Perception and Attitudes of Research Scholars & Faculty Members of Osmania University towards Research Data Management System & Role of Library & Information Centres: A Study

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Abstract

The present study "Perception and Attitudes of Research Scholars & Faculty Members of Osmania University Towards Research Data Management System & Role of Library & Information Centres: A Study" reveals with the generation of Research Data, Storage of Research Data, utilisation of Research Data, awareness of the sharing of research data, preserve/conserve their data for long term use, attitudes of Research Scholars and Faculty Members of sharing of their research data with other researchers/academicians. And also role of library and information Centres in providing & managing Research Data Management System in discussed briefly".

Keywords: University Libraries; Research Data Sharing; Research Data Management Systems (RDM) & (RDS).

Introduction

In higher education institutions research centres are playing vital role. In the same way Library and Information centres are back bone of the research in higher education institutions. Especially in university education system research and Development is one of the primary task to innovate/discover new things for the nation.

Research data it includes audio, videotapes, text, images, questionnaire, solutions, photographs field notebooks, laboratory notebook, photographs, primary research data, models, films, and test responses. The duration of research data is quite longer though this research may get good result discover/innovative new things by the quality library and information centres in university level.

In university level Research Scholars and Faulty members are doing research and generating various innovative Research Data. While utilising Research data there are using various innovative steps to easy access to the other researchers also by the making/put open access. And also this research Data are preserving various online formats ex.. Cloud storage, Research Gate.

1. Academic libraries can provide a standard based organisation of information to the research Scholars and Faculty members.

2. Academic libraries are strongly involved and supporting the researcher's and faculty members

3. Library professionals are providing various services, such as bibliometric services, library-led publishing services to the Researchers

and Faculty members

4. Based Library and Information science professional skills provide research data management services to researchers and Faculty members.

5. Library and information science professionals can play many roles with a solid basis in data management principles work to bridge the gaps between Researcher and Faculty members.

Need of the Study

Osmania University is 100 years old Heritage University in Hyderabad, Telangana. Osmania University has various disciplines such as social sciences, sciences, commerce, management, technology, Arts , Sciences, engineering more than 100 courses are running and Vocational Education at Diploma, Undergraduate, Postgraduate & Doctoral Level. Osmania University has developed the Centre of Research for Development to provide an interface between Research Scholars and faculty members in technical courses and the industry. Innovative methods in teaching and training in Osmania University. Based on that Generation of Research Data, Management of Research Data, Utilisation of Research Data is mandatory now days.

Review of Literature

1. Bunkar, Anjana R & Bhatt, Dhaval D. (2020) on their topic "Perception of Researchers & Academicians of Parul University towards Research Data Management System & Role of Library: A Study" strongly foucused on the perceptions of researchers and academicians of Parul University on research data management and research data sharing. It explores the ways the researchers preserved their research data for future use, And also explores the ways the researchers and academicians to the organisation, preservation, and sharing of research data.

2. Jagan R & Malhotra S (2017) on their topic "Attitude of of Researchers of JNTU towards Research Data Management System & Role of Central Library"" in their study strongly emphasis on the researchers & faculty members Research Data Generation and also various forms of Research Data formats Discussed. In the ICT world Research data should be available to common researchers and academicians that is main intention of

the Research Data put in to the open Access also focused.

3. Michel S & Samuel Johnson (2015) in their topic "Research Data management systems in Higher Education institutions" in their study focused on various research Data management system's in higher education institution of Odisha state universities. And also focused in Research Data may preserve in various online platforms especially Research Gate.

4. Schlembach, M.C. & Brach, C.A (2012) in their topic "Research data management and the role of libraries. In special issues in data management" in their study elaborate the role of library and Information centres on Management, engage of Research Data, Utilisation of research in the field of Chemical Sciences. And also discussed various awareness & availability of research data in chemical sciences.

Scope of the Study: The scope of the present study is to find out the level of "perception and Attitude of Research Scholars and Faculty Members of Social Science Discipline of Osmania University" regarding research data sharing, utilisation and management of research data in Osmania University. The study has covered only Research Scholars and Faculty Members of Osmania University.

Objectives of the Study

The present study aim is to analyse the "perceptions and attitudes towards the research scholars and faculty members" regarding research data sharing, research data utilisation and management systems of Osmania University, Hyderabad. Telangana.

The objectives of the study are:

• To know the level of awareness of the sharing of research data among Research Scholars and Faculty Members of Osmanaia University.

• To study the perceptions & attitudes towards Research Data Management System among the Research Scholars and Faculty Members of Osmanaia University.

• To study how the Research Scholars and Faculty Members preserve/conserve their data for long term use in Osmania University.

• To examine the attitudes of Research Scholars and Faculty Members of sharing of their research data with other researchers/ academicians.

• To interpret the role of library and information Centres in providing & managing Research Data Management System.

Methodology of the Study

A Researcher has used an online survey method to study the present problem. The structured questionnaire (Open & Closed ended) was prepared and used for the collection of data. The target population of the study is the Research Scholars and Faculty Members of Osmania University, from different discipline of Social Sciences from Political Science, History, public Administration, Sociology Archelogy, Library and information Science, journalism, psychology etc. Random sampling has been used to select Research Scholars and faculty members for administering the questionnaire. A total of 200 questionnaires have been distributed through email to researchers and faculty members. A total of 170 filled and completed questionnaires received. The data were analysed and presented based on the responses we received from the Research Scholars and Faculty Members of Osmania University.

Data Analysis

Response Rate: Response rate of the 200 questionnaires distributed, 170 valid responses were completed and returned from the Professors, Associate Professors, Assistant professors and Research Scholars. Therefore, the response rate in the study was 85 percent.

Table 1: The designation of respondents.

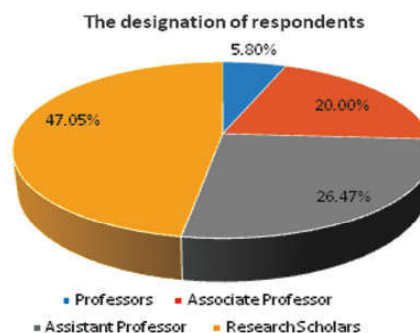| Designation	Number of Respondents	Responses in %
Professors	10	05.8
Associate Professor	35	20
Assistant Professor	45	26.47
Research Scholars	80	47.05

Fig. 1: The designation of respondents.

The above table and pie diagram shows that the percentage of responses from the Research Scholars and Faculty Members of various departments of Osmania University. Out of 170 respondents, 80 Research Scholars, 45 Assistant Professors, 35 Associate Professors, 10 Professors of various departments of the Social Sciences disciplines of Osmania University were represented. Highest number of responses received from Research Scholars of the Osmania University.

Table 2: Types of research data generated by Research Scholars and Faculty members.

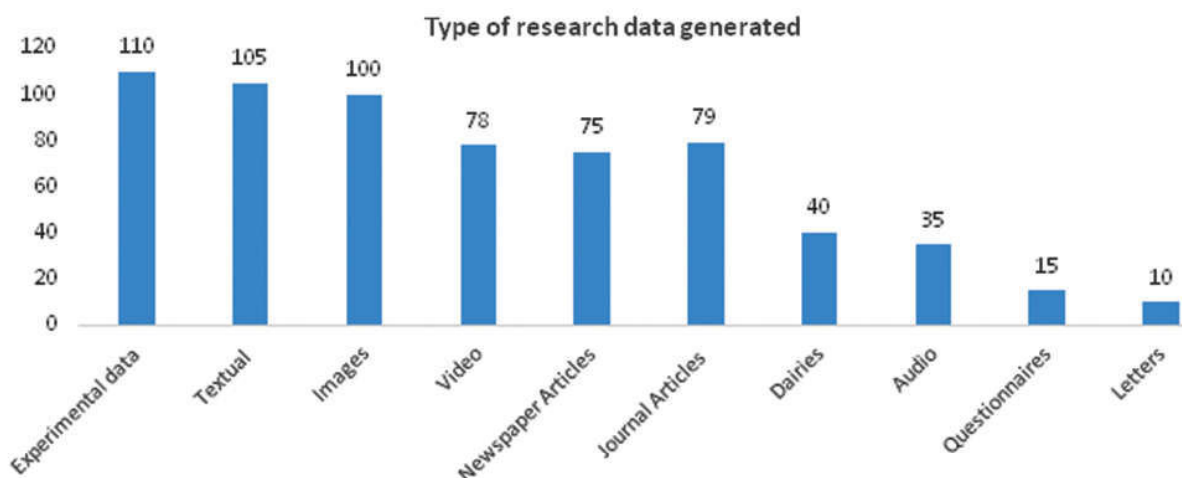| Type of Research Data Generated	Number of Respondents	Responses in %
Experimental data	110	64.70
Textual	105	61.76
Images	100	58.82
Video	78	45.88
Newspaper Articles	75	41.17
Journal Articles	79	46.47
Dairies	40	23.52
Audio	35	20.58
Questionnaires	15	8.82
Letters	10	5.88
Others	-	-

**Multiple answers were permitted.

Fig. Type of research data generated.

The above table & bar graph shows that that various types of data was generated by Research Scholars and Faculty Members. More than 64.70% of the raw research data generated was experimental data following by Textual (61.76%) and images (58.82%) data. It was also found that least percentage is 10% is letters only. Over all the study that many of the respondents generating more than one type of data.

Table 3: Types of format used to save research data by Research Scholars and Faculty Members in Osmania University.

Types of format used to save research data	Number of Respondents	Responses in %
PDF	105	61.76
Tables	110	64.70
docx	79	46.47
PPTs	78	45.88
Graph/Images	40	23.52
Text Documents	100	58.82
Audio	75	41.17
SPSS Spreadsheet	35	20.58
xls	15	8.82

**Multiple answers were permitted

The above table & bar graph shows that the different types of formats used by Research Scholars and Faculty Members to save their research data. The Research Scholars and Faculty Members use in computer storage the various resources such as CDs, DVDs, portable hard drives and USB Flash drives. They used, tables, SPSS spreadsheets. CSV and Xls files to maintain their data. The majority of them were using Tables (64.70%) & PDF (61.76%) to save their research data. Some of them were using more than one type of format to save their data for future use also.

Table 4: Storage medium used to preserve research data by Researcher Scholars and Faculty Members in Osmania University.

Storage medium	Number of Respondents	Responses in %
Personal Computer	120	70.58
Portable Hard Disk	105	61.76
USB Flash Drive	110	64.70
Cloud based storage	58	34.11
Local Computer	60	35.29
Printed Form	85	50
Personal Email	100	58.82
DVD	20	11.76
CD	15	8.82

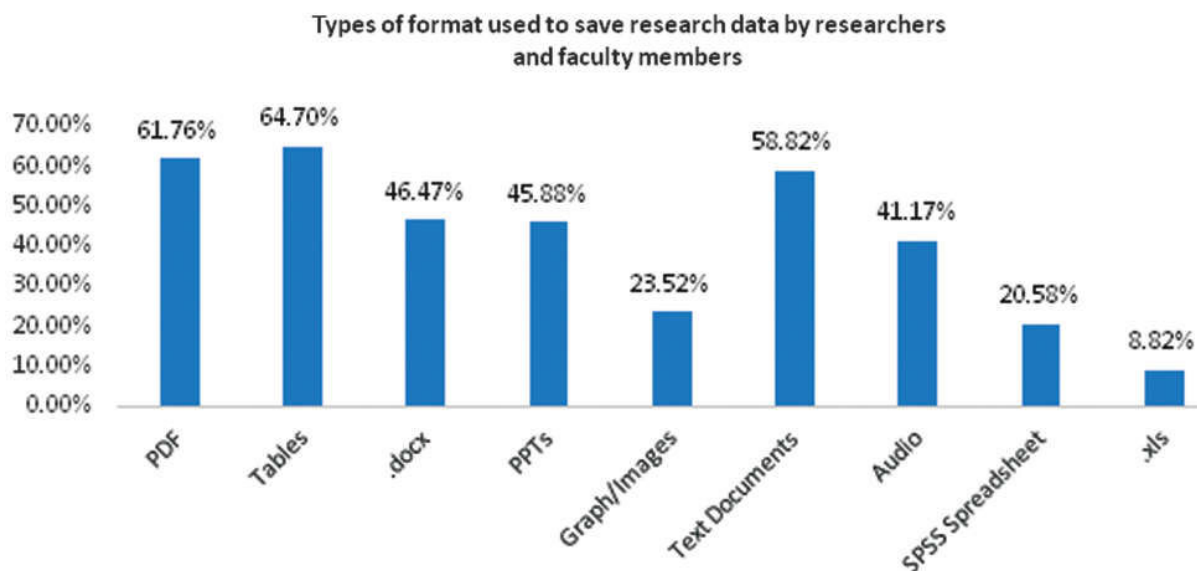**Multiple answers were permitted

Fig. 2: Type of format used to save research data by researchers and faculty members.

The above table & bar diagram shows that the storage medium of research data by Researcher Scholars and Faculty Members. To prevent their research data for long time/term use with different storage methods were used. The most important method used was a personal computer (120 respondents), USB Flash drives (110 respondents), and portable hard disk (105 respondents). Other storage methods were also used cloud storage; email oneself, CD, DVD, Local Computer and print materials .i.e. in hardcopy with less number of respondents.
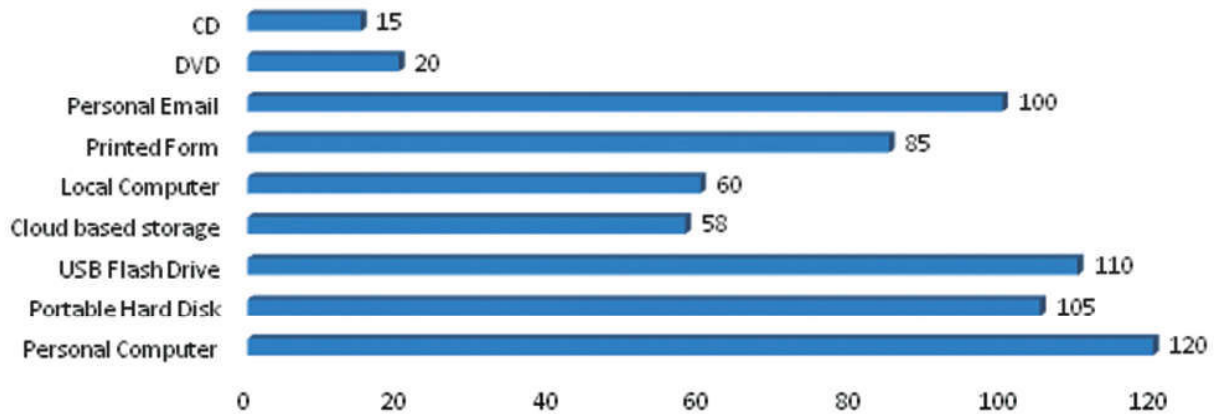
Fig. 3: Storage Medium used to preserve research data by Researcher Scholars and Faculty Members in Osmania University.

Table 5: Problems in storage of research data by Researcher Scholars and Faculty Members in Osmania University.

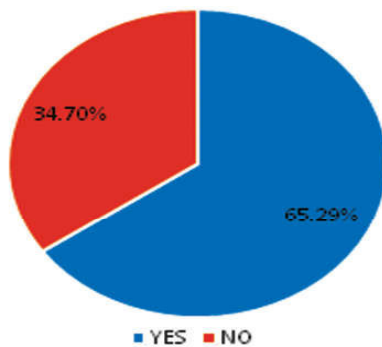| Problems in Storage of Research Data	Number of Respondents	Responses in %
Yes	111	65.29
No	59	34.70

Fig. 4: Problems in storage of research data.

The above table & pie diagram shows that the Research Scholars and Faculty Members faces problems in storage of research data. Out of the 170 respondents, 111 (65.29%) said that they did not get any data storage problems. While 59 (34.70%) respondents said that they get the problems with the storage. The present study reveals that researchers have been more concerned about the storage of the research data but usually respondents do not face any problems in storage the research data.

Table 6: Practice of data sharing exist in discipline.

Practice of Data Sharing existing discipline	Number of Respondents	Responses in %
Yes	120	70.58
No	50	29.41

The above table & pie diagram shows that the practice and tradition of data sharing exist in their discipline. The majority of them agreed about the culture and practice of raw research data sharing in their subject filed.

Fig. 5: Practice of Data Sharing existing discipline.

Out of 170 respondents, 120 Research Scholars and Faculty Members said yes while 50 of the Research Scholars and Faculty Members said no, there is no culture of sharing data in their discipline/fields.

Table 7: Freely accessibility of raw data on public domain.

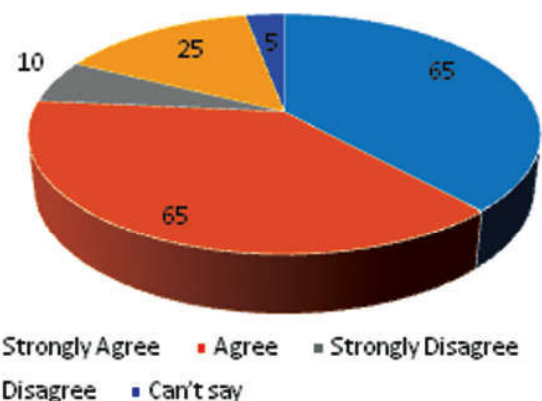| Freely accessibility of raw data on public domain	Number of Respondents	Responses in %
Strongly Agree	65	38.23
Agree	65	38.23
Strongly Disagree	10	05.82
Disagree	25	14.70
Can't say	5	02.94

Fig. 6: Freely accessibility of raw data on public domain.

The above table & pie diagram shows that the views of respondents regarding the free accessibility of research data on the public domain. Majority of the Research Scholars and Faculty Members i.e. 76.46% agreed on the need for free access to research data to all. According to the free accessibility of research data leads to improve the quality, Transparency of research and also avoid duplication of research work. 20%per cent of researchers & Faculty members disagreed to open access.

Out of 170 respondents, 65 of them were strongly agreed about the open-access of the research data according to them and also 10 respondents were strongly disagree to put the open-access of the research data. Only 02.94 per cent of the researchers and faculty have not expressed and their views.

Table 8: Awareness about the existing data repositories of the discipline.

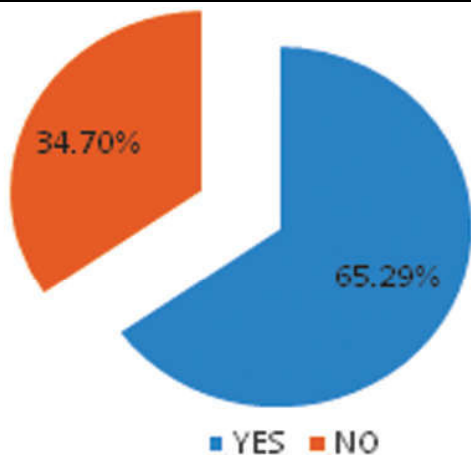| Awareness about the existing data repositories of the Discipline	Number of Respondents	Responses in %
Yes	100	58.82
No	70	41.17

Fig. 7: Awareness about the existing data repositories of the discipline.

The above Table & Pie diagram shows the percentage of awareness about the available data repositories of their discipline. Out of the 170 respondents, 100 i.e. 58.82% were aware of the specific subject data repositories of their field while 70 (41.17%) were unaware of the subject-specific data repositories. Only 30 respondents (17.64 %) of them submitted their final data to such repositories.140 researchers said that so far they have not submitted and archived research data in any repository. Most of them aware of the Shodhganga, e-pgpatashala. Linkdin and Research Gate.

Table 9: Role of library and Information Centres in managing research data.

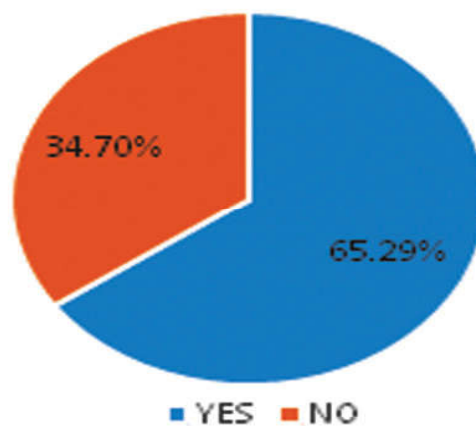| Role of Library in Managing Research data	Number of Respondents	Responses in %
Yes	150	88.23
No	20	11.76

Fig. 8: Role of library and information centres in managing research data.

Table & pie diagram shows that the views of Research Scholars & Faculty Members to the involvement of the Library and Information Centres for providing, engaging and managing research data during and after their research work. The majority of Research Scholars and Faculty Members of Osmania University appreciated the idea of the involvement of the Central Library/ General Library in managing research data.

Only 11.76% of the respondents said they do not need library and Information Centres involvement in providing, engaging & managing research data in their research work. 88.23% of the respondents strongly agreed that the central library/General Library should offer some support in providing, engaging, managing, storing and archiving research data for future use. Overall data said that strongly said that library and information centre's are providing research data to the Research Scholars & Faculty Members in Osmania University.

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