RESEARCH METHODS

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Writing a Research Report

Topic 17
The Written Report and its Purpose

1. Offer details on some specific factors
   - the report can be very narrowly focused and provide the desired information to the topic/phenomena.

2. Intended to ‘sell an idea’
   - then it has to be more detailed and convincing.

3. Where a manager asks for several alternative solutions or recommendations to rectify a problem
   - researcher provides requested information and manager chooses from among alternatives and makes final decision.

4. Might require the researcher to identify the problem and provide the final solution as well.

5. More scholarly publication presenting the findings of a basic or applied study.
Characteristics of a Well-Written Report

- Accuracy, Brevity & Clarity!
- Remove unnecessary technical or statistical jargon
- Assumptions should be clearly stated
- Eliminate grammatical and spelling errors
- Organise in a manner that enhances meaningful and smooth flow of materials
- Appropriate headings and subheadings
- A one-and-a-half- or double-spaced, typed report

*The importance of the appearance of the report and its readability cannot be overemphasised!!*
Contents of the Research Report

• Title page
• Table of contents
• Authorisation letter
• Executive Summary (Synopsis or Abstract)
• Introductory section
• Method section
• Analysis and Results (incl. tables, graphs, charts)
• Discussion and Implications
• Conclusions and Recommendations
• Acknowledgements
• References (or Bibliography)
• Appendices
Format of A Research Report

Chapter I: Introduction

Chapter II: Literature Reviews

Chapter III: Research Methodology

Chapter IV: Research Findings and Discussion

Chapter V: Conclusion, Implications and Recommendations
INTRODUCTION

1. Why is the topic important to be researched.
2. Literature Survey of previous work done in the area.
3. Research issues highlighted and theoretical framework formulated.
4. Clear and precise statement of the research question. (PROBLEM STATEMENT)
5. A set of hypotheses generated.
6. Decisions made and stated on:
   a. Population of interest (unit of analysis)
   b. Nature of the study — exploratory, etc.
   c. Type of study — causal, etc.
   d. Study setting — field study, etc.
   e. Time horizon of study — one-shot versus longitudinal.
Background of the study

- Start with a general development of research problem.
- State the relevant and important information related to the contexts of the problem.
- Discuss the issues related to the situation of the concepts/variables – based on review of your literatures.
Statements of problem

- Based on the summary of the background of study.
- State the variables of the study.
- Can be stated in form of research questions, or statements.
Objective of the study

- Based on the problem statements.
- General & specific objectives.
- State how the variables are measured and analyzed.
Significance of the study

- What are the contribution of the study towards fields of knowledge, practices and also policy.
- State the importance of knowledge verifications of the related theory/model.
- What are the effects/impact of research findings which can solve the problems practically/changes in policies.
Limitation of the study

- Explain the scope of study related to the variables, methodology, subjects, place of study, time etc.
Operational definitions of the variables

Summary of literature reviews to defines and measure the variables in the research contexts.
Chapter II: Literature Reviews

• Explanation and discussion of the main concepts/variables and organize logically according to specific objectives of the study.
• If there is relationship of the variables or the differences between groups, related studies should be reviewed, discussed & relate to the study.
• Summarize the previous findings to see the differences or to support the present research.
• Discussion of related theories should strengthened the research.
• Conceptual or research framework can build at the end of literature reviews.
Chapter III: Research Methodology

**METHOD**

1. Population and sample
   - Discussion of the representativeness (n, sampling design).
2. Data collection methods.
3. Basic demographic characteristics of the sample studied.
4. Measures
   - each variable operationally defined
   - number of items used, with example items for each variable
   - scaling
   - categorisation
   - reliability
   - validity
5. What statistical analyses would be used to test hypotheses.
Research design

- explain in detail how the study will be implemented.
- Aim to set a clear and detailed direction to conduct the research.

Location of study

- Explain the contexts where the study is conducted.
Population and sampling

- Identify the population of the subject.
- Explain the sampling techniques.
- How many sample are selected.
Instrumentation

- Quantitative research – elaborate a detailed measurement of the variables.
- Determine the DV and IV for relationship and causal effect studies.
- Qualitative research – explain researcher as instrument
Pilot study

- To ensure the reliability of instrument used.
- To determine the correct language structure and clear meaning of questions.
- For qualitative study – pilot study is rarely carried out as the questions are improved during the interview.
Data collection

- Describe detailed methods of data collection.
- State the dates, days, time for data collection.
- Explain the process of getting permission and helps received in data collection.
Data analysis

- Elaborate the process of data analysis
- Software used in data analysis
- Explain the statistics used
- How themes and categories are derived from qualitative data analysis
• Initially, present the demographic variables.
• Describe and discuss the findings base on specific research objectives.
• Quantitative data are presented in tables, charts, diagram etc. and highlight the high/low/significant values.
• Qualitative data – organize the themes and categories.
ANALYSIS

1. Initial ‘feel’ for data after coding
   - mean
   - range
   - variance
   - pearson correlations
   - frequency distributions, etc.

2. Goodness of data
   - reliability
   - validity

3. Testing of hypotheses by appropriate statistical tests
   - T-test for differences between the means of two groups
   - F-tests for differences among means of more than two groups
   - Simple regressions, multiple regressions, etc.
RESULT AND DISCUSSION

1. Interpretation of the analysis and the outcomes.
2. Are the hypotheses substantiated? If so, how far are they generalisable?
3. If hypotheses are not substantiated, what could be the reasons
   - wrong theory?
   - wrong measures?
   - inappropriate sample?
   - situation has changed?
   - what else?
4. What do all the analyses and interpretation add up to?
   - is the research question answered?
   - to what extent are the findings generalisable?
   - what are the limitations of the study?
   - what is the next step?
Graphical Example: Bar Chart of Staff
Graphical Example: Doughnut Chart of Staff
Graphical Example: Line Chart of Age
Chapter V: Conclusion, Implications and Recommendations

• Summary:
  ✓ Background of study
  ✓ Problem of statement
  ✓ Research objectives & significant of study

• Conclusion:
  ✓ Conclude based on the research findings

• Implication:
  ✓ Effect of findings on theory and practices.

• Recommendation:
  ✓ For organization and future research.