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Organizational Culture and Employees Performance in the National Agency for Food and Drugs Administration and Control (NAFDAC) Nigeria

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Keywords: *organizational culture, employees' commitment, employees' productivity, NAFDAC.*

GJMBR-A Classification: *JEL Code: M11, M19*



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Organizational Culture and Employees Performance in the National Agency for Food and Drugs Administration and Control (NAFDAC) Nigeria

Mba Okechukwu Agwu

Abstract- The paper discussed organizational culture and employees' performance in the National Agency for Food and Drugs Administration and Control (NAFDAC), Nigeria. It views organizational culture as shared values, beliefs and norms that influence the way employees think, feel and behave in the workplace. It assumes that a positive organizational culture will enhance employees' performance. The research question addressed the extent of the relationship between organizational culture and increased employees commitment/productivity in NAFDAC. The place of study consists of the 6 zonal and 36 state offices of NAFDAC in Nigeria while the duration of study is between February 2013 and January 2014. A descriptive research design was used in executing the study using 420 (judgmentally determined) randomly selected NAFDAC employees from its zonal/state offices in Nigeria for questionnaire administration. Data collected were analyzed using descriptive and inferential statistics. Results from the data analysis indicated that significant relationship exists between organizational culture and increased employees commitment/productivity in NAFDAC and recommends among others: continuous staff training, increased government funding, continuous improvement of employees' condition of service, continuous improvement of employees' condition of service, sustenance of the prevailing organizational culture of decentralization and current team building efforts.

Keywords: *organizational culture, employees' commitment, employees' productivity, NAFDAC.*

1. INTRODUCTION

People are constantly surrounded by culture (often invisible) that forms the background of their work-lives in organizations. Organizational culture provides a powerful mechanism for controlling behavior by influencing how we view the world around us. Organizations do not exist in a vacuum but in a specific culture or socio-cultural environment that influence the way their employees think, feel and behave. Work place culture is a very powerful force that influences an employee's work life. It is the very thread that holds the organization together. Hence, managers and employees do not work in a value-free environment; they are

governed, directed and tempered by the organization's culture (Ritchie, 2000). Thus, organizational culture has a strong influence on employees' performance and work attitude. For employees, it is either the glue that bonds people to an organization or what drives them away. It involves standards and norms that prescribe employees behavior in a workplace (Martins & Martins, 2003). Hence, organizational culture is the underlying values, beliefs, principles and practices that constitute its management system (Denison, 1990).

The corporate culture of an organization depends on its environment, objectives, belief system and management style. Hence, the prevailing collaborative culture (decentralized work force with integrated units) in NAFDAC was informed by the nature and area of coverage of its activities (regulation and control of pharmaceuticals, foods, drugs, cosmetics, beverages and packaged water all over Nigeria). A strong corporate culture indicates that employees are like-minded and hold similar beliefs/ethical values while a weak corporate culture indicates that employees are unlike-minded and hold dissimilar beliefs/ethical values. Thus, organizations can only achieve their goals by aligning their corporate culture with their performance management system. In adopting a collaborative culture in the execution of its activities NAFDAC empowers its employees to exercise greater control/autonomy over their work thus influencing their job performance, commitment, self-confidence and self-esteem. It is against this background that it becomes pertinent to discuss organizational culture and employees' performance in NAFDAC, Nigeria.

a) *Statement of The Problem*

The excellent results achieved by NAFDAC in its fight against fake and counterfeit drugs, since its reorganization in April, 2001, as evidenced by the public destruction of about 2 billion Naira worth of fake drugs and the launching of the world's first anti-counterfeiting mobile authentication message using short message service (SMS) for end-patient regulated medication authentication. This technology has put the power of detecting counterfeit regulated products in the hands of more than 60 million Nigerian cell phone users, thus

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detecting counterfeit regulated products in the hands of more than 60 million Nigerian cell phone users, thus enlisting them in the battle against counterfeiting. In addition to the black eye technology deployed in screening many drug samples, the agency has also launched the radio frequency identification (RFID) system, used in the verification of regulated products and documents. The system has the potential to track and trace regulated products and prevent forgery of sensitive documents.

To strengthen the anti-fake drug war, the agency is currently seeking to undertake a review of its laws to impose life-term jail, confiscation of assets upon conviction and compensation for victims where the counterfeit product is found to be the proximate cause of death or severe bodily injury of the victims. The law also seeks to make this a non-bill able offence. There are also credible reports about improved international collaborations which have resulted to a number of remarkable achievements. Such collaborations have led to the Indian Parliament enacting, for the first time, a law making it a criminal offence punishable by life imprisonment the manufacture and distribution of fake pharmaceutical products. The aforementioned giant strides by NAFDAC in its fight against fake and counterfeit drugs would not have been possible without a strong organizational culture that encourages increased employees commitment and productivity.

b) *Research Objectives*

The objectives of the research are as follows:

- i. To determine the extent of the relationship between organizational culture and increased employees' commitment in NAFDAC.
- ii. To determine the extent of the relationship between organizational culture and increased employees' productivity in NAFDAC.

c) *Research Questions*

Many factors influence people in organizations, but not all are considered when trying to understand the behavior of people at work, the most frequently overlooked factor is the influence of organizational culture on employees' performance; hence the research is focused on the following research questions:

- i. Does any significant relationship exist between organizational culture and increased employees' commitment in NAFDAC?
- ii. Does any significant relationship exist between organizational culture and increased employees' productivity in NAFDAC?

d) *Research Hypotheses*

In view of the above research questions, the following null hypotheses were formulated:

1H0: There is no significant relationship between organizational culture and increased employees' commitment in NAFDAC.

2H0: There is no significant relationship between organizational culture and increased employees' productivity in NAFDAC.

e) *Literature Review*

Earlier studies indicated a relationship between organizational culture and employees' performance. Magee (2002) argued that organizational culture is inherently connected to organizational practices which in turn influence employees' performance. Hellriegel & Slocum (2009) contend that organizational culture can enhance employees' performance if what sustains it can be understood. Thus, the culture of an organization acquaints employees with the firm's history as well as current methods of operation that guide employees on expected and acceptable future organizational behaviors and norms. Some theoretical models assert that effective human resource system is based on supporting values, that create a positive impact on employees' attitudes and behaviors which in turn influence their performance (Ferris et al., 1998). From numerous "culture surveys" it has been claimed that employee performance can be improved by developing and creating certain kinds of organizational cultures (Sackman and Bertelsman, 2006 and Denison, 1990.). Martin and Siehl (1990) argued that organizational culture is theoretically related to performance and have positive influence on it. Bowen and Ostroff (1989) observed the role of culture in nurturing, sustaining and enhancing employees' performance in organizations. Kopelman et al. (1990) observed that organizational culture aids coordination of assignments and minimizes inefficiency in resource utilization. Employees need a supportive organizational culture to attain their individual objectives. According to Furnham and Gunter (1993), organizational culture functions as the internal integration and coordination between a firm's operations and its employees, where it fails to fulfill these functions to a satisfactory level, employees may be influenced negatively. A positive culture supports adaptation and enhances employees' performance by motivating, shaping and channeling their behaviors towards the attainment of corporate objectives (Daft, 2010). A firm's mission reflects its ultimate long term objective which is accomplished by conducting integrated operational and behavioral activities. A firm's performance improves if it has a clear sense of purpose and commitment towards its mission.

Academics and practitioners argue that the performance of an organization is dependent on the degree to which the values of its are widely shared (Kotter and Heskett, 1992). Similarly, it is widely argued that shared and strongly held values enable management to predict employees reactions to certain strategic options and by reducing these values, the consequences maybe undesirable (Ogbonna, 1993). Denison (1984) found, in his study of organizational

culture, that companies with a participative culture reaped a return on investment, which averaged nearly twice that of firms with less efficient cultures. His conclusion was that cultural and behavioral aspects of organizations were intimately linked to both short-term performance and long-term survival.

f) *Conceptual Framework*

Organizational culture is the set of shared values, beliefs, and norms that influence the way employees think, feel, and behave in the workplace (Schein, 2011). Morgan (1997) views organizational culture as the collection of traditions, values, beliefs, policies and attitudes that constitute a pervasive context for everything one does and thinks in an organization. Collins and Porras (2000) opined that organizational culture refers to a system of shared meaning held by members that distinguish one organization from other organizations. They believe that this shared meaning consists of seven key characteristics: innovation and risk-taking, attention to detail, outcome orientation, people orientation, team orientation, aggressiveness and stability. Organizational culture has the potential to enhance organizational performance, employee job satisfaction and a sense of certainty about problem solving (Kotter, 2012). If it becomes incongruent with the changing expectations of internal/external stakeholders, the organization's effectiveness can decline (Ernst, 2001).

For a business, organizational culture is either a force for change or a definite barrier to it; hence managers are increasingly challenged with changing an organization's culture to support new ways of accomplishing work. According to Nelson & Quick, (2011), organizational culture performs four functions: gives members a sense of identity, increases their commitment, reinforces organizational value and serves as a control mechanism for shaping behavior. It is important to note that leaders shape and reinforce culture by what they pay attention to, how they behave, how they allocate rewards and how they hire and fire individuals.

Organizational culture and employees' performance are clearly related though the exact nature of this relationship is mixed (Kopelman, Brief, & Guzzo, 1990). Studies have shown that the relationship between many cultural attributes and employees' performance has not been consistent over time (Denison, 1990; Sorenson, 2002). According to Bulach, Lunenburg, & Potter (2012), the effects of organizational culture on employee behavior and performance can be summarized thus: First, knowing the culture of an organization allows employees to understand both the organization's history and current methods of operation. Second, organizational culture can foster commitment to the organization's philosophy and values. Third, organizational culture, through its norms, serves as a

control mechanism to channel behaviors toward desired behaviors. Finally, certain types of organizational cultures may be related directly to greater effectiveness and productivity than others.

The effect of organizational culture on employees' performance partly depends on its strength (how widely and deeply employees hold corporate dominant values and assumptions). In a strong organizational culture, most employees across all subunits hold the dominant values. These values are also institutionalized through well-established artefacts, thereby making it difficult for those values to change. Furthermore, strong cultures tend to be long-lasting; some can be traced back to company founder's values and assumptions. In contrast, companies have weak culture when the dominant values are short-lived and held mainly by a few people at the top of the organization. Robbins (2001) observed that corporate culture does not pop out of thin air and once it is established, it does not fade away. He further emphasized that the founders of an organization have a major impact on its early culture because they have a vision of what the organization should be.

g) *Theoretical Framework*

This research is based on Thomas Peters and Robert Waterman (2006) theory of organizational excellence which states that organizational culture is closely tied to the success of best-run American companies which are characterized by these attributes: a bias toward action; close to the customer; autonomy and entrepreneurship; productivity through people; hands-on, value-driven effort; sticking to the knitting; simple form, lean staff and simultaneous loose-tight properties. The decentralized organizational culture of NAFDAC possess these identified attributes and are most probably responsible for the giant strides made by NAFDAC in its fight against fake and counterfeit drugs in Nigeria.

Organizational excellence in NAFDAC can be traced to its corporate culture attributes:

A Bias toward Action- NAFDAC is continuously experimenting and developing new techniques (anti-counterfeiting mobile authentication message, black eye technology etc.) for identification and elimination of fake and counterfeit drugs.

Close to the Customer- NAFDAC carries out pre-shipment and destination inspection of all Nigerian bound drugs in their countries of origin to eliminate importation of fake and counterfeit drugs in Nigeria.

Autonomy and Entrepreneurship- NAFDAC values autonomy and entrepreneurship as an attribute of its corporate culture by encouraging innovation and risk taking among its employees through the introduction of incentives for new techniques development.

Productivity through People - NAFDAC demonstrates a belief in their employees through shared decision making, absence of rigidity of command and encouragement for new ideas. Organizations like NAFDAC that manifest high levels of trust in subordinates, use participatory decision making, listen to and use employees' ideas/show concern for their welfare is practicing "productivity through people."

Hands-On, Value-Driven Effort- NAFDAC pays explicit attention to cultural values and devotes substantial effort to promoting and clarifying core values to its employees. Strong-culture organizations like NAFDAC that emphasize high achievement levels for company/employees are practicing "hands-on, value-driven effort."

Sticking to the Knitting- Organizations stay in businesses they know how best to run. NAFDAC only concentrates on identification and elimination of fake and counterfeit drugs in Nigeria.

Simple Form, Lean Staff- NAFDAC keeps small corporate staff and does not use complex matrix organizational structures by sharing decision making authority among its employees.

Simultaneous Loose - Tight Properties-NAFDAC exhibits both tight and loose couplings. It is tight about cultural values and loose or decentralized about autonomy, providing individuals throughout the organization room to perform.

h) *Legal Framework*

NAFDAC was formed to checkmate illicit and counterfeit products in Nigeria in 1993 under the country's health and safety law. Its formation was inspired by a 1988 World Health Assembly resolution requesting countries' help in combating the global health threat posed by counterfeit pharmaceuticals. In December 1992, NAFDAC's first governing council was formed. The council was chaired by Tanimu Saulawa. In January 1993, a supporting legislation was approved as legislative Decree No. 15 of 1993. On January 1, 1994 NAFDAC was officially established as a parastatal of the Federal Ministry of Health. It is headed by a chairman who presides over a governing council appointed by the president on the recommendation of the Minister of Health.

According to the requirements of its enabling decree, the Agency was authorized to.

- Regulate and control the importation, exportation, manufacture, advertisement, distribution, sale and use of drugs, cosmetics, medical devices, bottled water and chemicals.
- Conduct appropriate tests and ensure compliance with standard specifications designated and approved by the council for the effective control of quality of food, drugs, cosmetics, medical devices, bottled water and chemicals.

- Undertake appropriate investigation into the production premises and raw materials for food, drugs, cosmetics, medical devices, bottled water and chemicals and establish a relevant quality assurance system, including certification of the production sites of the regulated products.
- Undertake inspection of imported foods, drugs, cosmetics, medical devices, bottled water, and chemicals and establish a relevant quality assurance system, including certification of the production sites of the regulated products.
- Compile standard specifications, regulations, and guidelines for the production, importation, exportation, sale and distribution of food, drugs, cosmetics, medical devices, bottled water and chemicals.
- Undertake the registration of food, drugs, medical devices, bottled water and chemicals.
- Control the exportation and issue quality certification of food, drugs, medical devices, bottled water and chemicals intended for export.
- Establish and maintain relevant laboratories or other institutions in strategic areas of Nigeria as may be necessary for the performance of its functions.

NAFDAC envisions that by making these functions known, that its actions will be apparent in all sectors that deal with food, cosmetics, medical devices, bottled water and chemicals to the extent of instilling extra need for caution and compulsion to respect and obey existing regulations both for healthy living and knowledge of certain sanctions or default.

II. MATERIALS AND METHODS

The scope of this research is limited to the employees of NAFDAC in Nigeria. It is assumed that responses obtained from the sample respondents would be representative of the opinions of all NAFDAC employees on organizational culture and employees' performance in its 6 zonal and 36 state offices in Nigeria. The duration of study is between February 2013 and January 2014. The core aspect of the study is the use of cross sectional survey research design in generating the required primary data. A sample of 420 randomly selected respondents was used for question naired ministration. The sample size of 420 was judgmentally determined by selecting ten respondents from each of the 6 zonal and 36 state offices of NAFDAC in Nigeria.

For the purposes of questionnaire administration, the sample respondents were selected from the 6 zonal and 36 state offices of NAFDAC by random shuffling of cards method, ten respondent seach from the 42(6+36)NAFDAC offices. Each employee's name was written on a small card and the name on the top most card was selected each time, the

cards were shuffled. This was done continuously until all the sample respondents were selected. To avoid one name being selected twice or more, the selection of the topmost card was done without replacement. Data collected we reanalyzed using descriptive and inferential statistics. The questionnaire was designed toobta in a fair representation of the opinions of the 420 sample respondents using a four-point Like rt type scale. The questionnaire responses of the sample respondents were presented using tables while formulated hypotheses were tested using analysis of variance (ANOVA).A total of 420 copies of the questionnaire were administered, collected and used for the analysis.

1, 2, 3, 4, and 5 with varying mean scores of 3.17, 3.02, 2.81, 2.88 and 2.79 were above the weighted average of 2.5. The table further revealed a grand mean score of 2.93 indicating a strong evidence of the existence of a significant relationship between organizational culture and increased employees' commitment in NAFDAC. This conclusion is buttressed by the observation of Bulach, Lunenburg, & Potter (2012) that organizational culture can foster commitment to the organization's philosophy and values.

III. RESULTS AND DISCUSSIONS

a) Distribution of Responses on Research Questions

Does any significant relationship exist between organizational culture and increased employees' commitment in NAFDAC? Table 1 shows that questions:

Table 1 : Mean responses on the relationship between organizational culture and increased employees' commitment in NAFDAC (n=420)

S/No.	Research Questions	SA(4)	A(3)	D(2)	SD(1)	Total Responses	Mean Score
1.	Does NAFDAC's organizational culture of decentralization increase employees' commitment to the agency?	200 800	120 360	70 140	30 30	1330	3.17
2.	Does NAFDAC's organizational culture of decentralization enhance employees' job satisfaction in the agency?	170 680	130 390	80 160	40 40	1270	3.02
3.	Does NAFDAC's organizational culture of decentralization create a positive employees' job attitude in the agency?	140 560	120 360	100 200	60 60	1180	2.81
4.	Does NAFDAC's organizational culture of decentralization provide employees' with greater intrinsic rewards than other traditional means of governance?	160 640	110 330	90 180	60 60	1210	2.88
5.	Does NAFDAC's organizational culture of decentralization create a sense of ownership in policy execution among employees' of the agency?	150 600	100 300	100 200	70 70	1170	2.79
Grand Mean							2.93

Source: Field Survey, 2014.

i. *Question number 2*

Does any significant relationship exist between organizational culture and increased employees' productivity in NAFDAC?

Table 2 shows that questions: 6, 7, 8, 9, and 10 with mean scores of 2.98, 2.74, 3.07, 2.86 and 2.99 were above the weighted average of 2.5. The grand mean of 2.93 shows that there is a strong evidence of a significant relationship between organizational culture

and increased employees' productivity in NAFDAC. This conclusion is buttressed by Ojo (2009) observation of a positive relationship between corporate culture and employee job performance in the Nigerian banking industry. Also, the conclusion is supported by Daft (2010) observation that a positive organizational culture enhances employees' performance by motivating, shaping and channeling their behaviors towards the attainment of corporate objectives.

Table 2: Mean responses on the relationship between organizational culture and increased employees' productivity in NAFDAC (n=420)

S/No.	Research Questions	SA(4)	A (3)	D(2)	SD(1)	Total Responses	Mean Score
6.	Does NAFDAC's organizational culture of decentralization increase employees' individual output in the agency?	180	100	90	50	1250	2.98
		720	300	180	50		
7.	Does NAFDAC's organizational culture of decentralization bring about improved organizational performance in the agency?	140	110	90	80	1150	2.74
		560	330	180	80		
8.	Does NAFDAC's organizational culture of decentralization bring about greater flexibility and increased workflow in the agency?	200	100	70	50	1290	3.07
		800	300	140	50		
9	Does NAFDAC's organizational culture of decentralization bring about production efficiency in the agency?	150	120	90	60	1200	2.86
		600	360	180	60		
10	Does NAFDAC's organizational culture of decentralization bring about cost effectiveness in the agency?	175	115	80	50	1255	2.99
		700	345	160	50		
Grand Mean							2.93

Source: Field Survey, 2014.

b) *Test of the First Hypothesis*

Ho: There is no significant relationship between organizational culture and increased employees' commitment in NAFDAC.

H1: There is a significant relationship between organizational culture and increased employees' commitment in NAFDAC.

Table 3: Computation of Statistical Variables on the First Hypothesis from table 1

S/No.	Strongly Agree		Agree		Disagree		Strongly Disagree	
	X	X ²	X	X ²	X	X ²	X	X ²
1	200	40000	120	14400	70	4900	30	900
2	170	28900	130	16900	80	6400	40	1600
3	140	19600	120	14400	100	10000	60	3600
4	160	25600	110	12100	90	8100	60	3600

5	150	22500	100	10000	100	10000	70	4900
Totals	820	136600	580	67800	440	39400	260	14600

Source: Survey Data, 2014

Calculation of total sum of squares (SS_T)

$$SS_T = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2$$

$$\sum X^2 = 136600 + 67800 + 39400 + 14600 = 258400$$

$$\frac{\sum (X)^2}{N} = \frac{(820 + 580 + 440 + 260)^2}{20} = 220500$$

$$SS_T = 258400 - 220500 = 37900$$

$$SS_T = 37900$$

Calculation of between group sum of squares (SS_B)

$$SS_B = \sum_{i=1}^c n_i (\bar{X} - \bar{X})^2$$

$$\frac{\sum (X)^2}{n} = \frac{(820)^2}{5} + \frac{(580)^2}{5} + \frac{(440)^2}{5} + \frac{(260)^2}{5}$$

$$= 134480 + 67280 + 38720 + 13520 = 254000$$

$$\frac{\sum (X)^2}{N} = \frac{(820 + 580 + 440 + 260)^2}{20} = 220500$$

$$SS_B = 254000 - 220500 = 33500$$

$$SS_B = 33500$$

Calculation of within group sum of squares (SS_w)

$$SS_w = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X})^2 \text{ or } SS_w = SS_T - SS_B$$

$$SS_T - SS_B = 37900 - 33500 = 4400$$

$$SS_w = 4400$$

Calculation degrees of freedom

$$SS_T \text{ df} = N - 1 = 20 - 1 = 19$$

$$SS_B \text{ df} = n - 1 = 4 - 1 = 3$$

$$SS_w \text{ df} = n - 1 + n - 1 + n - 1 + n - 1 = 4n - 4 = 4(5) - 4 = 20 - 4 = 16$$

Calculation of Variances

Between group variance (S_B²) = $\frac{\text{Between group sum of squares (SS}_B\text{)}}{\text{Between group degree of freedom}}$

$$S_B^2 = \frac{\sum_{i=1}^c n_i (\bar{X}_i - \bar{X})^2}{c - 1}$$

$$S_B^2 = \frac{33500}{3} = 11166.67$$

Within group variance (S_w²) = $\frac{\text{Within group sum of squares (SS}_w\text{)}}{\text{Within group degree of freedom}}$

$$S_w^2 = \frac{\sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2}{n - c}$$

$$S_w^2 = \frac{4400}{16} = 275$$

$$F\text{-value} = F_{df_1, df_2} = \frac{S_B^2}{S_w^2} = \frac{\text{Between group variance}}{\text{Within group variance}} = \frac{11166.67}{275} = 40.61$$

Table 4 shows that calculated F-Value of 40.61 resulted from the relationship between organizational culture and increased employees' commitment in NAFDAC. This calculated F-Value is significant since it is greater than the critical F-Value of 5.29 given 3/16 degree of freedom at 0.01 level of significance. Hence, the null hypothesis is rejected while the alternative is

accepted. This shows that there is a significant relationship between organizational culture and increased employees' commitment in NAFDAC.

Table 4 : Computation of Analysis of Variance on the relationship between organizational culture and increased employees' commitment in NAFDAC

Source of variance	Sum of squares	Degree of freedom	Mean sum of squares	Calculated F-value	Table critical F-value	Decision
Between groups	33500	3	11166.67	40.61	5.29	H_0 : Rejected
Within group	4400	16	275			
Total	37900	19				

Source: Survey Data, 2014

c) Test of the Second Hypothesis

H_0 : There is no significant relationship between organizational culture and increased employees' productivity in NAFDAC.

H_1 : There is a significant relationship between organizational culture and increased employees' productivity in NAFDAC.

Table 5 : Computation of Statistical Variables on the second Hypothesis from table 2

S/No.	Strongly Agree		Agree		Disagree		Strongly Disagree	
	X	X ²	X	X ²	X	X ²	X	X ²
6	180	32400	100	10000	90	8100	50	2500
7	140	19600	110	12100	90	8100	80	6400
8	200	40000	100	10000	70	4900	50	2500
9	150	22500	120	14400	90	8100	60	3600
10	175	30625	115	13225	80	6400	50	2500
Totals	845	145125	545	59725	420	35600	290	17500

Source: Survey Data, 2014

Calculation of total sum of squares (SS_T)

$$SS_T = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2$$

$$\sum X^2 = 145125 + 59725 + 35600 + 17500 = 257950$$

$$\sum \frac{(X)^2}{N} = \frac{(845 + 545 + 420 + 290)^2}{20} = 220500$$

$$SS_T = 257950 - 220500 = 37450$$

$$SS_T = 37450$$

Calculation of between group sum of squares (SS_B)

$$SS_B = \sum_{i=1}^c n_i (\bar{X} - \bar{X}_i)^2$$

$$\sum \frac{(X)^2}{n} = \frac{(845)^2}{5} + \frac{(545)^2}{5} + \frac{(420)^2}{5} + \frac{(290)^2}{5}$$

$$= 142805 + 59405 + 35280 + 16820 = 254310$$

$$\sum \frac{(X)^2}{N} = \frac{(845 + 545 + 420 + 290)^2}{20} = 220500$$

$$SS_B = 254310 - 220500 = 33810$$

$$SS_B = 33810$$

Calculation of within group sum of squares (SS_W)

$$SS_W = \sum_{i=1}^c \sum_{j=1}^{n_i} (X_{ij} - \bar{X})^2 \text{ or } SS_W = SS_T - SS_B$$

$$SS_W = SS_T - SS_B = 37450 - 33810 = 3640$$

$$SS_W = 3640$$

Calculation of Degrees of Freedom

$$SS_T \text{ df} = N - 1 = 20 - 1 = 19$$

$$SS_B \text{ df} = n - 1 = 4 - 1 = 3$$

$$SS_W \text{ df} = n - 1 + n - 1 + n - 1 + n - 1 = 4n - 4 = 4(5) - 4 = 20 - 4 = 16$$

Calculation of Variances

Between group variance (S_B^2) = $\frac{\text{Between group sum of squares (SS}_B\text{)}}{\text{Between group degree of freedom}}$

$$S_B^2 = \frac{\sum_{i=1}^c n_i (\bar{X}_i - \bar{X})^2}{c-1}$$

$$S_B^2 = \frac{33810}{3} = 11270$$

Within group variance (S_W^2) = $\frac{\text{Within group sum of squares (SS}_W\text{)}}{\text{Within group degree of freedom}}$

$$S_W^2 = \frac{\sum_{i=1}^c \sum_{j=1}^{n_i} (x_{ij} - \bar{X}_i)^2}{n-c}$$

$$S_W^2 = \frac{3640}{16} = 227.5$$

$$F\text{-value} = F_{df_1, df_2} = \frac{S_B^2}{S_W^2} = \frac{\text{Between group variance}}{\text{Within group variance}} = \frac{11270}{227.5} = 49.54$$

Table 6 shows that calculated F-Value of 49.54 resulted from the relationship between organizational culture and increased employees' productivity in NAFDAC. This calculated F-Value is significant since it is greater than the critical F-Value of 5.29 given 3/16

degree of freedom at 0.01 level of significance. Hence, the null hypothesis is rejected while the alternative is accepted. This shows that there is a significant relationship between organizational culture and increased employees' productivity in NAFDAC.

Table 6 : Computation of Analysis of Variance on the relationship between organizational culture and increased employees' productivity in NAFDAC

Source of variance	sum of square	Degree of freedom	Mean sum of square	Calculate F-value	Table critical F-value	Decision
Between group	33810	3	11270	49.54	5.29	H_0 : Rejected
Within group	3640	16	227.5			
Total	37450	19				

IV. CONCLUSION AND RECOMMENDATIONS

The paper discussed organizational culture and employees' performance in the National Agency for Food and Drugs Administration and Control (NAFDAC), Nigeria. It assumes that a positive organizational culture will enhance employees' performance. The three major findings of the research are as follows:

- NAFDAC's organizational culture of decentralization provides employees' with greater intrinsic rewards than other traditional means of governance.
- There is a significant relationship between organizational culture and increased employees' commitment in NAFDAC.
- There is a significant relationship between organizational culture and increased employees' productivity in NAFDAC.

Arising from the findings of this paper, it is suggested that federal government and NAFDAC management should take the following measures to sustain the current high standard of employees' performance in the agency:

a) *Continuous staff training*

NAFDAC management should ensure regular training/re-training of staff to ensure that they acquire the latest skills in executing their jobs.

b) *Increased government funding*

The federal governments should increase NAFDAC' sbudgetary allocation, so that more funds will be available for the acquisition of the latest technology on illicit drug detection and control.

c) *Continuous improvement of employees' condition of service*

The condition of service of NAFDAC's employees' should be reviewed on a regular basis to ensure high level of staff morale, autonomy in decision making and discipline in their fight against fake drugs.

d) *Sustenance of the prevailing organizational culture of decentralization*

NAFDAC management should sustain the current organizational culture of decentralization to sustain flexibility of operation and quick decision making.

e) *Sustenance of Current Team Building Efforts*

The current team building efforts in NAFDAC should be sustained/improved to promote the integrated strategy in combating fake and counterfeit products in Nigeria.

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V COMPETING INTERESTS

The author has declared that no competing interests exist.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Bowen ,D. E., & Ostroff, C. (1989). Understanding HRM-firm performance linkages: The role of "Strength" of the HR system. *Academy of Management Review*, 29, 203-22.
2. Bulach, C., Lunenburg, F. C., & Potter, L. (2012). *Creating a culture for high-performing schools: A comprehensive approach to school reform* (2nd ed.). Lanham, MD: Rowman & Littlefield.
3. Collins, J.C. and Porras, J.I. (2000). *Built to Last: Successful Habits of Visionary Companies*. New York: Harper Business.
4. Daft, R. L. (2010). *Organization Theory and Design*. Singapore: Info Access & Distribution Ltd.
5. Denison, D.R. (1984). Bringing corporate culture to the bottom line. *Organizational Dynamics*, 3(2),5-22.
6. Denison, D. R. (1990). *Corporate culture and organizational effectiveness*. New York: Wiley.
7. Ernst, H. (2001). Corporate culture and innovative performance of a firm. *Management of Engineering & Technology*, 2, 532-535.
8. Ferris, G. R., Arthur, M. M., Berkson, H. M., Kaplan, D. M., Harrell-Cook, G., & Frink, D. D. (1998). Toward a social context theory of human resource management- organizational effectiveness relationship. *Human Resource Management Review*, 8, 235-264.
9. Furnham, A. & Gunter, B. (1993). *Corporate Assessment: Auditing & Company Personality*. London: Routledge.
10. Hellriegel, D. & Slocum, J. M. (2009). *Organizational Behavior* (9th Edition). Sydney: Thomson Learners.
11. Kopelman, R. E., Brief, A. P., & Guzzo, R. A. (1990). The role of climate and culture in productivity. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 282-318). San Francisco, CA: Jossey-Bass.
12. Kotter, J. P. & Heskett, J. L. (1992). *Corporate culture and performance*. New York: Free Press.

13. Kotter, J. (2012). *Corporate culture and performance*. New York: Free Press.
14. Magee, K. C. (2002). *The impact of organizational culture on the implementation of performance management*(Doctoral dissertation). Available from Dissertations and Theses database (UMI No. 3047909).
15. Martins, E. C. and Martins, J. (2003). *Cultures in organizations: Three perspectives*. New York: Oxford University Press.
16. Martin,J. and Siehl, C. (1990).*Organizational Culture: A Key to Financial Performance*. In B.Schneider (ed.). *Organizational Climate and Culture*, San Francisco, CA: Jossey-Bass, 241 – 281.
17. Morgan,G.(1997) *Images of Organization*, Thousand Oaks: Sage Publications.
18. Nelson, D. L., & Quick, J. C. (2011). *Understanding Organizational behavior*. Belmont, CA: Cengage South-Western.
19. Ogbonna, E. (1993). *Managing Organizational Culture: Fantasy or Reality?* *Human Resource Management Journal*, 3(2), 42-54.
20. Ojo, O. (2009).*Impact Assessment of Corporate Culture on Employee Job Performance*. *Business Intelligence Journal* - August, 2009. 2 (2), 388 -397.
21. Peters, T. & Waterman, R. H. (2006). *In search of excellence: Lessons from America's best run companies*. New York: Collins Business Essentials.
22. Ritchie M. (2000). *Organizational culture: An examination of its effect on the initialization process and member performance*. *Southern Business Review*, 25, 1-13.
23. Robbins, S.P. (2001). *Organization Theory: Structure, Design and Applications*. New Jersey: Prentice Hall Inc.
24. Sackmanns, S. A. & Bertelsmann S. (2006). *Success Factor Corporate Culture. Developing a Corporate Culture for High Performance and Long-term Competitiveness, Six Best Practices*. Kinndle Edition.
25. Schein, E. H. (2011). *Leadership and organizational culture*. New York: Wiley.
26. Sorensen, J. B. (2002). *The strength of corporate culture and the reliability of firm performance*. *Administrative Science Quarterly*, 47, 70-91.