UNDERGRADUATE STUDENT HANDBOOK FOR

RESEARCH REPORT WRITING

UNIVERISTY OF KIGALI

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1. INTRODUCTION

University of Kigali performs three primary functions, namely: teaching, research and community services. The university's image of quality is reflected through research carried out by both staffs and students from industry; Supervision is a basis for learning and professional advancement for either addressing academic concerns, the anticipation of a particular set of outcomes while addressing Industrial concerns or both; University of Kigali encourage the synergy of Involving of supervisor and supervisee/student in addressing specific concern from the research in terms of findings and expertise of the students, and inputs of the supervisor as academic expert. This implies that the supervision should be dedicated to academic, industry requirements and quality expectations from both Student and supervisors as expert. Supervisor and supervisee should each other in the context of knowledge and methodology. This handbook is designed with the objective of offering a streamlined and cohesive format that will help supervisors and students during the process of writing and supervising undergraduate dissertations and research projects. It is designed following the most recent academic writing conventions and guidelines of academic and scientific research. It is predicted that this handbook will go a long way in providing a yardstick for writing and also for assessing research to be presented by students from all undergraduate schools. All Students must carry out an independent research project in a topic related to their area of study specialization and demonstrate readiness to join scholars and practitioners in advancing knowledge and practice in the real world.

Research Fee and academics

Student should make sure that they have paid the stipulated research fee of 150,000Rwf to get on the research work.

The Research exercise should take a maximum of one year, which is 12 months after attaining 420 cumulative credits. Failure to which, the student will be automatically deregistered. If, the above-stipulated time exceeds, the student will register afresh for the unit at a fee and work within 6 months to finish the project

1.1. ADMINISTRATIVE GUIDELINES

All students pursuing their undergraduate degree programmes at UOK will be required to write and submit a dissertation that will be approved by the supervisor and presented to a panel entrusted by the school and approved by the Deputy Vice Chancellor Academics and Research with the authorisation of the Vice Chancellor. The research process will go through three steps/phases:

Phase/ Step 1: Topic approval and Allocation of Supervisor

Phase/ Step 1: Research Proposal

Phase/ Step 2: Final Research Project/Dissertation.

Student is required to have completed successfully Research Methodology Module and paid half of the research fee to submit research topic to the respective department for approval at the beginning of year three trimester 2. In case student fail to submit a researchable topic, then topic will be provided by the respective department in consultation with the designed Supervisor. It is worthwhile that lecturers propose topics from their respective modules they deliver during and even before the course of the module of Research Methodology in year 2 trimester 3 or from industry concerns based on the current trends, practices and innovation.

1.1.1 APPROVAL OF RESEARCH TOPICS

The topic is selected based on the learning outcome and application of the modules covered in the program where the student is registered; this should be intending to spot or addressing industrial challenges/concerns. The topic to be approved may also come from research department or from germane supervisor.

The departmental board, comprising of all lecturers in the department, will discuss and approve topics submitted for research. Once topics are approved, the department will allocate students to supervisors. The allocation will be based on the supervisor's competence and knowledge of subject matter.

1.1.2 PREPARING THE RESEARCH PROPOSAL

The research proposal involves an extended, independent investigation of a topic of the student's own choice. The proposal should explicitly describe the research work which the student intends to investigate. The preparation of the proposal should have a minimum of 10-15 typed pages and approximately 9,000 words.

Preparation of a research project proposal requires the student to:

- Embed in reading to understand the research topic of study;
- Design and undertake an appropriate investigation strategy;
- Identify and access useful sources of information;
- Plan and manage an appropriate schedule of work;
- Liaise with the supervisor;
- Write a well presented proposal.

The student will work with the supervisor to advice and guide on the theories, models, methodology and how to approach the dissertation work, but it is the responsibility of the student to manage and accomplish the study.

Having a research topic approved, the student is encouraged to search for related literature (books, journals, monographs, former research, standards, theories, concepts, policies, strategies, etc.,) on the topic. This helps the student to have deep knowledge on the topic of interest. Students are encouraged to have a final check of their status by answering the following questions:

Research Typing format:

- *Use 12 point font size*
- *Use Times New Roman font style.*
- *Use 1.5 line spacing.*
- *Always "justify" all the paragraphs to align the sides.*

Am I **familiar** with other research that has been conducted in areas related to my research project?

(___)Yes, (___)No

Do I have a clear **understanding** of the steps that I will use in conducting my research?

(___) Yes, (___)No

Do I feel that I have the **ability** to get through each of the steps necessary to complete my research project?

(___) Yes, (___)No

Am I **motivated** and do I have the **drive** to get through all the steps in the research project?

(___) Yes, (_____)No

If the student answers “yes” to the above questions, it is a clear indication of being ready to embark on the research proposal. If not, the student is encouraged to go back and review the required additional literature for understanding of the topic.

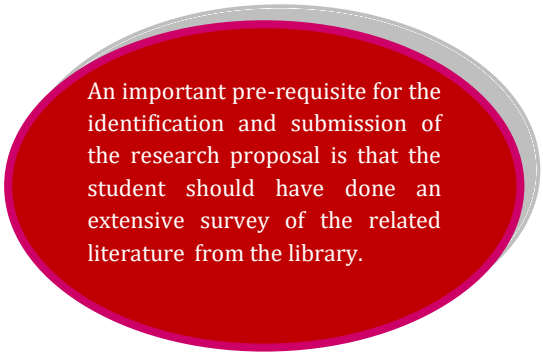
1.1.2.1 Format and Submission of research proposal:

The format for research proposal should be written in the future expression as it is a proposition of what the researcher intends to study. **The first three chapters i.e. Introduction and background to the study, Literature Review and Research Methodology should be approved by the supervisor.**

The following format should be used for writing the research proposal:

a. Preliminary pages

- Title page
- Approval page
- Declaration page
- Table of contents
- List of symbols/abbreviations/acronyms
- Abstract



b. Organization of the chapters

- In ordinary terms, this would be referred to as the body of the work. The nature of the proposal will determine the organization of the chapters. Chapter titles may differ according to departments or schools. For example, in the school of Computing and information technology, chapter 4 and 5, may be different from other schools and departments. For example, In school of Computing and information technology Conclusion and Recommendation is not considered as Chapter whereas Conclusion and recommendation is a chapter for the research under the School of Law and School of Business Management & Economics

- All chapters are numbered in order of appearance, e.g.: CHAPTER 1, CHAPTER 2, etc.
- All chapters should have titles, i.e., chapter name e.g.: Introduction, etc.
- Introduction at each chapter should introduce to the reader what is going to be discussed in the chapter.

A research proposal has only the first three chapters followed by the time frame, references and Data Collection proposed Instruments. While the dissertation adds to those chapters, two more namely chapter 4 and chapter 5. References and appendices are part of the dissertation.

CHAPTER ONE: GENERAL INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

1.1 Background to the study (introduces subject area under study and current situation from global context, regional and local context)

1.3 Statement of the problem (to be focused-the why of your research and newness)

1.4 Objectives of the study (general and specific to your study)

1.5 Research questions (or Hypotheses)

1.6 Significance/importance of the study (to various stakeholders)

1.7 Scope of the study (time, geographical and content)

1.8 Limitation (Anticipated shortcomings which may affect the outcomes and how does the researcher intend to overcome them).

CHAPTER 2 LITERATURE REVIEW

2.0 Introduction

2.1 Definition of key concepts

2.2 The body; key concepts or theories, charts, diagrams, models etc.. related to the specific objectives of the study; the body should be structured according to the specific objectives

2.2.1 Empirical review

2.2.2 Theoretical Review

2.2.3 Summary of the Gap

2.2.4 Conceptual framework or Models/Prototype

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

3.1 Research design

3.2 Population and selection of the sample

3.3 Tools for data collection / Instrumentation

3.4 Collection of data

3.5 Presentation of data and Analysis of data

3.6 Validity and Reliability

3.7 Ethical Considerations

Students from the school of computing must include Design Science Research(DSR) methodology in the research design which is seen as the other side of IS research cycle or methodology that creates, evaluates information Technology artefacts intended to solve problems identified in society, with effect IT students should present the Skelton as Idea of the context diagram of the targeted solution at end of the research .

The research proposal should also have a time frame. The student should indicate on the timeframe, activities that have to be undertaken over the research period. This should be attached as an appendices. The following is an example of a time frame:

Table 1: Example of the Time frame for the accomplishment of the dissertation

Stages	Jan	Feb	Mar	April	May	June	July	Aug
Identification of topic								
Review collection								
Writing research proposal								
Presentation of proposal								
Development of instruments								
Administration of questionnaire								
Data analysis & Discussion of the findings								
System Development and Testing								
Report writing and Final report submission								

REFERENCES (preferably, APA) should be inserted automatically for all cited work in the research proposal. This covers all the literature reviewed.

1.1.2.2 SUPERVISION

The Major Role of the Supervisor:

- The Supervisor shall with effect of signing this contract, have the responsibility of orienting and helping the student (s) to fine tune his/her research proposal until its it meet the standards set by University of Kigali.
- The Supervisor shall assist and guide the student throughout the research process towards the final work.
- The Supervisor shall lead the student to the successful completion of an undergraduate research and presentation.
- Report to designated department any challenge faced in supervision.

The department will assign each student a supervisor, who will:

i. Advise on the suitability of the title and scope of the study
ii. Advise on an appropriate and compliance of research structure
iii. Advise on the suitability of the methodology, technics and tools
iv. Provide formative feedback on the research
v. Guide student to relevant literatures, their sources and conceptual framework
vi. Discuss and critically evaluate the candidate's findings, ideas and approaches

Some pieces of advice for good relationship between the supervisor and the student during the supervision phase:

a) Supervisors can provide pieces of advice or guidance on pertinent sources of information or literature for student's particular topic. However a major part of the responsibility lies in the hands of the student.

b) It should be noted that writing sections of the research is the responsibility of the supervisee and not the supervisor.

c) The date and time of the next appointment will be arranged based on the university calendar of activities and the supervisor's availability

Each time a student visits the supervisor, the student will be required to fill in a tracking form (indicated below) to check progress. It is then that the next appointment will be scheduled.

The aim of the tracking form is to check the progress of the student based on the time/ log frame indicated by the student during the research process.

Students are strongly advised to make a positive start with their supervisor and then do all to maintain this good working relationship.

A research proposal has only the first three chapters followed by the time log frame and references.

To get the most from supervision sessions:

- Students are expected to fix their first appointment with the supervisor after having done some preliminary thinking and research. It's not really reasonable to expect a supervisor to guide a student who has not done a survey of what he expects to research on.
- The student should be flexible about the ways of communicating with the supervisor. Students are encouraged to use a combination of face-to-face meetings, e-mails and phone calls. Students should not overwhelm their supervisors with unnecessary communications, but also should not be afraid to get in touch with supervisors if they really do need guidance. Students should remember that they are undertaking an independent study and most of the questions can be answered during the literature search, if learning resources and reference materials are made use of.
- The student is encouraged to agree with the supervisor on dates by which s/he will have made specific and measurable progress on the research. Later subsequent meetings can be arranged around this. Regular meetings are probably most useful in the early stages.
- For proceeding meetings with the supervisor, it is important to make sure that the student has done (or mainly done!) the tasks that were agreed upon. If the progress has been slow for some reason, the student is encouraged to ask for a postponement until another convenient date. This should not lead to the habit of postponing though, as this may indicate negatively. **It is not the supervisor's responsibility to look for the student; however,** Supervisor should timely report on the students' supervision progress.

- Students are advised to take the supervisor's formative feedback very seriously and evaluate how to use it. Sometimes, students may find that a suggestion is not really going to help the overall research. The student need not feel compelled to incorporate everything stated by the supervisor into the finished research – the final decision rests in whether or not the student followed the approved research guidelines.

1.1.3 STRUCTURE & FORMAT FOR THE DISSERTATION

The dissertation is a continuation of the research proposal; a student should ensure that the sections/chapters approved in the proposal appear. However, the tense will change from future to past/present perfect depending on the report time. For example,
"will" changes to "was" or "were"

The research should endeavour to use roman numerals to number the preliminary pages (i,ii,iii etc). The title page is not numbered. The rest of the pages should be numbered in Arabic e.g. 1, 2, 3 etc.,

CHAPTER 4

DATA ANALYSIS, FINDINGS/RESULTS, PRESENTATION AND INTERPRETATION (DISCUSSION)

4.0 Introduction

4.1 Data analysis and presentation

4.2 Interpretation/discussion

4.3 Summary of Findings

This chapter 4 has to be structured according to the specific objectives, for the readers to link the data presentation, analysis and interpretation to the specific objectives and literature reviewed..

In School of Computing and Information Technology, the structure below is applied for chapter 4

CHAPTER 4

SYSTEM ANALYSIS, DESIGN AND IMPLEMENTATION

4.1 Introduction

4.2 Data analysis and presentation

4.3 Interpretation of findings/results

4.4 Summary of Findings (expressing the needs of the proposed system/solution based on the research findings and purpose of the study)

4.5 Description of existing system/or Operations

4.6 Description of the new system/solutions (it's Modules/Functional detailed description, System Configurations (Hardware & Software) and Technology (platform) to be used and Non-Functional)

4.7 Illustration of New system/Solution:

- 4.7.1 Data Flow Diagram and processes (Context Diagram, DFD-Level 1,2, etc)
- 4.7.2 Use Case and sequence Diagrams
- 4.7.3 Database Normalization
- 4.7.4 Data Dictionary
- 4.7.5 Entity Relationship Diagram
- 4.7.6 Physical Data Model

4.8 Architecture of the Front-End of the System

4.9 Implementation and coding

- 5.9.1 Introduction
- 5.9.2 Description of implementation Tools and technology
- 5.9.3 Screen Shots and Source Codes

4.10 Testing

- 5.10.1 Introduction
- 5.10.2 Objective of Testing
- 5.10.3 Unit Testing outputs
- 5.10.4 Validation Testing outputs
- 5.10.5 Integration Testing Outputs
- 5.10.6 Functional and system testing Results
- 5.10.7 Acceptance Testing Report

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

5.1 Conclusion (s)

5.2 Recommendations

5.3 Area(s) for further research

References

Appendices

2. EXPLANATION OF CHAPTERS

***2.1 Research Title*:** An appropriate and suitable title that reflects the research work should be framed. This should do be backed with empirical evidence, industry oriented concern or impact analysis.

***2.2 Chapters Sections*:**

CHAPTER 1

GENERAL INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction: This should introduce the reader on what to expect in chapter 1. It should have double spacing, Times Roman.

The entire introduction and background to the study should consist of four (4) to six (6) typed pages highlighting the problem and indicating several literature that were reviewed while searching for information on the desired topic. This chapter should also indicate the following under separate side headings:

1.1 Background to the study: This brings the organization under study into context ,it describes the history or trend of events in the area of study. The purpose is to prepare the reader for the research problem. The background should be clear and straight to the point. It should be able to create a bridge between the problem under study and the background. That is:

- Provide reader with necessary background
- Lets the reader see the basis for the study from Global context, reginal and then to local context.
- Justifies and convinces the reader that the study is needed.
- Be factual--statements, opinions with Citations and points of view should be documented.

- Provide a logical lead-in to a clear and concise statement of the problem.

1.2 Statement of the problem: This should be between one hundred (100) to two hundred (200) words. It highlights the "why" of the research study, focusing on the case study. Problem statement provides a clear and concise description of the issues that need to be addressed. That is

Clearly describe the problem to be researched starting from what have been spotted by others (what has been accomplished), what is currently in place on basis of your own competence in the field, gap in knowledge or activities that must be filled to move the field forward. and then why are you coming in..ie. Your novelty.

1.3 Objectives of the study: This section should have the main objective and the specific objectives. The general objective is one and gives the over view of the topic under study. The specific objectives of the study should be clearly indicated in a numbered sequence what should be achieved through out the research. The number of specific objectives should not exceed four (4). They should be specific to the study. Objectives provide a list of goals that will be achieved through the proposed research (e.g. better understanding, improved productivity, automation, digitalization, Integration, security, etc..) that will be generated if the research problem is answered. The objectives should start with To… (example: To identify, To assess, To determine, To evaluate, To develop, To test, To propose, To Suggest, To enumerate, To automate, To integrate, To elaborate)

1.5 Research questions: These are derived from specific research objectives.

1.6 Hypothesis: A hypothesis is basically a guiding principle to an argument that leads to the final proof or established conclusion. The student should frame hypothesis that should be simple, clear and specific. All hypotheses should be subjected to statistical tests. This will help to determine if the hypothesis is accepted or rejected. Most of experimental studies will use hypotheses, instead of research questions. Just like other science and IT advances via the formulation of hypotheses (or claims) and the provision of supporting (or refuting) evidence for them. Hypothesis in ICT typically establish or compare properties along some dimension. These dimensions include the following:

Scientific: behaviour, coverage, efficiency and effectiveness.

Engineering: dependability, usability, maintainability, scalability, cost, fitness.

Cognitive Science: external, internal, adaptability, evolvability and integration.

In Law for example someone may say:

This study is based on the hypothesis that the universal jurisdiction of Rwandan criminal courts over crimes committed in foreign States is not consistent with customary international law.

Or (if you are working on the defence of ignorance of law):

> This study is based on the hypothesis that, despite the provision of article ……of the Constitution of Rwanda which provides that ignorance of law is not a defence, ignorance of law can be a defence depending on the definitional elements of the crime with which the accused is charged.

Nevertheless, The evidence to support (or refute) these hypotheses can be either theoretical, experimental or a combination of both. When devising experiments, care needs to be taken to ensure that the experimental data are representative and to identify the correct cause of any observed effects.

Students and their respective supervisor will decide whether to use research questions or Hypothesis.

However, Students from the school of computing and information technology are advised to use research questions only.

Example of Research Questions

What is the current state of X / practice of Y?

What is an automatic way to do/create X?

How can we do/create (or automate doing) X?

Example of a hypothesis:

"There is a positive relationship between the availability of flexible work hours and employee productivity."

This statement may be true of false. It is upon the researcher through statistical analysis to prove that this statement is true or false.

1.6 Significance (importance/ justification) of the study: This identifies organizations, or individuals, and how they will benefit from the study. Simply put the contribution to the community.

1.7 Scope of the study: This indicates the boundaries of the research undertaken. The cope should cover: time frame, geographical location of the study and content.

1.8 Limitation (Anticipated shortcomings which may affect the outcomes and how does the researcher intend to overcome them).

CHAPTER 2

LITERATURE REVIEW

This chapter reviews previous researches on the topic. It is important to review the topics identified based on the objectives that were framed. Literature reviews are designed to provide in-depth of sources you have explored while researching a particular topic and to demonstrate to your readers how your research fits within a larger field of study.

Literature reviews should be selective and critical. Readers do not want to read through a voluminous working bibliography; they want to know the pertinent works and your evaluation of them. Discussions of work done by others should therefore lead the reader to a clear impression of how you will be building upon for your specific objectives and how your work differs from theirs.

That is:

Identify literature reviewed and show gaps existing justifying you conducting the current research from prior research, Related Research, Existing theories and models you intend to use, Theoretical Framework and Conceptual framework will be important for your research. You may get an opportunity to include an empirical review.

In addition, the grouping of related literature should be guided by the specific objectives.

Literature can be quoted as follows to break monotony:

- Jenkins (1998) opined that the tourist carries his culture while travelling. Therefore the tourist
- The number of tourists in Hong Kong during 2009 was 7.8 million (WTO, 2011). However, they dropped ……..

- Bull (1995) viewed that there are specific economic segmentation within tourism. He further explains that……..

Note: literature review is not just about copy, cut and paste, but engage different authors into an argument about the problem raised by your research topic; at the end, a summary should made.

The structure of the chapter should like this:

CHAPTER 2 LITERATURE REVIEW

2.0 Introduction

2.1 Definition of key concepts

2.2 Review of Related Literatures (The key concepts or theories, charts, diagrams, models etc.. related to the specific objectives of the study; the body should be structured according to the specific objectives)

2.2.1 Empirical review: concentrate on previous research result findings that the you wants to study / compare as results to orient your newness or novelty, this shows that there is evidence base to conduct this research

2.2.2 Theoretical Review: establish what theories already exist, the relationships between them, to what degree the existing theories have been investigated in relation to the research objective

2.2.3 Summary of the Gap: considered the missing piece or pieces in the research literature, is the area that has not yet been explored or is under-explored which need to addressed by the current research

2.2.4 Conceptual framework or Prototype/ Models: Illustrates what you expect to find through your research. It defines the relevant variables for your study and maps out how they might relate to each other. You should construct a **conceptual framework** before you begin collecting data. It is often as benchmark to orient your understanding in filling the research gap or developing new solution.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This describes the steps to be followed in achieving the objectives of the research**.**

The methods section is a description of how the research was conducted, including who the participants were, the design of the study, what the participants did, and what measures were used. The main goal of the methods section is to describe the study so that readers can identify what exactly you did.

What's the Methods Section for?

A good methods section will engage:

- readers in understanding the "nuts and bolts" of your study (including its reliability, validity, population, sample, etc.)
- readers in understanding what procedures were followed and what materials were used in your study.
- other researchers in replicating the similar study in future

3.1 Research design.

The function of a research design is to ensure that the evidence obtained enables us to answer, the initial question as clearly as possible (David de Vaus, 2001). Good research design prevents this kind of manipulative use of data by taking into account possible alternative explanations and enabling comparisons and judgments between them.

Research designs

Experimental design

Longitudinal design

Cross-sectional design

Case study design

Design method of data collection

Design quantitative / qualitative

Design Science Research(DSR)

Students from the school of computing are advised to consider Design Science Research(DSR) in the research design which is seen as the other side of IS research cycle or methodology that creates, evaluates information Technology artefacts intended to solve problems identified in society, with effect IT students should present the Skelton as Idea of the context diagram of the targeted solution at end of the research .

Area of study

Describe your area of study and point out the location (environment) of the study.

3.2 Participants

The researcher should identify the number of participants, their demographics (age, sex, race, education, socio-economic status, etc), and the areas where they live.

Defining the Target Population

i) The target population is that complete group whose relevant characteristics are to be determined through the sampling

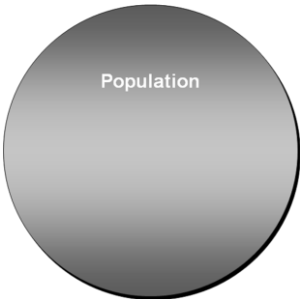
ii) A target population may be, for example, all Lecturers or departmental Students in UOK, all housewives in Gasabo District, all users intending or using the system in company/organization

iii) The target group should be clearly delineated if possible, for example, do all pre-University students include only primary and secondary students?

3.3 Sampling

A sample is a subset of a larger population of objects: it can be individuals, households, businesses, organizations and so forth.

Sampling enables researchers to make estimates of some unknown characteristics of the population in question.



Reasons for Sampling

Budget and time Constraints (in case of large population) .High degree of accuracy and reliability (if sample is representative of population).

Sampling may sometimes produce more accurate results than taking a census as in the latter; there are more risks for making interviewer and other errors due to the high volume of persons contacted and the number of census takers, some of whom may not be well-trained.

3.3.1 The Sampling Process

i. Define the Target population

ii. Select a Sampling Frame

iii. Determine if a probability or non-probability sampling method will be chosen

iv. Plan procedure for selecting sampling units

v. Determine sample size

vi. Select actual sampling units

vii. Conduct fieldwork

This sampling process should not be numbered as it is in this handbook, but all the numbered items have to be seen, by the readers, the this subheading.

Classification of Sampling Methods

Sampling methods

a) Probability Samples

Systematic sampling and stratified samples, cluster and simple random

b) Non-probability eg snow ball, convenience, judgment and quote

The Sampling Frame

The sampling frame is a list of all those population elements that will be used in the sample.

Examples of sampling frames are a student undertaking Business Management (for the student population), the list of Artist SMEs in Gasabo, eCommerce Companies, telecommunication companies registered Rwanda Development Board (RDB) or financial institutions in the central bank, the directory of medical doctors and specialists, or List of private/Public Higher Learning institutions regulated by HEC;

Often, the list does not include the entire population. The discrepancy is often a source of error associated with the selection of the sample (sampling frame error).

Sampling Units

The sampling unit is a single element or group of elements, subject to selection in a sample. Examples:

Every student at UOK whose first name begins with the letter "F"

All youths under 30 years of age who are owners of start-up companies in Gasabo

$$\textbf{Probability of Selection} = \frac{\textbf{Sample Size}}{\textbf{Population Size}}$$

Materials &/or Measures &/or Apparatus

Provide definitions of what you measured

You may explain how you defined the variables you chose to study.

3.4 Methods used to collect data

(Example: Questionnaire, online survey/eQuestionnaire, interviews, documents, etc.)

Instruments and/or any other materials to be used/were used that would be relevant to the study.

This could include published scales used to assess different variables, a published survey that was used, computer programs, etc.

Parts of scales/ measurement items or full examples can be included in appendices and referred to in the Methods Section.

Data collection

Methods of obtaining research data are based on structured questionnaire, observation, and interview and the like that can be useful in collecting data.

Procedures for data collection

What method did you use?

Example: Naturalistic observation, experiment, survey?

The researcher should provide a detailed summary of the procedures used and what the participants actually did.

The Procedure should include:

- Any instructions given to participants

- How different groups were formed (if applicable)
- Any manipulations performed on variables
- What participants actually did

3.5 Data analysis

This section should explain the methods that will be/were used to analyse data in order to generate meaning by using percentages, means and frequencies, Pearson's Product Moment Correlation Coefficient to test hypothesis, T-Tests, Chi-Square, among others which should be consistent with your research design. The method used for analysis should be able to help the researcher generate meaning and answers to research questions and or hypothesis formulated in chapter one.

3.6 Data presentation

Data can be presented in form of tables, graphs, charts (pie) or figures

3.7 Validity and reliability

The instrument should be tested for consistency and truthfulness. The instrument should be able to measure what it was intended for. Simply put, when the same instrument is administered to two respondents by the same researcher, should get the same results although perceptual issues may cause variations which could also be tested otherwise.

3.8 Ethical consideration

All cited sources of information should be acknowledged. Short of this, the researcher would be assumed to have plagiarized and this is an academic crime, punishable by law.

CHAPTER 4 DATA PRESENTATION, ANALYSIS, FINDINGS/RESULTS, INTERPRETATION AND/ DISCUSSION

This section highlights guidelines of writing chapter four. It contains two sections; A and B. Section A, presents a general over view of how chapter four is written. Section B details the parts of chapter four or the contents of chapter four.

Section A

Data analysis, whether in quantitative or qualitative research, is intended to summarize a mass of information to answer the research questions, test the hypotheses, examine the problems, and explore an assertion that is likely to be true but has not been formally proven.

The text should tell a story and present results in an order that will be intuitive, interesting, and easily understood by a reader not previously informed about the subject. The text should highlight and emphasize what is most important. It should present more briefly the less-important results. Do not bury your reader in a flood of computer-generated statistics. That is likely to confuse them and make nothing memorable. Important results should generally be shown in a table, chart, or graph, and mentioned in the text. They may also be illustrated with an example or two. Less important results might be shown in a table, but not mentioned in the text, or presented briefly in the text and not shown in a table or graph. If there are less important results whose complex details may be of interest to a few people, put those results in an appendix and have the text briefly reference the appendix. Standardize key terminology in this chapter and throughout the dissertation. While the use of synonyms for key concepts and variables can minimize irritating repetition, it may also leave readers unsure whether the differing terms represent somewhat different things.

The results need to be reported in sufficient detail to justify any subsequent conclusions and recommendations, which are normally reported in Conclusion and Recommendation Section which not a chapter for student in the school of computing and Information Technology; and as Chapter 5 for other schools/departments.

Comparison of the various aspects:

Quantitative research and IT	**Qualitative research and IT**
A. Organization: Generally, the results should be presented in the order in which the research questions or hypotheses were stated. If data on the setting of the study or demographics are not needed to answer the research questions or test the hypotheses, they are usually presented near the beginning or at the end of the chapter. Note that a good order for items in an interview or survey will often not be a good order for presenting the results. The results should be ordered so that they can easily be understood by a reader naive to the subject.	**A. Organization:** The structure of chapter 4 should be determined by the purposes of the study and needs of a reader naive to the subject. The results should be presented in the order in which the research objectives.

B. Text: The text should focus on the most important results and devote less attention to the less important results. All results should be indicated, but not necessarily reported individually.	**B. Text:** The critical challenge is distilling down hundreds of pages of notes or transcripts to a manageable presentation for readers, most of whom will be less engrossed in your topic than you have been. The text should focus on the most important results and devote less attention to the less important results.
C. Reporting Statistics: Mean values should almost always be accompanied by their standard deviations, and the "n"s (unless the "n" is consistent for all analyses). For main results, it is desirable to report both the "p values" (of statistical significance) and indications of the magnitude of the results, including mean differences and effect sizes indicated by omega squared, r squared, etc.	**C. Reporting Statistics:** descriptive statistics of frequencies and correlations may be used to summarize coded data derived from field notes and transcripts.
D. Tables, Graphs and Charts: Tables are a good way to present many results in a condensed format, but most people find large tables of data overwhelming, so the text should highlight the most important results.	**D.** Tables, Graphs, and Charts: summaries of codings derived from field notes and transcripts may be presented in tables, graphs, and charts.
E. Raw Data: Raw data for individual participants is usually not reported in the dissertation, unless there were only a small number of participants. Some illustrative quotes are, however, often included. When the full data set can be printed on a few pages, it may be included in an Appendix.	**E. Raw Data:** Full transcripts are rarely included in a dissertation.

SECTION B (contents/parts of chapter four)

4. 0 Introduction

Write 2 to 3 paragraphs that present an overview of how the chapter is organized to present the data analysis. You should begin with a brief review of the purpose of the study and the problem to be addressed. If a survey instrument was utilized and/or developed for the study, provide a brief description of the contents of the instrument.

Reminder: Remember: Before you can continue in this guide you must finish your chapter 3

In this chapter the results of data analysis are presented. Data were collected and then processed in response to the problem posed and according to the specific objectives in chapter 1 of the dissertation.

4.1 Organization of Data Analysis

Use 2 or 3 paragraphs to provide an overview of how the data will be presented. What is covered here is highly dependent upon the design of the study. If a survey instrument was part of the research that contained demographic data used to determine independent variables and this is to be presented first, this should be mentioned. The way in which the research questions and hypotheses will be presented should be reviewed. If there is a difference in the presentation of data for different research questions and hypotheses, provide a brief statement of the different treatment. For example, some research questions may have only descriptive data. Additional research questions may each have one or more hypotheses with accompanying data analysis and findings from each hypotheses.

Review other successfully completed dissertations for examples to guide the organization and writing of Chapter 4.

Should you have demographic data to present start with a section subtitled as –

Presentation of Descriptive Characteristics of Respondents

This should be introduced followed by a discussion of the demographic data in narrative and in tables. E.g Table 4.1 Demographic Characteristics of respondents.

Gender	**Frequencies**	**Percentage**
Male	60	60%
Female	40	40%
Total	100	100%

Source: Field data, 2012

Data in table 4.1 reveals that there were more males represented by 60% than females represented by 40%. This implies that ----------

---

Research Questions and Associated Hypotheses or specific objectives

Use an introductory sentence to introduce each question and hypothesis or specific objective.

Eg. Each research question and hypothesis or specific objective stands alone as a section. Its purpose is to *analysis data*

Use an introductory sentence then present each research question.

Research Question 1—To what degree . . . . . ?

This should be followed by a discussion of the type of statistical analysis that was utilized followed by the related hypotheses if there is a related hypothesis. You may not have a related hypothesis for a research question or you may have one or more. Therefore the analysis of data varies greatly depending upon the research questions, hypothesis, and design.

It should be noted that research questions are answered while hypotheses (Plural of hypothesis) are tested. Where research questions are used, then associated hypotheses are used. If you choose to use research objectives, then depending on the nature of research, objectives need to be translated into research questions.

For example:

Specific objective

To identify factors responsible for low library usage among UOK students

The associated research question will be:

What factors account for or are responsible for low library usage among UOK students?

Note: Objectives, research questions and or hypotheses are usually presented in chapter one and their analysis made in chapter four.

The example above is just for emphasis

Before proceeding to apply the methods of data analysis discussed in Chapters 3, to answering the research questions set out in Chapter 1, some preliminary analysis is required. This includes: creating scales and indices; recoding variables; and describing the characteristics of the sample. Data reduction reduces responses to a number of questions to a single score or number. This is done by using scaling techniques and by constructing indices. The result is that instead of having to analyse the responses to each question separately, answers to related questions can be dealt with as a single variable. Variables are recorded for a number of reasons, but mainly to tidy up or reorder distributions, or to transform variables from one level of measurement to another. In the latter case, it is mainly a matter of grouping a range of numbers (such as Age in years).

For example:

If you have distributed a questionnaire and you are trying to compute for differences in perception between adult male and female parents towards mini-skirts, the total of each gender should be computed as a total expressed in terms of total of all gender.

For example: responses from male parents: 60

Responses from female parents: 80

60+80=140.

Thus; responses from males: (60/140)*100=42.9%

Responses from female: (80/140)*100=52.1%

Hypothesis I – There is no significant relationship between the perception of male and female parents towards mini-skirts.

Following the statement of the hypothesis, a discussion should be given which reviews the resulting data from the statistical analysis. This should be presented in a narrative and appropriate tabular form. A concluding statement should indicate the rejection or retention of the hypothesis.

For example;

A newspaper article stated that students at a particular university spend an average of $95 on beer. A student investigator who believed this average was too high polled a random sample of 50 students and found that $\bar{x}$ = $92.25 and s =$10. Use these results to test at a 5% significance level the statement made by the newspaper.

Given: μ =$95?, n = 50, $\bar{x}$ =$92.25, s =$10.00, 5% significance

H_0 : μ =$95 **$H_1$** : μ <$95 (Shown to be 'too high' only at lower end)

Significance level: 5%

Critical value: Large sample, σ unknown, z-table, 5%, 1 tail, 1.64

Test statistic: $z = \dfrac{|\bar{x} - \mu|}{s/\sqrt{n}} \Rightarrow \dfrac{|92.25 - 95.00|}{10/\sqrt{50}} = \dfrac{2.75}{1.414} = 1.94$

Conclusion: Test statistic larger than critical value so null hypothesis rejected. The mean amount spent is less than $95.

Hypothesis II – There is no relationship between work environment and employee performance in . .
Research Question 2 – Is there . . . . . ?
Hypothesis III – There is no . . . . . .
--
Summary
A summary paragraph should present a brief review of the chapter. A sentence should also introduce the final chapter.
Remember this chapter is a presentation of the data. No conclusions or implications should appear in this chapter.

(for those developing software-IT solutions)

CHAPTER 4: SYSTEM ANALYSIS, DESIGN AND IMPLEMENTATION

This section highlights writing guidelines for chapter four. It presents a general over view of how chapter four is written and the details the parts of system analysis and design.

Data analysis of the research , whether quantitative or qualitative, is intended to summarize a mass of information to answer the research questions, test the hypotheses, examine the problems, and explore an assertion that is likely to be true, but; has not been formally proven. The results are generally reported and discussed and summarized for the need of the new system in this Chapter.
Important results should generally be shown in a table, chart, or graph, and mentioned in the text. The results need to be reported in sufficient detail to justify any subsequent deployment, Testing, conclusions and recommendations.

4.1 Introduction

Brief description of IT system analysis and design applying it to the specific topic of interest, You should begin with a brief review of the purpose of the study and the problem to be addressed and the software development model to be referred.
Reminder: Remember: Before you can continue in this guide you must finish your chapter 3

In this chapter the results of data analysis are presented. Data were collected and then processed in response to the problem posed and according to the specific objectives in chapter 1 of the dissertation.

4.2 Data presentation and analysis

Use 2 or 3 paragraphs to provide an overview of how the data will be presented.

Refer to chapter 4 of Data Presentation, Analysis, Findings/Results, Interpretation And/ Discussion on subheading of ***Organization of Data Analysis.***

4.3 Interpretation of findings/results

When reporting each of your main findings, **interpret** their likely **cause** or significance in terms of your research question(s). The text should tell a story and present results in an order that will be intuitive, interesting, and easily understood by a reader not previously informed about the needs of the system to be implemented.

4.4 Summary

Make the detail and concise instant of the findings expressing the needs, focus on a relative approach of percentages. For examples: The majority of the Employers (76%) recognise the less business productivity due to the lack of MIS although that means that seven companies, from five different province, (24%) did not realise a such buzzword MIS. From the findings it observed and therefore that there is a need of computerise Information System for a better operational and quick service delivery in the organisation.

4.5 Description of existing system

Thorough analysis of the existing system stating:

i. Its working principles as old system which considered being legacy system

ii. All of its features and characteristics relevant to the specific topic

iii. Its weaknesses and limitations and hence highly expressing the needs to develop new system

4.6 Description of the new system

Explain how the new system will be a solution to the shortcomings of the existing one in reflection to the research purpose or problem statement. The researcher will perform a comparative study of the two systems showing possible solutions to problems found in the existing system and in summary of research findings.

A Detailed description of the modular components(Module Descriptions) of the new system is one the key subsection in this part as well as the System Configurations and Technology(platform) supporting the implementation feasible. The sequence and class diagram can be used to express the definition of the new system with respect to functional and none functional requirements consolidated as response to address research gap.

4.7 Illustration of New system:

This section is achieved by using UML to represent the physical and logical workflow of the system getting into development as results to the problem identified in regard to the specific objectives and requirement engineering of the solution.

4.7.1 Data Flow Diagram and Processes

The DFD diagram and process modeling will show how information is being sent and received among different components of the new system. Conventions and tools used to design such diagram must be defined and the Levels of DFD must be a least Context Diagram (Level 0), Level1 and Level 2 derivation can continues based on the complexity of the new system.

5.7.2 Use Case and sequence Diagrams

The use case diagram shows all the actors interacting with the system. Actor might be an internal user or any other external system that works with the system. For every actor a scenario (a situation that lists all steps needed to perform specific action) should be given. Tools and conventions used to design such diagrams should be explained and applied to the specific topic.

4.7.3 Database Normalization

The objective of this subsection is to isolate data so that additions, deletions, and modifications of an attribute can be made in just one table and then propagated through the rest of the database using the defined foreign keys. The researcher must show how all the final list of entities complies with Edgar F. Codd, the inventor of the relational model (RM), from First normal form (1NF) , Second normal

form (2NF) and Third normal form (3NF) to ensure that all possible anomalies are eliminated in the database.

4.7.4 Data Dictionary

The data dictionary lists all attributes found in every table created in the database. For each field the researcher will provide a name, data type and any other specific constraint.

4.7.5 Entity Relationship Diagram

In the ERD, researcher will exhibit and explain:

i. All the entities found in the proposed Database
ii. All relationships among entities (how entities work together)
iii. All attributes of every entity

Techniques and conventions used to design such diagram should be briefly explained.

4.8 Architecture design of the front-end of the System

In the information system architectural design, researcher will explain different components that build up the proposed system. This section describes how the system will be deployed in the production environment. System architectural design can be standalone, two-tier, three-tier or n-tier depending on the specific topic. Components include front end, middle layer(s) and back-end elements just to show Server architecture. A diagram will be need for a general picture of the system architectural design.

4.9 Implementation and coding

5.9.1 Introduction
5.9.2 Description of implementation Tools and technology
5.9.3 Screenshots and Source Codes

4.10 Testing

5.10.1 Introduction
5.10.2 Objective of Testing
5.10.3 Unit Testing outputs
5.10.4 Validation Testing outputs
5.10.5 Integration Testing Outputs

5.10.6 Functional and system testing Results

5.10.7 Acceptance Testing Report

PS: Screenshots and Source Codes as Sample only Just for main modules and Source Codes For same Screenshots are required…

WRITING CONCLUSIONS AND RECOMMENDATIONS

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Preamble

It is important to know that before writing a conclusion, an author should know what an introduction is. An introduction is the beginning of the writing. Thus, it should prepare the reader for the body of the research. In an academic research, the author defines a problem or states a hypothesis and indicates how it will be treated in the research. However, it is not possible to state exactly what should be included in an introduction. This will vary according to the author's purpose, his/her topic and his/her readership. Therefore, authors must use their own judgments about what should be included. The most important thing is to have a focus.

Writing a conclusion (s)

The purpose of a conclusion is to draw the threads of the argument together, and often to make a final concluding statement on the research topic. There must be a link between the introduction and the conclusion: the former introduces the topic to be discussed, or outlines the argument, and the latter indicates that it has been covered. The conclusion is in all cases, a restatement, in words, of the introduction. This gives the research a sense of unity and completeness. In a research topic that involves discussion, the proposition or hypothesis stated in the introduction is accepted or rejected in the conclusion. This is based on the types of test used to treat the data in the analysis. For example, T-Student test, Fisher test, Qui-Square test and the like that can accurately measure the results (answers) of the research for smooth interpretation and, thus, lead to a good decision as a solution to the problem raised by the topic.

In the conclusion (s), therefore, the author must ask himself/herself the following questions: What are the implications of the answer to the research question (s) and/or hypothesis? Is the answer going to unlikely change the world? Is it going to be a significant victory or a substantial scientific revolution over failures of the past research problems or belief? Does the answer simply serve as a road sign indicating that this path is a waste of time? Obviously, this implies that all of the previous results are permanently useful and indubitable. Are your research results general, potentially generalizable, or

specific to a particular case? Does the author describe a cause and effect relationship or explain the origins of the issue?

WRITING RECOMMENDATION (S)

In a recommendation (s), the author of the research topic must ask the following questions: Based on the results or findings, what solutions does the author present to the reader to resolve the problem the research has posed? What action (s) or change does the research require in order to solve the problem?

Finally, it is at this level that the researcher, who is now an expert in their research field, should suggest new areas or avenues for future researches. This is so because, while studying their research topic, other problems that need attention have arisen and the researcher has no time to refocus on. Therefore, it is paramount for the researcher, after they have concluded their research topic, to point out strengths and weaknesses of their research study. Thus, other researchers can pick from their findings in order to establish a new research problem.

3. WRITING REFERENCES

a) In-Text Citations

Citations used in the body of your publication identify the source of information.

In-text parenthetical citations are used to give credit to the authors whose ideas or thoughts are used within the document. These internal citations allow the reader to identify the source and locate the information being addressed. APA uses a system that includes the author's last name and the year of publication. For example: (Small, 2009). If there is a direct quote or a specific part of the work is being referred to, the page numbers are also included. For example, (Small, 2009, p. 23). Sources may include books and book chapters, journal or magazine articles, dissertations and theses, conference papers, government reports, films, websites, blogs and wikis, discussion boards, personal communications, and a lot more.

b) Paraphrasing

Paraphrasing is used when you take someone else's direct quote and state their idea in your own words. Changing a few words here and there is still considered plagiarism even if you do cite the author. Paraphrasing means that you expressed the author's ideas in your own words and have given

that person credit for that information or idea. You can prevent plagiarism by closing the document and restating the idea in your own words.

c) Quoting Directly

When you directly quote an author, you need to put the exact words of the author in quotation marks or follow the rules for a block quotation. Include the exact spelling and interior punctuation of the borrowed words. The author, year of publication, and page number(s) or paragraph number for non-paginated materials are always included in the text and a reference citation is included in the reference list.

Regular Quotes --Regular quotes are used when the quote is less than 40 words. For example McPherson (2007) coined the phrase "goblet of motivation" (p. 71). Keep the author and year of publication together. Use quotation marks to identify the exact words of the author. Include the page number in parentheses immediately after the direct quote. Place the period after the parentheses.

Block Quotes – Block quotes are used for quotes of more than 40 words. Example,

Students at UOK have faced challenges in learning how to use citations. When discussing the challenges, Hope (2016) stated:

Use quotes around an article title or book chapter, but italicize the title of a book, journal, brochure, or report when used in the body of the paper. Use a short title in the parenthetical citation or complete title if the title is short. NOTE Non-periodical titles like books and book titles have all the important words capitalized in the text citations, but these same book titles.

Beginning of sentence

Krankenstein (2006) reported that empirical research verified compliance.

Middle of sentence

After looking into the issue, Lynch (2007) stated that the findings were not valid.

End of sentence

The report concluded that IT students require more practical work than theory, (Mbanzabugabo, 2020).

Citations with Direct Quotes

The Vice Chancellor stated clearly that students "needed parental permission to leave class during coronavirus time" (Sing, 2020, p. 25).

Author and quote separated

Sanja (2020) stated that the "Information Literacy Model needed to be implemented" (p. 34).

Quote from non-paginated material

Morra (2020) stated, "The research is unreliable" (Conclusion section, para. 4).

Multiple Citations by the Same Author in Same Paragraph

When the same author is cited multiple times in the same paragraph and the author's name is part of the narrative, you need to include the year in subsequent non-parenthetical references to a resource. However, you do include the year in all parenthetical citations:

A study by Mark and Kamali (2020) found that the quality of the two sets of citations were comparable. The subjective rubric developed by Mark and Kamali helped establish this. The study went on to show a difference between academic programs (Mark and Kamali, 2015).

Formatting Citations in the Reference List:

References – sometimes called 'Citations' occur in different forms

• **In-text references** (author, date)

Placed within the main body of your writing

• **Secondary references**

Used where one author has quoted another author

• FOOTNOTE IN-TEXT REFERENCING STYLE

Only for law students footnote technique is recommended to reference the work; Indicating a footnote in the body of your page

Where in case of analytical method, comparative, doctrinal research or Exegetic method footnote should play key to link your work, reading and "analysing" the existing primary and secondary sources of law or incorporation of critical explanation or interpretation of the texts of law (legislation).**Example 1**: Supposed you are trying to find the "literal" meaning of the words under consideration (literal interpretation)[1] or (in particular where literal interpretation would lead to absurd results) the purpose for which the stature was enacted (purposive interpretation)[2] One may also resort to "contextual interpretation".

Example 2: According to Woolman *et al*,[3] "fundamental rights are not absolute".

Following footnote are example to be emerged:

---

[1] Under the literal (or grammatical) rule, the words of the statute are given their natural or ordinary meaning and applied without the judge seeking to put a gloss on the words or seek to make sense of the statute. Some examples of the literal rule:

> (1) R v Harris (1836) 7 C & P 446: The defendant bit off his victim's nose. The statute made it an offence "to stab cut or wound" the court held that under the literal rule the act of biting did not come within the meaning of stab cut or wound as these words implied an instrument had to be used. Therefore the defendant's conviction was quashed.
>
> (2) Fisher v Bell [1961] 1 QB 394: The defendant had a flick knife displayed in his shop window with a price tag on it. Statute made it a criminal offence to 'offer' such flick knives for sale. His conviction was quashed as goods on display in shops are not 'offers' in the technical sense but an invitation to treat. The court applied the literal rule of statutory interpretation.

[2] Purposive interpretation goes beyond the words within the statute, considerable power is bestowed upon the judges as they look to extraneous materials for aid in interpreting the law. Some ways this is done is by looking at the *traveaux préparatoires* or the historical context which led to the enactment of a particular statute. R v S of S for Health ex parte Quintavalle (on behalf of Pro-Life Alliance) [2003] 2 WLR 692 House of Lords: The Pro Life Alliance argued that the Human Fertilisation and Embryology Authority did not have authority to licence research with regards to cloning. The Human Fertilisation and Embryology Act 1990 granted the Authority the right to licence research with regards to embryos. An embryo was defined in the Act as "a live human embryo where fertilisation is complete". However, embryos created using cloning are not fertilised. The House of Lords held that the cloned embryos were covered by the statute taking a purposive approach to statutory interpretation. Lord Bingham remarked as follows:

> "The court's task, within the permissible bounds of interpretation, is to give effect to Parliament's purpose. So the controversial provisions should be read in the context of the statute as a whole, and the statute as a whole should be read in the historical context of the situation which led to its enactment….While it is impermissible to ask what Parliament would have done if the facts had been before it, there is one important question which may permissibly be asked: it is whether Parliament, faced with the taxing task of enacting a legislative solution to the difficult religious, moral and scientific issues mentioned above, could rationally have intended to leave live human embryos created by CNR outside the scope of regulation had it known of them as a scientific possibility.

[3] Woolman S *et al* (eds), *Constitutional Law of South Africa*, 2nd ed (Juta, 2005), p. 34-1.

Formatting a footnote

Footnotes appear at the bottom of the same page as the text they refer to. They should be set apart from the body of the text by a horizontal line, and they should be font 10. They are written in "Arial".

Footnotes are written in single (1.0) spacing and no spaces are left open between two consecutive footnotes.

For example, the following footnotes are **not** well presented:

[3] Art 5, Charter of the International Military Tribunal, supra n° 2.

[4] Para 2, Preamble, Charter of the United Nations, supra n° 1.

[5] Law n° 43/2013 of 16/06/2013 Governing Land in Rwanda, OG n° Special of 16/06/2013.

Instead, they should appear as follows:

[3] Art 5, Charter of the International Military Tribunal, supra, n° 2.
[4] Para 2, Preamble, Charter of the United Nations, supra, n° 1.
[5] Law n° 43/2013 of 16/06/2013 Governing Land in Rwanda, OG n° Special of 16/06/2013.

Style of writing footnotes for Law students are advised to consult the module of LLB research methodology. **For referring to international and regional legal instruments; referring to domestic legislation, referring to case law, and referring to literature.**

4. BIBLIOGRAPHY

In APA reference style, a bibliography is understood as all sources of information the researcher has read but may not have necessarily been cited.

For Law students, Page numbers referred to in the footnotes should not be indicated in the bibliography.

5 CHEATING/PLAGIARISM

Students are advised to acquaint themselves with UOK rules and regulations. Cheating is not acceptable. Students should in the strictest terms, avoid it. **Anyone found with a plagiarized dissertation will be disqualified from continuing with research and may face subsequent expulsion.** Her/his graduation will be deferred to the next year or even face dismissal from the university.

6. STUDENT RESEARCH PROJECT TIMELINES

Students start research project in year 3 trimesters 2.

To meet deadlines, it is advisable that students and supervisors observe the following schedule

S. No	**Students in the morning and Evening programmes**	**Students in the weekend programmes**
1	The first month of trimester. Submission of research topics to the Department	The first month of trimester Submission of research topics to the Department
2	End of the second month of the trimester, approval of research topics and allocation of supervisors by the Department	End of the second month of the trimester, approval of research topics and allocation of supervisors by the Department
3	End of the trimester, submission of research proposal to the department	End of the trimester, submission of research proposal to the department

4	Up to the end of the first month of third trimester, data collection and system for IT	Up to the end of the first month of third trimester, data collection and System for IT
5	Last week of the First month of the third trimester Submission of draft chapter 4 and 5 to the supervisor	Last week of the First month of the third trimester Submission of draft chapter 4 and 5 to the supervisor
6	Second month of the third trimester, submission of research project to the department	Second month of the third trimester, submission of research project to the department
7	Second month of the third trimester, oral presentation	Second month of the third trimester, oral presentation
8	End of the third trimester, submission of corrected copies to the department	End of the third trimester, submission of corrected copies to the department

N.B: The assessment of the dissertation is made of two parts (book writing and Oral presentation) for none IT students and book writing with System/Solution description and Oral presentation for all IT dissertations; The assessors by Chair/Discussant, Discussant are nominated by the school and department and the Supervisor will be among the panelists ; and each part count for 50%, totalizing 100%.

7. LATE SUBMISSION

Students who submit their dissertation after the stipulated deadline may not be able to graduate in the same year. If due to unavoidable circumstances, the student requires a short extension to complete the dissertation (1-2 weeks), the student should complete an extension request form, **before the deadline** (indicated below). The form should be signed by both the HoD, and the dissertation supervisor.

Requests for extension should be accompanied with supporting written evidence, such as medical report, mission order and any other relevant documents to support the extension or delay. The extension letter is addressed to the DVC Academics and research for final approval and is subject to

a fine of Twenty thousand Rwandan Francs. After being approved, the student fills in the extension form.

8. TIME EXTENSION REQUEST FORM

UNIVERSITY OF KIGALI (UOK)

School of….

Student's name: ----------

Registration number: ----------

School Name:----------

Department Name: ----------

Research title: ----------

Supervisor's name: ----------

Supervisor's approval and signature: ----------

HoD' approval and signature: ----------

Period allowed for extension, date and time: ----------

Dean 'approval and date.....

Visa of the Deputy Vice Chancellor Academics and Research……

NB. A student should endeavour to make a photocopy of this form and return the original to the department for reference purposes.

9 BINDING INSTRUCTIONS AND SUBMISSION

Proposals should be ring-bound (spiral bound) while final projects should be hard bound in the following colours:

School of Computing and Information Technology -: **Blue**

School of Business Management and Economics-: **Green**

School of Law-: **Maroon**

10. TYPING AND PRESENTATION FORMAT

Reports must be typed in word format

Use New Times New Roman, font size 12

The research should adopt 1.5lines spacing, with proper numbering. Students should use open punctuation in titles like Mr, M/s. Mrs, Me, Dr, Prof Dr., Prof.

Students are advised to avoid writing abbreviations in the text as this may not be understood by the readers. Students are particularly advised to avoid writing abbreviations such as ‘’e.g.”, “etc”, “i.e.” These should be written in full. It should however be noted that writing acronyms is accepted as long as the word had earlier been written in full. For example: UOK - University of Kigali. If in the later sections, when reference to University of Kigali is made it is simply written as UOK.

11. PRESENTATION FORMAT

- Use A4 size paper
- Margins: left hand side 1.5 inches, right 1.5 inches, top and bottom 1 inch.
- Page numbers should appear on the bottom of the page (Plain Number 2)
- Printing should be done strictly on one page
- Avoid use of ‘I’ in the research. Use the word “the researcher”.
- In case of any pictures or photographs, the researcher is expected to print them on a page(s) to avoid loosening up. The researcher is expected to provide or indicate the sources of such information.

12. MODEL FORMATS OF THE PRELIMINARY PAGES OF THE DISSERTATION

12.1 COVER PAGE

Research Title

Name of the Student:

_____

Registration number:

_____

Under the guidance and supervision of (Name of the supervisor)

A Dissertation Submitted to:

University of Kigali in Partial Fulfilment of the requirements for the award of Bachelor's Degree in ……

Department of …….

Year of submission---------

12.2 MODEL FORMAT – DECLARATION PAGE

DECLARATION

I ----------do declare that this dissertation is my own work. I have to the best of my knowledge acknowledged all authors or sources from where I got information. I further declare that this work has not been submitted in any university or institution for the award of a degree or any of its equivalents.

Signed ----------Date …….

12.3 MODEL FORMAT – APPROVAL PAGE

APPROVAL

This is to acknowledge that this dissertation has been submitted with my approval.

Signed ----------Date----------

12.4 MODEL FORMAT – TABLE OF CONTENTS PAGE

TABLE OF CONTENTS

12.5 MODEL FORMAT – LIST OF ABBREVATIONS PAGE

LIST OF ABBREVIATIONS

e.g.

B.M – Bachelor of Marketing

PC – Personal Computer

UOK—University of Kigali

This should be in alphabetical order

12.6 MODEL FORMAT – LIST OF TABLES AND FIGURES PAGE

LIST OF TABLES AND FIGURES

LIST OF TABLES AND FIGURES

12.7 MODEL FORMAT – ABSTRACT PAGE

ABSTRACT

Please note that this is written at the end, after writing chapter five. It is a summary of the work detailing; the introduction (2 – 3 sentences), objectives (2 – 3 sentences), and methodology used (4 – 6 sentences), major findings, conclusions and recommendations (3- 5 sentences).

Format for abstract:

- One single paragraph – detailing as indicated above
- (Followed by) Key words: 3 to 5 key words
- Typing style – italics
- Not more than a page

13 REFERENCES/BIBLIOGRAPHY:

Name of the author(s)

Year published

Title

City published

Publisher

Patterson, J. (2005). Maximum ride. New York: Little, Brown

Daniels, K., Patterson, G. and Dunston, Y. (2014). The ultimate student teaching guide. 2nd ed. Los Angeles: SAGE Publications, pp.145-151.

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SUPERVISOR ALLOCATION FORM

SUPERVISOR AGREEMENT FORM

RESEARCH SUPERVISION TRACKING FORM

STUDENT'S NAME: ----------

REGISTRATION NUMBER: ----------

RESEARCH TOPIC----------

NAME OF SUPERVISOR: ----------

DATE	ACTIVITY	STUDENT'S SIGNATURE	SUPERVISOR'S SIGNATURE	DATE OF NEXT VISIT

At the end of the research process, this form should be attached as an appendix to the final research project. A student who fails to attach it will not be allowed to submit his final project.

DEFENCE EVALUATION FORM