Factors affecting the Timely Completion of Doctoral Degree in Library and Information Science in Nigerian Universities

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Abstract

Forty-five doctoral graduates in library and information science (LIS) of Nigerian universities from 2009 to 2013 were surveyed in order to determine factors affecting the timely completion of doctoral degree programme in LIS in Nigerian universities. Using social survey design, a questionnaire purposely designed for the study was the instrument used for collecting data. The objectives of the study were to determine the average completion time of doctoral degrees in library and information science in Nigerian universities, identify individual, supervisory and institutional factors affecting the timely completion of doctoral degree in LIS in Nigerian universities and establish doctoral graduates' perceptions of barriers to the timely completion of doctoral degree in LIS in Nigerian universities Three hypotheses were tested: (i) individual factors have no relationship with the duration of the programme, (ii) supervisory factors have no relationship with the duration of the programme and (iii) institutional factors have no relationship with the duration of the programme at 0.05 significant level. T-test, one-way ANOVA and spearman rho statistical techniques were used to test the hypotheses of the study. The findings revealed that the average period of completion was seven years. Difficulty in registration due to inability to pay on time, strike by lecturers/students and university bureaucracy were the major obstacles to the timely completion

of doctoral programme in LIS. The mode of study, sponsorship, supervisors' attitude, status of supervisors and the average period between submission of final draft and time degree was awarded, have relationship with the duration of programme among LIS doctoral graduates in Nigeria. The three hypotheses were therefore rejected. It is recommended that Nigerian government should fund doctoral research given the benefits that it accrues to a nation. Also, the need for library and information science schools to attract young doctoral graduates is recommended. The library and information science schools are also advised to equip their doctoral degree students with statistical skills. The institutional bureaucracy should be reduced considerably.

Introduction

A doctoral degree or PhD as it is commonly called is very important in any national economy because a doctoral degree holder is expected to be a knowledge generator, a purveyor of knowledge and somebody with the potential to extend the frontiers of knowledge. It is well known that knowledge is pivotal to creativity and innovation. These two form the fulcrum of development which is very desirable in any developing country like Nigeria. PhD holders are therefore critical in the development of a national economy. It is therefore not surprising that they form the nucleus of a university, which is a centre known for extending the frontiers of knowledge through research. Pitchforth et. al. (2012) has described completion of PhD degree as an important factor for the student, the institution and the economy.

A doctoral degree is an advanced academic degree normally awarded by a university. It is the highest degree in any academic discipline. Holders of doctoral degree are awarded the Doctor of

Philosophy degree (PhD). Prior to the commencement of a doctoral degree programme, a student is expected to have gone through postgraduate training in the relevant discipline. It is primarily obtained through research under the supervision or tutelage of a senior academic staff in a university, usually a professor in the discipline. The main role of a supervisor is to provide advice at every stage of the research process right from the planning stage which includes the selection of title to the final stage – oral defence. The supervisor is expected to provide guidance, mentoring, and more importantly, to monitor the progress of the research process. Thus, it is important for the student and the supervisor to agree on a timeline right from the commencement of the programme.

In many cases, doctoral students are also expected to complete some courses relevant to the research discipline, such as advanced research methods, computational analysis, etc. The main requirement for obtaining a PhD is the submission of a substantial body of original research report in the field in the form of a thesis, which shall be assessed and confirmed by external assessors in an oral defence examination.

It is expected that holders of doctoral degrees will teach in a university or any higher institution which offers programmes towards obtaining a bachelor degree, master's degree, as well as research institutes, although it is not unusual to find doctoral holders in the national civil service and the private sector. The minimum period to complete a doctoral degree programme varies from one university to another, but it is usually three years; in some cases it may be longer or shorter. It can be offered on full time or part-time basis.

Given the importance of doctoral degrees in the national economy of every country, timely completion should be a major focus of universities offering doctoral programmes. Generally, universities are concerned with the attrition and completion rates of higher degree programmes. It is well known that many factors contribute to the timely completion of doctoral degree programmes in universities all over the world.

According to the Report of California Postsecondary Education Commission (1990), there has been concern at the long duration of completion of doctoral degree as far as back 1960s. The Report could not pinpoint on a singular factor responsible for this low rate of completion, although the Report suggested that the factors could be at individual and institutional levels. The Report also found that self-sponsored students spent longer time than those with financial assistance. Other factors suggested in the Report included departmental and faculty support provided to doctoral students. Many studies have also indicated that the high attrition rate and completion time of doctoral programme could be attributed to insufficient funding for graduate students, lack of constructive supervision, inappropriate programme design, academic isolation and poor quality of admissions. (O'Bara, 1993; Golde, 2000; Lovitts, 2001; Glocker, 2011).

Pinson (1998) attributed delays in the completion of doctoral degree to four significant factors: (1) how dissertation writing time was scheduled, (2) computer skills at the beginning of the dissertation, (3) perceived difficulties caused by job demands, and (4) changes in advisor or committee membership. Seagram et al. (1998) stated that science-based students have more interactions with their supervisors compared with humanities students. A study in Canada indicated that discipline area was important for completion, with completion rates varying from 45% in arts and humanities to 70% in life sciences, with science completions being generally in the high 60% range (Elgar, 2003). For the UK, completion rates after 10 years differed by general discipline area with arts/humanities rates being 51%, and sciences cited at 64% (Wright, and Cochrane, 2000). It was reported that the only reliable predictor of timely completion rate depended on what is the discipline of the subject, that is, whether science-based or artsand humanities-based. A study of 3579 postgraduate students in a university in the UK found that gender, age, etc, had no effect.

Latone and Browne (2001) attributed determinants of attrition and completion rates as institutional factors, supervision arrangements and candidates' characteristics. It was reported that attrition rate in some universities in USA was higher than 50% (It was even suggested it could be as high as 85%).

Studies on doctoral completion rate are not limited to the Western World. According to Abiddin (2011), the average time of completion of PhD programme at Universiti Putra Malaysia was 4.84

years. In a study by Wamala, Oonyu and Ocaya (2011) on completion time of doctoral studies at Makerere University, Uganda, it was found that the average completion time rate was five years. The study further revealed that the rate of completion was higher for candidates at the younger ages, international students and those registered in science-related disciplines.

Few studies have been done in Nigeria with respect to timely doctoral degree completion. Some studies in Nigeria have attempted to discuss factors that affect doctoral completion in Nigeria. In a study on problems encountered in the timely completion of their postgraduate programme by 438 postgraduate students in 16 federal and 9 state universities in Nigeria, Duze (2010) found that lack of equipment, academic, financial, data collection, supervisor, university administration, accommodation, family background, external examiner and personality problems, in a ranking order, were factors affecting the timely completion of their programme. Olorunisola, (2011) in a study on doctoral research supervision in Nigeria found that the 217 students who were enrolled between 2005 and 2009 at the University of Ibadan took between 4.5 and 9 years to complete their doctoral research programme, even though the duration of doctoral programme in Nigerian universities is eight semesters (4 years) for full-time students and 12 (6 years) semesters for part-time students. In another study by Agu and Oluwatayo (2013) on the delay of thesis completion in a South Eastern university in Nigeria, it was found that student's skills in conduct of research and availability of needed research support were major factors in the delay in thesis completion time but supervisor/supervisee working relationship was also a factor in thesis completion. It was revealed that most of the students did not graduate within the regulated time as students spent between two and ten extra years.

Olubusoye and Olusoji (2014) studied the completion time of doctoral degrees at the University of Ibadan by surveying 187 doctoral students who completed their PhD research during the 2011/12 academic session and found out that average time for completing PhD programme at the University of Ibadan was 9 years. Factors that influenced PhD completion time were marital status, gender and employment status, among others.

Given the contribution of doctoral degree to the development of any economy it is important for postgraduate trainees to complete their doctoral degree programmes within the stipulated time, as this will free the limited number of supervisors in Nigeria to supervise more students, as there is a limit to the number of supervisees a supervisor can be allowed to supervise. While few studies have been done in Nigeria with regards to the completion rate of doctoral degree programme in Nigerian universities, none of the studies has specifically addressed library and information science.

From the review of the timely completion of doctoral programme, factors affecting completion rate of doctoral programme can be grouped into four broad areas. These are: (i) individual student factors, (ii) supervisory factors, (iii) institutional factors, and (iv) discipline-related factors.

Individual student factors: marital status, gender, employment status, candidates' characteristics, computer skills at the beginning of the dissertation, difficulties caused by job demands, status of students at enrolment, sponsorship and insufficient funding for graduate students.

Supervisory factors: supervision arrangements, changes in advisor or committee membership, supervisor's relationships with students, supervisor's attitude, lack of constructive supervision, etc.

Institutional factors: availability of research facilities, dissertation writing time; scheduling of programme, inappropriate programme design, resources, university bureaucracy, etc.

Discipline factors: nature of study and discipline area.

For obvious reason, discipline related factors will not be covered in this study since the scope is limited only to library and information science discipline.

Doctoral Programme in Library and Information Science in Nigeria

Because the minimum requirement for appointment as lecturers in the Nigerian university system is a doctoral degree in the discipline, the demand for a doctoral degree in library and information science has increased tremendously. The number of universities offering LIS programme in Nigeria, according to Librarians Registration Council of Nigeria (LRCN) (2014), was 25. This is further exacerbated by the demand of employers of librarians in Nigerian universities to obtain a doctoral degree in library and information science before they can advance in their careers to senior management positions. This has resulted in the large enrolment of doctoral students in library and information science programme across Nigerian universities. A close observation has shown, however, that the completion time of doctoral degree programme in LIS in Nigerian universities could be anything from three to ten years, thus the necessity for this study.

Doctoral degree programme in library and information science (LIS) in Nigeria commenced at the University of Ibadan in 1969 and the first PhD was produced in 1973. Between 1973 and 1993, the number of doctoral degree holders in library and information science produced at the University of Ibadan was 15, that is, within a period of 20 years. This is because doctoral graduates were produced in trickles; but by the next twenty years (1994-2013) because of the high demand for doctoral programme in LIS, 52 doctoral graduates were produced.

For more than fifteen years, the University of Ibadan was the only university in Nigeria graduating doctoral degree in LIS. It should be noted, however, that the University has dominated the scene as it produced 69 doctoral students as at November 2014.

During the 1990s, many other universities mounted doctoral programme in LIS. Today, many universities in Nigeria offer doctoral programme in library and information science. As at 2014, there were 15 universities offering doctoral degree programme in LIS. Out of the 15 library and information science schools offering PhD, 11 had already graduated doctoral degree holders. It is, however, difficult to determine the number of LIS doctoral graduates of Nigerian universities since the first doctoral degree holder in LIS was produced in 1973 but it is estimated to be about 200 countrywide.

Objectives

This study investigates the various interrelated factors that come into play in doctoral degree completion in LIS in Nigerian universities and the perceptions of doctoral graduates to doctoral degree completion in LIS in Nigeria.

Specifically, the objectives of the study are to:

- (i) establish the characteristics of doctoral degree holders.
- (ii) determine the average completion time of doctoral degrees in library and information in Nigerian universities.
- (iii) identify the effect of students' skills on the completion time of doctoral degree in library and information science.
- (iv) identify individual, supervisory and institutional factors affecting the timely completion of doctoral degree in LIS in Nigerian universities.
- (v) establish doctoral graduates' perceptions of barriers to timely completion of doctoral degree in LIS in Nigerian universities.

Hypotheses

- (i) Individual factors have no relationship with the duration of the programme.
- (ii) Supervisory factors have no relationship with the duration of the programme.
- (iii) Institutional factors have no relationship with the duration of the programme.

Methodology

In order to attain the objectives of this study, doctoral degree holders who successfully completed the library and information science doctoral programme in Nigerian universities, between 2009 and 2013 were surveyed, with the objective of collecting the data required for this study. The period was chosen as the benchmark period because the participants in the study constituted the most recent doctoral graduates, who would be in a position to provide the most upto-date information required for identifying factors responsible for the delay in timely completion of their programme.

The data collection period was between April and August 2014. A questionnaire designed for the study was pretested with doctoral degree holders in library and information science from Nigerian universities, who had obtained their LIS doctoral degrees earlier than 2009.

In order to obtain an estimated population of doctoral degree holders in LIS, a list of doctoral degree holders in LIS who graduated from Nigerian universities between 2009 and 2013 was generated by various methods. The heads of library and information science schools in Nigerian universities were requested to provide the names of doctoral holders who had already graduated in LIS. Also, a request was made on the discussion forum of librarians in Nigeria (nla-online-forum @yahoogroups.com) requesting all those within the category to contact the Researcher. The websites of universities offering library and information science were also visited to identify recent doctoral graduates in library and information science. Fiftyeight doctoral holders were harvested. The whole population of doctoral degree holders was used for this study. The questionnaire was sent out by mail to doctoral degree holders in LIS. The respondents were expected to return the questionnaire in a selfaddressed stamped envelope included with the questionnaire. This was to protect confidentiality of the respondents.

Forty-five out of the fifty-eight copies of the questionnaire designed for doctoral holders were returned constituting 77.6% return. The statistics used in this study were frequencies, mean, median, t-test, one-way ANOVA test and Spearman rho. Statistical Package for the Social Sciences (SPSS) was used in analysing the data.

Findings and Discussion

The findings of this study are treated under the following categories:

- (i) Distribution of respondents according universities
- (ii) Background information of respondents (individual student factors).
- (iii) Research skills of respondents
- (iv) Financial sponsorship
- (v) Programme structure (institutional factors)
- (vi) Supervision process (supervisory factors)
- (vii) Duration of the programme
- (viii) Factors affecting completion of doctoral programme.

Distribution of Respondents

The 45 doctoral degree holders who completed the questionnaire are distributed as shown in table 1. Even though 11 library schools had already produced doctoral degree holders at the time of this study, six library and information science schools are represented in table 1. Five other respondents did not indicate their institutions. It is not surprising that the University of Ibadan constituted the institution that had most respondents, because apart, from being the oldest library school offering doctoral degree programme in library and information science, it has the largest enrolment of doctoral degree programme in LIS in the Nigerian universities.

Table 1: Distribution of Respondents according to Institution from 2009-2013

S/N	Institution	No.	Per cent
1.	University of Ibadan	21	46.7
2.	University of Nigeria, Nsukka	8	17.8
3.	Babcock University, Ilishan	7	15.6
4.	Delta State University, Abraka	2	4.4
5.	Imo State University, Owerri	1	2.2
6.	University of Uyo	1	2.2
7.	Others	5	11.1
	Total	45	100

Background Information of Respondents

Table 2 provides the distribution of respondents in terms of demographic factors (gender and age), mode of study, employment status of respondents and their subject background.

Demographic Factors

The gender distribution is almost equal as 24 or 53.3% of the respondents were male, while 21 or 46.7% constituted the female gender. Most of the respondents fell within the age groups of 31-40 years (46.7%) and 41-50 years (42.2%) at the time of enrolment as shown in table 2. It is significant that only 2 respondents (4.4%) constituted the range of less than 30 years. Given the fact that the younger the age of students the more likely the timely completion of doctoral programmes, this may be a major factor in the completion of doctoral programme.

Mode of Study

Majority of the respondents, 26 or (57.8%) registered for doctoral programme as part-time while 19 or 42.2 % were full-time students. The part-time students were asked to indicate if they had the permission of their employers to register for the doctoral programme. All of them indicated that they were given permission. Given the large number of part-time students, it is possible that this may be a major factor in the timely completion of the programme. Of the full-time students, only 10 or 52.6% were given study leave. The others had all sorts of arrangement ranging from some days off duty to occasional permission by their bosses.

Employment Status of Respondents

Table 2 also reveals that most of the respondents were in the librarians' cadre (31.1 %). The senior librarian, principal librarian and university librarian cadres were fairly represented. It is significant to note, however, that the practising librarian cadres constituted 69.5% of the total respondents as opposed to lecturers who constituted only 28.5%. This is not surprising as a doctoral degree is required by librarians before they can advance to senior positions in their careers, hence their large number.

Table 2: Background Information of Respondents

S/N	Variable	No.	Per cent
	Gender		
1.	Male	24	53.3
2.	Female	21	46.7
	Total	45	100
	Age		
1.	Less than 30 years	2	4.4
2.	31- 40 years	21	46.7
3.	41- 50 years	19	42.2
4.	More than 50 years	3	6.7
	Total	45	100
	Mode of study		
1.	Full-time	19	42.2
2.	Part-time	26	57.8
	Total		
	Employment Status		
1.	Librarian	14	31.1
2.	Senior Librarian	8	17.8
3.	Principal Librarian	4	8.9

4.	Deputy/University Librarian	2	4.4
5.	Assistant Lecturer	2	4.4
6.	Lecturer	11	24.1
7.	Others	1	2.2
	Total	45	100
	Subject Background		
1.	Education	20	44.4
2.	Social Science	11	24.4
3.	Arts	8	17.8
4.	Science and technology	2	4.4
5	Not indicated	4	8.9
	Total	45	100

Subject Background of Respondents

Every librarian (whether in practice or in teaching) is expected to have a background of another subject. This can be offered either as part of bachelor of library and information science degree programme or as a full degree in that subject. This is important because it may be a factor in the timely completion of a doctoral programme. According to the table, most of the respondents had arts-based subject background (86.6%). Only 4.4 % of the respondents had a science background.

Research Skills of Respondents

It is expected that possession of certain skills will fast track a timely completion of doctoral programme. Such skills include being adept in word processing, statistical software, surfing the Internet, editing skills, writing skills, etc. These skills are needed throughout the duration of the programme. The doctoral students were asked to indicate the skills they possessed during the programme. Table 3 reveals the variety of skills possessed by the respondents. They were mainly deficient in the use of statistical software as indicated in the table.

Table 3: Respondents' Skills in Research (N=45)

S/N	Research Skill	No.	Per cent
1.	Writing	40	88.9
2.	Internet Surfing	38	84.4
3.	Word Processing	37	82.2
	Software		
4.	Editing	32	71.1
5.	Statistical Software	14	31.1

Financial Support to Respondents

Sponsorship is an important factor in pursuing a doctoral degree programme because financial resources are very critical to pursuing a doctoral programme. So the respondents were asked to indicate the source of financial assistance they received for the doctoral programme. Table 4 shows that the major source of financial support for the programme. Majority of the respondents was self-sponsorship. Only 14 or 31.1% of the respondents had one form of assistance or the other. This may be a major factor in the timely completion of doctoral programme in LIS.

The large number of self-sponsored students may be linked to the desire to advance in their careers. When respondents were asked to indicate the singular reason for pursuing a doctoral degree programme, majority of the respondents indicated that the major reason was the desire to become a scholar (60%), while 16 or 35.6% indicated the demand of their employers as the singular reason. This is to be expected as librarians who constituted majority of the respondents would not advance in their careers without a doctoral degree in LIS. Only one respondent indicated the prestige of being called a doctor.

Table 4: Source of Financial Support to Respondents

S/N	Source	No.	Per cent
1.	Self-sponsorship	31	68.9
2.	Staff development	13	28.9
3.	Scholarship	1	2.2
	Total	45	100

Programme Structure of LIS Programme in Nigerian Universities

The structure of doctoral programmes varies from one university to another. It could solely be based on the submission of a thesis or a combination of course work and submission of original research of a thesis. Courses are prescribed for doctoral students which on successful completion will enable a student to pursue the submission of a thesis. All the respondents indicated they went through course work as well as submission of original research for a thesis but the courses they offered varied from one university to the other. Table 5 shows the variety of courses offered during the doctoral programme.

Table 5: Courses Offered by Respondents (N=45)

S/N	Course	No.	Per cent
1.	LIS Themes	35	77.8
2.	Advanced Research	32	71.1
3.	Statistics	24	53.3
4.	ICT Themes	17	37.8
5.	Computer Applications	12	26.7
6.	Publishing	8	17.8

Majority of the students presented both prefield (95.6%) and post-field (88.9%) seminars. Only 17.8% of the respondents disseminated their research projects through the attendance of national conference and 6.7% presented their findings at international conferences.

Library Facility Available for the Programme

Majority of the respondents used their university libraries for their research studies as shown in table 6; however, a large number of the respondents indicated that they did not find the library collections adequate (48.9%). Majority of the respondents claimed the library collection was not adequate in most of the library resources required for their doctoral as indicated in the table. From the table, it is obvious that relevant textbooks were not available to a large number of the respondents (64.4%). Journals which constitute the most important resource

for doctoral programme were not adequate to a majority of the respondents (55.6%).

Table 6: Library Facility Available for Programme

S/N	Variable	No.	Per cent
	Type of Library		
1.	University	43	95.6
2.	Department	27	60.0
3.	Faculty	17	37.8
4.	Employers	16	35.6
	Inadequacy of Library		
	Collections		
1	Relevant textbooks	29	64.4
2.	Access to past theses	26	57.8
3.	Access to the Internet	26	57.8
4.	Journal	25	55.6

University Bureaucracy

After completing the final draft of a doctoral programme, the time it takes before the degree is awarded varies from one institution to the other. The respondents were asked to state the time it took them at every stage before the degree was finally awarded. Most of the respondents indicated that it took them three months (35.6%) before oral defence was arranged, another 31.1% respondents indicated six months, for a sizeable number, (26.7%) it took one year.

After the oral examination, most of the respondents (84.4%) reported that it took them one month for supervisor to sanction corrections they submitted to them. When respondents were asked to indicate, on average, how long it took between the confirmation of the final draft by the internal examiner and the submission to Senate for approval, more than (40.0%) of the respondents indicated that it took them more than three months.

The respondents were asked to indicate, on average, the time it took from when the final draft was submitted by the student to when the degree was approved by Senate. Table 7 shows the period. It shows that more than 71% of the respondents (i.e. six months, one year, more than one year) were awarded their degrees after six months or more of submission.

Table 7: Average Period between Submission of Final Draft and Approval by Senate (N=45)

S/N	Period	No.	Per cent
1.	Three months	13	28.9
2.	Six months	10	22.2
3.	One year	8	17.8
4.	More than one year	14	31.1

Supervision Process

For timely completion of PhD programme the role of the supervisor is crucial hence respondents' opinions on supervisory style, status of supervisors, areas of mentoring, methods of contacting supervisors and supervisors' commitment were sought. Table 8 shows the various supervisory styles, status of supervisors, areas of mentoring and methods of contacting supervisors.

Supervision Style

Majority of the respondents were supervised by sole supervisors (80%). As indicated in the table 8, six were supervised by co-supervisors and one by a team of supervisors. A cross tabulation of type of supervisor and institutions shows that only Babcock University employed team-supervision. Babcock University, Delta State University and the University of Nigeria, Nsukka used co-supervision.

Status of Supervisors

Majority of the doctoral graduates were supervised by supervisors in the professorial grade (professors and associate professors) (68.9%) as shown in table 8. A cross tabulation of institutions found that only the University of Ibadan and the University of Nigeria used non-professorial grade supervisors.

Most respondents had good relationship with their supervisors as they considered the relationship to be of senior colleague/colleague relationship (75.6%), although 8.9% of the respondents each described their relationship as teacher/pupil and master/servant. One respondent considered to be of expert/novice.

Mentoring

Almost all the respondents (88.9%) regarded their supervisors as mentors. When they were asked to indicate areas in which they were mentored, a variety of areas were mentioned as shown in table 8, which shows that students were not really mentored sufficiently in areas that have a lot of bearing on their postgraduate studies: Such areas as support services for accommodation, library and computer facilities (10%), introduction to university structure-committees, postgraduate school, senate, etc, (5%) were less mentioned by the respondents.

Method of Contacting Supervisors

Respondents were asked to indicate methods they used in contacting their supervisors. A variety of methods according to table 8 were used. Surprisingly, most of the respondents did not use e-mail as a method (46.7%) of contacting their supervisors. It has been reported that e-mail is a major method of contacting supervisors which would fast track timely completion of doctoral programme.

Supervisors' Commitment

Most doctoral graduates reported that supervisors played a major role in delaying the timely completion of their programmes, especially the length of time it takes to read their drafts. When the respondents were asked to indicate how long on average it took to receive feedback from their tutors. Most of the respondents mentioned two weeks (44.4%). Four of the respondents reported three months (8.9%) while one reported six months (2.2%). However, it also took the respondents two weeks on average (57.8%) to effect corrections. One pointed out that, on average, it took three months to effect corrections. Majority of the respondents reported that their supervisors were professional in their interaction with them (93.3%). They also mentioned that their supervisors were very enthusiastic (91.1%).

Table 8: Supervisory Process

S/N	Variable No. Per					
5/11		NO.	Per cent			
1	Type of Supervisors (N=45)	36	80			
1. 2.						
	Co-supervisor	Ŭ				
3.	Team of supervisors	1	2.2			
4	No indication	2	4.4			
	Status (N=45)					
1	Professor	24	53.3			
2.	Associate Professor/Reader	7	15.6			
3.	Senior Lecturer	11	24.2			
4	Lecturer	1	2.2			
	Mentoring Areas Mentioned by respondents Course (N=40)					
1	Assistance for financial resources	39	97.5			
2.	Access to university facilities	31	77.5			
3.	Assistance to publish in scholarly journals	26 65				
4.	Counselling	21	52.5			
5.	Career planning	16	40			
6.	Assisting supervisors in invigilation and tutorials	12	30			
7.	Identifying conferences	7	17.5			
8.	Support services for accommodation, library s and computer facilities	4	10.0			
9.	Introduction to university structure-committees, postgraduate school, senate, etc.	2	5.0			
	Method of Contacting Supervisors (N=45)					
1	Supervisor's office	44	97.8			
2.	Phone	39	86.7			
3.	SMS 31 68.9					
4.	E-mail 21 46.7					

Duration of the Programme

Respondents were asked to indicate the minimum time for the completion of doctoral programme. Majority of the respondents indicated that six semesters or three years constituted the minimum time for the completion of the programme for full-time and eight semesters or four years for part-time. Some mentioned two years as minimum while others mentioned four years. No respondent mentioned any period longer than four years as minimum period for the completion of a PhD programme.

When the respondents were asked if they met the stipulated minimum period for their programme, only 5 (11.6%) respondents indicated they met the minimum period, while 38 (88.4%) of the respondents indicated that they did not meet the minimum period. When respondents were asked to indicate the duration of their doctoral programme, a variety of periods were provided, with the median time being 6.68 years, while the mean was 7 years. The minimum period was 2 years while the maximum period was 13 years. According to Olubosoye and Olusoji (2014), six years is considered as benchmark for timely completion of doctoral programme; 18 (45%) of the 40 doctoral graduates indicated that they completed the programme in six years or less.

A cross tabulation of the duration of the programme against the institutions shows that Babcock University had the best completion period. Of the seven graduates, five completed the programme in two years, while the remaining two completed the programme in three years. The study however revealed that all the seven doctoral graduates did their programme full-time. The University of Nigeria, Nsukka spent between four years and seven years. The University of Ibadan completed the programme between five years and thirteen years; Delta State University between seven years and 11 years; the University of Uyo spent four years; while Imo State University spent 6 years.

Challenges of Timely Completion of Doctoral Programme

The respondents were asked to indicate the challenges confronting them in the completion of their programme. Table 9 reveals the challenges as mentioned by the respondents. More than half of the respondents as shown in table 9 indicated that

difficulty in registration due to inability to pay on time (84.4%), strike by lecturers/students (64.4%), and university bureaucracy were the major challenges (53.3%). A large number of respondents (20%) mentioned supervisors' attitude and inadequate library collections (15%) as challenges.

Table 9: Challenges of completing doctoral programme on time (N=45)

Challenge	No.	Per cent
Difficulty in registration	38	84.4
due to inability to pay on		
time		
Strike by	29	64.4
lecturers/students		
University bureaucracy	24	53.3
Personal/domestic issues	15	33.3
Employers' demands	14	31.1
Supervisors' attitude	9	20
Inadequate library	7	15.6
collections		
Getting acceptable title	3	6.7
Inadequate skills for	2	4.4
research proposals		
Inadequate writing skills	1	2.2
Difficulty with statistician	1	2.2

Timeliness

The study shows that most of the respondents did not have a time schedule for the completion of the programme as only 11 or 28.2% of the respondents indicated that they prepared a timeline for completion of their programme. Those who had timeline came from Babcock (5), University of Ibadan (3) and University of Nigeria, Nsukka (3). A large number of the respondents who prepared the timeline did not complete the programme on time.

Factors Affecting Completion of Doctoral Programme

Many factors come into play in the timely completion of doctoral programme. As already indicated, many factors are likely to affect the completion of doctoral programme. In order to identify factors that affect completion of doctoral programme t-test, one-way analysis of variance (ANOVA) test and Spearman rank correlation were used in testing the effects of individual, supervisory and institutional factors on the duration of programme.

Individual Student Factors

Many individual factors affect the duration of doctoral programme. Such factors identified as individual student factors are: gender, age, employment status, mode of study, sponsorship. Statistical tests were carried out to see if these factors would have an effect on the duration of the programme. The results of t-test (t-value=-2.423;d.f=38;and p-value=0.02) show that the mode of study has a significant effect on the duration of the programme with full-time and part-time students spending an average of 5.53 years and 7.71 years respectively. The results of a one-way ANOVA test also show that sponsorship has a significant effect on the duration of the programme (F=3.741; d.f=2.37; and p-value=0.033). Other factors, i.e. gender, age and employment status, did not have a significant effect mode on the duration of the doctoral programme.

Supervisory Factors

Many of the studies on timely completion of doctoral programmes have indicated that supervisors play a major role in timely completion of doctoral programme. Thus, the factors of supervisor's status, type, and attitude were tested to see if they have significant effects on the duration of the programme. A t-test analysis shows that the supervisor's attitude has a significant effect on the duration of the programme (t-value=2.303; d.f.=31; and p-value=0.028) with students of those having an attitude spending an average of about 9.11 years while the students of those without having an attitude spend an average of about 7.04 years. A one-way ANOVA test also reveals that the supervisor's status has a significant effect on the duration of the programme (F-value=4.144; d.f.=3,34; and p-value=0.013). The type of supervision (that is whether sole supervision or co-supervision or team supervision) has no significant effect on the duration of the programme.

Institutional Factors

These are factors that exist in the departments, faculties, postgraduate school and the university, which will affect the timely completion of doctoral programme. Some of these factors include adequacy of library collections, university bureaucracy, difficulty of registration of title and payment, and time between submission of final draft and senate approval. Statistical tests show that all these factors except one have no effect on the duration of the programme. The only exception is the time degree was awarded (i.e. the average period between submission of final draft and approval by Senate) which has a positive correlation with the duration of the programme (Spearman's rho=0.411; N=40; and p-value=0.008).

Table 10 shows a summary of individual, supervisory and institutional factors affecting the duration of LIS doctoral graduates in Nigeria.

Table	10:	Factors	affecting	timely	completion of	of doctoral	programme

S/N	Factors	Relationship Results	Level of Significance
	INDIVIDUAL		
1.	Mode of Study	t=-2.423	.002
2.	Sponsorship	F= 3.741	.033
	SUPERVISORY		
3.	Supervisors' Attitude	t=-2.303	.028
4.	Status of Supervisors	F= 4.144	.013
	INSTITUTIONAL		
5.	Average period between the submission	Correlation	. 008
	of final draft and the time degree was	coefficient= .411.	
	awarded by Senate		

Conclusion and Recommendations

Majority of the respondents were in the age range of 30 years and above (95.6%). Most of the respondents were practising librarians (69.5%). A large number of the respondents possessed skills required for doctoral research except statistical skills which only a few of the respondents claimed to possess (31.1%). Majority of the respondents (68.9%) sponsored the doctoral programme themselves. Most of the respondents were not satisfied with their library collections. The median time and the mean for completing doctoral programme were 6.68 years and 7 years respectively.

Difficulty in registration due to inability to pay on time, strike by lecturers/students and university bureaucracy were the major obstacles to timely completion of doctoral programme in LIS. Two of individual factors (mode of study and sponsorship), two supervisory factors: supervisors' attitude and status of supervisors, and one institutional factor (the time it took between the submission of final draft and the time the degree was awarded) had relationship with the timely completion of doctoral programme.

It is recommended that library and information science schools in Nigeria should make efforts to attract young students into their programme. All final year undergraduates who obtain second class upper division and above should be encouraged to do the doctoral degree programme. Universities should provide funding for such students who have been attracted to pursue doctoral research programme. Also, Nigerian government through TETFUND (Tertiary Education Fund) should pay a lot of attention to doctoral research programme in Nigeria, given the importance of research findings that would emanate from their research projects which will contribute positively to the national economy of the nation. The idea of doctoral graduates sponsoring their doctoral programme would not augur well for the country. The Government must be aggressively involved in doctoral programmes. Library and information science schools need to give a greater attention to statistics by ensuring that all doctoral students are skilled in statistical techniques. Library and information science is a social study, unlike in the past, statistical techniques will have to be applied to LIS research. The bureaucracy in Nigeria's postgraduate system must be addressed, as institutional bureaucracy is responsible for most of the delay in the timely completion of doctoral degree programme. Supervisors will have to show more commitment to supervision process so as to improve on the timely completion of doctoral programme. Nigerian universities should learn from Babcock University, where it takes between two and three years to complete doctoral degree programme.

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