work	3.46	0.88	
Employees are pardoned based on trust	3.34	0.97	
Rules and regulations in my organization are highly adhered to	3.27	0.87	
Task is completed based on obedience	3.18	0.83	
My organization is straight forward when it comes to salary increments	3.13	0.79	
Responsibilities are attached based on status and trust	3.06	1.00	
My Boss is tender-minded and considerate	2.75	0.99	
Conscientiousness			3.22
My boss loves when the work is done perfectly	3.77	1.31	
Employees perform their duties in an orderly manner in my organization	3.68	0.93	
Excuses by the employees are not permitted in my organization	3.43	1.33	
Leaders in Organization are punctual when it comes to duties	3.40	0.94	
Deliberate action is not allowed in my organization	3.37	1.02	
Leaders are fair in their judgment and decisions	3.23	1.05	
Activities are clearly tied up	3.08	1.33	

(Continued)

Table 2 (Continued)

PERSONALITY TRAITS STATEMENTS	Mean	SD	Grand mean
Employees perform their duty without procrastination	2.97	1.05	
Goals and objectives is difficult to achieve	2.71	1.23	
There is misunderstanding among the employees and the management	2.41	1.20	
Functional Stability			3.40
Promotion always makes me happy	3.81	0.88	
Staff are bold when it comes to lending employees in their organization	3.47	0.94	
Boss and employees are highly durable and strong	3.28	0.79	
I am highly thence when work are much in my place of work	3.24	1.26	
Some employees are hostile when it comes to work	3.17	0.87	
Most staff are not comfortable with the activities in the organization	3.10	0.98	
Harsh policies lead to anxiety in my organization	3.01	0.94	
I am always shy when it comes to presentation	2.80	1.04	
My boss is always moody	2.70	1.06	
Employees in place of work lack self esteem	2.58	1.02	
Openness			3.39
Management always values their staff if goals are met	3.90	0.94	
I always feel happy when it comes to promotion	3.88	0.93	
Organizational structure is very attractive	3.73	0.92	
I feel good about my work and organization	3.62	0.91	
Organization goals is main interest of the staff in my organization	3.56	0.98	
Ideas of the employees are welcome in my organization	3.69	0.88	
Work is designed in my organization based on creatively	3.46	1.24	
My team in my organization is very creative	3.35	1.02	
Opinion of employees counted when it comes to decision making	2.91	1.01	
Interest is generated from employees based on their shared contribution	2.77	0.99	

status of the employees had significance relationship to their job performance. That is, higher academic status may be required in some profit-driven organizations for sustainability and better image building in a dynamic environment. This result agrees with previous finding that workers with higher educational levels occupy higher ranks and therefore have more responsibilities that invariably required more attachment to the organization, Abiona *et al* (2014), Abiona (2015), and Adeogun *et al* (2019).

Furthermore, personality traits coded in the model had significant relationship between openness ($b = -0.36, p < 0.05$), extroversion ($b = 1.18, p < 0.05$), agreeableness ($b = -0.49, p < 0.05$), functional stability ($b = -0.95, p < 0.01$) and job performance. Personality traits of the researchers are expected to increase job performance. Thus, one would expect management or organization to be opened in various issues relating to staff to increase employee's job performance and thus reduce force to carry out their task. This current finding is consistent with previous findings that openness and functional stability of the researchers with the management enhances job satisfaction Bligh (2011), Desimoni and Leone (2014). This result points out that employee with open mind are curious, intelligent and seem to thrive in any situation that requires flexibility and learning new thing. Openness is highly significant with the researchers' job performance because they are highly motivated to accomplish the task as a matter of personal identity, Cooper *et al* (2014), Chandrashekhar and Drabhakar (2017).

The relationship between extroversion and agreeableness with job performance can be explained as a perception by the employees that adequate cooperation of the management and employees together is evidence in their social function and shows how helpful they are to other co-workers. It could be stated that most extrovert employees can easily change job due to their social connection Donges *et al* (2015), Chandrashekhr and Drabhakar (2017). It is worthy to note that openness of management in any organisation will increase performance and functional stability of workforce in their job. This result is also supported by the assertion of Ijaz and Khan (2015) and Adeogun *et al* (2019) who were of the opinion that employees become stabilize when they attend social function with their colleagues.

Table 3 Contribution of independent variables to employee's job performance

Variables	Standard Error	Coefficient	T
	19.191		3.216
Age	.055	.052	-1.745*
Gender	-1.108	-.055	-1.229
Educational Level	.143	.018	2.337**
Marital status	.416	-.022	.459
Income	.006	-1.00	-1.045
Conscientiousness	.222	.464	9.819***
Extroversion	1.180	.157	1.674*
Agreeableness	-0.489	-.240	-4.182***
Functional Stability	.960	.604	9.501***
Openness	.036	-.016	3.250***
R ²	0.509		
R	0.714		
F ratio	17.129		

Conclusion and Recommendations

The study showed that personality traits like openness, extroversion, agreeableness, and functional stability significantly affected employee's job performance. Regression analysis showed that openness, functional stability and extroversion were positively and significantly affected while agreeableness was negatively and significantly affected. The implication of this finding is that certain matters after rigorous considerations both the negative and positive sides are later agreed upon to move the organization forward to attain organizational goals. In addition, the significance of agreeableness as one of the big-five personality traits had yielded positive results despite the facts that most of the employees disagreed with each other. They, however, still come to the point of agreement in the interest of attaining the organisational goals. Also, the results conclude that functional stability was highly significant because most of the researchers were stable emotionally and physically. It is obvious from this study that the significant relationship between openness and job performance may go a long way to promote values of the organization thus assisting the attainment of organizational goals. The significance of the age of researchers across the three agricultural based organizations had helped the employees in relating with the co-workers. Based on the aforementioned, this study recommends that employee should be placed on the proper watch for better performance according to their personality traits. Also, effort should be made to align them in the positive sense for the attainment of organizational goals. Similarly, efforts should be made by the management to carefully identify various stabilizers that could enhance job performance.

Acknowledgement

Authors are grateful to the staff and management of the respective Research Institutes for their cooperation during the period of this study.

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