

Job Redesign and Employee Productivity on Vegetable Oil Firms in Anambra State, Nigeria

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Abstract: The study examined the job redesign and employee productivity in Vegetable oil firms in Anambra State, Nigeria. The researcher developed four objectives such as to: determine the effect of job enrichment on employee commitment of vegetable oil firms; ascertain the relationship between job enlargement and employee commitment of vegetable oil firms; examine the relationship between job autonomy and employee efficiency of vegetable oil firms; determine the effect of job rotation on employee efficiency of vegetable oil firms. Four research question and four hypotheses are formulated in line with the stated objectives of the study. The study adopted survey method of research. Data were generated through primary and secondary sources. The method for data collection was questionnaire which was administered randomly among the staff of the selected vegetable oil firm. The population of the study was 942; the sample size of the study was the same population because it is not up to 1000. While eight hundred and seventy-three (873) were retrieved. The hypotheses were tested using regression analysis method at 0.05% level of significance. The findings of the study revealed that, Job enrichment has a significant and positive effect on employee commitment of vegetable oil firms; Job enlargement has a significant and positive effect on employee commitment of vegetable oil firms; Job autonomy has a significant and positive effect on employee commitment of vegetable oil firms. The study concludes that job design has significant positive effect on employee productivity, Nigeria. The study recommends that Job enrichment is considered in planning and evaluation of employees' jobs and performance respectively; Managers should sponsor continuous training and development programmes to the top management of all their outlets on matters of job enlargement and how it can be aligned to enhance organizational efficiency; Management should embrace the process of management by objectives whereby major focus must be oriented towards putting in place job autonomy that will enable the organization achieve their goals and objectives.

Key words: job redesign, employee productivity, job enrichment, job enlargement, employee commitment

1.1 Introduction

Improving employee productivity has been one of the most important objectives for several organizations. This is because higher levels of employee productivity provide an organization and its employees with various advantages. For instance, higher productivity leads to favourable economic growth, large profitability and better social progress (Sharma & Sharma, 2014). Additionally, employees who are more productive can obtain better wages/ salaries, better working conditions, and favourable employment opportunities. Moreover, higher productivity tends to maximize organizational competitive advantage through cost reductions and improvement in high quality of output (Baily, Farrell, Greenberg, Henrich, Jinjo, Jolles, & Remes 2005; Hill. Jones, & Schilling 2014; Wright, 2004). All of these benefits have made employee productivity worthy of attention. Therefore, looking at its antecedents is very important to ensure organizational survival and long term success.

Job redesign is the restructuring of the elements of work including tasks, duties and responsibilities of a specific job in order to make it more encouraging and inspiring for the employees or workers (Alber, 2017). It is a broad concept that can refer to any part or combination of parts of the job, and is characterized by task identity, task variety, and task significance, and autonomy. The idea is to place the right person in the right job and get the maximum output while increasing their level of satisfaction (Slocum & Sims, 2010).

A job can be made more meaningful through task identity, task variety, task significance and autonomy. Individual jobs should focus on an entire unit as opposed to just a portion of it. For example, a bank teller may be responsible for satisfying all the needs of a customer, including transactions involving checking, savings, utility payments, loan payments, and mortgage payments, rather than specializing only in savings account deposits and withdrawals. This is task identity (Slocum & Sims, 2010). A task should also require an individual to develop and use a variety of skills and abilities in the performance of the task. In the case of a general superintendent of a banking plant, the technical knowledge of the firm's machinery, the skill to supervise others and the ability to determine plant shutdowns and repairs without loss of revenues provides a significant amount of task variety (Hellriegel & Slocum, 2019). A job should have a substantial impact on the welfare of the organization (Alber, 2017) and recruiting high-caliber staff indicates that a high degree of task significance is attached to the job (Aldag & Brief, 2019).

Task variety, task identity, task significance, and autonomy are the core dimensions of a job because they relate directly to the attainment of personal satisfaction. Job redesign is one of the effective ways to increase the performance of employees. Job redesign is the planning and specification of job tasks and the work setting in which they are to be accomplished. Job redesign can solve problems such as those related to skills, work overload, repetitiveness, and increase in working hours (Saleem & Shaheen, 2012). For example, job redesign is needed when business process re-engineering is implemented (e.g. the introduction of information technology) to enhance the effectiveness of customer service (Sununta & Pila-Ngarm, (2016) Well-designed jobs also lead to increased employee well-being (Tolentino, 2013) and thus an alternative approach to reduce job dissatisfaction and enhance the motivational potential of a job (Ali, (2014).

Job redesign is an essential undertaking within an organizational, operational scope that has the potential of enhancing employee performance. Initiatives focusing on job redesign are centered on the component of employee performance, which forms the central determinant in the overall success of the organization (Kytöharju, 2013). Whereas employee performance is tantamount to overall organizational performance, the total employee performance is subject to other organizational facets such as corporate culture, reward systems, work environment and overall motivation strategies (Opiyo, Ochieng & Awuor, 2014). Job redesign has emerged as one of the organizational initiatives that can help shape the operational framework and consolidate optimal productivity. Through continued evaluation of job-related components, it is possible to identify the strengths and value of each element and devise a mechanism to optimize their contribution towards increasing employee productivity and general organizational performance (Mensa-Bonsu, 2012).

Execution of job redesign initiative must focus on the organizational, administrative objectives on job enhancement and optimization of employee productivity (Frankforter & Cristen, 2015). There is the need for an elegant approach through which all roles within the purview of the organizational, operational framework are subject to continued review and assessment through job redesign with the intention of seeking to empower each role to enhance its output. According to Ugboro (2016), thoughtfully devised jobs have a positive impact on employee motivation and job performance, which leads to improved overall organizational performance outcomes such as reduced employee turnover, high productivity, and initiative to perform beyond expectations. Besides, the realization of optimal output from the human resources makes it possible address other organizational factors that are fundamental for the realization of overall increased organizational performance (Campion, Mumford, Morgeson & Nahrgang, 2015). There is the need for aligning all operational activities with the organizational overall performance targets. Through job redesign, emphasis should centralize on improving internal efficiencies towards the realization of increased outcome from the human resource pool (Elloy, 2012).

Campion, (2015) observed that the basic rule in job redesign is to attain stimulating jobs with positive psychological impact on the worker so that the employee will get more motivated to do the job, which in turn contributes, to higher productivity and increased performance.

The problem of job design stemmed from the fact that in today's competitive environment, organizations globally want to maximize the potential of their human resources to stay ahead of the aggressive competition in the middle of the quest. The problems of boredom and job dissatisfaction which consequently result in employee's low productivity, absenteeism and lateness, work stress, delay in administrative performance, psychological breakdown and eventually withdrawal of services are common decimal in most organizations. The job redesign plays a huge role in the development of an organization. It is important employees to be well motivated, financially and non-financially, equipped with current skills, knowledge and abilities and given duties and tasks to carry out. Unfortunately, despite the fact that much is expected of employees in the organization, problems of boredom and job dissatisfaction which consequently result in workers' low productivity, delay in administrative performance, work stress, psychological breakdown, absenteeism and lateness and eventually withdrawal of services seem to be prevalent in most vegetable

oil firm. Also observed in the workplace is that the employees seem to perceive their work as monotonous. There has not been a change or increment in their job tasks and duties thus making them to feel bored thereby limiting their commitment to their jobs. Jobs performed by the employees seem not to be challenging and enjoyable. This situation appears to be part of the reason the employees almost always come late to work or engage in other unethical behaviors like loitering during office hours since they seem not to find their jobs meaningful. Based on the above observations, this study seeks to examine job redesign and employee productivity in Vegetable oil firms in Anambra State, Nigeria.

1.2 Objective of the Study

The general purpose of this study was to determine job redesign and employee productivity in Vegetable oil firms in Anambra State, Nigeria. . Specifically, the study sought to:

1. Determine the effect of job enrichment on employee commitment of vegetable oil firms in Anambra State, Nigeria.
2. Ascertain the relationship between job enlargement and employee commitment of vegetable oil firms in Anambra State, Nigeria.
3. Examine the relationship between job autonomy and employee efficiency of vegetable oil firms in Anambra State, Nigeria.
4. Determine the effect of job rotation on employee efficiency of vegetable oil firms in Anambra State, Nigeria

1.2 Hypotheses

The following null hypotheses were formulated that guide the objectives of the study and strengthen the analysis:

Ho₁: Job enrichment has no significant effect on employee commitment of vegetable oil firms in Anambra State, Nigeria.

Ho₂ Job enlargement has no significant effect on employee commitment of vegetable oil firms in Anambra State, Nigeria.

Ho₃: Job autonomy has no significant effect on employee efficiency of vegetable oil firms in Anambra State, Nigeria.

Ho₄: Job rotation has no significant effect on employee efficiency of vegetable oil firms in Anambra State, Nigeria.

REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

This study is anchored on Sociotechnical systems by Trist and Bamforth (1951)

The socio-technical systems theory states that, when designing an organizational system, both social and technical are important parts of a complex system that must be considered. These elements are interdependent.

The theory states that any organization consists of interacting sub-systems. Within any organization are people with capabilities who work towards goals, follow processes, use technology, operate within a physical infrastructure, and share certain cultural assumptions and norms. Sociotechnical systems (STS) in organizational development is an approach to complex organizational work design that recognizes the interaction between people and technology in workplaces. The term also refers to coherent systems of human relations, technical objects, and cybernetic processes that inhere to large, complex infrastructures. Social society, and its constituent substructures, qualifies as complex sociotechnical systems.

The term sociotechnical systems was coined by Trist, and Bamforth, in the World War II era, based on their work with workers in English coal mines at the Tavistock Institute in London.^[2] Sociotechnical systems pertains to theory regarding the social aspects of people and society and technical aspects of organizational structure and processes. Here, technical does not necessarily imply material technology. The focus is on procedures and related knowledge, i.e. it refers to the ancient Greek term *technē*. "Technical" is a term used to refer to structure and a broader sense of technicalities. Sociotechnical refers to the interrelatedness of social and technical aspects of an organization or the society as a whole. Sociotechnical theory is about joint optimization, with a shared emphasis on achievement of both excellence in technical performance and quality in people's work lives. Sociotechnical theory, as distinct from sociotechnical systems, proposes a number of different ways of achieving joint optimisation. They are usually based on designing different kinds of organisation, according to which the functional output of different sociotechnical elements leads to system efficiency, productive sustainability, user satisfaction, and change management.

The advantage for applying the sociotechnical systems theory to understanding job characteristics lies in the fact that it considers both the social environment of the job (i.e., interaction between workers) and the knowledge required to perform the job (i.e., the technical aspect of the job). In fact, an extension of this theory by Cummings (2018) suggested that even with a single job, the various job tasks need to be well differentiated by clarifying different knowledge characteristics that are required to perform the job. Cummings further pointed out that the social environment for performing the job largely determines whether the technology side of the job functioning can go smoothly.

2.2. Empirical Review

Ozigbo and Cross (2020) analyzed the effects of job enrichment on organizational performance. Non-teaching staff of University of Abuja, a public university in Federal Capital Territory (FCT) was the focus. Descriptive research method was adopted for the study using one hundred and ninety seven (197) valid questionnaires which were completed by selected members of staff of the university, in FCT, North-Central Nigeria. A simple random sampling technique was adopted for the study. The data collected were statistically analyzed in a significant manner. The result of the findings revealed that there are significant positive relationship between job depth, job training and core job dimension elements of the job enrichment and organizational performance while there was no correlation between motivators' elements and performance. Hence, increased recognition of task significance will

stimulate the employees to further raise their commitment towards the attainment and realization of the goal and objectives of the institution/organization.

Salau, Adeniji, and Oyewunmi (2014) investigated the relationship between the elements of job enrichment and organization performance among the non-teaching staff in Nigerian public universities. Descriptive research method was adopted for this study using one hundred and ninety seven (197) valid questionnaires which were completed by selected public universities in Ogun State, South-West Nigeria. A stratified and simple random sampling techniques were adopted for the study. The data collected were statistically analyzed in a significant manner. The result of the findings revealed that there are positive correlation between job depth, on the job training and core job dimension elements of the job enrichment and workers/organizational performance while there was no correlation between motivators' elements and performance. Hence, increased recognition of task significance will stimulate the employees to further raise their commitment towards the attainment and realization of the goal and objectives of the institutions/organizations.

Magaji, Akpa, and Akinlabi (2017) evaluated the effects of job enrichment on employee commitment of non-academic staff in selected private Universities in South-West Nigeria. This study employed a cross-sectional survey design. The population of the study was 2462 non-academic staff distributed among the seven (7) approved private universities that had existed for six years in South-West Nigeria. A sample of 740 respondents was selected using multi-stage sampling technique. 618 filled questionnaires were returned but 547 was found useable. The simple regression model was used to analyse the data collected. The findings revealed that job enrichment had a statistically significant positive effect on employee commitment of non-academic staff in the selected private universities in South-West Nigeria. This findings shows that non-academic staff in the sample Universities are committed to their work as the result of the practice of job enrichment. However, the study recommended that managers and human resources managers of the surveyed Universities and other private and public universities and other organizations should pay more attention to job enrichment practices as to keep employee committed all the time.

Chilgong, Karanja, and Muturi, (2021) examined the impact of job enrichment on the performance of academic staff in public universities in Kenya. The study uses data collected from all academic staff in Kenyan public universities who form the target population. Further, the study employed exploratory research which enabled the researcher to achieve greater control of the study design, and the use of a cross-sectional survey since the data used was collected during the research and was not initially centrally available. Data collection was undertaken using questionnaires distributed to a select number of staff derived using the multi-stage sampling procedure. Using simple regression models for data analysis, the research established that there is a positive correlation between job enrichment and the performance of academic staff in public universities in Kenya. Based on the above findings, it is recommended that further research is required to analyze the impact of job enrichment on non-academic staff. Further, extensive research should be undertaken to establish similarities of findings in the case where the target population is private university.

Hawa, (2018) evaluated the influence of job redesign on employee performance at ICRAF. The study was guided by the following research questions: The study utilized descriptive research design. The target population included 545 employees working at World Agroforestry Centre (ICRAF). The study applied random sampling technique. A sample size of 85 respondents was calculated from the target population. The study utilized structured questionnaire with close ended questions as the primary tool for data collection. Descriptive statistics was computed using frequencies, percentages, means and standard deviations. Inferential statistics was computed using regression test, which assessed whether job enlargement, job enrichment and task autonomy affected employee performance (outcome). The data was analyzed by computer software named Statistical Package for Social Sciences (SPSS) and the outcome was presented in tables and figures. Findings on the job enlargement and employee performance indicate that a majority of the respondents were strongly in agreement that job enlargement contributes to increased levels of job satisfaction. The findings also show that job enrichment has impacted on areas of self-management and work independence. In addition, respondents agreed that, job enrichment has resulted in increased confidence in decision making on operational strategies and also impacted on the work delivery timelines. The study therefore makes a finding that, job enrichment impact on employee esteem, motivation, confidence and quality thus impacting on employee performance. The findings on task autonomy and employee performance indicate that majority of the respondents were in agreement that task autonomy contributed to increased levels of work commitment. The findings indicate that respondents expressed overwhelming agreement that task autonomy boosts employee confidence in executing their duties and responsibilities. The study concludes that job enrichment factors notably; employee job attendance, employee self-management, employee decision making, operational autonomy, employee work quality and employee work commitment wielding overwhelming influence. The study also concludes that task autonomy factors including; employee work commitment, employee operational confidence, operational efficiency, employee level of trust, employee self-motivation strategies, employee self-esteem and individual task responsibility wield overwhelming influence on employee performance.

Opiyo, Ochieng and Owuor (2012) determined the effect of job redesign on the performance of employees in commercial banks in Kisumu City. The study adopted a cross sectional survey research design. A sample of 297 randomly selected staff of commercial banks was picked. Questionnaires and interview schedules were used to collect primary data. Data was analyzed using descriptive statistics. The study established that task identity, task variety and task significance affects the performance of employees of commercial banks in Kisumu, but that task autonomy does not affect the performance of employees of commercial banks in Kisumu. The study concludes that job redesign affects the performance of employees and recommends that commercial banks create a high degree of task identity for their employees.

Ikon and Ikedinma (2020) focused on job redesign and organizational commitment in government ministries in Anambra State. The specific objective of the study was to ascertain the nature of relationship that exists between job redesign and organizational commitment. Relevant hypothesis was formulated and tested. Survey research design was adopted for this study. The study was anchored on Equity Theory by Edwin Locke and Social Exchange

Theory by George Homans (1958). Six government ministries were selected systematically. The population of the study was 2526 employees from which the sample size of 345 employees was gotten through Taro Yamane sampling technique. The data collected using structured questionnaire were analyzed using Pearson Product moment correlation co-efficient while the hypothesis was tested using Pearson's Table of Test of Significance. The findings revealed that there is a significant relationship between job redesign and organizational commitment ($P_{val} 0.033 < 0.05$). The study concluded that Job Redesign is a major determinant of the performance of employees which to a great extent the performance of the organization as a whole. The study recommended that to improve the level of satisfaction employees get from their jobs, the management of government ministries should carefully plan Job Redesign process in the ministries to ensure that suitable employees are placed in appropriate positions thus making for a workforce poised towards goal attainment.

Akbari, & Maniei, (2017) aim of this study is investigating the relationship between job rotation and performance of Dana insurance employees. To that end, all employees of Tehran Dana Insurance have been studied as the statistical population. This research is a descriptive survey and in term of aim is functional. According to this, accordingly, To measure the basic concepts of research, Job Rotation questionnaire contains 8 questions and evaluate the performance of staff consists of 11 questions was used respectively. Reliability of the questionnaire by Cronbach39; for two variables were calculated 0.887 and 0.803 respectively. Test validity was confirmed by two methods of Content validity and ostensible validity. At the end of the study significant relationship between job rotation and employee performance were observed.

METHODOLOGY

Research design is simply the blue print which researcher used in carrying out research work and for the purpose of this study, the survey research design were used to build the impact on job satisfaction and employee productivity. The data used for this research work were obtained specifically from two sources namely Primary and Secondary sources. The population for the study comprised the staff of the six (6) Vegetable oil firms in Anambra state, Nigeria. Vino pure vegetable Oil (112), Star Arrival Vegetable Oil (88), Sonwatex Sunny Vegetable Oil (120), Baron Vegetable Oil (214), Promac Vegetable Oil (158), Envoy Oil Industry (250), which gives a total of 942. The researcher make use of questionnaire structured into two sections. This was designed in such a way to obtain relevant information from the respondents. The first section looked at the personal data of the respondents while the second section concern the respondents' perception on the investigation of job redesign and employee productivity in Vegetable oil firms in Anambra State, Nigeria. Statistics, such as frequency count and percentages were used in the analysis of personal characteristics, while hypotheses were tested, using t-test. The hypotheses were tested at 0.05 level of significance. Analysis were carried out with the aid of Statistical Package for Social Sciences (SPSS) and Regression Analysis.

DATA PRESENTATION AND ANALYSIS

In this section, the data generated from the staff of the sampled firms were presented, analyzed and interpreted. Nine hundred and forty-two (942) questionnaires were administered. However, eight hundred and seventy-three (873) questionnaire were retrieved, 92.7% was the percentage rate of returned questionnaires. Therefore the analysis and interpretation of data were based on the returned questionnaires. The method used was the percentage tables, and ANOVA regression was used for the hypothesis testing. The first section covers the demographic features of the respondents. The second section analyzed the data relevant to research questions.

4.1 Demographic Characteristics of the Respondents

In this section, the demographic features of the respondents such as gender, marital status, age bracket, educational qualification and working experience are presented and analyzed. A total of eight hundred and seventy-three respondents were sampled and the results are presented in the table below.

Table 4.1: Gender of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	387	44.3	44.3	44.3
Female	486	55.7	55.7	100.0
Total	873	92.7	100.0	

Source: Field Survey, 2023/SPSS

The above table reveals that the 44.3% of the respondents which represents three hundred and eighty-seven (387) persons were male respondents, while four hundred and eighty-six (486) respondents which represent 55.7% were female respondents. By implication, female respondents were more than male respondents by 11.4% in our selected population sample for this study. The implication of this is to enable us to know the number of male and female that successfully returned their questionnaires.

Table 4.1.2: Marital Status of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	380	43.5	43.5	43.5
Married	486	55.7	55.7	99.2
Others	7	0.8	0.8	100.0
Total	873	92.7	100.0	

Source: Field Survey, 2023/SPSS

In the table above, three hundred and eighty (380) respondents, representing 43.5% are single while four hundred and eighty six (486) respondents which represent 55.7 percent are married. While seven (7) respondents which represents 0.8% were among widowed, divorced and separated. It is there

fore glaring that the majority of the respondents were married as at the time of this study. Thus marital status table help us to know the number of single, married, and divorce respondents that answered the distributed questionnaires.

Table 4.1.3: Age Bracket of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18 - 30 years	330	35.0	37.8	37.8
31 - 40 years	220	23.4	25.2	63.0
41 - 50 years	198	21.0	22.7	85.7
51 years and above	125	13.3	14.3	100.0
Total	873	92.7	100.0	

Source: Field Survey, 2023/SPSS

Table 4.3 above depicted the age bracket of the respondents. The distribution shows that 37.8% of 330 respondents are between the age brackets of 18 to 30 years while 220 respondents representing 25.2% are within the age bracket of 31 - 40 years. On the same note, 22.7% of 198 respondents are within the age bracket of 41 - 50 years while the remaining 125 respondents representing 14.3% are within the age bracket of 51 years and above.

4.2 Multiple Regression Analysis

Multiple regression result was employed to test the effect of independent or explanatory variables on the dependent variables. The result of the multiple regression analysis is presented in the tables below.

First Model Result

Table 4.2.1 Summary of the Regression Result

The result of the multiple regressions formulated in chapter three is presented in the tables below.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.484 ^a	.545	.433	1.12867	.235	133.893	2	871	.000	1.810

a. Predictors: (Constant), JENL, JECH

b. Dependent Variable: EPC

Table 4.3.1 shows that R^2 which measures the strength of the effect of independent variable on the dependent variable have the value of 0.54%. This implies that 54% of the variation in employee commitment explained by variations in job enrichment, job enlargement. This was supported by adjusted R^2 of 0.43%.

Test for autocorrelation: This is used test whether errors corresponding to different observation are uncorrelated. If the value of the durbin-watson from the regression result is close to 2 no autocorrelation in that regression result, but if it deviates significantly then there is autocorrelation. The Durbin-Watson statistic (D.W) of 2 reveals no autocorrelation in the models. Hence, the result is good for business analysis because the Durbin Watson result is 1.80.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	341.129	2	170.565	13.3893	.000 ^b
	Residual	1113.379	871	1.274		
	Total	1454.509	873			

a. Dependent Variable: EPC

b. Predictors: (Constant), JENL, JECH

The f-statistics value of 13.3893 in table 4.3.2 with f-statistics probability of 0.000 shows that the independent variables has significant effect on independent variables such as job enrichment, and job enlargement, can collectively explain the variations in employee commitment.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.154	.125	2.269	.011	2.909	3.399
	JECH	.346	.026	.415	.329	.397	.295
	JENL	.181	.038	.149	.4752	.106	.256

a. Dependent Variable: EPC

A'priori Criteria: This is determined by the existing business theories; it also indicates the signs and magnitude of the business parameter under review. In table above, we found out that job enrichment has a positive sign given its value as .346; this implies that a unit increase in job enrichment increases the employee commitment by 34%, this conform to the a' priori expectation. Job enlargement has positive sign given its value as 181; this implies that a unit increase in job enlargement increases employee commitment by 18%, this conform to the a' priori expectation.

T- Statistics: The t-test is used to measure the individual statistical significance of our explanatory parameter in the model. From table Coefficients above job enhancement is 3.229, this is statistically significant, this suggest that it contribute significantly to employee

commitment. Job enlargement is 4.752 this is statistically significant, this suggest that it contribute significantly to employee commitment at 5% level of significant.

4.3 Second Model Result

Table 4.3.1 Summary of the Regression Result

The result of the multiple regressions formulated in chapter three is presented in the tables below

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.943 ^a	.889	.888	.16078	.889	3489.448	2	871	.000	1.635

a. Predictors: (Constant), JROT, JAUT

b. Dependent Variable: EMF

Table 4.4.1 shows that R^2 which measures the strength of the effect of independent variable on the dependent variable have the value of 0.88%. This implies that 88% of the variation in employee productivity explained by variations in job rotation and job autonomy,. This was supported by adjusted R^2 of 0.58%.

Test for autocorrelation: This is used test whether errors corresponding to different observation are uncorrelated. If the value of the durbin-watson from the regression result is close to 2 no autocorrelation in that regression result, but if it deviates significantly then there is autocorrelation. The Durbin-Watson statistic (D.W) of 2 reveals no autocorrelation in the models. Hence, the result is good for business analysis because the Durbin Watson result is 1.63.

ANOVA ^a					
Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	180.410	2	90.205	.000 ^b
	Residual	22.594	871	.026	
	Total	203.003	873		

a. Dependent Variable: EMF

b. Predictors: (Constant), JROT, JAUT

The f-statistics value of 34.89448 in table 4.4.2 with f-statistics probability of 0.000 shows that the independent variables has significant effect on independent variables such as job rotation and job autonomy can collectively explain the variations in employee productivity.

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	.122	.022		5.427	.000	.078	.166
JAUTH	.922	.011	.941	2.399	.007	.901	.944
JROT	-.003	.004	-.009	3.767	.000	-.011	.005

a. Dependent Variable: EMF

A’priori Criteria: This is determined by the existing business theories; it also indicates the signs and magnitude of the business parameter under review. In table above, we found out that Job autonomy has a positive sign given its value as .922; this implies that a unit increase in job autonomy increases the employee efficiency by 9%, this conform to theoretical expectation. Job rotation has a positive sign given its value as .003; this implies that a unit increase in job rotation increases the employee’s productivity by 3%, this conform to theoretical expectation.

T- Statistics: The t-test is used to measure the individual statistical significance of our explanatory parameter in the model. From table Coefficients above Job autonomy is 2.399 this is statistically significant, this suggest that it contribute significantly to employee efficiency at 5% level of significant. Job rotation is 3.767 this is statistically significant, this suggest that it contribute significantly to unemployment reduction at 5% level of significant.

4.4 Test of Hypotheses

Here, the four hypotheses formulated in chapter one were tested using t-statistics and significance value of the individual variables in the regression result. The essence of this is to ascertain how significant are the effect of individual independent or explanatory variables on the dependent variables.

4.5.1 Test of Hypothesis One

Ho: Job enrichment has no significant effect on employee commitment of vegetable oil firms in Anambra State

In testing this hypothesis, the t-statistics and probability value in table 4.3 is used. Job enrichment have a t-statistics of 3.229 and a probability value of 0.002 which is statistically significant. Therefore, we reject the null hypothesis and accept the alternative hypotheses which state that job enrichment has a significant effect on employee commitment of vegetable oil firms in Anambra State.

4.5.2 Test of Hypothesis Two

Ho: Job enlargement has no significant effect on employee commitment of vegetable oil firms in Anambra State.

Job enlargement has a t-statistics of 4.752 and a probability value of 0.000 which is statistically insignificant. Therefore, we accept the alternative hypothesis which state that job enlargement has a significant effect on employee commitment of vegetable oil firms in Anambra State.

4.5.3 Test of Hypothesis Three

Ho: Job autonomy has no significant effect on employee efficiency of vegetable oil firms in Anambra State

Job autonomy has a t-statistics of 2.399 and a probability value of 0.007 which is statistically significant. Therefore, we reject the null hypothesis and accept the alternative hypotheses which state that job autonomy has a significant effect on employee efficiency of vegetable oil firms in Anambra State.

4.5.4 Test of Hypothesis Four

Ho: Job rotation has no significant effect on employee efficiency of vegetable oil firms in Anambra State

Job rotation has a t-statistics of 3.767 and a probability value of 0.000 which is statistically significant. Therefore, we reject the null hypothesis and accept the alternative hypotheses and conclude that job rotation has a significant effect on employee efficiency of vegetable oil firms in Anambra State.

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The study attempted to use a regression to study the job redesign and employee productivity in Vegetable oil firms in Anambra State. The result of the study shows that job rotation, job enlargement, job autonomy and job enrichment do not only have a positive impact on performance but such impact is strong and statistically significant. Their coefficients are statistically different from zero at less than 5 percent level of significance. It is obvious to all personnel and industrial relations practitioners that job redesign is a sine quo non-for stimulating employee's performance/productivity. The study concluded that job redesign had a significant effect on employee's productivity of the included firms in Anambra state, Nigeria.

5.2 Recommendations

Based on the analysis of data, the results and the discussion of the results, the conclusions that was drawn, we were able to make the following recommendations:

- i. Job enrichment is considered in planning and evaluation of employees' jobs and performance respectively
- ii. The study recommended that managers should sponsor continuous training and development programmes to the top management of all their outlets on matters of job enlargement and how it can be aligned to enhance organizational efficiency
- iii. Management should embrace the process of management by objectives whereby major focus must be oriented towards putting in place job autonomy that will shoot into achievement of the objectives of the organization

- iv. Job rotation is some of the methods that can be adopted to ensure that all employees are part of the organizations entire goal. This can increase the variety of skills that every employee possesses which is a form of motivation.

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Appendix

Department of Business Administration
Faculty of Management Sciences,
Chukwuemeka Odumegwu Ojukwu University,
Igbariam campus,
Anambra State.

20th April 2023

Dear Sir/Madam

Letter of Introduction

I am a Postgraduate Student of Business Administration Department in the above named school. I am currently pursuing a Master Degree in Business Administration. I am carrying out a research on “**Job Redesign and Employee productivity in Vegetable oil Firms in Anambra State, Nigeria**”. The purpose of writing is to solicit your support and assistance by supplying answers to the question in the attached questionnaire. Please answer by ticking (✓) against any option chosen and comment briefly in the spaces provided. I, however wish to assure you that this is purely an academic exercise and any information supplied will be treated with confidence and will be used purely for academic purposes.

Thank you for your maximum corporation in anticipation.

Yours sincerely

Amodu, Muiyiwa

QUESTIONNAIRE

INSTRUCTION: Please tick [☐] where appropriate to reflect your candid opinion subdivided below .

SECTION A: RESPONDENTS BIO DATA

(1) Gender: Male [☐] Female [☐]

(2) Statues: Married [☐] Single [☐] Widowed [☐] Divorced [☐] Separated [☐]

(3) Level of Education: OND [☐] HND [☐] B.Sc [☐] M.Sc [☐] Ph.D. [☐] others [☐]

(4) Age: 30-40 [☐] 41-50 [☐] 51-60 [☐] 61-above [☐]

SECTION B: Please indicate your views on Job Redesign and Employee productivity in Vegetable oil Firms in Anambra State

Keys: SA-Strongly agree, A- Agreed, N-Neutral SD-strongly disagreed, D-disagreed

Question 1: To what extent does job enlargement affect employee commitment of vegetable oil firms in Anambra State?

S/N	Item Description	SA	A	N	SD	D
		1	2	3	4	5
1	Job enlargement has increased my commitment in my organization					
2	Job enlargement has merged my capacities and enabled me to be more committed in my organization					
3	Job enlargement has motivated me to undertake my daily duties and responsibilities more committed					
4	Job enlargement has enhanced my capability on task execution					
5	Job enlargement has matched my competencies with my interests					

Question 2: What is the relationship between job enrichment and employee commitment of vegetable oil firms in Anambra State?

S/N	Item Description	SA	A	N	SD	D
6	Job enrichment has increased commitment job attendance in my organization					
7	Job enrichment has increased employee self-management in executing their duties in my organization					
8	Job enrichment has increased my responsibility in decision making at my workplace					
9	Job enrichment has improved the quality of work that I deliver at my workplace					
10	Job enrichment has increased levels of employees commitment towards the task execution in my organization					

Question 3: How does job autonomy affect employee efficiency of vegetable oil firms in Anambra State?

S/N	Item Description	SA	A	N	SD	D
11	Task autonomy has increased employee levels of operational efficiency in executing technical duties in my organization					
12	Task autonomy has increased my efficiency in duty execution					
13	Task autonomy has encouraged employees to create self-efficiency strategies in my organization					
14	Task autonomy has empowered employees with high level of efficiency in my organization					
15	Task autonomy has enhanced trust between management and employees at all levels in my organization					

Question 4: What is the effect of job rotation on employee efficiency of vegetable oil firms in Anambra State?

S/N	Item Description	SA	A	N	SD	D
16	Job diversity help to build up more experience from different departments					
17	Job rotation also provides the employee with an opportunity to take part in team building and personal development					
18	Job rotation increase the employee performance					
19	Changing job duty is a sign of Job rotation					
20	New job duty is a Job rotation technique					