Texila International Journal of Public Health
ISSN: 2520-3134
DOI: 10.21522/TIJPH.2013.10.04.Art001

Causes of Reduced Revenue Generation in Federal Staff Hospital (Fsh) Laboratory; Annex 111 Federal Capital Territory, Abuja

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Abstract

The healthcare delivery system has been criticized for its "culture of blame" in which culpability for failure has been attributed to the human elements of the system: The Study was designed to identify and ascertain reasons for low-revenue generation in Federal staff hospital (FSH) laboratory; annex 111, Abuja and to proffer solutions, as well as deliver health care that minimizes risks and harm to service users, including avoiding preventable injuries and reducing medical errors. According to World Health Organization (WHO), a well-functioning healthcare system requires a financing mechanism, well trained and adequately paid workforce, reliable Information on which to base decisions and policies, and well-maintained health facilities to deliver quality services and technologies. Out of a total number of two hundred (200) respondents interviewed using questionnaires, hundred and sixty (160) were received using the random sampling method. 41% of the respondents believed that there are no barriers to accessing the facility, 48.0% indicated a Lack of Knowledge, and 11.0% said proximity. The year 2017/2018 to 2019 report showed a tremendous improvement. Revenue generated and the number of patients for the year 2018 was to the tune of twenty-nine million, nine hundred and seventy-six thousand, six hundred and sixty naira only (₦29,976,660.00) and twelve thousand, seven hundred and twenty-six patients (12,726) respectively. In comparing the year 2017/2018, respectively, this Study concluded that for overall improvement of the quality and performance in the healthcare environment, there is a need for the development of new inter-organizational patterns of care delivery and complex multitier governance structures.

Keywords*: Federal staff hospital (FSH) laboratory, Health care, Knowledge. Preventable injuries, World Health Organization (WHO).*

Introduction

Accessing quality health service is highly important and the right of the individual. According to World Health Organization (WHO), a well-functioning healthcare system requires a financing mechanism, [1] well trained and adequately paid workforce, reliable Information on which to base decisions and policies, and well-maintained health facilities to deliver quality services and technologies. The healthcare delivery system has been criticized for its "culture of blame," in which culpability for failure has been attributed to the human elements of the system: [2] People make errors; therefore, people must change their behavior to reduce errors.

However, numerous researchers have found that human errors are more generally associated

Received: 24.01.2022 ***Accepted: 03.11.2022*** ***Published on: 29.12.2022***
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with latent causes that are hidden within systems and processes [3]. Current thinking places the responsibility for "human error" squarely on the shoulders of latent (i.e., root) causes that can be prevented only by adjustments to systems and processes [4].

In today's healthcare delivery system, the patient is at the center of an intricate network of clinicians, medical devices, and other elements of the system [5-6]. To this effect, change must take place [7-10].

Every interface between a human being and a machine contains opportunities for error: [11-12] Information might not be accurately acquired, recorded, or communicated; necessary actions might not be safely and effectively carried out, and adverse events might occur [13, 14]. Quality services, if according to customers, will not only bring about an increase in revenue generation but will also increase customer flow rate [15-16].

Prioritizing Client needs, implementing evidence-based decision making, continuing efforts to improve Client outcomes, [17] reducing inefficiencies, timely care, reducing waiting time and sometimes harmful delays for both those who receive and those who give care; efficient care, avoiding waste, in particular, waste of equipment, supplies, ideas, and energy; and equitable care, consistent high quality across gender, ethnicity, geographic location, and socioeconomic status [18].

Overall improving the quality and performance in the healthcare environment to deliver health care that minimizes risks and harm to service users, including avoiding preventable injuries and reducing medical errors [19]. To improve on the degree to which a product meets the design specifications offering a satisfaction factor that fulfills all [8, 19].

The development of new inter-organizational patterns of care delivery and complex multitier governance structures, [6, 12] ensuring key variables of the process, including system coordination mechanisms, Information flows, decision-making processes, quality control, and communication flows between practitioners and patients [14, 18, 20].

This includes financing and poor funding by Government, which could contribute greatly to low-income generation. Finally, amongst the list is dissatisfaction with the health system performance and cost of running test, which may not be encouraging compared to private laboratories**.**

Quality management has to be put in place, and this focuses on leadership, management, assessment, and measurement activities, as well as an overarching view of the outputs of all the projects in a programme [15, 20]. Customer's expectation of quality (for products or services being delivered) acts as a vital organ in an organization.

Views are at the heart of a quality management process [20, 21]. It is a structured procedure designed to assess whether a product or service is fit for purpose or conforms to agreed requirements. The objectives of a quality review are to:

1. Assess the conformity of a product against set criteria.
2. Provide a platform for product improvement.
3. Involve all those who have an interest in checking its quality.
4. Share ownership of the product.
5. Obtain commitment from all vested interests to the product.
6. Provide a mechanism for management, monitoring, and control.

At the project level, quality management is mainly about the project's products or services and what makes them fit for the purpose of the meeting clearly stated needs. Projects cannot be effectively built around implied needs. The research goal and objective are to ascertain reasons for low-revenue generation in the facility and to proffer solutions, as well as to identify major causes of low-revenue generation in the facility and to proffer possible reasons to reduce further revenue loss.

Methodology

Two basic sources of data collection were used to get the data needed to carry out this Study. These are:

1. The primary data.
2. The secondary data.

The Primary Data

The primary data for this Study was gathered through the use of both questionnaire and face-to-face interviews with respondents from the sample size. The prepared questionnaire was administered after the explanation of the aim of the Study. The questionnaire was given to the respondent with the assurance that the research was confidential and that any information disclosed would not be used against them in any way. The Questionnaire contains a list of questions that sought to get the opinions of the respondents on the likely causes of reduced revenue generation in the Federal Staff Hospital (FSH) laboratory, annex 111, Gwarinpa.

Qualitative data was collected through in-depth interviews, with audiotape recording with permission. Most of the individual interviews were conducted at the gate of the hospital during antenatal days, hospital eating place, outpatient department (OPD), cash payment point (CPP), pharmacy area, as well as in the laboratory waiting area. For the quantitative data, the strategy to obtain information from a selected sample of 200 Clients of the childbearing age group and caregivers through the questionnaire administration. Two hundred (200) copies of Questionnaires were distributed, and one hundred and sixty (160) Questionnaires were retrieved.

The Secondary Data

The other source from which the data was obtained was the review of related literature from books authored by various writers, journals, magazines, newspapers, and Webpages. These were obtained through different libraries and the Internet.

Reliability and Validity of Research Instrument

In this Study, the method of triangulation was used to validate the reliability of the data obtained. This was tested using multiple techniques such as observation, interviews, and Questionnaires to compare the responses of the respondents. Also, a pilot study was conducted to pre-test the study schedule, which was subsequently validated in the process.

Method of Data Analysis

Statistical Package for the Social Sciences *(SPSS)* was employed for data analysis. This is because the package has the benefits of reproducibility, simplifying repetitive tasks, and handling complex data manipulations and analyses. In SPSS, descriptive statistical tools such as simple percentages and frequency distribution and other relevant tools were used for the analysis and presentation. In addition, a non-parametric tool, the chi-square method, was also employed for the testing of hypotheses statements.

Data Presentation and Analysis

In the previous discussion, it was mentioned that this research focused on the likely causes of reduced revenue generation, using Federal Staff Hospital (FSH) laboratory, annex 111, Gwarinpa, as a case study. A total number of 200 Respondents were interviewed using a structured questionnaire considering the target group who have little or no basic education through the direct interview, and some of the questionnaires were distributed to the respondents to fill Data collection, which lasted for 4 weeks; random sampling was done in order to obtain information about their opinions on Client/Staff performance as well as on the facility. In summary, 200 questionnaires were administered, 160 were retrieved, and analysis was based on these 160 respondents using the SPSS software package. Analysis was done and represented in tables and charts for clarification.

Results

Analysis of Respondent Questionnaires

Likely Causes of Reduced Revenue Generation in the Laboratory

Table 1. Reasons Given by the CLIENT

Lack of Patronage	No. Distributed	No. Retrieved	Percentage Respondent
Location of the facility	10	5	3.0
Bad chairs	20	20	13.0
Dirty Environment	70	54	34.0
Staff rude to Client	5	2	1.0
Delays in assessing services	5	2	1.0
Increase in cost of running investigations	40	30	19.0
Wrong results	5	2	1.0
Bad waiting area	40	40	25.0
Missing Results	5	5	3.0
Total	200	160	100

Socio-Demographic Characteristics of the Sample

The Demographic Characteristics of the Respondents

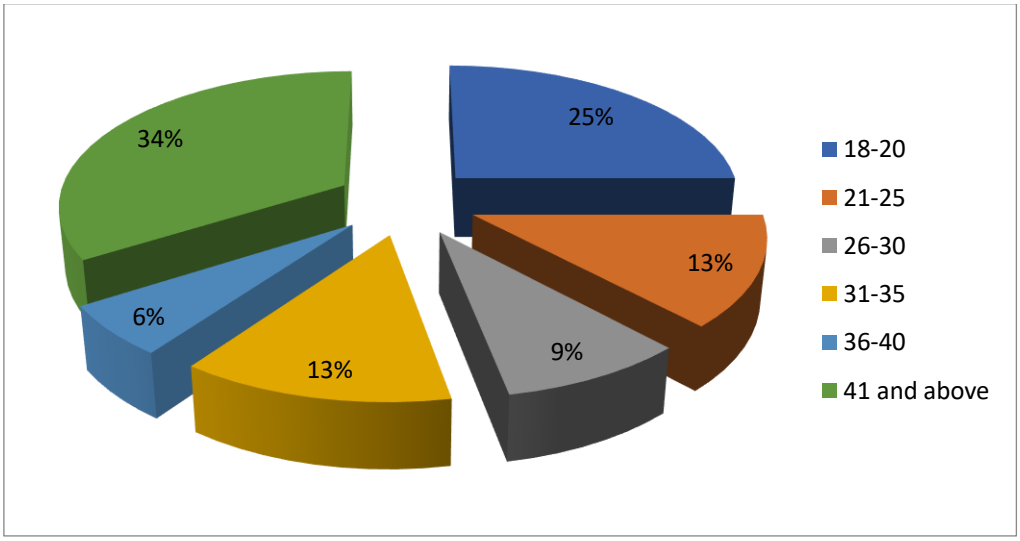

Figure 1. Pie Chart Showing Age Bracket of Respondents

From Figure 1, a Socio-demographic characteristic of the various components shows that (25.0%) are 18-20 years of age, (13.0%) were between 21-25 years, and (9.0%) were 26-30years. Also (13.0%) represents 31-33 years of the respondents, (6.0%) is 36-40 years, and finally, the last group of respondents was of age 41 and above (34.0%), which is the highest of the respondent's age group. This denotes that the age bracket of 41 and above patronizes the hospital Laboratory most while age bracket 36-40 rarely visit s the hospital Laboratory, perhaps they do visit but because either the Clinician did

not order for a test or as a result of one thing or the other, they did not visit the facility.

Mostly married women go for either antenatal or delivery or one form of surgery or the other and as such, it is likely that they patronize the laboratory optimally.

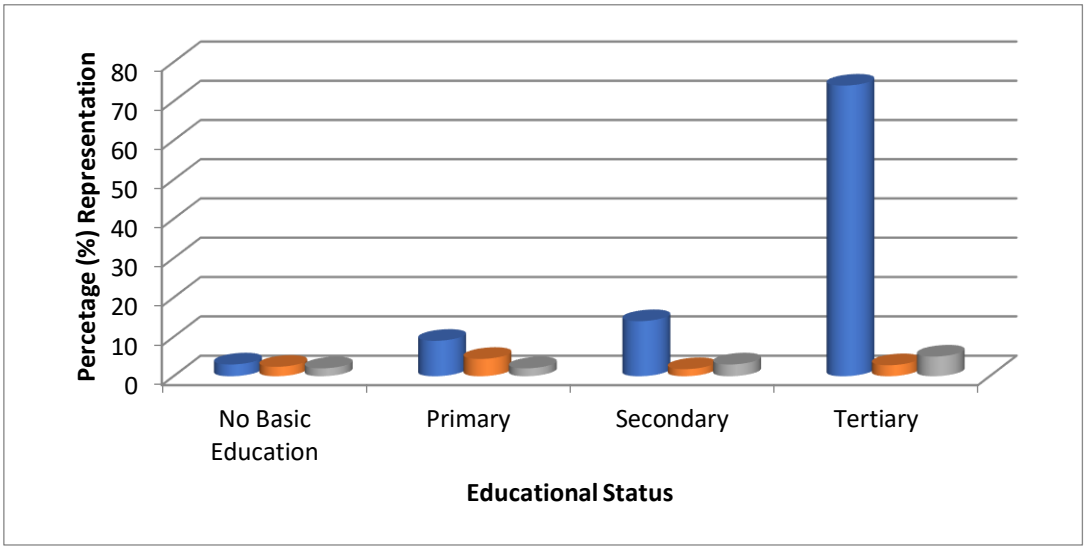

Figure 2. Chart Showing the Educational Status of Respondents

The educational status of the respondents was fairly representative of the distribution above. However, the majority (9.0%) completed primary school, and some could still read and write, while (3.0%) had no basic education at all and had to be aided to fill out the questionnaire. (14.0%) attended secondary school, while the majority (74.0%) attended tertiary institutions. By this distribution, it is clear that our targets are people on the grass root who have little or no education.

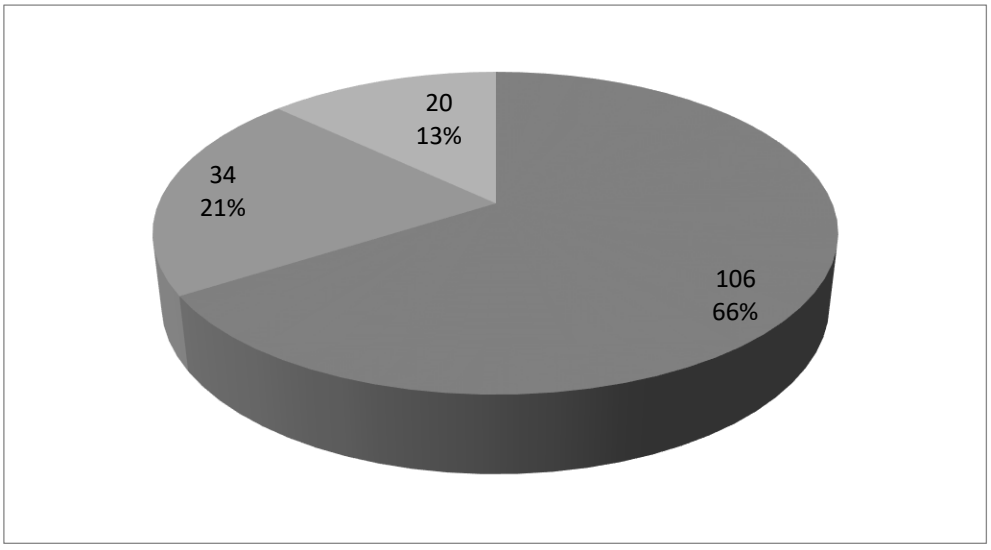

Figure 3. Pie Chart Showing Occupational Status of Respondents

In the occupational distribution of the respondents above, (21.0%) are semi-skilled, (13.0%) are unskilled while (and 66.0%) are skilled. Basically, Skilled Clients were the highest patronage. They knew the value of always accessing health facilities.

Table 2. Average Income per Month of Respondents

Average Income Per month	No. Distributed	No. Received	Percentage of Respondent
₦15,000-₦50,000	85	52	33.0
₦60,000-₦90,000	60	58	36.0
₦100,000-₦200,000	35	35	22.0
₦300,000 and above	20	15	9.0
Total	200	160	100

The average income of the respondents ranging from ₦15,000-₦50,000 was (33.0%), for the group of ₦60,000-₦90,000 was (36.0%), for those on ₦100,000-₦200,000 (22.0%) and ₦300,000 and above (9.0%). This implies that the majority of the respondent leave between average incomes of above ₦60,000-₦90,000, respectively.

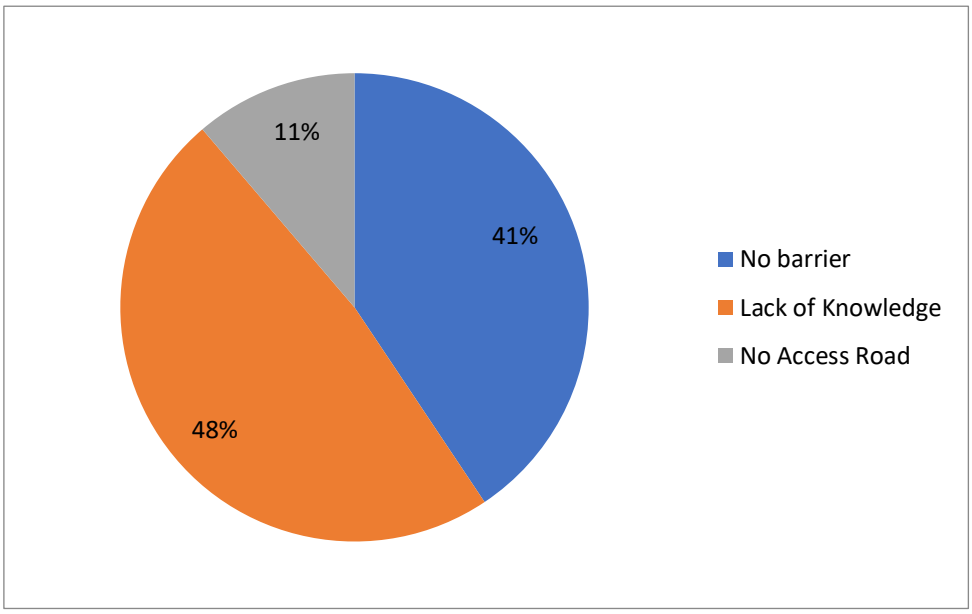

Figure 3. Barriers to Accessing the Facility

On this chart, 41% of the respondents believed that there are no barriers to accessing the facility, 48.0% indicated a Lack of Knowledge, and 11.0% attributed transportation to the inability to access the facility.

Analysis and Findings through Revenue Generated in the Laboratory

Table 3. Revenue Generation for Year 2019

S/N	Month	Amount (₦)	No. of Clients
1	January	2,538,960.00	1166
2	February	2,734,120.00	1144
3	March	2.734,120.00	1218
4	April	2,531,280.00	1106
5	May	3,130,950.00	1174
6	June	3,459,870.00	984
7	July	3,354,010.00	1351

8	August	2,965,281.00	1220
9	September	2,975,134.00	1326
10	October	3,593,194.00	1455
11	November	2,864,294.00	1160
12	December	2,204,780.00	921
Total		35,048,643.00	14,225

The total sum of Thirty-Five million, forty-eight thousand, six hundred and forty-three naira only (35,048,643.00) was generated during the period covered with a total of fourteen thousand, two hundred and twenty-five (14,225). Patients.

The total Revenue generated on a monthly basis was compared with that of subsequent months. The reason for the rising and falling of the revenue generated was analyzed and corrected. Table 3 shows the total revenue generated from January to December 2019.

Discussion

Additional phases of implementation will enhance great changes in several tertiary institutions where occurrence management, internal assessment, process improvement as well as service, and satisfaction can be put to check. Quality management Experts were invited to analyze and find the root cause of the low Client flow and proffer changes by employing CAPPA corrective measures.

The Client gave clear reasons as to the lack of patronage in the hospital. From the questionnaire administered, quality gaps identified were: - some said the Location of the facility was hard to reach, dilapidated buildings and dirty environment, staff not being on their duty post, delays in accessing services, increase in cost of running investigations, lack of confidence on the facility, though some gave reasons as short of Laboratory Staff. Personnel attending to them and as a result they had to wait for the Staff on duty for a particular test, for instance, they had to wait for a urethral swab to be collected because the responsible staff came to work late, the Phlebotomy just commenced arranging the materials at the time work should have actually commenced.

The majority of the Staff gave their own reasons, as poor motivation from the management, Heads of Department (HOD) were not cooperative, lack of training and retraining of Staff, funds not released for the proper running of unit, and lack of interventions from the government.

This research was focused on the likely causes of reduced revenue generation using the Federal Staff Hospital Laboratory, Gwarinpa as the case study. Out of a total number of two hundred (200) respondents interviewed using questionnaires, hundred and sixty (160) was received using the random sampling method. Looking at the socio-demographic characteristics of the sample showed that in age distribution, the percentage of age forty-one (41) and above were mostly the highest patronage in the hospital.

Considering the religion of the respondents, sixty-nine percent (69%) of patronage were Christians. As Christians, open confrontation may not be the best corrective measure. Your religion must be respected to proffer changes in any organization.

Sixty-three percent (63%) of married men and women ranked the highest patronage. This could have been women patronizing the facility for antenatal, Prevention of Mother to Child Transmission (PMTCT), family planning as well as normal check-ups.

From the research, about seventy-four percent (74%) of those who are well-learned and have attained tertiary institution was the highest patronage indicating that they would best

understand how to proffer corrective measures to the environment, as well as staff as a whole.

Several other groups which could have been a source to offering corrective measures to the staff and health care facilities as a whole were equally considered, such as: occupational groups and high-income earners. In all revenue generation: the total sum of thirty-five million, forty-eight thousand, six hundred and forty-three naira only (₦35, 048,643.00), was generated during the period covered with a total of fourteen thousand, two hundred and twenty-five (14,225) patients as compared with that of the previous years.

Recommendation

1. A united health workforce is needed to place health at the front burner of political discourse; drive home the demand for a well-functioning health system from political actors; regain the trust of the Nigerian population in the health sector; improve engagement with stakeholders outside the health sector, and change the perception of the Ministry of Finance that health is an investment with no maximum returns for the society.
2. Governments and policymakers must address the key drivers of disharmony and unhealthy rivalry among health workers by providing equal opportunities for qualified health professionals in leadership positions and reducing the gap in the remuneration of health workers.
3. There is also a need to employ the services of health managers specifically trained to handle health resources in order to adequately manage the current level of healthcare resources and avoid wastage.
4. The 2019 general elections offer a window of opportunity for citizens to demand health system reforms and political leadership from governments. Political actors must make health of the Nigerian population a major priority through increased budgetary allocation to the health sector. Policy makers should ensure good governance within the health sector in order to address the problem of institutional corruption.
5. There is a great need to add patients to the quality system as well as linking the quality system to the patient as this will encourage the delivery of interventions.
6. The establishment of management commitment is of great importance.
7. Training and competence assessment programs should be inculcated.

Conclusion

Quality services if accorded to customers, will not only bring about an increase in revenue generation but will also increase customers flow rate. Accuracy, precision, and reproducibility are keys to effective performance. Human lives are involved in carelessness, transcription, procedures, and specimens, as well as in environmental conditions.

Doctors, nurses, pharmacists, physiotherapists, laboratory scientists, community health workers, Health Economists, public health specialists, and Health managers all have a stake in addressing Customers Care in health facilities.

Due to QMS Expert intervention, Federal Staff Hospital is currently under construction and appreciable Standardized renovation.

Comparing the year 2017/2018 to 2019 report, a tremendous improvement was seen. The grand total in the year was to the tune of Twenty four million, seven hundred and seventy-eight thousand; five hundred and ninety-seven naira (₦24,778,597.00) was generated, with a total of thirteen thousand two hundred and thirty-nine patients (13,239). Also, Revenue generated as well as the number of patients for the year 2018 was to the tune of twenty-nine million, nine hundred and seventy-six thousand, six hundred and sixty naira only (₦29,976,660.00) and twelve thousand, seven

hundred and twenty-six patients (12,726) respectively.

In comparing the year 2017/2018, respectively, it will be seen that the revenue generated for the year 2019 was to the tune of thirty-five million, forty-eight thousand, six hundred and forty-three naira only (₦35,048,642.00) with a total of fourteen thousand, two hundred and twenty-five (14,225) patients is highly commendable.

Conflict of Interest

In the course of the Study, to ensure that the facility was appropriately equipped with reagents as well as consumables to carry out analysis as at when due, the management was always frowning at every bit of advice given to them due to selfish interest. Employing a Non-Medical laboratory Scientist for Industrial attachment in the Laboratory. Releasing of impress for the meeting of the laboratory needs.

Acknowledgement

I wish to express my appreciation and gratitude to those who have contributed to the reality of this work. The contribution of Prof. Augustine O. has been tremendous. I am grateful to my Dear husband, Pastor Mfon Bassey, for his moral support and to my wonderful Angels, Joseph, Uwakmfon, Akwamfon, and kemfon for their patience and consistent prayers for me. I am also grateful to Pastor (Dr) (Mrs.) Mary Okon Adeshina for her support. I am equally grateful to my other brothers and sisters as well as my late Parents and parent-in-laws Elder and Deac. Enebong Jacob Bassey, who, through their encouragement, I was motivated to push further academically. I cannot leave out Mr. Kingsley Jalmet for his great concern and Mrs. Ashi for their assistance. Finally, I have to thank my Heavenly Father once again for putting the devil to shame on my behalf and causing me to smile once again. to you be the glory, oh Lord.

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