

UNIT IV

Subject Name	Subject Code	Semester	Prepared by
Research Methods for Business	18BBA55S	V	Dr Prabhu R Assistant Professor

INTERPRETATION AND REPORT PREPARATION

Interpretation:

It refers to the task of drawing inferences from the collected facts after an analytical and / or experimental study.

- It is a search for broader meaning of research findings
- It has two important aspects:
 - i. The effort to establish continuity in research through linking the results of a given study with those of another.
 - ii. The establishment of some explanatory concepts.
- In one sense, it is concerned with relationships within the collected data, partially overlapping analysis.
- It also extends beyond the data of the study to include the results of other research, theory and etc
- Thus, interpretation is the device through which the factors that seem to explain what has been observed by researcher in the course of the study can be better understood and it also provides a theoretical conception which can serve as a guide for further research.

Need for interpretation

It is through interpretation that the researcher can understand the abstract principle that works beneath his findings .Through this he can link up his findings with those of other studies having the same abstract principle and thereby can predict about the concrete world of events .Fresh enquiries can test these predictions later on. This way the continuity in research can be maintained.

Interpretation leads to the establishment of explanatory concepts than can serve as a guide for further research studies; it opens new avenues of intellectual adventure and stimulate the quest for more knowledge.

Researcher can better appreciate only through interpretation why his findings are what they are and can make others understand the real significance of his research findings.

The interpretation of the findings of exploratory research study often results into hypothesis for experimental research and as such interpretation is involved in the transition from exploratory to experimental research.

Techniques of interpretation:

Interpretation requires great skill and dexterity. It is an art that one learns through practice and experience.

Steps involved in interpretation:

- Researcher must give reasonable explanation of the relation and he must interpret relationship in terms of the underlying processes. This is the technique of how generalization should be done and concept be formulated.
- Extraneous information, if collected during the study, must be considered while interpreting the final results.
- It is advisable to get frank and honest opinion of experts.

- All relevant factors must be considered before generalization.

Precautions in interpretation

- The researcher must invariably satisfy himself that (a) the data are appropriate, trustworthy and adequate (b) the data reflect good homogeneity and (c) proper statistical analysis has been applied.
- He must remain cautious about the errors that can possibly arise in the process of interpretation. He should be well equipped with the knowledge of correct use of statistical measures of drawing inferences concerning the study.
- As the task of interpretation is very much intertwined with analysis and cannot be distinctly separated, it must be taken as a special aspect of analysis.
- His task is not only to make sensitive observations but also to identify the factors which were not known initially. Broad generalization should be avoided because the coverage is restricted to a particular time, a particular area or particular condition.
- There should be constant interaction between initial hypothesis, empirical observation and theoretical conceptions. It is here opportunities for originality and creativity lie.

Report writing

The importance of report writing in research needs no emphasis. A research is said to be incomplete unless it is presented in a report format. Any research will be appreciated only when it is made known to others through research report. The exotic dishes in a dinner are appreciated by the guests when the host (home maker) lays the table neatly, explains the dishes and serves in a meticulous way. Similarly the efforts of the researcher and the fruits of the research will be appreciated only when it is presented as a report in a logical sequence incorporating all the relevant details.

Meaning

A research report is a formal statement of the details of the research process and its results. It gives an account of the problem(s) studied, objectives, methodology, findings and conclusions of the research study.

Purpose or functions of a research report

- To communicate the methodology and results of the study to the targeted audience.
- To enable the person(s) concerned determine the validity of the results/conclusion and judge the quality of the research project as well and as the ability and competence of the researcher to do research.
- To provide as a base for formulating policies and strategies in the relevant areas.
- To provide additional knowledge to tackle certain problems / issues.
- To serve as a basic reference for future study.

Characteristics of a good research report

Not only is the report narrative, it must be an authoritative document on the outcome.

- It must be specific and accurate and there is no question of beating around the bush.
- It must be written with the targeted audience in mind.
- It must be non-persuasive. That is, extra caution is needed while advocating a particular course of action based on the finding.
- It must be simple, logical and understandable.

Writing style of report: The writing style is as important as the content, structure and layout of the report.

- To report should have clarity and simplicity
- Only simple sentences are used
- Jargons must be avoided
- Quotations are used sparingly
- There should not be any spelling or grammatical errors

Types of Report

Based on the degree of formality, physical form, scope, style, and size etc., reports may be classified as short report, long report [technical and management], interim report, summary report, research abstract and research article.

Short reports

Short report is appropriate when the problem is well defined

It is of limited scope and has a simple and straight forward methodology. Short reports include informational reports, progress reports and interim reports such as report of cost of living changes to be discussed in labour wage negotiations, sales report and small inexpensive research projects related to clients.

- Short reports are about five pages.
- The report starts with a brief statement about authorization of the study followed by problem examined and its breadth and depth, findings, conclusions and recommendations.
- There must be section headings
- Short reports must be direct supported by graphs
- Details on research methods are not included

Interim report:

In the case of a long term project, there will be appreciable time lag from initiation/data collection to submission of the final report. If it happens to be a sponsored project, the sponsor may lose track of the project. To convince the authority concerned that the research is alive and is in progress, interim reports are presented periodically. Work carried out so far and work to be done are detailed in the interim report. Sometimes preliminary inference and trend will be indicated.

Interim reports give indications to the society at large that a particular line of work is in progress so that repetition could be avoided. In certain cases the decision as to who has initiated the work would be based on interim reports.

Summary report or popular report:

- It is a short report consisting of a few pages.
- It is prepared in such a way that it is suitable for publication in daily newspapers or magazine.
- It is meant for general public.
- It is devoid of technical jargons.
- The findings must be of some common interest to the public in general.
- It is written in a simple language mostly supported by pictorial charts.
- Only the important findings are narrated in a lucid style.

Research abstracts:

Abstracts are brief summaries of technical report/theses/dissertation circulated for a quick review before a detailed examination is made. Sometimes, it is prepared for publication in abstract journals. The objectives, methodology and findings are presented in a brief format.

Research articles:

Short term projects may be published as research articles in professional journals in specific formats. The long-term projects can also be split into different parts and published as separate research articles. Though the style of presentation may differ from journal to journal, in general, the research articles will have introduction, methodology, results and discussion, conclusion and references

Long reports

Long reports are of two types *viz* technical report and management report

Technical report : (Thesis, dissertation, summer project etc)

- It is a comprehensive and full report on the research process and its outcome

- Though it is mainly meant for the academic community, it is useful to the industry also in many instances.
- It is essentially technical in nature / scope and presented in technical language.
- It is a complete document that will be referred to by other researchers.
- It follows a specified format / pattern / style.
- It is a formal long report covering all aspects of the research process viz., defining problem, statement of problem, objectives, review of literature, methodology [the research design, data collection and analysis] findings, suggestions and conclusions.

Management report: It is for the non-technical people. As managers are hard pressed for time to absorb details, the report is presented in a reverse order.

- After the prefatory and introductory sections, the conclusions with recommendations are presented
- Individual findings are presented next, supporting the conclusions already made
- Methodology is presented in the appendices
- Visual displays are liberally used

The style of management report should encourage quick understanding of major findings.

- It should prompt understanding of the implications and conclusions.
- It must be accurate
- The report tone is to be in journalistic style.
- Headings and underlining (or bold letters) are helpful
- Sentences and paragraphs must be short
- Pictures and graphs are preferred to tables

Format of Research Report / Project Report

A research report will have well defined sections/chapters arranged in logical sequence. Though there may be a little variation in the order, chapterisation or details furnished depending on the research guide, area of research or institute a general format is discussed below:

A. Prefactory items

- Title page
- Researcher's or student's declaration
- Certificate by the Research Supervisor / Head of the Department / Institute.
- Acknowledgement
- Table of contents.
- List of tables
- List of graphs / charts / figures / plates

B. Body of the report

Chapter I-Introduction

Introduction to the study / concept / theory / models.

Introduction to the organization / industry / situation .

Need or Significance of the study

Statement of the problem

Scope of the study

Objectives of the study

Hypotheses to be tested.

Chapter II-Review of Literature

Tools / Methods used in similar studies

Findings and conclusions of earlier studies

Lacunae of available literature

Chapter III-Research Methodology

Nature of the research design

Sources of data

Sampling design and sample size

Techniques / Tools of data collection, methodology of data collection and period of data collection.

Pretesting of tools

Data analysis (statistical tools and other techniques employed)

Limitations of the study

Chapter IV-Analysis and Interpretation or Results and Discussion

Tables, charts, interpretation and inferences.

Chapter V-Summary and Conclusion

Summary

Findings

Suggestions

Conclusion

Future line of work

C. Terminal items

- References
- Bibliography
- Appendices
- Annexures

Brief description of the various items of a report

Title page

It is the first page in a research report. The same contents may be printed on the wrapper or cover. This page contains (i) The title of the study in bold letters (ii) Type of study and the purpose (iii) Name of the student-author followed by the name of the guide or principal investigator and co-investigators (iv) Name of the Institute (v) Month and Year of submission

Example: 1 Project Report submitted by an MBA student

A STUDY ON THE EMOTIONAL INTELLIGENCE OF EXECUTIVES IN ROOTS
INDUSTRY Ltd., COIMBATORE

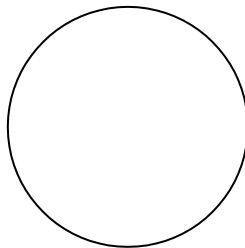
Project Report

Submitted in partial fulfillment of the requirements for the award of degree of

Master of Business Administration of Bharathiar University

By

Ms. A. Sathya Shree



Under the guidance of

Dr. S.T. SukumaSenior

Professor

MNR School of Management Sciences

Coimbatore – 641 086.

May, 2020

Example: 2 A research report submitted by a faculty member to the AICTE

HRD PRACTICES IN THE TEXTILE INDUSTRY IN COIMBATORE – A CRITICAL
ANALYSIS

AICTE-Sponsored major research project

Research Report Submitted by

By

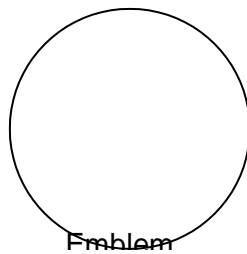
Dr. T. Gunaseelan Ph.D.

Principal Investigator

and

Dr. R. Lakshmanan Ph.D.

Co – Investigator



Emblem

TNT School of Management Sciences (Autonomous)

Coimbatore – 641 076.

June, 2020

Research Declaration:

In the case of a student submitting a project report to fulfill the requirements of a Degree / Diploma, he / she is required to make a declaration.

Example :

Declaration

I, Ms. A Sathyashree, hereby declare that the project report entitled “A Study On The Emotional Intelligence Of Executives In Roots Industry Ltd., Coimbatore” is a record of original research done by me under the guidance of Dr. S.T. Sukumaran Ph.D. to fulfill the requirement for the award of the Degree of MBA of Bharathiar University. This report has not been submitted for the award of any degree, diploma or any title elsewhere.

Date :

Signature of the student

Place :

Name of the student

Certificate of authenticity:

Similar to student's declaration the Research Supervisor certifies the authenticity of the report endorsed by the Head of the Dept. / Director / Principal .

Example :

Certificate

This is to certify that the project report “ A study on the Emotional Intelligence of Executives in Root Industry Ltd., Coimbatore “ is a record of original research conducted by Ms. Sathyashree to fulfill the requirements for the award of degree of MBA of Bharathiar University.

Signature of the HOD / Director
Designation

Signature of the Guide
Name and the Designation of the Guide

Signature of the Principal/Head of Institute

Place :

Date :

Acknowledgement:

In the case of a researcher other than a student, the author acknowledges the help / encouragement received in the Preface of the report along with a brief background of the study.

In the case of a student's project research, he/she acknowledges the help / support// encouragement received from all the individuals. They should thank the project guide , HOD, Principal, faculty members and others.

- It is intended to express one's gratitude
- Every individual who has rendered any type of help should be mentioned with gratitude..
- It is written in a simple language without causing any embarrassment to any source.

Table of contents:

The contents of the report are presented in the table of contents. Chapter titles along with page numbers are given:

Chapter	Title	Page No.
	List of Tables	
	List of Graphs / Charts / Figures	
I	Introduction	
1.1	Introduction to the study/concept/theory/model	
1.2	Introduction to the company/industry/situation	
1.3	Significance of the study/Need for the study	
1.4	Statement of the problem	
1.5	Scope of the study	
1.6	Objectives	
1.7	Hypotheses, if any	
II	Review of Literature	
III	Research Methodology	
3.1	Research design	
3.2	Sampling technique and method of data collection	
3.3	Sample size	
3.4	Types of data and variables studied	
3.5	Tool(s) for data collection	
3.6	Pretesting of tools.	
3.7	Statistical tool(s)	
3.8	Limitations of the study.	

IV Analysis and Interpretation

V Summary and Conclusion

Executive Summary

Findings

Suggestions

Future Study

Conclusion

References

Bibliography

Appendices

Annexures

Lists of Tables/Charts/Figures/Plates are presented separately with relevant titles and page numbers.

Introduction:

The introduction chapter covers many important sub-topics

Introduction to study:

The concept, theory, meaning, definition, models and etc., related to the topic under study are discussed in detail. The authors of the concepts theories etc., can also be referred to.

Introduction to the organization, industry or situation:

All relevant information such as mission, vision, objectives, products / services offered, turnover, hierarchy and etc., of the organization are presented. In the case of industry, appropriate details are furnished. If it is a study on any situations, frequency of occurrences, people involved, monetary implications and etc., are presented.

Need or Significance of the problem:

It is detailed here in what way, why or how the problem is important

Example: Topic: Influence of emotional intelligence of supervisors to solve industrial dispute in garment industry.

It is generally expected that the supervisors must be intelligent and knowledgeable to get the work done at shop-floor level. Though the job is getting done, there will be always a simmering of unrest among the workers. Many a time, this leads to industrial dispute. According to Golman general intelligence alone is not adequate to maintain a good industrial relation. He insists that Emotional Intelligence is of paramount importance in personnel management. It is observed that while many garment factories in Tirupur are facing high industrial disputes, there are a few companies which are able to manage the migrant labour force without any major issues. As the research done on emotional intelligence of the supervisors in garment factories is meager, this study has been taken up to find out the relationship, if any, between the E.I. of supervisors and industrial dispute.

As export is of vital importance to our economy and the industrial dispute is a major constraint in export business, this study assumes significance.

Statement of problem:

In the example cited above it is mentioned that the study on E.I. of people is significant in the export industry like the garment industry in Tirupur. The general problem observed is high industrial dispute/turnover of workers. Though there are many causes for industrial disputes, this study is focused on the influence of E.I. of supervisors on workers' turnover/industrial dispute in garment industry. The study specifically tries to find out to what extent the E.I. of supervisors influence industrial disputes in garment industry.

Scope of the study:

The scope covers the geographical area, targeted population, specific activities, period of study and etc. Results expected are also discussed here.

Example: In the above example, the scope of the study covers the garment companies in Tirupur. The targeted population is the supervisors who handle the migrant labour force. The activities include their method of handling the industrial disputes as well as their presence of mind [Emotional Intelligence] in preventing such disputes. The results expected are that the supervisors who handle the labour problems are endowed with higher E.I and there is a positive relationship between E.I and reduction in industrial disputes

Objectives of the study:

The primary objective will be more or less the topic of the study itself. The secondary objectives (4 or 5) will focus on the important components related to the primary objective.

Example :

Primary objective:

To study the relationship, if any, between emotional intelligence of supervisors and industrial disputes in the garment industry in Tirupur.

Secondary objectives:

- To find out the frequency and extent of industrial disputes in the garment industry.
- To study the E.I of the supervisors in the factories.
- To understand the dominant component of E.I of the supervisors which influences in resolving the disputes.
- To know the action taken by the managements in improving the E-I of their employees.

Review of literature:

It is an account of the studies conducted by others as well as the researcher on similar or related topics. Review of the earlier reports gives an insight into the problem. The research can select or finetune the techniques of data collection and analysis. The errors committed by other fellow researchers may be avoided or corrected in his work. It gives an idea on the current state of knowledge in the particular field. What has been done and what are the gaps/lacunae are narrated to show how the present study in going to fill up the gap.

- It is written in chronological order i.e starting from the earliest possible reference to the present study.
- Invariably name(s) of the author(s) along with the year of study are mentioned.
- Only the last name(s) is (are) mentioned.
- Titles such as Dr., Prof., Mr., Ms., Shree, Shrimathi and etc., are avoided.
- In the case of more than two authors only the first author is mentioned followed by the words *et al.*

Research Methodology

Research Design:

In addition to indicating the nature of research design, whether it is explorative, descriptive, diagnostic or experimental, the reason for choosing the particular design is elaborated.

Sources of data:

It is clearly indicated whether the data are primary or secondary and in the case of secondary data, the sources of data are indicated as footnotes below the tables.

Sampling Design:

The type of sampling technique used is mentioned and the reason for selecting a particular sampling technique is explained.

Data collection:

The tools or techniques (questionnaire, schedule, observation or interview) used, procedure of collection and period of data collection are described.

Data analysis:

The statistical tools used in analyzing the data (t-test, Chi-square, correlation, ANOVA or multivariate techniques) are briefly explained with relevant reference.

Limitations of the study:

The difficulties or problems encountered by the researcher at various stages of the research process starting from defining the problem to final conclusion are mentioned as limitations.

Example of limitations:

- As it is a novel / new line of work available literature is almost nil.
- The respondents were reluctant to divulge the relevant information.
- The responses are mostly imaginary
- The nature and availability of the sampling technique limited the scope of better representation of the population .
- The management did not extend support.
- The time or fund allotted is not sufficient to conduct a detailed investigation.

Result and discussion:

The summary of data and the results of the statistical analysis are presented in tables. Interpretation is made based on the raw data or the statistical analysis. Based on the interpretations, inferences are drawn for each table / sub topic.

Summary:

A brief summary containing the need for the study, the objectives, methodology of data collection and statistical analysis employed and etc are presented.

Findings:

The findings are presented as important findings and other findings. The interpretations / inferences following the tables / analyses are taken as findings.

Suggestions:

Relevant suggestions based on the findings are outlined taking into consideration the general theoretical background and experience / knowledge of the researcher. It must be noted that suggestions are based on the findings and the findings are related to the objectives.

Conclusion:

While findings are specific to the study under reference, conclusion is a generalization based on the findings, Conclusion is the overall opinion of the researcher on the topic.

Future line of work:

The researcher would have envisaged certain objectives to study in an investigation. Due to certain limitations he would not have covered those aspects. The areas which are not considered may be included under future line of work. Further, in the course of investigation, the researcher would have come across an interesting or important phenomenon. He would not have attempted to study these new areas as they would have been beyond the scope of his study. These items could also be the future line of work.

References :

All the works/ studies / reports referred to in the “Introduction”, “Review of literature”, “Methodology” and “Discussion” are mentioned under references. The references are arranged in alphabetical order of the authors. Though there could be a slight variation in writing the references, a general format is given below:

Journal

If the reference is taken from a journal the sequence is: Name or names of the authors (The last names are mentioned first, followed by middle/last names or initials), year of publication of the journal in parantheses, title of the paper/article, name of the journal (in italics) volume no., issue no. (within brackets) and pages (starting and ending page)

Eg: Pareek, Udai, (1997). Partnership in HR functions, *Indian Journal of Industrial Relations*, 32(3): 345-353.

Singh, Rahul, S. and Shetty, Y.K.,(1970), A comparative study of personnel management practices. *Ind. J. Social Work*, 31(2):101-104.

Yamini, U, Joseph Raj, M, and Arunraj, M. (1999), Linkages between emotional leadership and industrial disputes. *Industrial and Labour Relations review*: 49(4):635-657

Book

In the case of any reference from book, the sequence is: name(s) of author(s) (last names coming first), year in parantheses, title of the book (in italics), place of publication and name of the publisher.

Eg: Bass, B.M., (1969), *Training in Industry: The Management of Learning*, London: Tavistock Publications.

Blum, M.L and Nylor, J.C., (1968). *Industrial Psychology*, New York: Harper and Row.

Edited Books

If it is an edited book, the name(s) of author(s) and editor(s) is (are) mentioned as given in the following example:

Ramesh,K and Kiran,K.(1996). Potential appraisal-pitfalls. *Human Resourse Development* (B.Murthy,Ed.). New Delhi: Ram Publishers.

In book published by an institute but not edited the following example is shown :

Mathew,R(2004). *Career Planning in IT Industry*.

In *Opportunities in Indian IT Industries*, Orax Technology, Nasik.

Newspaper

Example of references from reports in newspapers : Rahul, M.“Will the budget achieve its objectives?”, *The Economic Times*, 8th of March 1998.,p.4

Publications

If the references are from a report / compilations, without any specific authors, such as a publication from an organization, Dept. or Govt., Anonymous(abbreviated as Anon)is mentioned in the place of author(s)

Anonymous, 1997, *Copy Right Act of India*, Ministry of Law, Govt. of India, New Delhi, pp: 22 – 28.

References from project report/dissertation/thesis:

Example:

Thamayanthi,Y,2009,*Influence of liberalization policy of the Govt. on the small acale industry in Tamilnadu*, Ph.D thesis/M.Phil Thesis/MBA project submitted to the School of Management Studies, Anna University of Technology, Coimbatore. p 472.

Internet references

Example

In the text: Universal Business system seeks to motivate employees through a modified MBO process.

In the references: Universal Business System (online) (cited 22nd of Sept 2013). Available from www.unibussys.co.usa

Bibliography:

Some researchers do not differentiate bibliography from references. But in fact 'references' is different from 'bibliography'. While references are the works /reports specific to the study and referred to in the body of the report, bibliography is the list of books, journals, reports and etc which the researcher has gone through to understand the concept, theory, methodology etc., before starting the research work. They do not find a place in the body of the report. The materials mentioned in the bibliography would have helped the researcher to have more knowledge on the topic or to write the report.

Some authors state that the list of references cited in the books is called bibliography.

Appendices:

The materials / information which are closely related or essential to the study but could not have been incorporated in the body of the report would appear as appendices as Appendix A, Appendix B and etc. The materials which are usually put in the appendices are original data, long tables, long quotations, supportive laws/acts, illustrations, extensive computations,

questionnaires

/ schedules / forms used in collecting data, transcripts of interviews and etc.,

Annexures:

Materials which are not essential but help in appreciating the report such as copies of ad materials, product details, list of sister concerns, location map, publications and etc may be included as annexures. They are arranged as Annexure I, Annexure II and etc., That is, materials which are essential come under 'Appendix', materials which are interesting are included as 'Annexures'

Page numbering:

- Prefactory pages are not page-numbered
- Body of the report is page-numbered in Arabic numerals [1,2,3,.....]
- The terminal items are page-numbered in lower-case Roman numerals [i,ii,iii,.....]
- The page where a chapter starts is not numbered though it is included in counting the no. of pages. Notes for UNIT V may be taken from the net from the websites shown to you while taking class

The Contents in this E-Material has been taken from the text and reference book as given in the syllabus