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Full Length Research Paper

Accessing motivation: analysis of determinants in the Kaduna state public sector

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The paper attempts identifying determinants of accessing available motivations among employees of the Kaduna state public sector. A total of 1,779 employees were taken as a sample size from a staff strength of about 17, 779 using a multistage sampling technique. Structured questionnaire was used to source data on the available motivations in the sector and relevant information on the respondents. Ten establishments were selected from 49. Data analysis was purely computer aided. Relationship in the data set was analyzed through logistic regression where dummy variables were used. Result revealed that females constituted only 33% of the workforce, 69% never enjoyed motivation, only 19% of female compare to 81% male employees had tertiary education while the educational status , sex department deployed to, location of workplace (rural or urban), hours devoted for work within official hours and grade level were found significant determinants in accessing motivations. It recommends placement of more emphasis on girl child education to enhance fair access to workplace motivations between male and female employees and equal access to motivations be provided for both rural and urban-based employees.

Keywords: Motivation, Workplace, characteristics and sex

INTRODUCTION

Employees of any sector are supposed to enjoy some benefits in the form of gift or reward in honour of the service rendered, which facilitate commitment and productivity. Motivation according to Kate (2008) is a reward, tangible or intangible is presented after the occurrence of an action (i.e. behavior) with the intent to cause the behavior to occur again. This is done by associating positive meaning to the behavior. Studies by Jones; Richard; Latreille and Sloane (2008) have shown that if the person receives the reward immediately, the

effect would be greater, and decreases as duration lengthens (Repetitive action-reward combination can cause the action to become habit. Motivation comes from two sources: oneself, and other people. These two sources are called intrinsic motivation and extrinsic motivation, respectively (Weightman, 2008). Vroom (1964) noted that the various types of benefits offered to employees could depend greatly on the size and type of the business as well as its geographic location. However, reported Bennell and Acheampong (2003) pecuniary motives are likely to be dominant among employees in low-income countries where pay and other material benefits are too low for individual and household survival needs to be met. There is a wide range of views about workers' motivation in Africa, most

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METHODOLOGY

Sampling of Respondents

A proportional sample of 1,779 employees was drawn from a comprehensive staff list obtained from the Ministry of Economic Planning, stratified by names of establishments, sex, grade levels and departments. This number constituted 10 percent of the state public sector work force of 17,779 persons as at 2008, and of this number, males constituted 69.2 percent (7,957) while females constituted only 31.8 percent (3,536).

Sampling of Establishments in the Kaduna state Public Sector Ten establishments (seven ministries, two parastatals, and one commission) were selected from 49 establishments identified for the study. The selection of the establishments was done bearing in mind the need for such establishment to be found in the local government. Twenty-three Local Government Areas (L.G.A) made up Kaduna state of which five with the presence of the 10 establishments were sampled. These include; Soba, Kaduna North and South, Zango kataf and Kachia. The selection of the five local government areas reflects the socio-cultural setting and fair spatial spread in the north and south of the state.

Data collection

A structured questionnaire was used to source data on the background and workplace characteristics, and a list of available motivations in the sector was drawn, from which respondents were to choose from by summarizing thus: regular,, not regular and never motivated. Twelve field assistants, consisting of six males and six females assisted the researcher to administer the questionnaire to employees through a purposive sampling technique in the designated establishments. Questionnaire administration took cognizance of population proportions of sampled establishments.

Measurement of Motivation

This was achieved with the used of the cumulative responses of employees on access to motivation, which were scored and scaled thus; Regular=3, Not regular=2 and Never motivated=1.

The resulting scale ranges from 1 to 3; with 1 as the least score by a respondent, assuming 1 is the score in each of the 24 items (1×24=24) while 72 is the highest score on the assumption that a respondent scored 3 in each of the 24 items (3×24=72), at this stage, the data was subjected to series of transformations. Thereafter the respondents were re-categorized into two groups;

regular motivation and low motivation (those who scored < 10 points on the average had low motivation) while those that scored ≥10 points and above had high motivations. This allowed for a comparison of the two groups and estimate of the determinants of regular motivation among employment among the employees of the Kaduna State in a multivariate logistic regression analysis.

Data Analysis

The main aim of the statistical analysis of the data is to identify key variables that could be used to explain differences among employees by levels of motivation in the Kaduna state public service sector. In view of the nature of our data the outcome (high and low) measures of motivation were crossed tabulated with the independent variables (Socio-economic and demographic: age, marital status, educational status and religion, gender and organizational characteristics: department, grade level, occupation, job status, workplace location and working experience) within the data set.

In statistics, logistic regression sometimes called the logistic model or logit model is used for prediction of the probability of occurrence of an event by fitting data to a logit function logistic curve. Like many forms of regression analysis, it makes use of several predictor variables that may be either numerical or categorical. Any explanation of logistic regression begins with an explanation of the logistic function (Gerald, 2009):

$$f(z) = \frac{e^z}{e^z + 1} = \frac{1}{1 + e^{-z}}$$

.....1

The input is z and the output is $f(z)$. The logistic function is useful because it can take an input of any value from negative infinity to positive infinity, whereas the output is confined to values between 0 and 1. The variable z represents the exposure to some set of independent variables (background and workplace characteristics: age, sex, marital status, educational status, department deployed, workplace location, workplace occupation, among others), while $f(z)$ represents the probability of a particular outcome, given that set of explanatory variables (level of motivation). The variable z is a measure of the total contribution of all the independent variables used in the model and is known as the logit while e represents the error term, which is the difference between the absolute value and estimated value.

The variable z is usually defined as

$$z = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \dots + \beta_kx_k,$$

.....2

Table 1 Background Characteristics of the Kaduna state Public Sector Employees

Background Characteristics	Male	%	Female	%
Sex:	1102	67.2	546	42.5
Age Range:				
16-20 yrs	102	6.1	87	5.0
21-40yrs	577	35.0	470	28.5
40 and above	262	15.8	150	9.0
Total	941	56.9	707	42.5
Marital Status:				
Married	851	51.6	348	21
Single	277	13.8	162	9.8
Others	24	1.5	36	2.0
Total	1102	66.9	546	32.8
Educational Status:				
No Formal Education	23	1.4	33	2.1
Primary Sch. Education	83	5.2	43	2.7
Secondary sch. Education	111	7.0	102	6.4
Tertiary Education	825	52.2	310	19.6
Others	32	2.0	17	1.1
Total	1074	67.8	505	31.9
Religion:				
Christianity	29	16.3	92	5.6
Islam	825	50.1	446	27.1
Others	13	0.8	3	0.2
Total	1107	67.2	542	32.8
Ethnic Group:				
Hausa	354	21.6	148	8.9
Others	829	50	317	19
Total	1183	71.6	465	27.9

Where β_0 is called the "intercept" and $\beta_1, \beta_2, \beta_3$, and so on, are called the "regression coefficients" of x_1, x_2, x_3 respectively. The intercept is the value of z when the value of all independent variables is zero. Each of the regression coefficients describes the size of the contribution of that explanatory/ risk factor (Asika, 2006). Logistic regression model is employed in this study to describe the probability that an employees of the Kaduna State public sector will either be categorised as having regular motivation ($Y=1$) or not ($Y=0$). The result of the specific application of logistic regression model to the data set using SPSS Version 17 and Minitab Version 13 for Windows, are presented in chapter four.

RESULTS

Kaduna State Public Sector Employees by Background Characteristics

Table 1 presents results on employees' background characteristics. The sex composition of the Kaduna State public sector employees was sought to show representation between males and females; according to results, male employees were highest, 67.2% by representation against, 33 percent for the females.

The age composition of employees revealed that age group 21 to 40 years constituted the dominant workforce, 64 percent (males 35% versus females 29%), age range 40 years and above was next, 24.8% (male, 15.8% while female 9.0%). Those within age range 16 to 20 years had the least representation, 11%.

Employees by marital status revealed those married as highest by representation in the workforce, 73% with males as majority (52%) compare to 21 percent for the females. Next to it in this segment were those on single status, 23.6% (males, 13.8% against 9.0%). While employees with other statuses were least represented in the workforce, 3.5%.

Representation by religion in the sector revealed that, Christians had the highest, 77% in the workforce; males, 51% while females had only 27.1% compare to those that professed Islam, having 21.9 percent (males, 16.3% versus females, 5.6%) while other religions had the least representation, 1%.

Employees of the Kaduna state public sector comprises different ethnic groups of which the none Hausa were majority 69% (males, 50% and females, only 19%) compare to the Hausa ethnic group; 31% (males, 21.6% as against females, 9.0%).

Employees by literacy levels, revealed thus; those that had tertiary education constituted, 70% in the workforce (male, 52% while females, only 19.2%).

Table2 Kafuna State Public Sector Employee by Background and Workplace Characteristics

Location	Male	%	Male	%	Total
Rural	645	39	346	20.9	991
Urban	400	24.3	257	15.6	657
Total	1045	63.3	593	36.5	1648
Department Deployed:					
Administration	189	11.4	124	7.6	313
Agriculture	64	3.8	12	0.2	76
Education	590	35.8	228	13.9	818
Finance	106	6.4	37	2.3	143
Health	43	2.6	61	3.7	104
Works	50	3.0	20	1.3	70
Others	61	3.7	63	3.8	124
Total	1103	66.7	545	32.8	1648
Job Status					
Casual	56	3.4	19	1.2	75
Part Time	37	2.2	32	1.9	69
Permanent and Pensionable	953	57.8	417	25.3	1370
Contract	55	3.3	77	4.7	132
Others Specify	1	0.1	1	0.1	2
Total	1101	66.8	546	33.2	1647
Occupation					
Professional/ Technical	215	13.0	72	4.3	287
Administrative/Managerial	242	14.6	120	7.5	362
Clerical	77	4.6	43	2.6	120
Sales worker	4	0.2	1	0.1	5
Production worker	19	1.2	13	0.8	32
Services	501	30	246	14.9	747
Occupation not stated	52	3.1	43	2.6	95
Total	1110	66.7	538	32.8	1648

Next to it were those with post primary school education, 14% (males, 7.6% as against females, 6.4%). There were also those with school certificate, they constituted 8% only (males, 5.2% while females had only 3%). The least representation was reported among those that were without formal education, 7% (males, 3.4% and females, 3.1%).

Kaduna State Public Sector Employees by Workplace Characteristics

Table 2 presents results on employees' workplace characteristics. Results on workplace environment; rural or urban showed that those working in rural areas were highest by representation in the workforce, 60; males made up 39% while females were only 21 percent compare to those resident in urban areas with only 40 percent (males, 24% and females, 16%).

Employees by department deployed to at the work place revealed that education department carried the bulk of employees in the sector (50%); males, 35.8% as against females, 13.9%. Next, was the department of administration, 19.0%; males, 11.4% while females made up a fair 7.6%. While in the department of health services, both males and females had 3.0% representation in the workforce. Other departments had; 4.0%, 8.7%, 4% and 7% for department of agriculture, finance, works and others respectively.

Results showed representation in the workforce differ by job status; those with permanent status were highest, 83.3% in the workforce (males, 58% and females, 25.3%) compare to others. Employees on contract appointment were next by representation, 8% (males, 5% as against 3.3% for females). In addition, Casual workers made up only 5% of the work force; with 3.4 and 1.2% males and females respectively, while part time

Table 3 Available Motivations and Access Level in the Kaduna State Public Sector

Motivation Type	Access Level of Motivations					
	Regular %	Not regular %	Never	%		
Housing	511	1.3	219	0.6	918	2.3
Health insurance	144	0.4	152	0.4	1352	3.4
Live insurance	87	0.2	118	0.3	1443	3.6
Out of station allowance	123	0.3	312	0.8	1213	3.0
Duty allowance	306	0.7	373	0.9	969	2.4
Study leave	400	1.0	529	1.3	718	1.8
Refund of training fund	164	0.4	359	0.9	1125	2.8
Annual leave	1034	3.0	278	0.7	336	0.8
Sick leave	680	2.0	383	1.0	584	1.5
Maternity	559	1.4	189	0.5	900	2.3
Uniform allowance	55	0.1	126	0.3	1465	3.7
gymnasium	47	0.1	176	0.4	1425	3.2
Cooperative society	175	0.4	338	0.8	1135	2.8
Child care	76	0.2	190	0.5	1382	3.5
Motor cycle loan	244	0.6	125	0.3	976	2.6
Bicycle loan	136	0.3	260	0.6	1211	3.1
Loan in cash	153	0.4	212	0.5	1099	2.8
Car loan	95	0.2	166	0.4	1317	3.5
Official car	70	0.1	125	0.3	1464	3.7
Award	103	0.3	260	0.6	1317	3.3
Transport services	53	0.1	212	0.5	1323	3.3
Canteen services	47	0.1	166	0.4	1429	3.6
In-house training/workshop	105	0.3	369	0.9	1174	2.9
Tax relief	92	0.2	173	0.4	1383	3.5
Total	5,474	14.9	6,383	16.0	27,714*	69.0

workers had the least by representation, 4.1% (males 2.1% and females 2.0 %).

Employees by major occupations at the work place revealed that, workers in services occupations outnumbered others in the workforce, 45% (males, 30% and females,15%) compare to those in the sales services, 0.3%. This demonstrated clearly that those in services occupations such as teaching, nursing among others comprised the bulk of workers. Next to it were those in the administrative and managerial cadre constituted 22% while other occupations constituted; 17%, 7%, 0.3%, 2% and 6.0% for professional, clerical, sales, production and others in that order.

Available Work Place Motivations in the Kaduna State Public Sector

In line with the study objectives a list of available motivations was provided and workers were asked to

indicate the ones accessible by indicating the nature of access (i.e. regular, not regular and never) in the Kaduna state public service sector (See Table 3). Employees who never had access to any motivations constituted majority, 69%, employees whose access to motivations was not regular were next by representation in the workforce, 16% while those whose access to motivation was regular made up the least representation, 14.9%. However, item-by-item revealed variations by access; annual leave and sick leaves were the most regularly accessed, 3.0% and 2.0% compare to others whose percentages ranges from zero to one.

The odd to Report Regular Motivation by Background Characteristics of Employees

To realize one of the study objectives the relationship between the background characteristics and the odd to report regular access to motivation at the workplace was

Table 4 Employees' Odd to Report Regular Motivation by Background Characteristics in the Kaduna State Public Sector

Background Characteristics	B	S.E.	Odd Ratio	Df	Sig.	Exp(B)
Sex	.532	.140	14.396	1	.000**	1.703
Marital status	-.044	.139	.101	1	.751	.957
Age	-.328	.231	2.028	1	.154	.720
Religion	.312	.167	3.489	1	.062	1.366
Educational status	-.173	.142	1.482	1	.023*	.841
Ethnic group	-.118	.153	.594	1	.441	.889

Significant at $p \leq 0.05^*$ and 0.01^{**}

Table 5 Employees' Odd to Report High Motivation by Workplace Characteristics in the Kaduna State Public Sector

Workplace Characteristics	B	S.E.	Odd Ratio	Df	Sig.	Exp(B)
Department	-.537	.288	3.481	1	.052*	.584
Occupation	-.147	.173	.721	1	.396	.864
Employment status	-.046	.141	.109	1	.741	.955
Location	.240	.133	3.239	1	.050*	1.271
Working hours	-.268	.124	4.654	1	.031*	.765
Grade level	-.224	.130	2.985	1	.054*	.799

Significant at $p \leq 0.05^*$ and 0.01^{**}

analyzed (Table 4). Results revealed sex and educational status of employees having significant relationships (.000** and .023* respectively) with the corresponding odd to report regular motivation thus; 14.4% and 1.5% respectively. Other background characteristics such as marital status, age at birth, religion, and ethnic group revealed no relationship with the odd to report regular access to motivation.

The odd to Report Regular Motivation by Workplace Characteristics of Employees

In compliance with the study objectives, the relationship between the odd to report regular motivation and the workplace characteristics of employees was sought (See Table 5). Compelling evidence from the results revealed that the department deployed to, location of workplace (rural or urban), hours devoted for work within official hours and grade level had significant relationships (.052*, .050*, .031* and .054* respectively) with a corresponding odd ratio; 3.5%, 3.2%, 4.6% and 2.9% in that order. On the contrary, workplace characteristics such as occupation at the workplace and employment status revealed no significant relationship.

DISCUSSION

From table1, results suggest that female employees were least represented compare to males in the

workforce. This finds relevance in the provisions of the National Gender Policy of Nigeria (2006) that women are least represented in all segments of the economy compare to men in the country. This suggests further that women interests and aspirations are least represented in the sector. In addition, more than half the workforce had tertiary education with a mere 19% for women, this points to the fact that women were most likely to compete favourably with men in accessing workplace opportunities including motivations. This is in line with a study report by Aminu (2012) that education has persistently remain the bane for women to compete favourably with men in the labour market in Nigeria.

Results in table 2 suggest that the bulk of the workforce resides in rural areas with slightly above one third as urban based. In addition, the deployment of workers by department revealed that the more than half the workforce was deployed to education department of which, most of them where teachers. This implies, education department takes the bulk of the workforce in the state public sector. Further, the employment status of employees of the sector revealed that 83% were on permanent and pensionable status, which indicates that the sector had less of employees on casual, part time and contract appointments.

The desire of every employees is to be motivated at the workplace, all things being equal; this is hardly tenable in the Kaduna state public sector as results in table 3 revealed that more than half the workforce was never motivated. This implies too that employees of the sector were poorly motivated. This according to

Weightman (2008) has far-reaching consequences on productivity.

The odd to report regular motivation by employees' background characteristics revealed that the sex and educational status of employees were found significant, given their percentages and the relationship. This implies, females employees were disadvantage compare to males in accessing motivation in the Kaduna State public sector or female employees were less likely to report regular motivation compare to male ones. In addition, results indicate also that employees' educational status was a strong predictor of motivation in the sector. This could be interpreted to mean that educationally disadvantage employees were less likely to access motivation of which female employees were. This finding coincides with a study report by Rubbery (2001) that human capital endowment was central to differences in access to employment opportunities between males and females in the formal labour sector in Nigeria.

The odd to report regular motivation by workplace characteristics among employees revealed department deployed, work hours, grade level and location of workplace (rural and urban) maintaining positive relationships. This implies the department an employee was deployed to and the number of hours devoted for work within official hours could attract regular motivation at the workplace. In addition, access to motivation was positively determined by seniority and workplace location, which indicates that junior employees were less likely to access motivation at regular intervals compare to their senior colleagues. Further, the workplace environment –rural or urban was found to be influential; it implies too that employees of the sector resident in rural areas were disadvantaged in accessing workplace motivations compare to their urban colleagues, which may not be unconnected with the location of the headquarters of the sector in urban centers.

CONCLUSION

It obvious from the results that male employees made up over 70% of the workforce, 60% was resident in rural areas, 50% was deployed to education department,

69% was never motivated while sex, educational status, department deployed to, location of workplace, grade level and working hours were positively related with access to motivation at the workplace

RECOMMENDATION

Based on the results, the study recommend as follows:

- i. Efforts be made by the state government to increase women employment in the sector
- ii. Government to place emphasis on female education to permit fair participation and access to employment of opportunities between men and women
- iii. Government to improve on motivation provision for employees of the sector.
- iv. Fair access to motivation be given to both urban and rural based employees in the sector.

REFERENCES

- Aminu A (2010). Determinants of participation and earnings in wage employment in Nigeria. Paper presented at the 15th IZA/World Bank Conference: Employment and development. May 3 to 4 , 2010 Cape town, south Africa.
- Asika N (2006). *Research methodology in the behavioural sciences*. Lagos: Esto Printers.
- Bennell PS and Acheampong K (2003). Research project application to DFID: Teacher motivation and incentives in low-income developing countries. Knowledge and Skills for Development. Brighton.
- Federal Ministry of Women Affairs and Social Development Abuja (2006). National Gender Policy. Federal Republic of Nigeria.
- Gerald BF (2009). Equation 3.14. *Fourier analysis and its application* .Reprint of Wadsworth and Brooks/Cole 1992 ed.. American Mathematical Society Bookstore. ISBN 0821847902.
- Kate L (2008). Part-time jobs with benefits. Retrieved on 14th January, 2008, from www.aol.career builder.com
- Jones MK, Richard J, Latreille PL and Sloane PJ (2008). Training, job satisfaction and workplace performance in Britain: Evidence from WERS 2004. IZA Discussion Papers 3677, Institute for the Study of Labor. IZA.
- Rubery J (2001). Gender Mainstreaming and Gender Equality in the EU: Impact of the EU Employment Strategy. *Industrial Relation Journal* 33: 5.
- Weightman J (2008). The employee motivation audit: Cambridge Strategy Publications.

