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Brief Guidelines for Preparation of Academic Research

Projects: - Points to Ponder

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ABSTRACT

As part of curriculum, both post – graduate and under-graduate students of social and management sciences are undertaking academic projects in social sciences and management sciences specifically in general management and functional areas of management. These projects, in management sciences, covers general management, marketing, finance, Human Resources, Systems & Logistics & Supply Chain Management etc. In general, it covers a spectrum of wider areas in management sciences. This is equally, being undertaken in subjects like sociology, economics, political science, commerce & psychology etc., etc. Invariably, It covers wider areas / subjects in social sciences.

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While undertaking such researches / academic research projects in the form of dissertation, mini, summer, major / main projects as part of curriculum, the students are expected to follow rigorously the research methods / certain procedures, methods & techniques as well the logic ie; research methodology (includes research methods) behind such study / Research. As a result of this compulsion to follow Research Methods & Research methodology, the students are in a state of confusion and lack better understanding of the concepts, methods, techniques & tools being used in such research projects. Hence, in order to give a preliminary, basic & Brief understanding of these elements, this article makes an attempt to give a brief view & understanding of various research elements / concepts which would lay a brick in the foundation of understanding the research procedures & guidelines for students of various courses both in post – graduate & under-graduate. The students understanding & incorporation of these guidelines would enrich & make their projects ‘quality’ both mini & major projects etc.,

I- Introduction:

Academic research projects, part of curriculum of social sciences as well as pure sciences, have to comply or follow the rigorous procedures / steps of research methodology. Such compliances makes the research/ projects / thesis more scientific and sound with no / limited short comings in the study undertaken. Moreover, the outcomes / findings of the study becomes more applicable and socially relevant. Any research warrants that such study follows the methodological & logical procedural part so that the study can stand-out & exemplary among other studies which do not follow such methodological & logical elements of research. Today, with the aid of information technology & statistical software etc, any researcher who

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undertakes research could make his research more relevant & application –oriented for the benefit of society.

The modern research era insists & focuses on that any study / research should have social relevance & carries benefits to the society. Otherwise, such studies sans the charm of a research. Henceforth, the researchers insists that a rigorous research should fulfill the essential do's & don'ts of research to stand-out from the crowd / heap of researches in the world. Towards this end, this paper makes an attempt to provide the a,b,c.....of streamlined preliminary inputs regarding the way to engage & prepare post-graduate & under-graduate projects forming part of their curriculum.

II- Brief Guidelines for preparation of academic Research projects -Points to Ponder

1. Title of the Project:

The title of the project should be meaningful, crisp and clear and it should get reflected in the objectives/ Research question/ hypotheses of the study as well in the questionnaire designed for the study. It should also indicate the organization in which / on behalf of which the study is carried out. In other words, the title of the study, the objectives/ Research question/ hypotheses of the study and the questionnaire designed should have the reflection and coverage of the subject-matter of the study.

2. Abstract:

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The abstract of the project is simply a brief summarization of the entire study / project. It should briefly convey the subject-matter of the study and thereby it gives a lucid picture of the entire study. The readers of abstract of the project/study should understand the overall subject-matter of the study before going into the minute details of the project / study. The abstract of the study should not be less than one page. Therefore, the researcher should ensure that it contains more than five or six paragraphs.

3. Writing a Literature Review

(i) What is a Literature Review?

A literature review is a survey and discussion of the literature in a given area of study. It is a concise overview of what has been studied, argued, and established about a topic, and it is usually organized chronologically or thematically. A literature review is written in essay format. It is not an annotated bibliography, because it groups related works together and discusses trends and developments rather than focusing on one item at a time. It is not a summary; rather, it evaluates previous and current research in regard to how relevant and/or useful it is and how it relates to your own research. A Literature Review is more than an Annotated Bibliography or a summary, because you are organizing and presenting your sources in terms of their overall relationship to your own project.

(ii) Purpose

A literature review is written to highlight specific arguments and ideas in a field of study. By highlighting these arguments, the writer attempts to show what has been studied in the field,

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and also where the weaknesses, gaps, or areas needing further study are. The review should therefore also demonstrate to the reader why the writer's research is useful, necessary, important, and valid.

(iii) Audience

Literature reviews can have different types of audiences, so consider why and for whom you are writing your review. For example, a lot of literature reviews are written as a chapter for a thesis or dissertation, so the audience will want to know in what way your research is important and original. Highlighting the gap in knowledge which your research aims to fill is particularly important in this instance because you need to convince the reader that there is an opening in the area of study. A literature review in a proposal will similarly try to convince the audience of the significance and worthiness of the proposed project. In contrast, when you are writing a literature review for a course, your professor may want you to show that you understand what research has been done, giving you a base of knowledge. In this case, you may not need to focus as much on proving where the gaps in knowledge lie, but rather, that you know what the major areas of study and key ideas are.

(iv) Questions a Literature Review Should Answer:

Asking questions such as the following will help you sift through your sources and organize your literature review. Remember, the literature review organizes the previous research in the light of what you are planning to do in your own project.

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- ✓ What's been done in this topic area to date? What are the significant discoveries, key concepts, arguments, and/or theories that scholars have put forward? Which are the important works?
- ✓ On which particular areas of the topic has previous research concentrated? Have there been developments over time? What methodologies have been used?
- ✓ Are there any gaps in the research? Are there areas that haven't been looked at closely yet, but which should be? Are there new ways of looking at the topic?
- ✓ Are there improved methodologies for researching this subject?
- ✓ What future directions should research in this subject take?
- ✓ How will your research build on or depart from current and previous research on the topic? What contribution will your research make to the field?

(v)Length

The length of a literature review varies depending on its purpose and audience. In a thesis or dissertation, the review is usually a full chapter (at least 20 pages), but for an assignment it may only be a few pages.

(vi)Structure

There are several ways to organize and structure a literature review. Two common ways are chronologically and thematically.

(vii)Chronological:

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In a chronological review, you will group and discuss your sources in order of their appearance (usually publication), highlighting the changes in research in the field and your specific topic over time. This method is useful for papers focusing on research methodology, historiographical papers, and other writing where time becomes an important element. For example, a literature review on theories of mental illness might present how the understanding of mental illness has changed through the centuries, by giving a series of examples of key developments and ending with current theories and the direction your research will take.

(viii)Thematic:

In a thematic review, you will group and discuss your sources in terms of the themes or topics they cover. This method is often a stronger one organizationally, and it can help you resist the urge to summarize your sources. By grouping themes or topics of research together, you will be able to demonstrate the types of topics that are important to your research. For example, if the topic of the literature review is changes in popular music, then there might be separate sections on research involving the production of music, research on the dissemination of music, research on the interpretation of music, and historical studies of popular music.

No matter which method you choose, remember: Within each section of a literature review, it is important to discuss how the research relates to other studies (how is it similar or different, what other studies have been done, etc.) as well as to demonstrate how it relates to your own work. This is what the review is for: don't leave this connection out!

III- Examples of Proper Literature Reviews / Sample Literature Review

The first example presented is from a research article (Lin and Dembo 2008:35) that sought to explain why some juveniles use illegal drugs and others do not. One of the theories

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being used by the authors is social control theory. The following section is part of the literature review that discusses previous research findings on the role of this theory in predicting juvenile drug use.

Hirschi's (1969) social control theory argued that adolescents who had no strong bond to conventional social institutions were more likely to commit delinquency. Many empirical studies that follow Hirschi's theory found general support that juveniles who have strong social bonds are engaged in fewer delinquent acts (Agnew 1985; Costello and Vowell 1999; Erickson, Crosboe, and Dornbush 2000; Hindelang 1973; Hirschi 1969; Junger-Tas 1992; Sampson and Laub 1993; Thornberry et al. 1991). Some studies that specially employed social control theory to explain juvenile drug use have also found support for this theory (Ellickson et al. 1999; Krohn et al. 1983; Marcos et al. 1986; Wiatrowski, Griswold, and Roberts 1981). By reviewing these studies, one can find that during the adolescent period (12-17), family and school play influential roles in influencing youngsters' behavior. Whereas a defective family bond increases the probability of youthful drug use or juvenile delinquency (Denton and Kampfe 1994; Wells and Rankin 1991; Rankin and Kern 1994; Radosevich et al. 1980), students who have a weak school bond also have a higher risk of drug use (Ahlgren et al. 1982; Bauman 1984; Radosevich et al. 1980; Tec 1972).

Notice especially the following: (1) the thorough overview of previous research, (2) the large number of previous research studies referenced, (3) the succinct and well-organized writing style, and (4) the manner in which previous studies are cited.

Also note the following formatting guidelines:

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- 1) If name of author(s) is in the text, put DATE OF PUBLICATION in parentheses.
- 2) If one author, use NAME and DATE OF PUBLICATION (and no punctuation between them).
- 3) If two authors, use NAME and NAME and DATE OF PUBLICATION.
- 4) If three authors, use NAME, NAME, and NAME and DATE OF PUBLICATION.
- 5) If four or more authors, use NAME et al. and DATE OF PUBLICATION.
- 6) If two or more citations are listed together, order them alphabetically by first author's last name.

1.Objectives of the study:

The objectives of the study should be relevant to the subject-matter /area of the study. It must be simple, easy to understand and give a clear picture of your study. It should be based on or reflect the title of the project. The questionnaire designed should include questions covering the objectives of the study.

The objectives of the study can be classified as (1) Primary objective and 2) secondary objectives. The primary objective should normally be based on / reflect the title of the project. In the case of secondary objective, include only 3 or 4 objectives which are relevant and which support the primary objective.

2.Problem definition

The researcher has to define / identify the problem clearly, which actually warranted the present study. Here, the problem(s) encountered by the company which necessitated the present



study. A problem when well defined is half solved. Try to isolate and identify the problems, not the symptoms. Note that “the formulation of the problem is often more essential than its solution”.

3. Research Question

The first step in the process of conducting a research is identifying the research questions. Once research questions are identified, the next step is to formulate hypotheses, outlining research design, data collection strategies and analysis methods to be employed on the collected data. At the outset, a research question is the fundamental core of a research/ study. It focuses on the study, determines the methodology and guides all stages of inquiry, analysis and reporting. A preliminary research literature review can help the researcher to develop / frame research question

Research questions become ‘sign posts’ for explaining the purpose of the study and guiding the research. Research questions would set boundaries for the area to be explored and the answers that the research needs to answer.

4. Hypotheses Formulation

Formulation of the hypotheses starts with a research question. The research question, on the other hand, turned into a hypothesis which is an educated prediction that provides an explanation for an observed event. It is important to help researchers focus on their research study and to provide clarity. A hypothesis is what a researcher proposes to “prove” by his research. This will help the researcher to arrive at a conclusion.

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5.Scope of the study:

The scope of the study simply narrates what the study is likely to cover and how it is likely to be useful and beneficial to the organization. It simply narrates the subject – matter being covered briefly and the focus being given in the study. In other words, the specific elements and content that the researcher intends to explore under the study. It briefly narrates the background, broad area, application, value, usefulness and the limits of the study. In nutshell, it states the coverage and extent of the study as well as the weaknesses of the study. It also briefly describes that the study relates to a particular industry, company, time period and the target group covered under the study.

7.Limitations of the study:

State the limitations subject to which you have carried out the study / project. Besides, stating the usual limitations such as time constraint, resource constraint etc. State the specific limitations which you have come across in respect of your study. You can also include errors such as sampling – non sampling errors, personal bias etc.

8.Questionnaire Designing

You have to design the questionnaire in such a way by which you can elicit all the information relevant to the study and related to your objectives. Include questions which elicit information relating to primary objective and secondary objectives. Besides, add questions which supplement and support the study being undertaken. The questions included should be relevant and appropriate to the study. Further, arrange the questions in a logical sequence to

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ensure free flow of relevant information. The no. of questions in general should not exceed 20. Otherwise, the respondents are reluctant to answer a lengthy questionnaire, though there is no hard and fast rule that it should not exceed 20. However, try to ensure that the questionnaire is relevant and appropriate. Moreover, while designing your questionnaire, discuss with your faculty guides and get their advice.

9. Pilot study / Pre testing the questionnaire.

A pilot study, among a few no. of respondents, helps to test the appropriateness of the questions / questionnaire. It is a study conducted among 5 to 7 respondents to test whether the questions included are appropriate, relevant and specific to the study and logically arranged. Based on the results of the study, the questionnaire is modified, revised and restructured to suit our study.

10. Sample size:

Since, in all cases, it may not be possible to cover / survey the entire population, particularly in the case of infinite population (e.g. consumer survey) as well even in certain cases of finite population, a sample of respondents is selected to carry out the study. It may also be noted that the survey of entire population/universe (census method or complete enumeration method) is not at all necessary in all the cases since it results in wastage of time, resources and effort. Hence, normally a sample of respondents which adequately represents the entire population as well the results can very well be applied in respect of the entire population, is selected for the study. When we go for survey of sample of respondents from the population /

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universe, we have to decide what would be the sample size (no.of respondents) for the study. We can very well apply the formula available to decide the sample size. However, on the other hand, we can also utilize our experience and judgment to decide the sample size, but, in general, based on our experience and judgment we can select 30% of the respondents out of the entire population/ universe for the study. In all cases, we have to ensure that the sample size is more than 150. Moreover, while deciding your sample size, discuss with, your faculty guide and decide the sample size. Further, note that higher the sample size, lesser will be the sampling error and the results obtained will be more accurate and applicable to the rest of the members of population. A higher sample size also enables students to apply various statistical tools in data analysis and interpretation. The researcher can also very well apply the confidence interval method to decide the sample size. Also, the researcher can use the sample size formula, sample size calculator, and sample size table.

11.Sampling Techniques / Methods:

After deciding the sample size, now decide the sampling methods by which you are going to select the respondents. Since you cannot select respondents arbitrarily, a particular / appropriate method under various sampling methods shall be applied to survey / elicit information from the respondents. Under sampling methods, we have 1. Probability/ random sampling method and 2. Non-probability / non random sampling method. Under each category, we have several methods. Hence, select an appropriate method which suits your study. However, always look for selecting any appropriate method under probability sampling method rather than from non-probability sampling method. Further, you have to ensure that you have

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selected an appropriate method in either case. Moreover, you can very well get the advice of your faculty guide to choose a method. The students are advised to read books on research methodology and statistics etc to familiarize with sampling techniques.

12. Selection and application of appropriate statistical tests / tools:

The selection and application of statistical tests depends upon the nature / type of questions included in the questionnaire. That is why, while designing the questionnaire itself, you have to include appropriate questions against which you can apply the statistical tools of your choice or any appropriate tools. For example, when you have included a ranking question, you can use weighted average method. The statistical tools help the researcher to test various hypotheses besides enriching the quality of your study. Further, apply statistical tests with which you are familiar. You can also discuss with your faculty guide to select and apply appropriate tools.

13. Suggestions and Recommendations:

Your suggestions and recommendations should be based on your findings of the study. Suggest some measures by which the organizations can overcome the shortcomings or improve the existing systems of practice in the organization.

14. Industry Profile

There is distinction between industry profile and company profile. An industry profile simply gives a lucid picture of a particular industry say for example, Textile industry, chemical industry,

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Rubber industry, Hosiery industry, Automobile industry etc. Hence, in the industry profile, you are expected to give a brief history of the particular industry, which in turn throws light on the features of the industry, performance of the industry, the prevailing and future trends of the industry, the government policy towards such industries etc.

15. Company Profile

A Company Profile briefly gives the history of a particular / individual company say for example, Lakshmi Textile Mills – Coimbatore, Lucas TVS – Chennai, Hyundai- Chennai etc. in which you are doing the project. Hence, you have to state the brief history of the particular company, features, performance and trends of business of a particular company.

16. Product Profile

Suppose, if the study pertains to particular product or a range of products, you are expected to narrate in brief the nature, type, features, performance of a particular product or the range of products which is / are covered under the study. Such coverage gives a better understanding of the study being undertaken.

IV - Conclusion

The brief note given above, on various elements of research, would certainly provide basic guidelines regarding the procedures and methods to be followed in the context of any research or study. However, the students could also browse various websites which would

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certainly provide extended guidelines regarding project preparation pertaining to their post-graduate and under-graduate courses where in such projects forms part of the curriculum.

V- References:

1. www.smu.ca/academics/literature-review.html
2. https://www.roanoke.edu/.../Guidelines_Writing_Literature_R
3. www.survey_system.com/sscalc.html
4. www.wadsworth.com/psychology_d/templates/students_resources/workshops
5. Source: www.smu.ca/academics/literature-review.html
6. Source : https://www.roanoke.edu/.../Guidelines_Writing_Literature_R