
Comparative Analysis of Career Prospects of Workers in Steel Industry in Nigeria

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Abstract

Steel industry is a profit-oriented manufacturing industry. Recruitment, placement, and career prospects of workers are based on merits. The objectives of this paper is to determine, compare the number and proportion of male and female workers who were promoted to management positions since they started work in the steel industry in Nigeria. Two hundred and sixty eight (268) structured questionnaires were distributed to male workers selected randomly with stratified systematic sampling technique. Only 148 questionnaires were properly completed and returned representing 55.2% response rate for males. Equal number of the same questionnaires were distributed to female workers selected randomly with similar random sampling technique. Only 98 were properly completed and returned representing 36.6% response rate for females. Supplementary instruments used were official documents. The study revealed, among others, that equal number of male and female workers were promoted to management positions within the period studied.

Introduction

This paper is an attempt to determine and compare the number and proportion of male and female workers who were promoted to management positions since they joined the steel industry. The total number of male and female workers used for the study was 248. A combination of the expectation level theory and intra-generational mobility theory provided the theoretical framework.

Research Problematique

Smith (1955) discovered at the traditional sector that the basic Zaria Hausa economic unit had been and is still the domestic group organized in a compound, *gida*. Under *gida* system, economic activities are grouped into various farming, and crafts units. Each unit is called *gandu*, based on *gida*. *Gandu* is a contractual economic group based on kinship or friendship relations. Men, for instance, are engaged in farming and women in *purda* are engaged in food processing. The head of each *gandu* is called *mai-gida*. He controls all the affairs of his *gandu*. This mode and pattern of traditional economic activities in hausaland is not uncommon in other ethnic groups,

bureaucratic and industrial organizations in Nigeria. Before 1980, few women were in the Nigerian labour market. They were only employed to occupy “feminine” jobs such as nursing. Managerial positions were tagged “masculine” jobs and exclusively reserved for men. However, since 1980 certain changes have occurred; more challenging job opportunities are now open to both sex. This paper has this crucial question to answer: What number and proportion of male and female workers in the steel industry occupy management positions?

Scope of the Research

This research covered only workers in Ajaokuta Steel Company Ajaokuta, Kogi State; Delta Steel Company, Ovwian Aladja, Delta State; and Jos Steel Rolling Mill, Jos, Plateau State. Male and female workers from the age of 16 years and above were studied. The research was particularly interested in their upward movement from junior to management staff positions.

Brief Overview of Theoretical Framework

The expectation level theory by Feldberg and Glenn (1979) was used to explain the official roles which workers in the Steel industry were recruited to perform. The theory holds the view that married women expect little and are satisfied with little they get from their jobs because their families are more important to them. The intra-generational mobility theory by Hauser and Featherman (1973) was used to determine the career prospects of the workers, the change that had occurred between their first jobs and the current jobs, the number and proportion of men and women who were promoted from junior to management staff positions since they joined the steel industry.

Research Methodology

Research Sample size and Procedure

The study was essentially a field survey in the steel rolling mills which formed the steel industry in this research. Workers in the steel industry were listed by staff strength, gender and status. They were 2838 workers: 2570 males and 268 females, giving a research population of 2838. The research population was stratified into management and junior staff, and also arranged in order of seniority. A combination of stratified and systematic random sampling procedures were used. All the 286 female workers were selected because of their small number. Similar procedures were followed with respect to male staff in the management and junior cadre. The samples of males required for the study was drawn, and that was 286. Male and female workers had equal sample size. Altogether, a sample of 536 was selected; 268 females, and 268 males. This was the sample size (n) intended.

Data Collection

Structured Questionnaires: These were constructed by the researcher. Each questionnaire had two sections. Section one contained questions on personal details of the respondents such as gender, and occupations. Section Two contained questions of which answers were used to achieve the research objectives such as:- Which

department(s) have you worked since you joined the industry? The structured questionnaires contained open-ended, and multiple choice questions. Before administering them, they were pre-tested for validity and reliability. Thereafter, the researcher distributed them to 536 respondents; 268 men and 268 women to complete.

Official Documents and Records: This supplementary instrument was used to collect official documents such as diagrams of organizational structures. These were used to give background information of the establishment.

Methods of Data Analysis: Descriptive methods were used for the analysis of data collected from official documents. For data collected from questionnaires, the researcher used cross-tabulation to show relationships between variables.

Brief History of Steel Industry in Nigeria

Huge quantities of iron deposits are found in Kogi State, Nigeria. The occurrences are present as Banded Iron Formation (BIF) and oolitic ironstones. They have been the subject of various geological evaluations for over 50 years. Comprehensive data includes previous drilling, bulk sampling, and metallurgical assessments which have identified significant non-JORC Code compliant hematite – magnetite mineralization. In the early 1970s the evident abundance of iron deposits prompted the Nigerian Government to collaborate with the Soviet expertise to establish an iron and steel industry in Nigeria. This collaboration culminated with the construction of the Ajaokuta Steel Complex in 1991. Ajaokuta is rated to produce up to 10 Mtpa of steel product. But since completion, it has essentially remained moribund on care and maintenance for lack of funding, ore supply, and technical expertise. Ajaokuta is reported to have a current replacement value of approximately US\$6 billion, and is currently under the direct control of the Nigerian Federal Government pending a task force review of future operational strategies to fast-track the commencement of production. Itakpe is another iron ore processing facility near Okene, Kogi State. There has been insufficient exploration to define a Mineral Resource under the JORC Code, and it is uncertain if further exploration will result in the determination of a Mineral Resource. (www.mineweb.com/mineweb/view/mineweb/en/page674, 7/11/2008).

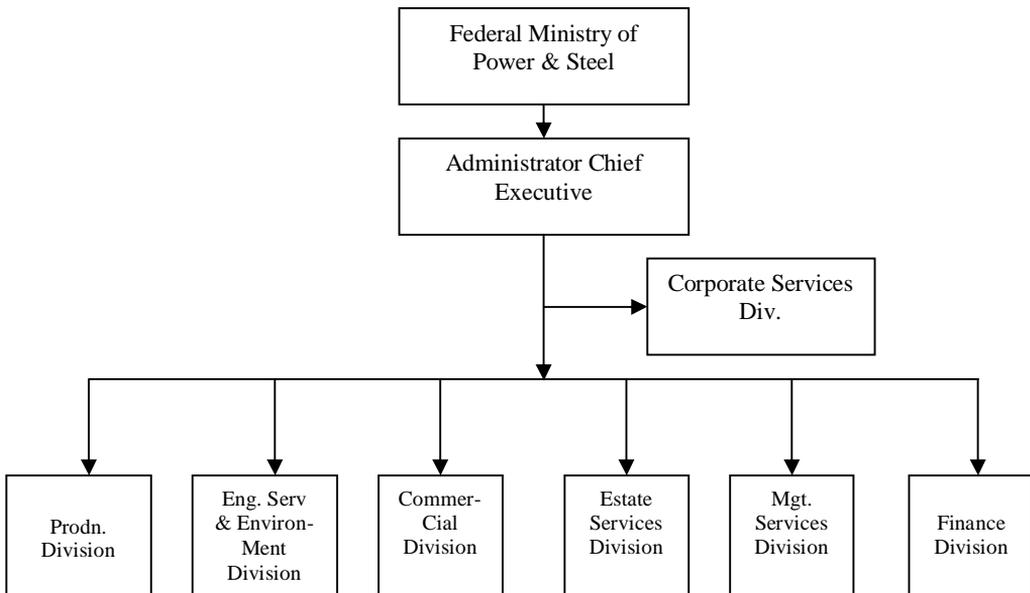
Organizational Structure of the Steel Industry, Nigeria

The organizational structure of Delta Steel Company Limited is used for illustration. The organizational structure is hierarchical. The top position/status is shown at the top/apex of the structure, while the lowest position/status of the worker is at the bottom portraying the chain of command and subordination.

Management Structure of Delta Steel Company Limited: At the top of the Management Structure of the Steel Company Limited, Ovwian Aladja is the Federal Ministry of Power and Steel. The next in command is the Administrator/Chief Executive. The Management Structure has seven Divisions, namely:- Corporate Services; Production; Engineering Services and Environment; Commercial; Estate

Services; Management Services; and Finance. The management of the Seven Divisions are directly accountable to Administrator/Chief Executive who in turn, collates the activities of the seven Divisions and gives account of them to the Federal Ministry of Power and Steel (See Figure 1 below). Each Division performs roles applicable to it. Let us explain these roles further with the structure and function of the Production Division in the industry.

Figure 1: Management Structure of Delta Steel Company Limited

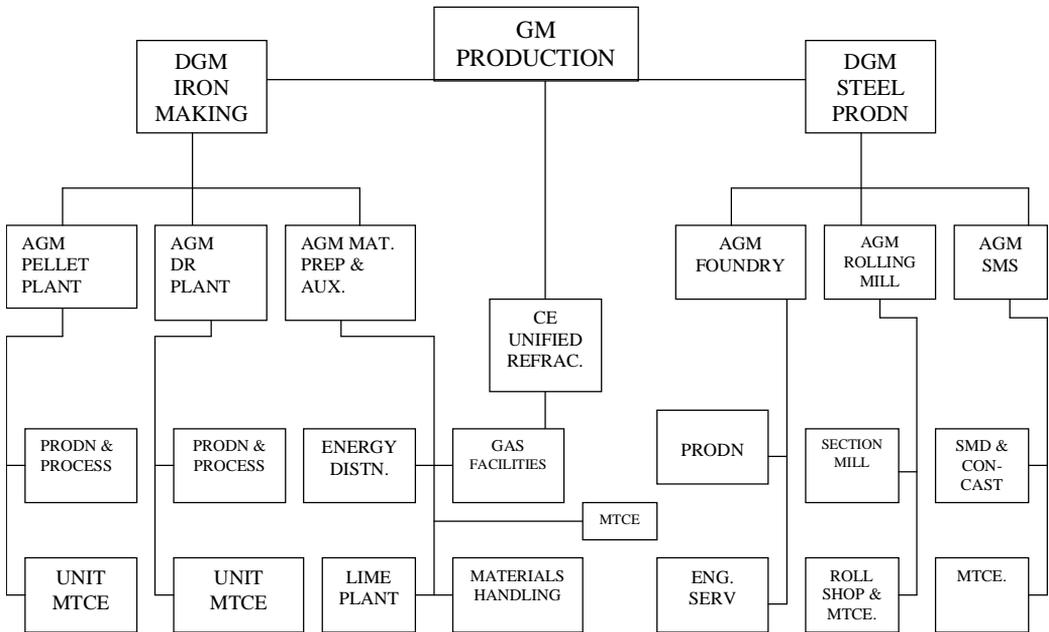


Source: Fieldwork, January 1997 – September, 1998

Production Division

Production Division has an organizational structure. At the top of the structure is the General Manager (G.M) Production. Immediately under the G.M Production are two sectors; namely:- Iron making, and Steel Production. These two sectors have Deputy General Managers (DGM). DGM Iron Making is in-charge of Iron Making Sector. Whereas DGM Steel Production is in-charge of the Steel Production Sector. Iron Making Sector has three Departments e.g. Pallet Plant, and nine sections e.g. Production and Process. All these are accountable to their respective AGM who in turn account to the DGM. Steel Production Sector has three Departments e.g. Rolling Mill, and six sections e.g. Roll Shop and MTCE. The AGM of these three Departments and six related sections collate the activities of various departments and sections under their control and forward them to DGM, who in turn accounts to GM Production (See Figure 2 below).

Figure 2: Production Division



Source: Fieldwork, January 1997 – September, 1998

Socio-Economic Background Characteristics of the Respondents

Age of Respondents: The data on Table 1 of this paper shows that out of 248 respondents (150 males and 98 females), 85 (34.2%) belonged to the 30 – 44 age cohort; 67(26.9%) belonged to the 45 – 49 age cohort; 46(18.5%) belonged to the 60 years and above age cohort. This result also showed that there were greater number of young female workers (72) than young male workers (36), and greater number of old male workers (101) than old female workers (12). None of the female workers was 60 years and above.

Level of Education: Table 1 also shows that out of 248 respondents, 13(5.2%) received primary education; 115(46.4%) received secondary education; and 113(45.5%) received tertiary education. This result meant that majority of the workers received secondary and tertiary education, while very few received primary education.

Occupational Status: In the same Table 1, data analysis shows that out of 248 respondents, 121(48.7%) were junior and supervisory staffs whereas 107(43.0%) were senior staff, management trainees, and management staff. Majority were junior staff.

Marital Status: The same Table 1 further shows that out of 248 respondents, 135(54.5%) were married; 26(10.5%) were single; 10(4.0%) were divorced; and 22(8.8%) widowed. This result meant that majority were married, and few widows.

Number of Children (Alive): The data in the same Table 1 further show that out of 248 respondents 40(16.1%) had no child; 149(60.0%) had 1 – 6 children; 7(2.8%) had 7 – 12 children; and only 10(4.0%) had 13 – 18 children. This result meant that majority of the respondents (77 males and 72 females) had 1 – 6 children, and only 10 males and no female respondents had 13 – 18 children. The ten male workers who declared that they had 13 – 18 children maintained very large family size which could be partially explained by their religious beliefs and non-use of contraceptives for birth control.

Religious Denominations: Table 1 further shows that out of 248 respondents, 134 (54.0%) were Christians whereas 114(46.0%) were Moslems. This result meant that the majority (80 males and 54 females) were Christians. The rest were Moslems.

Role Performance of Workers in Steel Industry in Nigeria

Official Roles of the Workers: Male and female workers belonged to four different occupational statuses, namely, management staff, senior/management trainee staff, supervisory staff, and junior staff. These workers performed roles related to the positions which they occupied. Management staffs were graded and performed symbolic roles as figure heads in their respective domains. Supervisory staffs were junior workers who were placed in-charge of their junior colleagues in small work-groups. They are found and called different names in different departments, e.g., in Production Department, they were called foremen. Other junior staff included drivers, gatemen, and processmen.

Comparative Analysis of Career Prospects of Male and Female Workers in terms of Recruitment, Training and Promotion

Recruitment of Workers in the Steel Industry

In industrial relations, recruitment and placement of workers are very crucial. They are the basis of acknowledging the fact that no enterprise will achieve success unless it has employed the right type of employees for the jobs to be done. In the steel industry, there were internal and external advertisements for suitable applicants to apply for vacant positions. Two major factors determined who should be employed for any particular jobs. They were: (i) Policies of the Steel Industry; and (ii) Nature of

jobs. Let us now examine these two major factors:

The policies of the Steel Industry: The policies were as follows:- (i) To employ workers with necessary educational qualifications to occupy vacant positions. The minimum educational qualifications for ancillary workers such as cleaners were primary school certificates. For clerical jobs, the minimum educational certificates

were West African Examination Certificates, or their equivalents. For managerial jobs, degrees and professional certificates were essential requirements.

Table 1: Socio-Economic Background Characteristics of Respondents

Background Characteristics	Male: 150 Respondents in frequencies & %	Female: 98 Respondents in frequencies & %	Total No. of Respondents = 248
Age			
15 – 29 years	3(1.2%)	20(8.1%)	23(9.3%)
30 – 34 years	33(13.3%)	52(20.9%)	85(34.2%)
45 – 59 years	55(22.1%)	12(4.8%)	67(26.9%)
60 years and above	46(18.5%)	-	46(18.5%)
Refuse to Specify	13(5.2%)	14(5.6%)	27(10.8%)
Level of Education			
Primary	11(4.4%)	2(0.8%)	13(5.2%)
Secondary	65(26.2%)	50(20.2%)	115(46.4%)
Tertiary	71(28.6%)	42(16.9%)	113(45.5%)
Refuse to specify	3(1.2%)	4(1.6%)	7(2.8%)
Occupational Status			
Junior Staff	30(12.1%)	40(16.1%)	70(28.2%)
Supervisory Staff	45(18.1%)	6(2.4%)	51(20.5%)
Senior Staff/Management			
Trainees	38(15.3%)	44(17.7%)	82(33.0%)
Management Staff	20(8.1%)	8(3.2%)	28(11.3%)
Refuse to Specify	17(6.8%)	-	17(6.8%)
Marital Status			
Single	22(8.9%)	4(1.6%)	26(10.5%)
Married	75(30.2%)	60(24.2%)	135(54.4%)
Separated	20(8.1%)	6(2.4%)	26(10.5%)
Divorced	6(2.4%)	4(1.6%)	10(4.0%)
Widowed	12(4.8%)	10(4.0%)	22(8.8%)
Refuse to state	15(6.0%)	14(5.6%)	29(11.6%)
Number of Children Alive			
None/Not Applicable	30(12.1%)	10(4.0%)	40(16.1%)
1 – 6 children	77(31.0%)	72(29.0%)	149(60.0%)
7 – 12 children	5(2.0%)	2(0.8%)	7(2.8%)
13 – 18 children	10(4.0%)	-	10(4.0%)
Refuse to specify	28(11.3%)	14(5.6%)	42(16.9%)
Religious Denominations			
Christianity	80(32.2%)	54(21.7%)	134(54.0%)
Moslem	70(28.2%)	44(17.7%)	114(45.0%)

Source: Fieldwork, January 1997 – September, 1998.

- (ii) To employ workers with drive and stamina to suit the nature of work help the industry to achieve efficiency and effectiveness, high productivity and growth. The Steel Industry had open competitive examinations and interviews

whichever applicable to ensure that the best candidates who were physically and mentally fit to occupy vacant positions were recruited and placed in their respective jobs.

Nature of Jobs in the Steel Industry

Women were employed to do light and feminine jobs such as clerical, and cooking. Whereas men were employed to perform masculine and heavy-duty, energetic and risky jobs such as managerial duties, loading and off-loading of goods. Men were mostly employed to work especially in Divisions such as Engineering Services and Environmental Division, and Production Division. In these Divisions, men worked all shifts: morning shift, 6.00am – 2.00pm; late afternoon shifts 2.00pm – 10.00pm; and night shifts 10.00pm – 6.00am. The industry had three modes of operations, namely: Administrative duties; Production duties; and Engineering and Maintenance services. Here are short descriptions of these duties:

- (i) **Administrative Duties:** Both men and women worked in departments such as personnel, legal services, finance and catering where they performed jobs like clerical, secretarial, and catering. Traditionally, cooking is a feminine job. Clerical duties were varied according to departments. Normal and regular hours of work were maintained.
- (ii) **Production Duties:** The jobs involved material handling, production processes, iron making, rolling, milling, and steel production. Thus, the jobs were “masculine” and male-dominated. All shifts-work were involved.
- (iii) **Engineering and Maintenance Services:** Engineering and maintenance services of vehicles, plants, equipment, and machineries were regarded as “masculine” jobs too. There were no woman respondent employed to maintain, repair and service vehicles, equipments, plants, and machineries. Only men were involved. Women attached to the department were mainly secretaries, stenographers, and computer operators.

Training of Workers: The management had vested interest in manpower development and so, encouraged the staff to develop themselves in their careers. Most women respondents (78 out of 96) claimed that they learnt new jobs by introduction of new technology; on the job training, workshops and conferences; interdepartmental job rotation and relief. Only 20 women respondents said nothing. Out of 150 male respondents, 120 made similar claims as the women. Only 30 men said nothing. These methods of learning new jobs put varieties in learning processes, and no doubt, had helped workers to acquire various skills, achieve job improvement, effectiveness and efficiency, and sharpen their technical and managerial skills for management positions.

Promotion of workers: Promotion means the advancement of a worker to an office or position of higher rank on the grounds of merit. Workers for promotion should possess all the qualifications, experience, and other requirements of the post for which they were being considered, usually about three years since the last promotion. Table

2 below shows the positions which the respondents occupied when they were employed in 1980 and their current positions in 1998. Out of 248 respondents, 127 were employed as junior staff and 12 were employed as managers in 1980. However in 1998, certain changes were observed in their occupational statuses. Out of 98 female respondents, 40 women were occupying junior staff position and only 8 were occupying management positions. No woman was recruited as a manager. This meant that between 1980 and 1998, only 8 female workers were promoted to management positions. However, men presented a different picture. In 1998 out of 150 male respondents, 30 were junior staff and 20 were management staff. Compared with the positions which these men occupied when they were newly employed, this result meant that only 8 men were promoted from junior staff positions to management staff positions. The other 12 men were recruited as management staff; they received no further promotions. Altogether, between 1980 and 1998, only 8 women respondents, and 8 men respondents were promoted from junior staff to management staff positions. Further statistical interpretation of this result was that junior staff were promoted to management staff positions in the ratio of every 1 man to 1 woman (See Table 2 below).

Table 2: Positions of Workers on their Appointments and Current Positions 1980 – 1998

Occupational Status	Positions on Appointment			Current Position 1998			Number Promoted 1980 – 1998			Number not Promoted 1980 – 1998		
	All Workers	Males	Females	All Worker	Males	Females	All Workers	Males	Females	All Worker	Males	Females
Junior Staff	127	49	78	70	30	40	57	19	38	13	11	2
Supervisory Staff	43	35	8	51	45	6	49	9	40	2	36	6
Management Staff/ Management Trainees	49	37	12	82	38	44	16	8	8	66	30	4
Management Staff	12	12	-	28	20	8	-	-	-	28 (No further promotion)	20	-
Refuse to specify	17	17	-	17	17	-	-	-	-	17	17	-
TOTAL	248	150	98	248	150	98	122	36	86	126	114	12

Source: Fieldwork, January 1987 – September 1998.

In the Steel Industry, management positions were graded. Promotions to top management positions were not automatic. During promotional exercises, male and female workers who satisfied the necessary conditions were promoted. Those who did not satisfy the necessary conditions were not promoted. Selection, placement, and promotion of workers were strictly on merit and had nothing to do with gender discrimination. Factors influencing and impeding career prospects of the workers

were outside the scope of this research. Such factors should be considered in future research.

Summary and Conclusion

Steel Industry in Nigeria was profit-oriented. Unequal job opportunities existed in terms of recruitment and training. The practice of the steel industry in this respect was not in consonance with the objective of Sex Discrimination Act 1975. The main objective of the Act is to encourage equality of opportunity for men and women. The Act prohibits discrimination on grounds of sex in recruitment, training and promotion. However, in terms of career prospects in the industry, promotion of workers was generally very slow and frustrating although it was gender friendly. Only eight men and eight women respondents were promoted from junior staff to management staff positions after working for about 18 years. Therefore, this research rejects the existence of gender discrimination in promotion within the industry in the period studied. The expectation level theory as put forward by Feldberg and Glenn (1979) is also rejected by this research. The expectation level theory holds the view that married women expect little and are satisfied with the little they get from their jobs because their families are more important to them. This research has discovered that the women in the steel industry in Nigeria expect much from their jobs, and desire promotions just like their male counterparts.

In view of the above findings, the research has the following recommendations

- (i) Gender discrimination in recruitment and training of women should be disallowed;
- (ii) Since career prospects of workers was very slow, and frustrating, the management should review the organizational policy. Marking time on a status and salary scale for more than 3 years discourages morale and incentive to work;
- (iii) There is need for trade unions to intensify their efforts in workers education. Workers should be educated, sensitized and encouraged to claim their rights and privileges.

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