

# **Original Research Paper**

Commerce

# An Exploratory Study on Awareness of Research Scholars Regarding Research Tools in Analysis

Seema Rathee Assistant Professor Department of Commerce MDU Rohtak

Meenu Research Scholar Department of Commerce MDU Rohtak

The significance of business research in the context gained increasing impetus in the early 1991s, with the major economic reform implemented post liberalization by the Indian government. Competition from domestic and international players forced even the existing players for improving business efficiency through the research analysis. So, this is the research which will provide a leader position in the queue of business persons as well as in other fields. And we all know very well that without awareness and knowledge of research tools no research study can be imagined. This paper is to analyze the awareness level of the researchers of the some selected universities in Haryana about some selected research tools. Data is collected through questionnaire and analyzed with the help of SPSS. Results indicated that only 74% researchers are aware about the selected tools and techniques.

## **KEYWORDS**: Research, Research tools, Research Methodology, Awareness etc.

### INTRODUCTION

There are many ways to define the research. It is the process to search an exacting problem again and again with an organized procedure and revise the material relating to the problem, sources in order to set up facts and arrive at new conclusions. The foremost objectives of research are to find out the facts, analyzing information, and attainment of new conclusions.

Today, it is required that each and every researcher should have knowledge about research tools and the different terminologies of research tools. Without the knowledge of research tools and techniques, a researcher cannot do his or her research work. But it is not sufficient to have knowledge about tools only; they should have knowledge about some concepts of research methodology. Bcoz without knowledge of the research methodology, statistical tools cannot be applied accurately. It is important to know the importance of various statistical tools and where these are applied, on what type of data which tools will be applied, what will be interpretation etc. From simple statistical tools like mean, standard deviation, correlation, regression to high statistical tools like parametric and non-parametric test, knowledge about all should be to the researcher. A systematic procedure for applying any test on different types of data should be followed for which it is necessary to know the importance of all the statistical tools and techniques.

## **RESEARCHTOOLS**

Research tool may be defined as: "Anything that becomes a means of collecting information for your study is called a research tool or a research instrument. For example, observation forms, interview schedules, questionnaires, and interview guides are all classified as research tools."

Practically, we apply first step in research process is construct a research tool. After collecting the data it is necessary to build up a research instrument.

### Why research tools?

Research tools help us to analyze the data after collecting. To get reliable and accurate results we apply some research tools and techniques. Some of the reasons are here, why we use research tools:

- To evaluate things
- To observe relationships
- To construct predictions
- To test hypothesis
- To construct facts
- To develop theories
- To discover issues

- To present information
- To make comparisons to find similarities and differences
- To draw conclusions about populations based only on sample results.

### **REVIEW OF LITERATURE**

Jadhav,B.R., Shete,M.G.(2015). executed an exploratory research to study the awareness of research in Corporate and Academics and also to know the various problems faced by researchers and also to check the most critical areas in research process faced by researchers. This study focused on the Ph. D scholars whether they were working as a faculty in colleges or they were working as a corporate in the city Ahmednagar. A self structured questionnaire was used including 29 close ended and one open ended question to collect the data from 60 respondents selected from colleges and corporate in Ahemednagar city. Convenient sampling method was adopted to select the sample and various suitable tools like percentages, proportions and chi- square were applied to analyze the data. In result, they found that at 90% level of significance, null hypothesis was accepted i.e. "researchers are not aware about research process and other research related area like financial assistance, software etc." It was also found that researchers were not facing any problem while doing research and also they were not getting adequate guidance in research process.

Cheema, Z.A., Mahmood, S.T., et.al.(2011). attempted a conceptual study to know the awareness level of research scholars about plagrism at higher educational level. To achieve this descriptive study was executed. The main objective of this study was to check the researcher's conceptual awareness about various terms of plagrism, types of plagrism, and what penalties of plagrism are there. A sample of 60 Ph.D and M.Phil. scholars of International Islamic University, Islamabad were taken to collect the data. A self made questionnaire having items regarding Perception of the students about plagrism, terminologies about plagrism, types of plagrism and penalties of plagrism. For analyzing the collected data Frequencies and Percentages tools were applied. Results indicated that Most of the students had knowledge about different activities of plagrism but not had knowledge about the terms used in the plagrism like endnotes, quotations etc. It was also found that researchers had not any idea about the international and national plagrism and also they had no idea about the penalties of plagrism. On the basis of these results they suggested the students to give assignments to practice about citations through different sources and orientation.

**OBJECTIVE OF THE STUDY:** The main objective of this paper is to know the awareness level of research scholars in relation to some selected research tools used in the research.

**RESEARCH METHODOLOGY:** This paper is descriptive in nature as it describes the awareness level of research scholars. Data is collected through a self structured questionnaire.

**SAMPLE PLAN:** 75 questionnaires were distributed to researchers of different selected universities in Haryana. But, 65 questionnaires were returned back that was measured for analysis.

**TOOLS OF ANALYSIS:** Collected data is analyzed with the help of SPSS. To analyze the data frequency and percentages are used.

# DATA ANALYSIS AND INTERPRETATION Table 1: Awareness of tools and techniques

Statistical tools and techniques	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Percentage	63	96.9	2	3.1
Frequency	62	95.4	3	4.6
Mean	63	96.9	2	3.1
Standard Deviation	61	93.8	4	6.2
Correlation	60	92.3	5	7.7
Regression	58	89.2	7	10.8
MANOVA	19	29.2	46	70.8
Cluster Analysis	25	38.5	40	61.5
Discriminant Analysis	22	33.8	43	66.2

### Source: Researcher's Calculation

Table1 is to know the awareness level of the respondents about some statistical tools and techniques. This table indicates that researchers are more aware about Mean and Percentage i.e. 96.9 % followed by frequency, standard deviation, correlation and Regression. This is also comes to know from this table that researchers are not more aware about MANOVA, Cluster analysis and Discriminant analysis. Awareness level of MANOVA is very low i.e. only 29.2%

Table 2: Frequency of respondents regarding tools actually used

Statistical tools and techniques	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Percentage	47	72.3	18	27.7
Frequency	48	73.8	17	26.2
Mean	44	67.7	21	32.3
Standard Deviation	35	53.8	30	46.2
Correlation	34	52.3	31	47.7
Regression	27	41.5	38	48.5
MANOVA	5	7.7	60	92.3
Cluster Analysis	3	4.6	62	95.4
Discriminant Analysis	9	13.8	56	86.2

### Source: Researcher's Calculation

Table 2 of the study states that what tools are applied by researcher in their research work. It indicates that researchers put a lot more efforts on percentage, frequency, mean, standard deviation in their research work i.e. approximately 53.8% to 73.8% researchers. MANOVA, cluster analysis and discriminant analysis shows a very low percentage (4.6% to 13.8%). It means that only a few researchers use these tools in their research study.

Table 3: Frequency of respondents who actually Know application process

Statistical tools and echniques	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Percentage	58	89.2	7	10.8
Frequency	57	87.7	8	12.3
Mean	55	84.6	10	15.4
Standard Deviation	49	75.4	16	24.6
Correlation	45	69.2	20	30.8
Regression	43	66.2	22	33.8
MANOVA	5	7.7	60	92.3
Cluster Analysis	9	13.8	56	86.2
Discriminant Analysis	9	13.8	56	86.2

### Source: Researcher's Calculation

This table is to check how many researchers know the application process of the some selected tools and techniques. This table evident that tools like percentage, frequency and mean are more popular and more researchers know about its application process i.e. approx. 75.4% to 89.2% researchers knows that how and on which data these techniques are applied. Correlation and regression is known by approx. 75.4% scholars. But, 92.3% researchers do not know about its application process and the same situation is with cluster analysis and discriminant analysis. Only, 13.8% scholars know the application process of cluster and discriminant analysis.

### CONCLUSION

Today, in this research era it is important that every researcher should have knowledge about the terminologies of the research. Knowledge of the research tools and techniques is must. This paper concluded that researchers are more aware about Mean, Percentage, frequency, standard deviation, correlation and Regression and know about its application process. But, researchers are less aware about MANOVA, Cluster analysis and Discriminant analysis.

### REFERENCES

- Babasaheb R. Jadhav \*\* Madhuri G. Shete. (2015). An Exploratory Study About Awareness Of Research In Corporate And Academics. IJEMR, 5(8), 1–8.
- Pradesh, A., & Pradesh, A. (2015). The Importance Of Statistical Tools In Research Work. International Journal Of Scientific And Innovative Mathematical Research (IJSIMR), 3(12), 50–58.
- Saxena, P. (2011). Application of Statistical Techniques in Market Research: A Sample Survey. International Journal Of Applied Engineering Research, Dindigul, 2(1), 163–171.
- Cheema, Z. A., Mahmood, S. T., Mahmood, A., & Shah, M. A. (2011). Conceptual Awareness of Research Scholars about Plagiarism at Higher Education Level: Intellectual...Conceptual Awareness of Research Scholars about Plagiarism at Higher Education Level: Intellectual. International Journal Of Academic Research, 3(January).
- Brizzi, M., & Betti, L. (2010). Statistical Tools For Alternative Research In Plant Experiments, 7(1), 59–71.
- Grácio, M. C. C., Paiva, C. S. T., & Souza, P. S. O. (2010). A Comparative Analysis between Statistical Tools adopted in Scientific Research of the Speech Therapy area and Contents Present in the area Course Syllabuses, 8.