



Leadership Style, Organizational Productivity and Employee Commitment: Empirical Evidence Using Panels of Cross-Sectional Regression

Babagana Maina

Department of Business Administration
Yobe State University, Damaturu
Yobe state

And

Nura M Lawal

Department of Business Administration
Yobe State University, Damaturu
Yobe state

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I. Introduction

"Leadership consists of method, not magic" (Schmoker, 2001, p. 19). Leadership and the different associated styles have an immense impact on how employees perform and grow, to lead positive organizational outcomes. The study investigates the impact of leadership styles on motivation and commitment, as a predictor of group or organizational performance. For ages, leadership has been a subject of much debate and deliberation and how the different styles of leadership evoke different responses from followers. In corporate context, the dynamics of these two entities 'the leader' and 'the led' play a key role in shaping the destiny of the organisation. The study followed the positivist paradigm which provided an objective reality against which claims were compared and truth was ascertained. In this descriptive study, the goal has been to discover the pattern of cause and effect, which can predict phenomenon.

Bennis and Nanus (2005) defined a leader as one who commits people to action, who convert followers into leaders, and who may convert leaders into agents of change. From the foregoing, we say that leadership is having the ability to influence and to be influenced by individuals and groups to take them to a desired direction. In practice, this means ensuring that their needs are met and agreed tasks performed so that a team spirit and teamwork are established and maintained, and the resources of the group are maximized.

Organizations though can not only depend on good leadership styles to achieve their intended purposes but also effective management. The term "management" and "leadership" are often interchanged. Many view them as the same thing yet management is as distinct from leadership as the day from the night and that is why according to Warren Bennis in the book 'Management' (pg 471) by Stoner and Freeman, (1995) most organisations are *over-managed* and *under-led*. A person can serve as an effective manager that is, a good planner and a fair, organized administrator but may lack the motivational skills of a leader. Both are necessary.

This research sought to investigate and understand the impact of different leadership styles (autocratic, democratic and laissez-faire) and their effects on employee performance in organization. this research will be beneficial for employees to identify which leadership style is good for them in terms of work satisfaction and the success of their careers. It can be beneficial for leaders to understand which types of leadership impacts on employee performance and how employees can also be motivated. However, contracting them and understanding their differences can improve their essential roles. It is with this view that Kotter, (2007) said that strong leadership with weak management is no better, and is sometimes actually worse than the reverse. The real challenge is to combine strong leadership and strong management to balance the other. There is therefore no doubt that leadership style has an impact on employers and employees and as such the organisation as a whole. Organizations all over the world, in both the public and the private sectors, are established primarily to

accomplish predetermined set goals and objectives. In achieving these goals and objectives, the role of the human elements (employees) cannot be overemphasized (Gberevbie, 2017; Mokgolo, Mokgolo, & Modiba, 2012; Mottoh, 2015). This is simply because organizations, irrespective of other resources (financial, land, technological) at their disposal, cannot achieve anything meaningful in terms of attaining its set goals, without the human resources galvanizing all other resources (Gberevbie, Joshua, Excellence-Oluye, & Oyeyemi, 2017; Jain & Duggal, 2015).

However, several factors such as innovative remuneration structures, access to employee benefits, comfortable work environment, core values of an organization, career advancement opportunity, recognition, and employees' engagement, among others, have been adduced to be responsible for enhanced employee and organizational performance (Armstrong & Murlis, 2004; Armstrong & Taylor, 2014; Popli & Rizvi, 2016). Moreover, studies have shown that top on the list responsible for employees' commitment has been leadership, which pertains to the style adopted by the leader and the impact it has on the commitment level of organizational workforce for performance (Avolio, Walumbwa, & Weber, 2009; Trottier, Van Wart, & Wang, 2008; Yasir, Imran, Irshad, Mohamad, & Khan, 2016).

The research aims to examine the extent to style of leadership affect the productivity of the employee in the organization and to investigate the relationship between organizational commitment and leadership style in the organization. The study is organized in five sections. Introduction and empirical literature review are discussed in section one and section two respectively. Section three presents the research methodology while section four discusses the interpretation result. Section five concludes.

II. Empirical Review of Literature

The section will discuss the conceptual terms used in the study, the theories of leadership and some empirical evidences that establish the link between leadership styles, employees' commitment and organizational productivity as a whole.

2.1 Conceptual Framework

2.1.1 The Concept of Leadership

The global financial crisis has resulted in a wave of unprecedented challenges to the world's economic & political order. In a situation of turbulence, the one key factor that can make a difference, through foresight and dexterity, is Leadership. However, as we initiate this study and probe deeper to gain conceptual clarity, the results are baffling. The search for the right definition is been age-old. According to Bass and Avolio (1997), a single specific definition of leadership is a very complex task as literature and studies on this topic are varied and there is no definition which is widely and universally accepted. Some definitions describe leadership as an act of influence, some as a process and yet others have looked at a person's trait qualities.

2.1.2 The Concept of Organizational Productivity

Productivity is an overall measure of the ability to produce a good or service. More specifically, productivity is the measure of how specified resources are managed to accomplish timely objectives as stated in terms of quantity and quality. Productivity may also be defined as an index that measures output (goods and services) relative to the input (labor, materials, energy, etc., used to produce the output). As such, it can be expressed as:

Hence, there are two major ways to increase productivity: increase the numerator (output) or decrease the denominator (input). Of course, a similar effect would be seen if both input and output increased, but output increased faster than input; or if input and output decreased, but input decreased faster than output.

Organizations have many options for use of this formula, labor productivity, machine productivity, capital productivity, energy productivity, and so on. A productivity ratio may be computed for a single operation, a department, a facility, an organization, or even an entire country.

2.2 Theories of Leadership Styles

2.2.1 Transformational Leadership

The term 'transformational leadership' was first coined by J.V. Downton in *Rebel Leadership: Commitment and Charisma in a Revolutionary Process* (1973). Transformational Leadership, proposed by Burns and extended by Bass and associates, has been conceived as a more complete model of leadership than that advocated by the trait, style, contingency, or exchange theorists. Burns (1978) first clearly distinguished between leaders who were oriented to exchange and those who were oriented to change, the latter identified as Transformational Leaders. Transformational Leadership, because of the components of idealized influence, inspiration, intellectual stimulation and individualized consideration, has been suggested as the optimum style for managing change. Bass, Waldman, Avolio, and Bebb (1987) discovered that leaders scoring higher on Transformational Leadership factors have followers who display greater levels of transformational behaviors.

2.2.2 Transactional Leadership

The locus of the relationship is on an exchange. Each party to the exchange recognizes the value of the exchange as well as the value of the relationship, but these bargainers have no reason to remain together subsequent to the exchange. There is nothing enduring about their relationship; no actual engagement has occurred. That is, transactional leaders expect certain workbehaviors from their subordinates who are compensated for these behaviors by both monetary and nonmonetary rewards.

2.2.3 Laissez faire leadership

Laissez-faire leadership, also known as delegative leadership, is a type of leadership style in which leaders are hands-off and allow group members to make the decisions. This style of leadership implies that someone in the position of a leader does not fulfil leadership responsibilities and practically does not engage or involve in any meaningful transactions whatsoever. This leader does little or nothing to affect either the followers or the outcomes of their behaviors. Passive or avoidant leadership describes the leaders who avoid getting involved in the work progress and decision making. T

2.3 Empirical Evidence on the Relationship between Leadership Styles, Employee Commitment and Productivity

The relationship between leadership style and employees' commitment has no doubt attracted considerable research interests. Most research reveals diverse findings; for instance, Yahchouchi (2009) in his study observed that Lebanese leadership style was assumed to be more transformational than transactional and that both leadership styles (transformational and transactional leadership) had positive relationships and affected employees' commitment. The study observes that there were no significant differences between male and female respondents on transformational and transactional leadership styles. However, a significant difference exists between Muslim and Christian societies. For Christian employees, they perceived their leaders as more transformational than transactional because of their "collectivistic culture and family connections."

This means that there are factors such as religion, culture, and environmental setting that may account for the adoption and application of a particular leadership style to elicit employees' commitment. The knowledge of these factors will enhance the understanding of managerial practices and leadership styles that will affect employees' organizational commitment within a particular context. Mert, Keskin, and Bas (2010) conducted a study in Turkey and found that leadership effect on organizational commitment was substantial and that transformational leadership enhances the employees' commitment in the banking sector.

Raja and Palanichamy (2011) in their study revealed that transformational leadership style was more preferred and more related to employees' commitment than transactional leadership. It is observed that whereas the positional identity of the respondents had some significant impact on leadership style perception and employees' commitment, salary did not seem to make a difference from among the sampled respondents. The study concluded that employees' perception relative

to others plays a role in the preference of leadership style and that salary which can be seen as a form of financial motivation seems not to account for leadership style preference and commitment to the organization. The outcome of this study supports the notion that it is not in all cases that extrinsic motivation accounts for employee commitment in an organization.

In the same vein, the study by Cemaloglu, Sezgin, and Kilinc (2012) found that school principals adopted transformational leadership style preferably to transactional leadership style and that "teachers' continuance commitment levels are higher than affective and normative commitment but on the contrary teachers give more importance to economic earnings than personal satisfaction" (p. 60).

III. Empirical Methodology

The section discusses the design of research methodology in terms of the model specification, estimation of the model, the study area and the sample size used in the study.

3.2 Study area and sampling

Yobe state, northeastern Nigeria. It borders the Republic of Niger to the north and the Nigerian states of Borno to the east, Gombe to the southwest, Bauchi to the west, and Jigawa to the northwest. Yobe state was created in 1991 from the western half of Borno state. Yobe's terrain consists of plains that are drained by the seasonal KomaduguYobe River and its tributaries in the north and by the Gongola River in the south. The state's vegetation is predominantly of the Sudan savanna type, with scattered acacia trees. There is also an area of Sahel savanna, consisting of sandy soils and thorn scrub, which is located in the far north. The Kanuri are the principal ethnic group in the state. Sorghum, millet, peanuts (groundnuts), cowpeas, corn (maize), sesame, and cotton are the primary crops. Cattle herding and farming are the chief occupations. Damaru is the state

capital, and Nguru, Potiskum, and Gashua are sizable market towns. The state is served by trunk roads connecting Potiskum, Damaturu, and Maiduguri (in Borno state). Pop. (2006) 2,321,591.

3.2 Sampling Techniques

The study is focused on the selection of cross section of selected firms in Yobe. Observatory approach is used to arrive at the number of firms based on certain indicators. The selection of firms is guided by the size, number of employees, line of production, and type of business operating in the organization. Although there was disruption of business activities in Yobe as a result of growing insecurity challenges, the study will utilize selected fully and partial operational and companies that have defined employer and employee relationship.

The population of the study comprises total number of all firms within the selected four LGAs in Yobe Metropolis. Table 1 gives a description of population of the study area, and table 2 provides total number of farm owners within the selected LGAs.

Table 1:

S/No	Selected LGAs	Estimated Number of Micro Small and Medium Enterprises (MSME)	Sample size calculated using Dillman formula
1.	Potiskum	2,006	196
2.	Damaturu	1,303	195
3.		8,780	196
4.	Nguru	3,664	195

Sources: Author's computation, 2022

The sample of the research will be obtained using the recommended formula by Dillman (2007 & 2011) which is the advancement of Krejcie and Morgan (1970) given as:

$$NS = \frac{(Np)(p)(1-p)}{(Np-1)(B/C)2+(p)(1-p)} \dots\dots\dots (1)$$

Where:

NS = Computed Sample size needed for the desired level of precision.

Np = Size of the population of the study.

p = proportion of population expected to be sampled.

B = acceptable amount of sampling error (in this case assume +/-5 =0.05);

C = z-statistic associated with the confidence level (in this case assume a 95% confidence level =1.96).

The equation (1) was used to calculate the sample size and a total of 782 samples of MSME was arrived at from the population of the study.

The model specification is formulated based on the assumption that our dependent variable, productivity gap, is a discrete categorical variable with four scales defined as;

$$y = 1 \text{ if where 1 refers to "large productivity gap" } \dots\dots\dots (1)$$

$$y = 2 \text{ if where 2 refers to "small productivity gap" } \dots\dots\dots (2)$$

$$y = 3 \text{ if where 3 refers to "no productivity gap" } \dots\dots\dots (3)$$

Based on a prior expectation, we define the regressors of the model to be type of leadership style and socio-economic attributes. Specifically, we define

$$y_i^* = \beta_i x_i + \varepsilon_i \dots\dots\dots (4)$$

In this case, y_i^* is defined to be discrete categorical variable with four distinct cases. The model can be re-stated as:

$$y_i^* = \beta_0 + \delta_1_transf_leader_1 + \delta_2_leis_faire_leader_2 + \delta_3_transac_leader_3 + \delta_4_age_4 + +\delta_5_educ_5 + \delta_6_marital_status_6 + \delta_7_bus_loc_7 + \varepsilon_i \dots\dots\dots (5)$$

In this specification, we measure the level of productivity gap is the dependent variable while the regressors include the three form of leadership style and socio-economic attributes of the employee which include age, educational level, marital status, and business location as a control variable. $fin_const =$

$$\begin{pmatrix} 1= male_fin_const \\ 2= female_fin_const \end{pmatrix} \dots\dots\dots (6)$$

Estimation techniques is via maximum likelihood method of parameter estimation. Let us assume that y_{ij} is an ordered outcome having m alternatives with j a particular alternative, X a set of covariates, β is set of parameters

$$P(y_{ij} > j | x) = \frac{\exp(\alpha_j + X\beta_j)}{1 + \exp(\alpha_j + X\beta_j)}$$

such as the Gologit model can be written as

$$\dots\dots\dots (7)$$

$$For j = 2,3, \dots m-1 \dots\dots\dots (8)$$

Where $P(y_{ij} > j | x)$ is the probability to observe alternatives higher than the alternative j and α_j is the intercept term which can also be interpreted as a threshold like in the Ologit model. It is important to note from the Gologit model that the parameters vary with alternatives and is therefore more general than the Ologit model in the sense that parameters could be constrained to remain constant across the alternatives. For specific alternatives, the probabilities can be defined as

$$P(y_{ij} = 1 | x) = 1 - \frac{\exp(\alpha_1 + X\beta_1)}{1 + \exp(\alpha_1 + X\beta_1)} \text{ if } j = 1; \dots \dots \dots (9)$$

$$P(y_{ij} = j | x) = \frac{\exp(\alpha_{j-1} + X\beta_{j-1})}{1 + \exp(\alpha_{j-1} + X\beta_{j-1})} - \frac{\exp(\alpha_j + X\beta_j)}{1 + \exp(\alpha_j + X\beta_j)} \text{ if } j = 2; \dots \dots \dots (10)$$

and $P(y_{ij} = m | x) = \frac{\exp(\alpha_{m-1} + X\beta_{m-1})}{1 + \exp(\alpha_{m-1} + X\beta_{m-1})} \text{ if } j = m; \dots \dots \dots (11)$

The equations are estimated using Maximum Likelihood estimators since they are nonlinear models. In cases where convergence is not achieved, the simulated maximum likelihood method of estimation will be used in estimating the parameters of the models. The performance of the model is evaluated on the basis of the properties of the residual error term.

IV. Empirical Results

To ensure ambiguity in the questions contained in the questionnaire, a pilot test was conducted. 20 questionnaires were randomly distributed to some female and male operators of the micro, small and medium enterprises who are actively involved in entrepreneurial activities. The feedback on the clarity and understanding of the questionnaire was noted and grey areas corrected accordingly. The survey proper started with the administering of questionnaire to beneficiary poultry farms across the four LGA areas in Kano metropolitan. A total of 782 questionnaire based on Dillman result were randomly administered in line with specifications indicated in section three. The questionnaire contained 32 questions with each representing a variable. As such there are 30 variables as a whole for the various models used in the study. After due follow up, 649 questionnaires were returned. This indicates that 82.9% success was recorded in the administration of the questionnaire, thereby giving the process credibility.

With respects to the distribution of respondents within Yobe Metropolitan LGAs. Table1 below is reflective. Of the 649 respondents, the highest came from Nguru representing 25.1%, followed by Postiskum, Damaturu and Gashua (24.9% each). This represents even sampling across the sampled local government used in the study.

Table 1: Distribution of Respondents within Kano Metropolitan LGAs

LGA Legend	Name of LGA	Frequency	Percentage
1	Postiskum	162	24.9
2	Damaturu	162	24.9
3	Gashua	162	24.9
4	Nguru	163	25.1

Source: Stata 16.0 analysis

This tallies with the number of beneficiaries of the selected programmes, as Nguru had the lowest 123 poultry farms (19.0%), while Gashua and Damaturu have the highest 185 (28.5%) and 176 (27.1%) MSME, respectively. Clearly, the number of respondents is therefore evenly distributed among the metropolitan LGAs to achieve the desired objectivity, required for robust results. Below is the frequency distribution of socio-economic characteristics of the beneficiaries based on MSMEs (see table 3).

Table 3: Frequency Distribution of the Respondents Based on Socio-Economic Attributes

Variables	MSMEs		
	Male (n1=325)	Female (n2=324)	Pooled (n3=649)
Household-head			
Yes	306 (94.15)	15 (4.62)	321 (49.5)
No	19 (5.84)	309 (95.37)	328 (50.5)
Income (#)			

Above 50,000	314 (96.61)	291 (89.81)	605 (93.22)
Otherwise	11 (3.38.)	33 (10.18)	44 (6.77)
Ethnic group			
Hausa	197 (60.6)	204 (62.96)	401 (61.78)
Fulani	86 (26.46)	94 (29.01)	180 (27.73)
Hausa-Fulani	30 (9.23)	11 (3.39)	41(6.31)
Others	12 (3.69)	15 (4.62)	27(4.16)
Age			
18-40	273 (84.00)	206 (63.58)	479 (73.80)
41-60	28 (8.61)	95 (29.32)	123 (18.95)
>60	23 (7.07)	23 (7.09)	46 (7.08)
Education			
Primary	9 (2.76)	6 (1.85)	15 (2.31)
Secondary	101 (31.07)	77 (23.76)	178 (27.42)
Diploma/NCE	103 (31.79)	238 (73.45)	341(52.54)
Degree	112 (34.46)	3 (0.92)	116 (17.87)

Source: Author's computation from survey data (2021)

Table 3, one can infer about the nature and pattern of the socio-economic attributes of the respondents. Majority of the male MSME are household head as they represent about 306 (94.15%), while majority of the female MSME are not the household head as they represent 309 (95.37%). On the average, there is approximately the same number of household head evenly distributed between the male and female operators of the MSME across the four selected LGAs. 96.61% of the male operators and 89.81% of female operators have an average income of more than fifty-thousand naira (N50,000) with a pooled estimates of 93.22% over the total sample of the study. It is indicative that the ethnic composition of the MSME in Yobe metropolitan LGAs is dominated by the Hausas as they present about 61.78% of the total respondents. This is closely followed by Fulani (27.73%) and Hausa-Fulani (6.31%). Majority of the poultry operations in the metropolitan area is dominated by people within the age of 18-40 years as they present over 73% of the entire sample, out of which 84% are male and 63% are female. This is evenly distributed among the 649 respondents used in the study. On the average, close to 70% of the respondents used in the study has at least Diploma/NCE certificate which suggests that the poultry operators have relatively good knowledge of farm management and its principles. We estimate the parameters of equation (6) as the generic model that shows the role of leadership style and socio-economic attributes in explaining productivity gap between male and female MSME.

Table 4:

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Generalized Ordered Logit Estimates          Number of obs   =    649
                                             LR chi2(21)     =    360.06
                                             Prob > chi2     =    0.0000
Log likelihood = -2815.7385                 Pseudo R2      =    0.0601
    
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-
      pdt_gap |          Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----+-----
-
Large Gap |
      ms      |   .9363759   .1552408     6.03   0.000     .6321095    1.240642
      age     |   .0473071   .0224463     2.11   0.035    -.0913011   -.0033131
      edu     |   .1037842   .0246943     4.20   0.000     .0553842    .1521842
      trf_leader |   .304638   .1287896     2.37   0.018    -.5570609   -.052215
      trs_leader |   .003076   .0002206    13.9   0.004    -.0001255   .0007394
      les_leader |   .0128951   .0056222     2.29   0.009    -.0123088   .0097299
      bus_loc  |  -.5334839   .2280756    -2.34   0.019    -.9805038   -.0864639
      _cons   |   2.538254   .6198387     4.10   0.000     1.323393    3.753116
-----+-----
    
```

- <u>Small Gap</u>						
ms	.5322355	.0920215	5.78	0.000	.3518767	.7125943
age	.0336396	.0154114	2.18	0.029	-.0638455	-.0034338
edu	.0558156	.0183723	3.04	0.002	.0198066	.0918247
trf_leader	-.7193072	.0895764	-8.03	0.000	-.8948737	-.5437406
trs_leader	.0000831	.0001569	0.53	0.596	-.0002244	.0003905
les_leader	.0100511	.0038371	2.62	0.009	.0025305	.0175716
bus_loc	-.3574337	.1394014	-2.56	0.010	-.6306554	-.084212
_cons	.9209626	.4091186	2.25	0.024	.1191048	1.72282

- <u>No Gap</u>						
ms	.3343817	.112689	2.97	0.003	.1135153	.5552481
age	.0290805	.0216311	1.34	0.179	-.0133158	.0714767
edu	.0525979	.0252043	2.09	0.037	.0031984	.1019973
trf_leader	-1.081187	.1216543	-8.89	0.000	-1.319625	-.8427487
trs_leader	-.0005205	.0002324	-2.24	0.025	-.0009759	-.0000651
les_leader	.0038745	.0048709	0.80	0.426	-.0056723	.0134212
bus_loc	-.3493694	.157082	-2.22	0.026	-.6572445	-.0414943
_cons	-1.898726	.5336938	-3.56	0.000	-2.944747	-.8527054

The variables represented in the table are the list of the regressors. “ms” stands for marital status, “age” represents age of the respondents and “edu” defines the educational level of the respondents. The variables representing the leadership style are “trf_leader” for transformational leaders, “trs_leader” for transactional leaders and “les_leader” for laissez-faire leaders.

Estimates indicates that all the three-leadership style have statistically significantly positive relationship with productivity of the employees in generating “**Large Gap**”. There is a strong positive relationship between transformational leadership style with large productivity gap among the employees. On the average, if leaders commit to transformational leadership by 1%, level of productivity will increase by about 30% which is considered to be large. Additionally, transactional leaders generate positive impact on employee productivity by 0.003% with more commitment towards transactional leadership style. On other hand, laissez-faire leaders have impacted positively on employee’s productivity by approximately 0.012%. therefore, on the basis of the regression estimates, it can be said that transformational leadership style has more positive impact on employee’s productivity than any other type of leadership style considered in the study.

From the table, except for the coefficients of transactional leaders and laissez-faire leaders that are estimated in the first category, “**Large Gap**”, the remaining parameter in that category is found to be statistically significant in explaining productivity gap between male and female operators of MSME in Yobe. By implication, the estimated result suggests that one of the factors that contribute to the productivity gap between the male-owned and female-owned MSME is the difference in terms of access to finance. The male-owned operators, on the average, has fewer productivity gap by -0.93 than female-owned operators. This discrimination against female-owned operators has created “**Large Gap**” in their productivity level. Equally, other socio-economic attributes such as differences in education level between male-owned and female-owned MSME farm has statistically significant impact on the difference in their productivity level. In the same category, “**Large Gap**”, age differential, on the average, account for 0.04 (4%) differential in productivity level between the male and female operators. Thus, on the basis of age, male has productivity level higher than female by 4%. In the same fashion, differences in educational qualification in this category, “**Large Gap**”, has added to male operators some productivity level than female operators by approximately by 10%. The coefficient is found to be highly statistically significant at all level of significance. In the second category, “**Small Gap**”, as well as in the third category, “**No Gap**”, the parameters of the model behave in similar pattern as found in the first category. This suggests that financial constraints play a key role in determining the productivity gap between the male and female operators of the poultry farms within the sample of the study. Equally, socio-economic attributes such as education level, age group, as well as marital status of the respondent are found to be important factors that account for the observed difference between the productivity level of male operators and the productivity of female operators.

These includes the normality tests of the residuals (which evaluate the amount of skewness and kurtosis in the residual error term), the heteroskedasticity test to avoid biased and inconsistent estimates of the parameters as well as test of multicollinearity which assess the level of correlation among the regressors used in the functional relationship that depicts the model. In addition, the model’s performance in capturing the true relationship between the variables is assessed by conducting Ramsey’s reset tests so that only important relevant variables are used in the analysis while irrelevant variables are excluded.

The next table report the test of the violation of the parallel lone assumption. The assumption upon which the model, generalized ordered logit, is constructed is based on the proportional odds ratio which helps to detect differences in the estimated parameters across different categories of the dependent variable.

Table 5:

Alternative parameterization: Gammas are deviations from proportionality

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Beta						
fin_const	.966684	.1531515	6.31	0.000	.6665125	1.266856
age	.0496362	.0223565	2.22	0.026	-.0934541	-.0058182
edu	.0664933	.0161813	4.11	0.000	.0347785	.098208
hhold_size	-.3257752	.1276418	-2.55	0.011	-.5759485	-.0756019
hhold_head	.000309	.0002201	1.40	0.160	-.0001223	.0007404
bus_loc	.005767	.0033359	1.73	0.084	-.0007712	.0123052
ms	-.3772405	.118773	-3.18	0.001	-.6100313	-.1444497
Gamma_2						
ms	-.4291559	.1463068	-2.93	0.003	-.715912	-.1423999
age	.0176877	.0217423	0.81	0.416]-.0249264	.0603017
trf_leader	-.3854592	.1238353	-3.11	0.002	-.6281718	-.1427466
trs_leader	-.0002371	.0002168	-1.09	0.274	-.000662	.0001878
Gamma_3						
ms	-.6472464	.1765953	-3.67	0.000	-.9933668	-.3011259
age	.0752488	.0288721	2.61	0.009	.0186606	.131837
trf_leader	-.7608931	.1634454	-4.66	0.000	-1.08124	-.4405459
trs_leader	-.0007842	.0002967	-2.64	0.008	-.0013658	-.0002026
Alpha						
_cons_1	2.663634	.5702994	4.67	0.000	1.545868	3.7814
_cons_2	.9164533	.3964304	2.31	0.021	.139464	1.693443
_cons_3	-2.068863	.4969373	-4.16	0.000	-3.042842	-1.094884

The relationship between these two parameterizations is fairly straightforward. The coefficients for the first equation in the default parameterization correspond to the betas in the alternate parameterization. Gamma_2 parameters = Equation 2 – Equation 1 parameters and Gamma_3 parameters = Equation 3 – Equation 1 parameters. For example, in equation 3 the coefficient for financial constraints is 0.93, and in equation 1 it is 0.99. Gamma_3 for financial constraints therefore equals 0.93 – 0.99 = 0.06. You only get gammas for variables that are NOT constrained to meet the proportional odds assumption. Additional diagnostic test is conducted to assess the model fitness to the data used in the study.

Table 6:

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	76.47	31	0.0000
Skewness	114.35	7	0.0000
Kurtosis	74.97	1	0.0000
Total	265.80	39	0.0000

Obviously, as reported in the table, the residual error term of the model exhibit normality as the skewness's and kurtosis's chi-square statistic are too large for rejection of the null of non-normality. Equally, as reported in the table, the model has rejected the null of heteroskedastic error term and accepted the alternative of homoscedastic error term as its chi-square statistic is equally too large to warrant rejection of the alternative.

Table 7:

Variable	VIF	1/VIF
trf_leader	33.64	0.029723
age	33.58	0.029779
edu	1.71	0.583296
bus_loc	1.55	0.645710
les_leader	1.04	0.963774
ms	1.02	0.976513
trs_leader	1.01	0.991936
Mean VIF	10.51	

Multicollinearity which measures the extent of linear relationship among the regressors used in the model is verified by using the Variance Inflation Factor (VIF). From the estimate of VIF, we can say that the variables used in the model are free from the problem of multicollinearity in the model. As such, estimates can be relied upon for statistical inference.

V. Conclusion

leadership style has been found to have significant impact on employers and employees and the resultant organizational productivity. In the organization, the role of the leader is to provide a vision and strategic thinking framework, and plan and direct operational events by adapting the organization to the environment.

The research concludes that the three-leadership styles notably Transformational, Transactional and Laissez-faire have positive impact on employees commitment and organizational productivity.

Evidence from the research revealed that, of the three leadership styles, the transformational Leadership exhibits the most potential to improve commitment and increase productivity. This must be complemented however by enhanced remuneration structures, access to employee benefits, comfortable work environment, core values of an organization, career advancement opportunity, recognition, and employees' engagement among others.

The transactional Leadership also exude positive impact on commitment and improvement in productivity. The study concludes that effective reward and consequence management has the potential to yield more positive outcomes for organizations practicing the transactional leadership style.

The Study also concludes that Laissez-fair Leadership style does not produce a significant positive outcome on employees commitment and productivity, result shows that this system of leadership has the least impact among the three leadership styles that are the focused of the study. This is even more evident in organizations with larger number of employees and more complex work structures,

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