

Industrial Design Graduates in the Nigerian Labour Market: Unemployed or Unemployable

Femi Kayode

Federal University of Technology

Gordy Iyama

Modibbo Adama University of Technology

The annual turnout of faculty graduates in Nigeria is not only increasing numerically but it is ironically, unemployed and other times unemployable. This assertion is supported by researches in the social sciences and reasons adduced to the trend range from lack of qualitative and unavailability of teaching and research facilities, as well as insufficient capable human resources among others. This paper x-rayed the case of Industrial Design graduates and their post training outcome, to understand whether or not graduates of Industrial Design are gainfully employed, unemployed, or unemployable; and why? Research design used was survey, while the instrument administered on the sample size was structured questionnaire. Two hundred and thirty-three (233) students of Industrial Design constituted the sample size. The research questions were analyzed with the aid of Table of frequency distribution, while a non-parametric test by way of Friedman's two-way ANOVA was used to analyze the hypotheses. The outcome of the study revealed that, though the programme of Industrial Design is evolving as craft-based, it is viable. Graduates of the programme are not unemployable in the Nigerian labour market. Finally, the paper proffers solutions and recommendations in form of ideas and deductions to enhance the aim of the study.

Keywords: graduate, labour market, competences, unemployment, specialization collaboration

1. Introduction

In the history of every industry, design has become necessary as a separate activity in production, once a single craftsman ceases to be responsible for every stage of manufacture from conception to sale (Forty 1986). More so, design is an essential ingredient in the overall manufacturing and marketing processes (Booth-Clibborn 1986). Industrial Design itself is art practiced in the industry and may be described as an experiential but resilient discipline that is germane to the sustenance of large economies. Its resilience resides in the specificity of labour and then, interdisciplinarity by collaboration and interdependency which is not emphatic on the entity concept. Industrial Design played an infinitely huge role in the development of global technology and mechanization (Alkali and Fatuyi 2010). Even though technology offers increasing pervasion and accessibility of products and services, it is historically critical to trace the pedigree the art practiced in the industry to the traditional craft practice of the then cottage setting. Industrial Design metamorphosed from the cottage traditional craft at about the middle of the eighteenth century, first in Europe and latter in America and much, much latter spread all over the world (Kayode 2003; Sims 1991; Bailey, Grant, Hall, Harris, Maxwell,

Femi Kayode, M.Tech., Ph.D. Graphics, Dr., Department of Industrial Design, Federal University of Technology, Nigeria; main research field: Design Entrepreneurship.

Gordy Iyama, MFA Printmaking, Department of Industrial Design, Modibbo Adama University of Technology, Nigeria; main research fields: Design Entrepreneurship.

Pritchard, Slingsby, White and Wilson 1984; Peacork 1958). Forty (1986) remarks that it was not only that the machine stamped out taste in industrial products, but by 1850 it seemed to have irremediably poisoned and weakened the manual spark of the surviving craftsmen. This is what the western world refers to as the Industrial Revolution. The revolution played concrete roles in the industrialization of the cottage industries and the conversion of raw materials through divided but machine-made labour. Albeit, Industrial Design is still at its infancy in Nigeria compared to other specialized fields. Designers are sighted in the Chinese, Japanese, American, and German markets, to mention a few, making tremendous impacts with their skills and with the boost of technology notwithstanding monotony of product designs and services.

The field of Industrial Design is relatively new as an academic discipline in a developing nation like Nigeria. It was introduced into the academic curriculum in 1977 with the Ahmadu Bello University being the pioneering training school for qualitative designers (Idowu 2010; Ogunduyile and Akinbogun 2002; Ogunduyile and Akinbogun 1999). What obtains as Industrial Design subjects are Ceramic, Textile, and Graphic design as well as traditional crafts. Others are Glass Technology and Metal Fabrications. This quickly connotes the craft-based nature of the programme. The production of Industrial Design graduates is a complex undertaking which requires considering many domains—some cognitive, psychomotor and some systemic. These are implied in Oguibe (2004) to be redundancies in the Nigerian curriculum; a growing lack of creativity in our programming; overall inability to prepare students and young designers for survival in an increasingly globalized world; as well as administrative and policy misadventures. None-the-less, industrial products and services are fluid and responsive to social changes, with practitioners devising concepts that best solve problem associated with function, psychology, emotion, and well-being needs of the society. Through hands-on experience in visualization, drawing, and prototype development, graduates emerge with the skills needed to conceptualize, design, and develop new and improved products for mass production. They develop analytical thought pattern, aesthetic sensitivity, technical competence, and environmental awareness as well as the ability to apply these competences to meet the challenging stages of designing products for human consumption. This implies that Industrial Designers combine the skills of art, engineering, and business to generate acceptable products used by individuals, corporations, and governments on a daily base. However, a large mismatch seems to appear between the capabilities of our university graduates and the labour market demand. No wonder that employment prospects of Nigerian graduate have deteriorated and unemployment soared in recent times; creating a multiplying negative effect on society and economy (Damilare 2015).

Critical to “unemployability” is the absence of the right attitude, competencies, knowledge, and skills among graduates of Industrial Design. This has prompted this research which seeks to explore the causes and create responses through structured questionnaire with a view to proffering sustainable solutions. Unemployability can be narrowly defined as the incidence of graduates from an institution that remain unemployed after graduation even though they are not unfit. Possibly, unemployability of Industrial Design graduates may not be due to the quality of knowledge and skills as the outcome of their training and education. According to Harvey (2001), unemployability in the society could be characteristic of the prevailing conditions in the labour environment which are beyond the control of the graduates or their educational institutions. With this understanding and other facts canvassed, this paper finds out and suggests factors to ameliorate the extant knotty employment conditions to prevent further damages to the economy and lower the standard of specialization. Outcome of the study should enable potential graduates to discover strategies that will serve as hedge against their falling into job redundancy.

2. Statement of the Problem

Unemployment or not being unemployable after graduation cannot be discussed enough due to the exponential and unrelenting turnout rate of students. Industrial Design institutions produce graduates annually who join other graduates in various disciplines—yet in a depressed economy. The high rate of unemployment has been a major cause of concern over time with so many measures and strategies being employed to alleviate it. Despite all these attempts, the plague is still growing by the day, eliciting deeper concern. It is most appropriate and imperative to analyze the various factors that have caused, contributed, or worsened this employment condition so as to identify the angle from which the terrorizing effect of unemployment will be tackled. Continuous watch of the situation will not solve the problem which makes it most inevitable for all hands to be on deck and fight the ugly trend. It is a known fact that the major institutions charged with a great responsibility of tackling this ugly situation are the government the academia and the private sector/industry; thus, a re-awakening call is here being made to these stakeholders for better and optimal performance.

As suggested in Asaju and Morphy (2015), unemployment data are very hard to obtain, even from institutions established for such data gathering. Where employment or unemployment data exist at all, they are limited to urban areas, making it difficult for policymakers to understand the intensity of challenge and make informed decisions on how to tackle unemployment in the Nigerian labour market.

According to United Nations Department of Economic and Social Affairs: Population Division (Damilare 2015), Nigeria's current population is about 190,212,665. The report said unemployment rate in Nigeria has increased from 8.2% to 9.9%, translating to 555,311 persons who are between 15-64 years and who were available for work, actively seeking for work but were without work. It is however apparent that industrial designers make a very insignificant proportion due to the few student enrolment, graduation as well as the number of institutions offering Industrial Design as a programme of study in Nigeria. But redundancy and underutilization of trained Industrial Designers would be a bad omen for the discipline and national economy.

3. Research Questions

- (1) What are the causes of graduate unemployment or unemployability in Nigeria?
- (2) To what extent are Industrial Design graduates in Nigeria unemployed or unemployable?
- (3) How much of job prospects can the Industrial Design graduates count on?

4. Aim and Objectives

The aim of the study is to find out whether the graduates of Industrial Design are unemployed or unemployable in the Nigerian labour market with a view to assessing the factors that are responsible for the status they are in the labour market. The objectives are to:

- (1) investigate into the factors responsible for whatever status the Industrial Design graduates are in the labour market;
- (2) ascertain the labour market status of Industrial Design graduates; and
- (3) identify the job prospects for Industrial Design graduates.

5. Hypotheses

H₀₁: Industrial Design graduates are unemployable.

H_{a2}: Industrial Design graduates are not unemployable.

H₀₃: Industrial Design graduates are unemployed.

H_{a4}: Industrial Design graduates are not unemployed.

6. Nature and Significance of Industrial Design

Designers are responsible for the style, function, quality, and safety of different categories of manufactured goods. Consideration of the ultimate function is the first step in developing a concept or design of a product; or altering an existing one. The function dictates the form products assume. Other considerations include the product user, the context the product will be used, and desired product characteristics like size, shape, weight, colour, materials, cost, ease, and safety. Conceptual sketches are prepared by hand or computer to illustrate the vision for the design. During development and modification process, in some cases, a computer-aided design (CAD) simulation of the product in use is applied to demonstrate its effectiveness or detect defects for correction. The designer, in line with creative and structured processes, works through different variable alternatives to generate an acceptable design or product as concrete solution to a particular challenge. Computer models allow ease and flexibility in exploring a greater number of design options, thus, reducing design costs and cutting the time to deliver a product to market. The ability of designers with above enumerated skills and knowledge to deal with complex problems should not be unemployed and wasted. Their ingenuity can be profitably engaged perpetually for essential and mutually beneficial service of society.

It becomes disturbing to know that there are graduates of Industrial Design who are unemployed or unemployable in the society. Tertiary institutions offering Industrial Design as a programme in Nigeria are relatively few and the quality of their graduates depends on the curricula and staffers of the training institutions. Before now, the applied art differing from fine art in older generation Universities has reverted to what is currently referred to as Industrial Design. Specialty areas under this include textiles, graphics, ceramics, metal designs as well as glass technology. According to Jerry (2015), there is the need to introduce art with science and technology so as to bring the trade closer to the industry in terms of industrial work experience and collaboration.

This statement appears to have failed to recognise the transition in the curricula of Industrial Design programme in Universities of Technology and some other Universities from the traditional applied arts and design to the more technological approach. In order to increase the likelihood of graduates successfully gaining meaningful employment and fulfilling their potential in their chosen occupations, particular set of skills must be acquired. It is acceptable to say that a graduate is someone who, having completed the requirements of a university degree, has acquired the specific attributes to contribute to society. These attributes are not particularly for specific academic discipline but shared among all study areas. According to Sirat (2012), tertiary education empowers students to develop attributes, techniques, and reflective abilities, thereby, empowering them with “ability” without necessarily providing employment. After graduation therefore, it becomes the burden of the graduate to use the gained abilities to engage profitably while contributing to the growth of the society. Yorke and Knight (2006) listed a number of generic employability attributes that are required in graduates. They are broadly categorised into *personal qualities* (self-confidence, independence, emotional intelligence, adaptability, stress tolerance, initiative, willingness to learn, reflectiveness); *core skills* (reading effectiveness, numeracy, information retrieval, creativity, listening, written communication, oral presentations); and *process skills* (computer literacy, commercial awareness, political sensitivity, prioritising, planning, applying subject understanding, coping with complexity, problem solving, influencing, resolving

conflict, decision making, negotiating, team work). Some of these attributes are acquired through academic training while others are innate and instinctive. It therefore means that no single academic structure can adequately prepare an individual for societal responsibility. It also explains the different creative expressions from persons from different backgrounds and experiences exposed to same academic atmosphere.

Toriola (2016) argues that poor quality of education and lack of skills are among the major causes of unemployment in Nigeria. It was reported that about 200,000 students graduate from the Nigerian tertiary institutions annually and only a few can secure jobs due to poor education resulting largely from inadequate facilities and ill-equipped lectures. Having acknowledged that a skilful person adjusts more easily to changing circumstances and is able to engage profitably, Toriola blamed the unemployment rate of graduates on the lack of necessary skills. Jerry (2014) aptly expresses that:

“... industrial/product designers create exportable products and services, which will, in turn, encourage the establishment of small, medium and large-scale industries. It will ensure the rehabilitation of old and decayed industries, and it will encourage the indigenous manufacture of items needed by the public...” The question remains as to how many of the graduates of Industrial Design are running their own cottage industries or are entrepreneurs in their areas of study? (31-33)

It was argued that even though it is the backbone of industrial development, Industrial Design as a course of study, in its proper and applicable sense is not taught or learnt in Nigerian Universities. In his opinion (Jerry 2014), he teased that while Industrial Design in industrialized nations is a mixture of art, science, and technological skills, the Nigerian version is simply pure art and craft programmes.

In Table 1, a cursory look at the Departments of Industrial Design in all the four tertiary institutions in Nigeria and their graduating students' data in different areas of design specialization in 2016 will be a guide to the yearly turnout trend. In the year 2016 Federal University of Technology, Akure (FUTA) graduated a total of eighty (80) students out of which twenty-five (25), twenty-eight (28), and twenty (20) specialized in Ceramics, Graphics, and Textiles respectively. Modibbo Adama University of Technology (MAUTECH), Yola turned out seventeen (17) students the same year with six (6), five (5), and six (6) specializing in Ceramics, Graphics, and Textiles respectively. In Abubakar Tafawa Balewa University (ATBU) Bauchi, eight (8) students graduated. Two (2) students offered Ceramics; two (2) offered Graphics while four (4) offered Metal design. The table further shows that Ahmadu Bello University, Zaria (ABU) graduated thirty-eight (38) students in all, out of which nine (9) studied Ceramics, seven (7) studied Glass technology, twelve (12) studied Graphics, and ten (10) studied Textiles. Apart from the turn-out rate which is low, the number of art and design based industry in the country, which can absorb the Industrial Design graduates is terribly scanty (Wale-Awe 2011).

Table 1

2016 Graduating Students of Industrial Design in the Nigerian Federal Universities Where the Course Is Offered

Name of Institution	Ceramics	Glass Technology	Graphics	Metal	Textiles	TOTAL
FUTA	25	Not offered	28	Not offered	20	73
MAUTECH	6	Not offered	5	Not offered	6	17
ATBU	2	Not offered	2	4	Not offered	8
ABU	9	7	12	Not offered	10	38

Source: Authors' Fieldwork, 2017.

7. Methodology

The research design is survey, while the instrument used was structured questionnaire. Two hundred and thirty-three (233) graduates of Industrial Design constituted the sample size. Forty-six (46) were self-employed, forty-four of them worked in textile-related industries, forty-five (45) worked in ceramic outfits, fifty (50) were in the employment of some advertising agencies, and forty-eight (48) were engaged in computer graphics shops (typically known as business centers). The research questions were analyzed with the aid of Table of Frequency Distribution, while a non-parametric test by way of Friedman's two-way ANOVA was used to analyze the hypotheses. The outcome of the study revealed that though the programme of Industrial Design is evolving and it is craft oriented, it is viable in the Nigerian example. Graduates of the programme are not unemployable in the Nigerian labour market but the struggle is obvious.

8. Results and Discussions

Table 2

Total Number of Industrial Design Graduates in 2016 (233) Contacted for the Study

Variable	Frequency	Percentage
Self-employed	46	19.7%
Textile-related companies	44	18.9%
Ceramic Outfit	45	19.3%
Advertising Agency	50	21.5%
Printing & Computer	48	20.6%
TOTAL	233	100%

Source: Authors' Fieldwork, 2017.

Table 3

Response from Respondents

Value Label	SA	A	UD	D	SD
Value	5	4	3	2	1
An Industrial Designer is involved in every stage of mass production.	81	82	11	50	9
Design pieces like ceramic wares, prints, and fabrics are useful for decoration in offices and schools.	168	60	2	1	2
Products of Industrial Design as stated in item 2 of this table are relevant to households.	118	104	4	2	5
Industrial Design products are marketable and can compete well with the foreign ones in the Nigerian market.	76	121	17	12	7
The masses depend on foreign products more than the local ones.	51	89	23	39	31
Graduates of Industrial Design can practice at cottage and freelance levels.	75	101	21	19	17
There are so many prospects for Industrial Design as a course in Nigeria.	79	87	20	39	8
The layman is aware of what Industrial Design is and understands its relevance.	6	47	34	96	50
Industrial Design as a course in the University is encouraging in terms of yearly students enrolment.	29	86	26	62	30
Industrial Design has contributed greatly to the Nigerian economy.	53	110	17	45	8
The institutions taking Industrial Design are equipped enough to produce employable graduates.	17	46	26	88	56
The graduates of Industrial Design are well equipped by the department both theoretically and practically.	30	66	15	73	49
Graduates in Industrial Design have job opportunities in the labor market.	38	112	28	32	23
Job opportunities are available for graduates of Industrial Design in Nigeria.	35	102	35	40	21
It will take little effort by the Government and the academia to increase the level of employment.	52	84	21	29	47
Specialization will not enhance the employment chances of the unemployable graduate.	66	89	27	33	18
Industrial Design graduates are adequately equipped to become self-employed after school.	83	86	14	33	17

(Table 3 continued)

Value Label	SA	A	UD	D	SD
Value	5	4	3	2	1
Little capital of not more than N50, 000: 00k could be used to set up a design studio and be self-employed.	52	78	29	45	29
The chances that Industrial Design students will be gainfully employed after school are high.	29	85	44	52	23
The government is doing enough to ameliorate the unemployment rate of Industrial Designers.	15	38	32	68	80
Government is responsible for the poor rate of unemployment among the entire Nigerian graduates.	57	75	27	34	40
The graduates themselves are sometimes responsible for the poor employment rate.	13	38	25	72	85
The academic institutions are responsible for the poor employment rate.	10	63	31	62	67
Graduates of Industrial Design are unemployable.	18	32	36	57	90
There are other skills and programmes that can make graduates of Industrial Design self-employed.	87	106	19	10	11
There is a concise and appropriate awareness about Industrial Design as a course in Nigeria.	30	53	39	69	42
The current level of employment in the design industry is very high.	23	56	61	57	36
Industrial Design graduate can compete favourably with graduate from other disciplines in terms of efficiency and creativity.	72	108	18	18	17
The current program of training is capable of delivering the set goals and objectives of the Industrial Design.	28	88	48	40	29
Poor educational standards militate against the expectation of the industries for the Nigerian graduates.	69	85	36	17	26
Self-employment is a good option for the unemployed.	61	100	36	14	22
Most self-employed design graduates still go back to white collar jobs because of low patronage.	38	60	41	54	40
There is a need to increase the institutions training Industrial Designers in Nigeria.	128	64	12	7	22
By virtue of training, industrial designers can fit into virtually all establishments for work.	136	74	10	3	10
The major limitation of graduates of Industrial Design is lack of good grades from school.	32	64	64	39	34

Source: Authors' Fieldwork, 2017.

9. Discussion

Scrutinizing the data drawn from the questionnaire administered shows 70% of respondents agreed that an Industrial Designer is involved in every stage of mass production process, while 25% and 5% disagreed and undecided respectively. While 98% agreed that products of Industrial designers are ubiquitous in human environment, an insignificant 1% each disagreed and is undecided. Also to note is that about 95% agreed that products of Industrial Design are very relevant to households, offices, hospitals, schools etc.; while 85% agreed that these products remain marketable in Nigerian markets. These indicators point to the potential engagement level and significance of Industrial Design as a profession. As to whether graduates of Industrial Design can practice or operate a cottage or freelance business, about 76% agreed while 15% disagreed and 9% are unsure; almost unanimously declaring the many employment prospects in Industrial Design as a course of academic study in Nigeria. Rather unfortunate is the revelation that about 63% of ordinary Nigerians neither are uninformed of what Industrial Design is nor understand its significance, while only 23% have an idea of its role and significance in the society and the remaining 14% are undecided.

However, the research shows that only about 49% agreed that Industrial Design practitioners are living up to expectation while 39% and about 12% disagreed and are unsure respectively. The data show that while 62% of respondent believe tertiary institutions offering Industrial Design are ill-equipped to produce employable graduates, 70% believe Industrial Design has contributed greatly to the Nigerian economy. On the availability of job opportunity in the labour market for Industrial designers, about 64% agreed whereas 24% and 12% disagreed and are undecided respectively. The foregoing shows that job opportunity is available for Industrial

designers as self-employers require little from both government and the academia to increase their level of employment. Because Industrial Design practice is very broad, about 67% of respondents agreed that specialization will improve the condition of the unemployable. While 73% agreed that graduates of Industrial Design are adequately equipped to become self-employed and employer of labour, about 56% agreed that little capital is all that is needed for a start-up business. The research shows that government is not doing enough to ameliorate the unemployment rate in Nigeria as indicated by the 60% that agreed to the query. 57% of respondents believe government is responsible for the poor rate of employment while about 32% disagree and 11% remain unsure of who to blame. 67% believe graduates are not responsible for their unemployment while about 24% believe they are and about 9% are not sure. The academia appears to be vindicated as 55% of respondents disagreed that the academic institutions are responsible for poor employment rate while about 39% believe and 5% are unsure that they are responsible. It is obvious that graduates of Industrial Design are employable as shown by the 70% negative response as to whether graduates of Industrial Design are unemployable. As to the requirement of definitive skills to enhance the employability of Industrial Design graduates, about 74% of respondents affirmed the need while 9% disagreed and 17% are uncertain. It is noteworthy that about 58% agreed that unemployed Industrial Design graduates have alternative engagement capabilities; an advantage over many courses of study that requires employment from government or private organizations. Based on the response on the usefulness, 64% of respondent agreed that Industrial Design is found useful in virtually all establishments. Such affirmation establishes the importance of the profession and the need for government to strengthen the various institutions training graduates to be useful in the society.

Table 4

Responses Collated from the Questionnaire Administered on the Sampled Respondents

VALUE LABEL	SA	R1	A	R3	UD	R5	D	R4	SD	R2
VALUE	5		4		3		2		1	
1. An Industrial Designer is involved in every stage of mass production.	81	4	82	5	11	2	50	3	9	1
2. Industrial Design products like ceramic wares, prints advert and fabrics are found in offices, homes, workshops, schools.	168	5	60	4	2	2	1	1	2	2
3. Products of Industrial Design as stated above are very relevant to the household.	118	5	104	4	4	2	2	1	5	3
4. Industrial Design products are marketable and are doing well in the market.	76	4	121	5	17	3	12	2	7	1
5. Your dependency on Industrial Design products is very high.	51	4	89	5	23	1	39	3	31	2
6. Industrial Design can be practiced at cottage and freelance level.	75	4	101	5	21	3	19	2	17	1
7. There are so many prospects for Industrial Design as a course in Nigeria.	79	4	87	5	20	2	39	3	8	1
8. The layman is aware of what Industrial Design is and understands its relevance.	6	1	47	3	34	2	96	5	50	4
9. Industrial Design is living up to expectation.	29	2	86	5	26	1	62	4	30	3
10. Industrial Design has contributed greatly to the Nigerian economy.	53	4	110	5	17	2	45	3	8	1
11. The institutions taking Industrial Design are equipped enough to produce employable graduates.	17	1	46	3	26	2	88	5	56	4
12. The graduates of Industrial Design are well equipped by the department both theoretically and practically.	30	2	66	4	15	1	73	5	49	3
13. Graduates in Industrial Design have job opportunities in the labor market.	38	4	112	5	28	2	32	3	23	1
14. Job opportunity is available for graduates of Industrial Design in Nigeria.	35	2.5	102	5	35	2.5	40	4	21	1

(Table 4 continued)

VALUE LABEL	SA	R1	A	R3	UD	R5	D	R4	SD	R2
VALUE	5		4		3		2		1	
15. It will take little effort by the Government and the Academia to increase the level of employment.	52	4	84	5	21	1	29	2	47	3
16. Specialization will enhance the burden of the unemployable graduate.	66	4	89	5	27	2	33	3	18	1
17. Industrial Design graduates are adequately equipped to become self-employed after school.	83	4	86	5	14	1	33	3	17	2
18. Very little capital (N20000-N50000) is required to set up a design studio or workshop.	52	4	78	5	29	1.5	45	3	29	1.5
19. The chance that an Industrial Design graduate will be gainfully employed is high.	29	2	85	5	44	3	52	4	23	1
20. The government is doing enough to ameliorate the employment rate in Nigeria.	15	1	38	3	32	2	68	4	80	5
21. Government is responsible for the poor rate of unemployment amongst graduates.	57	4	75	5	27	1	34	2	40	3
22. The graduates are responsible for the poor employment rate.	13	1	38	3	25	2	72	4	85	5
23. The academic institutions are responsible for the poor employment rate.	10	1	63	4	31	2	62	3	67	5
24. Graduates of Industrial Design are unemployable.	18	1	32	2	36	3	57	4	90	5
25. There are skills and programmes that can make graduates of Industrial Design employable.	87	4	106	5	19	3	10	1	11	2
26. There is concise and appropriate information about Industrial Design graduate in Nigeria.	30	1	53	4	39	2	69	5	42	3
27. The current level of employment in the design industry is very high.	23	1	56	3	61	5	57	4	36	2
28. Industrial Design graduate can compete with graduate from other discipline.	72	4	108	5	18	2.5	18	2.5	17	1
29. The current program of training is capable of delivering the set goals and objectives of the Industrial Design.	28	1	88	5	48	4	40	3	29	2
30. Poor educational standards militate against the expectation of the design industry.	69	4	85	5	36	3	17	1	26	2
31. There are alternatives for the unemployed graduate.	61	4	100	5	36	3	14	1	22	2
32. The alternatives are efficient enough to accommodate the unemployed graduates.	38	1	60	5	41	3	54	4	40	2
33. There is a need to increase the institutions training Industrial Designers in Nigeria.	128	5	64	4	12	2	7	1	22	3
34. Industrial Designers as a profession can be found useful in virtually all establishments.	136	5	74	4	10	2.5	3	1	10	2.5
35. The major limitation to them being unemployed is their dexterity.	32	1	64	4.5	64	4.5	39	3	34	2
Total			104		155		80.5		103	83

Source: Authors' Fieldwork, 2017.

NB: The ranking was done across the rows. Since the data follow a frequency distribution, non-parametric test like the Friedman's two way ANOVA was adopted.

H_{01} : Industrial Design graduates are unemployable

H_{03} : Industrial Design graduates are unemployed

Test Statistic 12

$$F_r = \frac{12}{bk(k+1)} \quad k$$

$$F_r = \frac{12}{35(5)(5+1)} [101.5^2 + 84^2 + 153.5^2 + 105.5^2 + 77] - 3(35)(5+1)$$

$$= \frac{12}{1050} (57977.75) - 630$$

$$\begin{aligned}
 &= (0.0114*57979)-630 \\
 &= 660.97-630 \\
 &= 30.97 \\
 F_t &= 30.97 \sum R_1^2 - 3b(k+1) \text{ where } b=35, k=5, l=1
 \end{aligned}$$

Decision Rules: reject H_{01} if $F_t > X^2_{(0.05)}$ with degree of freedom $\underline{5}$
 $(30.97 < 87.145)$

10. Conclusion

Since the computed value of the test statistics $F_t=30.97$ exceeds $X^2_{(0.05)}$ (95% confidence interval) with degree of freedom $\underline{5}$, we have statistical reasons to reject H_{01} and conclude that Industrial Design graduates are only unemployed but not unemployable.

The study suggests the following as solutions:

(a) that the tertiary institutions provide modern facilities to practice the theoretical concepts of Industrial Design toward adequately equipping the students for contemporary practice after graduation;

(b) academic curricula encouraging uncommon, ingenious, and creative expression of new concepts should be developed.

Finally, this study recommends that stakeholders encourage setting up businesses for new graduates, not only to explore, expand and make a living from their practice; but to employ other youths in the unemployed market; thereby, further reducing the bloated number of the unemployed.

Works Cited

- Alkali, V. and Fatuyi, O. A. "The Future and Prospect of Industrial Design as a Specialized Field in Nigeria." *Design Review: Journal of Industrial Design* 1 (2010): 131-7.
- Asaju, K. S. and Anyio S. "The Rising Rate of Unemployment in Nigeria the Socio-economic and Political Implications." *Global Business and Economic Research Journal* 2.1 (2014): 12-32.
- Bailey, J., Grant, N., Hall, D., Harris, N., Maxwell, J., Pritchard, L., Slingsby, J., White, C., and Wilson, C. *Giant Book of Knowledge*. London: Book Club Associate, 1984.
- Blythe, C. *Liberal Arts Education in the Workplace: What Can You Do with a Liberal Arts Degree?* February 12, 2017. <<http://blog.questa.com/wp-content/uploads>>.
- Damilare, O. *Unemployment Rate in Nigeria: Policy Archives*. February 17, 2017. <<http://venturesafrica.com/>>.
- Harvey, L. "Defining and Measuring Employability." *Quality in Higher Education*. Abeokuta: Goad Press, 2001. 97-109.
- Idowu, I. O. "Recommendations for Effective Industrial Design Practice in Nigeria." *Design Review: Journal of Industrial Design* 1 (2010): 138-43.
- Jerry, O. *Opinion Nigeria/About Us*. February 8, 2017. Creating Jobs Through Industrial and Product Design. <<http://www.opinionnigeria.com/creating-jobs-through-industrial-and-product-design-by-jerry-obi/#sthash.WuzgFJFu.dpbs>>.
- . *Opinion Nigeria*. February 7, 2017. Creating Jobs Through Industrial and Product Design. <www.opinionnigeria.com>.
- Kayode, O. F. "From Handcraft to Industrial Design: Industrial Revolution as a Springboard." *Journal of Arts and Ideas* 6 (2003): 31-43.
- Ogunduyile, S. R. and Akinbogun, T. L. "Industrial Design Education: An Evaluation of Its Achievement and Teething Problems in Nigeria." *Journal of Environmental Technology* 2.1 (2002): 36-40.
- . "The Concept of Industrial Design in Nigerian Universities." *Journal of Environmental Technology* 1.1 (1999): 21-26.
- Oguibe, O. *Keynote to the Conference on Re-interrogating the Visual Arts Curriculum in Nigerian Universities and Colleges*. Abraka: Delta State University, 2004.
- Peacork, H. *A History of Modern Europe*. London: Heinemann Educational Books, 1958.

Sims, M. *Sign Design: Graphics, Materials, Techniques*. London: Thames and Hudson Ltd., 1991.

Sirat, M. "Employability of Graduates in Malaysia." *UNESCO Asia and Pacific Regional Bureau of Education*. UK: UNESCO, 2012. 17-19.

Toriola, A. "Unemployment Issues in Nigeria." February 12, 2017. <nigerianfinder.com/causes-of-unemployment-in-nigeria/:
<http://nigeriafinder.com/causes-of-unemployment-in-nigeria/>>.

Yorke, M. P. and Knight, T. "Embedding Employability into the Curriculum." *Higher Education Academy*. March 22, 2016.
<www.opinionnigeria.com>.