

PERSONALITY TRAITS AND GROUP PERFORMANCE IN A NIGERIAN MANUFACTURING FIRM: A STUDY OF WAHUM GROUP OF COMPANIES, LAGOS STATE, NIGERIA

AREMU, Nuha Salihu

Department of Industrial Relations and Personnel Management, Faculty of
Management Sciences,
University of Ilorin, Ilorin, Nigeria
nusaremu@gmail.com
+234-7033028246

AMOS, Jimoh Rafiu

Department of Business Administration,
Faculty of Management Sciences, University of Ilorin, Ilorin, Nigeria
amosa.jr@unilorin.edu.ng; jimohrafiu73@hotmail.com.
+234-8033747858

ADEYEMI, Emmanuel Adewale

Department of Business Administration,
Thomas Adewumi University, Oko-Irese, Kwara State, Nigeria
Adeyemi.emmanuel@tau.edu.ng
+234-7032717168

Corresponding email: jimohrafiu73@hotmail.com.

Abstract

The study aimed to examine the effect of employee personality traits on group performance among employees of West Africa Household Utilities Manufacturing Company (WAHUM) Nigeria Ltd. Lagos State. The target population comprises of workforce of the firm. Data was obtained from 290 employees chosen at random from WAHUM Group of companies. Questionnaire was adopted to collect data from respondents. Descriptive statistics was used to provide the demographic characteristics of respondents, and hypotheses were tested using regression analysis. Employee conscientiousness ($\beta = 0.421$; $t = 5.611$; $P < .05$) and employee extroversion ($\beta = 0.585$; $t = 6.702$; $P < .05$). The study hereby concluded that employee conscientiousness and extroversion as personalities traits significantly affect the level of group performance in the organization studied. Therefore, the paper recommends that the management of WAHUM group of companies should see conscientiousness and extrovertist individuals as an avenue to attain improved group performance and holistic organizational goals.

Keywords: Personality traits, Conscientiousness, Extroversion, Group performance, and Manufacturing Company.

Introduction

In modern rapidly growing business environment, the performance of work groups has been identified as one of the most important determinants of overall corporate performance. Typically, an organization is a corporate system where

work components operate interdependently towards achieving a common aim. In other words, the success of any business organization is not independent of its work units or groups. Olorunleke, Adesida, and Benjamin (2020) reported that work group engagement is a critical

component for all businesses, especially those in the manufacturing industry. Group performance cannot exist without individual contributions and personalities, just as the corporate firm cannot survive without the group performance. It can be established that the key element of any business organization is the contribution of each unit or department and the personality traits of the staff in each team.

Nowadays, organisations in the corporate world are aggressively in search of ways to attain greater height through effective and efficient group that can enhance organization success (Collins, 2014). Work groups are employed to help organizations meet their goals and objectives, which are crucial for addressing the economic, social, and technical challenges they confront (Colvin, 2012). In the manufacturing company, groups comprised of different line and staff managers and lower employees with various characteristics and personalities among the group. Personality is an individual's patterns of thought, feelings, behaviour, and attitudes that expressed how people interact with one another. Datu (2021) stated that group work is unavoidable in the Nigerian manufacturing company. Although, the differences in personalities might either lead to conflict. However, it seeks to ensure a better working environment from diverse perspectives.

Generally, the aim of building a sound and conducive environment for expertise and innovation to take place is the major aspiration of every manufacturing company. The personality of administrative staff, line managers, supervisors and non-office workers as in the manufacturing company is of great importance to achieving this goal. Similarly, Aremu, Olaonipekun and Ku'Iba (2018) opined that individual personalities have a lot to say about the state of corporate culture and its performance. This is because;

personality represents the mental and social characteristics of people which reflect their belief, emotions and behaviour. Workers are known around the world as implementers of expertise, knowledge, and skills, as well as users of these abilities to create commodities and services that benefit the entire world. As a result, having a nice and moral personality is essential for every worker, as the sustenance of every business stakeholder lies in their arm.

Statement of the Problem

Many employers in the Nigeria manufacturing company today, complain of skill gaps. Despite the fact that most hiring in the sector is based on qualification and certificates. However, it became widely known that most jobs in manufacturing do not require much more than a high school education (Carnevale et al., 2019). Therefore, the main problem is not actually the skills, but the quality and personalities that can aid the organization in gaining more strength in the competitive world. Osita, Uzoma and Worlu (2017) revealed that employees in the manufacturing company possess different personalities which is consequential to their level of contribution and performance in the organization. They affirmed that some employees are quiet, arrogant, pessimistic and egoistic, while others are social, affluent, modest and optimistic. These personality traits now interest employers of today as most employees in Nigerian manufacturing companies choose to engage themselves in cunning behaviour in exchange for their loyalty.

In Nigeria, numerous studies on five big personality traits and employee performance have been carried out, with the bulk of those studies focusing on the service sector (Aremu, Olaonipekun and Ku'Iba, 2018; Emecheta, Awa & Ukoha 2016; Olorunleke et al. 2020) therefore, research effort with specific focus on the manufacturing sub-sector is limited. To this end, this study sought to investigate the effect of individual personality traits

on group performance in the Nigerian manufacturing sub-sector with direct focus on WAHUM group of companies. Undoubtedly, most industrial companies in Nigeria are confronted with a number of environmental challenges, including insufficient power supply, a lack of funding, a paucity of high-quality raw materials, and unfavorable government policies and levies. Besides, they failed to see that good monitoring and control of individual personalities and groups within organizations may go a long way toward dealing with these recognized problems. However, it is obvious that most group efforts in many industrial businesses fail as a result of individual personalities (especially extroversion and conscientiousness), which have an influence on the performance of group and consequently on the organisation as a whole.

Objectives of the Study

The main objective of this study is to examine employee personality traits and its influence on group performance in a Nigerian manufacturing firm. The specific objectives of the study were to:

determine the effect of employee conscientiousness on group performance among staff of the WAHUM group of companies in Lagos state, Nigeria.

examine the influence of employee extroversion on group performance among staff of the WAHUM group of companies in Lagos state, Nigeria.

Literature Review

Concept of Individual Personality

Every human being is special and has certain unique characteristics that differentiate him or her from others in the society. These sets of characteristics and principles in individuals are regarded as personality. Collaco (2018) personality is defined as a set of differences in individual cognitive ability, emotion, and behavioural patterns. In the work environment, personality is considered as the central principles and dispositions of employees

which influences their way of life and manner of behaviour (Arrey, 2013). Additionally, it was defined by Datt (2021) as a collection of constant physical and mental characteristics or traits that work together to create distinctive personal recognition. Personality can be viewed as the traits which predicate certain employee's attitudes, reactions and behaviours in pertinent situations. Although lots of folks consider personality and personality traits as interchangeable, Akhtar, Boustani, Tsivrikos and Chamorro (2015) cited that there is a significant distinction. The core difference between personality and traits is that traits are set of features and characteristics that made up a person's personality, while personality is the means of expressing those characteristics or traits in a unique or different manner.

As reported by Ekinci, Hamarta, and Kizilkaya (2021), the common elements that made up personality in employees are identified as continuous steady features and characteristics that influences human attitudes, thoughts and emotions knowingly and unknowingly. Aslan (2021) opined that the manufacturing sector benefits greatly from the assessment of personality traits. This is due to the fact that it may be used to evaluate employees and determine which field to position them in throughout the hiring, selection, training, and development of individuals as well as the performance evaluation processes. Managers in the sector will as well benefit from recognizing personality features and utilizing them to their full capacity. Specifically, the notion of personality can solely assist individual workers in developing his/her personality traits in a good social context, allowing them to provide a higher level of competency and ethical behaviour (Chua, Yirong & Yang, 2020).

Concept of Group Performance

Performance can be defined as the level at which an individual executes the duties (Cascio, 2006). Performance of groups can be used to assess the level of competency among individuals in a group. Thus, group performance can be referred to the degree to which the members of a group contribute their efforts to the success of an organization. Fisher, Suzanne, Erich and James (2012) opined that group performance centered on not only the outcome, but also contributions of individual towards the goal attainment. It is viewed as a tripartite concept that in-corporate three basic components such as group efforts, effectiveness as well as group commitment. This approach is similar to the findings of earlier research and various empirical data support the idea that personality composition influences these outcomes.

In the manufacturing company, individual groups comprised of varieties of personnel with varied innate characteristics and distinct personalities. People in various work groups and departments have different attitudes, skills and abilities which aren't easy to alterate. This is because an individual's performance in a group is greatly influenced by inherited characteristics. Emecheta, Awa and Ukoha (2016) posited that although, people can alter their beliefs and behaviors, however, their innate tendencies will urge resistance and force their attitudes and

skills to be consistent with genetic predispositions. Subsequently, these behaviors tend to have great impact on group performance because it determines the first impression people have on individuals whether they view the world favorably or negatively, and whether they are industrious or idle.

Individual Personality Traits

Generally, the individual characteristics of personality tell who we are (Amit, Devasheesh & Tiffany, 2014). In every human's daily life, when one looks at other people, we often characterize them in certain ways. Some people are characterised as extroverts and outgoing, while other people are characterised as introverts because they are shy. Some are characterised with the leadership personality while some others are viewed as team members or followers with supportive traits. Overtime, the "five big personality traits model" is a classification created by experts based on a certain scale. The model provided five factors that describe unique characteristics or attributes of individuals in an organization. These traits are openness, conscientiousness, extraversion, agreeableness and neuroticism which are regarded as the five big traits in humans.

In giving adequate and prompt description of these types of personality, the study hereby presented the "five big personality traits" in the table 1. Below;

Table 1: Categories of Personality Traits

Source Used	Traits	Theoretical Clarifications
Olorunleke, et al (2020)	Openness	This refers to people that are open to new experiences, ideas and adventures. People with high levels of openness are more inventive, creative, and curious.
Obeid, Salleh and Nor (2017)	Conscientiousness	Employees with conscientiousness are more likely to commit to their organizations. because they concentrate on building a long-term relationship with their companies.

Erdheim, Wang and Zickar (2006)	Extraversion	Defined extroversion as a personality trait that affect individuals' ability to interact and socialize with people in the society.
He et al., 2015	Agreeableness	Agreeableness individuals tried to be kind to their colleagues. Agreeable who are cooperative and trustworthy pay attention to the quality of their relationships with others.
Lounsbury et al, (2007)	Neuroticism	Neuroticism is also called "negative affectivity." It refers to people's temperaments to experience negative or unstable emotional state, distressed, and view the world around them negatively.

Source: Author's Computation, 2023

Personality and group performance in Nigeria manufacturing firm

In any manufacturing firm, a group is formed in other to encourage diversity and better problem-solving skills in the workplace (Schulman, (2011). Since not every individual shares the same features, the group is made up of staff members whose personalities and traits fit into one of various types of qualities outlined above. Emecheta, Awa and Ukoha (2016) opined that collaborating within a group to address challenging issues can be aided by engaging in group work. Collaboration among group members would eventually lead to critical brainstorming among manufacturing professionals. This is a perfect opportunity for team members to make suggestions and come up with innovative solutions. Groups can find the best solutions by being a team.

Evidently, the group is made up of people with a variety of views, characteristics, behaviors, and personalities. This personality is a crucial aspect in determining how well the crew will work together and hence achieve success. Raymond Cattell's five-factor model, developed in 1940, which best explains individual personality. Erdheime et' al. (2006) opined that personality is a five-category system that divides human qualities into (a) openness to experience, (b) conscientiousness, (c) extraversion, (d) agreeableness, and (e) neuroticism. Every member of a given group falls into one of these groups. The diversity in

traits and personalities may lead to effective communication and high productivity if properly managed. For instance, if most staff in a particular manufacturing group are extroverts or classified agreeableness, there will smooth and efficient cooperation which will lead to high performance. Also, it may lead to conflict and low productivity on the other hand if not well managed. Thus, it becomes vital for the manufacturing sector to study the various personality traits of staff in a particular group and develop a strategy in maintaining personality diversity.

Theoretical Framework

Trait's theory

A personality trait according to J.P. Guilford, is any recognizable and long-lasting characteristic in which one person differs from another. This theory was propounded by Guilford (1936). A trait is a psychological construct or personality dimension approach that allows people to be classified based on how much of a characteristic they have. Personality traits are usually continuous dimensions that range from one extreme (e.g., highly strong) to the opposing extreme (e.g., extremely weak) (extremely weak). A person may fall between the two extremes or be positioned anywhere in the middle.

According to trait theory, which applies a quantitative approach to the study of personality, a person's personality is made up of traits that all possess a similar quality. A trait is any differentiating and relatively long-

lasting characteristics that differentiates a person from another. Traits that are broadly characterized in trait theory include compelling, sociable, arrogant, authoritative, ethnocentrism, introversion, extroversion, antagonism, and competitiveness. Characteristic experts claim that personality is more likely to be related to how customers make decisions and use a wide product category than a specific brand (Schiffman & Kanuk, 2008).

Empirical Review

Nezir et al. (2021) carried out an empirical study to investigate the relationships between personality traits and the grit levels of university students. Participants of the study are 379 students (304 females, 75 males). The study indicated a favourable and substantial association between grit levels and liability, openness to experience, extraversion, and adaption personality qualities. It was also shown that neuroticism and grit levels had a negative association. In relation to gender, there was no visible difference in grit levels between male and female pupils. However, it was shown that there was a considerable difference in adaptability and openness to experience between male and female pupils when it came to gender.

The study conducted by Olorunleke et al. (2020) evaluates how personality traits affect group performance of staff Union of Adekunle Ajasin University Akungba Akoko, Ondo state. This study was conducted using a cross-sectional survey research approach, with data collected from primary sources. According to the findings, the predictor factors in which individual is significant to group performance, therefore total influence of personality characteristic on group performance was significant ($F=15.055$). According to study, organizations should pay particular attention to personality traits because the way that people behave affects the performance and success of the group.

Gridwichai, Kulwanich, Piromkam, and Kwanmuangyanich (2020) investigated the effect of personality characteristics towards work performance in Thailand's pharmaceutical industry. Employees in the pharmaceutical industry at all levels were included in the study. The total respondents in the study is 340, and all responses were collected in Bangkok, Thailand. The researchers used Smart-PLS version 3 and SPSS 24 software to analyze the data. The study's main contribution is empirical support for reciprocal impacts on job performance. A pilot study on personality features and employee engagement in Thai pharmaceutical businesses was done. According to the findings, persons with high extraversion traits are always searching for a better career opportunity as well as recognition. They will be passionate and devoted to their current company if they can progress in it.

Sevi, Urganci and Sakman, (2020). studied the influence of the Big Five Personality Traits on job performance behavior in business organizations, specifically in Nigerian breweries and food/beverage manufacturing organizations. Data for the study is compiled from primary and secondary sources. The two assumptions are investigated using ANOVA (Analysis of Variance). The results show that in Nigerian breweries and fast-food manufacturing organizations, the Big five personality traits—openness to experience, conscientiousness, extraversion, agreeableness, and psychoticism affectivity (emotional stability)—all have a significant influence on job performance behaviors. Delima (2019) investigated the impact of personality traits on employee work performance. Delima emphasized that personality is part of the most important mental aspects influencing human behavior. The five personality traits stand for five main categories or facets of personality. Personality qualities have an essential influence in helping the

efficiency and effectiveness of employees' job performance at work. The results show that personality traits are positively correlated with job performance, and conscientiousness has traits that closely correlate with the job performance of individuals with the highest weights. Employee job performance is positively and significantly influenced by conscientiousness, extraversion, openness to experience, and agreeableness, while employee job performance is negatively and significantly impacted by neuroticism.

Aremu, Olaonipekun and Ku'Iba (2018) conducted research on personality and its effect of group performance in Al-Hikmah University, Ilorin. A structured questionnaire was used to obtain primary data. As shown by the study findings that when the big five personality traits are displayed positively, group performance improves. At the 5% level of significance, the results of various regression analyses also showed that the independent variables in the model jointly and substantially explain the effects of personality traits on group performance. According to the study, the big five personality qualities of extroversion, openness to experience, conscientiousness, agreeableness, and neuroticism have a considerable influence on group performance.

A research study conducted by Amit et al. (2014) among students from a large Midwestern university in the United

States to determine the association between personality factors and group performance. The study looked into the influence five big personality characteristic on the group's performance of group. The study used an experimental design in which participants received rewards based on how well they performed in two different group-based experimental tasks: an additive task and a subtractive task. The findings show that extraversion variability, but not conjunctive task performance, is related to group performance on the additive task. On the other hand, group performance on the conjunctive task is inversely related to neuroticism maximum score but not on the additive task.

Methodology

The research design used for the study is a descriptive survey research design. Descriptive research aims to provide a correct profile or description of individuals or a particular phenomenon. In this case, it appears that the study is focused on describing certain characteristics or aspects related to the staff of WAHUM Group of Companies in Lagos State. The target population for the study is the whole staff of WAHUM Group of Companies in Lagos State, which was reported to be 1,173 staff, including both temporary and permanent staff. The breakdown of the population as drawn out from of the organization is shown in the table 2. below;

Table 2: Population of the WAHUM Group of Companies

Study Area	Expatriate	Permanent Staff	Contract Staff	Total
Wahum Company Limited	27	293	155	475
Wahum Packaging Limited	16	275	234	525
Nigerchin Electrical Development Company Limited	10	150	13	173
Total	53	718	402	1,173

Source: Admin and Human Resource Department 2023

The sample size for the study was determined using the Raosoft Sample size calculator. Out of the total population, 290 individuals were randomly selected as the sample. These 290 individuals are employees from three subsidiary firms: Wahum Company Limited, Wahum Packaging Limited, and Nigerchin Electrical Development Company Limited.

Data Analysis and Results

Test of Hypotheses

Personality traits does not have any significant effects on group performance among staff of WAHUM group of companies in Lagos state.

Table 3: Regression Analysis

Model Summary					
Model 1	R=.763a	R ² =.581	Adj.R ² =.576		
	Sum of Square	Df	Mean Square	F	Sig
Regression	68.086	3	22.695	118.066	.000b
Residual	49.018	255	.192		
Total	117.104	258			
Variables	Unstandardized Coefficient (β)	Std. error	Standardized Coefficient (β)	T	Sig.
Constant	.233	.066		3.555	.000
Employee Conscientiousness	.421	.075	.447	5.611	.000
Employee Extroversion	.585	.020	.597	6.702	.000

Authors' Computation, 2023

The table 3.1 showed that personality traits have an important impact on the group performance in the Nigerian manufacturing company as evident in the WAHUM group of companies. From the regression analysis result, it was found in the model summary that the R value is 0.763, R² is 0.581 and adjusted R squared is 0.576 which all together indicates a stronger connection between the observed and the stated values of the variables. It was posited that employee conscientiousness and extroversion significantly predict the performance of groups among staff of WAHUM group of companies at 5% significant level. The predicting variables jointly contribute 94.9% to group performance.

However, 290 questionnaires were administered to the randomly selected staff of the three subsidiaries. The method of data analysis used for the study is regression analysis. Specifically, regression analysis was employed to test the two hypotheses of the study at a 5% level of significance.

This implies an extremely strong level of effect of these variables on the dependent variable whereas the remaining 5.1% could be clarified by the effect of other extraneous variables. According to the findings, employee conscientiousness and extroversion are personality traits that together have a positive and more significant effect on performance of the group. Specifically, employee conscientiousness ($\beta = 0.421$; $t = 5.611$; $P < .05$), and employee extroversion ($\beta = 0.585$; $t = 6.702$; $P < .05$) independently predicts group performance at 5% significant level.

From the above analysis, it was asserted that employee conscientiousness has a significant effect on the group

performance in the manufacturing company. This outcome is in tandem with that of Osita, et al. (2017) where they affirm that there is a favourable relationship between employee conscientiousness and their group behavior. They also affirmed that a unit increase in the level of employee conscientiousness otherwise known as carefulness will certainly influence a positive reflect of on the level of individual performance. Also, extrovertive trait of employees has a significant effect on the group performance in the manufacturing company. This assertion was in line with the findings of Njoku, Ebeh and Mbaeri (2017) who maintained that employees with extrovertive personalities are highly bonded with the organization with about 81% commitment level. Likewise, Sevi, Urganci and Sakman, (2020) supported that big five personality traits have effect on job performance specifically among employees of manufacturing organizations.

Conclusion and Recommendations

Conclusion

Corporate managers are currently challenged with recognizing employees' personality traits and understanding how to cope with these features in order to increase performance. The study aimed to examine the effect of personality traits on group performance in Nigeria manufacturing company. Results showed that (Conscientiousness = 0.421; $t = 5.611$; $P < .05$) indicating that self-disciplined individuals are competent, more hard working and goal driven which will aid them to contribute significantly to group objectives. Also, (Extroversion = 0.585; $t = 6.702$; $P < .05$) implying that employees with extrovertist personalities are sociable and relates well with their colleague in a group and therefore work hand in hand to ensure group goals are accomplished jointly. In relation to these, the study

came to the conclusion that employee conscientiousness and extroversion significantly affect the group performance in the organization studied.

Recommendations

Based on the findings and conclusion drawn above, the study the recommended that:

Employees with conscientiousness should be carefully managed and motivated to ensure good working relationship within group in the company.

Management of WAHUM group should develop a flexible organizational culture that will encourage employees with extraversion to effectively relate with groups and achieve high performance.

References

- Akhtar R, Boustani L, Tsivrikos D, Chamorro-Premuzic T. (2015). The engageable personality: Personality and trait EI as predictors of work engagement. *Personality and Individual Differences Journal*, 73 (1): 44–49.
- Akinbode, G. A. & Fagbohunbe, O. B. (2012). Leadership and organisational factors as predictors of employee's organisational commitment in Nigeria: An Empirical Analysis. *Business and Management Research*, 1 (2)
- Amit,K., Devasheesh P.B., Tiffany D. J. (2014). Personality and group performance: The importance of personality composition and work tasks. *Journal of Personality and Individual Differences*, 6(58); 132-137
- Aremu, M.A., Olaonipekun, W.D. & Ku'lba, L.M. (2018). Effects of Big Five Personality Traits on Group Performance in Al-Hikmah. *Amity Business Review*, 19 (2); 11-20
- Arrey, O. B. (2013). Attitude to work by Nigerian workers: A theoretical perspective. *Global Journal of*

- Management and Business Research Administration and Management, 13 (12), 5–8.
- Aslan, S. (2021). The prediction of university adjustment in Turkish late adolescents through Five Factor Personality dimensions. *Journal of Educational Sciences & Psychology*, 11(2).
- Carnevale, A. P., Ridley, N., Cheah, B., Strohl, J., & Campbell, K. P. (2019). Upskilling and downsizing in American manufacturing. ERIC. Retrieved March 30, 2021, from <https://files.eric.ed.gov/fulltext/ED600085.pdf>
- Cascio, W. F. (2006). *Managing Human Resources: Productivity, Quality of Life, Profits*. McGraw-Hill
- Chua, S., Yirong, B. & Yang, S. (2020). Social media addiction and academic adjustment: The mediating or moderating effect of grit personality. *International Journal of Psychology and Educational Studies*, 7(3): 143-151
- Collaço, C. M. (2018). What do we really know about grit? A multivariate statistical investigation on the construct validity of grit. (Unpublished doctoral dissertation). The University of San Francisco, San Francisco
- Collins, M (2014). The effects of group personality composition on project team performance: Operationalizations and outcomes. (Unpublished Doctoral Dissertation). University of Tennessee, Knoxville.
- Colvin, G. (2012). The art of the self-managing team. *Fortune*, 166: 22. Time Inc.
- Datu, J. (2021). Beyond Passion and Perseverance: Review and future research initiatives on the science of grit. *Frontiers in Psychology*, 11: 526-545.
- Delima, V. J. (2019). Impact of personality traits on employees' job performance in Batticaloa Teaching Hospital. Available at SSRN 4182213.
- Ekinci, N., Hamarta, E., & Kizilkaya, H. (2021). Analysis of the Relationship between the Personality Traits of University Students and Their Grit Levels. *African Educational Research Journal*, 9(2), 606-612.
- Emecheta, B.C., Awa, H.O. & Ukoha, O. (2016). Personality Characteristics and Employee Affective Commitment: Nigeria Experience. *International Journal of Business and Management Review*, 4 (6), 69-92.
- Erdheim, J., Wang, M., & Zickar, M. J. (2006). Linking the Big Five personality constructs to organizational commitment. *Personality and individual differences*, 41(5), 959-970.
- Fisher, D. M., Suzanne, T. B., Erich C., & James, A.B., (2012). Facet Personality and Surface-Level Diversity as Team Mental Model Antecedents: Implications for Implicit Coordination, *Journal of Applied Psychology*, 97(4); 825-841
- Gridwichai, P., Kulwanich, A., Piromkam, B., & Kwanmuangvanich, P. (2020). Role of Personality Traits on Employees Job Performance in Pharmaceutical Industry in Thailand. *Systematic Reviews in Pharmacy*, 11(3).
- Guilford, J. P. (1936). Unitary Traits of Personality and Factor Theory. *The American Journal of Psychology*, 48(4), 673. <https://doi.org/10.2307/1416522> Iranian employees. *Journal of Scientific Reports*, 1(1), 61.
- He, H., Wang, W., Zhu, W., & Harris, L. (2015). Personality traits, organizational identification, and customer orientation. *European Journal of Marketing*, 49(11/12), 1751-1776.

- Khoeini F, Attar B.N. (2015). Personality characteristics and organizational commitment in Iranian employees. *International Journal of Scientific Reports*, 1(1),
- Lounsbury, J. W., Moffitt, L, Gibson, L. W, Drost, A. W and Stevenson, M. W. (2007). An investigation of personality traits in relation to the job and career satisfaction of information technology professionals. *Journal of Information Technology*. 22, 174-183.
- Obeid, M., Salleh, Z., &Nor, M. N. M. (2017). The mediating effect of job satisfaction on the relationship between personality traits and premature sign-off. *Academy of Accounting and Financial Studies Journal*. 21(2), 1-17.
- Olorunleke, G. K., Adesida, A. E., & Benjamin, F. S. (2020). Personality traits and its effect on group performance of academic staff union of AdekunleAjasin University Akungba Akoko, Ondo State. *International Journal of Academic Research in Business and Social Sciences*. 10(10), 405-421.
- Osita, E., Uzoma, E. &Worlu, O. (2017) Personality traits and employee commitment in manufacturing firms in Port Harcourt, River's state. *International Journal of Advanced Academic Research Social & Management Sciences*, 3 (5); 2488-9849
- Saunders, M., Lewis, P. &Thornhill, A. (2009). *Research Methods for Business Students*. Pearson, New York.
- Schiffman, L. &Kanuk, L. (2008). *PerilakuKonsumen, EdisiKetujuh*. PT. Indeks. Jakarta.
- Schulman, S. (2011). *The use of personality assessments to predict job performance*. Burlington: The University of Vermont
- Sevi, B., Urganci, B., & Sakman, E. (2020). Who cheats? An examination of light and dark personality traits as predictors of infidelity. *Personality and Individual Differences*, 164, 110126.