የኢትዮጵያ ሲቪል ሰርቪስ ዩኒቨርሲቲ
ETHIOPIAN CIVIL SERVICE UNIVERSITY
የድሕረ ምረቃ ትምህርት ቤት
School of Graduate Studies (SGS)

MANUAL

for

MASTER'S RESEARCH PROPOSAL AND THESIS WRITING

September 2017
Addis Ababa

PART I: Research Proposal

1.1 Introduction

Research in common parlance refers to a search for knowledge. It is actually a voyage to discovery. We all possess the instinct of inquisitiveness when the unknown confronts us. Our inquisitiveness makes us probe and attain full understanding of the unknown. Therefore research is one of the means people set out to understand their environment. It is a human activity based on intellectual application in the investigation of a given situation or phenomenon. Research is also a scientific process of collecting and analyzing information to enhance our understanding of a given phenomenon or a problem. It, therefore, includes the task or functions of the researcher of understanding a phenomenon and also to communicate it to others. In doing so, research must be **systematic and follow series of steps**.

Scientific research is a systematic attempt to obtain answers to meaningful questions about phenomena or events through scientific procedures. Such research undertakings are considered impartial, objective, empirical and logical analysis of problems which need to be investigated. In short, scientific research is a planned and a critical examination of a problem/issue under question to come up with solutions or suggestion for the future course of action. It must also be noted that any research work requires some sort of interpretation. The purpose of research is to discover answers to questions through the applications of scientific procedures.

1.2. Research Proposal

In any research undertaking, the initial task for a researcher is to identify a subject or research topic. The main criteria for selecting a research topic include:

- ✓ Relevance or significance
- ✓ The fact that it is not duplicated
- ✓ Urgency of data needed
- ✓ Feasibility of the study
- ✓ Interest of the researcher
- ✓ Ethical acceptability

After a careful identification and defining of a research problem, the plan must be written down as any research proposal should be guided by a detailed plan. Hence, a research proposal indicates a specific course of action that will be consciously followed. It helps to have full focus on the various activities to be undertaken in systematic and logical ways. It also helps one to present their research actions in a scholarly and orderly ways.

A clear and well-thought-out research proposal is considered the backbone of the research. A research proposal has got the following functions:

- ✓ Forces you to clarify your thoughts and to think about all aspects of the study under consideration

- ✓ Serves as means of obtaining ethical approval if especially the research theme and setting is on human subjects or on experimental animals
- ✓ Serves as an essential document that can be submitted for funding

In addition, a well-thought out research proposal can be judged on the following important points:

- It should be adequate to answer the research question (s) in order to achieve study objectives
- It should be feasible in the particular research set-up of the study
- It should provide enough detail that can allow another investigator to do the study and arrive at comparable results.

2 Components of a research proposal

1. Title
2. Summary/ Abstract
3. Introduction
4. Background
5. Statement of the problem
6. Conceptual framework (brief of the major concepts and theories to be used in the research)
7. Research objectives: Main objective, specific objectives
8. Research Questions/ Hypotheses
9. Significance
10. Scope: thematic, spatial, temporal
11. Description of the study area
12. Research Methods and procedures

- ✓ Research design (Research paradigm (Epistemological and ontological aspects); Approach (deductive, inductive; exploratory, explanatory; qualitative, quantitative, mixed), research type (descriptive, analytical, evaluative, design, etc.), research strategy (experiment, survey, case study, grounded theory, ethnography, action research, etc.), time dimension (cross sectional, longitudinal)
- ✓ Method of data collection (type of data, instrumentation (questionnaire, interview, focus group discussion, document review, observation etc.)
- ✓ Sampling Methods (sampling technique, population, sampling frame, sampling unit, sample size)
- ✓ Operationalization framework (variables and description, measurement type, collection instrument etc.)
- ✓ Plan/method of Data Analysis
- ✓ Data quality assurance (validity, reliability etc.)

13. Limitations
14. Ethical considerations
15. Organization of the thesis

16. Work plan
17. Budget
18. References
19. Appendices (questionnaire, schedule of interview, discussion questions for FGD etc.)

2.1 Title

The title is a window into your research thesis that tells the readers, what it is all about in a few words. It should be clear and precise and not very long. It should clearly state the topic exactly in the smallest number of words. In addition, the following points have to be part of the title page: **name of the researcher; center/department; name of the adviser; and date of delivery under the title**. Note that there could be various formats but a common norm is important for each Center or department. For example, in the Ethiopian Civil Service University, the following may serve more dominantly across the institutes and departments:

Ethiopian Civil Service University (with Logos)

College

Academic Unit

Program

Student's Name and ID. Number

Advisor: /W/t/W/ro/ Ato /Dr/Professor-: X

A Thesis proposal Submitted in partial fulfillment of the requirements for the award of a Master's Degree in ……..
Date….

Addis Ababa, Ethiopia

NOTE: Title is a label; it is not a sentence. Page number is no given and it is not also counted in any page numbering.

2.2 Summary/ Abstract of a research proposal

It is **a one-page brief summary** of the thesis proposal. The abstract should sufficiently be able to inform the reader why a particular topic/issue/ is important to address (research) and how one tries to address it. The summary/abstract need to contain the thesis statement i.e. your argument (one or two sentences) that tells the reader what the researcher wants to accomplish and why the research is important. Moreover, the researcher needs to show what areas or aspects are to be dealt with and the questions to be

answered. In the abstract, research methodology to be applied has to be briefly hinted. As this is a place or part where you can create substantial impressions (positive/negative), on the part of the reader, towards your research proposal, a careful and well-thought out work is critical. It is such issue underpinning/emphasis/ that can aid others recognize and understand your intentions. One important point to know about abstract is that the precise and final version comes at the end.

2.3 Introduction

The introduction is the gate to your research proposal next to the summary/abstract. It is a brief description of what the research proposal is about. It is here where you write what motivated you to research in the area of your topic and what your intention is. It should be self-explanatory that you really know what you are going to do and achieve at the end of the day. The introduction should also indicate the purpose or rationale of your research (why the research is needed at this point in time) and what triggers it. Introduction should not be confused with the background of the study.

2.4 Background

Background is the part of your proposal where you write the context of your choice of specific subject expressed in your title. You briefly mention the real world context as well as the theoretical background in terms of current debates pertaining to your research area and what and how your research contributes to your debate. If you have not come across any research work on the subject, explain how much this research can fill the existing gap and how can this be achieved. On the other hand, if there is already research output on the subject, you explain how this builds on the frontiers of knowledge and an additional perspective that the current work injects into it. You need to give sufficient background information to allow the reader understand the context and significance of the issue/question that you are trying to address. By so doing you motivate your readers to read the rest of the proposal.

2.5 Statement of the problem

A research thesis is a response to a problem requiring addressing or seeking solution. This hints about why your research problem is a key to your thesis or dissertation. Your problem statement is the DNA of your research. A statement of the problem presupposes the question (s) that the researcher is planning and determined to answer. Nevertheless a problem statement is neither the list of all the problems (issues) in the real world in your area of research; nor always about problems. It might be a positive aspect such as an opportunity or strength you want to focus based on your research title. In a research proposal, it is important that the claimed problem/issue stand out tall so that attempts to solving it become compelling. As part of the problem statement, you should provide a justification as to why this research has to be done. Failing to answer it clearly and plainly, the research proposal becomes ambiguous to solve it and puts many researchers in a

complete dilemma. On the other hand, a well-articulated statement of the problem establishes the foundation to deal with issues that are stake and to be intervened.

The clarity established at this level of proposal paves ways for subsequent activities in the proposal (e.g. **what research objectives should I set to answer the problem (s/ clearly articulated? What research methods, approaches and research strategy can help me to come to near or completely to the problem? What data sources and what data instruments should I use? What type of data analysis should I employ? etc.)**

In this vein, the problem/issue under consideration has to be explained first from global, national, sub-national and local perspectives. However, the national, sub-and local problem/issue definitions are more important than the former as this warrants the desirability of the current research. A problem statement is written in one two paragraphs in a maximum of ½- ¾ pages.

2.6 Conceptual Framework

Conceptual framework and theoretical framework are used interchangeably in some literature A conceptual framework serves basically as an initial clarification of the key concepts helpful to define the ideas [theories] on which the research rests and to establish linkage between the main concepts (Wong 2006: 106-108). It serves as a basis for the development of the theoretical and analytical frameworks and facilitates common language for the further unfolding discussions and arguments. In the literature, concepts may be defined in different ways and you will have to make a choice here. In your study, how the concepts defined operationally? How do the different concepts relate among each other? These and other questions should be answered via your conceptual framework.

Theoretical framework, also known as *formalization*, is the further unfolding of the theoretical ideas, reviewing and summarising of theories to generate variables and their linkages (Wong 2009:108-109). The theoretical framework refers to a summary of the theories that you will refer to in your study. Following the conceptual framework and the literature review and in line with the research problem, questions and research hypothesis; it is now possible to identify the major variables and their linkages.

In both the conceptual framework and theoretical framework, you need to review the relevant literature and identify what major concepts are relevant to the issue/topic of your research, what the theory says about the issue/topic you are addressing. You need to elaborate the different perspectives. What you summarize as part of the conceptual framework or theoretical framework has to be very relevant to the topic and particularly the research problem and the research questions.

While conducting the literature survey, students often throw in whatever literature that is in one way or another related with the research area but not necessarily with the research problem. Failing to prepare the conceptual framework/theoretical framework properly has at least the following disadvantages:

a) You will not have the basis to define relevant concepts, identify the variables and define them.

b) You don't know what relationship to expect.

c) It will not be easy for you to choose the appropriate research design.

d) Your data collection instruments will be ill-designed.

e) During analysis, you will not have any theory to compare your results with.

f) The contribution of your research to the existing theory will be blurred.

The conceptual framework can be shown as a diagrammatic presentation to the logical flow of the ideas and their relationships presented in the thesis with a highlight of the basic concepts.

Literature Review

A literature review is not a mere compilation of every written work about a topic. Neither is it a list of sources reviewed without having relevance and coherence. Rather, a literature review is the description of the literature that is relevant to a particular field or topic of our interest. It gives an overview of what has been revealed thus far, what the prevailing theories and principles hold, who the key proponents are in the area, what questions are being asked, and what methodologies are appropriate and useful to be applied. On the other hand, it should be underscored that literature review is not itself a primary source about study and should not take precedence over our primary source to be explored or illuminated soon. Literature review, therefore, are written documents, attempting to describe, summarize, evaluate, clarify and/or integrate the content of primary reports. You need to make sure that you seek out reliable sources such as reputable academic journals, books and other scholarly works and look for the most recent information relating to your topic of research.

Organizing a literature review

Though there are varying stylistic approaches to organizing the literature review one uses, the major ones can be in the form of three levels: introduction, the main body and conclusion. These three parts may not be implicitly observable. However, it is clearly discernable when a person tends to introduce an idea, gives depth and breadth to the reader, and finally comes to a stage to wind it up. The usual phrases such as "in conclusion", "to sum up", "finally", etc. all show that the narration is coming to near end. In general, literature reviews are organized taking into account: around related research questions, synthesizing results into a summary of what is and what is not known, distinguishing areas of controversy in the literature so that readers can weigh the truth and the level of authenticity, acceptance or opposition, and identifying issues or questions (gaps) that may need further research.

2.7 Research objectives

Research objectives are intended outcomes of the research undertaking. The objectives of a research delineate the ends or aim which the inquirer seeks to bring about as a result of completing the research undertaken. An objective may be thought of as either a solution to a problem or a step along the way toward achieving a solution; an end state to be achieved in relation to the problem/issue. Objectives should be closely related to the statement of the problem. Objectives should be

- ✓ Simple (not complex),
- ✓ Specific (not vague),
- ✓ Stated in advance (not after the research is done), and
- ✓ Specific enough to be measured.

The objectives of a research project summarize what to be achieved by the study. The formulation of objectives will help you to:

- ✓ Focus the study (narrowing it down to essentials);
- ✓ Avoid the collection of data which are not strictly necessary for understanding and solving the problem you have identified; and
- ✓ Organize the study in clearly defined parts or phases.

Properly formulated objectives will facilitate the development of your research methodology and will help to orient the collection, analysis, interpretation and utilization of data. Take care that the objectives of your study:

- ✓ Cover the different aspects of the problem and its contributing factors in a coherent way and in a logical sequence;
- ✓ Are clearly phrased in operational terms, specifying exactly what you are going to do, where, and for what purpose;
- ✓ Are feasible;
- ✓ Are realistic considering local conditions;
- ✓ Are phrased to clearly meet the purpose of the study; and
- ✓ Use action verbs that are specific enough to be evaluated.

Commonly, research objectives are classified into main objectives and specific objectives.

2.7.1 Main Objective

The main objective is a clear and concise statement of what the study seeks to accomplish. It is a general statement specifying the desired outcomes of the research project. The main objective is a broad statement which shows whether the research intends to evaluate, explore, explain, and assess a chosen phenomenon. It is important to ascertain that the main objective is closely related to the statement of the problem. The objective is set in such a way that it facilitates the formulation of specific objectives. The main and specific objectives are logically connected to each other.

2.7.2 Specific Objectives

The specific objectives are commonly considered as smaller partitions of the general objective. They are a breakdown of what to be accomplished into smaller logical components. They specify the outcomes and their assessment in measurable terms. When put together, the specific objectives, which must be set in SMART (Specific, Measureable, Achievable, Realistic and Time bound) formation, must lead to the accomplishment of the main objective of the study. Specific objectives should systematically address the various aspects of the problem as defined under Statement of the Problem and the key factors that are assumed to influence or cause the problem. Each objective might comprise a section of a research report, each with a method that will indicate how the specific objective or sub problem will be addressed.

2.8 Research Questions/Hypotheses

The decision to formulate either research questions or hypotheses will depend on the research approach you have chosen. The general rule is to formulate research questions for qualitative studies along the inductive approach (theory building) and research hypothesis for quantitative studies along the deductive research approach (theory testing).

2.8.1 Research Questions

Research questions create a relationship between two or more variables while phrasing the relationship in the form of a question. These are problem statements derived from the overall conceptions of the study under consideration. They are critically important for data gathering and analysis. In other words, we see that research questions are derived from the problem statement as this latter part clearly sets the extent of the issue and why this activity is relevant to be undertaken. Research questions also provide clues as to how research objectives are to be framed to achieve intended goals. They have to be clear and precise. This compels the researcher to make sure that there are observable and direct links between the two i.e. the specific objectives and corresponding research questions. The research questions should render themselves to clear and precise answers. Avoid double barrel questions and research questions which cannot be answered either by lack of empirical data or requiring a different type of unfamiliar methodology.

2.8.2 Hypothesis

In deductive research designs, it is necessary that you formulate some hypothesis. Once you are clear with the theory and your conceptual framework, you can state some hypothesis. A hypothesis is a tentative conjectural statement of a relationship between or among variables (independent and dependent) - a sort of intellectual (informed) guess. It is a tentative assumption made in order to draw out and set its logical or empirical consequences. It should be specific and pertinent to the piece of research in hand. It must be statistically testable and related to observable phenomenon. The relationship being tested must be specific and unambiguous. The statement should be tested through

research and must, finally, be either accepted or rejected.

The hypothesis will provide the focal point for your research; to delimit the area, sharpen thinking and keep the researcher on the right track. Also remember that your hypothesis determines data type required; the data collection and sampling methods to be used; the tests that must be conducted during data analysis.

Note that hypotheses are usually important and relevant in advanced theoretical researches and most often when quantitative inquiries are made. While research questions pose relationships between two or more variables and establishes the relationship in question forms, hypotheses represent the declarative statement of the relations between the two.

2.9 Significance

Here you should demonstrate why it is worthwhile to go through the pains of research (Sometime this component can be devoted to a separate section known as 'Justification of Study'). State the benefits to be derived from the research and indicate who is likely to benefit and how this is likely to happen. Significance further includes how the research result might of benefit to theory, knowledge, practice, policy and future research.

2.10 Scope (thematic, spatial, temporal)

This refers to the contextual and conceptual boundaries of the study which may include population /sample size, the key concerns of study and the extent it tries to resolve the problem. Referring to the data use and collection it also covers the spatial extent (geography area), temporal (the period the data covers) and thematic area.

2.11 Description of the study area

There is need to indicate where the study was done and to describe its key characteristics (climate, geology, soils, land use, vegetation, socioeconomic activities, population etc). Indicate the geographical locality distance from the national capital and some major regional towns nearby, as well as the geographical co-ordinates. A locality map for the study area is desirable but not mandatory. However, please note that **a brief half page description is quite adequate unless and otherwise your research is also related to investigation of how a specific context affects your research outcome**. You would rather spend more effort in the scope of the study.

2.12 Research Methods and procedures

The methods or procedures section is really the heart of the research proposal. You must decide exactly how you are going to achieve your stated objectives: i.e., what new data you need in order to shed light on the problem you have selected and how you are going to

collect and process this data. The activities should be described with as much detail as possible, and the continuity between them should be apparent. You should indicate the methodological steps you will take to answer every question, to test every hypothesis illustrated in the Questions/Hypotheses section or address the objectives you set.

It is appropriate at this juncture to explain the difference between research methodology and research methods. Research method is about all those methods/techniques that are used for conducting research including tools and techniques used to obtain and analyze data. Methodology refers to the theory of how research should be undertaken. It is a science of how research is done scientifically. You should know not only the research methods and techniques, but also the assumptions underlying the various techniques and why a specific decision on certain techniques and procedures are applicable to certain problems and not to others. Research methodology has many dimensions and research methods constitute a part of the research methodology.

2.12.1. Research Design

The function of research design is to provide a summary of the procedures that will be followed in the collection and analysis of data, as well as the timeframes in which the processes will be accomplished. A research design is like the blue print for house construction. If you start building a house without first having the designs of the various aspects of the building, the result is you don't know what type of house you will end up with; it will be costly and time taking; often involving construction and demolition of what has been constructed. Most importantly, the house lacks quality and may be prone to risks. Likewise, a research conducted without a research design at hand is aimless, ambiguous, time taking, costly and may be totally irrelevant and unacceptable in light of the requirements for a scientific investigation. Research design refers to the crafting of the conceptual structure within which research will be conducted in a way that is as efficient as possible, the collection of relevant evidence with minimal expenditure of effort, time and money.

Just to give a short explanation of why stating the *research paradigm* adopted by the research is important we need to define the terms *methodology* and *epistemology*. Epistemology can be defined as the philosophy of how we come to know. It is the study of nature of knowledge and justification from where knowledge has come and how we know what we know. The research pyramid consists of *research paradigm* on top, followed by research *methodology, research methods* and *research techniques* at the bottom rung. *Paradigm* is your world view, how you view the world. It can be defined as mental tools, frames of reference that help people within a particular group communicate and understand each other (Cooper and Schindler (2008:5). *Methodology* is the philosophy or the general principle which will guide your research. It is a way to conduct research that is tailored to research paradigm. *Method* is about the specific steps of action that need to be executed in a specific stringent order; while *research techniques* refer to practical instruments or tools for generating, collecting and analysis of data.

Among the philosophical schools, *positivism* sticks to what observed and measured while *interpretivism seeks* seek to understand the subjective reality of those they study. *post positivism* is taken as the 'scientific method' and belongs to quantitative research domain. The basic assumptions of the *post positivist* position are: knowledge is *conjectural* and absolute truth can never be found, research is the process of making claims and then refining and abandoning some of them for other claims more strongly warranted; data, evidence, and rational considerations shape knowledge; and being objective. In contrast the *interpretivism* They aim on values and outcomes assessed by various stakeholders and engage in the qualitative data collection procedures to promote dialogue, such as participant observations, interviews, and focus groups, giving a voice to insider perspectives (Howe 2004:53-54).

The research design of a research includes (Research paradigm (Epistemological and ontological aspects); research approach (deductive, inductive; exploratory, explanatory; qualitative, quantitative, mixed), research type (descriptive, analytical, evaluative, design, etc.), research strategy (experiment, survey, case study, grounded theory, ethnography, action research, etc.), time dimension (cross sectional, longitudinal or approximation of longitudinal data using cross-sectional design). Therefore, in this section you need to state each component of your research design with their justification why you choose them.

The "methods" section of a research proposal among others includes:

- Information to allow the reader to assess the believability of your approach.
- Information needed by another researcher to replicate your experiment.
- Description of your materials, procedure, theory.
- Calculations, technique, procedure, equipment, and calibration plots.
- Limitations, assumptions, and range of validity.
- Description of your analytical methods, including reference to any specialized statistical software.

The proposal should describe in detail the general research plan. (may not necessarily be true for all types of research)which include but not limited to the following:

- ✓ Description of study area
- ✓ Description of study design
- ✓ Description of study participants
- ✓ Eligibility criteria (if any)
- ✓ Determination of sample size (if any)
- ✓ Description of selection process (sampling method)
- ✓ Methods of data collection
- ✓ Description of the expected outcome and explanatory variables…(if any)

- ✓ How data quality is ensured
- ✓ Operational definition
- ✓ Presentation of the data analysis methods

It is essential to state the research approach/paradigm to be adopted by the research e.g. qualitative or quantitative, giving the justification for choosing it.

The research design must include the following;

a. The selection of variables relevant to the stated specific objectives.
b. The data collection method(s) and technique(s).
c. Sampling procedure(s) and the statistical testing tools.
d. The plan for data collection, processing and analysis.
e. Ethical considerations and how to overcome them.
f. The pre-test or pilot study before the full research.

Methods of Data Collection

Each research method has its own techniques which should be clearly stated. However it is important that the chosen research design is competent to respond to the research purpose, objectives and questions. For example, if the purpose of any research is to assess the satisfaction level of local residents towards any public service it may require research methods such as questionnaires, interviews and focus group discussions. Each research method needs to be clearly stated with its justification why you are using it in line with the research objectives.

Issues to remember:

1. Be aware of possible sources of error to which your design exposes you. You will not produce a perfect, error free design (no one can). However, you should anticipate possible sources of error and attempt to overcome them or take them into account in your analysis.
2. You need to read books on Research Methods and Techniques to understand the specific nature of each research approach, type, research strategy, and instrumentation.

2.12.2 Sampling

Sampling for quantitative studies

Sampling is the process of selecting a number of study units from a defined study population. Often research focuses on a large population that, for practical reasons, it is only possible to include some of its members in the investigation. You then have to draw a sample from the total population. In such cases you must consider the following questions:

- ❖ What is the study population you are interested in from which we want to draw a sample?
- ❖ How many subjects do you need in your sample?

- How will these subjects be selected?

The study population has to be clearly defined. Otherwise you cannot do the sampling. Apart from persons, a study population may consist of villages, institutions, plants, animals, records, etc. Each study population consists of study units. The way you define your study population and your study unit depends on the problem you want to investigate and on the objectives of the study.

The key reason for being condemned with sampling is that of validity–the extent to which the interpretations of the results of the study follow from the study itself and the extent to which results may be generalized to other situations with other people or situation. Sampling is critical to external validity–the extent to which findings of a study can be generalized to people or situations other than those observed in the study. To generalize validly the findings from a sample to some defined population requires that the sample has been drawn from that population according to one of several probability sampling plans. By a probability sample it is meant that the probability of inclusion in the sample of any element in the population must be given a priori. All probability samples involve the idea of random sampling at some stage. Probability sampling requires that a listing of all study units exists or can be compiled. This listing is called the sampling frame. Of course, at times, it is impossible to obtain a complete list of the population.

Another reason for being concerned with sampling is that of internal validity-the extent to which the outcomes of a study result from the variables that were manipulated, measured, or selected rather than from other variables not systematically treated. Without probability sampling, error estimates cannot be constructed. Perhaps the key word in sampling is representative. If researchers want to draw conclusions which are valid for the whole study population, which requires a quantitative study design, they should take care to draw a sample in such a way that it is representative of that population. A representative sample has all the important characteristics of the population from which it is drawn.

Examples of probability sampling

Simple random sampling:

The guiding principle behind this technique is that each element must have an equal and nonzero chance of being selected. This can be achieved by applying a table of random numbers or a computer generated random numbers to a numbered sampling frame. Another approach involves drawing umbers from a container. The product of this technique is a sample determined entirely by chance. It should be noted, however, that chance is "lumpy", meaning that random selection does not always produce a sample that is representative of the population. Imagine, for example, a sampling frame comprising 10,000 people. Furthermore, consider that altitude is a critical variable, and that the composition of the sampling frame is as follows: 1,500 are from high altitude; 7,500 are from medium altitude white, and 1,000 are from low altitude. You are going to select a

sample of 500 people from this sampling frame using a simple random sampling technique. Unfortunately, the simple random selection process may or may not yield a sample that has equivalent altitudinal proportions as the sampling frame. Due to chance, disproportionate numbers of each altitudinal category may be selected.

Systematic sampling

The systematic random sampling technique begins with selecting one element at random in the sampling frame as the starting point; however, from this point onward, the rest of the sample is selected systematically by applying a predetermined interval. For example, in this sampling technique, after the initial element is selected at random, every "k^{th}" element will be selected (k^{th} refers to the size of the interval-the ratio of the population to sample size) and becomes eligible for inclusion in the study. The "k^{th}" element is selected through the end of the sampling frame and then from the beginning until random selection was made). If there is a cyclic repetition in the sampling frame, systematic sampling is not recommended.

Stratified sampling

Stratified random sampling begins with the identification of some variable, which may be related indirectly to the research question and could act as a confounder (such as geography, age, income, ethnicity, or gender) This variable is then used to divide the sampling frame into mutually exclusive strata or subgroups. Once the sampling frame is arranged by strata, the sample is selected from each stratum using simple random sampling or systematic sampling techniques. It is important that the sample selected within each stratum reflects proportionately the population proportions: thus, you can employ proportionate stratified sampling.

Cluster sampling

It may be difficult or impossible to take a simple random sample of the units of the study population at random, because a complete sampling frame does not exits. Logistical difficulties may also discourage random sampling techniques (e.g., interviewing people who are scattered over a large area may be too time-consuming). However, when a list of groupings of study units is available (e.g. villages or schools) or can be easily compiled, a number of these groupings can be randomly selected. Then all study units in the selected clusters will be included in the study.

Multistage sampling

Multistage cluster sampling is used when an appropriate sampling frame does not exist or cannot be obtained. Multistage cluster sampling uses a collection of preexisting units or clusters to "stand in" for a sampling frame. The first stage in the process is selecting a sample of clusters at random from the list of all known clusters. The second stage consists

of selecting a random sample from each cluster. Because of this multistage process, the likelihood of sampling bias increases. This creates a lack of sampling precision known as a design effect. It is recommended to consider the design effect during sample size determination.

Purposeful sampling strategies for qualitative studies

Qualitative research methods are typically used when focusing on a limited number of informant, whom you select strategically so that their in-depth information will give optimal insight into an issue about which little is known. There are several possible strategies from which a researcher can choose. Often different strategies are combined, depending on the topic under study, the type of information wanted and the resources of the investigator(s).

2.12.3 Sample Size

a. Sample size in quantitative studies

Having decided how to select the sample, you have to determine the sample size. The research proposal should provide information and justification about sample size. It is not necessarily true that the bigger the sample, the better the study. Beyond a certain point, an increase in sample size will not improve the study. In fact, it may do the opposite; if the quality of the measurement or data collection is adversely affected by the large size of the study. After a certain sample size, in general, it is much better to increase the accuracy and richness of data collection (for example by improving the training of interviewers, by pre-testing of the data collection tools or by calibrating measurement devices). Than to increase sample size. Also, it is better to make extra effort to get a representative sample rather than to get a very large sample.

The level of precision needed for the estimates will impact the sample size. Generally, the actual sample size of a study is a compromise between the level of precision to be achieved, the research budget and any other operational constraints, such as time (see 3.2.7). In order to achieve a certain level of precision, the sample size will depend, among other things, on the following factors:

- ✓ The variability of the characteristics being observed: If every person in a population had the same salary, then a sample of one person would be all you would need to estimate the average salary of the population. If the salaries are very different, then you would need a bigger sample in order to produce a reliable estimate.
- ✓ The population size: To a certain extent, the bigger the population, the bigger the sample needed. But once you reach a certain level, an increase in population no longer affects the sample size. For

instance, the necessary sample size to achieve a certain level of precision will be about the same for a population of one million as for a population twice that size.

- ✓ The sampling and estimation methods: Not all sampling and estimation methods have the same level of efficiency. You will need a bigger sample if your method is not the most efficient. But because of operational constraints and the unavailability of an adequate frame, you cannot always use the most efficient technique.

When the study is designed to find a difference or an association, you may not find a difference or an association. In this case, we still want to calculate statistical probability that we may have missed a difference or an association that exists in the population, but was not found in the sample. This so-called statistical power of the study depends also on the size of the sample. The larger the sample size, the higher the power of the study. For calculating sample size before the study begins, the researchers have to make a decision on the level of statistical power they are willing to accept for the study. Traditionally, most studies set a power of 80%.

The effect size in a study refers to the actual size of the difference observed between groups or the strength of relationships between variables. The likelihood that a study will be able to detect an association between the variables depends on the magnitude of the association you decide to look for. Large sample sizes are needed to detect small differences. The choice of effect size is difficult and arbitrary, but it must be set beforehand and must make a meaningful difference. In designing a study, the researcher chooses the size of effect that is considered important.

b. Sample size in qualitative studies

There are no fixed rules for sample size in qualitative research. The size of the sample depends on what you try to find out, and from what different informants or perspectives you try to find that out. You can start with two or four Focus Group Discussions (FGDs) depending on the complexity of the research objectives. If the different data sets reconfirm each other you may stop at this point; otherwise you conduct one or two FGDs more till you reach the point of redundancy, i.e. no new data comes up any more. In exploratory studies, the sample size is therefore estimated beforehand as precisely as possible, but not determined. Richness of the data and analytical capability of the researcher determine the validity and meaningfulness of qualitative data more than sample size. Still, sampling procedures and sample size should always be carefully explained in order to avoid the allusion of haphazardness.

2.12.4 Analysis Plan

Specify the analysis procedures you will use, and label them accurately. The analysis plan should be described in detail. If coding procedures are to be used, describe reasonable detail. If you are triangulating, carefully explain

how you are going to do it. Each research question will usually require its own analysis. This, the research questions should be addressed one at a time followed by a description of the type of statistical tests (if necessary) that will be performed to answer that research question. Be specific. State what variables will be included in the analyses and identify the dependent and independent variables if such a relationship exists. Decision making criteria (e.g., the critical alpha level) should also be stated, as well as the computer software that will be used (if there is a need to use one). These help you and the reader evaluate the choices you made and procedures you followed.

Issus to remember: Provide a well thought-out rationale for your decision to use the design, methodology, and analyses you have selected.

2.13 Work plan

Work plan is a schedule, chart or graph that summarizes the different components of a research proposal and how they will be implemented in a coherent way within a specific time-span.

It may include:

- The tasks to be performed;

- When and where the tasks will be performed;

- Who will perform the tasks and the time each person will spend on them;

- It describes the plan of assessing the ongoing progress toward achieving

the research objectives;

- The plan specifies how each project activity is to be measured in terms of completion, the line for its completion;

- A good work time plan enables both the investigators and the advisor to monitor project progress and provide timely feedback for research modification or adjustments.

Issues to remember: In the work plan:

- Different components/phases/stages of the study be stated
- Description of activities in each phase
- Time required to accomplish the various aspects of the study activities should also be indicated

GANTT Chart for your plan

A GANTT chart is a planning tool that depicts graphically the order in which various tasks must be completed and the duration of each activity.

The GANTT chart indicates:

- The tasks to be performed;
- Who is responsible for each task; and
- The time each task is expected to take.

The length of each task is shown by a bar that extends over the number of days, weeks or months the task is expected to take.

2.14 Budget and funding

Though may not apply to this specific research, it is important to remember that funding agencies will invariably read through the whole proposal (not just the budget requirement). Therefore, it is critical that the entire proposal document is well thought out and written to effectively communicate the aim of the research and how you planned to achieve it.

Budget items need to be explicitly stated as follows:

- Personnel: supervisors, data collector, etc
- Consumable supplies: stationeries, computers and educational materials
- Travel: cost of projected-related travel
- Communications: postage, telephone, telegram, fax, e-mail charges associated with a project
- Publication: the cost incurred of preparing and publishing the results of the research. It includes; technical reports, manuscripts, illustrations, graphics, photography, slides, and overheads
- Other direct costs: costs of all items that do not fit into any of the above direct costs (**please get enough information from the Finance before lining up these costs**).

Budget justification

It is not sufficient to present a budget without explanation. The budget justification follows the budget as an explanatory note justifying briefly, in the context of the proposal, why the various items in the budget are required. Make sure you give clear explanations concerning why items that may seem questionable or that are particularly costly are needed and discuss how complicated expenses have been calculated. If a strong budget justification is presented, it is less likely that essential items will be cut during proposal review.

2.15 References

You must give references to all the information that you obtain from books, papers in journals, and other sources. References may be made in the main text using index numbers in brackets (Vancouver style) or authors name (Harvard style). But note must be made that **mix is not allowed** and one should keep consistency in using either of the two standards. You will also need to place a list of references, numbered as in the main text (or alphabetically ordered), at the end of your research proposal. The exact format for depicting references within the body of the text and as well as the end of the proposal varies from one discipline to another. However let us agree to have Harvard style referencing at university level.

The information you give in the reference list must be enough for readers to find the books and papers in a library or a database. It also demonstrates to those interested in your proposal how well versed you are on the particular area of research.

As a general guideline, there are certain items that must be included from each source reference. As mentioned above, the exact format applicable to your particular area of study will be left for you to find out.

For a journal paper give:

- The names of the authors,
- The year of publication,
- The title of the paper,
- The title of the journal,
- The volume number of the journal,
- The first and last page numbers of the paper.

For a book give:

- The author,
- The year of publication,
- The title, and the edition number if there is one,
- The name of the publisher,
- The page numbers for your reference.

For an internet reference give:

- The author of the web page,

- The title of the item on the web page,
- The date the item was posted on the web page
- The date the item was accessed from the web page
- The complete and exact URL.

Make sure that every reference in your main text must appear in the list at the end of your proposal, and every reference in the list must be mentioned in your main text.

2.16 Appendices/Annexes

Include in the appendices of your proposal any additional information you think might be helpful to a proposal reviewer. For example, include:

- Questionnaires & other data collocation forms
- Dummy tables
- Biographical data on the principal investigator
- The consent form (if any)

Summary

Scientific research commences with the writing of a research proposal which is a detailed plan that the researcher intends to follow and which will give an adjudicator or evaluator a clear idea of what the researcher plans to do and how he or she intends to complete the research. The research proposal contains a description of the research topic and the literature survey, motivation for the research, a statement of the problem, a hypothesis, the research methodology to be used, clarification of terms, and the sources consulted to demarcate the research problem.

Quality writing is critical in all good proposals. It should be clear, concise, and free of jargon. There should be no spelling or grammatical errors, and the proposal should be easy to read. Sloppy proposals and proposals laden with jargon do not provide a positive image to the reader, nor do they lend confidence that solid research will follow. Proposals that are well-written and attractive are a pleasure to read, and they make a good impression with readers/reviewers.

Sources:

1. Addis Ababa University, Graduate Programs, Graduate Studies and Research Office (2009)
2. Ethiopian Civil Service College, Urban Management Masters Program Thesis writing Guideline (2010)

SECTION A: RESEARCH PROPOSAL

Department logo

ETHIOPIAN CIVIL SERVICE UNIVERSITY

College:_____

School/Institute/ Department: _____

Program:_____

Title of Thesis

……...

By
(Name of the participant)
……..

ID of the Participant
……..

Under the Supervision of
(Name of the Supervisor)
……..

A Thesis Proposal Submitted to the …….. Programme, College of _____Ethiopian Civil Service University, in Partial Fulfillment of the Requirements for the Award of a Masters Degree in _____

……..
Month, Year

Addis Ababa, Ethiopia

SECTION B: THESIS WRITING

Preamble

Your thesis will consist three major parts; namely: Prefaces, Body and Appendices.

Prefaces must include Cover Page, Declaration on Plagiarism, Dedication (Optional), Approvals, Abstract, Acknowledgements, Table of Contents, List of Tables, List of Figures, List of Plates, List of Appendices and List of Acronyms/Abbreviations. ***Body*** must have Chapter-1 to Chapter-5 and references. ***Appendices*** consist of attachments such as questionnaires, interview schedules, budgets and activity schedules.

Ensuring Flow and Consistency, while writing the thesis is very important .Your thoughts and statement should be well arranged; having smooth flow and consistency. i.e. What 'Research Questions / Hypotheses' you have adopted in Chapter -1, the same order should be maintained while you are writing 'Review of Literature' in Chapter-2; again the same order should be followed while you are presenting your 'Data Analysis and Findings' in Chapter-4 and finally all the 'Conclusions and Recommendations' should be consistent in Chapter-5 according to 'Research Questions / Hypotheses' stated in Chapter-1. Hence; you will be able to produce an outstanding document by ensuring the logical flow of your expressions in the 'Thesis'.

Thesis Abstract: should normally be about 300 words. It should start with sentence describing the major theme of the topic researched and continue by very briefly outlining purpose of the research, the methodology used, the main findings and conclusions. Do not cite figures, tables, or references in abstract. Abstract should be a complete synopsis so as to enable the reader to judge the value of the article and whether or not to continue to read it completely. Type the abstract on a separate page. The abstract should be written in one single paragraph in italics.

The following Box can make the composition of thesis clearer.

Prefaces	**Body**	**Appendices**
Cover Page, Declaration on Plagiarism, Dedication (Optional), Approvals Abstract, Acknowledgements Table of Contents List of Tables List of Figures List of Plates List of Appendices List of Acronyms/ Abbreviations.	Chapter-1 Chapter-2 Chapter-3 Chapter-4 Chapter-5 References	Questionnaires Interview schedules Budgets Activity schedules Data coding sheets Letters of introduction Permissions Special documents

Declarations

I …….. , Registration Number/I.D. Number……., do hereby declare that this Thesis is my original work and that it has not been submitted partially; or in full, by any other person for an award of a degree in any other university/institution.

Name of Participant…….Signature……. Date…….

This Thesis has been submitted for examination with my approval as College supervisor.

Name of Advisor……Signature……. Date……

APPROVAL

The undersigned certify that they have read and hereby recommend to the Ethiopian Civil Service College to accept the Thesis submitted by ……, and entitled " ……" ,in partial fulfillment of the requirements for the award of a Masters Degree in (program).

Name of Supervisor ……..…… Signature…….

Date……

Name of Internal Examiner ……. Signature……. ……..

Date……...

Name of External Examiner …….. Signature……. ……..

Date……....

Name of Head of Department ……. Signature…….

Date……. ……..

CHAPTER ONE

This should be the introduction to the whole study and is based on the research proposal. Generally, this is research proposal written in past tense. In that regard, you are giving a narrative description of the entire proceedings of the dissertation. The first chapter, like all the chapters of the dissertation, must begin with an introduction and end with a conclusion. The Chapter must have following sections:

1.1 Introduction

This section must provide a brief synopsis of the content of the entire chapter. It must be promissory in nature; it must promise the reader certain information in the body of the chapter.

1.2 Background

The background section sets out the direction the researcher intends to take.

1.2.1 Introduction to the topic is putting the study into context and broadly touching on some considered key issues. It may begin by offering a broad context for study, and quickly come to the point with a narrow focus definition of the problem.

1.2.2 Pick on issues that lead you to the research problem or question by identifying various dimensions in which problem manifests itself.

1.2.3 Place the study within the larger context of existing scholarly literature while reaching out to a specific audience.

1.3 Problem Statement

A research problem refers to a situation whereby there exist observable negative effects of which there is a knowledge gap. The researcher needs to be focused, and must single out and clearly state the problem. Is the problem:

1.3.1 Amenable to empirical investigation or evaluation through collection and analysis of relevant data.

1.3.2 Brief, clear and precise

1.3.3 Researchable in respect to appropriate sources of data/information that can provide solutions to the problems identified

1.3.4 Solvable

1.3.5 Fitting itself well to established theories or concepts

The following guiding questions could be helpful;

Who is affected and how?
What is missing and where?
What went wrong and to what extent?
What are the notable effects, where, extent for whom?
Is the problem self-expressive or does it generate other problems?

1.4 Objectives

The main purposes of the study must be clearly enunciated. You must state a single general objective and several specific objectives linked or derived from general aim.

1.4.1 Main/General Objective

This is a clear and concise statement of what the study seeks to accomplish - in your own way or as already established by previous studies. This general objective is a broad statement which shows whether the research wants to evaluate, explore, explain, and assess a chosen phenomenon. The objective is set in such a way that it facilitates the formulation of specific objectives. For example, evaluation involves numerous processes which can be the focuses of the specific objectives. The main objective should set out, in unequivocal terms, the purpose of the study.

1.4.2 Specific objectives

These must be linked to the main objective in a logical way. When put together, the specific objectives, which must be set in SMART formation, must lead to the accomplishment of the main objective of the study. For example, as a way of evaluating a given phenomenon, one may want to measure certain indicators and so it would be appropriate to set a specific objective that relates to quantification as part of the process of evaluation. It is normally the case to formulate at least three specific objectives and no more than five.

1.4.3 Research Questions

A research question poses a relationship between two or more variables but phrases that relationship as a question. **The questions should be derived from the main research questions or problem statement.** They should render themselves to clear and precise answers. They should be such that they demand data collection and analysis. It is not necessary to create research questions if objectives have been set.

1.

1.5 Research Hypotheses

A hypothesis is a tentative conjectural statement of **relationship between or among variables** - a sort of intellectual (informed) guess. It represents a declarative statement based on a hunch or suspicion based on extended observation by the researcher. It must be statistically testable and related to observable and natural phenomenon. The relationship being tested must be clear, specific and unambiguous.

Deciding to whether to use research questions depends on the factors such as the purpose of the study, nature of the research design and methodology, and nature of the audience.

1.6 Significance/Justification of the Study

Significance/Justification of the Study can be expressed through following points:

1.5.1 The researcher should demonstrate **why it is worthwhile** to go through the pains of research (Sometime this component can be devoted to a separate section known as 'Justification of Study').

1.5.2 State the benefits to be derived from research.

15.3 Who would benefit and how?

1.7 Scope of the Study

This refers to the **contextual boundaries or limits of the study** which would include (population / sample size); the key concerns and non-concerns of study; the extent it tries to resolve the problem.

1.8 Description of the Study Area

There is need to indicate where the study was done. Describe key characteristics of area (climate, geology, soils, land use, vegetation, socioeconomic activities, population etc)., linking them to the study. Indicate the geographical locality (e.g. .... ABC sub city, 60 km south of X shopping mall) as well as the geographical co-ordinates). A locality map for the study area is desirable but not mandatory. However, please note that a brief half page description is quite adequate; you would rather spend more effort in the scope of the study.

1.9 Limitations of the study

Limitations of the study can be written with the followings:

1.9.1 Potential weaknesses of the study that is beyond control of the researcher and which may have implications or restrictions on study or results of study. This maybe time, money, nature of the sample, nature of the data, nature of the instruments used. Emphasis should be made on sampling, data, instruments of data collection related limitations instead of merely making statements about time and money constraints/limitations.

1.9.2 State compensatory measures taken to mitigate effects of noted limitations.

CHAPTER 2

2.1 Introduction

This chapter is used to determine a theoretical or "quasi-theoretical" base for the study. The conceptual framework is the theoretical base from which your topic has evolved. It includes the basic, historical, theoretical nature, and background of your topic. This information is the material that undergirds, and provides basic support from which your topic emerges. Essentially you are trying to present a rational/theoretical/research-based model for (a) the key variables you are interested in investigating and (b) any believed interrelationships between the dependent, or criterion, variable and the independent variables. Literature citations are essential. Theorists and researchers who are famous in the field of the topic (e.g., De Soto, McAuslan in *Land Tenure*; Arnott, Mayo, Malpezzi, Turner, Sclar in *Housing*; Sen, Hulme, Yaqub, Moore, Shepherd, Devereux in *Poverty)* have to be used and referenced in this section.

2.2 Derivation of Review of Literature

Literature review is derived from the statement of the problem (presentation of empirical evidence and central question) and is the argument that the research question has a basis (grounds) for providing a probable answer(s) to the question through

a) Establishment of relationships (identification of the relationships between the independent variable and the response variables). What is known and how has it been explained? Are the results conclusive? What are the bases for the question?
b) Explaining how the possible answers to the question are explained and defended? What are the assumptions? What are the relationships? What are the working hypotheses?

The theoretical framework, considers the grounds that support the central question of the study, states the researcher's reasoning and arguments for the project to find the evidence that will answer the research question and/or hypothesis. It requires an **exhaustive and comprehensive** bibliographic review related to the problem under investigation. This chapter may contain theories and models relevant to the problem, a historical overview of the problem, current trends related to the problem, and significant research data published about the problem. The Review of Literature should place the proposed study in context through a critical analysis of selected research reports. This chapter of the thesis should:

i) Place a given research project in the context of its contribution to the understanding of the subject under review
ii) Identify areas of prior scholarship to prevent duplication of effort
iii) Provide a synthesis of findings in a "state-of-knowledge" summary in regard to the problem area, including additional evidence as to the nature and/or the importance of the problem;
iv) Make clear how further research should extend, differ from, or replicate past studies, including the identification of the critical variables in the problem area and important hypotheses to be tested;
v) Indicate shortcomings in the design of prior research that should be avoided, as well as strengths to be repeated, in conducting another study;
vi) Provide a critique of the literature as a basis for any controversial methodological decisions to be presented in the thesis.
vii) Resolve conflicts amongst seemingly contradictory previous studies
viii) Point the way forward for further research

This chapter gives you an opportunity to show the reader that you have learnt to analyze and to synthesize the views of others in relation to your own research. Since Chapter 2 presents information and conclusions **drawn by other researchers**, **citations should be used extensively throughout the chapter**. Although you are presenting information from other researchers and writers, **avoid overuse of direct quotations**, including many direct quotations which produce a literature review that usually lacks transitions and flow, and is difficult to read. It is a skill on the part of post-graduate students to report on the literature in such a way that the student also compares, contrasts, and in so doing analyzes what is found in the literature (hence you should compare and contrast ideas, theories and/or views relevant to your research topic and problem, guided by research questions/objectives).

NB: Chapter 2 is **NOT** the place for the researcher to inject any personal ideas or theories. Direct quotations, indirect quotations or paraphrasing, as well as any information attributable to other researchers and individuals require citations.

2.3 Selecting Appropriate Articles

The types of articles that are selected for a good review of literature are theoretical presentations, review articles, and empirical research articles. In order to summarize and analyze the published body of knowledge on a subject, you will first need to do a literature search to identify relevant and appropriate material. You are generally expected to be already familiar with some important literature as part of your pre-thesis semesters. This would include, for example, the various articles and book chapters that are part of your course handbooks or sources you had already consulted to do your assignments. The point to be stressed in the case of a literature review you will undertake as part of a master's thesis is that you are now in a more focused and in-depth research undertaking and for this very reason you would definitely need additional published sources. Your presentation will be more powerful if conflicting theoretical positions and findings are presented along with the position or prediction that you support in your paper. You should choose several researchers' works that have added to the knowledge base in a specific area. Strive to eliminate (or explain away) articles that have faulty methods or that use faulty reasoning to support their findings.

Your potential sources of published materials to be included in your literature survey include: books, journals, workshop proceedings, official reports, and, in some cases, news papers, while a relatively recent source of information is the internet. Some of these sources would focus on the theoretical literature, while others dwell on the empirical literature. The documents to be published and/or available from international organizations or national, regional and municipal sources fall in the later category.

You should also note that depending on the nature of the topic under consideration, the relative importance to be attached to the various categories of sources may vary. Generally, however, books serve as a good starting point as they often summarize key theories and in some cases present research findings in succinct manner. In some subject areas, journals may be the key sources for literature review, especially when the topic under consideration is either so specialized or new that no books have been published on it. After all journals are the principal place where research and practice are discussed and new work presented.

One strategy you can follow to identify relevant published materials for your research is to browse previous research done on a topic similar to your own (for instance your can utilize some online journal subscribed to by the ECSC, e.g. www.jstor.org). The references and/or bibliography that are normally annexed to a research work would naturally lead you to some important seminal works or recent literature. One possible way you can explore to increase the chance of finding relevant literature is to share what you have with fellow students that are doing research is similar topics. Your thesis supervisor may provide additional guidance or even

provide you with certain reference materials, but the onus of searching the relevant literature is your responsibility.

2.4 Reviewing the Articles

It is best if you read the article and then summarize the method, results, and discussion. In this way you do not risk quoting an author out of context or plagiarizing. Additionally you are forced to understand the article more thoroughly than if you copy quotations. Expect to have read the research articles more than once in order to completely understand the material. A common method for reviewing research articles is to write notes about the article while reading it. This may be a mistake. A review of this type often leads the investigator to copying quotations from the article and then using the quotes in the review, or plagiarizing the work of others. Often quotes are taken out of context and are misleading. Using a 5" by 7" index card for note taking has many advantages. The top wide margin of the card can be used to write the bibliographic information (always include all needed information) and the remaining front and back of the card is large enough for your written summary information. Be sure to use a new card for each study reviewed. At the end of your literature search these separate cards will enable you to group similar studies under headings. Also when you type your reference list you can alphabetize the cards and type the list directly from them. This method significantly saves time.

2.5 Relevance of Literature

Generally, an extensive literature review would be expected at the Master's level, but the quality of published materials to be reviewed is more important than the sheer number of materials to be reviewed. For this reason, the sources to be included in your literature review should relevant to your research topic. In addition, they should be recent to allow you to grasp and portray the state-of-the-art in the particular field of study. In assessing the relevance of any published work for the literature review, consideration should be given to the following points.

Provenance: what are the author's credentials? Are the author's arguments supported by evidence (e.g. primary historical material, case studies, narratives, statistics, and recent scientific findings)?

Objectivity: is the author's perspective even-handed or prejudicial? Is contrary data considered or is certain pertinent information ignored to prove the author's point?

Persuasiveness: which of the author's theses are most/least convincing?

Value: are the author's arguments and conclusions convincing? Does the work ultimately contribute in any significant way to an understanding of the subject?

2.6 Acknowledgment of Sources

As far as a literature review is about the summary and synthesis of main ideas to be obtained from different previous sources, it is important to make due acknowledgment. You are expected to review previous research work (including that conducted by UMMP students) that are available in the college's library, but you should never "copy-and-paste" literature reviews already done by other authors. It is part of the standard research ethics that you are expected to duly acknowledge all of the sources you have consulted during the literature review and beyond. Failure to do so is plagiarism and it is a serious academic infringement and will not be tolerated. The sanctions that follow it are not usually pleasant; it is always best to follow standard referencing procedures. As the system of bibliographic referencing system adopted by UMMP is the Harvard System, you are encouraged to refer to it.

All sources used in the literature review should be properly acknowledged as this will facilitate cross reference for other researchers that would have a chance to access and review your work sometime in the future. To help you save time, particularly at the final stages of your research

project, you should keep notes of the title and author of the document along with the relevant page numbers.

The Literature Review is **NOT** a Book Review. Contents of books and articles are only useful if particular points have some direct relevance to your thesis. In Literature Review keep in mind that at least 25 references should be discussed and 3-4 different models or theories or views should be mentioned.

2.7 Structure of Literature Review Chapter

A good review of literature will have the following structure:

2.7.1 Introduction

A clear and precise introduction of the chapter-2 for literature review should be presented.

2.7.2 Theoretical Literature Review

It consists of review of the relevant literature from the books written by the authors in your area of research. For example, researcher who intends to study the bureaucracy may begin with reading books by Max Weber, Gordon Tullock and William Niskanen. While reviewing the theoretical literature, the researcher has to carefully observe what is said about objectives of the research. For instance, what does the theoretical literature say about the research objective 1, 2, 3….etc. It helps the researcher to be focused in looking at the theoretical literature pertained to the objectives of the study. Theoretical literature review may be organized either chronologically or according to themes.

2.7.3 Empirical Literature Review

It consists of the review of empirical data on the subject matter. The researchers in Urban Management must refer to the reports by the government, Non-government organizations and donor agencies. These reports would benefit the researchers in updating themselves with what is happening in reality. Further, it would allow researcher to identify the gap between theory and practice. It includes comparing and contrasting of different interpretation on the same subject by different scholars. While doing the empirical literature review, researcher again should s relate the literature to each objective of the research.

Note: Literature review should have connection with the research topic. Simply compiling different readings and putting it together does not serve the purpose. Literature review means not only reviewing the related literature, but also applying the concepts reviewed to the research topic.

2.7.4 Research Gaps

After reviewing the literature the researcher should identify the gaps in it. For instance, a researcher intends to do research on civil service reforms in Ethiopia. Imagine that the existing research so far has looked at in Ethiopian civil service with Weberian Model of Bureaucracy. Then a researcher may identify this gap and may come up with a new perspective i.e. and institutional approach to understand the civil service. That will become a value addition to existing literature.

At the end of this chapter, identify the principal research questions to be addressed in the thesis. These will form the basis of your thesis in the subsequent chapter on Research Methodology.

2.7.5 Conclusion

The literature review chapter must end with a reflective summary of the key point raised.

2.8 Conclusion

A good review of literature provides an opportunity to the researcher to show his/her efforts in reading the material relevant to the thesis topic. Besides, the critical analysis, comparing and contrasting of the researcher will be reflected in the literature review. Therefore the researcher is expected to be careful in selecting the articles and books in the thesis. The review of literature should be well structured either chronologically or thematically, in order to provide a clear understanding for the reader. If the review of literature is not comprehensive, the research may lack rigour. A goods review of literature would pave the way for clear formulation of research questions and objectives.

CHAPTER THREE

3.1 Introduction

"The research methods or procedures section is really the heart of the research proposal which form **Research Design**. The activities should be described with as much detail as possible, and the continuity between them should be apparent" (Wiersma, 1995, pp. 409). After collection of data, this section will constitute your chapter three. Here, you present a realistic discussion of the specific steps used in conducting your study. It is important that you revisit your research questions or objectives before making any meaningful progress in this section.

The **Research Design** section usually comprises, but is not limited to, the following subsections:

3.2 Operational definition of variables

At this stage, you are expected to turn your objectives or questions into operational variables.
For example, a student may have the following research objective:
'To assess if children who eat vegetables they grow faster than children who do not.'
This objective has the following variables that have to be operationalized:

1) *Children in this study are defined in the study as boys and girls residing in Robe Town aged between 8 and 14 years.* NB: without this operational definition, anyone reading your study may take children as any boy or girl aged between 1 and 18 years.
2) *Any edible green leaves will be taken as vegetables in the study. Anything else will not be considered as a vegetable.* NB: This will restrict your readers from thinking about non-green vegetables as you go through the study.
3) *Growth is measured in metres in terms of height.* NB: this will help because growth can also be measured in terms of adding to one's weight and mentally.
4) *Fast is any change on the children study taking place within 6 months.* NB: this is important because the word fast is relative.

In essence, the student should clearly describe what is understood by each variable, what type of variable is being considered and the way its values are to be reported (quantitatively, when the variable is numerical and qualitatively, when the variables do not have numerical values). It is important to note that all research is plagued by the presence of confounding variables (the *noise* that covers up the information you would like to have). Confounding variables should be minimized by various kinds of *controls* or be estimated and taken into account by randomization processes (Guba, 1961). In this section, indicate the variables you controlled and how you controlled them. Your research notes details how all this can be done. Revisit them.

3.3 Research design

Research design is the logical structure of your research enquiry. The type of study and its design should be decided on the basis of its appropriateness to the objectives or research questions, the availability of resources and, in some cases, ethical considerations. You should be able to know the state of knowledge of your research problem. This will most likely guide you on the type of research questions you will ask and your type of design (See table 3.1). Because of time and the nature of non-medical research, most of your studies will not fall under the category of experimental or quasi experimental studies. Furthermore, such types of studies are usually called interventional studies (where the researcher manipulates situations and measures the outcome of his manipulations). It follows without saying that the other types of research are non-interventional (where the researcher just observes and analyses situations but does not intervene).

Table 3.1 Types of Research Designs

State of knowledge of the problem	Type of research questions	Type of design
Knowing that a problem exists but knowing little about its characteristics	What is the nature of the problem? Who is affected? What do the affected think about the problem?	*Exploratory studies, or Descriptive studies, e.g.:* • Descriptive case studies • Cross-sectional surveys
Suspecting that certain factors contribute to the problem	Are certain factors indeed associated with the problem? (e.g., is grant allocation related to low income tax performance at local levels) Why is it happening?	*Analytical Studies, or Explanatory studies or Comparative studies, e.g.:* • Cross-sectional comparative studies • Analytic case studies
Having established that certain factors are associated with the problem: desiring to establish the extent to which a particular factor contributes to the problem.	What is the cause of the problem? Will the removal of a particular factor prevent or reduce the problem? (e.g., removal of grants to regions and then observing establishing what will happen to collection of tax)	*Experimental or quasi-experimental studies, e.g.:* • Cohort studies • Case-experiment studies

3.4 Population and Sample

The target population for the research – the group to which the findings are applicable – should be defined, consistent with the Statement of the Problem and Objectives. In addition, the accessible population--the population from which the sample was actually be drawn--should be specified, and evidence, available or to be gathered, as to population validity should be discussed briefly. Procedures adopted in the selecting the sample should be outlined, including justification for the sampling method. The implications for the generalizability of findings from the sample to the accessible population and then to the target population should be addressed. If an entire population was studied, it should be carefully identified in this section.

3.4.1 Sample Design

The key reason for being concerned with sampling is that of *validity* – the extent to which the interpretations of the results of the study follow from the study itself and the extent to which results may be generalized to other situations with other people (Shavelson, 1988). Sampling is critical to *external validity*--the extent to which findings of a study can be generalized to people or situations other than those observed in the study. To generalize validly the findings from a sample to some defined population requires that the sample has been drawn from that population according to one of several *probability* sampling plans. By a *probability sample* is meant that the probability of inclusion in the sample of any element in the population must be given *a priori*. All probability samples involve the idea of *random sampling* at some stage (ibid). In experimentation, two distinct steps are involved:

Random selection--participants included in the sample have been chosen at random from the same population. Define the population and indicate the sampling plan in detail.

Random assignment--participants for the sample have been assigned at random to one of the experimental conditions.

Another reason for being concerned with sampling is that of *internal validity*--the extent to which the outcomes of a study result from the variables that were manipulated, measured, or selected rather than from other variables not systematically treated. Without probability sampling, error estimates cannot be constructed (Shavelson, 1988). Perhaps the key word in sampling is *representative*. One must ask oneself, "How representative is the sample of the survey population (the group from which the sample is selected) and how representative is the survey population of the target population (the larger group to which we wish to generalize)?" When a sample is drawn out of convenience (a non-probability sample), rationale and limitations must be clearly provided. If available, outline the characteristics of the sample (by gender, race/ethnicity, socioeconomic status, or other relevant group membership).

It is encouraged that students be as realistic as is possible in this subsection. Given the need to balance time and costs, some sample sizes generated from statistical formulas tend to give a large number of respondents that students may not be able to handle within the short space of time allocated to them. In such a case, it may be worth considering the type of the target population that you are dealing with. For example, if your target population is homogenous, you may not benefit much from large numbers as you will most likely get the same information. Costs will instead exceed benefits. You may then justify what you may call your 'optimal sample size' based on such related arguments. Remember, it's better to be 'honest' and utilize a small sample size than to be 'fake' and use a large unrealistic sample size.

3.5 Data and Instrumentation/Data Collection Techniques

Students must state the data sources (secondary and primary), describe and justify the procedures used (population survey, in-depth interviews, non-participant observation, focus group, content analysis etc. [See table 3.2]), how and when the procedures were used and include as an appendix the instruments used to collect information (questionnaire, interview guide, observation recording form, guide for a focus group moderator, content analysis guide, etc.).

Table 3.2 Data collection Techniques

Data collection techniques	Advantage	Disadvantages
Using available information	Inexpensive, Permits examination of trends	Data not always easily accessible Information may be incomplete or imprecise
Observing	Permits tests of reliability of questionnaire responses, Collections facts not mentioned in interviews,	Ethical issues concerning confidentiality arise, Observer bias, Presence of data collector may change subject's behavior
Administering written questionnaires	Less expensive, Permits anonymity & may result in more honest responses,	Cannot be used with illiterate respondents, Questions may be miss understood
Interviewing	Suitable for both literate and illiterate Permits clarification of questions, Has higher responsive rate	Presence of interviewer can influence responses

Procedures or techniques that are standardized and/or documented in the literature should be described briefly and bibliographic references should be given to sources where the details of these procedures and techniques can be found.

This section must describe in detail the procedures used to control the factors that undermine the validity and reliability of the results (controls for observers or persons responsible for compiling the information, and controls for the instruments). For secondary data, students have to describe their sources, content and quality so that it will be clear that the information used for the study is available. If use was made of historical, journalistic or other similar types of documentary sources, indication should be provided of the sources and techniques that were used to collect and analyze the information.

The thesis should include an appendix with a copy of the instruments to be used or the interview protocol to be followed. Also include sample items in the description of the instrument. For a mailed survey, identify steps to be taken in administering and following up the survey to obtain a high response rate.

3.6 Analysis/Treatment of the Data

This section summarizes analyses done, including as appropriate, the specific statistical procedures, and alternatives to be used if they are necessary. In accordance with the proposed objectives and based on the types of variables, students should specify how the variables were measured and present them (quantitative and/or qualitative), indicating the analytical models and techniques (statistical, non-statistical, or analytical techniques for non-numeric data, etc.). The student should fill-in/complete the dummy tables (especially for variables that are presented numerically) designed at proposal stage. It is recommended that special attention be given to the key variables used in the statistical models. State, and label accurately, what procedures followed for data management, including data coding, monitoring, and verification (e.g., ANOVA, MANCOVA, ethnography, case study, grounded theory). This labeling is helpful in communicating your precise intentions to the reader, and it helps you and the reader to evaluate these intentions. Indicate briefly any analytic tools that utilized (e.g., SAS, SPSS, SYSTAT, STATA, Ethnograph, AQUAD). Provide a well thought-out rationale for your decision to use the design, methodology, and analyses selected.

Data analysis procedures, whether statistical or conceptual, should be discussed specifically for each hypothesis or question. General statements such as, "Analysis of variance will be used to analyze the data", are not acceptable. Careful identification of analyses prior to conducting the research is crucial; otherwise the student may use analyses that are inappropriate for the hypotheses, or may find himself / herself with data for which the adequate analytic tools are not available. Analyses other than those needed to test the stated hypotheses or answer the research questions may also be indicated here.

3.7 Limitations

A limitation identifies potential weaknesses of the study. Think about your analysis, the nature of self-report, your instruments, and the sample. Think about threats to internal validity that may have been impossible to avoid or minimize--explain. Put differently, limitations are factors, usually beyond the researcher's control, that may affect the results of the study or how the results are interpreted.

Stating limitations of the study may be very useful for readers because they provide a method to acknowledge possible errors or difficulties in interpreting results of the study. Limitations that are not readily apparent at the start of your thesis may develop or become apparent as the study progresses. In any case, limitations should not be considered alibis or excuses; they are simply factors or conditions that help the reader get a truer sense of what the study results mean and how widely they can be generalized. While all studies have some inherent limitations, you should address only those that may have a significant effect on your particular study. Although stating limitations of the study assists the reader in understanding some of the inherent problems encountered by the researcher, it is also important for the researcher to design and conduct the study in a manner that precludes having such numerous or severe limitations that any results of the study are essentially useless. Research designs that control or account for the unwanted influence of extraneous variables help assure that the study results are both valid and reliable – thus keeping limitations of the study to a reasonable number and scope.

The following subsections do not necessarily appear in the methodology section, but rather, are an aid in developing questionnaire or interview guide from the objectives or research question and variables and will probably help us in avoiding common mistakes associated with this section.

Table-3.3 Developing Questionnaire and Interview Guide

Steps in developing questionnaires/interview guide	Details
Step 1: Take objectives & variables as starting point	Decide what questions you may need to get information relating to your variables and that will aid in reaching your variable You may even change some of your objectives and variables at this stage
Step 2:Formulate one or more questions that will provide information for each variable	Take care that questions are specific and precise enough so that different respondents do not interpret them differently. Ask sensitive questions in a socially acceptable way
Step 3:Sequencing of questions must be logical and allow for a 'natural' conversation	Start with a non-controversial question which is related to the study. This type of beginning should raise the informant's interest and lesson suspicion concerning the whole interview. For a questionnaire, start with background variables and build issues relating to the study from them as well as from objectives. Take heed not to ask issues you will not use in the study. Such issues may also bore the respondents

3.8 Common Mistakes in Methodology writing

Poor Introduction of chapter themes

A poor introduction describes the content of method/methodology chapters *in general*, rather than what *your* method/methodology chapter will cover and *why*.

Example of poor introduction of method/methodology section/chapter:

In this chapter I describe my reasons for choosing the methodology and the methods for this study. It provides:

a. The overview of the study;
b. The rationale for the choice of research approach and methodology;
c. The rationale for data collection processes including the research sites, informants, and Strategies for collection of data;
d. The rationale for data analysis processes;
e. The measures taken to ensure the credibility and trustworthiness of the data; and
f. The ethical considerations regarding research participants.

Example of good introduction of method/methodology section/chapter

This chapter will examine the phenomenological approach used in this study to illuminate its central questions about the way people understand, interpret and use the life histories to determine poverty spells. This approach enabled exploration of perceptions of 'drivers', 'maintainers' and key 'interrupters' in samples of transient and chronic poor to shed light on the perception that chronic deprivation is trans-generational, has longer duration (hence more complex) than the transitory poverty.

The good example links the method and methodology to the central questions and aims of the research.

3.9 Structure of the Research Design Chapter

This Chapter is the soul of the entire Thesis; the success and failure of findings depends upon it. In fact the tendency to reproduce the research design section of research proposal also in the thesis only by changing it from future to past statement is not appropriate; it is so why flexibility is the best virtue of any efficient research design then therefore it is must to state what was really done or how the study was executed in the real world.

The research can report his/her Research Design which is actually executed. He/She can adopt a deductive approach (from general to special) to report it. This chapter could have following sections.

3.9.1 Introduction
3.9.2 Research Approach
3.9.3 Research Methods
3.9.3.1 Research Techniques
3.9.4 Sample Design
   a. Population or Universe
   b. Sampling Frame
   c. Sampling Unit
   d. Sampling Technique
   e. Sample Size
   f. Sample
3.9.5 Sources of data
3.9.5.1 Primary Data Sources
3.9.5.2 Secondary Data Sources
3.9.6 Data Analysis and Interpretation
3.9.7 Data Presentation
3.9.8 Limitations
3.9.9 Conclusion

3.10 Conclusion

As the Research Design chapter is the soul of the entire Thesis; it should not be written casually. One can be guided by the same section of Research Proposal but reproducing the similar facts is not proper. Hence a clear and detailed report of the steps and procedures actually executed by researcher must be written in the chapter with all details.

CHAPTER FOUR

4.1 Introduction

This chapter begins with an introduction, which delineates the major sections to be included in the chapter, and may include a restatement of the research problem (and may include accompanying hypotheses or research questions). While there is not a single "correct" format for dividing Chapter 4, information regarding response rate and respondent demographics (when relevant) is usually reported first, followed by reporting of results of data analysis for each hypothesis/research question. Though some styles give the discussion a separate chapter, in this case it should be incorporated into Chapter 4, hence the need to have to major sections of Results (findings) and discussion (interpretation) under chapter four.

4.2 Response rate

Before reporting findings from data analyses – especially when dealing with survey research – the response rate is often described. This allows readers to gauge how many instruments were distributed, how many were returned, and what the overall rate of response to the survey was. This section may be included as part of the introduction without a specific section heading.

4.3 Demographic data

Following the introduction, demographic information regarding the study population and sample is provided. This section provides readers with a picture of the demographic composition of the respondents. Information on household demographics such as household type, headship, composition, livelihoods, etc. are usually reported in this section. This section may be included with or without a specific section heading, although a heading is helpful to the readers. It is also helpful for the reader if some basic information accompanies the statistical results presented in the text. Information usually includes such data as significance level, degrees of freedom or sample size.

4.4 Results or Findings

The purpose of this section is to present the data of the study/research in a clear and meaningful way. Students are expected to describe the observations made and findings obtained. Students must avoid a mere transferring data from field note books or laboratory to manuscript without using appropriate statistical analysis tools and illustrations pertaining to the data. The illustrations include tables, figures, photos and other forms illustrations. It is imperative that the researcher accompanies the illustrative tools with descriptive paragraphs and statements. The use of appropriate illustrations will help students to minimize on the bulky of the discussion part as results form the bulky of this chapter. The statistical analysis done should convey meaning/be meaningful. The results should be clear, accurate and should answer the research/study questions or define the hypotheses.

Note: While you are presenting your results or findings ensure that it is coherent in respect to your Research Questions or Hypotheses mentioned in Chapter-1.

4.5 Interpretation and Discussion

It is important for students to understand that the interpretation and discussion section is not a repeat of the results/findings. This section provides an interpretation and discussion of the observations made in the results section. Results are interpreted showing how they agree or disagree with earlier published work. Students need to understand that this is the most important part of the thesis/dissertation since students are expected to describe the meanings of observations made. The observations and findings must be compared with those of other researchers (there must be a link with chapter two). Principles, relationships and generalizations that come out of the results must be presented or discussed. The interpretation of observations and findings must point out exceptions or lack of contrast correlations. A detailed discussion of theoretical implications and practical applications of the results must be provided.

Note: This Section must be ordered according to your Research Questions or Hypotheses mentioned in Chapter-1.

4.6 Data Presentation Tools

Different types of data require different kinds of statistical tools. There are two types of data. **Attribute data** is data that is countable or data that can be put into categories (e.g., number of people willing to pay, number of complaints, percentage who want blue/percentage who want

red/percentage who want yellow). **Variable data** is measurement data based on some continuous scale: e.g., length, time and cost.

Data Presentation tools could be summarized as following:

a) **Tables:** Tables present a synopsis of the raw data. It is advisable to use data tables for detailed reference. Demonstration tables with small amounts of data can be used to portray a message about phenomena.
b) **Frequency Distribution Tables:** can be used to show how the observations cluster around a central value and the degree of difference between observations.
c) **Frequency Polygon:** Displaying information for an interval or ratio level variable.
d) **Bar Graph:** Used to shows data at a "point in time" unlike a snapshot. Bar graphs are used to display the frequency distributions for variables measured at the nominal and ordinal levels.
e) **Time Series Line Graph:** Used to show data points over time.
f) **Pie Chart:** uses pictures to compare the sizes, amounts, quantities, or proportions of various items or groupings of items. They can be used to represent the distribution of the categorical components of a single variable. The values are commonly given as a percentage or a proportion to indicate divisions of a total amount or categories (should add up to 100). They are often the best way to portray contribution of parts to a whole. They are used to show a "snap-shot" at a specific time.
g) **Histogram:** similar to a bar chart but it is used for interval and ratio level variables. It is used to show the distribution and variation not related to time.
h) **Scatter Diagrams:** shows the relationship between two variables.
i) **Maps:** Used to show how data varies from area to area. Maps can be used to **add a** geographical dimension to any analysis. Maps help the researcher to see potential groups or clusters that could be present within the data. It is also shows how different locations interact.
j) **Photographs:** There is a popular saying that a Photograph is better than 1000 words. Hence Photographs taken in the field can increase authenticity of your data presentation.
k) **Text:** useful for a small amount of information. However, text is usually visually unappealing and a poor means of displaying large volumes of data.

Also See Table-4.1 for Details.

Table- 4.1 How to Choose Data Presentation Tools

To Show	**Use**	**Data Needed**
Frequency of occurrence: Simple percentages or comparisons of magnitude	Bar chart Pie chart	Tallies by category (data can be attribute data or variable data divided into categories)
Trends over time	Line graph	Measurements taken in chronological order (attribute or variable data can be used)
Distribution: Variation not related to time (distributions)	Histograms	Forty or more measurements (not necessarily in chronological order, variable data)
Association: Looking for a correlation between two things	Scatter diagram	Forty or more paired measurements (measures of both things of interest, variable data)

4.7 Statistical symbols

When reporting statistical results of data analyses (particularly inferential statistics) it is appropriate to include sufficient information in the table and accompanying text to permit the reader to corroborate the results of the analyses. Therefore, appropriate statistical symbols should be utilized to report these results. Within theses statistical symbols are italicized. Words, rather than symbols, should be used in the narrative, while symbols may be used in tables and inside of parentheses within the narrative. For example, "The mean travel time of 3.25 for conventional bus users was higher than the mean travel time of 3.00 for commuters using mini-buses in the sample". Among the more commonly used statistical symbols are the following:

M = mean	*df* = degrees of freedom
SD = standard deviation	*t* = *t* statistic (t tests)
f = frequency	*F* = Fisher's statistic (ANOVA)
p = probability	*r* = correlation coefficient (Pearson)
N, n = number	*X*2 = Chi-square statistic

4.8 Summary of components that should guide the writing of the Chapter

Following components can guide you for writing this chapter:

a) Comprehensively answer the research questions
b) If hypotheses were formulated, they must be tested
c) Use appropriate statistical analysis and data presentation tools
d) Provide an overview of the significant findings of the study
e) Discuss the findings and compare them to existing research studies
f) Present implications of the study for education
g) Discussed the applications of your findings
h) Avoid sweeping statements (provide sufficient evidence)
i) Need to quantify e.g. quantify energy saved through recycling

4.10 The link between Chapters Four and Five

Chapter four will act as basis for writing the conclusions and recommendations part of the thesis. Conclusions will describe the major conclusions reached (this draws on the research questions or hypothesis earlier formulated). It is important to describe point by point the major conclusions reached clearly indicating the conclusion (s) reached for each objective/research question or hypothesis. This will be based on the quality of results/findings since conclusions must be based on the actual results mentioned in the thesis only. Recommendations are based on conclusions made.

4.11 Conclusion

A clear-cut conclusion for the Results and Discussion Chapter must be presented as closing statement

CHAPTER FIVE

5.1 Introduction

The final part of your research work constitutes the conclusions and recommendations.
The Introduction contains and presents a brief summary of the main substance of the chapter. In general Chapter 5 has to have 2 major sections namely
i) Conclusions
ii) Recommendations.

Conclusions and Recommendations sections are the soul of the entire thesis. These section must be based the Research Objectives, Hypotheses or Questions. You can divide your Conclusions section into sub-section based on Research Objectives, Hypotheses or Questions. Again producing a bunch of Recommendations without any logic or link to the objectives, hypothesis or questions is not best practice; so your Recommendation must be problem solving, operational, focused and coherent in addressing research objectives and answering research questions or research hypotheses mentioned in Chapter-1.

5.2 Conclusions

This section presents conclusions drawn from the discussion of findings and results (of the data analysis). Findings from the present study should provide the primary information for drawing conclusions. Frequently, conclusions provide answers to hypotheses or research questions posed in Chapter 1. While conclusions may be written in narrative form or listed one at a time, listing them one at a time is generally easier for readers to follow and helps maintain clarity of focus for each conclusion. An important observation regarding conclusions is in order:

Conclusions are not the same as findings and should not simply be restatements of findings from Chapter 4.

A conclusion should be broader and more encompassing than a specific finding, and several findings may be incorporated into one conclusion. While several findings may be used to support one conclusion, it is also possible that one finding might give rise to several conclusions (although this is somewhat less common). Generally, while specific findings are stated in the past tense (e.g., land developers expressed greatest satisfaction with the Land Lease Holding system of land delivery), conclusions are stated in the present tense (e.g., land developers are most satisfied with Land Lease Holding system of land delivery).

5.3 Recommendations

The final section of Chapter 5 contains recommendations that emerge from the study. Guiding questions are:

- Are the summary, conclusions and recommendations concisely and precisely stated?
- Are the conclusions and recommendations justified by the data gathered?
- Does the study suggest related problems that need to be investigated?
- Are your recommendations data-based and stem directly from the data and the conclusions?

There is a time limit to your research project, so it is unlikely your work would have solved al1 the problems associated with the area of study. Therefore, you wil1 be expected to make suggestions on how your work can be improved and, based on the findings and areas that deserve further investigation. What you write in this section will show whether you have a firm appreciation of your work, and whether you have given sufficient thought to its implications, not only within the narrow confines of the research topic, but to related fields. These reflect your

ability for original thought, and your potential to carry out original research.

The recommendations should be logically linked to both your research questions and conclusions. Thus, on the basis of your conclusions, what further actions do you suggest? This means that if you have four conclusions, you must have four recommendations. However, in certain circumstances, you may have more than one recommendation per conclusion.

Generally, recommendations are of two distinct types; recommendations for action or practice (based on the study's findings and conclusions, and sometimes headed *Recommendations from the Study* or *Recommendations for Practice*), and *Recommendations for Further Study*. Frequently a separate section is included for each set of recommendations – each with an appropriate section heading.

Recommendations for practice are generally prescriptive in nature and address what could or should be done by practitioners or members of the intended audience in terms of professional practice and policy. These recommendations are based upon results of the study.

Recommendations for further study contain suggestions regarding follow-up studies or replication studies. These recommendations usually acknowledge limitations or delimitations that the study included and which further studies could help explain or clarify. These might include different methodologies, expanded populations or samples, or changes in the instrument itself.

5.4 Conclusion

This is reflexive statement that summarizes the principal issues you have raised in the chapter.

APPENDICES

Appendix 1: Stylistic Elements

1. Professional Writing
First person and sex-stereotyped forms are avoided. Material is presented in an unbiased and unemotional (e.g., no "feelings" about things), but not necessarily uninteresting, fashion.
2. Parallel Construction
Tense is kept parallel within and between sentences (as appropriate).
3. Sentence Structure
Sentence structure and punctuation are correct. Incomplete and run-on sentences are avoided.
4. Spelling and Word Usage
Spelling and use of words are appropriate. Words are capitalized and abbreviated correctly.
5. General Style.
The document is neatly produced and reads well. The format for the document has been correctly followed.

……

Appendix – 2: Formatting

1. Submit a 50 page Thesis excluding appendices;
2. Font Size-12
3. Font Type-Times New Roman
3. All sections of the paper should be typed on A-4 Size Paper.
4. Line Spacing should be double-spaced or 1.5 line space.
5. Margins Set (left-1.5 inch, right-1 inch, top-1 inch and bottom – 1 inch).
6. The beginning section must have page numbers in Roman like-I, II,III….while main body and the Appendices should have page numbers in decimal system like-1,2,3…..other than cover pages rest must have some page numbers.

……

Appendix – 3: Common Mistakes in Proposal Writing

1. Failure to provide the proper context to frame the research question.
2. Failure to delimit the boundary conditions for your research.
3. Failure to cite landmark studies.
4. Failure to accurately present the theoretical and empirical contributions by other researchers.
5. Failure to stay focused on the research question.
6. Failure to develop a coherent and persuasive argument for the proposed research.
7. Too much detail on minor issues, but not enough detail on major issues.
8. Too much rambling -- going "all over the map" without a clear sense of direction. (The best proposals/thesis move forward with ease and grace like a seamless river.)
9. Too many citation lapses and incorrect references.
10. Too long or too short narrations.
11. Slopping writing.
12. Avoid bullet points in the *Proposal and Thesis* leave it for final Thesis Defense PPT presentations.

……

Appendix – 4: Plagiarism

Plagiarism is a high sin in *academia*; as a researcher you are supposed to follow some ethical standards, rules and regulations. Guidelines for avoiding any case of Plagiarism are given below:

1. Ensure that your **Masters Thesis** is original, has not been published and has not been submitted for publication or for award of any degree elsewhere or in Ethiopian Civil Service University.

2. If you are quoting more than 500 words from a published work in your Masters Thesis you need to submit a copy of permission obtained from the respective copyright holder.

3. If you are quoting a **Table** or a **Figure** or a **Photograph** in your thesis which is not result of your original fieldwork; it is must to cite original source of the item.

   If any modifications are made in original figure or table or photograph by you; it must be indicated: modified from 'name of author/organization' or after 'name of author/organization'.

4. All other quotations, reviewed literature, tables, figures, photographs etc. must be cited in proper "Harvard Style".

5. If any Table or Figure or Photograph is the result of your own field work; you must mention it as a source i.e.: *Field Survey, 2010 or Field Study, 2010.*

If one fails to follow above rules; there will be several serious consequences in form of termination, withdrawal of graduation degree, cancellation of Masters Thesis, etc, based on the severity of plagiarism.

……

Appendix – 5: References

A reference is the detailed bibliographic description of the item from which you gained your information. In simple terms, this means the details of the items that you have used, e.g. author, title, and date of publication. References are briefly cited within the text, and then given in full at the end of your work in a reference list. This guide is intended to provide you with advice on how to use the Harvard (author-date) system where you supply the author's name and the date of publication of the document referred to *within the text*. In order to find out more about the document a reader can simply look up the author's name in the reference list.

References are used to:

a) Enable the reader to locate the sources you have used;
b) Help support your arguments and provide your work with credibility;
c) Show the scope and breadth of your research;
d) Acknowledge the source of an argument or idea. Failure to do so could result in a charge of plagiarism.

There are really two parts to a reference citation. First, there is the way you cite the item in the text when you are discussing it. Second, there is the way you list the complete reference in the reference section in the back of the report.

Example

Reference Citations in the Text of Your Paper

Cited references appear in the text of your paper and are a way of giving credit to the source of the information or quote you have used in your paper. They generally consist of the following bits of information:

The author's last name, unless first initials are needed to distinguish between two authors with the same last name. If there are six or more authors, the first author is listed followed by the term, et al., and then the year of the publication is given in parenthesis. Year of publication in parenthesis. Page numbers are given with a quotation or when only a specific part of a source was used.

"To be or not to be" (Shakespeare, 1660, p. 241).

One Work by One Author:

Rogers (1994) compared reaction times...

One Work by Multiple Authors:

Wasserstein, Zappulla, Rosen, Gerstman, and Rock (1994) [first time you cite in text]
Wasserstein et al. (1994) found [subsequent times you cite in text]
Reference List in Reference Section

There are a wide variety of reference citation formats. Before submitting any research report you should check to see which type of format is considered acceptable for that context. The References lists all the articles, books, and other sources used in the research and preparation of the paper and cited with a parenthetical (textual) citation in the text. These items are entered in alphabetical order according to the authors' last names; if a source does not have an author, alphabetize according to the first word of the title, disregarding the articles "a", "an", and "the" if they are the first word in the title.

Examples Book by One Author:

Jones, T. (1940). My life on the road. New York: Doubleday.

Book by Two Authors:

Williams, A., & Wilson, J. (1962). New ways with chicken. New York: Harcourt.

Book by Three or More Authors:

Smith, J., Jones, J., & Williams, S. (1976). Common names. Chicago: University of Chicago Press.

Book With No Given Author Or Editor:

Handbook of Korea (4th ed.). (1982). Seoul: Korean Overseas Information, Ministry of Culture & Information.

Two or More Books by the Same Author:

Oates, J.C. (1990). Because it is bitter, and because it is my heart. New York: Dutton.
Oates, J.C. (1993). Foxfire: Confessions of a girl gang. New York: Dutton.

Book by a Corporate (Group) Author:

President's Commission on Higher Education. (1977). Higher education for American democracy . Washington, D.C.: U.S. Government Printing Office.

Book with an Editor:

Bloom, H. (Ed.). (1988). James Joyce's Dubliners. New York: Chelsea House.

A Translation:

Dostoevsky, F. (1964). Crime and punishment (J. Coulson Trans.). New York: Norton. (Original work published 1866)

An Article or Reading in a Collection of Pieces by Several Authors (Anthology):

O'Connor, M.F. (1975). Everything that rises must converge. In J.R. Knott, Jr. & C.R. Raeske (Eds.), Mirrors: An introduction to literature (2nd ed., pp. 58-67). San Francisco: Canfield.

Edition of a Book:

Tortora, G.J., Funke, B.R., & Case, C.L. (1989). Microbiology: An introduction (3rd ed.). Redwood City, CA: Benjamin/Cummings.

Diagnostic and Statistical Manual of Mental Disorders:

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, D.C.: Author.

A Work in Several Volumes:

Churchill, W.S. (1957). A history of the English speaking peoples: Vol. 3. The Age of Revolution. New York: Dodd, Mead.

Encyclopaedia or Dictionary:

Cockrell, D. (1980). Beatles. In The new Grove dictionary of music and musicians (6th ed., Vol. 2, pp. 321-322). London: Macmillan.

Article from a Weekly Magazine:

Jones, W. (1970, August 14). Todays's kids. Newseek, 76, 10-15.

Article from a Monthly Magazine:

Howe, I. (1968, September). James Baldwin: At ease in apocalypse. Harper's, 237, 92-100.

Article from a Newspaper:

Brody, J.E. (1976, October 10). Multiple cancers termed on increase. New York Times (national ed.). p. A37.

Article from A Scholarly Academic Or Professional Journal:

Barber, B.K. (1994). Cultural, family, and personal contexts of parent-adolescent conflict. Journal of Marriage and the Family, 56, 375-386.

Government Publication:

U.S. Department of Labor. Bureau of Labor Statistics. (1980). Productivity. Washington, D.C.: U.S. Government Printing Office.

Pamphlet or Brochure:

Research and Training Center on Independent Living. (1993). Guidelines for reporting and writing about people with disabilities. (4th ed.) [Brochure]. Lawrence, KS: Author.

……

Appendix – 6: Tables, Figures and Appendices

I. Tables

Any Tables should have a heading with 'Table #' (where # is the table number), followed by the title for the heading that describes concisely what is contained in the table. Tables and Figures are typed on separate sheets at the end of the paper after the References and before the Appendices. In the text you should put a reference where each Table or Figure should be inserted using this form:

Insert Table 1 about here

II. Figures

Figures are drawn on separate sheets at the end of the paper after the References and Tables, and before the Appendices. In the text you should put a reference where each Figure will be inserted using this form:

Insert Figure 1 about here

III. Appendices

Appendices should be used only when absolutely necessary. Generally, you will only use them for presentation of extensive measurement instruments, for detailed descriptions of the program or independent variable and for any relevant supporting documents which you don't include in the body. Even if you include such appendices, you should briefly describe the relevant material in the body and give an accurate citation to the appropriate appendix.

……

Appendix – 7: Recommended Reading

Armstrong, R. L., (1974). *Hypotheses: Why? When? How?* Phi Delta Kappan, 54, 213-214.

Creswell, J. W., (1994). *Research design: Qualitative & quantitative approaches*. Thousand Oaks, CA: Sage.

Guba, E. G., (1961). *Elements of a Proposal.* Paper presented at the UCEA meeting, Chapel Hill, NC.

Fraenkel, J. R., & Wallen, N. E., (1990). *How to design and evaluate research in education.* New York: McGraw-Hill.

Kerlinger, F. N., (1979). *Behavioral research: A conceptual approach.* New York: Holt, Rinehart, & Winston.

Krathwohl, D. R., (1988). *How to prepare a research proposal: Guidelines for funding and dissertations in the social and behavioral sciences.* Syracuse, NY: Syracuse University Press.

Laws, K., (1995). *Preparing a Thesis or Dissertation Proposal.* University of Sydney.

Locke, L. F., Spirduso, W. W., & Silverman, S. J., (1987). *Proposals that work: A guide for planning dissertations and grant proposals (2nd ed.).* Newbury park, CA: Sage.

Marshall, C., and Rossman, G. B., (1989). *Designing qualitative research:* Newbury Park, CA: Sage.

Pajares, F., (2007). *The Elements of a Proposal.* Emory University. http://www.des.emory.edu/mfp/proposal.html

Shavelson, R. J., (1988). *Statistical reasoning for the behavioral sciences* (second edition). Boston: Allyn and Bacon.

Wiersma, W., (1995). *Research methods in education: An introduction* (Sixth edition). Boston: Allyn and Bacon.

Wilkinson, A. M., (1991). *The scientist's handbook for writing papers and dissertations. Englewood Cliffs,* NJ: Prentice Hall.

1 Topic Formulation

Guided by your research problem definition, the right choice and formulation of a topic significantly affects the result of the entire thesis. Your search for a thesis topic should start early, and you have to start collecting and jotting down ideas preferably well in advance, while completing some current assignments, especially any Semester 2 and 3 assignments related to a specific specialization course. What courses have you taken? What have you written about in course papers? Also, think about why you decided to specialize in a certain course. As you consider these and similar questions, you will begin to discern certain patterns or trends in your work. Contemplation of these issues will allow you to define and refine your general areas of interest.

Though finding a topic within an area of interest is difficult, a topic is best formulated as a question. To avoid the questions becoming too broad, a topic must have focus. Nor can it be too narrow since the goal of a good thesis is to express thoughts of general importance through detailed analysis of a specific case or cases. Also, read some scholarly literature on approaches you might take. If your topic seems too broad, this reading will give you some ideas on approaches you might take. If your question is too narrow, a selection of articles and books can lead you to the general concerns that relate to your interest. If you are unsure about the viability of your topic, you might look at past theses and inquire from lecturers within your specific specialization in order to determine the types of theses that have been the most successful.